

SECTION **EXL**

EXTERIOR LIGHTING SYSTEM

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

CONTENTS

<p style="text-align: center;">XENON TYPE</p> <p>BASIC INSPECTION 7</p> <p>DIAGNOSIS AND REPAIR WORKFLOW 7 Work Flow 7</p> <p>INSPECTION AND ADJUSTMENT 9</p> <p>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT 9 ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description 9 ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement 9</p> <p>CONFIGURATION (HEADLAMP LEVELIZER) 9 CONFIGURATION (HEADLAMP LEVELIZER) : Description 10 CONFIGURATION (HEADLAMP LEVELIZER) : Special Repair Requirement 10</p> <p>SENSOR INITIALIZE 10 SENSOR INITIALIZE : Description 11 SENSOR INITIALIZE : Special Repair Requirement 11</p> <p>FUNCTION DIAGNOSIS 12</p> <p>HEADLAMP SYSTEM 12 System Diagram 12 System Description 12 Component Parts Location 13 Component Description 13</p> <p>DAYTIME RUNNING LIGHT SYSTEM 14 System Diagram 14 System Description 14 Component Parts Location 15 Component Description 15</p> <p>AUTO LIGHT SYSTEM 16 System Diagram 16</p>	<p> System Description 16 Component Parts Location 17 Component Description 17</p> <p>FRONT FOG LAMP SYSTEM 18 System Diagram 18 System Description 18 Component Parts Location 19 Component Description 19</p> <p>HEADLAMP AIMING CONTROL SYSTEM (AUTO) 20 System Diagram 20 System Description 20 Component Parts Location 21 Component Description 21</p> <p>TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM 22 System Diagram 22 System Description 22 Component Parts Location 23 Component Description 23</p> <p>PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM 24 System Diagram 24 System Description 24 Component Parts Location 25 Component Description 25</p> <p>REAR FOG LAMP SYSTEM 26 System Diagram 26 System Description 26 Component Parts Location 27 Component Description 27</p> <p>EXTERIOR LAMP BATTERY SAVER SYSTEM 28 System Diagram 28 System Description 28 Component Parts Location 29</p>
---	---

Component Description	29	DTC Logic	50
DIAGNOSIS SYSTEM (BCM)	30	Diagnosis Procedure	50
COMMON ITEM	30	B2089 NO CAR TYPE SELECTED	51
COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)	30	DTC Logic	51
HEADLAMP	30	Diagnosis Procedure	51
HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)	30	POWER SUPPLY AND GROUND CIRCUIT	52
FLASHER	32	BCM (BODY CONTROL MODULE)	52
FLASHER : CONSULT-III Function (BCM - FLASHER)	32	BCM (BODY CONTROL MODULE) : Diagnosis Procedure	52
DIAGNOSIS SYSTEM (IPDM E/R)	33	IPDM E/R (INTELLIGENT POWER DISTRIBU- TION MODULE ENGINE ROOM)	52
Diagnosis Description	33	IPDM E/R (INTELLIGENT POWER DISTRIBU- TION MODULE ENGINE ROOM) : Diagnosis Pro- cedure	52
CONSULT - III Function (IPDM E/R)	35	AUTO LEVELIZER CONTROL UNIT	53
DIAGNOSIS SYSTEM (HEADLAMP LEVEL- IZER)	38	AUTO LEVELIZER CONTROL UNIT : Diagnosis Procedure	53
CONSULT-III Function (HEADLAMP LEVELIZ- ER)	38	EXTERIOR LAMP FUSE	55
COMPONENT DIAGNOSIS	39	Description	55
B2080 ECU TROUBLE	39	Diagnosis Procedure	55
Description	39	HEADLAMP (HI) CIRCUIT	56
DTC Logic	39	Component Function Check	56
Diagnosis Procedure	39	Diagnosis Procedure	56
B2081 INITIAL NOT DONE	40	HEADLAMP (LO) CIRCUIT	58
DTC Logic	40	Description	58
Diagnosis Procedure	40	Component Function Check	58
B2082 SENSOR OUT OF RANGE	41	Diagnosis Procedure	58
DTC Logic	41	HEADLAMP GROUND CIRCUIT	60
Diagnosis Procedure	41	Diagnosis Procedure	60
B2083 SEN SIG NOT PLAUSIBLE	43	XENON HEADLAMP	61
DTC Logic	43	Description	61
Diagnosis Procedure	43	Diagnosis Procedure	61
B2084 VOLTAGE UNDER LIMIT	44	HEADLAMP LEVELIZER CIRCUIT	63
DTC Logic	44	Description	63
Diagnosis Procedure	44	Component Function Check	63
B2085 LOWBEAM SIG OPEN LINE	45	Diagnosis Procedure	63
Description	45	FRONT FOG LAMP CIRCUIT	65
DTC Logic	45	Component Function Check	65
Diagnosis Procedure	45	Diagnosis Procedure	65
B2086 FRQ. OVER LIMIT	47	PARKING LAMP CIRCUIT	67
Description	47	Component Function Check	67
DTC Logic	47	Diagnosis Procedure	67
Diagnosis Procedure	47	TURN SIGNAL LAMP CIRCUIT	69
B2087 SHORT TO GROUND	49	Description	69
DTC Logic	49	Component Function Check	69
Diagnosis Procedure	49	Diagnosis Procedure	69
B2088 SHORT TO BATTERY	50	LIGHT & RAIN SENSOR	72
		Description	72

Component Function Check	72	Reference Value	140	
Diagnosis Procedure	72	Wiring Diagram - IPDM E/R -	146	A
HAZARD SWITCH	75	Fail Safe	149	
Component Function Check	75	DTC Index	151	
Diagnosis Procedure	75	AUTO LEVELIZER CONTROL UNIT	152	B
TAIL LAMP CIRCUIT	77	Reference Value	152	
Component Function Check	77	Wiring Diagram - HEADLAMP AIMING CON- TROL SYSTEM (AUTO) -	154	C
Diagnosis Procedure	77	Fail Safe	156	
LICENSE PLATE LAMP CIRCUIT	79	DTC Inspection Priority Chart	157	
Component Function Check	79	DTC Index	158	D
Diagnosis Procedure	79	SYMPTOM DIAGNOSIS	159	
REAR FOG LAMP CIRCUIT	80	EXTERIOR LIGHTING SYSTEM SYMPTOMS.	159	E
Component Function Check	80	Symptom Table	159	
Diagnosis Procedure	80	NORMAL OPERATING CONDITION	162	F
HEADLAMP SYSTEM	82	Description	162	
Wiring Diagram - HEADLAMP -	82	BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON	163	G
AUTO LIGHT SYSTEM	86	Description	163	
Wiring Diagram - AUTO LIGHT SYSTEM -	86	Diagnosis Procedure	163	
DAYTIME RUNNING LIGHT SYSTEM	90	BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON	164	H
Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -	90	Description	164	
FRONT FOG LAMP SYSTEM	96	Diagnosis Procedure	164	I
Wiring Diagram - FRONT FOG LAMP -	96	PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON	165	J
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM	99	Description	165	
Wiring Diagram - TURN AND HAZARD WARN- ING LAMPS -	99	Diagnosis Procedure	165	
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM	103	BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON	166	K
Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -	103	Description	166	
STOP LAMP	108	Diagnosis Procedure	166	EXL
Wiring Diagram - STOP LAMP -	108	PRECAUTION	167	
BACK-UP LAMP	111	PRECAUTIONS	167	M
Wiring Diagram - BACK-UP LAMP -	111	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"	167	
REAR FOG LAMP SYSTEM	114	Precautions For Xenon Headlamp Service	167	N
Wiring Diagram - REAR FOG LAMP -	114	ON-VEHICLE MAINTENANCE	168	O
ECU DIAGNOSIS	117	HEADLAMP AIMING ADJUSTMENT	168	
BCM (BODY CONTROL MODULE)	117	Description	168	P
Reference Value	117	LHD	169	
Wiring Diagram - BCM -	133	LHD : Aiming Adjustment Procedure	169	
Fail Safe	137	RHD	170	
DTC Inspection Priority Chart	139	RHD : Aiming Adjustment Procedure	170	
DTC Index	139	FRONT FOG LAMP AIMING ADJUSTMENT .	172	
IPDM E/R (INTELLIGENT POWER DISTRI- BUTION MODULE ENGINE ROOM)	140	Description	172	

Aiming Adjustment Procedure	172	SERVICE DATA AND SPECIFICATIONS	
ON-VEHICLE REPAIR	174	(SDS)	190
FRONT COMBINATION LAMP	174	Bulb Specifications	190
Exploded View	174	HALOGEN TYPE	
Removal and Installation	175	BASIC INSPECTION	191
Replacement	175	DIAGNOSIS AND REPAIR WORKFLOW	191
Disassembly and Assembly	175	Work Flow	191
FRONT FOG LAMP	177	FUNCTION DIAGNOSIS	193
Exploded View	177	HEADLAMP SYSTEM	193
Removal and Installation	177	System Diagram	193
Replacement	177	System Description	193
LIGHT & RAIN SENSOR	178	Component Parts Location	194
Exploded View	178	Component Description	194
Removal and Installation	179	AUTO LIGHT SYSTEM	195
LIGHTING & TURN SIGNAL SWITCH	180	System Diagram	195
Exploded View	180	System Description	195
Removal and Installation	180	Component Parts Location	196
SIDE TURN SIGNAL LAMP	181	Component Description	196
Exploded View	181	FRONT FOG LAMP SYSTEM	197
Removal and Installation	181	System Diagram	197
Replacement	181	System Description	197
HAZARD SWITCH	182	Component Parts Location	198
Exploded View	182	Component Description	198
Removal and Installation	182	TURN SIGNAL AND HAZARD WARNING	
AUTO LEVELIZER CONTROL UNIT	183	LAMP SYSTEM	199
Exploded View	183	System Diagram	199
Removal and Installation	183	System Description	199
REAR COMBINATION LAMP	184	Component Parts Location	200
Exploded View	184	Component Description	200
Removal and Installation	184	PARKING, LICENSE PLATE AND TAIL	
Replacement	185	LAMPS SYSTEM	201
HIGH-MOUNTED STOP LAMP	186	System Diagram	201
Exploded View	186	System Description	201
Removal and Installation	186	Component Parts Location	202
BACK-UP LAMP	187	Component Description	202
Exploded View	187	REAR FOG LAMP SYSTEM	203
Removal and Installation	187	System Diagram	203
Replacement	187	System Description	203
LICENSE PLATE LAMP	188	Component Parts Location	204
Exploded View	188	Component Description	204
Removal and Installation	188	EXTERIOR LAMP BATTERY SAVER SYS-	
Replacement	188	TEM	205
REAR FOG LAMP	189	System Diagram	205
Exploded View	189	System Description	205
Removal and Installation	189	Component Parts Location	206
Replacement	189	Component Description	206
SERVICE DATA AND SPECIFICATIONS		DIAGNOSIS SYSTEM (BCM)	207
(SDS)	190	COMMON ITEM	207

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)	207	Component Function Check	233	A
		Diagnosis Procedure	233	
HEADLAMP	207	TAIL LAMP CIRCUIT	235	B
HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)	207	Component Function Check	235	
		Diagnosis Procedure	235	
FLASHER	209	LICENSE PLATE LAMP CIRCUIT	237	C
FLASHER : CONSULT-III Function (BCM - FLASHER)	209	Component Function Check	237	
		Diagnosis Procedure	237	
DIAGNOSIS SYSTEM (IPDM E/R)	210	REAR FOG LAMP CIRCUIT	238	D
Diagnosis Description	210	Component Function Check	238	
CONSULT - III Function (IPDM E/R)	212	Diagnosis Procedure	238	
COMPONENT DIAGNOSIS	215	HEADLAMP SYSTEM	240	E
POWER SUPPLY AND GROUND CIRCUIT ...	215	Wiring Diagram - HEADLAMP -	240	
BCM (BODY CONTROL MODULE)	215	HEADLAMP AIMING CONTROL SYSTEM (MANUAL)	244	F
BCM (BODY CONTROL MODULE) : Diagnosis Procedure	215	Description	244	
		Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (MANUAL) -	244	G
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	215	Component Inspection	245	
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure	215	AUTO LIGHT SYSTEM	247	H
		Wiring Diagram - AUTO LIGHT SYSTEM -	247	
EXTERIOR LAMP FUSE	217	DAYTIME RUNNING LIGHT SYSTEM	251	I
Description	217	Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -	251	
Diagnosis Procedure	217	FRONT FOG LAMP SYSTEM	257	J
		Wiring Diagram - FRONT FOG LAMP -	257	
HEADLAMP (HI) CIRCUIT	218	TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM	260	K
Component Function Check	218	Wiring Diagram - TURN AND HAZARD WARNING LAMPS -	260	
Diagnosis Procedure	218	PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM	264	EXL
HEADLAMP (LO) CIRCUIT	220	Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -	264	M
Component Function Check	220	STOP LAMP	269	N
Diagnosis Procedure	220	Wiring Diagram - STOP LAMP -	269	
HEADLAMP GROUND CIRCUIT	222	BACK-UP LAMP	272	O
Diagnosis Procedure	222	Wiring Diagram - BACK-UP LAMP -	272	
FRONT FOG LAMP CIRCUIT	223	REAR FOG LAMP SYSTEM	275	P
Component Function Check	223	Wiring Diagram - REAR FOG LAMP -	275	
Diagnosis Procedure	223	ECU DIAGNOSIS	278	
PARKING LAMP CIRCUIT	225	BCM (BODY CONTROL MODULE)	278	
Component Function Check	225	Reference Value	278	
Diagnosis Procedure	225	Wiring Diagram - BCM -	294	
TURN SIGNAL LAMP CIRCUIT	227	Fail Safe	298	
Description	227	DTC Inspection Priority Chart	300	
Component Function Check	227	DTC Index	300	
Diagnosis Procedure	227	LIGHT & RAIN SENSOR	230	
HAZARD SWITCH	233	Description	230	
		Component Function Check	230	
		Diagnosis Procedure	230	

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	301	Removal and Installation	329
Reference Value	301	Replacement	329
Wiring Diagram - IPDM E/R -	307	Disassembly and Assembly	329
Fail Safe	310		
DTC Index	312		
SYMPTOM DIAGNOSIS	313		
EXTERIOR LIGHTING SYSTEM SYMPTOMS	313	FRONT FOG LAMP	331
Symptom Table	313	Exploded View	331
NORMAL OPERATING CONDITION	316	Removal and Installation	331
Description	316	Replacement	331
BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON	317	LIGHT & RAIN SENSOR	332
Description	317	Exploded View	332
Diagnosis Procedure	317	Removal and Installation	333
BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON	318	LIGHTING & TURN SIGNAL SWITCH	334
Description	318	Exploded View	334
Diagnosis Procedure	318	Removal and Installation	334
PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON	319	SIDE TURN SIGNAL LAMP	335
Description	319	Exploded View	335
Diagnosis Procedure	319	Removal and Installation	335
		Replacement	335
BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON	320	HAZARD SWITCH	336
Description	320	Exploded View	336
Diagnosis Procedure	320	Removal and Installation	336
PRECAUTION	321	HEADLAMP AIMING SWITCH	337
PRECAUTIONS	321	Exploded View	337
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	321	Removal and Installation	337
ON-VEHICLE MAINTENANCE	322	REAR COMBINATION LAMP	338
HEADLAMP AIMING ADJUSTMENT	322	Exploded View	338
Description	322	Removal and Installation	338
LHD	323	Replacement	339
LHD : Aiming Adjustment Procedure	323	HIGH-MOUNTED STOP LAMP	340
RHD	324	Exploded View	340
RHD : Aiming Adjustment Procedure	324	Removal and Installation	340
FRONT FOG LAMP AIMING ADJUSTMENT .	326	BACK-UP LAMP	341
Description	326	Exploded View	341
Aiming Adjustment Procedure	326	Removal and Installation	341
ON-VEHICLE REPAIR	328	Replacement	341
FRONT COMBINATION LAMP	328	LICENSE PLATE LAMP	342
Exploded View	328	Exploded View	342
		Removal and Installation	342
		Replacement	342
		REAR FOG LAMP	343
		Exploded View	343
		Removal and Installation	343
		Replacement	343
		SERVICE DATA AND SPECIFICATIONS (SDS)	344
		SERVICE DATA AND SPECIFICATIONS (SDS)	344
		Bulb Specifications	344

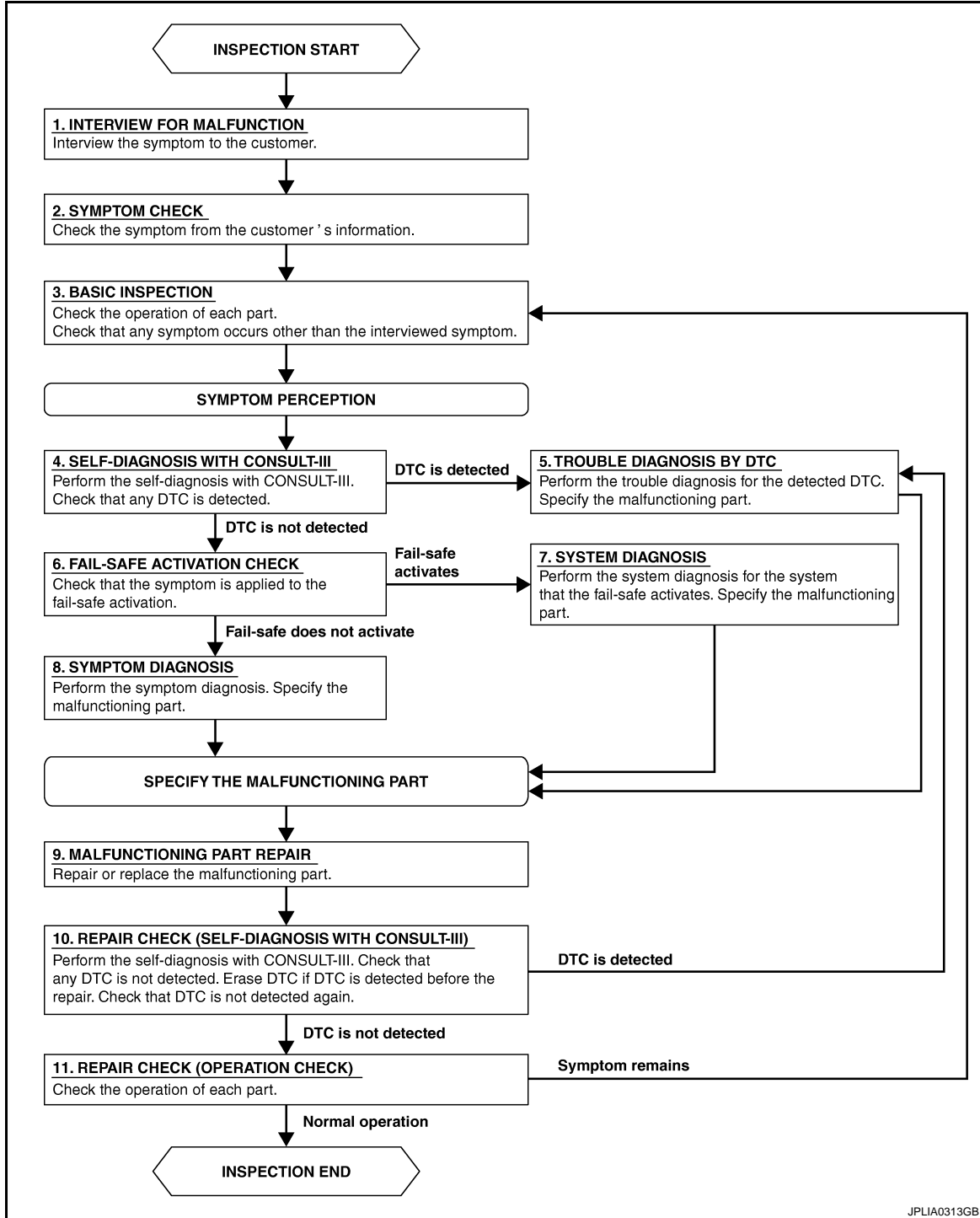
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001188603

OVERALL SEQUENCE



DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

DIAGNOSIS AND REPAIR WORKFLOW

[XENON TYPE]

< BASIC INSPECTION >

>> GO TO 2.

2. SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3.

3. BASIC INSPECTION

Check the operation of each part. Check that any symptom occurs other than the interviewed symptom.

>> GO TO 4.

4. SELF-DIAGNOSIS WITH CONSULT-III

Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 9.

6. FAIL-SAFE ACTIVATION CHECK

Check that the symptom is applied to the fail-safe activation.

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system that the fail-safe activates. Specify the malfunctioning part.

>> GO TO 9.

8. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)

Perform the self-diagnosis with CONSULT-III. Check that any DTC is not detected. Erase DTC if DTC is detected before the repair. Check that DTC is not detected again.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 11.

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

YES >> INSPECTION END

NO >> GO TO 3.

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000001528606

BEFORE REPLACEMENT

When replacing the auto levelizer control unit, save or print current vehicle specification with CONSULT-III configuration before replacement.

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing the auto levelizer control.

AFTER REPLACEMENT

CAUTION:

- When replacing the auto levelizer control unit, you must perform "WRITE CONFIGURATION" with CONSULT-III.
- Complete the procedure of "WRITE CONFIGURATION" in order.
- If you set incorrect "WRITE CONFIGURATION", incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.
- When replacing the auto levelizer control unit, perform "SENSOR INITIALIZE" with CONSULT-III.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000001528607

1. SAVING VEHICLE SPECIFICATION

④ CONSULT-III Configuration

Perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [EXL-10, "CONFIGURATION \(HEADLAMP LEVELIZER\) : Description"](#).

NOTE:

If "READ CONFIGURATION" can not be used, use the "WRITE CONFIGURATION - Manual selection" after replacing the auto levelizer control.

>> GO TO 2.

2. REPLACE AUTO LEVELIZER CONTROL UNIT

Replace the auto levelizer control unit. refer to [EXL-183, "Exploded View"](#).

>> GO TO 3.

3. WRITING VEHICLE SPECIFICATION

④ CONSULT-III Configuration

Perform "WRITE CONFIGURATION - Config file" or "WRITE CONFIGURATION - Manual selection" to write vehicle specification. Refer to [EXL-10, "CONFIGURATION \(HEADLAMP LEVELIZER\) : Special Repair Requirement"](#).

>> GO TO 4.

4. SENSOR INITIALIZE

④ CONSULT-III Work support

Perform "SENSOR INITIALIZE". Refer to [EXL-11, "SENSOR INITIALIZE : Special Repair Requirement"](#).

>> WORK END

CONFIGURATION (HEADLAMP LEVELIZER)

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[XENON TYPE]

CONFIGURATION (HEADLAMP LEVELIZER) : Description

INFOID:000000001528608

Vehicle specification needs to be written with CONSULT-III because it is not written after replacing the auto levelizer control unit.

Configuration has three functions as follows

Function	Description
READ CONFIGURATION	<ul style="list-style-type: none">• Reads the vehicle configuration of current auto levelizer control unit.• Saves the read vehicle configuration.
WRITE CONFIGURATION - Manual selection	Writes the vehicle configuration with manual selection.
WRITE CONFIGURATION - Config file	Writes the vehicle configuration with saved data.

CAUTION:

When replacing the auto levelizer control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.

- Complete the procedure of “WRITE CONFIGURATION” in order.
- If you set incorrect “WRITE CONFIGURATION”, incidents might occur.
- Configuration is different for each vehicle model. Confirm configuration of each vehicle model.

CONFIGURATION (HEADLAMP LEVELIZER) : Special Repair Requirement

INFOID:000000001528609

1. WRITING MODE SELECTION

ⓅCONSULT-III Configuration

Select “CONFIGURATION” of HEADLAMP LEVELIZER.

When writing saved data>>GO TO 2.

When writing manually>>GO TO 3.

2. PERFORM “WRITE CONFIGURATION - CONFIG FILE”

ⓅCONSULT-III Configuration

Perform “WRITE CONFIGURATION - Config file”.

>> WORK END

3. PERFORM “WRITE CONFIGURATION - MANUAL SELECTION”

ⓅCONSULT-III Configuration

1. Select “WRITE CONFIGURATION - Manual selection”.
2. Identify the correct model and vehicle specification.
3. Confirm and/or change setting value.

MANUAL SETTING ITEM	
Items	Setting value
ENGINE TYPE	EXCEPT M9R ⇔ M9R

4. Select “Setting change”.

CAUTION:

Make sure to select Setting change even if the indicated configuration of brand new auto levelizer control unit is same as the desirable configuration. If not, configuration which is set automatically by selecting vehicle model can not be memorized.

5. When “COMMAND FINISHED”, select “END”.

>> WORK END

SENSOR INITIALIZE

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[XENON TYPE]

SENSOR INITIALIZE : Description

INFOID:000000001188606

HEADLAMP AIMING CONTROL SYSTEM

Perform the sensor initialize when installing, removing and replacing the auto levelizer control unit and suspension components.

SENSOR INITIALIZE : Special Repair Requirement

INFOID:000000001188607

1.VEHICLE CONDITION CHECK

1. Park the vehicle in the straight-forward position.
2. Unload the vehicle (no passenger aboard).

>> GO TO 2.

2.SENSOR INITIALIZE

CONSULT-III WORK SUPPORT

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Select "SENSOR INITIALIZE" of HEADLAMP LEVELIZER work support item.
4. Select "START".
5. When "INITIALIZE COMPLETE", select "END".

CAUTION:

If "INITIALIZE NOT DONE" is indicated, auto levelizer control unit detects that the sensor lever signal changes. The sensor initialize is cancelled. In this case, turn the ignition switch OFF to prevent the vehicle from the height change. Perform the sensor initialize again.

Is the sensor initialize completed?

- YES >> GO TO 3.
NO >> Perform the sensor initialize again.

3.SELF-DIAGNOSIS RESULT CHECK

Perform the self-diagnosis with CONSULT-III. Check that any DTC is not detected.

Is any DTC detected?

- YES >> GO TO 2.
NO >> Sensor initialize completed.

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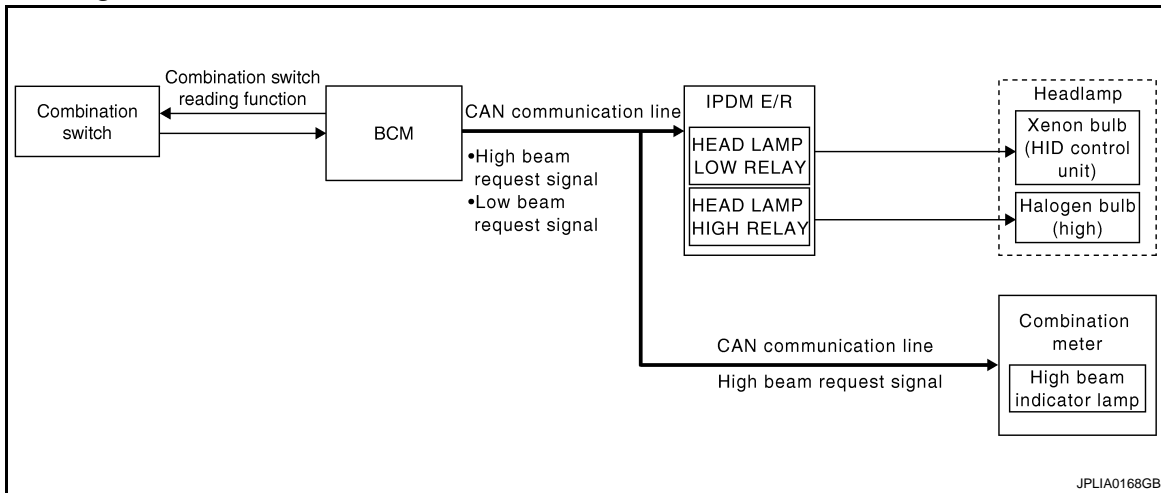
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FUNCTION DIAGNOSIS

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:000000001188609

OUTLINE

Headlamp is controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

HEADLAMP (LO) OPERATION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM transmits the low beam request signal to IPDM E/R with CAN communication according to the headlamp (LO) ON condition.

Headlamp (LO) ON condition

- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- Daytime running light ON judgment (With daytime running light system)
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

HEADLAMP (HI) OPERATION

- BCM transmits the high beam request signal to IPDM E/R and the combination meter with CAN communication according to the headlamp (HI) ON condition.

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND or AUTO (auto light function ON judgment)
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

FOLLOW ME HOME FUNCTION

When the driver is moving to the house entrance from the own vehicle, headlamp is kept still ON by the follow me home function of BCM.

- When BCM detects the input of lighting switch PASS with all of following condition, it transmits the low beam request signal for a period of time to IPDM E/R through CAN communication.
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.
- Ignition switch OFF
- Lighting switch OFF or AUTO

NOTE:

HEADLAMP SYSTEM

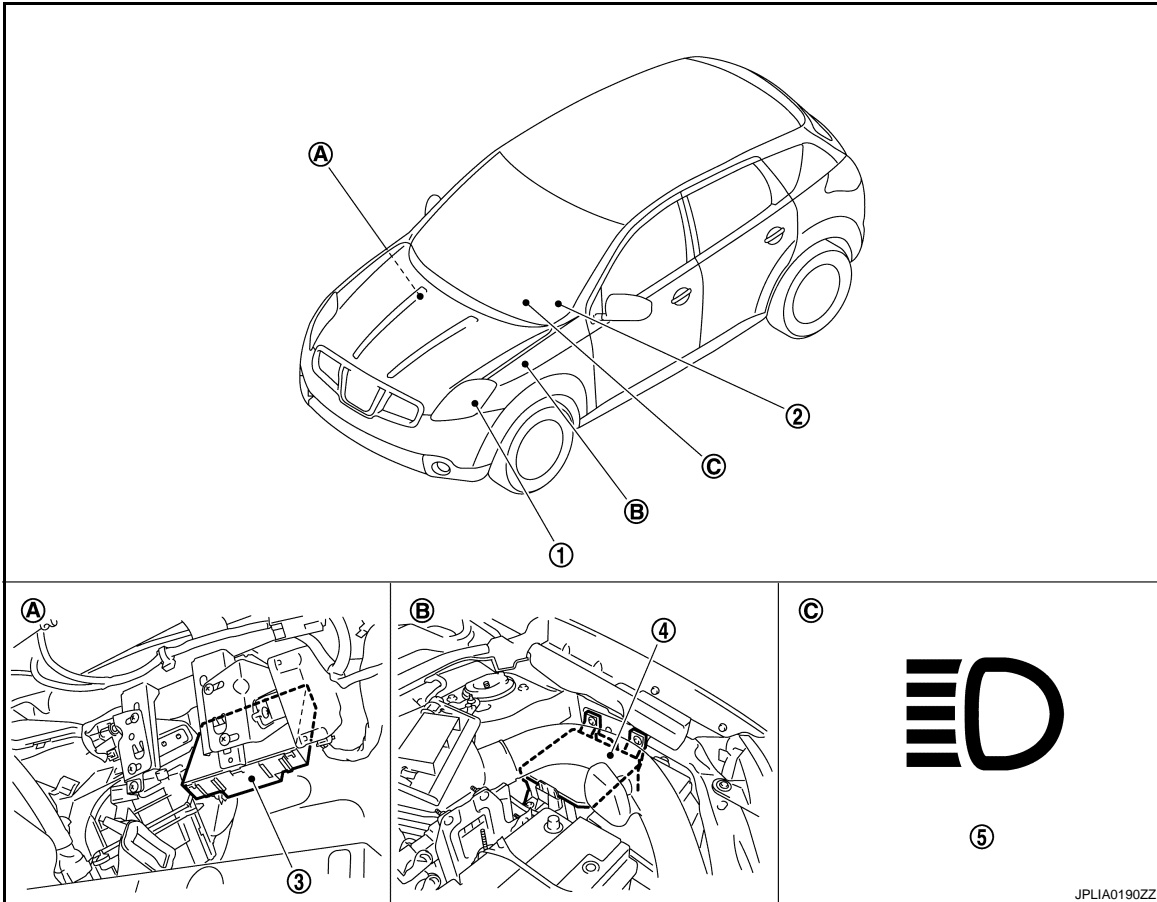
[XENON TYPE]

< FUNCTION DIAGNOSIS >

Follow the home function activating time can be set by CONSULT-III. Refer to [EXL-30. "HEADLAMP : CONSULT-III Function \(BCM - HEAD LAMP\)"](#).

Component Parts Location

INFOID:000000001188610



- | | | |
|-----------------------|-----------------------------|-----------------------------|
| 1. Headlamp | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. High beam indicator lamp | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

Component Description

INFOID:000000001188611

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges that the headlamp is turned ON according to the vehicle condition. - Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication). - Requests the high beam indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10. "System Diagram" .
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).
Front combination lamp assembly	<ul style="list-style-type: none"> • HID control unit • Xenon bulb Refer to EXL-61. "Description" .

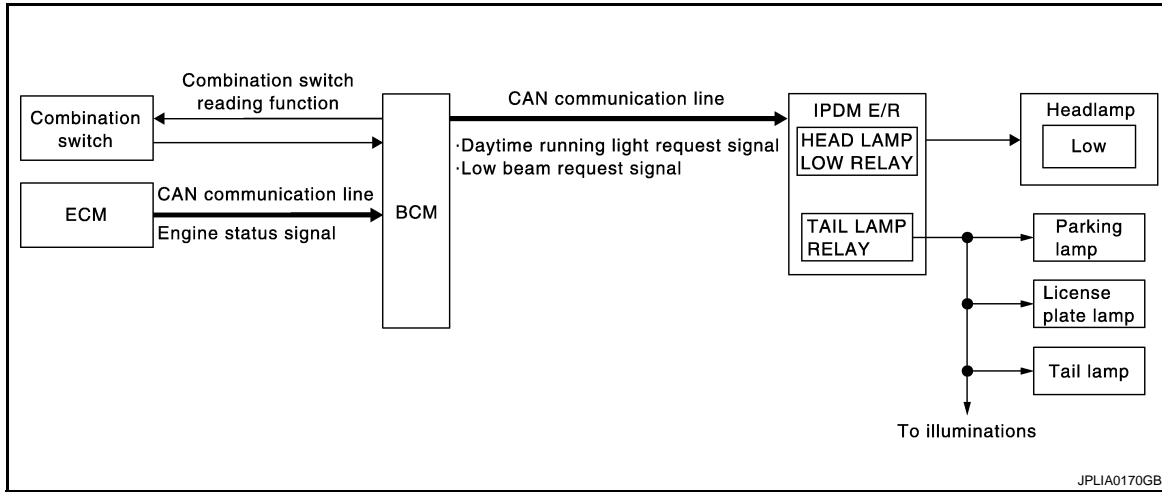
DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

System Diagram



System Description

INFOID:000000001188613

OUTLINE

- Turns the following exterior lamps ON as the daytime running light.
 - headlamp (LO)
 - Tail lamp, parking lamp and license plate lamp
- Daytime running light is controlled by daytime running light control function and combination switch reading function of BCM, and relay control function of IPDM E/R.

DAYTIME RUNNING LIGHT OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM transmits the daytime running light request signal and low beam request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

Daytime running light ON condition

- Engine running
- Lighting switch OFF or AUTO
- IPDM E/R turns the integrated headlamp low relay and tail lamp relay ON according to the daytime running light request signal and low beam request signal. And it turns each lamps ON.

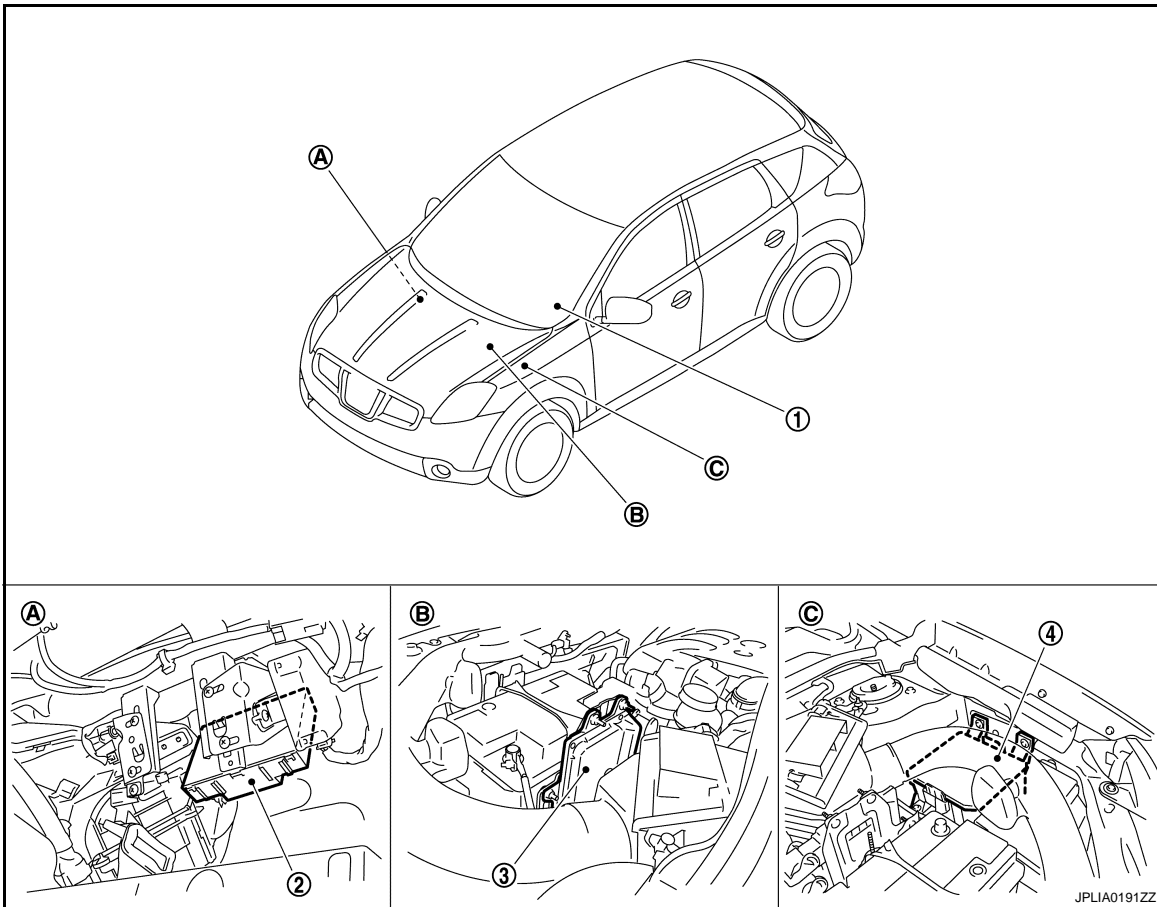
DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188614



1. Combination switch

4. IPDM E/R

A. Over the glove box

2. BCM

B. Engine room (left side)

3. ECM

C. Engine room (left side)

Component Description

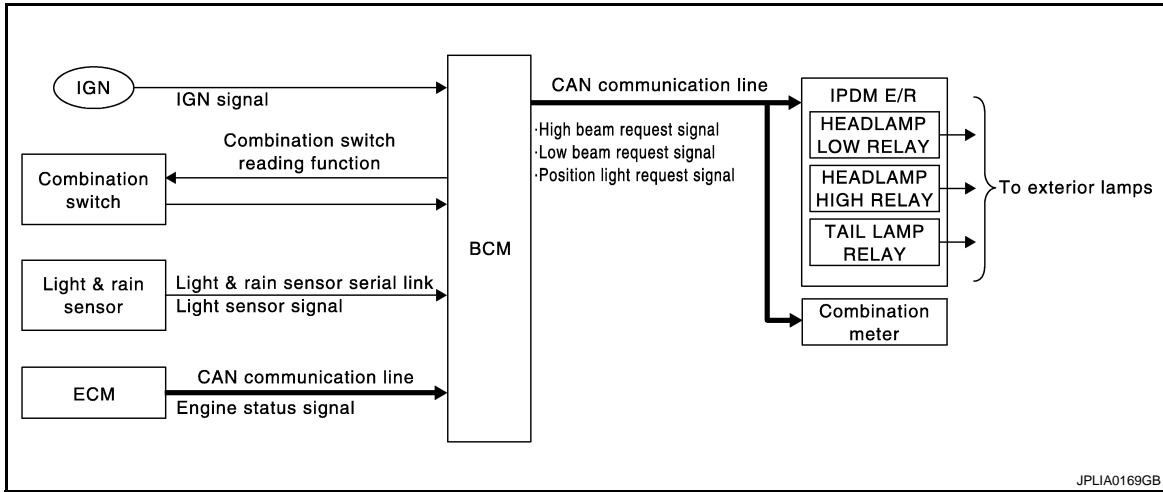
INFOID:000000001188615

EXL

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition with the combination switch reading function. • Judges each lamps ON/OFF condition according to the vehicle condition. Requests the each relay ON to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
ECM	Transmits the engine status signal to BCM with CAN communication.

AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000001188617

OUTLINE

- Auto light system is controlled by each function of BCM and IPDM E/R.

Control by BCM

- Combination switch reading function
- Headlamp control function
- Auto light function

Control by IPDM E/R

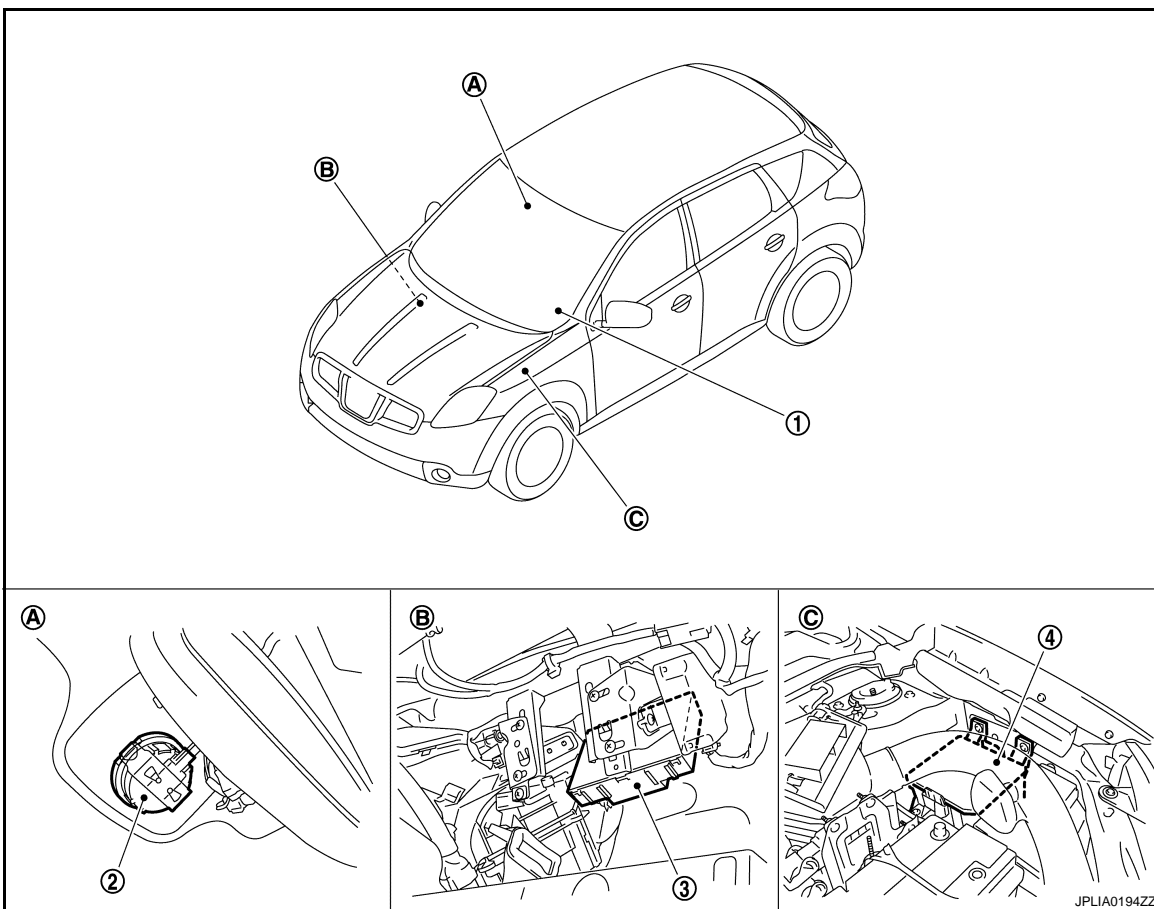
- Relay control function
- Auto light function turns the exterior lamps* ON/OFF automatically according to the outside brightness.
*: Headlamp (LO/Hi), parking lamp, tail lamp (Headlamp HI depends on the combination switch condition.)

AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link.
- BCM judges the ON/OFF status of the exterior lamp according to ON/OFF requests from light & rain sensor and the vehicle condition.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

Component Parts Location

INFOID:000000001188618



- | | | |
|-----------------------|------------------------|----------------------------|
| 1. Combination switch | 2. Light & rain sensor | 3. BCM |
| 4. IPDM E/R | B. Over the glove box | C. Engine room (left side) |
| A. Windshield upper | | |

Component Description

INFOID:000000001188619

Part	Description
BCM	<ul style="list-style-type: none"> Detects each switch condition by the combination switch reading function. Receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link. Judges the ON/OFF status of the exterior lamp according to requests from light & rain sensor and the vehicle condition. Requests ON/OFF of each relay to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Light & rain sensor	Refer to EXL-72, "Description" .

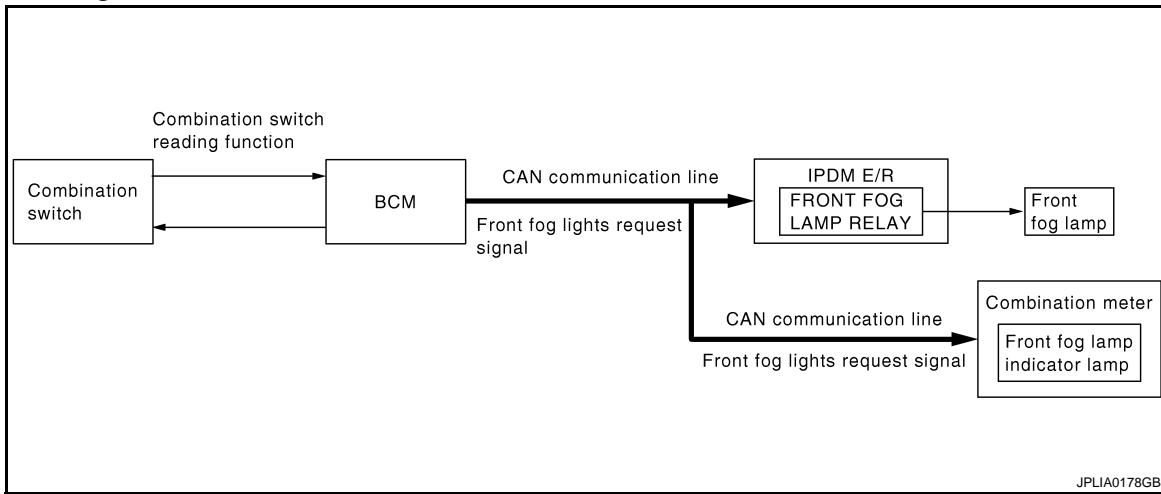
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EXL

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FRONT FOG LAMP SYSTEM

System Diagram



System Description

INFOID:000000001188621

OUTLINE

Front fog lamp is controlled by combination switch reading function and front fog lamp control function of BCM, and relay control function of IPDM E/R.

FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog lights request signal to IPDM E/R and the combination meter with CAN communication according to the front fog lamp ON condition.

Front fog lamp ON condition

- Front fog lamp switch ON
- Lighting switch 1ST, 2ND, or AUTO (ignition switch ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog lights request signal.
- Combination meter turns the front fog lamp indicator lamp ON according to the front fog lights request signal.

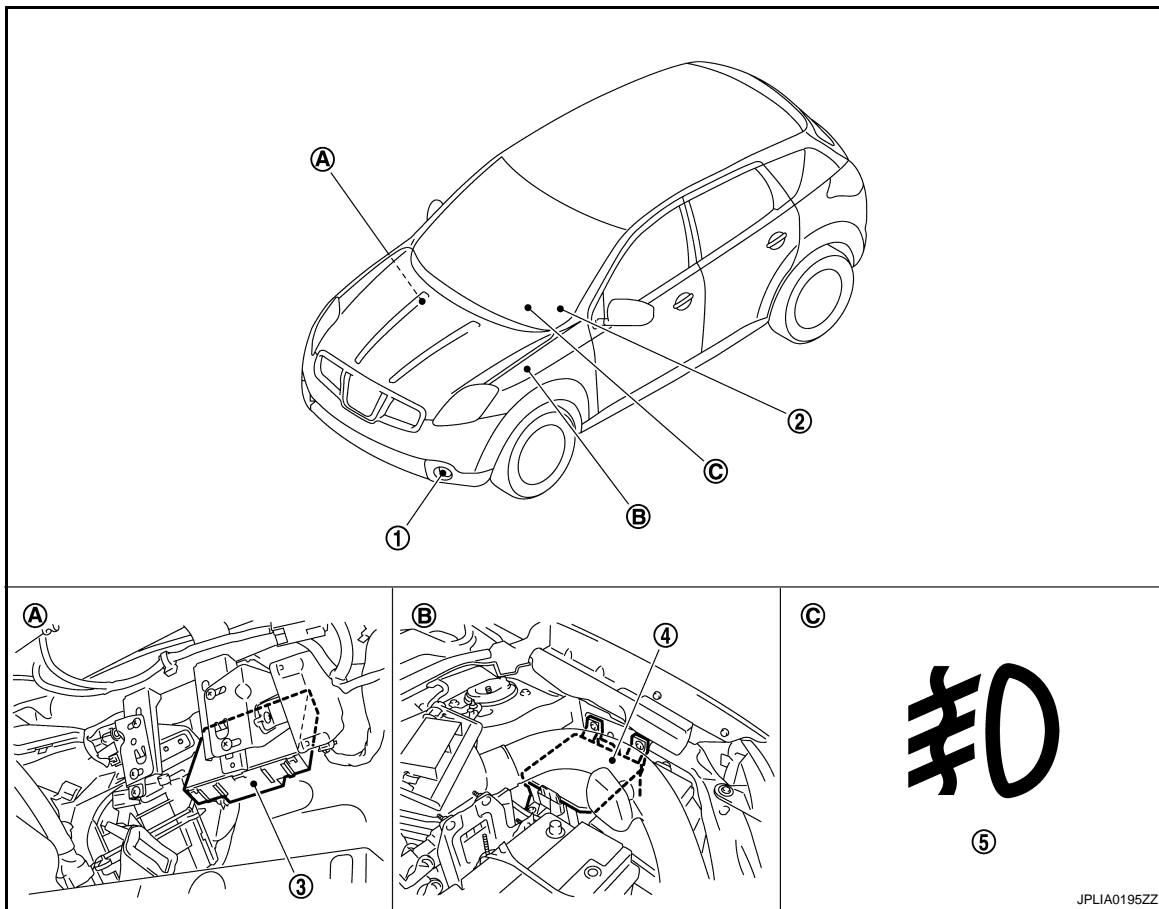
FRONT FOG LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188622



- | | | |
|-----------------------|----------------------------------|-----------------------------|
| 1. Front fog lamp | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. Front fog lamp indicator lamp | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

Component Description

INFOID:000000001188623

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Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the front fog lamp ON/OFF status according to the vehicle condition. - Requests the front fog lamp relay ON to IPDM E/R (with CAN communication). - Requests the front fog lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (Front fog lamp indicator lamp)	Turns the front fog lamp indicator lamp ON according to the request from BCM.

EXL

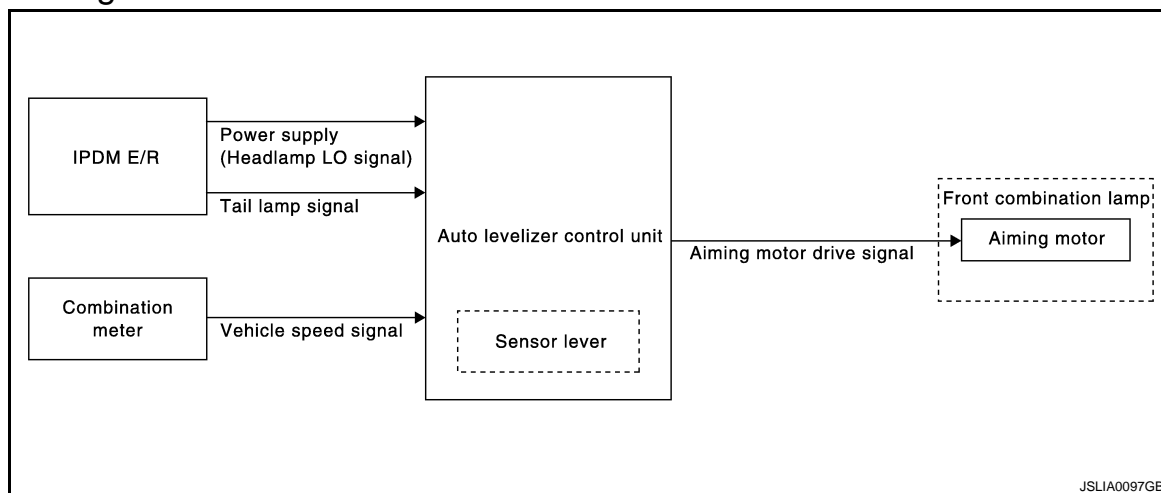
HEADLAMP AIMING CONTROL SYSTEM (AUTO)

[XENON TYPE]

< FUNCTION DIAGNOSIS >

HEADLAMP AIMING CONTROL SYSTEM (AUTO)

System Diagram



System Description

INFOID:000000001188625

OUTLINE

- Headlamp aiming control system is controlled by auto levelizer control unit.
- Auto levelizer control unit controls the headlamp light axis height appropriately depending on the vehicle rear height.
- Auto levelizer control unit detects the vehicle condition necessary for the aiming motor control with the following signals.
 - Sensor lever signal (detected by the sensor lever)
 - Tail lamp signal (inputted from IPDM E/R)
 - Vehicle speed signal (8-pulse) (inputted from combination meter)

HEADLAMP AUTO AIMING OPERATION

- Auto levelizer control unit calculates vehicle pitch angle from sensor lever signal and determines the necessary correction to compensate the deviation from standard light axis position.
- Auto levelizer control unit outputs aiming motor drive signal when operating conditions are satisfied.

Operating condition

- Headlamp (LO) ON
- Tail lamp ON
- Auto levelizer control unit changes the aiming motor drive signal when any of the correcting condition is detected. Output is maintained if other condition is detected.

Correcting condition

- Headlamp (LO) is turned ON.
- Vehicle posture becomes stable after the vehicle posture change is detected with the headlamp (LO) ON and the vehicle stopped.
- Vehicle speed is maintained with the headlamp (LO) ON and the vehicle driven.

CAUTION:

Adjusted axis position may differ from the preset position although the headlamp auto aiming activates properly when the suspension is replaced or worn.

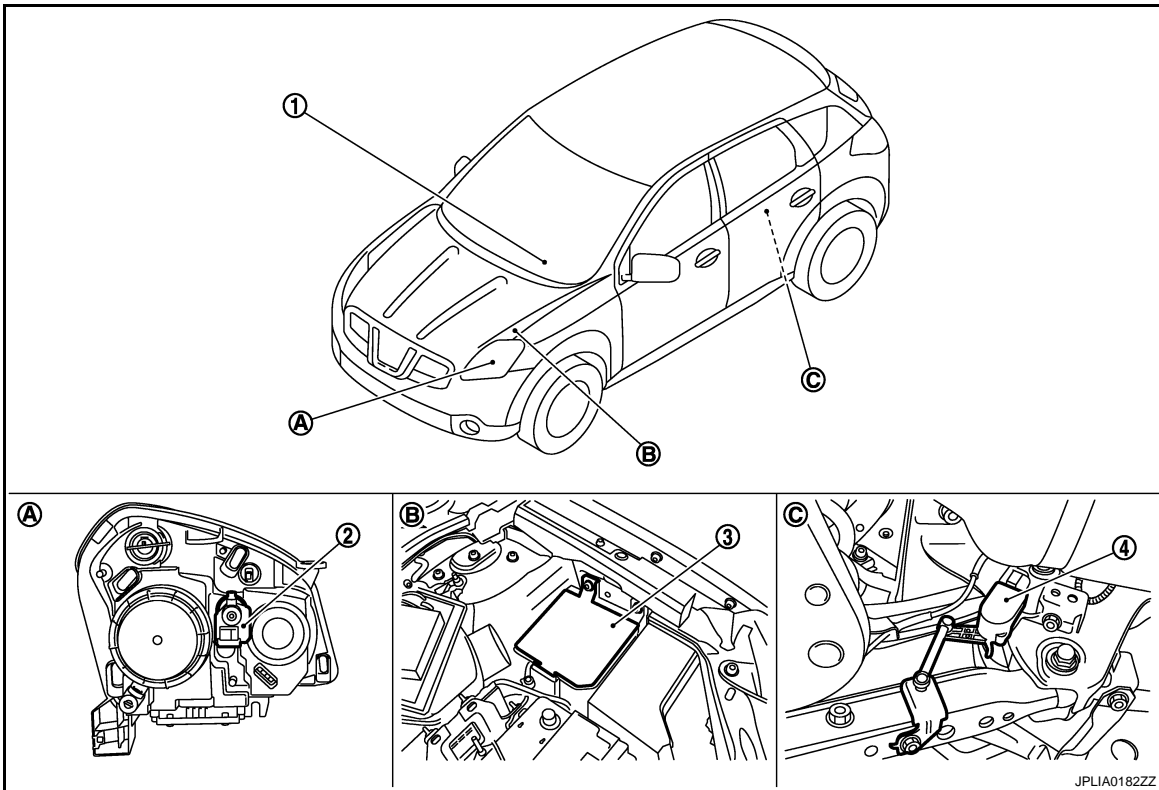
HEADLAMP AIMING CONTROL SYSTEM (AUTO)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188626



- | | | |
|----------------------------------|----------------------------|---------------------------------|
| 1. Combination meter | 2. Aiming motor | 3. IPDM E/R |
| 4. Auto levelizer control unit | | |
| A. Front combination lamp (back) | B. Engine room (left side) | C. Right rear suspension member |

Component Description

INFOID:000000001188627

Part	Description
Auto levelizer control unit	Refer to EXL-39. "Description" .
Headlamp aiming motor	Refer to EXL-63. "Description" .
IPDM E/R	Outputs the tail lamp signal to auto levelizer control unit.
Combination meter	Outputs the vehicle speed signal (8-pulse) to auto levelizer control unit.

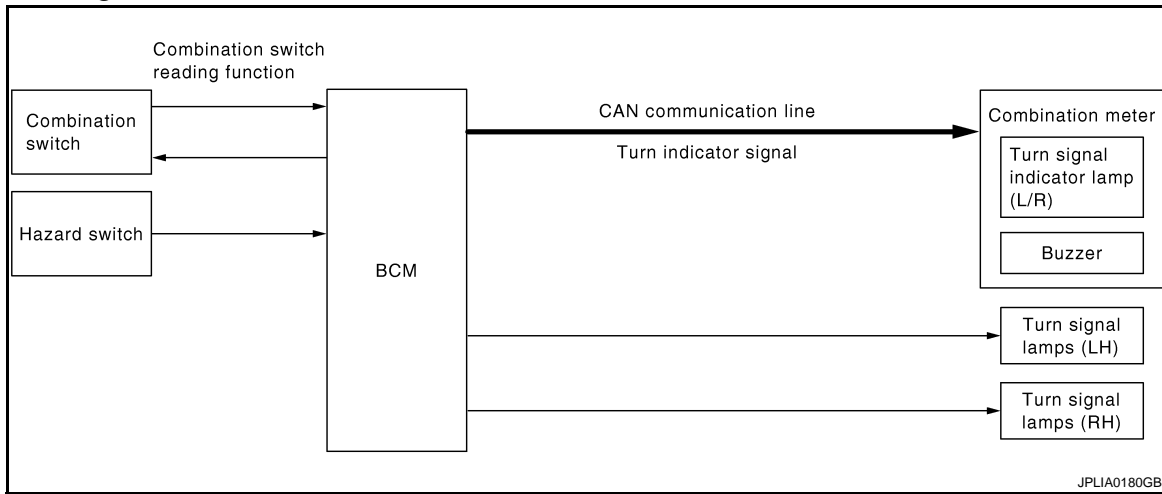
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

INFOID:000000001188629

OUTLINE

Turn signal lamp and the hazard warning lamp is controlled by combination switch reading function and the flasher control function of BCM.

TURN SIGNAL LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM supplies voltage to the right (left) turn signal lamp circuit when the ignition switch is turned ON and the turn signal switch is in the right (left) position. BCM blinks the turn signal lamp.

HAZARD WARNING LAMP OPERATION

BCM supplies voltage to both turn signal lamp circuit when the hazard switch is turned ON. BCM blinks the hazard warning lamp.

TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

- BCM transmits the turn signal indicator lamp signal to the combination meter with CAN communication while the turn signal lamp and the hazard warning lamp are operating.
- Combination meter outputs the turn signal sound with the integrated buzzer while blinking the turn signal indicator lamp according to the turn signal indicator lamp signal.

3-TIME FLASHER FUNCTION

By a short touch of the turn signal lever, BCM flashes 3 times the turn signal lamps in the selected direction.

HIGH FLASHER OPERATION (FAIL-SAFE)

- BCM detects the turn signal lamp circuit status from the terminal voltage.
- BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

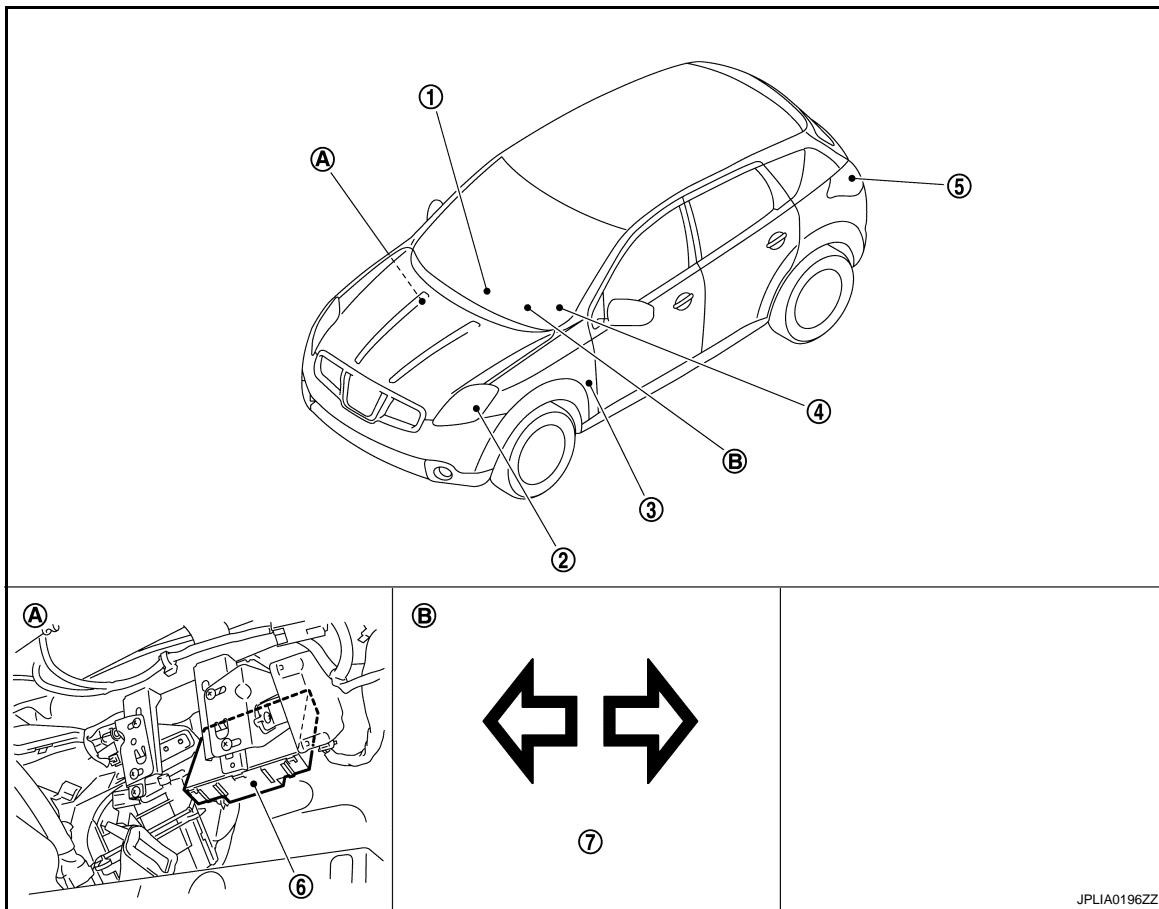
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188630



- | | | |
|-------------------------------|-----------------------------|--------------------------|
| 1. Hazard switch | 2. Front turn signal lamp | 3. Side turn signal lamp |
| 4. Combination switch | 5. Rear turn signal lamp | 6. BCM |
| 7. Turn signal indicator lamp | | |
| A. Over the glove box | B. On the combination meter | |

Component Description

INFOID:000000001188631

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks. • Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
Combination meter (Turn signal indicator lamp & buzzer)	Blinks the turn signal indicator lamp and outputs the turn signal operating sound with integrated buzzer according to the request from BCM (with CAN communication).

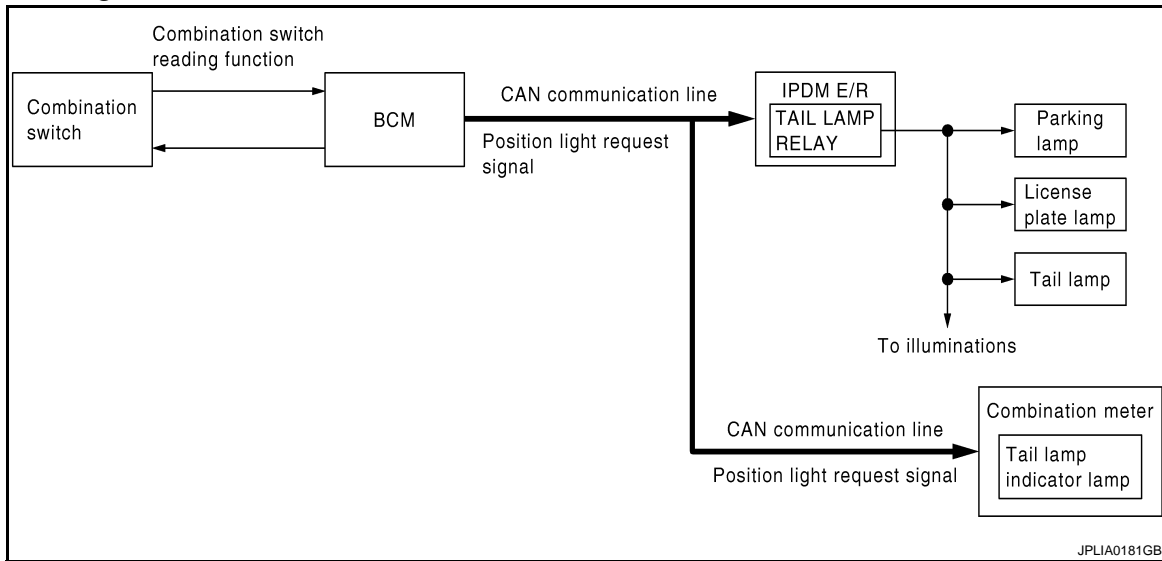
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram



System Description

INFOID:000000001188633

OUTLINE

Parking, license plate and tail lamps are controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the position light request signal to IPDM E/R and the combination meter with CAN communication according to the ON/OFF condition of the parking, license plate and tail lamps.

Parking, license plate and tail lamps ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate and tail lamps ON according to the position light request signal.
- Combination meter turns the tail lamp indicator lamp ON according to the position light request signal.

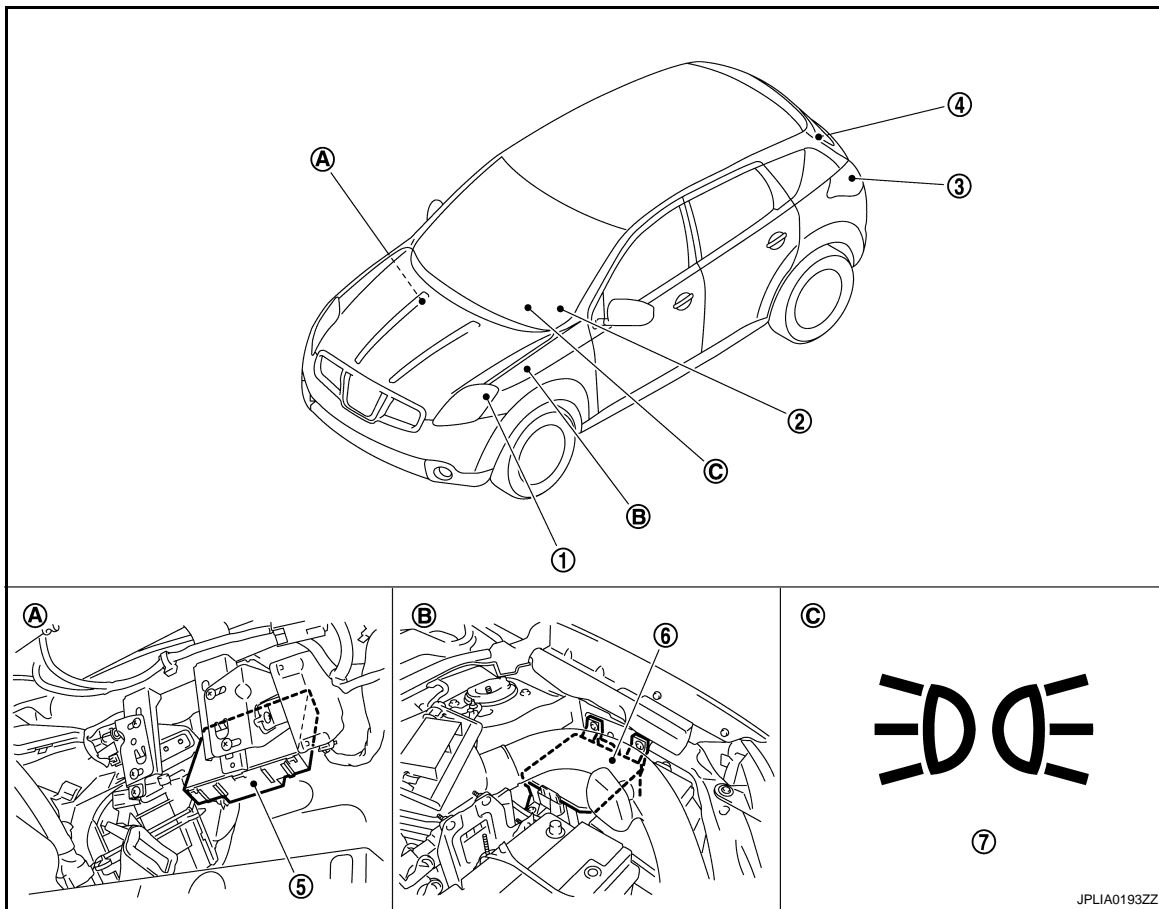
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188634



- | | | |
|-----------------------------|----------------------------|-----------------------------|
| 1. Parking lamp | 2. Combination switch | 3. Tail lamp |
| 4. License plate lamp | 5. BCM | 6. IPDM E/R |
| 7. Tail lamp indicator lamp | | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

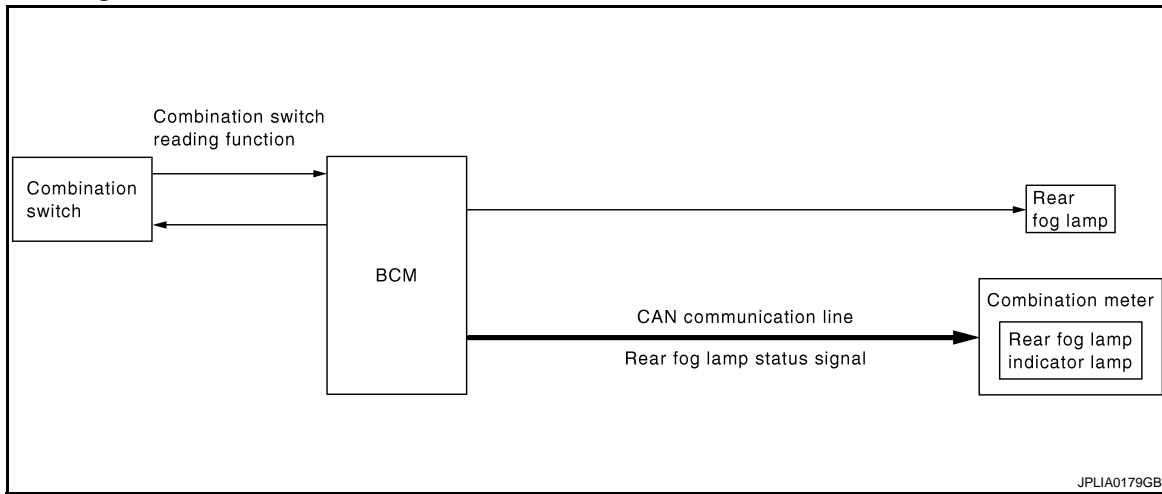
Component Description

INFOID:000000001188635

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition. - Requests the tail lamp relay ON to IPDM E/R (with CAN communication). - Requests the tail lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM (with CAN communication).

REAR FOG LAMP SYSTEM

System Diagram



System Description

INFOID:000000001188637

OUTLINE

Rear fog lamp is controlled with the combination switch reading function and the rear fog lamp control function of BCM.

REAR FOG LAMP OPERATION

- BCM detects the condition of the combination switch by the combination switch reading function.
- BCM supplies voltage to rear fog lamp according to the rear fog lamp ON condition.

Rear fog lamp ON condition

- Rear fog lamp switch signal is input with front fog lamp ON and rear fog lamp OFF

Rear fog lamp OFF condition

- Rear fog lamp switch signal is input with rear fog lamp ON
- Front fog lamp OFF
- BCM transmits the rear fog lamp status signal to the combination meter with CAN communication.
- Combination meter turns the rear fog lamp indicator lamp ON according to the rear fog lamp status signal.

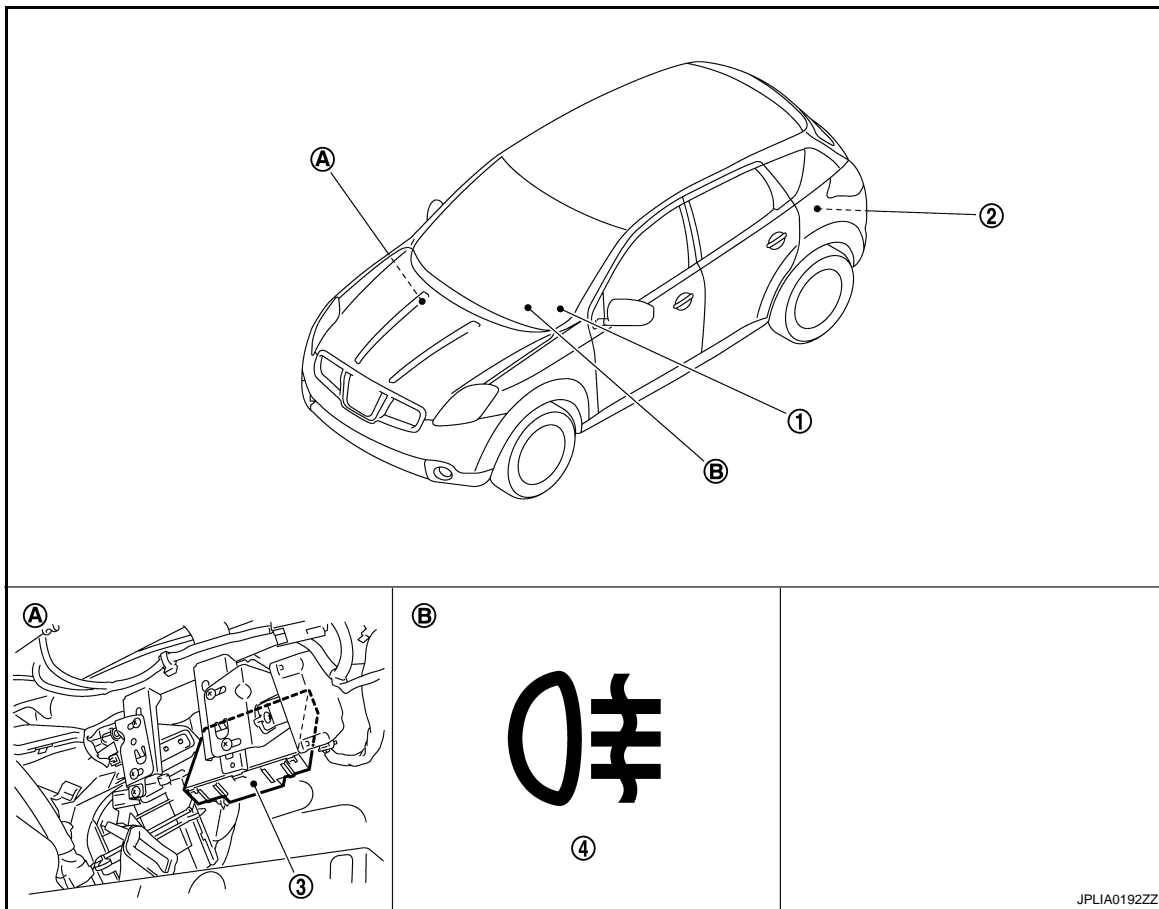
REAR FOG LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001188638



- 1. Combination switch
- 2. Rear fog lamp
- 3. BCM
- 4. Rear fog lamp indicator lamp
- A. Over the glove box
- B. On the combination meter

Component Description

INFOID:000000001188639

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges that the rear fog lamp is turned ON according to the vehicle status - Supplies voltage to the rear fog lamp - Requests the rear fog lamp indicator lamp ON to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (Rear fog lamp indicator lamp)	Turns the rear fog lamp indicator lamp ON according to the request from BCM (with CAN communication).

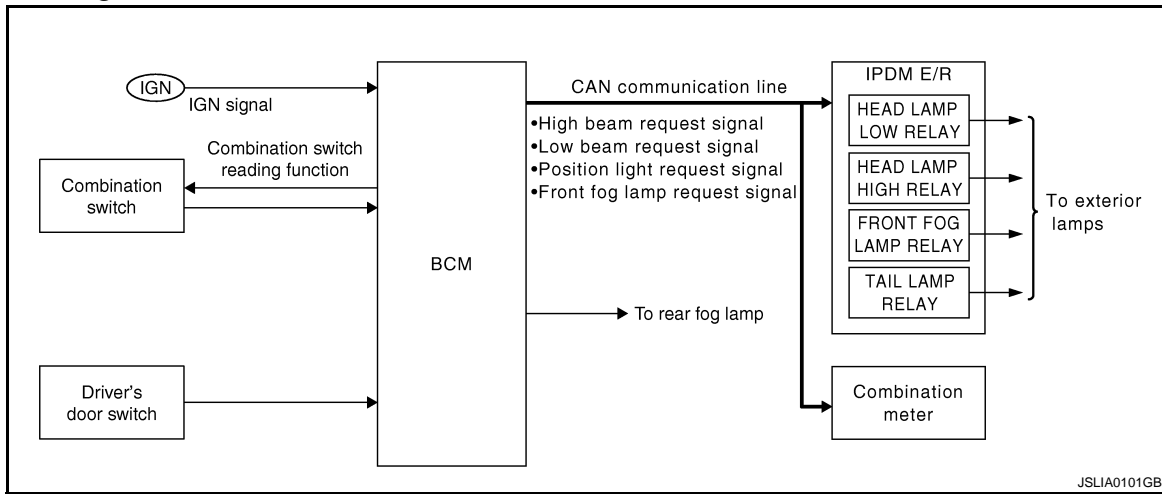
EXTERIOR LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:000000001316031

OUTLINE

- Exterior lamp battery saver system is controlled by each function of BCM and IPDM E/R.

Control by BCM

- Combination switch reading function
- Headlamp control function
- Exterior lamp battery saver function

Control by IPDM E/R

- Relay control function
 - BCM turns the exterior lamps* OFF to prevent the battery from over-discharge when a driver exits the vehicle with the exterior lamps ON.
- *: Headlamp (LO/HI), parking lamp, tail lamp, license plate lamp, front fog lamp and rear fog lamp

EXTERIOR LAMP BATTERY SAVER ACTIVATION

BCM turns the exterior lamps OFF (battery saver is activated) when all of following condition.

- Exterior lamps ON
- Ignition switch OFF
- Driver's door switch is turned from OFF → ON (door opening)

NOTE:

When any of following condition (after the exterior lamp battery saver is activated), exterior lamps can be turned ON.

- Ignition switch is turned from OFF → ON
- Lighting switch is turned from OFF → 1ST/2ND

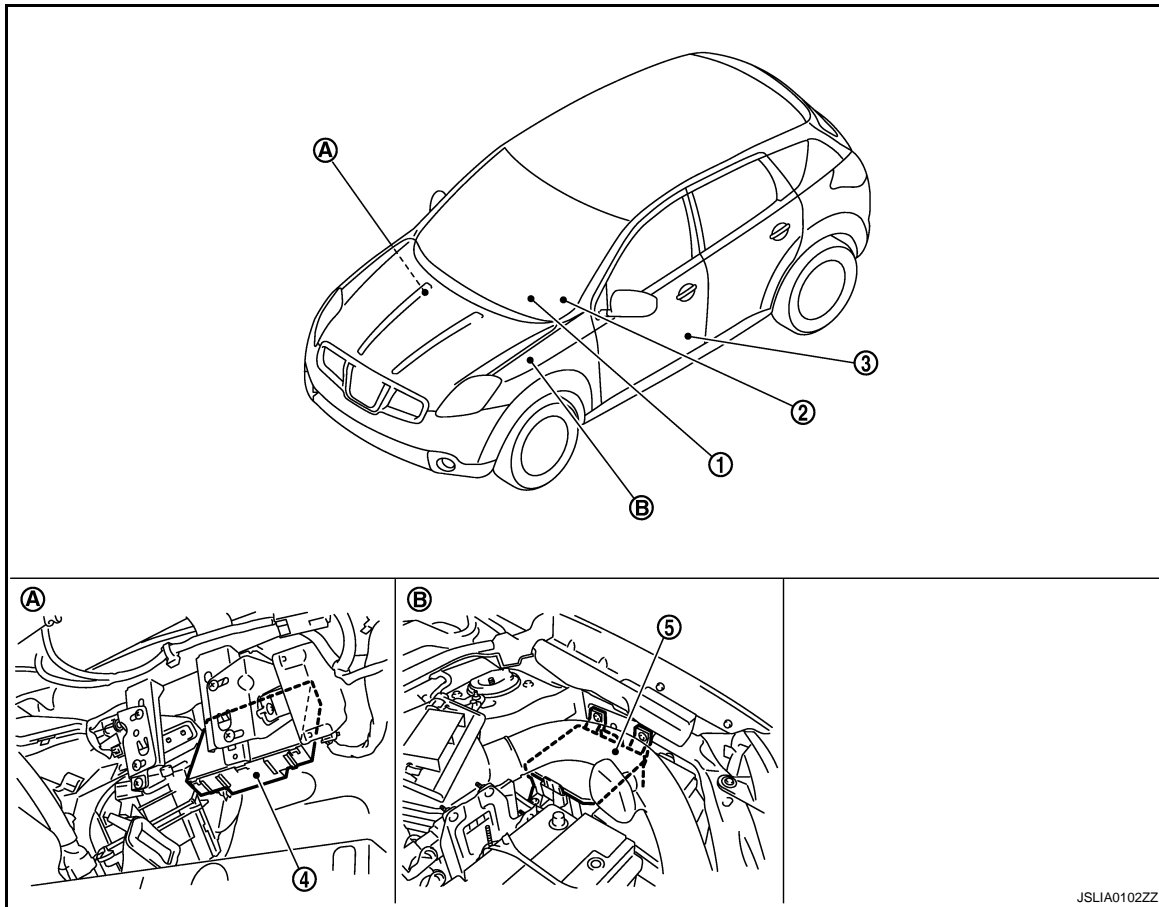
EXTERIOR LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Component Parts Location

INFOID:000000001316032



- | | | |
|-----------------------|----------------------------|-------------------------|
| 1. Combination meter | 2. Combination switch | 3. Driver's door switch |
| 4. BCM | 5. IPDM E/R | |
| A. Over the glove box | B. Engine room (left side) | |

Component Description

INFOID:000000001316033

EXL

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Activates the battery saver to turn the exterior lamps OFF according to the vehicle condition. - Requests each relay OFF to IPDM E/R (with CAN communication). - Turns rear fog lamp OFF.
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Driver's door switch	Inputs the door switch signal to BCM.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000001527696

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. Refer to EXL-139, "DTC Index" .
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> Enables to read and save the vehicle specification. Enables to write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

HEADLAMP

HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)

INFOID:000000001188641

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Service item	Setting item	Setting	
HEAD LIGHT TIMER	MODE 1	10 sec.	Sets follow me home function activating time.
	MODE 2*	30 sec.	

*: Initial setting

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
TAIL LAMP SW [On/Off]	
AUTO LIGHT SW [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
ENGINE RUNNING [On/Off]	The engine status received from ECM with CAN communication
LIT-SEN FAIL [OK/NOTOK]	<ul style="list-style-type: none"> The sensor status received from light & rain sensor with serial link The serial link condition that BCM judges
AUT LIGHT SYS [On/Off]	Auto light system status received from light & rain sensor with serial link
HD LIGHT TIME [Sec]	Setting time of the follow me home function set by the work support

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.
RR FOG LAMP	On	<ul style="list-style-type: none"> • Outputs the voltage to turn the rear fog lamp ON. • Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.
	Off	<ul style="list-style-type: none"> • Stops the voltage to turn the rear fog lamp OFF. • Stops the rear fog lamp status signal transmission.
DAYTIME RUNNING LIGHT	On	Transmits the day time running light request signal to IPDM E/R with CAN communication to turn the each lamps ON.
	Off	Stops the day time running light request signal transmission.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000001188642

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
HAZARD SW [On/Off]	The switch status input from the hazard switch
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	

ACTIVE TEST

Test item	Operation	Description
FLASHER	RH	Outputs the voltage to turn the right side turn signal lamps ON.
	LH	Outputs the voltage to turn the left side turn signal lamps ON.
	Off	Stops the voltage to turn the turn signal lamps OFF.

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:000000001558756

Auto active test

Description

In auto active test mode, the IPDM E/R sends a drive signal to the following systems to check their operation.

- Oil pressure warning lamp
- Rear window defogger
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (LO, HI)

Operation procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
2. Turn ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

4. Turn the ignition switch ON within 10 seconds. Then the horn sounds once and the auto active test starts.
5. The oil pressure warning lamp starts blinking when the auto active test starts.
6. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE:

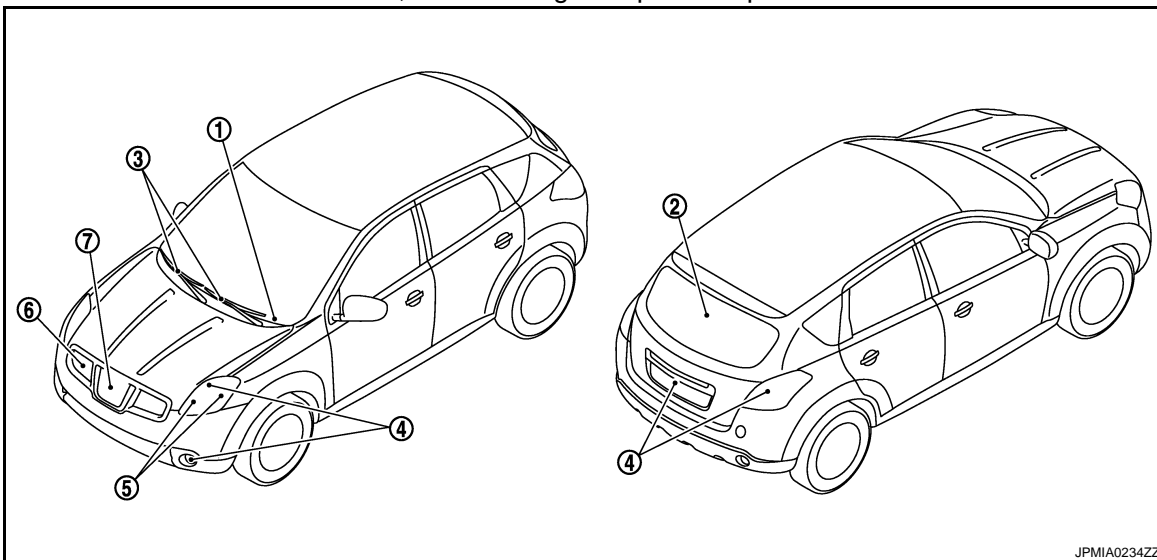
When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.

CAUTION:

- If auto active test mode cannot be actuated, check door switch system.
- Never start the engine.

Inspection in auto active test mode

When auto active test mode is actuated, the following 6 steps are repeated 3 times.



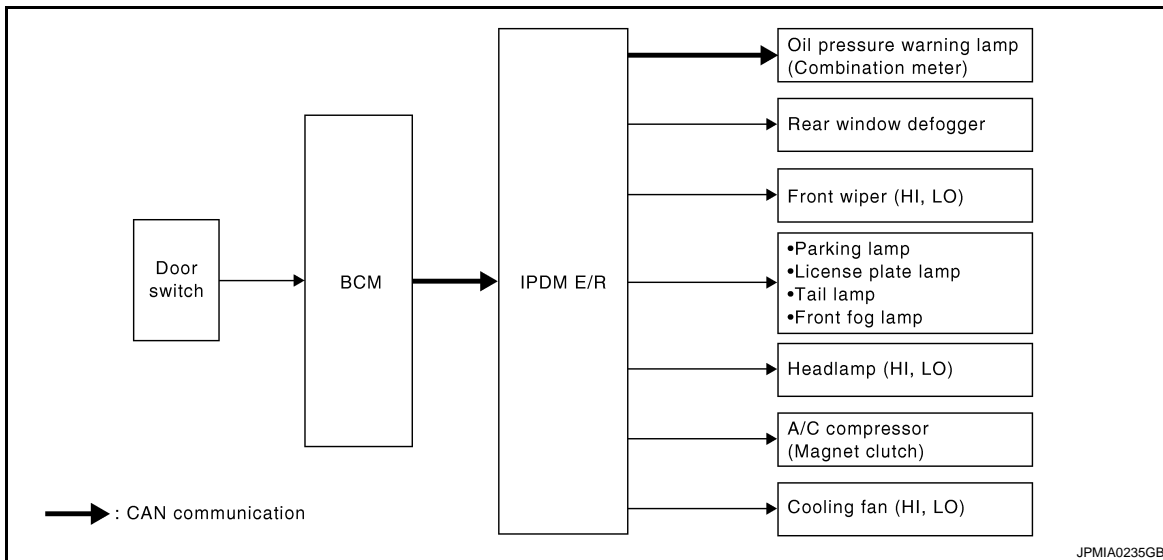
DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test.
2	Rear window defogger	10 seconds
3	Front wiper	LO for 5 seconds → HI for 5 seconds
4	<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Tail lamps • Front fog lamps 	10 seconds
5	Headlamps	LO ↔ HI 5 times
6	A/C compressor (magnet clutch)	ON ↔ OFF 5 times
7	Cooling fan	LO for 5 seconds → HI for 5 seconds

Concept of auto active test



- IPDM E/R starts the auto active test with the door switch signals transmitted by BCM via CAN communication. Therefore, the CAN communication line between IPDM E/R and BCM is considered normal if the auto active test starts successfully.
- The auto active test facilitates troubleshooting if any systems controlled by IPDM E/R cannot be operated.

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate	Perform auto active test. Does the rear window defogger operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> • Rear window defogger • Rear window defogger ground circuit • Harness or connector between IPDM E/R and rear window defogger • IPDM E/R
Any of the following components do not operate <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper (HI, LO) 	Perform auto active test. Does the applicable system operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> • Lamp or motor • Lamp or motor ground circuit • Harness or connector between IPDM E/R and applicable system • IPDM E/R

DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Symptom	Inspection contents		Possible cause
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES	<ul style="list-style-type: none"> • Communication signal between BCM and auto amp. (with auto A/C) • Communication signal between BCM and heater control panel (without auto A/C, with manual A/C) • BCM • CAN communication signal between BCM and ECM • CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> • Magnet clutch • Harness or connector between IPDM E/R and magnet clutch • IPDM E/R
Oil pressure warning lamp does not operate	Perform auto active test. Does the oil pressure warning lamp blink?	YES	<ul style="list-style-type: none"> • Harness or connector between IPDM E/R and oil pressure switch • Oil pressure switch • IPDM E/R
		NO	<ul style="list-style-type: none"> • CAN communication signal between IPDM E/R and BCM • CAN communication signal between BCM and combination meter • Combination meter
Cooling fan does not operate	Perform auto active test. Does the cooling fan operate?	YES	<ul style="list-style-type: none"> • ECM signal input circuit • CAN communication signal between ECM and IPDM E/R
		NO	<ul style="list-style-type: none"> • Cooling fan • Cooling fan ground circuit • Harness or connector between IPDM E/R and cooling fan • IPDM E/R • Cooling fan relay-3* • Harness or connector between IPDM E/R and cooling fan relay-3* • Harness or connector between cooling fan and cooling fan relay-3*

NOTE:

*: MR engine and K9K engine models

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CONSULT - III Function (IPDM E/R)

INFOID:000000001558757

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with IPDM E/R.

Diagnosis mode	Description
Ecu Identification	Allows confirmation of IPDM E/R part number.
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

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SELF DIAGNOSTIC

Refer to [PCS-31, "DTC Index"](#).

DATA MONITOR

Monitor item

DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Monitor Item [Unit]	MAIN SIGNALS	Description
MOTOR FAN REQ [1 - 4]	×	Displays the value of the cooling fan speed signal received from ECM via CAN communication.
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.
HL WASHER REQ [Off/On]		Displays the status of the headlamp washer request signal received from BCM via CAN communication.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.
ST RLY REQ [Off/On]		Displays the status of the ignition and starter request signal received from BCM via CAN communication.
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
RR DEF REQ [Off/On]	×	Displays the status of the rear defogger request signal received from BCM via CAN communication.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
REV SW [Off/On]		Displays the status of the reverse switch judged by IPDM E/R.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R. NOTE: This item is monitored only the vehicle with the Vehicle Security (Theft Warning) system.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication. NOTE: This item is monitored only the vehicle with the Vehicle Security (Theft Warning) system.
HORN CHIRP [Off/On]		NOTE: This item is indicated, but not monitored.
IGN ON SW [Off/On]		Displays the status of the ignition switch judged by IPDM E/R.

ACTIVE TEST

Test item

Test item	Operation	Description
REAR DEFOGGER	Off	OFF
	On	Operates the rear window defogger relay.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.

DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay (low operation).
	3	Operates the cooling fan relay (high operation).
	4	
HEAD LAMP WASHER	On	Operates the headlamp washer relay for 1 second.
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals.
	Fog	Operates the front fog lamp relay.
HORN	On	Operates horn relay for 20 ms.

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DIAGNOSIS SYSTEM (HEADLAMP LEVELIZER)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

DIAGNOSIS SYSTEM (HEADLAMP LEVELIZER)

CONSULT-III Function (HEADLAMP LEVELIZER)

INFOID:000000001188645

CAUTION:

Headlamp (LO) must be turned ON before connecting CONSULT-III. And then start the diagnosis of the headlamp aiming control system (auto).

APPLICATION ITEM

CONSULT-III performs the following functions via DDL2 communication line with auto levelizer control unit.

Diagnosis mode	Description
Ecu Identification	Allows confirmation of auto levelizer control unit part number.
Self Diagnostic Result	Displays the diagnosis results judged by auto levelizer control unit.
Work Support	Performs settings on sensors.
Data Monitor	Displays input data for auto levelizer control unit in real time.
Active Test	Transmits a drive signal to the load to check their operation.
Configuration	<ul style="list-style-type: none"> Read and save the vehicle specification. Write the vehicle specification when replacing auto levelizer control unit.

WORK SUPPORT

Work item	Setting details
SENSOR INITIALIZE	Adjusts sensor lever signal output under unladen conditions.

DATA MONITOR

Monitor item [Unit]	Display item
INT SEN VALUE [%]	Displays the sensor lever angle corresponding to the maximum value of sensor lever angle that is recognized with auto levelizer control unit by ratio.
ACT OUTPUT [%]	Displays the control value of aiming motor drive signal that is calculated by auto levelizer control unit with the ratio corresponding to the control unit power supply.
ACT MEASURED [%]	Displays the measured value of aiming motor drive signal that is output from auto levelizer control unit with the ratio corresponding to the control unit power supply.
VEHICLE SPEED SIGNAL [km/h]	Displays the vehicle speed judged from vehicle speed signal (8-pulse) that is input to auto levelizer control unit.
LIGHT SIGNAL [V]	Displays the status judged from tail lamp signal that is input to auto levelizer control unit.
INT SEN VOLT [V]	Displays the control unit power supply status that is input to auto levelizer control unit.
EXT SEN VOLT [V]	NOTE: The item is indicated, but not monitored.
EXT SEN SIG [V]	NOTE: The item is indicated, but not monitored.

ACTIVE TEST

Test item	Operation item	Operation status
LAMP TEST	MIN	Moves the light axis to the lowest position.
	MID	Moves the light axis to the initial position.
	MAX	Moves the light axis to the highest position.

COMPONENT DIAGNOSIS

B2080 ECU TROUBLE

Description

INFOID:000000001188646

- Auto levelizer control unit is installed in rear suspension arm.
- Auto levelizer control unit detects vehicle rear height.
- Auto levelizer control unit controls headlamp light axis appropriately depending on the vehicle height.

DTC Logic

INFOID:000000001188647

DTC DETECTION LOGIC
[B2080] ECU TROUBLE

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit internal malfunction.	Headlamp (LO) OFF	Auto levelizer control unit

Diagnosis Procedure

INFOID:000000001188648

1.ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

Is the memory erased?

- YES >> INSPECTION END
NO >> Replace the auto levelizer control unit.

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B2081 INITIAL NOT DONE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2081 INITIAL NOT DONE

DTC Logic

INFOID:000000001188649

DTC DETECTION LOGIC

[B2081] INITIAL NOT DONE

DTC detection condition	DTC erase conditions	Possible causes
Sensor initialization is not completed.	Sensor initialization is completed	<ul style="list-style-type: none">• Sensor initialization is not completed.• Auto levelizer control unit

Diagnosis Procedure

INFOID:000000001188650

1. SENSOR INITIALIZE

Perform the sensor initialize.

>> Refer to [EXL-11, "SENSOR INITIALIZE : Special Repair Requirement"](#).

B2082 SENSOR OUT OF RANGE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2082 SENSOR OUT OF RANGE

DTC Logic

INFOID:000000001188651

DTC DETECTION LOGIC

[B2082] SENSOR OUT OF RANGE

DTC detection condition	DTC erase conditions	Possible cause
Auto levelizer control unit detected that the sensor lever angle is out of range, continually for 20 ms or more.	When sensor lever returns to normal range	<ul style="list-style-type: none">Auto levelizer control unit installation conditionSensor initialize is not appropriate.Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

Perform of self-diagnosis CONSULT-III.

Is B2082 detected?

- YES >> Refer to [EXL-41, "Diagnosis Procedure"](#).
NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188652

1. CHECK SENSOR INITIALIZATION VALUE

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Select "INT SEN VALUE" of HEADLAMP LEVELIZER data monitor item.
- Check the monitor status under unladen conditions.

Monitor item	Standard value (Approx.)
INT SEN VALUE	50 %*

*: Sensor initialize position (reference)

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
NO >> GO TO 2.

2. CHECK AUTO LEVELIZER CONTROL UNIT INSTALLATION CONDITION

Check the mounting part of auto levelizer control unit and its link for looseness and deformation.

Is it properly installed?

- YES >> GO TO 3.
NO >> Install auto levelizer control unit properly.

3. SENSOR INITIALIZATION

Perform the sensor initialize. Refer to [EXL-11, "SENSOR INITIALIZE : Special Repair Requirement"](#).

Is sensor initialize completed?

- YES >> GO TO 4.
No >> Replace the auto levelizer control unit.

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B2082 SENSOR OUT OF RANGE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

4.ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

Is the memory erased?

YES >> INSPECTION END

NO >> Replace the auto levelizer control unit.

B2083 SEN SIG NOT PLAUSIBLE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2083 SEN SIG NOT PLAUSIBLE

DTC Logic

INFOID:000000001188653

DTC DETECTION LOGIC

[B2083] SEN SIG NOT PLAUSIBLE

DTC detection condition	DTC erase conditions	Possible causes
When vehicle speed is 5 km/h or more, the auto levelizer control unit cannot detect any changes of the sensor lever angle for 5 minutes or more.	Headlamp (LO) OFF	Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

1. Start the engine.
2. Drive the vehicle for 5 minutes or more.
3. Perform self-diagnosis of CONSULT-III.

Is B2083 detected?

- YES >> Refer to [EXL-43, "Diagnosis Procedure"](#).
NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188654

1. CHECK AUTO LEVELIZER CONTROL UNIT INSTALLATION CONDITION

Check the mounting part of auto levelizer control unit and its link for looseness and deformation.

Is it properly installed?

- YES >> Replace the auto levelizer control unit.
NO >> Install auto levelizer control unit properly.

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B2084 VOLTAGE UNDER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2084 VOLTAGE UNDER LIMIT

DTC Logic

INFOID:000000001188655

DTC DETECTION LOGIC

[B2084] VOLTAGE UNDER LIMIT

DTC detection condition	DTC erase conditions	Possible causes
The control unit power supply to auto levelizer control unit is 9 V or less for 1.5 seconds or more.	Headlamp (LO) OFF	<ul style="list-style-type: none">• Harness or connector• Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

Perform self-diagnosis of CONSULT-III.

Is B2084 detected?

- YES >> Refer to [EXL-44, "Diagnosis Procedure"](#).
NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188656

1. CHECK POWER SUPPLY WITH CONSULT-III

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Select "INT SEN VOLT" of HEADLAMP LEVELIZER data monitor item.
4. Check the monitor status.

Monitor item	Standard value (Approx.)
INT SEN VOLT	Battery voltage

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
NO >> GO TO 2.

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit of auto levelizer control unit. Refer to [EXL-53, "AUTO LEVELIZER CONTROL UNIT : Diagnosis Procedure"](#).

Is power supply and ground circuit normal?

- YES >> Replace the auto levelizer control unit.
NO >> Repair or replace the malfunctioning part.

B2085 LOWBEAM SIG OPEN LINE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2085 LOWBEAM SIG OPEN LINE

Description

INFOID:000000001188657

- Auto levelizer control unit inputs tail lamp signal from IPDM E/R.
- Auto levelizer control unit always outputs the voltage to detect the DTC.

DTC Logic

INFOID:000000001188658

DTC DETECTION LOGIC

[B2085] LOWBEAM SIG OPEN LINE

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit detected following condition: 2 V < tail lamp signal < 6 V	Headlamp (LO) OFF	<ul style="list-style-type: none">• Harness or connector• IPDM E/R• Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

Perform self-diagnosis of CONSULT-III.

Is B2085 detected?

- YES >> Refer to [EXL-45, "Diagnosis Procedure"](#).
- NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188659

1. CHECK TAIL LAMP SIGNAL INPUT WITH CONSULT-III

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Select "LIGHT SIGNAL" of HEADLAMP LEVELIZER data monitor item.
4. Check the monitor status.

Monitor item	Condition	Standard value (Approx.)
LIGHT SIGNAL	Headlamp (LO) ON	6 V or more

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
- NO >> GO TO 2.

2. CHECK TAIL LAMP SIGNAL INPUT

1. Turn ignition switch OFF.
2. Disconnect the auto levelizer control unit connector.
3. Turn ignition switch ON.
4. With operating the lighting switch, check the voltage between the auto levelizer control unit harness connector and the ground.

B2085 LOWBEAM SIG OPEN LINE

[XENON TYPE]

< COMPONENT DIAGNOSIS >

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Auto levelizer control unit		Lighting switch	0 V
Connector	Terminal		
B43	6	OFF	
		1ST	Battery voltage

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> Repair the harnesses between auto levelizer control unit and IPDM E/R.

B2086 FRQ. OVER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2086 FRQ. OVER LIMIT

Description

INFOID:000000001188660

Auto levelizer control unit inputs vehicle speed signal (8-pulse) from combination meter.

DTC Logic

INFOID:000000001188661

DTC DETECTION LOGIC

[B2086] FRQ. OVER LIMIT

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit detected that vehicle speed signal is abnormal. (The vehicle speed is 340 km/h or more for 1.5 seconds or more.)	Headlamp (LO) OFF	<ul style="list-style-type: none"> Frequency of vehicle speed signal is abnormal Harness or connector Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

- Start the engine.
- Drive the vehicle at 40 km/h.
- Perform self-diagnosis of CONSULT-III.

Is B2086 detected?

- YES >> Refer to [EXL-47, "Diagnosis Procedure"](#).
- NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188662

1. CHECK VEHICLE SPEED SIGNAL INPUT WITH CONSULT-III

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Select "VEHICLE SPEED SIGNAL" of HEADLAMP LEVELIZER data monitor item.
- While driving at 40 km/h, check the monitor status.

Monitor item	Condition	Standard value (Approx.)
VEHICLE SPEED SIGNAL	While driving at 40 km/h	40 km/h

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
- NO >> GO TO 2.

2. CHECK VEHICLE SPEED SIGNAL INPUT

- Turn ignition switch OFF.
- Disconnect the auto levelizer control unit connector.
- Turn ignition switch ON.
- While driving at 40 km/h, check the voltage between the auto levelizer control unit harness connector and the ground.

B2086 FRQ. OVER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Auto levelizer control unit			
Connector	Terminal		
B43	4	Ground	PKIA1935E

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> Repair the harnesses between auto levelizer control unit and combination meter.

B2087 SHORT TO GROUND

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2087 SHORT TO GROUND

DTC Logic

INFOID:000000001188663

DTC DETECTION LOGIC

[B2087] SHORT TO GROUND

DTC detection condition	DTC erase conditions	Possible causes
Headlamp levelizer circuit is shorted to the ground for 1.5 seconds or more.	Headlamp (LO) OFF	<ul style="list-style-type: none">• Harness or connector• Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

Perform self-diagnosis of CONSULT-III.

YES >> Refer to [EXL-49. "Diagnosis Procedure"](#).

NO >> Refer to [GI-39. "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188664

1. CHECK HEADLAMP LEVELIZER CIRCUIT OF CONSULT-III

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Select "ACT MEASURED" and "ACT OUTPUT" of HEADLAMP LEVELIZER data monitor item.
4. Check that ACT MEASURED value is within approximately $\pm 3\%$ to ACT OUTPUT value.

NOTE:

ACT MEASURED value is approximately 0% when shorted to the ground.

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> GO TO 2.

2. HEADLAMP LEVELIZER CIRCUIT INSPECTION

Check the headlamp levelizer circuit for short to ground. Refer to [EXL-63. "Component Function Check"](#).

Is the headlamp levelizer circuit normal?

YES >> Replace the auto levelizer control unit.

NO >> Repair or replace the malfunctioning part.

B2088 SHORT TO BATTERY

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2088 SHORT TO BATTERY

DTC Logic

INFOID:000000001188665

DTC DETECTION LOGIC

[B2088] SHORT TO BATTERY

DTC detection condition	DTC erase conditions	Possible causes
Headlamp levelizer circuit is shorted to the battery for 1.5 seconds or more.	Headlamp (LO) OFF	<ul style="list-style-type: none">• Harness or connector• Auto levelizer control unit

DTC CONFIRMATION PROCEDURE

1. ERASE DTC

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

2. DTC CONFIRMATION

Perform self-diagnosis of CONSULT-III.

Is B2088 detected?

- YES >> Refer to [EXL-50, "Diagnosis Procedure"](#).
NO >> Refer to [GI-39, "Intermittent Incident"](#).

Diagnosis Procedure

INFOID:000000001188666

1. CHECK HEADLAMP LEVELIZER CIRCUIT OF CONSULT-III

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Select "ACT MEASURED" and "ACT OUTPUT" of HEADLAMP LEVELIZER data monitor item.
4. Check that ACT MEASURED value is within approximately $\pm 3\%$ to ACT OUTPUT value.

NOTE:

ACT MEASURED value is approximately 100% when shorted to the battery.

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
NO >> GO TO 2.

2. HEADLAMP LEVELIZER CIRCUIT INSPECTION

Check the headlamp levelizer circuit for short to battery. Refer to [EXL-63, "Component Function Check"](#).

Is the headlamp levelizer circuit normal?

- YES >> Replace the auto levelizer control unit.
NO >> Repair or replace the malfunctioning part.

B2089 NO CAR TYPE SELECTED

< COMPONENT DIAGNOSIS >

[XENON TYPE]

B2089 NO CAR TYPE SELECTED

DTC Logic

INFOID:000000001188667

DTC DETECTION LOGIC

[B2089] NO CAR TYPE SELECTED

DTC detection condition	DTC erase conditions	Possible causes
Vehicle specification is not written.	Vehicle specification is written.	Configuration is not completed.

Diagnosis Procedure

INFOID:000000001188668

1.CONFIGURATION

Perform "WRITE CONFIGURATION".

>> Refer to [EXL-10, "CONFIGURATION \(HEADLAMP LEVELIZER\) : Special Repair Requirement"](#).

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EXL

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000001527699

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	9
57		J
37	ACC power supply	5
38	Ignition power supply	4

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		(-)	Ignition switch position		
(+)	BCM		OFF	ACC	ON
Connector	Terminal	Ground			
M65	37		Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M66	41		Battery voltage	Battery voltage	Battery voltage
M67	57	Battery voltage	Battery voltage	Battery voltage	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	55		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Di-

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

agnosis Procedure

INFOID:000000001527700

1.CHECK FUSIBLE LINK

Check that the following IPDM E/R fusible link is not blown.

Terminal No.	Signal name	Fusible link No.
1	Battery power supply	D (with gasoline engine)
		B (with diesel engine)
2		C (with gasoline engine)
		D (with diesel engine)
53		L (except HR engine models)
		M (HR engine models)

Is the fusible link fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check voltage between IPDM E/R harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E9	1	
	2	
E14	53	

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R connectors.
2. Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E10	5		Exist
	6		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

AUTO LEVELIZER CONTROL UNIT

AUTO LEVELIZER CONTROL UNIT : Diagnosis Procedure

INFOID:000000001188671

1.CHECK FUSE

Check that the following fuse is fusing.

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Signal name	Location	Fuse No.	Capacity
Control unit power supply [Headlamp (LO) signal]	IPDM E/R	#45	15A

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect auto levelizer control unit connector.
3. Turn the headlamp (LO) ON.
4. Check voltage between auto levelizer control unit harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Auto levelizer control unit		Ground
Connector	Terminal	
B43	2	
		Battery voltage

Is the measurement value normal?

- YES >> GO TO 3.
NO >> Repair the harnesses or connectors.

3. CHECK GROUND CIRCUIT

Check for continuity between auto levelizer control unit harness connector and ground.

Auto levelizer control unit		Ground	Continuity
Connector	Terminal		Existed
B43	1		Existed

Does continuity exist?

- YES >> Power supply and ground circuit are normal.
NO >> Repair the harnesses or connectors.

EXTERIOR LAMP FUSE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

EXTERIOR LAMP FUSE

Description

INFOID:000000001188672

Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A
Headlamp LO (LH)	IPDM E/R	#46	15 A
Headlamp LO (RH)	IPDM E/R	#45	15 A
Front fog lamp	IPDM E/R	#43	15 A
<ul style="list-style-type: none"> • Parking lamp • Tail lamp • License plate lamp • Each illumination 	IPDM E/R	#49	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	M/T models	IPDM E/R	#54
	CVT models	IPDM E/R	#55

Diagnosis Procedure

INFOID:000000001188673

1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A
Headlamp LO (LH)	IPDM E/R	#46	15 A
Headlamp LO (RH)	IPDM E/R	#45	15 A
Front fog lamp	IPDM E/R	#43	15 A
<ul style="list-style-type: none"> • Parking lamp • Tail lamp • License plate lamp • Each illumination 	IPDM E/R	#49	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	M/T models	IPDM E/R	#54
	CVT models	IPDM E/R	#55

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
 NO >> The fuse is normal.

HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:000000001188674

1. CHECK HEADLAMP (HI) OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the headlamp switches to the high beam.

Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (HI) is turned ON.

Hi : Headlamp (HI) ON

Off : Headlamp (HI) OFF

NOTE:

ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

- YES >> Headlamp (HI) circuit is normal.
NO >> Refer to [EXL-56, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188675

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

Ⓟ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)		(-)		
IPDM E/R			Ground	External lamp
Connector	Terminal			
RH	E13	45	Hi	Battery voltage
LH		46	Off	0 V

Is the measurement value normal?

- YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK HEADLAMP (HI) OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	45	E45	2	Existed
LH		46	E26	2	

Does continuity exist?

HEADLAMP (HI) CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

- YES >> Replace the front combination lamp.
NO >> Repair the harnesses or connectors.

3. CHECK HEADLAMP (HI) FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A

Is the fuse fusing?

- YES >> GO TO 4.
NO >> Replace IPDM E/R.

4. CHECK FRONT COMBINATION LAMP (HI) SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between the IPDM E/R harness connector terminal and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	45	Not existed
LH		46	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

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HEADLAMP (LO) CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (LO) CIRCUIT

Description

INFOID:000000001188676

Headlamp (LO) circuit is connected to HID control unit integrated in the headlamp. Headlamp (LO) circuit turns xenon headlamp ON.

For the details of HID control unit and the xenon headlamp, refer to [EXL-61, "Description"](#).

Component Function Check

INFOID:000000001188677

1. CHECK HEADLAMP (LO) OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the headlamp is turned ON.

Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-58, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188678

1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓟ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)	(-)			
IPDM E/R			External lamp	Battery voltage
Connector	Terminal			
RH	E12	24	Lo	0 V
LH	E13	44	Off	

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK HEADLAMP (LO) OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	

HEADLAMP (LO) CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

RH	E12	24	E45	1	Existed
LH	E13	44	E26	1	

Does continuity exist?

- YES >> Perform the xenon headlamp diagnosis. Refer to [EXL-61. "Description"](#).
 NO >> Repair the harnesses or connectors.

3.CHECK HEADLAMP (LO) FUSE

- Turn the ignition switch OFF.
- Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp LO (LH)	IPDM E/R	#46	15 A
Headlamp LO (RH)	IPDM E/R	#45	15 A

Is the fuse fusing?

- YES >> GO TO 4.
 NO >> Replace IPDM E/R.

4.CHECK HEADLAMP (LO) SHORT CIRCUIT

- Disconnect IPDM E/R connector.
- Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E12	24		Not existed
LH	E13	44		

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
 NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

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EXL

HEADLAMP GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000001188679

1. CHECK HEADLAMP GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E45	4	Existed	
LH	E26	4		

Does continuity exist?

- YES >> Headlamp ground circuit is normal.
NO >> Repair the harnesses or connectors.

XENON HEADLAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

XENON HEADLAMP

Description

INFOID:000000001188680

OUTLINE

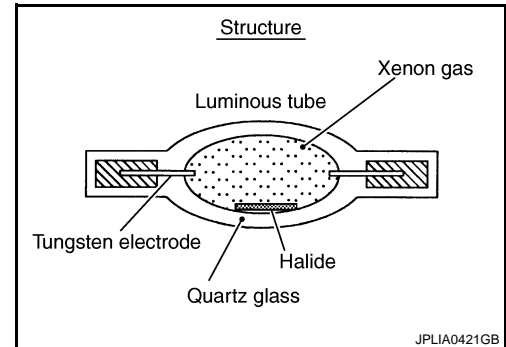
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

ILLUMINATION PRINCIPLE

1. Discharging starts in high voltage pulse between bulb electrodes.
2. Xenon gas is activated by current between electrodes. Pale light is emitted.
3. The luminous tube (bulb) temperature elevates. Evaporated halide is activated by discharge. The color of light changes into white.

NOTE:

- Brightness and the color of light may change slightly immediately after the headlamp turned ON until the xenon bulb becomes stable. This is not malfunction.
- Illumination time lag may occur between right and left. This is not malfunction.



PRECAUTIONS FOR TROUBLE DIAGNOSIS

Representative malfunction examples are; "Light does not turn ON", "Light blinks", and "Brightness is inadequate." The cause often be the xenon bulb. Such malfunctions, however, are occurred occasionally by HID control unit malfunction or lamp case malfunction. Specify the malfunctioning part with diagnosis procedure.

WARNING:

- **Never touch the harness, HID control unit, the inside and metal part of lamp when turning the headlamp ON or operating the light switch.**
- **Never work with wet hands.**

CAUTION:

- **Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.**
- **Temporarily install the headlamp on the vehicle. Connect the battery to the connector (vehicle side) when checking ON/OFF status.**
- **Disconnect the battery negative terminal before disconnecting the lamp socket connector or the harness connector.**
- **Check for fusing of the fusible link(s), open around connector, short, disconnection if the symptom is caused by electric error.**

NOTE:

- Turn the switch OFF once before turning ON, if the ON/OFF is inoperative.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

Diagnosis Procedure

INFOID:000000001188681

1.CHECK XENON BULB

Install the normal bulb to the applicable headlamp. Check that the xenon bulb is turned ON.

Is the headlamp turned ON?

- YES >> Replace the xenon bulb.
- NO >> GO TO 2.

2.CHECK HID CONTROL UNIT

Install the normal HID control unit to the applicable headlamp. Check that the lamp is turned ON.

Is the headlamp turned ON?

XENON HEADLAMP

[XENON TYPE]

< COMPONENT DIAGNOSIS >

- YES >> Replace HID control unit.
- NO >> GO TO 3.

3.CHECK XENON HEADLAMP HOUSING ASSEMBLY

Install the normal xenon headlamp housing assembly to the applicable headlamp. Check that the xenon headlamp is turned ON.

Is the headlamp turned ON?

- YES >> Replace the front combination lamp. (Xenon headlamp housing voltage converter malfunctions.)
- NO >> Xenon headlamp is normal.

HEADLAMP LEVELIZER CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP LEVELIZER CIRCUIT

Description

INFOID:000000001188682

The headlamp levelizer adjusts the headlamp light axis upward and downward with the aiming motor integrated in the front combination lamp.

Component Function Check

INFOID:000000001188683

1.CHECK HEADLAMP LEVELIZER OPERATION

CONSULT-III ACTIVE TEST

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Start the engine.
4. Select "LAMP TEST" of HEADLAMP LEVELIZER active test item.
5. With operating the test item, check the light axis operation.

Test item	Light axis operation
LAMP TEST	
MIN	Moves the light axis to the lowest position.
MID	Moves the light axis to the initial position.
MAX	Moves the light axis to the highest position.

Is the operation normal?

- YES >> Headlamp levelizer circuit is normal.
NO >> Refer to [EXL-63. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188684

1.CHECK AIMING MOTOR DRIVE SIGNAL OUTPUT

CONSULT-III ACTIVE TEST

1. Turn the headlamp (LO) ON.
2. Connect the CONSULT-III.
3. Start the engine.
4. Select "LAMP TEST" of HEADLAMP LEVELIZER active test item.
5. With operating the test items, check the voltage between the auto levelizer control unit harness connector and the ground.

Terminals		Test item	Voltage (Approx.)		
(+)	(-)				
Auto levelizer control unit		LAMP TEST			
Connector	Terminal				
B43	7			MIN	1.9 V
				MID	6.3 V
		MAX	10.0 V		

Is the measurement value normal?

- YES >> GO TO 2.
Fixed at 0 V>>GO TO 3.
Fixed at battery voltage>>GO TO 4.

2.CHECK AIMING MOTOR DRIVE OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect auto levelizer control unit connector and headlamp aiming motor connector.

HEADLAMP LEVELIZER CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

3. Check continuity between auto levelizer control unit harness connector and the headlamp aiming motor harness connector.

Auto levelizer control unit		headlamp aiming motor		Continuity	
Connector	Terminal	Connector	Terminal		
RH	B43	7	E47	2	Existed
LH			E28		

Does continuity exist?

- YES >> Replace the headlamp aiming motor.
 NO >> Repair the harnesses and connectors.

3. CHECK AIMING MOTOR DRIVE SHORT CIRCUIT (SHORT TO GROUND)

1. Turn the ignition switch OFF.
2. Disconnect auto levelizer control unit connector and headlamp aiming motor connector.
3. Check continuity between auto levelizer control unit harness connector and ground.

Terminals			Continuity
(+)		(-)	
Auto levelizer control unit		Ground	
Connector	Terminal		
B43	7		Not existed

Does continuity exist?

- YES >> Repair the harness and connectors.
 NO >> Replace auto levelizer control unit.

4. CHECK AIMING MOTOR DRIVE SHORT CIRCUIT (SHORT TO BATTERY)

1. Turn the ignition switch OFF.
2. Disconnect auto levelizer control unit connector and headlamp aiming motor connector.
3. Check voltage between auto levelizer control unit harness connector and ground.

Terminals			Voltage (Approx.)
(+)		(-)	
Auto levelizer control unit		Ground	
Connector	Terminal		
B43	7		0 V

Is the measurement value normal?

- YES >> Replace auto levelizer control unit.
 NO >> Repair the harness and connectors.

FRONT FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:000000001188685

1.CHECK FRONT FOG LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the front fog lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the front fog lamp is turned ON.

Fog : Front fog lamp ON
Off : Front fog lamp OFF

Is the front fog lamp turned ON?

- YES >> Front fog lamp circuit is normal.
NO >> Refer to [EXL-65, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188686

1.CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#43	15 A

Is the fuse fusing?

- YES >> GO TO 2.
NO >> GO TO 3.

2.CHECK FRONT FOG LAMP SHORT CIRCUIT

1. Disconnect IPDM E/R connector and the front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	36	Not existed
LH		43	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

3.CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.

FRONT FOG LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
IPDM E/R			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E13	36	Fog	0 V
LH		43	Ground	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK FRONT FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	36	E48	1	Existed
LH		43	E30	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK FRONT FOG LAMP GROUND CIRCUIT OPEN CIRCUIT

Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E48	2	Ground	Existed
LH	E30	2		

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:000000001188687

1. CHECK PARKING LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the parking lamp turned ON?

- YES >> Parking lamp circuit is normal.
NO >> Refer to [EXL-67, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188688

1. CHECK PARKING LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Parking lamp	IPDM E/R	#49	10 A

Is the fuse fusing?

- YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK PARKING LAMP SHORT CIRCUIT

1. Disconnect IPDM E/R connector and the front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	37	Not existed
LH		47	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.

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PARKING LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
IPDM E/R			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E13	37	TAIL	0 V
LH		47	Off	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	37	E43	1	Existed
LH		47	E24	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E43	2	Ground	Existed
LH	E24	2		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:000000001188689

BCM performs the high flasher operation (fail-safe) if any bulb or harness of the turn signal lamp circuit is open.

NOTE:

The turn signal lamp blinks at normal speed when using the hazard warning lamp.

Component Function Check

INFOID:000000001188690

1. CHECK TURN SIGNAL LAMP

CONSULT-III ACTIVE TEST

1. Select "FLASHER" of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamp is turned ON.

- LH** : Turn signal lamp (LH) ON
- RH** : Turn signal lamp (RH) OFF
- Off** : The turn signal lamp OFF

Are the turn signal lamps turned ON?

- YES >> Turn signal lamp circuit is normal.
- NO >> Refer to [EXL-69. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188691

1. CHECK TURN SIGNAL LAMP BULB

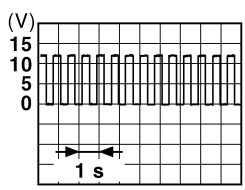
Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 2.
- NO >> Replace the bulb.

2. CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector, side turn signal lamp connector, or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
BCM			Turn signal switch	
Connector	Terminal			
RH	M66	48	LH or RH	
LH		47		
			Ground	
			Off	0 V

Is the measurement value normal?

- YES >> GO TO 3.
- NO >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between the BCM harness connector and the front combination lamp, side turn signal lamp or the rear combination lamp harness connector.

Front turn signal lamp

BCM		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E45	3
LH		47	E26	

Side turn signal lamp

BCM		Side turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E40	1
LH		47	E23	

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	B59	1
LH		47	B80	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

BCM		Ground	Continuity
Connector	Terminal		
RH	M66	48	Not existed
LH		47	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

Check continuity between the BCM harness connector and the front combination lamp, side turn signal lamp or the rear combination lamp and the ground.

Front turn signal lamp

Front combination lamp		Ground	Continuity
Connector	Terminal		
RH	E45	5	Existed
LH	E26		

Side turn signal lamp

Side turn signal lamp		Ground	Continuity
Connector	Terminal		
RH	E40	2	Existed
LH	E23		

TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

Rear turn signal lamp

Rear combination lamp		Terminal	Ground	Continuity
Connector				Existed
RH	B59	4		Existed
LH	B80			

Does continuity exist?

- YES >> Replace the front combination lamp, the side turn signal lamp or the rear combination lamp.
- NO >> Repair the harnesses or connectors.

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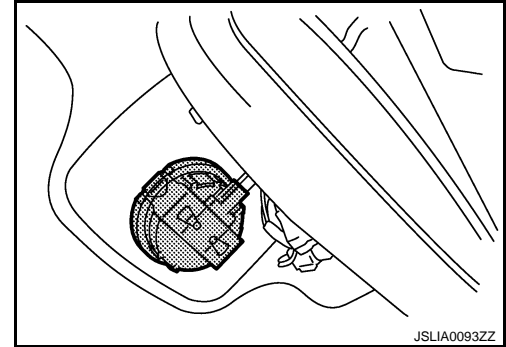
EXL

LIGHT & RAIN SENSOR

Description

INFOID:000000001188692

- The light & rain sensor detects the outside ambient light level, forward light level, rain level and sensor conditions.
- Based on ambient light level (day/night detection), forward light level (tunnel detection), rain level (poor visibility detection) and sensor conditions it judges ON/OFF condition for exterior lamps.
- And it transmits exterior lamp ON/OFF request to the BCM by the light & rain sensor serial link.
- BCM controls each function depending on the signals. And it detects the light & rain sensor serial link error and the light & rain sensor malfunction.



Component Function Check

INFOID:000000001188693

1. CHECK LIGHT & RAIN SENSOR BY CONSULT-III

CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "LIT-SEN FAIL" of BCM (HEADLAMP) data monitor item.
3. Turn the lighting switch AUTO.
4. Start the engine.
5. Check the monitor status.

Monitor item	Condition	Status
LIT-SEN FAIL	Light & rain sensor is normal	OK
	<ul style="list-style-type: none"> • Light & rain sensor inside abnormality • Light & rain sensor serial link error 	NOTOK

Is it displayed with "OK"?

- YES >> Light & rain sensor is normal.
 NO >> Refer to [EXL-72, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188694

1. CHECK LIGHT & RAIN SENSOR POWER SUPPLY OUTPUT

1. Turn the ignition switch OFF.
2. Disconnect the light & rain sensor connector.
3. Check the voltage between the light & rain sensor harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		
Connector	Terminal	
R13	1	12 V

Is the measurement value normal?

- YES >> GO TO 2.
 NO >> GO TO 3.

2. CHECK LIGHT & RAIN SENSOR SIGNAL OUTPUT

Check the voltage between the light & rain sensor harness connector and the ground.

LIGHT & RAIN SENSOR

[XENON TYPE]

< COMPONENT DIAGNOSIS >

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		Ground
Connector	Terminal	
R13	2	

Is the measurement value normal?

- YES >> GO TO 7.
NO >> GO TO 5.

3. CHECK LIGHT & RAIN SENSOR POWER SUPPLY OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R13	1	M66	42	Existed

Does continuity exist?

- YES >> GO TO 4.
NO >> Repair the harnesses or connectors.

4. CHECK LIGHT & RAIN SENSOR POWER SUPPLY SHORT CIRCUIT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	1		Not existed

Does continuity exist?

- YES >> Repair the harnesses or connectors.
NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

5. CHECK LIGHT & RAIN SENSOR SIGNAL OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R13	2	M66	17	Existed

Does continuity exist?

- YES >> GO TO 6.
NO >> Repair the harnesses or connectors.

6. CHECK LIGHT & RAIN SENSOR SIGNAL SHORT CIRCUIT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	2		Not existed

Does continuity exist?

- YES >> Repair the harnesses or connectors.
NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

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LIGHT & RAIN SENSOR

< COMPONENT DIAGNOSIS >

[XENON TYPE]

7. CHECK LIGHT & RAIN SENSOR GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	3		Existed

Does continuity exist?

- YES >> Replace the light & rain sensor.
NO >> Repair the harnesses or connectors.

HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HAZARD SWITCH

Component Function Check

INFOID:000000001188695

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT-III

CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "HAZARD SW" of BCM (FLASHER) data monitor item.
3. With operating the hazard switch, check the monitor status.

Monitor item	Condition		Monitor status
HAZARD SW	Hazard switch	ON	On
		OFF	Off

Is the item status normal?

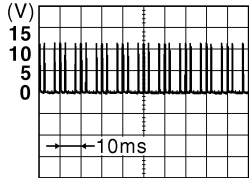
- YES >> Hazard switch circuit is normal.
NO >> Refer to [EXL-75, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188696

1.CHECK HAZARD SWITCH SIGNAL INPUT

With operating the hazard switch, check the voltage between the BCM harness connector and the ground.

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
BCM		Hazard switch	0 V
Connector	Terminal		
M65	8	ON	
		OFF	

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Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).
NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the hazard switch connector and BCM connector.
3. Check continuity between the hazard switch harness connector and the BCM harness connector.

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	3	M65	8	Existed

Does continuity exist?

- YES >> GO TO 3.
NO >> Repair the harnesses or connectors.

3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

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EXL

HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	3		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

4.CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	2		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:000000001188697

1.CHECK TAIL LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the tail lamp is turned ON.

TAIL : Tail lamp ON
Off : Tail lamp OFF

Is the tail lamp turned ON?

- YES >> Tail lamp circuit is normal.
 NO >> Refer to [EXL-77, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188698

1.CHECK TAIL LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"> • Tail lamp • License plate lamp 	IPDM E/R	#49	10 A

Is the fuse fusing?

- YES >> Repair the malfunctioning part before replacing the fuse.
 NO >> GO TO 2.

2.CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the rear combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.
4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals		Test item	Voltage (Approx.)
(+)	(-)		
IPDM E/R		EXTERNAL LAMP	Voltage (Approx.)
Connector	Terminal		
E13	38	TAIL	Battery voltage
		Off	0 V

Is the measurement value normal?

- YES >> GO TO 3.
 NO >> Replace IPDM E/R.

3.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.

TAIL LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

3. Check continuity between the IPDM E/R harness connector and the rear combination lamp harness connector.

IPDM E/R		Rear combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E13	38	B59	2	Existed
LH			B80	2	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TAIL LAMP GROUND OPEN CIRCUIT

Check continuity between the rear combination lamp harness connector and the ground.

Rear combination lamp			Ground	Continuity
Connector	Terminal			
RH	B59	4		Existed
LH	B80	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

LICENSE PLATE LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

INFOID:000000001188699

NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON.

1.CHECK LICENSE PLATE LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the lighting switch, check that the license plate lamp is turned ON.

TAIL : License plate lamp ON

Off : License plate lamp OFF

Is the license plate lamp turned ON?

- YES >> License plate lamp circuit is normal.
NO >> Refer to [EXL-79, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188700

1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 2.
NO >> Replace the bulb.

2.CHECK LICENSE PLATE LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector and the license plate lamp connector.
3. Check continuity between the IPDM E/R harness connector and the license plate lamp harness connector.

IPDM E/R		License plate lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E13	38	D185	1	Existed
LH			D184	1	

Does continuity exist?

- YES >> GO TO 3.
NO >> Repair the harnesses or connectors.

3.CHECK LICENSE PLATE LAMP GROUND OPEN CIRCUIT

Check continuity between the license plate lamp harness connector and the ground.

License plate lamp			Ground	Continuity
Connector	Terminal			
RH	D185	2	Existed	
LH	D184	2		

Does continuity exist?

- YES >> Replace the license plate lamp.
NO >> Repair the harnesses or connectors.

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EXL

REAR FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

REAR FOG LAMP CIRCUIT

Component Function Check

INFOID:000000001188701

1. CHECK REAR FOG LAMP OPERATION

CONSULT-III ACTIVE TEST

1. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
2. With operating the test items, check that the rear fog lamp is turned ON.

On : Rear fog lamp ON

Off : Rear fog lamp OFF

Is rear fog lamp turned ON?

- YES >> Rear fog lamp circuit is normal.
 NO >> Refer to [EXL-80, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188702

1. CHECK REAR FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 2.
 NO >> Replace the bulb.

2. CHECK REAR FOG LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the rear fog lamp connector.
3. Turn the ignition switch ON.
4. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
5. With operating the test items, check voltage between BCM harness connector and ground.

Terminals		Test item	Voltage (approx.)
(+)	(-)		
BCM		RR FOG LAMP	
Connector	Terminal		
M66	49	On	12 V
		Off	0 V

Is the measurement value normal?

- YES >> GO TO 3.
 NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

3. CHECK REAR FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and rear fog lamp harness connector.

BCM		Rear fog lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	49	B90	1	Existed

Does continuity exist?

- YES >> GO TO 4.
 NO >> Repair the harnesses or connectors.

REAR FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

4. CHECK REAR FOG LAMP SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	49		Not existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

5. CHECK REAR FOG LAMP GROUND OPEN CIRCUIT

Check continuity between rear fog lamp harness connector and ground.

Rear fog lamp		Ground	Continuity
Connector	Terminal		
B90	2		Existed

Does continuity exist?

YES >> Replace the rear fog lamp.

NO >> Repair the harnesses or connectors.

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HEADLAMP SYSTEM

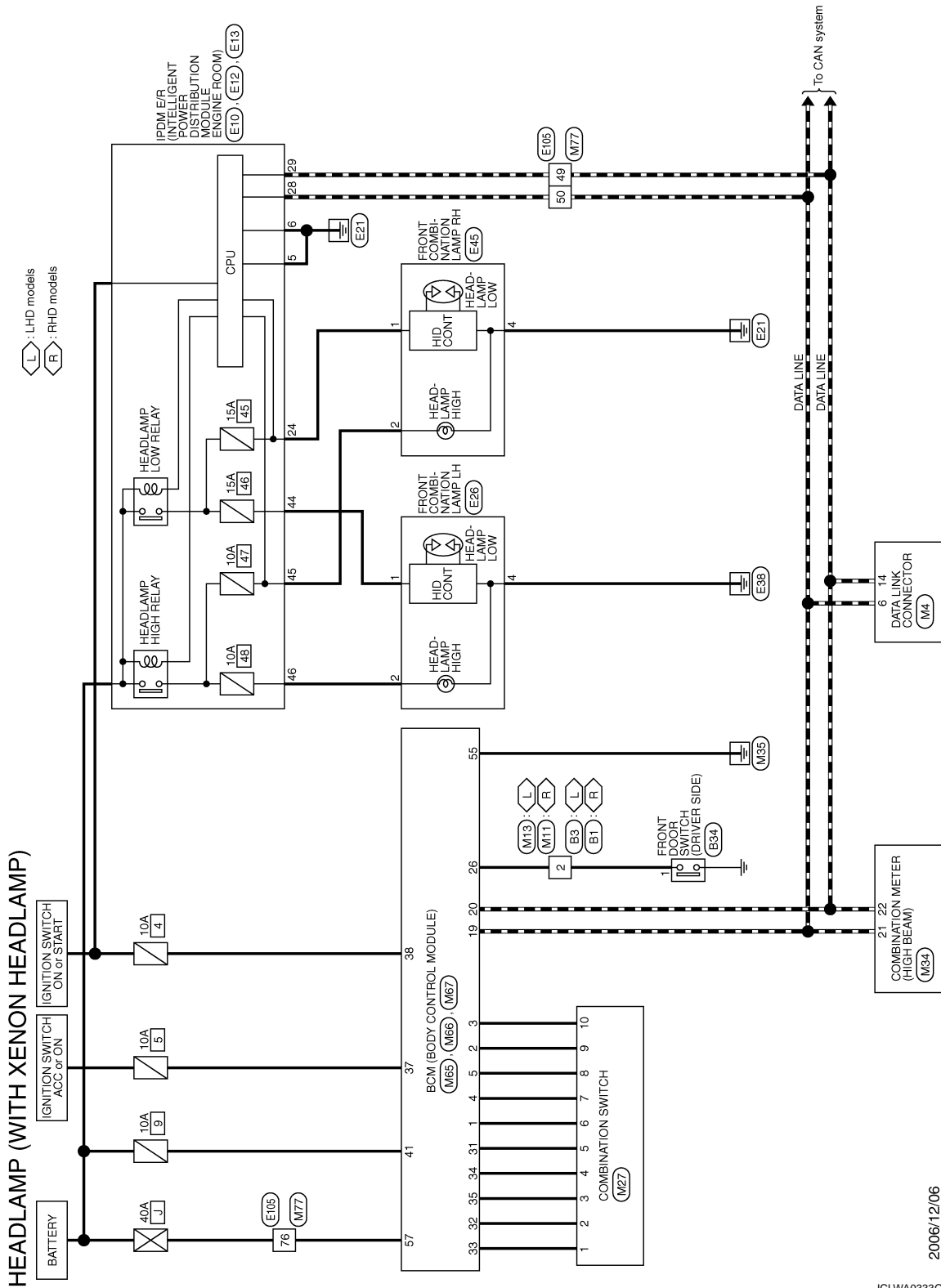
< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -

INFOID:000000001188703



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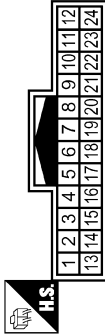
HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (WITH XENON HEADLAMP)

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



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

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



Terminal No.	2	Color of Wire	R/W	Signal Name [Specification]	-[LHD models]
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Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG2FW



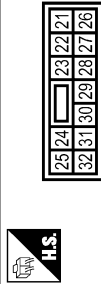
Terminal No.	1	Color of Wire	R/W	Signal Name [Specification]	-
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Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MO8FE-LC



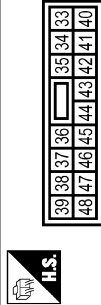
Terminal No.	5	Color of Wire	B	Signal Name [Specification]	-
Terminal No.	6	Color of Wire	B	Signal Name [Specification]	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-GS



Terminal No.	24	Color of Wire	R/Y	Signal Name [Specification]	-
Terminal No.	28	Color of Wire	L	Signal Name [Specification]	-
Terminal No.	29	Color of Wire	P	Signal Name [Specification]	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-GS



Terminal No.	44	Color of Wire	L	Signal Name [Specification]	-
Terminal No.	45	Color of Wire	L/W	Signal Name [Specification]	-
Terminal No.	46	Color of Wire	G	Signal Name [Specification]	-

Connector No.	E26
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	AMP 85360D-1



Terminal No.	1	Color of Wire	L	Signal Name [Specification]	-
Terminal No.	2	Color of Wire	G	Signal Name [Specification]	-
Terminal No.	4	Color of Wire	B	Signal Name [Specification]	-

Connector No.	E45
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 85360D-1



Terminal No.	1	Color of Wire	R/Y	Signal Name [Specification]	-
Terminal No.	2	Color of Wire	L/W	Signal Name [Specification]	-
Terminal No.	4	Color of Wire	B	Signal Name [Specification]	-

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HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

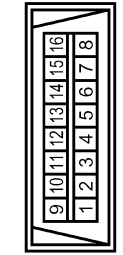
HEADLAMP (WITH XENON HEADLAMP)

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH30MW-AS16-TM4



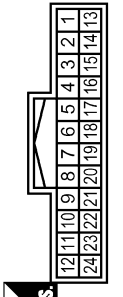
Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

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



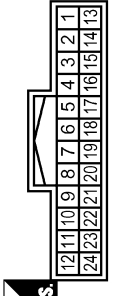
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

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



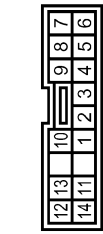
Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-[RHD models]

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



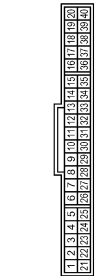
Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-[LHD models]

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



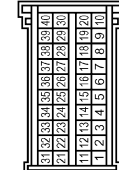
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT1
2	G	INPUT2
3	L	INPUT3
4	GR	INPUT4
5	BR	INPUT5
6	P	OUTPUT1
7	R	OUTPUT2
8	W	OUTPUT5
9	Y	OUTPUT4
10	LG	OUTPUT3

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



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

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4QFB



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

Terminal No.	34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3	
37	R	ACC SW	
38	W	IGN SW	

HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

HEADLAMP (WITH XENON HEADLAMP)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21IPG122S1017



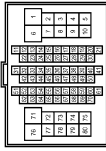
Terminal No.	Color of Wire	Signal Name (Specification)
41	V	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21IPG083S0017



Terminal No.	Color of Wire	Signal Name (Specification)
55	B	GND(POWER)
57	Y	BAT(F/L)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
49	P	-
50	L	-
76	Y	-

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AUTO LIGHT SYSTEM

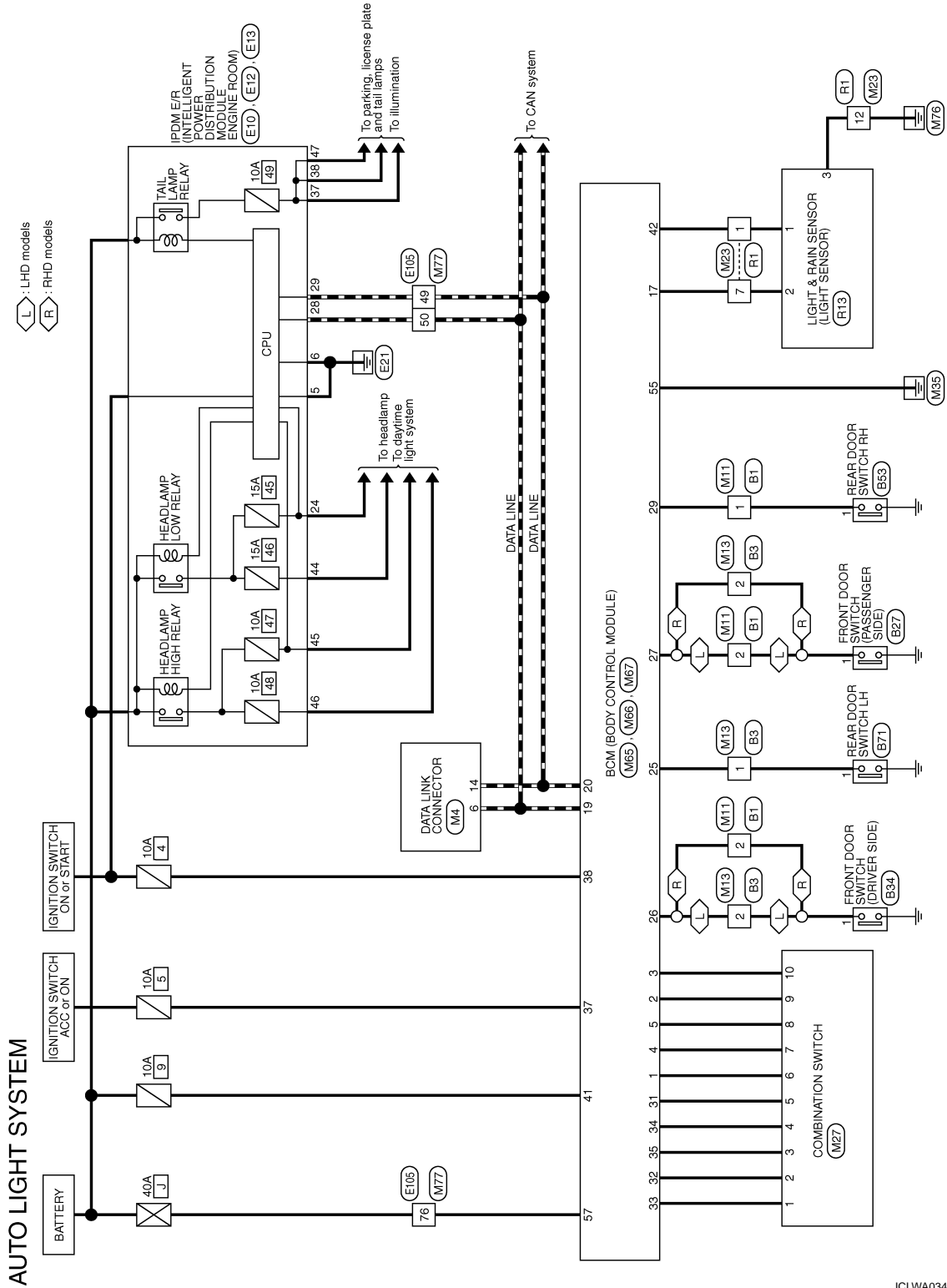
< COMPONENT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

Wiring Diagram - AUTO LIGHT SYSTEM -

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B1</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH24MW</td></tr> </table>	Connector No.	B1	Connector Name	WIRE TO WIRE	Connector Type	TH24MW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td></tr> <tr><td>2</td><td>BR</td></tr> <tr><td>2</td><td>R/W</td></tr> </table>	Terminal No.	Signal Name [Specification]	1	LG	2	BR	2	R/W	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> <tr><td>2</td><td>BR</td><td>- [LHD models]</td></tr> <tr><td>2</td><td>R/W</td><td>- [RHD models]</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-	2	BR	- [LHD models]	2	R/W	- [RHD models]				
Connector No.	B1																																
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B3</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH24MW</td></tr> </table>	Connector No.	B3	Connector Name	WIRE TO WIRE	Connector Type	TH24MW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> <tr><td>2</td><td>R/W</td><td>- [LHD models]</td></tr> <tr><td>2</td><td>BR</td><td>- [RHD models]</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-	2	R/W	- [LHD models]	2	BR	- [RHD models]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> <tr><td>2</td><td>R/W</td><td>- [LHD models]</td></tr> <tr><td>2</td><td>BR</td><td>- [RHD models]</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-	2	R/W	- [LHD models]	2	BR	- [RHD models]
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B7</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (PASSENGER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B7	Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>BR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	BR	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>BR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	BR	-												
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1	BR	-																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B34</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (DRIVER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B34	Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>R/W</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/W	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>R/W</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/W	-												
Connector No.	B34																																
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B53</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH RH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B53	Connector Name	REAR DOOR SWITCH RH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-												
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B71</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH LH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B71	Connector Name	REAR DOOR SWITCH LH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-												
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Connector Type	A03FW																																
Terminal No.	Color of Wire	Signal Name [Specification]																															
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E10</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>M08FE-LC</td></tr> </table>	Connector No.	E10	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	M08FE-LC		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> <tr><td>6</td><td>B</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	5	B	-	6	B	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> <tr><td>6</td><td>B</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	5	B	-	6	B	-						
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Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																
Connector Type	NS12FW-GS																																
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Terminal No.	Color of Wire	Signal Name [Specification]																															
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28	L	-																															
29	P	-																															

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

AUTO LIGHT SYSTEM

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

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

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

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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH30MW-NS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
76	Y	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS

Terminal No.	Color of Wire	Signal Name [Specification]
37	R/W	-
38	R/L	-
44	L	-
45	L/W	-
46	G	-
47	R/L	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW

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

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
7	BR	-
12	B	-

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

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

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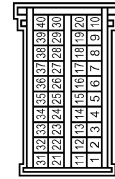
AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

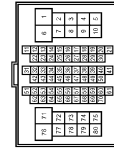
AUTO LIGHT SYSTEM

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4DFB



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	COMBI SW OUTPUT 1
2	Y	COMBI SW OUTPUT 4
3	LG	COMBI SW OUTPUT 3
4	R	COMBI SW OUTPUT 2
5	W	COMBI SW OUTPUT 5
17	BR	LIGHT & RAIN SENS
18	L	CAN-H
20	P	CAN-L
25	GR	DOOR SW (RL)
26	R	DOOR SW (DR)
27	BR	DOOR SW (AS)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	THR3FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

29	LG	DOOR SW (RR)
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F USE)
42	V	ROOM LAMP POWER SUPPLY

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AMP 988705F-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	HIG
2	BR	SIG
3	B	GND

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC063S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

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DAYTIME RUNNING LIGHT SYSTEM

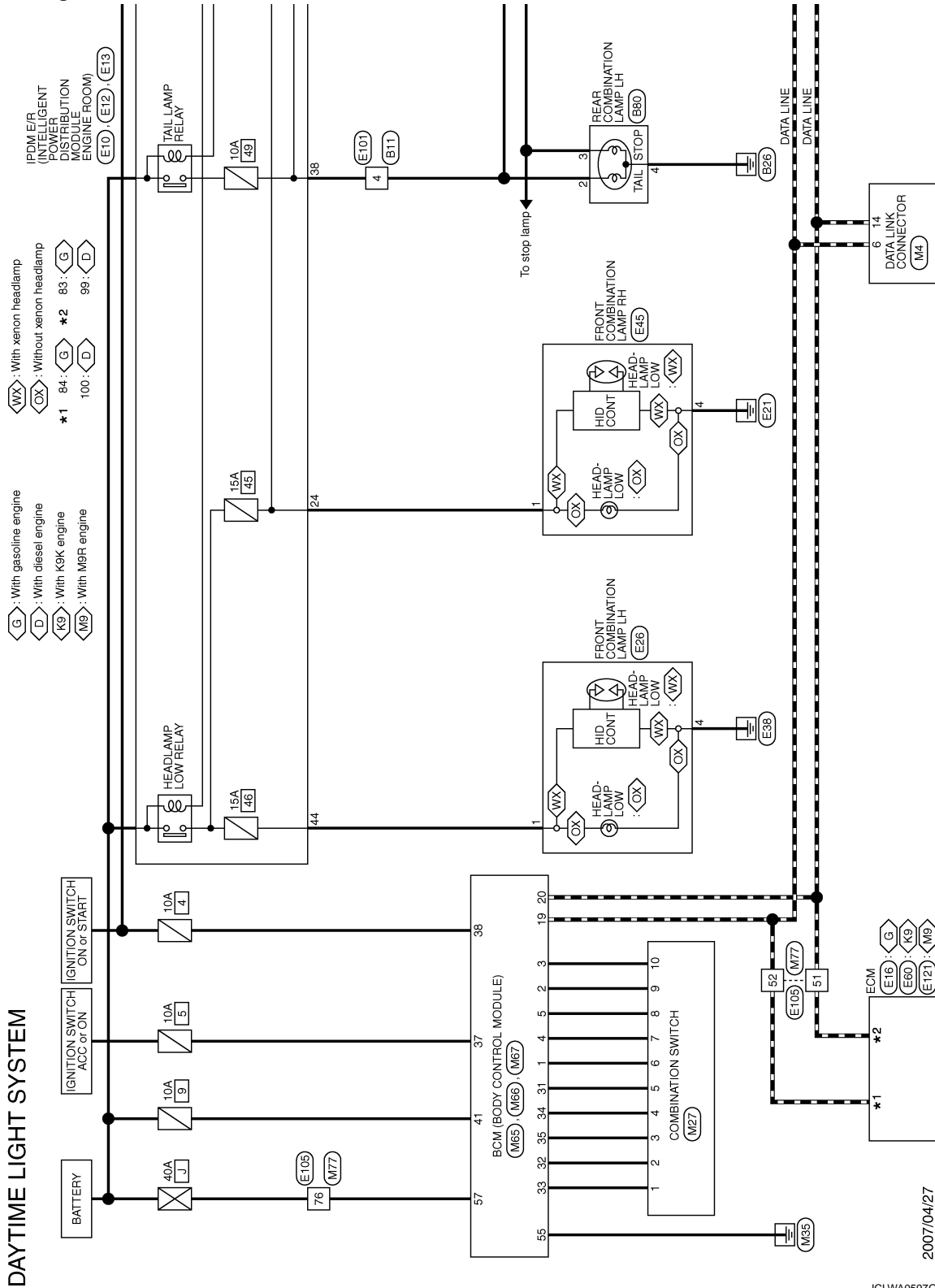
< COMPONENT DIAGNOSIS >

[XENON TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -

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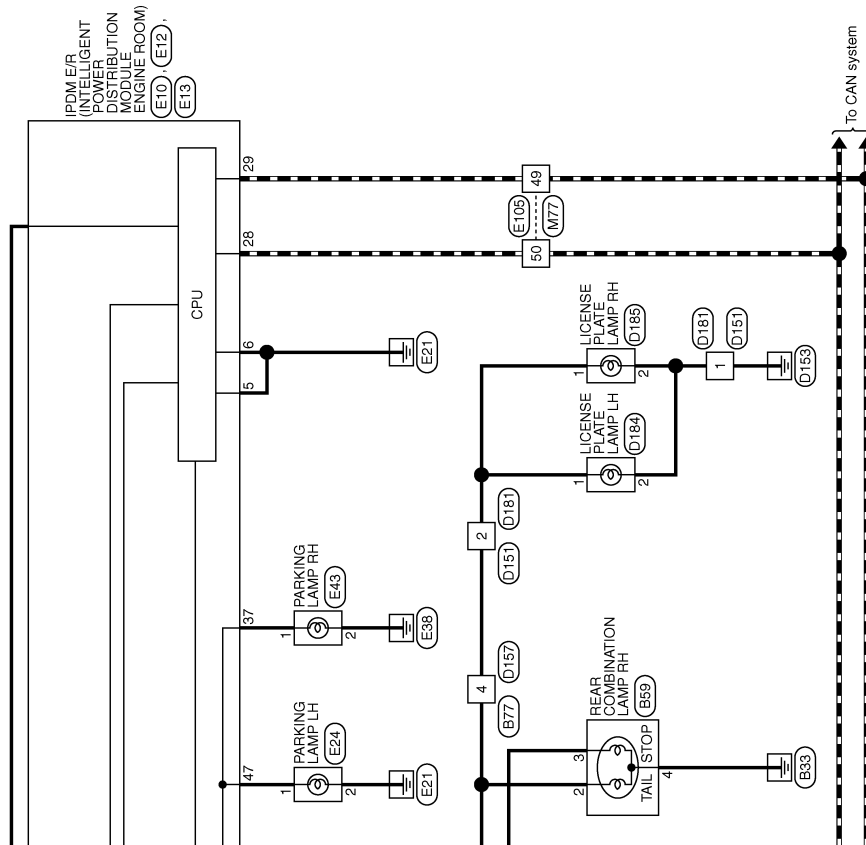
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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

DAYTIME LIGHT SYSTEM

Connector No. B11 Connector Name WIRE TO WIRE Connector Type TK DMW-NS8	FCI 21P-0042S4021	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	Terminal No. 4 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. B58 Connector Name REAR COMBINATION LAMP RH Connector Type FCI 21P-0042S4021	FCI 21P-0042S4021	1 2 3 4	Terminal No. 2 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. B77 Connector Name WIRE TO WIRE Connector Type TH08FW	TH08FW	4 3 2 1 8 7 6 5	Terminal No. 4 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. B80 Connector Name REAR COMBINATION LAMP LH Connector Type FCI 21P-0042S4021	FCI 21P-0042S4021	1 2 3 4	Terminal No. 2 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. D151 Connector Name WIRE TO WIRE Connector Type TH08MW	TH08MW	1 2 3 4 5 6 7 8	Terminal No. 4 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. D157 Connector Name WIRE TO WIRE Connector Type TH08MW	TH08MW	1 2 3 4 5 6 7 8	Terminal No. 4 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. D181 Connector Name WIRE TO WIRE Connector Type TH08FW	TH08FW	4 3 2 1 8 7 6 5	Terminal No. 2 Color B Signal Name [Specification]	Color R/L Signal Name [Specification]
Connector No. D184 Connector Name LICENSE PLATE LAMP LH Connector Type TRW 3029423100D	TRW 3029423100D	2 1	Terminal No. 1 Color R/L Signal Name [Specification]	Color R/L Signal Name [Specification]

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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

DAYTIME LIGHT SYSTEM

Connector No.	D185
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TRW 3020423100D



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

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



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

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
24	R/Y	-
28	L	-
29	P	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
37	R/W	-
38	R/L	-
44	L	-
47	R/L	-

Connector No.	E18
Connector Name	ECM
Connector Type	MAA24FE-MEA8-LH



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

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	RH02FB



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

Connector No.	E26
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	AMP 85360D-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
4	B	-

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	RH02FB



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

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DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

DAYTIME LIGHT SYSTEM

Connector No.	E48
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 953900-1



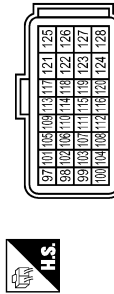
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	-
4	B	-

Connector No.	E60
Connector Name	ECM
Connector Type	MAA2FEB-MEA8-LH



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

Connector No.	E121
Connector Name	ECM
Connector Type	MAA2FEB-MEA8-LH



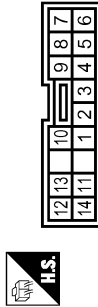
Terminal No.	Color of Wire	Signal Name [Specification]
98	P	MAIN CAN-L (BODY)
100	L	MAIN CAN-H (BODY)

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-MS8



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
51	P	-
52	L	-
76	Y	-

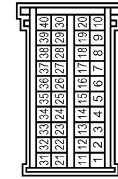
DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

DAYTIME LIGHT SYSTEM

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4DFB



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6JFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
51	P	-
52	L	-
76	Y	-

35	L	COMBI SW INPUT 3
37	R	ACG SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F USE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211PC063S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

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FRONT FOG LAMP SYSTEM

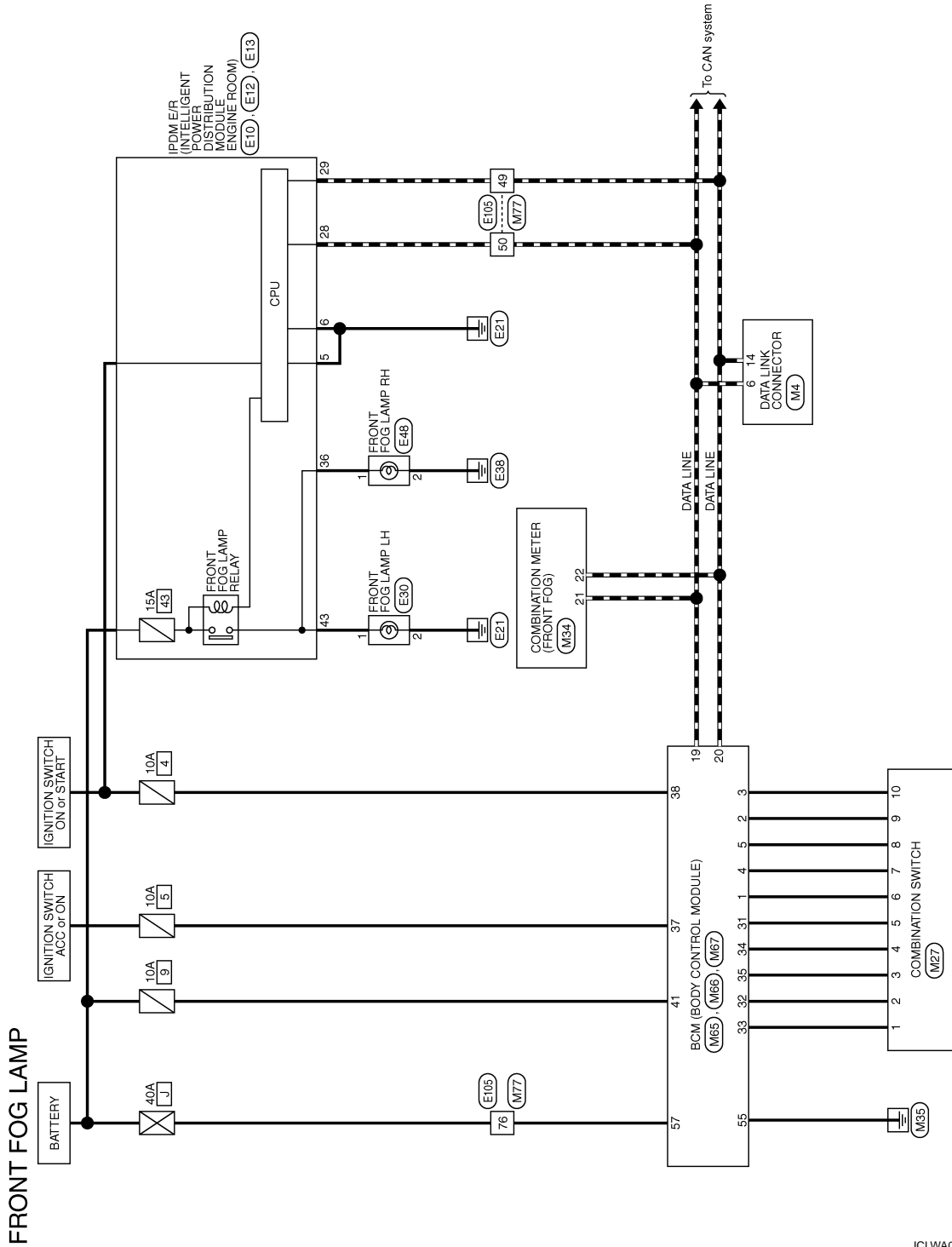
< COMPONENT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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2006/12/08

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FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

Connector No.	E10
Connector Name	FPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FE-LC



5	4	3
8	7	6

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

Connector No.	E12
Connector Name	FPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



29	24	23	22	21
32	31	30	29	28
27	26			

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

Connector No.	E13
Connector Name	FPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



39	38	37	36	35	34	33
48	47	46	45	44	43	42
41	40					

Terminal No.	Color of Wire	Signal Name [Specification]
36	W	-
43	W/B	-

Connector No.	E30
Connector Name	FRONT FOG LAMP LH
Connector Type	FCI240P0203S4019



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

Connector No.	E48
Connector Name	FRONT FOG LAMP RH
Connector Type	FCI240P0203S4019



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH03MW-NS16-TM4



1	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192	200	208	216	224	232	240
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Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

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



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

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

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



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

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

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FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

FRONT FOG LAMP

Connector No.	M64
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



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

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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC68S0017



60	63	68	67	66	65	64	63
----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84QFB



31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
1	2	3	4	5	6	7	8	9	10

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

Connector No.	M77
Connector Name	WIPE TO WIRE
Connector Type	TH60PW-NS16-TM4



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

Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC12S1017



52	51	50	49	48	47	46	45	44	43	42	41
----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F/USE)

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

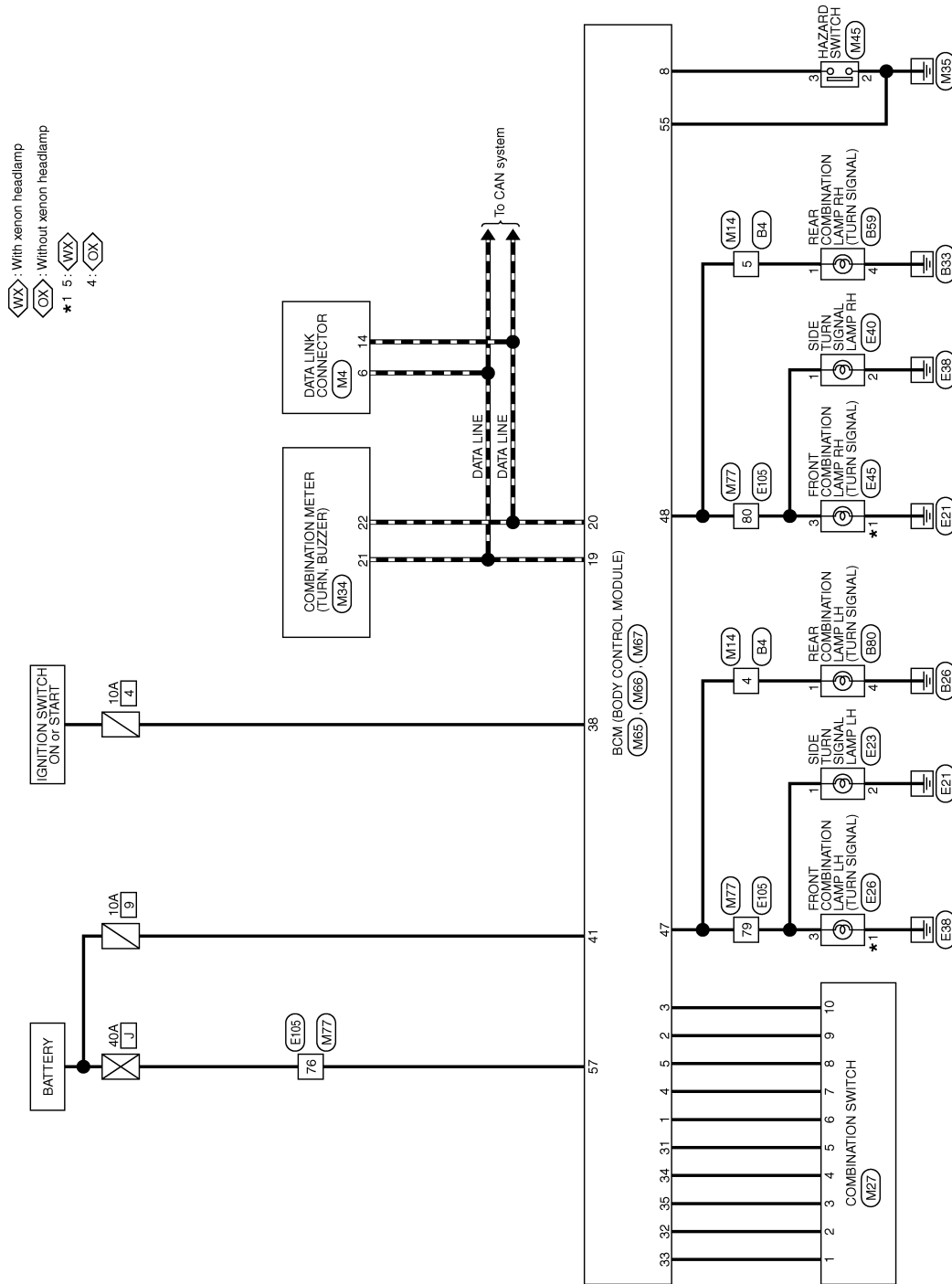
[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMPS



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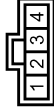












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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

<table border="1"> <tr><td>Connector No.</td><td>B4</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>NS08MW-GS</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>4</td><td>BR</td><td>-</td></tr> <tr><td>5</td><td>G/B</td><td>-</td></tr> </table>	Connector No.	B4	Connector Name	WIRE TO WIRE	Connector Type	NS08MW-GS	Terminal No.	Color of Wire	Signal Name [Specification]	4	BR	-	5	G/B	-	<table border="1"> <tr><td>Connector No.</td><td>B5B</td></tr> <tr><td>Connector Name</td><td>REAR COMBINATION LAMP RH</td></tr> <tr><td>Connector Type</td><td>FCI 21P-C042S4021</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>G/B</td><td>-</td></tr> <tr><td>4</td><td>B</td><td>-</td></tr> </table>	Connector No.	B5B	Connector Name	REAR COMBINATION LAMP RH	Connector Type	FCI 21P-C042S4021	Terminal No.	Color of Wire	Signal Name [Specification]	1	G/B	-	4	B	-	<table border="1"> <tr><td>Connector No.</td><td>B80</td></tr> <tr><td>Connector Name</td><td>REAR COMBINATION LAMP LH</td></tr> <tr><td>Connector Type</td><td>FCI 21P-C042S4021</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>BR</td><td>-</td></tr> <tr><td>4</td><td>B</td><td>-</td></tr> </table>	Connector No.	B80	Connector Name	REAR COMBINATION LAMP LH	Connector Type	FCI 21P-C042S4021	Terminal No.	Color of Wire	Signal Name [Specification]	1	BR	-	4	B	-	<table border="1"> <tr><td>Connector No.</td><td>E23</td></tr> <tr><td>Connector Name</td><td>SIDE TURN SIGNAL LAMP LH</td></tr> <tr><td>Connector Type</td><td>TRW 30242310DD</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>G/Y</td><td>-</td></tr> <tr><td>2</td><td>B</td><td>-</td></tr> </table>	Connector No.	E23	Connector Name	SIDE TURN SIGNAL LAMP LH	Connector Type	TRW 30242310DD	Terminal No.	Color of Wire	Signal Name [Specification]	1	G/Y	-	2	B	-									
Connector No.	B4																																																																							
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Terminal No.	Color of Wire	Signal Name [Specification]																																																																						
4	BR	-																																																																						
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Connector Type	FCI 21P-C042S4021																																																																							
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1	G/B	-																																																																						
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Terminal No.	Color of Wire	Signal Name [Specification]																																																																						
1	BR	-																																																																						
4	B	-																																																																						
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Connector Name	SIDE TURN SIGNAL LAMP LH																																																																							
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1	G/Y	-																																																																						
2	B	-																																																																						
<table border="1"> <tr><td>Connector No.</td><td>E28</td></tr> <tr><td>Connector Name</td><td>FRONT COMBINATION LAMP LH</td></tr> <tr><td>Connector Type</td><td>AMP 935600-1</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>3</td><td>G/Y</td><td>-</td></tr> <tr><td>4</td><td>B</td><td>-</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> </table>	Connector No.	E28	Connector Name	FRONT COMBINATION LAMP LH	Connector Type	AMP 935600-1	Terminal No.	Color of Wire	Signal Name [Specification]	3	G/Y	-	4	B	-	5	B	-	<table border="1"> <tr><td>Connector No.</td><td>E40</td></tr> <tr><td>Connector Name</td><td>SIDE TURN SIGNAL LAMP RH</td></tr> <tr><td>Connector Type</td><td>TRW 30242310DD</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>G/B</td><td>-</td></tr> <tr><td>2</td><td>B</td><td>-</td></tr> </table>	Connector No.	E40	Connector Name	SIDE TURN SIGNAL LAMP RH	Connector Type	TRW 30242310DD	Terminal No.	Color of Wire	Signal Name [Specification]	1	G/B	-	2	B	-	<table border="1"> <tr><td>Connector No.</td><td>E45</td></tr> <tr><td>Connector Name</td><td>FRONT COMBINATION LAMP RH</td></tr> <tr><td>Connector Type</td><td>AMP 935600-1</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>3</td><td>G/B</td><td>-</td></tr> <tr><td>4</td><td>B</td><td>-</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> </table>	Connector No.	E45	Connector Name	FRONT COMBINATION LAMP RH	Connector Type	AMP 935600-1	Terminal No.	Color of Wire	Signal Name [Specification]	3	G/B	-	4	B	-	5	B	-	<table border="1"> <tr><td>Connector No.</td><td>E105</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH60MW-NS16-TM4</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>76</td><td>Y</td><td>-</td></tr> <tr><td>79</td><td>G/Y</td><td>-</td></tr> <tr><td>80</td><td>G/B</td><td>-</td></tr> </table>	Connector No.	E105	Connector Name	WIRE TO WIRE	Connector Type	TH60MW-NS16-TM4	Terminal No.	Color of Wire	Signal Name [Specification]	76	Y	-	79	G/Y	-	80	G/B	-
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76	Y	-																																																																						
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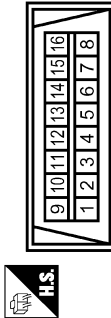
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

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



Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



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

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

Connector No.	M45
Connector Name	HAZARD SWITCH
Connector Type	CINCH REF 43S09EVANS (WHITE)



Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA840FB



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

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PCI22S1017



Terminal No.	Color of Wire	Signal Name [Specification]
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
38	W	IGN SW

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

Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(FUSE)
47	G/Y	FLASHER OUTPUT (LEFT)
48	G/B	FLASHER OUTPUT (RIGHT)

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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

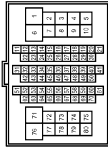
TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M67
Connector Name	SCM (BODY CONTROL MODULE)
Connector Type	FCI 21IP2083S0017



Terminal No.	Color of Wire	Signal Name (Specification)
55	B	GND(POWER)
57	Y	BAT(F/L)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6JFW-MS16-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
76	Y	-
79	BR	-
80	GR	-

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

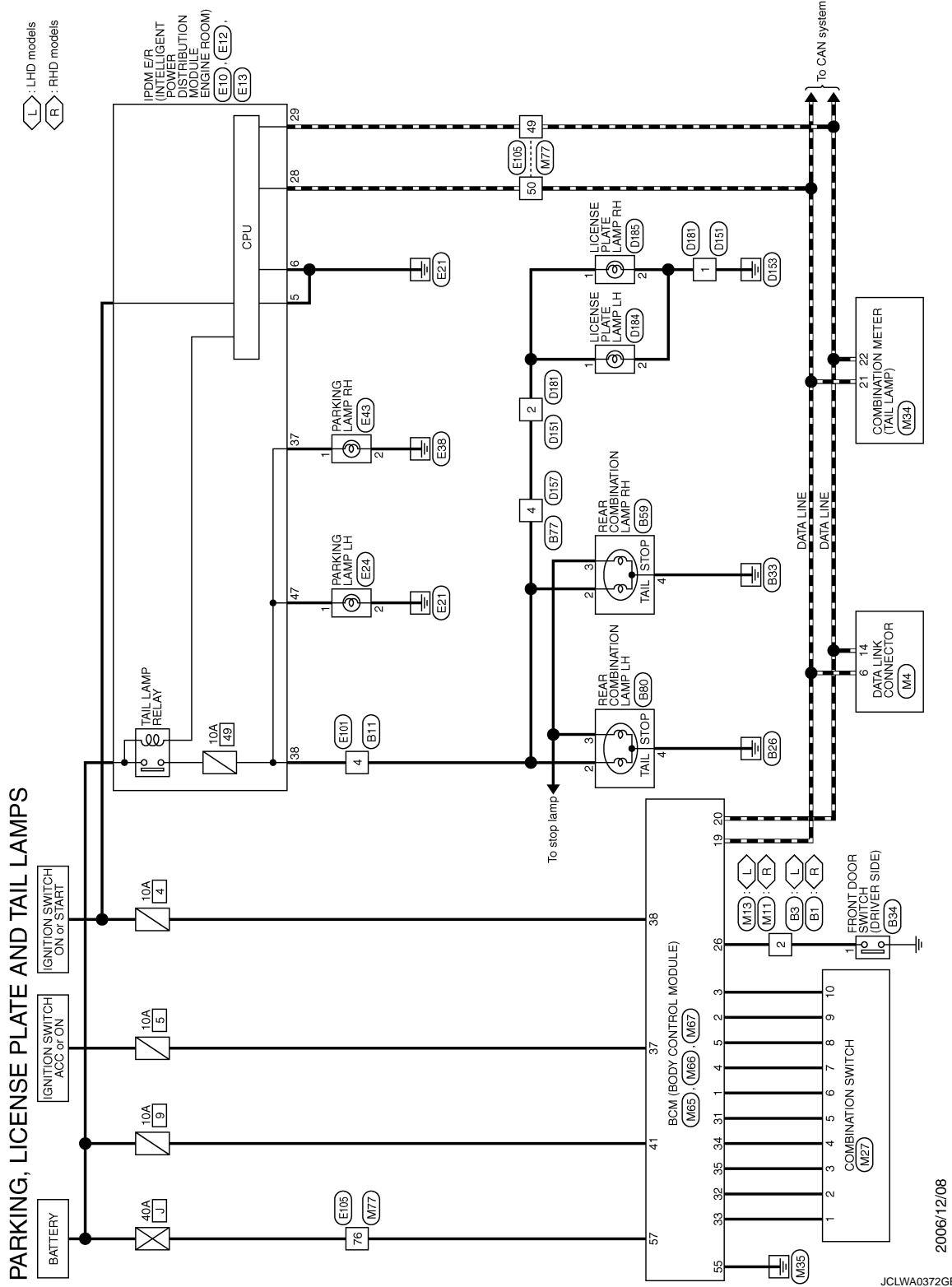
< COMPONENT DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -

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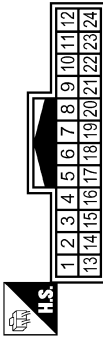
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

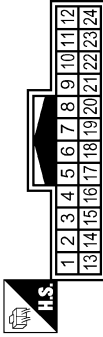
PARKING, LICENSE PLATE AND TAIL LAMPS

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



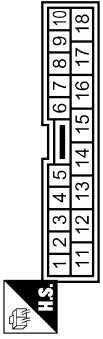
Terminal No.	2	R/W	Color of Wire	Signal Name [Specification]
				-[RHD models]

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



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

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



Terminal No.	4	R/L	Color of Wire	Signal Name [Specification]
				-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AC3FW



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

Connector No.	B89
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FCI 21PC042S4021



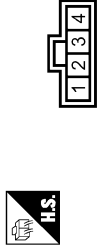
Terminal No.	2	R/L	Color of Wire	Signal Name [Specification]
	3	R/W		-
	4	B		-

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	TH88FW



Terminal No.	4	R/L	Color of Wire	Signal Name [Specification]
				-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FCI 21PC042S4021



Terminal No.	2	R/L	Color of Wire	Signal Name [Specification]
	3	R/W		-
	4	B		-

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	TH88MW



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

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

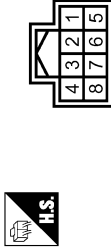
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	TH08BMW



Terminal No.	Color of Wire		Signal Name [Specification]
	R/L	B	
4			

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	TH08FW



Terminal No.	Color of Wire		Signal Name [Specification]
	B	R/L	
1			
2			

Connector No.	D184
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TRW_3020423100D



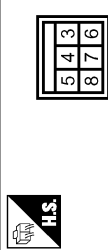
Terminal No.	Color of Wire		Signal Name [Specification]
	R/L	B	
1			
2			

Connector No.	D185
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TRW_3020423100D



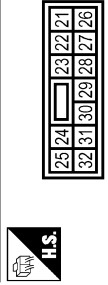
Terminal No.	Color of Wire		Signal Name [Specification]
	R/L	B	
1			
2			

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MD08PE-LC



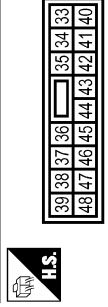
Terminal No.	Color of Wire		Signal Name [Specification]
	B	B	
5			
6			

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



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

Connector No.	E18
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-CS



Terminal No.	Color of Wire		Signal Name [Specification]
	R/W	R/L	
37			
38			
47			

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	RH02FB



Terminal No.	Color of Wire		Signal Name [Specification]
	R/L	B	
1			
2			

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	RH02FB



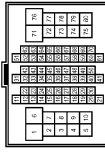
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/W	-
2	B	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS3



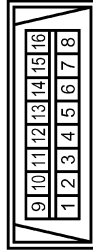
Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

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



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

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



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

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



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

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

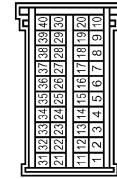
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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[XENON TYPE]

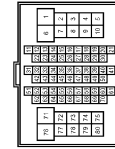
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4DFB



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	COMBI SW OUTPUT 1
2	Y	COMBI SW OUTPUT 4
3	LG	COMBI SW OUTPUT 3
4	R	COMBI SW OUTPUT 2
5	W	COMBI SW OUTPUT 5
6	L	CAN-H
7	P	CAN-L
8	R	DOOR SW (DR)
9	BR	COMBI SW INPUT 5
10	G	COMBI SW INPUT 2
11	V	COMBI SW INPUT 1

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6JFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW



Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F USE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211PC06S30017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

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STOP LAMP

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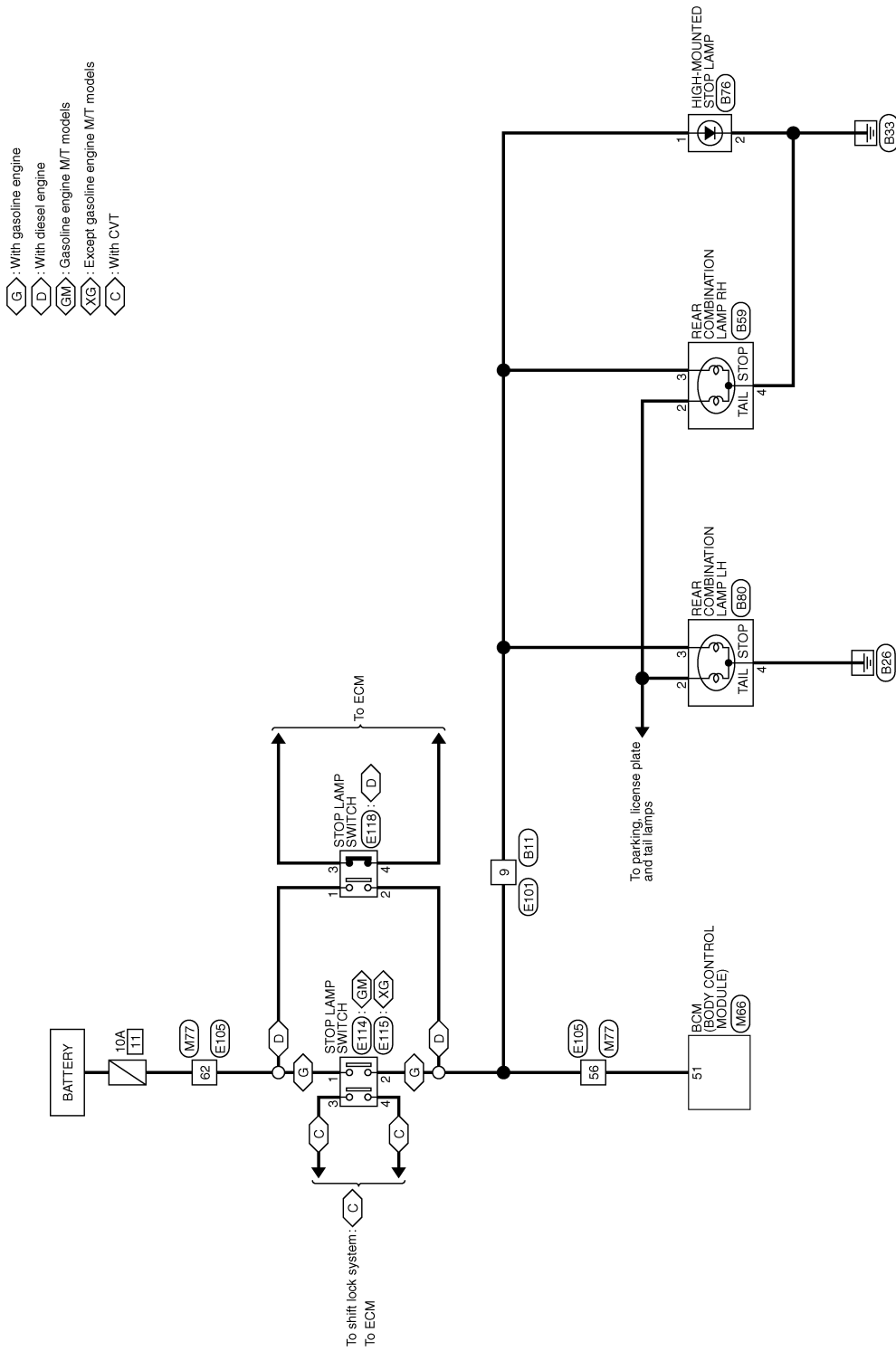
[XENON TYPE]

STOP LAMP

Wiring Diagram - STOP LAMP -

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STOP LAMP



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STOP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Connector No.	Connector Name	Connector Type	Terminal No.	Color of Wire	Signal Name [Specification]
B11	WIRE TO WIRE	TK DMW-NS8	9	R/W	
B58	REAR COMBINATION LAMP RH	FGI 21P0042S4021	2	R/L	
B76	HIGH-MOUNTED STOP LAMP	SICMA 11 7703297543	1	R/W	
B80	REAR COMBINATION LAMP LH	FGI 21P0042S4021	2	R/L	
E101	WIRE TO WIRE	TK DFW-NS8	9	R/W	
E105	WIRE TO WIRE	TH3DMW-NS16-TM4	56	R/W	
E114	STOP LAMP SWITCH	MD2FB	1	V	
E115	STOP LAMP SWITCH	MD4FW-LC	1	V	

Terminal No.	Color of Wire	Signal Name [Specification]
1	R/W	
2	R/L	
3	R/W	
4	B	

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	
2	R/W	
3	G	
4	B	

Terminal No.	Color of Wire	Signal Name [Specification]
56	R/W	
62	V	

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

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	
2	R/W	
3	G	
4	B	

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STOP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

STOP LAMP

Connector No.	E118
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



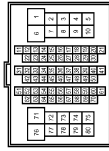
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	R/W	-
3	O	-
4	W/L	-

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211P12/S1017



Terminal No.	Color of Wire	Signal Name [Specification]
51	R/W	STOP LAMP SW [With Intelligent Key]
51	R	STOP LAMP SW [Without Intelligent Key]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6DFW-MS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
56	R	-[Except RHD models with Intelligent Key]
56	R/W	-[RHD models with Intelligent Key]
62	V	-

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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

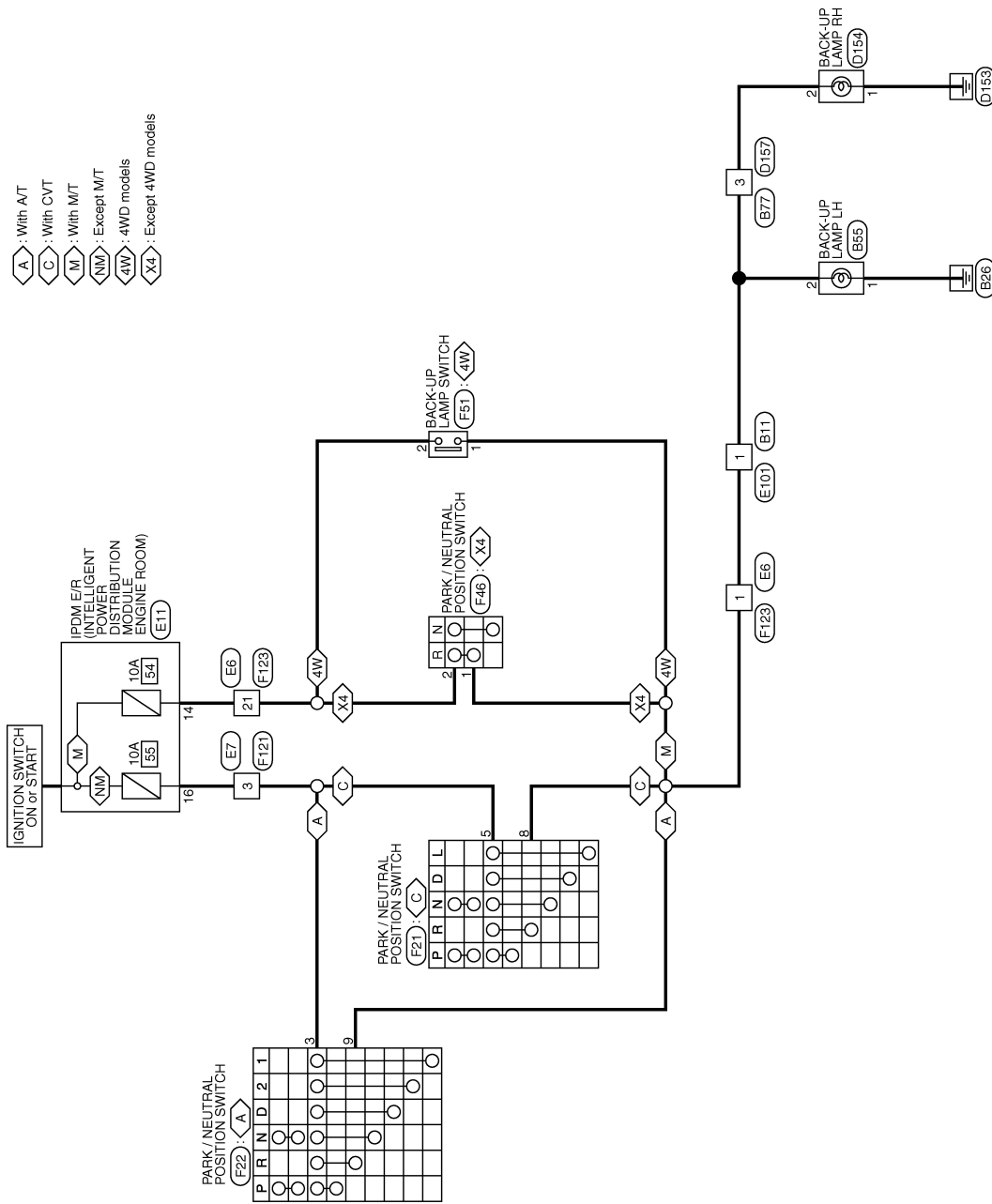
[XENON TYPE]

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

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BACK-UP LAMP



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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

<table border="1"> <tr><td>Connector No.</td><td>B11</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TK DMW-NS8</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>Y/G</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>Y/G</td><td></td></tr> </table>	Connector No.	B11	Connector Name	WIRE TO WIRE	Connector Type	TK DMW-NS8	Terminal No.	1	Y/G		Terminal No.	1	Y/G		<table border="1"> <tr><td>Connector No.</td><td>B55</td></tr> <tr><td>Connector Name</td><td>BACK-UP LAMP LH</td></tr> <tr><td>Connector Type</td><td>FCI 21P-C02ZS3049</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>B</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td><td>Y/G</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>B</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td><td>Y/G</td><td></td></tr> </table>	Connector No.	B55	Connector Name	BACK-UP LAMP LH	Connector Type	FCI 21P-C02ZS3049	Terminal No.	1	B		Terminal No.	2	Y/G		Terminal No.	1	B		Terminal No.	2	Y/G		<table border="1"> <tr><td>Connector No.</td><td>B77</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH08FW</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>3</td><td>Y/G</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>3</td><td>Y/G</td><td></td></tr> </table>	Connector No.	B77	Connector Name	WIRE TO WIRE	Connector Type	TH08FW	Terminal No.	3	Y/G		Terminal No.	3	Y/G		<table border="1"> <tr><td>Connector No.</td><td>D157</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH08MW</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>3</td><td>Y/G</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>3</td><td>Y/G</td><td></td></tr> </table>	Connector No.	D157	Connector Name	WIRE TO WIRE	Connector Type	TH08MW	Terminal No.	3	Y/G		Terminal No.	3	Y/G		<table border="1"> <tr><td>Connector No.</td><td>E6</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>FK24MW-1V</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>Y/G</td><td></td></tr> <tr><td>Terminal No.</td><td>21</td><td>R/B</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>1</td><td>Y/G</td><td></td></tr> <tr><td>Terminal No.</td><td>21</td><td>R/B</td><td></td></tr> </table>	Connector No.	E6	Connector Name	WIRE TO WIRE	Connector Type	FK24MW-1V	Terminal No.	1	Y/G		Terminal No.	21	R/B		Terminal No.	1	Y/G		Terminal No.	21	R/B		<table border="1"> <tr><td>Connector No.</td><td>E11</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS12FRF-CS</td></tr> </table>   <table border="1"> <tr><td>Terminal No.</td><td>14</td><td>R/B</td><td></td></tr> <tr><td>Terminal No.</td><td>16</td><td>Y/R</td><td></td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>14</td><td>R/B</td><td></td></tr> <tr><td>Terminal No.</td><td>16</td><td>Y/R</td><td></td></tr> </table>	Connector No.	E11	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS12FRF-CS	Terminal No.	14	R/B		Terminal No.	16	Y/R		Terminal No.	14	R/B		Terminal No.	16	Y/R	
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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

BACK-UP LAMP

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK1DFW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



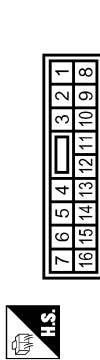
Terminal No.	Color of Wire	Signal Name [Specification]
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2	R/B	-

Connector No.	F21
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	RK08FG



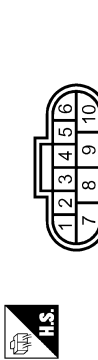
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y/R	-
8	Y/G	-

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-GS



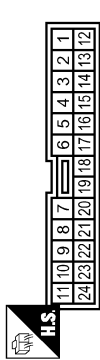
Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	-

Connector No.	F22
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	YD08FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	VIGN
9	Y/G	R RANGE SWITCH

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-
21	R/B	-

Connector No.	F46
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	FEA03FG



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

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REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

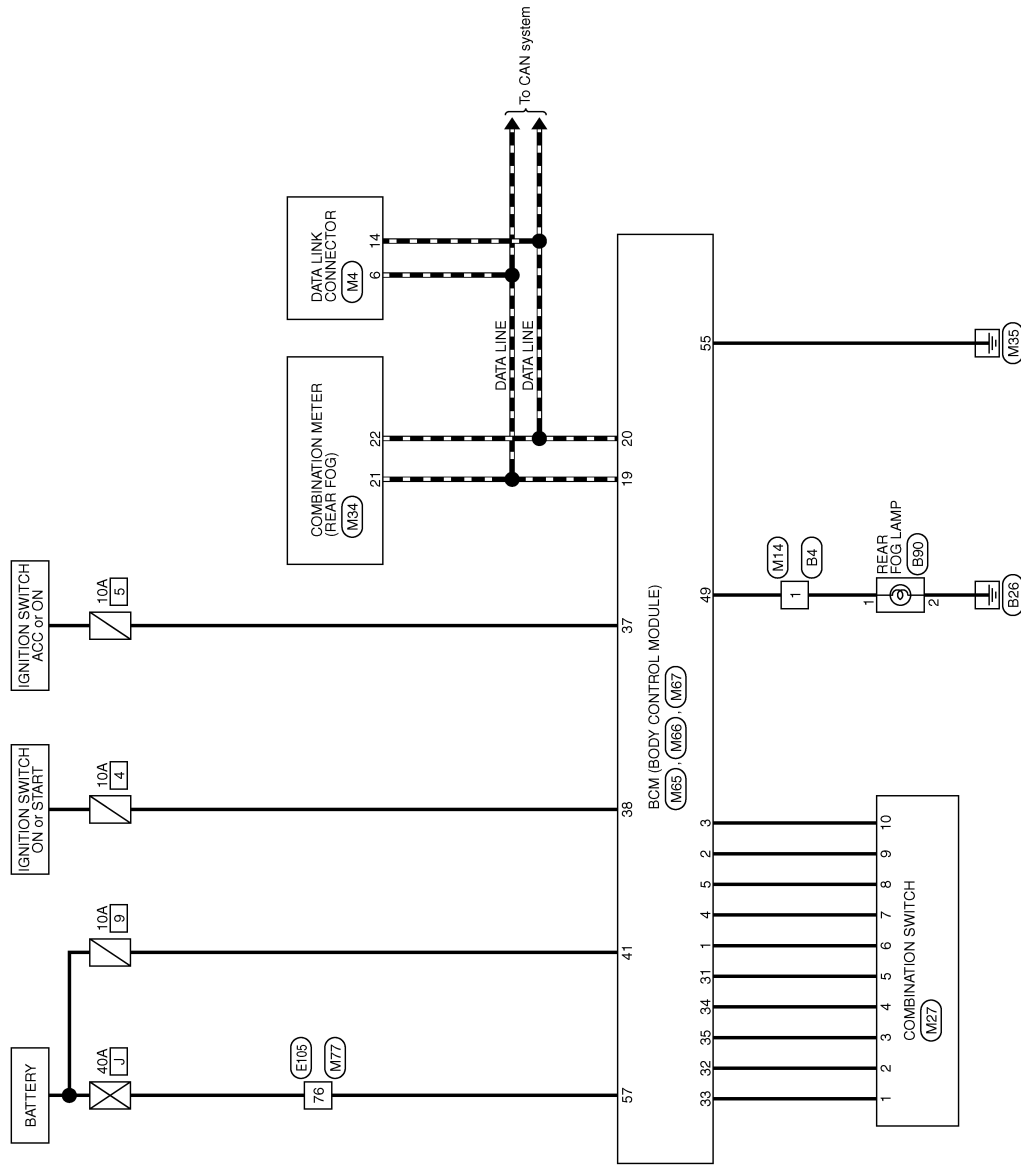
[XENON TYPE]

REAR FOG LAMP SYSTEM

Wiring Diagram - REAR FOG LAMP -

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REAR FOG LAMP



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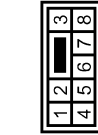
REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

REAR FOG LAMP

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-GS



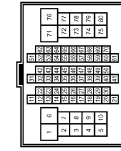
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-

Connector No.	B30
Connector Name	REAR FOG LAMP
Connector Type	FEA02FB



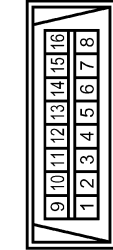
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	B	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



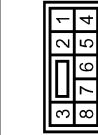
Terminal No.	Color of Wire	Signal Name [Specification]
76	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



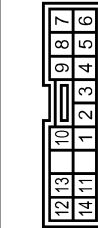
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-GS



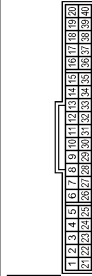
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



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

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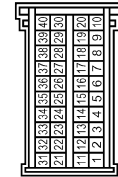
REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

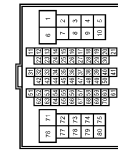
REAR FOG LAMP

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4CFB



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH63FW-NS16-TM4



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

35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F)USE
49	Y	REAR FOG LAMP

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC063S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F)L

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001527701

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AUT LIGHT SYS	Outside of the room is bright	Off
	Outside of the room is dark	On
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
AUTO RELOCK	Auto lock function does not operate	Off
	Auto lock function is operating	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
BATTERY VOLT NOTE: Diesel engine models only	Ignition switch ON	Approximately the same as power supply voltage
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Monitor Item	Condition	Value/Status	
ELEC PWR CUT NOTE: Diesel engine models only	Engine running	Fan switch ON (when engine coolant is cool) NOTE: Depending on the ambient temperature, battery voltage, etc.	Off
		The current status maintained with the signal from ECM received.	FREEZ
		<ul style="list-style-type: none"> • Fan switch OFF • Fan switch ON after engine warming UP NOTE: Depending on the engine coolant temperature, ambient temperature, battery voltage, etc.	INHBT
ENG COOLNT T NOTE: Diesel engine models only	Engine running	Approximately the same as water temperature gauge reading	
ENGINE RPM NOTE: Diesel engine models only	Engine running	Approximately the same as tachometer reading	
ENGINE RUN	Engine stopped	Off	
	Engine running	On	
ENGINE STATUS NOTE: Diesel engine models only	Engine stopped	STOP	
	While the engine stalls	STALL	
	Engine running	RUN	
	At engine cranking	CRA	
FAN ON SIG	Fan switch OFF	Off	
	Fan switch ON	On	
FR FOG SW	Front fog lamp switch OFF	Off	
	Front fog lamp switch ON	On	
FR WASHER SW	Front washer switch OFF	Off	
	Front washer switch ON	On	
FR WIPER LOW	Front wiper switch OFF	Off	
	Front wiper switch LO	On	
FR WIPER HI	Front wiper switch OFF	Off	
	Front wiper switch HI	On	
FR WIPER INT	Front wiper switch OFF	Off	
	Front wiper switch INT	On	
FR WIPER STOP	Any position other than front wiper stop position	Off	
	Front wiper stop position	On	
GLS BREAK SEN	The vehicle without glass break sensor	On	
	The vehicle with glass break sensor	Off	
HAZARD SW	When hazard switch is not pressed	Off	
	When hazard switch is pressed	On	
HD LIGHT TIME	—	Displays a setting time of the follow me home function set by the work support	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Monitor Item	Condition	Value/Status	
HEAD LAMP SW 1	Lighting switch OFF	Off	A
	Lighting switch 2ND	On	
HEAD LAMP SW 2	Lighting switch OFF	Off	B
	Lighting switch 2ND	On	
HI BEAM SW	Lighting switch OFF	Off	C
	Lighting switch HI	On	
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off	D
	Open the hood	On	
H/L WASH SW	NOTE: The item is indicated, but not monitored	Off	E
IGN ON SW	Ignition switch OFF or ACC	Off	F
	Ignition switch ON	On	
IGN SW CAN	Ignition switch OFF or ACC	Off	G
	Ignition switch ON	On	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	G
I-KEY LOCK	LOCK button of Intelligent Key is not pressed	Off	H
	LOCK button of Intelligent Key is pressed	On	
I-KEY UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off	I
	UNLOCK button of Intelligent Key is pressed	On	
KEY ON SW	Mechanical key is removed from key cylinder	Off	J
	Mechanical key is inserted to key cylinder	On	
KEYLESS LOCK	LOCK button of key fob is not pressed	Off	K
	LOCK button of key fob is pressed	On	
KEY LESS PANIC	NOTE: The item is indicated, but not monitored	Off	K
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off	L
	UNLOCK button of key fob is pressed	On	
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK	EXL
	Light & rain sensor is with internal error	NOT OK	
MEMORY 1	Key fob ID code is not registered in "Memory 1"	Off	M
	Key fob ID code is registered in "Memory 1"	On	
MEMORY 2	Key fob ID code is not registered in "Memory 2"	Off	N
	Key fob ID code is registered in "Memory 2"	On	
MEMORY 3	Key fob ID code is not registered in "Memory 3"	Off	O
	Key fob ID code is registered in "Memory 3"	On	
MEMORY 4	Key fob ID code is not registered in "Memory 4"	Off	P
	Key fob ID code is registered in "Memory 4"	On	
MEMORY 5	Key fob ID code is not registered in "Memory 5"	Off	P
	Key fob ID code is registered in "Memory 5"	On	
OIL PRESS SW	<ul style="list-style-type: none"> • Ignition switch OFF or ACC • Engine running 	Off	
	Ignition switch ON	On	
OUT SIDE TEMP NOTE: Diesel engine models	Ignition switch ON	Approximately the same as outside air temperature	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

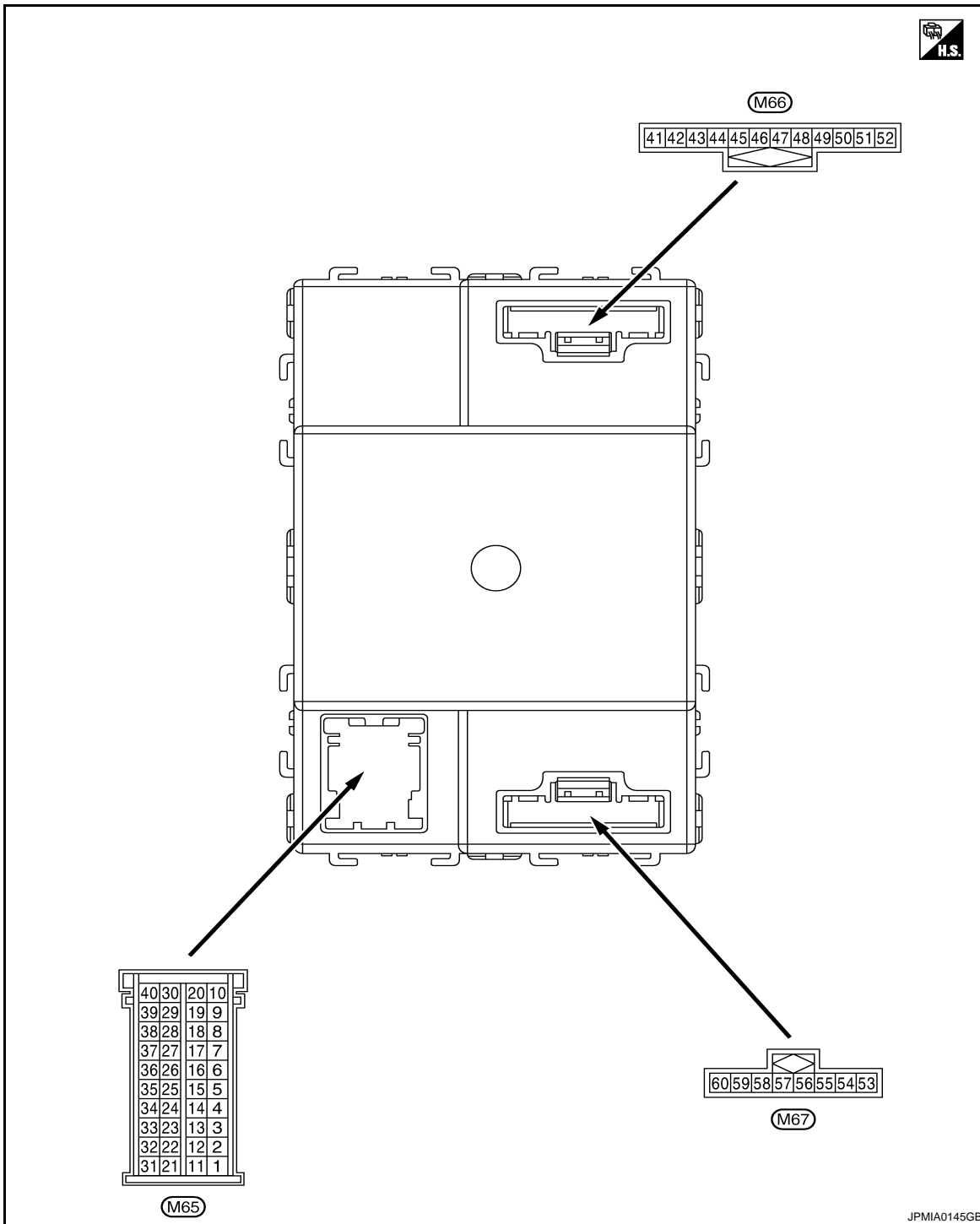
Monitor Item	Condition	Value/Status
PASSING SW	Other than lighting switch PASS	Off
	Lighting switch PASS	On
REVERSE SW CAN	Except selector lever R position	Off
	Selector lever R position	On
PUSH SW	Return to ignition switch to LOCK position	Off
	Press ignition switch	On
REAR DEF SW	Rear window defogger switch OFF	Off
	Rear window defogger switch ON	On
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
SHOCK SENSOR	Ignition switch ON	NOMAL
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
TAIL LAMP SW	Lighting switch OFF	Off
	Lighting switch 1ST	On
TRNK OPNR SW	When back door opener switch is not pressed	Off
	When back door opener switch is pressed	On
TURN SIGNAL L	Turn signal switch OFF	Off
	Turn signal switch LH	On
TURN SIGNAL R	Turn signal switch OFF	Off
	Turn signal switch RH	On
UNLOCK SHOCK	Other than the following	Off
	During the unlock operation interlocked with air bag	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

TERMINAL LAYOUT



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PHYSICAL VALUES

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to [BCS-27, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-10, "System Description"](#).

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

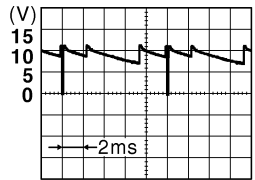
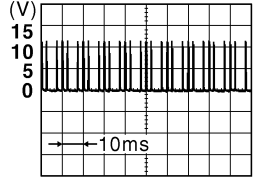
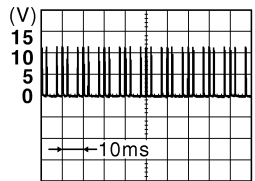
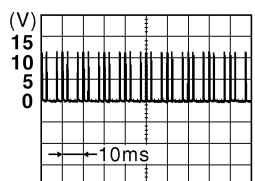
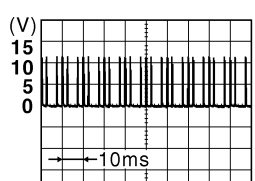
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
1 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	<p style="text-align: right; font-size: small;">JPMIA0160GB</p>
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
					<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	
					9.1 V	
2 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 2ND	<p style="text-align: right; font-size: small;">JPMIA0163GB</p>
					Lighting switch PASS	
					Front fog lamp switch ON	
					Turn signal switch LH	
					9.3 V	
3 (LG)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	<p style="text-align: right; font-size: small;">JPMIA0162GB</p>
					Rear fog lamp switch OFF	
					Front wiper switch MIST	
					Front wiper switch INT	
					Front wiper switch LO	
					9.3 V	
4 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	<p style="text-align: right; font-size: small;">JPMIA0161GB</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 						
					9.1 V	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
5 (W)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 1ST	 <p style="text-align: right; font-size: small;">JPMIA0164GB</p>
					Lighting switch 2ND	
					Lighting switch HI	
					Turn signal switch RH	
7 (P)	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p>
					Pressed to the lock side	0 V
8 (LG)	Ground	Hazard switch	Input	Hazard switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p>
					Pressed	0 V
9 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/un- lock switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p>
					Pressed to the unlock side	0 V
12 (P)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p>
					Pressed	0 V

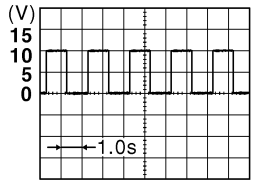
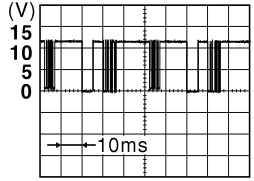
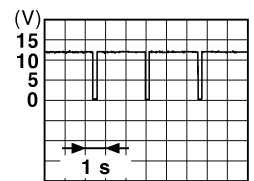
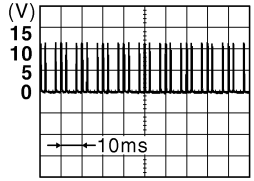
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BCM (BODY CONTROL MODULE)

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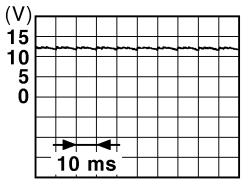
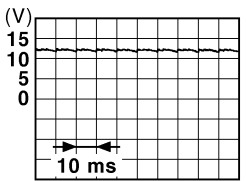
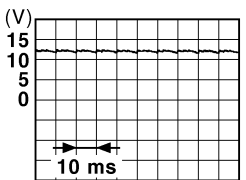
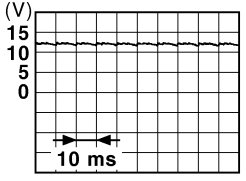
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
13 (R)	Ground	Shock detect sensor	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		 <p style="text-align: right; font-size: small;">JPMIA0155GB</p>
14 (L/R)	Ground	A/C switch	Input	A/C switch	Not pressed	Battery voltage
					Pressed	0 V
15 (LG/B)	Ground	Fan switch	Input	Fan switch	Not pressed	Battery voltage
					Pressed	0 V
16 (GR)	Ground	Alarm link	Output	—		—
17 (BR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		 <p style="text-align: right; font-size: small;">JPMIA0156GB</p>
18 (SB)	Ground	Security indicator	Output	Security indica- tor	ON	0 V
					Blinking	 <p style="text-align: right; font-size: small;">JPMIA0014GB</p>
					OFF	Battery voltage
19 (L)	—	CAN-H	Input/ Output	—		—
20 (P)	—	CAN-L	Input/ Output	—		—
21 (SB)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p>
					While pressing	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

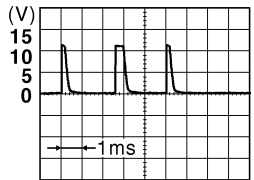
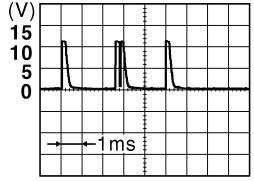
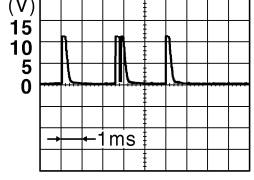
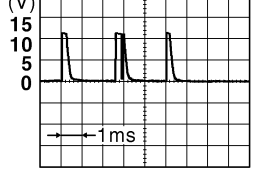
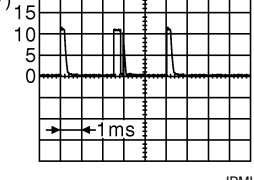
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
24 (GR)	Ground	Door lock status indicator	Output	Door lock status indicator	ON	Battery voltage
					OFF	0 V
25 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 PKID0924E 11.2 V
					ON (When rear door LH opened)	0 V
26 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 PKID0924E 11.2 V
					ON (When driver door opened)	0 V
27 (BR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 PKID0924E 11.2 V
					ON (When passenger door opened)	0 V
28 (G)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	Battery voltage
					ON (When back door opened)	0 V
29 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 PKID0924E 11.2 V
					ON (When rear door RH opened)	0 V
30 (SB)	Ground	Audio link	Input/ Output	—	—	—

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BCM (BODY CONTROL MODULE)

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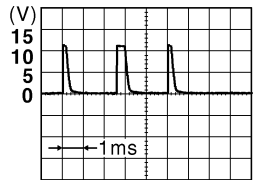
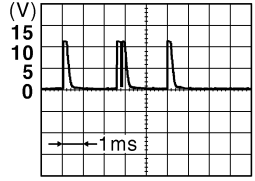
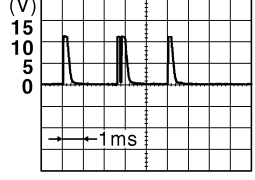
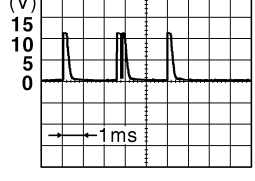
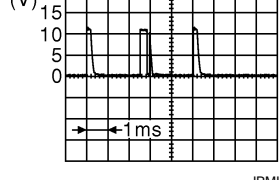
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
31 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.3 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0169GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch OFF	<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7  <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

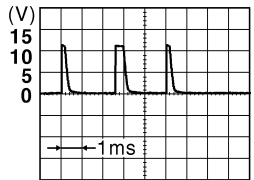
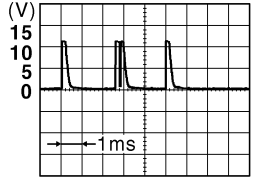
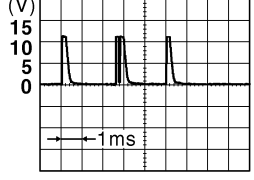
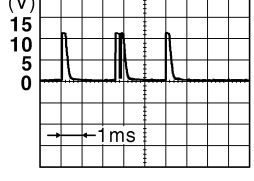
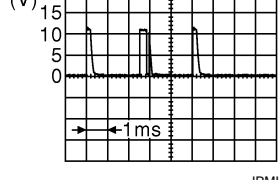
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
32 (G)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch PASS	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 2ND	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch INT	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch HI	 <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

A
B
C
D
E
F
G
H
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J
K
EXL
M
N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

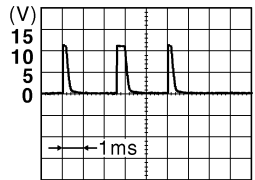
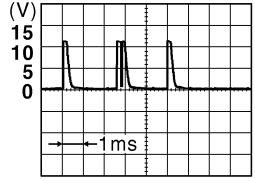
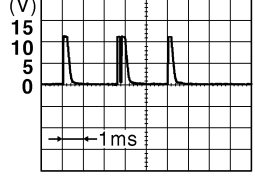
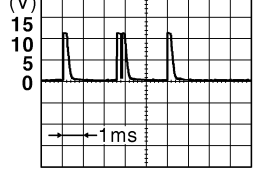
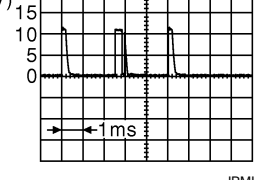
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
33 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch LO	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Front washer switch ON	 <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

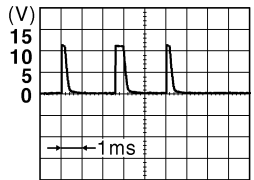
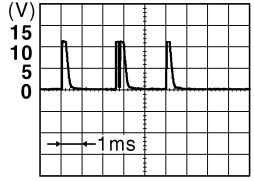
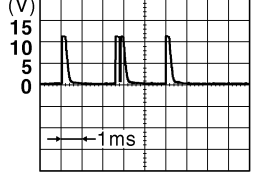
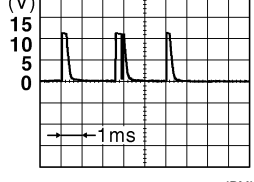
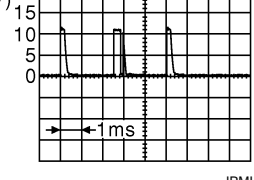
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
34 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper INT (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch OFF	<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 6  <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

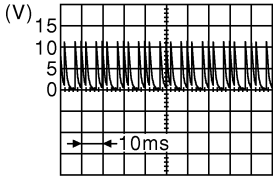
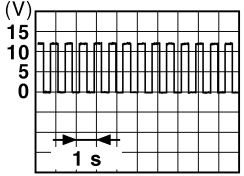
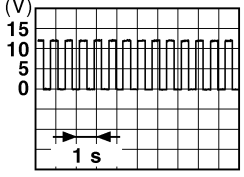
[XENON TYPE]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

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

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

EXL

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

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

*1: With Intelligent Key system

*2: Without Intelligent Key system

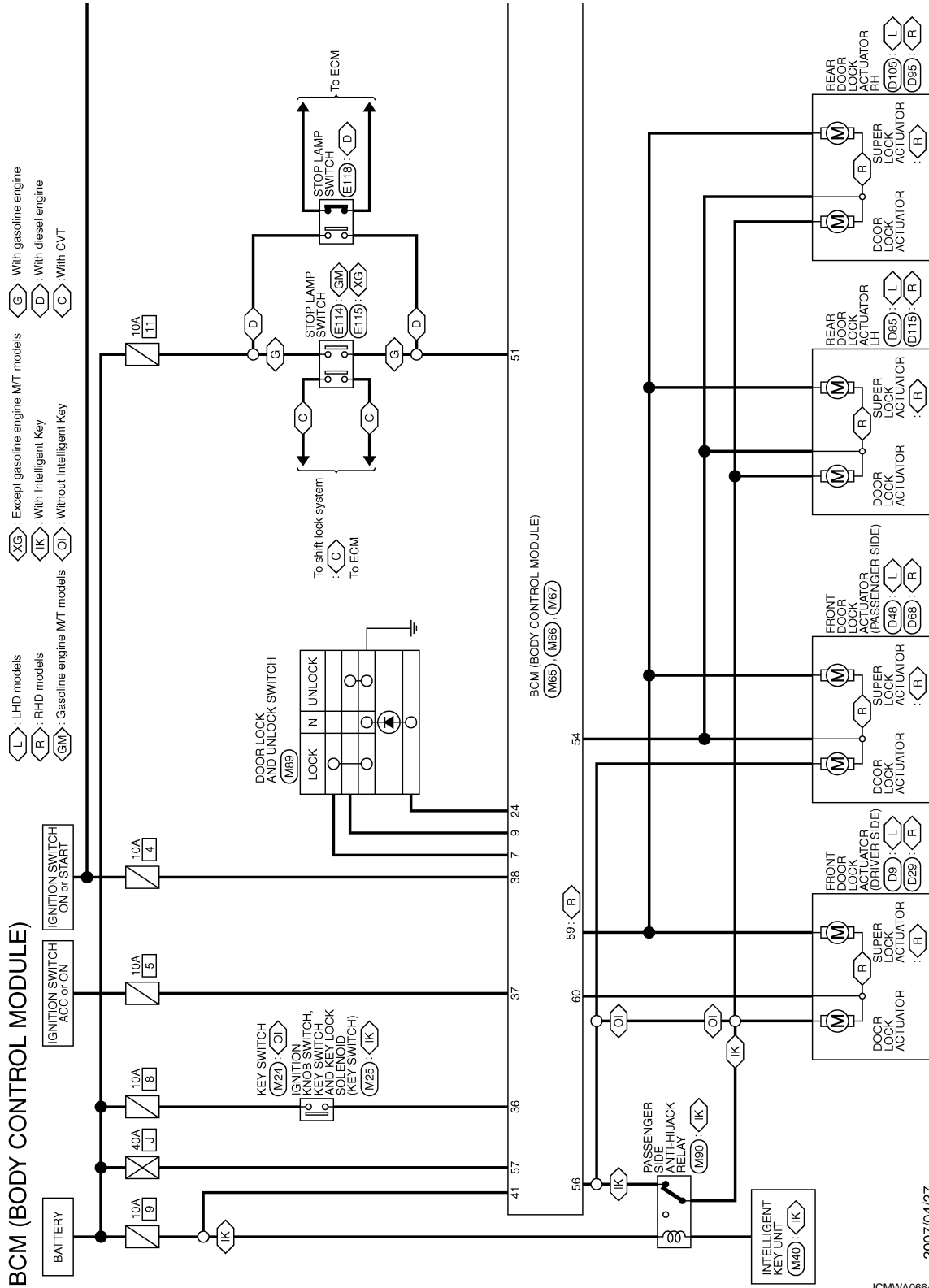
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Wiring Diagram - BCM -

INFOID:000000001527702



2007/04/27

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A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P

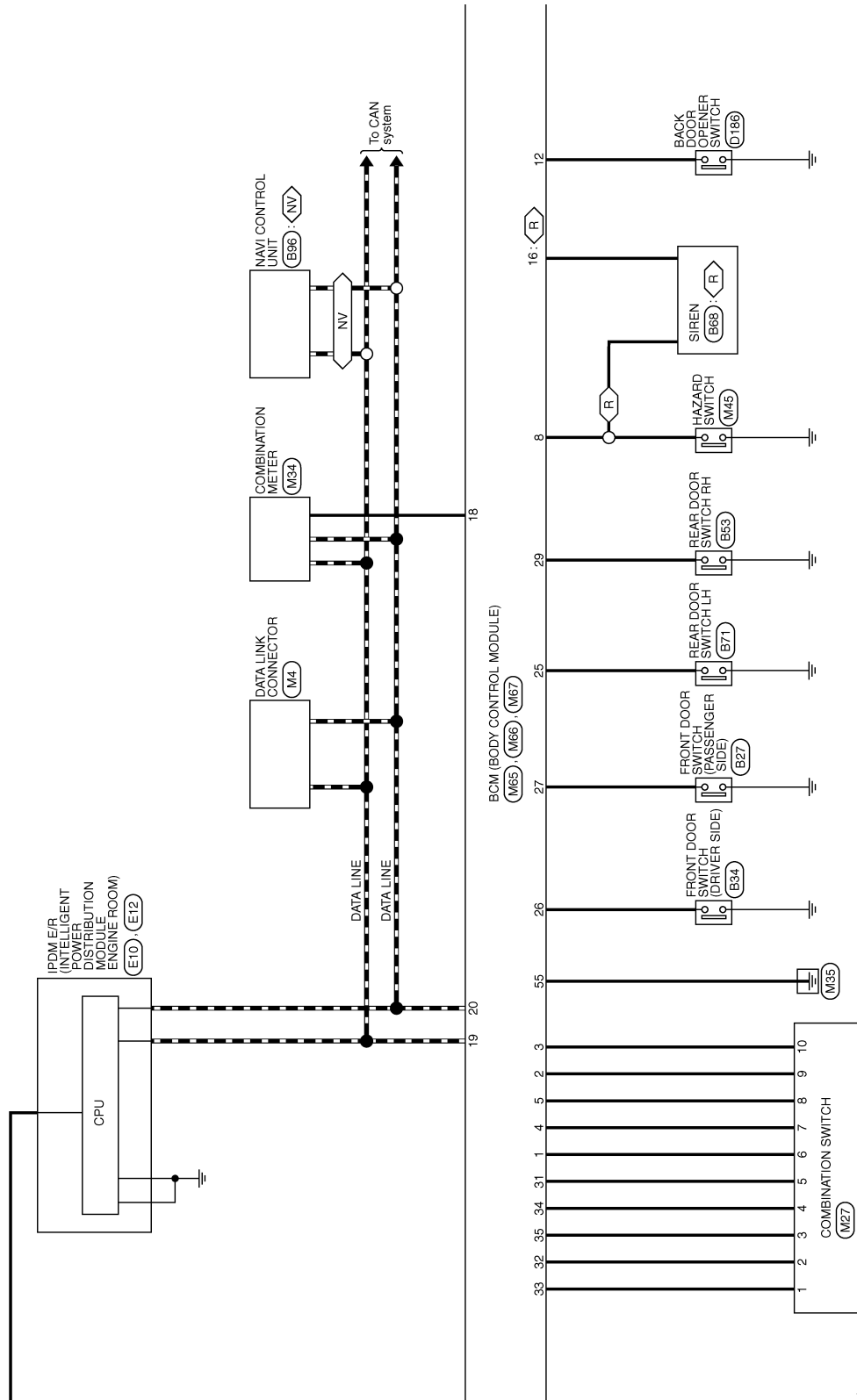
EXL

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

R : RHD models
NV : With navigation system



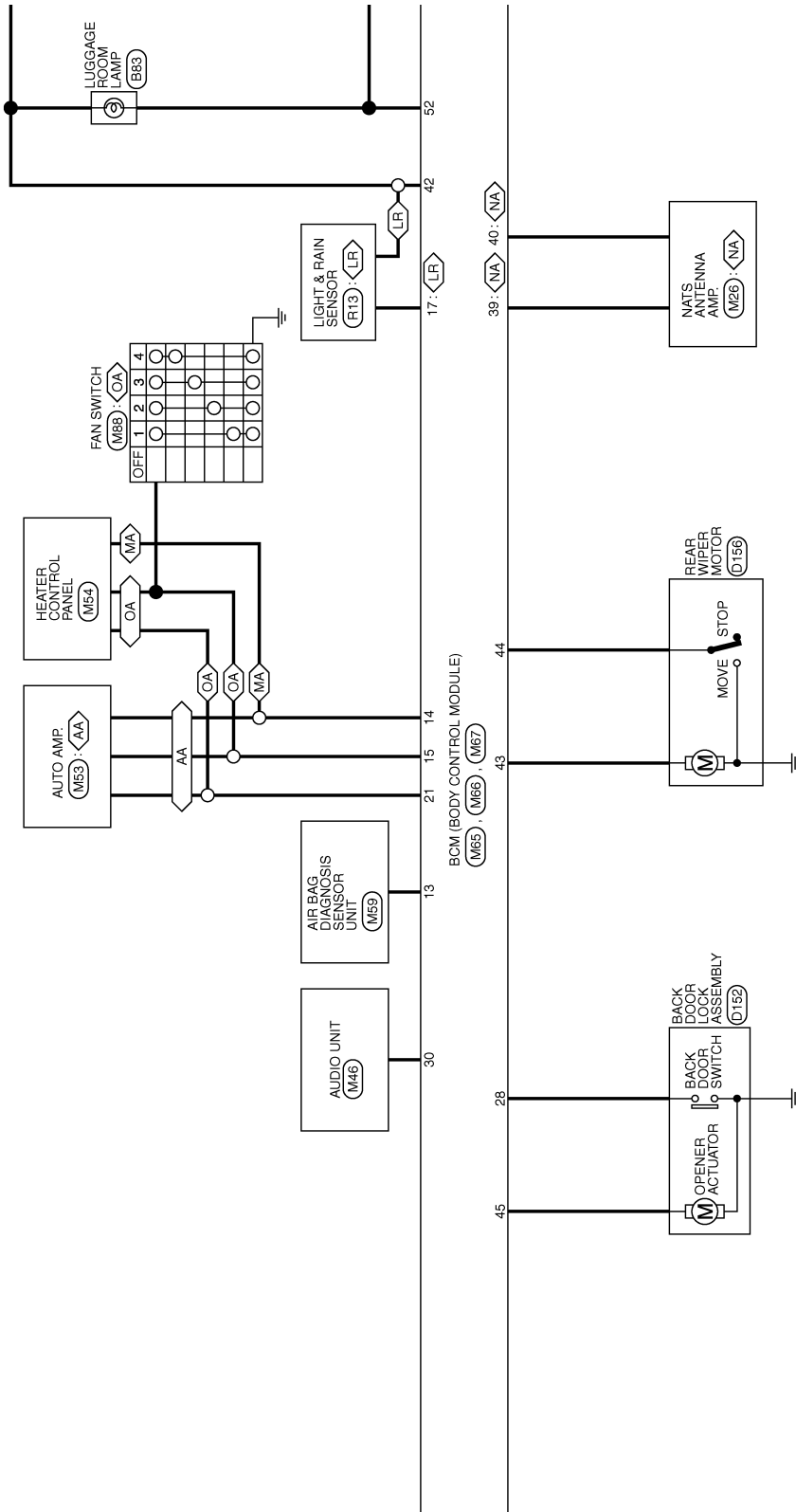
JCMWA0665Gf

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

- AA : With auto A/C
- OA : Without auto A/C
- MA : With manual A/C
- LR : With light & rain sensor
- NA : With Nissan Anti-Theft System



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B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

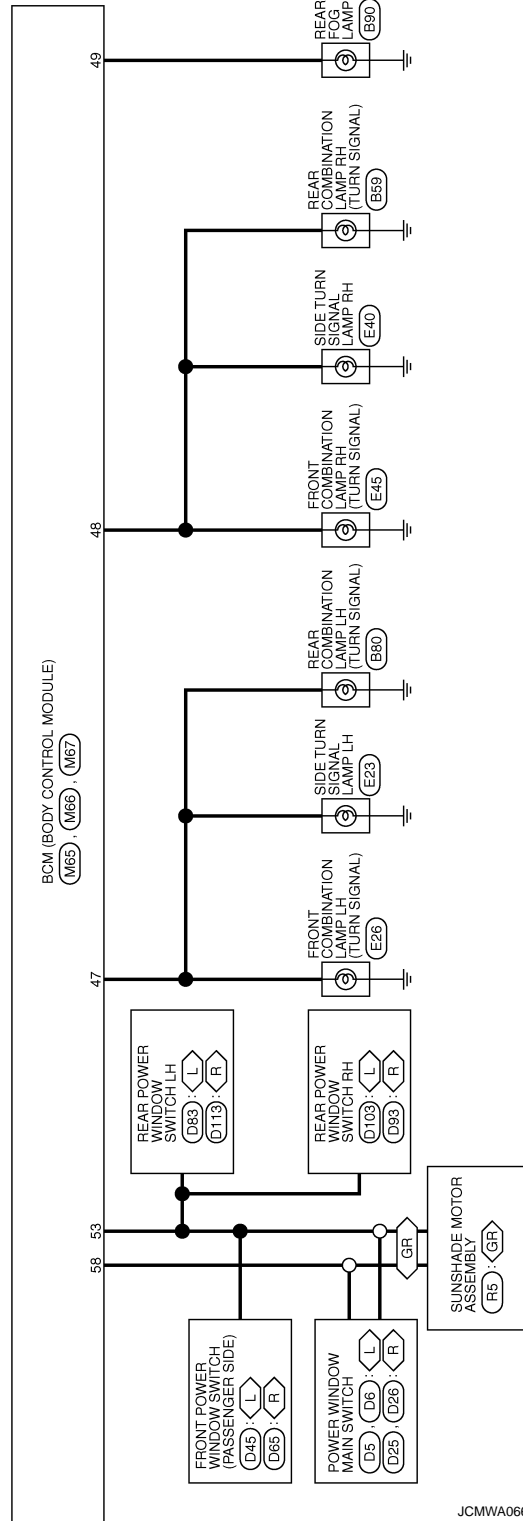
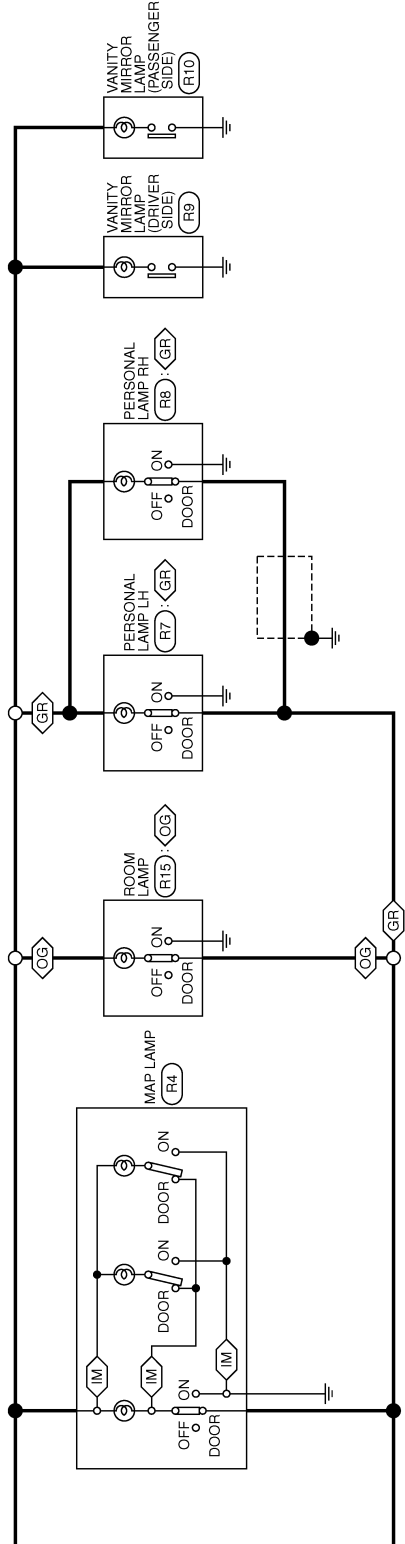
JCMWA0666GE

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

- : LHD models
- : RHD models
- : With integrated map lamp
- : With glass top roof
- : Without glass top roof



JCMWA0667G1

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	MZ7
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



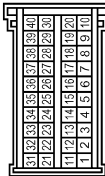
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT1
2	G	INPUT2
3	L	INPUT3
4	GR	INPUT4
5	BR	INPUT5
6	P	OUTPUT1
7	R	OUTPUT2
8	W	OUTPUT5
9	Y	OUTPUT4
10	LG	OUTPUT3

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC083S0017



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

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84CFB



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

Terminal No.	Color of Wire	Signal Name [Specification]
15	LG/B	BLOWER FAN SW
16	GR	ALARM LINK
17	BR	LIGHT & RAIN SENS
18	SB	SECURITY INDICATOR
19	L	CAN-H
20	P	CAN-L
21	SB	REAR DEFROGER SW
24	GR	DOOR LOCK STATUS IND
25	GR	DOOR SW (RL)
26	R	DOOR SW (DR)
27	BR	DOOR SW (AS)
28	G	DOOR SW (BACK)
29	LG	DOOR SW (FR)
30	SB	AUDIO LINK
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
36	V	KEY SW
37	R	ACC SW
38	W	IGN SW
39	P	MATS ANTENNA AMP.
40	LG	MATS ANTENNA AMP.

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC123S1017



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

Fail Safe

Fail-safe index

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

JCMWA0668GE

INFOID:000000001527703

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul style="list-style-type: none"> • Inhibits engine cranking • Inhibits steering lock unlocking (Intelligent Key unit) • Fuel cut (ECM) 	Erase DTC
B2191: DIFFERENCE OF KEY	<ul style="list-style-type: none"> • Inhibits engine cranking • Inhibits steering lock unlocking (Intelligent Key unit) • Fuel cut (ECM) 	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul style="list-style-type: none"> • Inhibits engine cranking • Inhibits steering lock unlocking (Intelligent Key unit) • Fuel cut (ECM) 	Erase DTC
B2195: ANTI SCANNING	<ul style="list-style-type: none"> • Inhibits engine cranking • Inhibits steering lock unlocking (Intelligent Key unit) • Fuel cut (ECM) 	Erase DTC
B2196: DONGLE NG	<ul style="list-style-type: none"> • Inhibits engine cranking • Inhibits steering lock unlocking (Intelligent Key unit) • Fuel cut (ECM) 	Erase DTC

REAR WIPER CONTROL

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

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

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

NOTE:

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

TURN SIGNAL LAMP CONTROL

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

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

NOTE:

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

LIGHT & RAIN SENSOR MALFUNCTION DETECTION FUNCTION

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

Auto Light Control

Headlamp is turned ON.

Front Wiper Control

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

DTC Inspection Priority Chart

INFOID:000000001527704

Priority	DTC
1	<ul style="list-style-type: none"> • U1000: CAN COMM CIRCUIT • U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> • B2190: NATS ANTENNA AMP • B2191: DIFFERNCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2194: DISCORD BCM-I-KEY • B2195: ANTI SCANNING • B2196: DONGLE NG

DTC Index

INFOID:000000001527705

NOTE:

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

CONSULT display	TIME		Fail-safe	Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	0	1 - 39	—	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-45 • Without Intelligent Key system SEC-194
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-47 • Without Intelligent Key system SEC-196
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-48 • Without Intelligent Key system SEC-197
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-50 • Without Intelligent Key system SEC-199
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	SEC-51
B2195: ANTI SCANNING	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-52 • Without Intelligent Key system SEC-200
B2196: DONGLE NG	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-53 • Without Intelligent Key system SEC-201

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000001527706

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 3
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
HL WASHER REQ	Ignition switch ON, and low beam headlamp is ON	Front washer switch OFF	Off
		Front washer switch ON (When headlamp washer is operating)	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	STOP
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops due to fail-safe operation (cut-out operation)	BLOCK
ST RLY REQ NOTE: Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Monitor Item	Condition	Value/Status
REV SW	Except selector lever R position	Off
	Selector lever R position	On
HOOD SW NOTE: This item is monitored only on the vehicle with the Vehicle Security (Theft Warning) system.	Close the hood	Off
	Open the hood	On
THFT HRN REQ NOTE: This item is monitored only on the vehicle with the Vehicle Security (Theft Warning) system.	Not operation	Off
	Horn is activated with Vehicle Security (Theft Warning) system.	On
HORN CHIRP	NOTE: This item is indicated, but not monitored.	Off
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On

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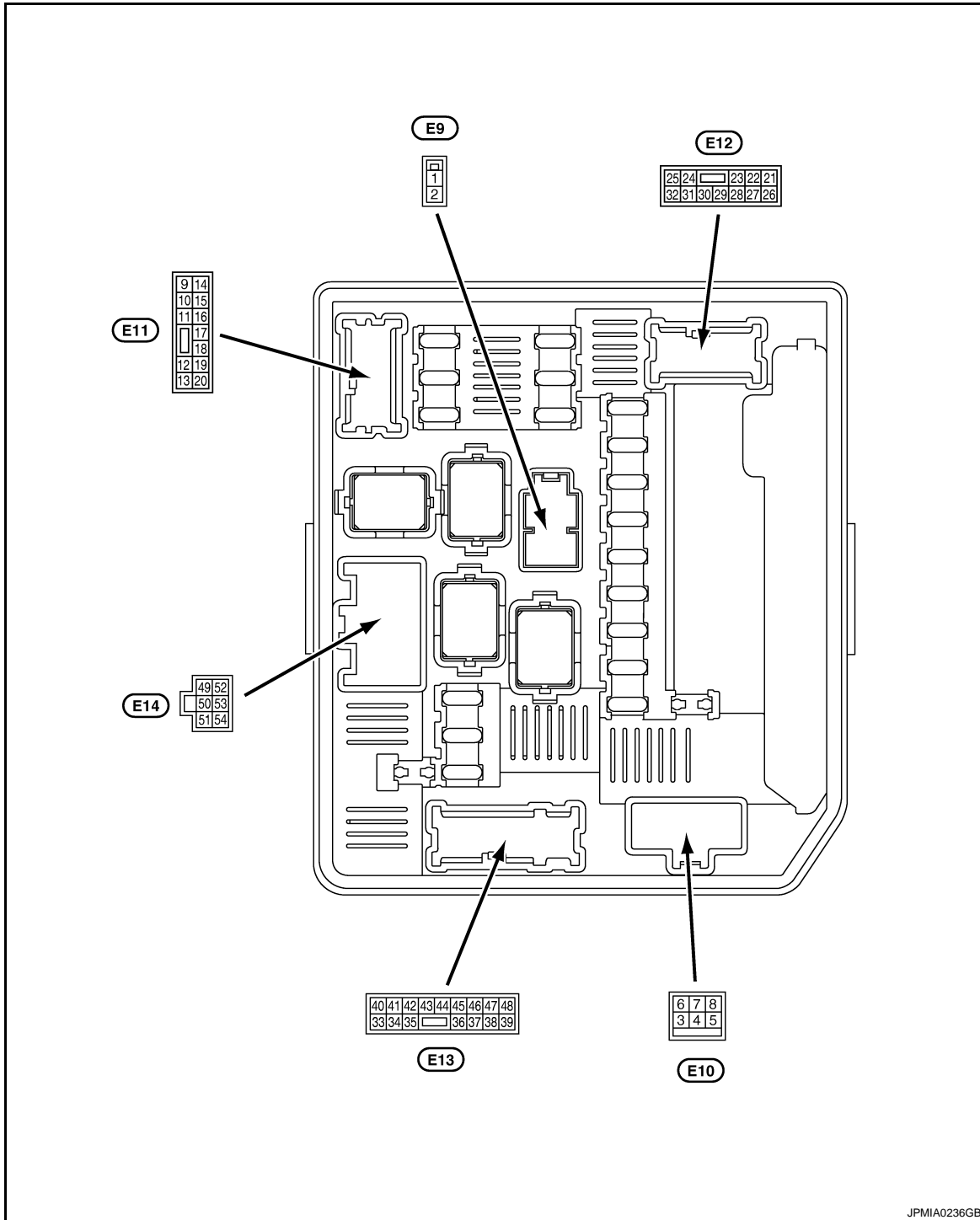
EXL

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
1 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
2 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
5 (B)	Ground	Ground	—	Ignition switch ON	0 V

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
6 (B)	Ground	Ground	—	Ignition switch ON	0 V	
7 (Y)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF 0 V	
				Front wiper switch LO	Battery voltage	
8 (Y/R)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF 0 V	
				Front wiper switch HI	Battery voltage	
9 (G)	Ground	ECM relay power supply	Output	Ignition switch ON	Battery voltage	
10*1 (L/R)	Ground	ECM relay power supply	Output	Ignition switch ON	Battery voltage	
11*2 (O)	Ground	PTC heater 1 relay control	Output	PTC heater OFF	Battery voltage	
				PTC heater ON	0 V	
12*2 (G/Y)	Ground	PTC heater 2 relay control	Output	PTC heater OFF	Battery voltage	
				PTC heater ON	0 V	
14 (R/B)	Ground	Ignition power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
15 (Y/L)*1 (B/R)*2	Ground	ECM relay control	Input	<ul style="list-style-type: none"> • Engine running • Ignition switch OFF (For a few seconds after turning ignition switch OFF) 	0 - 1.0 V*1	
				Ignition switch OFF or ACC (More than a few seconds after turning ignition switch OFF)	0.6 V*2	
					Battery voltage	
16*3 (Y/R)	Ground	Ignition relay power supply	Output	Ignition switch ON	Battery voltage	
				Ignition switch OFF or ACC	0 V	
19*1 (R/O)	Ground	Ignition relay power supply	Output	Ignition switch ON	Battery voltage	
				Ignition switch OFF or ACC	0 V	
21*4 (GR)	Ground	Hood switch	Input	Close the hood	0 V → Battery voltage → 0 V	
				Open the hood	0 V	
22 (Y/G)	Ground	Reverse switch	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	<ul style="list-style-type: none"> • Selector lever "R" (Except M/T models) • M/T control lever "R" (M/T models) 	Battery voltage
					<ul style="list-style-type: none"> • Selector lever in any position other than "R" (Except M/T models) • M/T control lever in any position other than "R" (M/T models) 	0 V
23 (Y/B)	Ground	A/C relay power supply	Output	Engine stopped	0 V	
				Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
24 (R/Y)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF	0 V	
				Lighting switch 2ND	Battery voltage	

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
25*1 (G/L)	Ground	ETC relay control	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 - 1.0 V
26 (O)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
27 (W)	Ground	Oil pressure switch	Input	Engine stopped		0 V
				Engine running		Battery voltage
28 (L)	—	CAN-H	Input/ Output	—	—	
29 (P)	—	CAN-L	Input/ Output	—	—	
30*4 (L)	Ground	Horn relay control	Output	The horn is not activated		Battery voltage
				The horn is activated		0 V
31 (R)	Ground	Headlamp LO (sensor)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
32*1 (R/Y)	Ground	ETC relay power supply	Output	Ignition switch ON		Battery voltage
33*1 (B/O)	Ground	Fuel pump relay control	Input	<ul style="list-style-type: none"> • Engine running • Ignition switch ON (For 1 second after turning ignition switch ON) 		0 - 1.0 V
				Ignition switch ON (More than 1 second after turning ignition switch ON)		Battery voltage
34 (R/B)	Ground	Starter relay power supply	Input	Ignition switch ON (Except M/T models)	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
				Ignition switch ON (M/T models)		Battery voltage
35 (W/L)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
36 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 1ST	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
37 (R/W)	Ground	Parking lamp (RH)	Output	Lighting switch 1ST		Battery voltage
				Lighting switch OFF		0 V
38 (R/L)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch 1ST		Battery voltage
				Lighting switch OFF		0 V
39 (GR)	Ground	Headlamp washer relay control	Output	Ignition switch ON	When headlamp washer is operating	0 V
					When headlamp washer is not operating	Battery voltage
40*1 (BR/Y)*5 (SB)*6	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
42*1 (B/Y)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> Ignition switch OFF or ACC Approximately 1 second or more after turning the ignition switch ON 		0 V
				<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 		Battery voltage
43 (W/B)	Ground	Front fog lamp (LH)	Output	Lighting switch 1ST	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
44 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
45 (L/W)	Ground	Headlamp HI (RH)	Output	<ul style="list-style-type: none"> Lighting switch 2ND and HI lighting switch PASS 		Battery voltage
				Lighting switch OFF		0 V
46 (G)	Ground	Headlamp HI (LH)	Output	<ul style="list-style-type: none"> Lighting switch 2ND and HI Lighting switch PASS 		Battery voltage
				Lighting switch OFF		0 V
47 (R/L)	Ground	Parking lamp (LH)	Output	Lighting switch 1ST		Battery voltage
				Lighting switch OFF		0 V
48*7 (Y)	Ground	Cooling fan relay-3 control	Output	When cooling fan does HI operation		0 V
				When cooling fan does OFF or LO operation		Battery voltage
49 (B)	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch ON	Battery voltage
					Rear window defogger switch OFF	0 V
50 (B/R)	Ground	Starter relay power supply	Output	When engine is cranking		Battery voltage
				When engine is not cranking		0 V
51 (P)	Ground	Ignition switch START	Input	Ignition switch START		Battery voltage
				Ignition switch OFF, ACC or ON		0 V
52 (W)	Ground	Cooling fan relay-1 power supply	Output	When cooling fan does LO or HI operation		Battery voltage
				When cooling fan does OFF operation		0 V
53 (W/B)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF		Battery voltage
54*5 (R)	Ground	Cooling fan relay-2 power supply	Input	When cooling fan does HI operation		Battery voltage
				When cooling fan does OFF or LO operation		0 V

*1: HR engine and MR engine models

*2: K9K engine and M9R engine models

*3: Except M/T models only

*4: With vehicle security (theft warning) system

*5: HR engine models

*6: MR engine models

*7: MR engine, K9K engine and M9R engine models

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

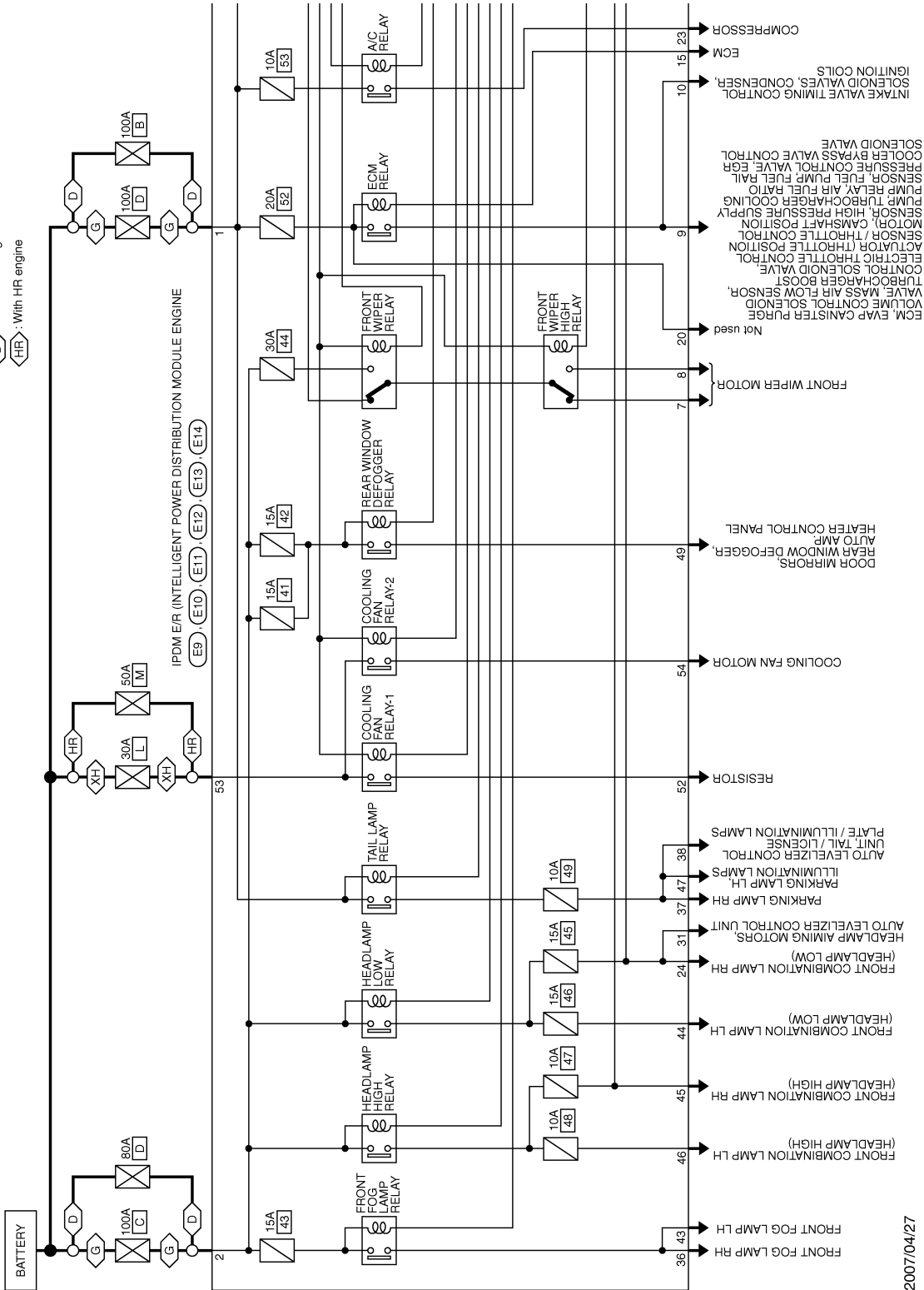
[XENON TYPE]

Wiring Diagram - IPDM E/R -

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

(G) : With gasoline engine
 (D) : With diesel engine
 (HR) : With HR engine
 (XH) : Except HR engine



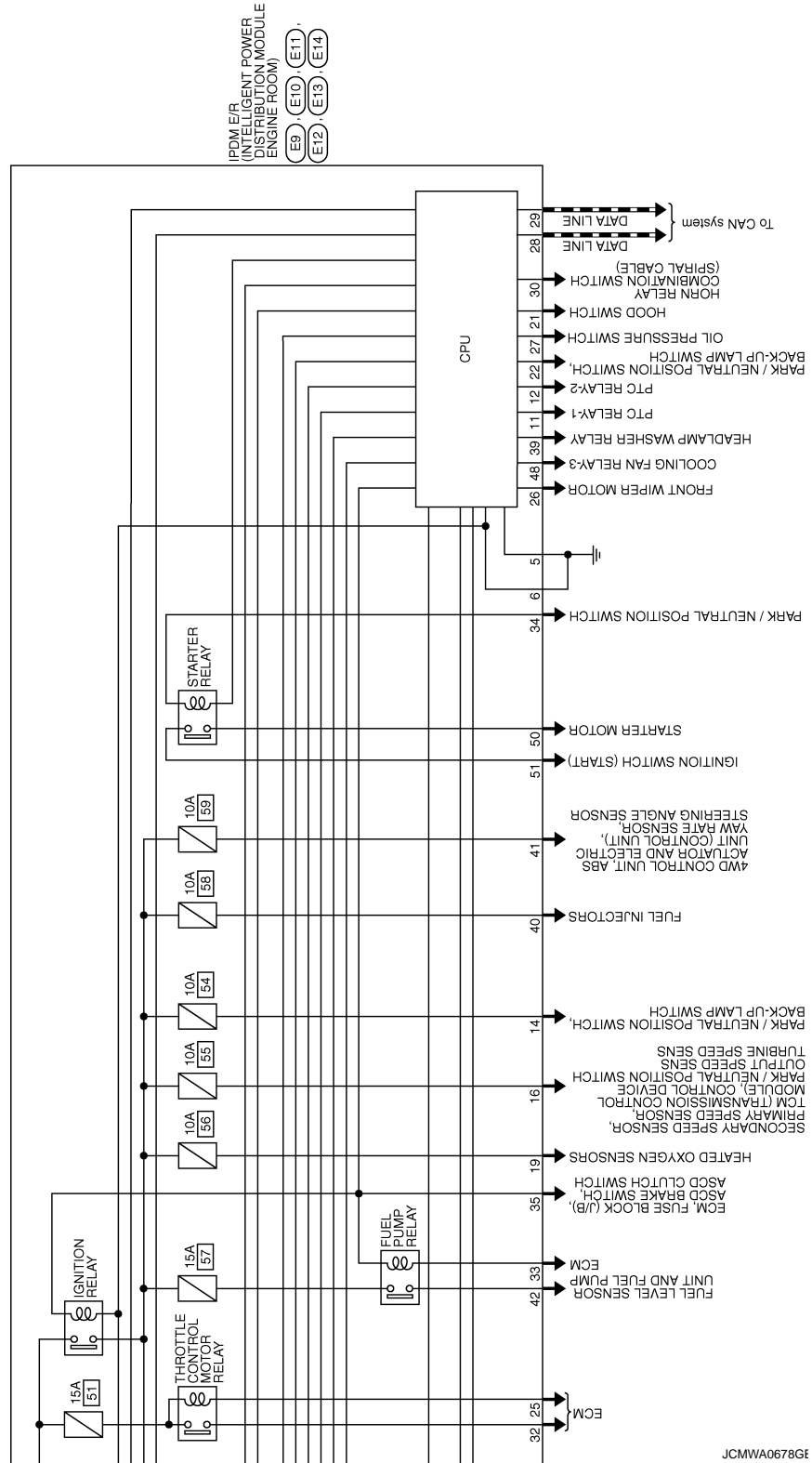
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]



EXL-147

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EXL
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	LO2FB-MC



1	2
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Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MO9FE-LC



5	4	3
8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	B	-
7	Y	-
8	Y/R	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBR-CS



13	12	11	10	9
20	19	18	17	16
15	14	13	12	11

Terminal No.	Color of Wire	Signal Name [Specification]
9	G	-
10	L/R	-
11	O	-
12	G/Y	-
14	R/B	-
15	Y/L	- [With gasoline engine]
15	B/R	- [With diesel engine]
16	Y/R	-
18	R/O	-
20	-	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



25	24	23	22	21
32	31	30	29	28
27	26	25	24	23

Terminal No.	Color of Wire	Signal Name [Specification]
21	GR	-
22	Y/G	-
23	Y/B	-
24	R/Y	-
25	G/L	-
26	O	-
27	W	-
28	L	-
29	P	-
30	L	-
31	R	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



39	38	37	36	35	34	33
48	47	46	45	44	43	42
41	40	39	38	37	36	35

Terminal No.	Color of Wire	Signal Name [Specification]
33	B/O	-
34	W/B	- [With A/T]
34	R/B	- [Except A/T]
35	W/L	-
36	W	-
37	R/W	-
38	R/L	-
39	GR	-
40	SP	- [With MR engine]
40	BR/Y	- [With PR engine]
41	P	-

42	B/Y	-
43	W/B	-
44	L	-
45	L/W	-
46	G	-
47	R/L	-
48	Y	- [Except MBR engine]
48	W	- [With MBR engine]

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	YZK 7283-5391-40-F



Terminal No.	Color of Wire	Signal Name [Specification]
49	B	--[Except MBR engine]
49	G	--[With MBR engine]
50	B/R	--
51	P	--
52	W	--
53	W/B	--
54	R	--

Fail Safe

CAN communication control

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If no CAN communication is available with ECM

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> The cooling fan relay-2*¹ or the cooling fan relay-3*² turns ON when the ignition switch is turned ON Turns off the fan motor low relay when the ignition switch is turned OFF
A/C compressor	A/C relay OFF

*1: HR engine models

*2: MR engine, K9K engine and M9R engine models

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> The headlamp low relay turns ON when the ignition switch is turned ON The headlamp low relay turns OFF when the ignition switch is turned OFF Headlamp high relay OFF
<ul style="list-style-type: none"> Parking lamps License plate lamps Tail lamps Illuminations 	<ul style="list-style-type: none"> The tail lamp relay turns ON when the ignition switch is turned ON The tail lamp relay turns OFF when the ignition switch is turned OFF
Front wiper	<ul style="list-style-type: none"> The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The front wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.
Front fog lamps	Front fog lamp relay OFF
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Headlamp washer	Headlamp washer relay OFF
PTC heater	PTC heater relay OFF

Ignition relay malfunction detection function

- The CPU integrated IPDM E/R monitors the voltage at the contact circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the ignition relay condition is different from the ignition switch ON signal.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
—	ON	ON	—
—	OFF	OFF	—
—	OFF	ON	ON (10 minutes)
B2099: IGN RLY OFF	ON	OFF	—

NOTE:

The tail lamp relay is turned OFF when the ignition switch is turned ON.

Front wiper control

IPDM E/R detects the front wiper stop position with the front wiper auto stop signal.

When the front wiper auto stop signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop until ignition switch is turned OFF.

Ignition switch	Front wiper switch	Front wiper auto stop signal
ON	OFF	The front wiper auto stop signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper auto stop signal does not change for 10 seconds.

NOTE:

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

DTC Index

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CONSULT display	Fail-safe	Timing ^{NOTE}		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	PCS-14
B2099: IGN RELAY OFF	—	CRNT	PAST	PCS-15
B209A: RAM ERROR	—	CRNT	PAST	PCS-16
B209B: ROM ERROR	—	CRNT	PAST	PCS-17
B2100: EEPROM	—	CRNT	PAST	PCS-18

NOTE:

The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.

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AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

AUTO LEVELIZER CONTROL UNIT

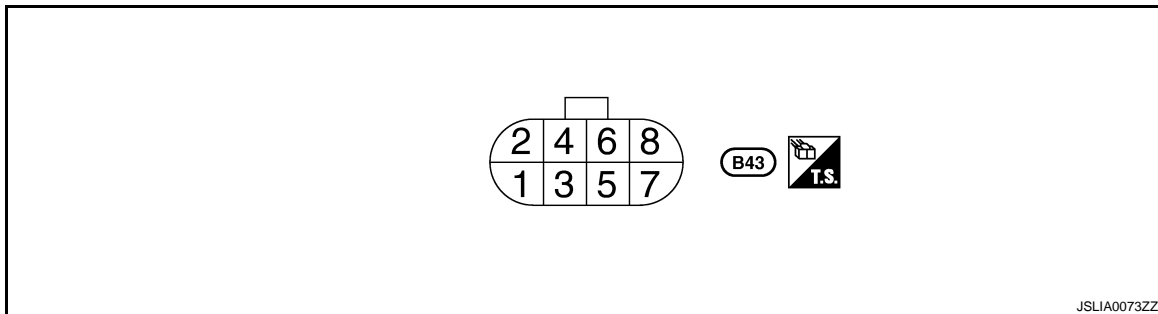
Reference Value

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VALUES ON THE DIAGNOSIS TOOL

Monitor item	Operating condition		Display item (Approx.)
INT SEN VALUE	Rear vehicle height	Detection upper limit	0 %
		Detection lower limit	100 %
ACT OUTPUT	Headlamp light axis	Control upper limit	19.9 %
		Control lower limit	73.8 % (Except M9R) 79.3 % (M9R)
ACT MEASURED	Headlamp light axis	Detection upper limit	19.9 %
		Detection lower limit	73.8 % (Except M9R) 79.3 % (M9R)
VEHICLE SPEED SIGNAL	Vehicle running at approx. 40 km/h		40 km/h
LIGHT SIGNAL	Headlamp (LO) ON		Battery voltage
INT SEN VOLT	Headlamp (LO) ON		Battery voltage
EXT SEN VOLT	—		—
EXT SEN SIG	—		—

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Operating condition	Standard (Approx.)
+	-	Signal name	Input/Output		
1 (B)	Ground	Ground	—	—	0 V
2 (R)	Ground	Control unit power supply [Headlamp (LO) signal]	Input	Headlamp (LO) ON	Battery voltage
				Headlamp (LO) OFF	0 V
4 (Y)	Ground	Vehicle speed signal (8-pulse)	Input	Vehicle running at approx. 40 km/h	
5 (O)	Ground	K-LINE	—	—	—

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AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Operating condition	Standard (Approx.)	
+	-	Signal name	Input/ Output			
6 (R/L)	Ground	Tail lamp signal	Input	Headlamp (LO) and tail lamp ON	Battery voltage	
7 (V)	Ground	Headlamp aiming motor drive signal	Output	Headlamp aiming	Under un- laden conditions	2.5 V
					At aiming operation lower limit	9.8 V (Except M9R) 9.9 V (M9R)

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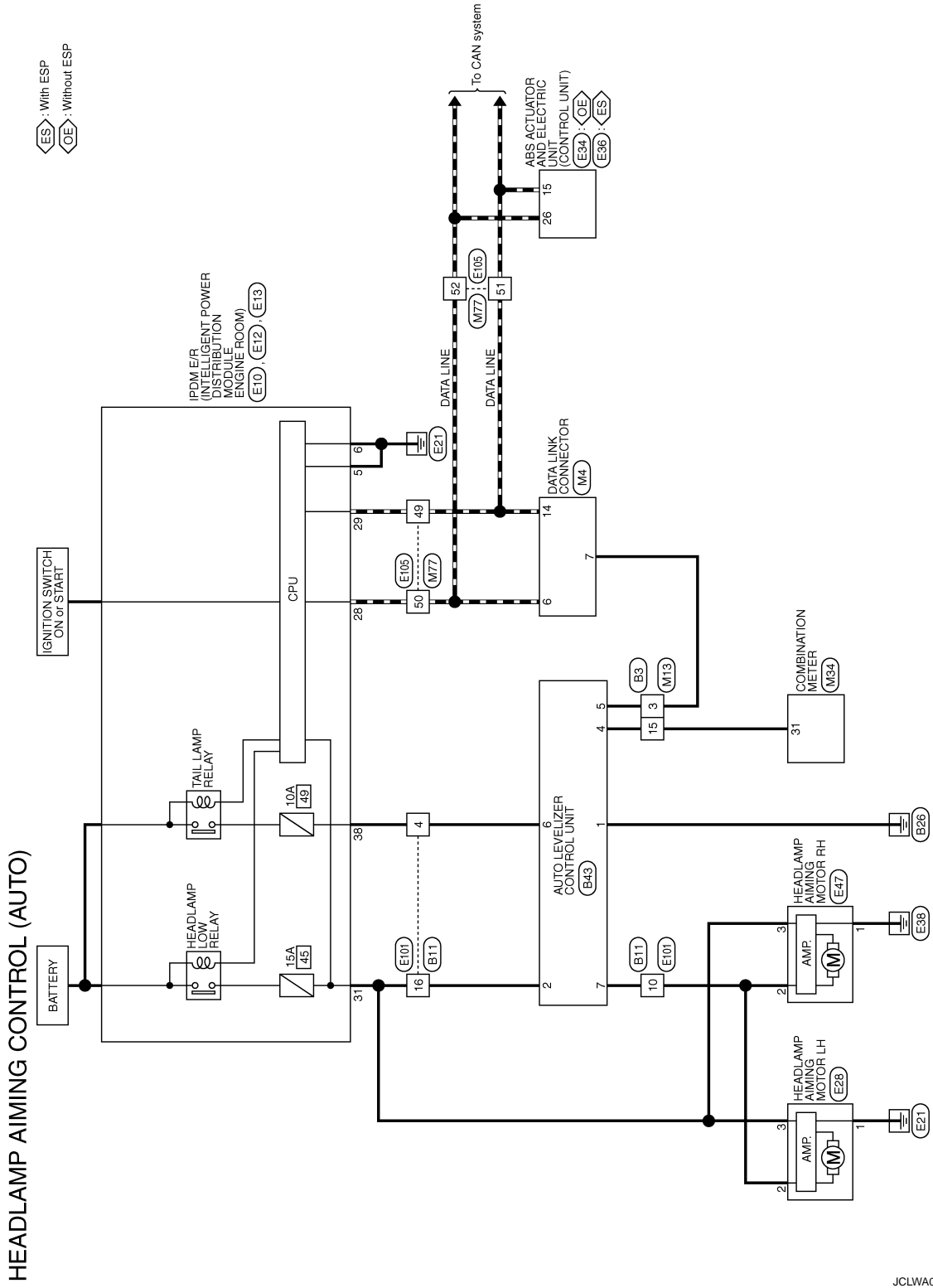
AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (AUTO) -

INFOID:000000001188722



2006/12/08

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AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

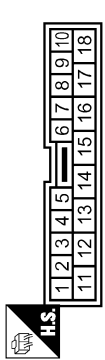
HEADLAMP AIMING CONTROL (AUTO)

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



Terminal No.	Color of Wire	Signal Name [Specification]
3	O	-
15	Y	-

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS3



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-
10	V	-
16	R	-

Connector No.	B43
Connector Name	AUTO LEVELIZER CONTROL UNIT
Connector Type	AMP 1394416-1



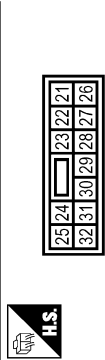
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	GND
2	R	USUP
4	Y	FIN(SP-8P)
5	O	K-LINE
6	R/L	A/D
7	V	PWM

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M06FB-LC



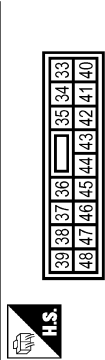
Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



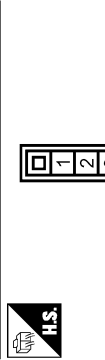
Terminal No.	Color of Wire	Signal Name [Specification]
26	L	-
28	P	-
31	R	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



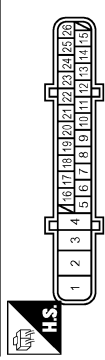
Terminal No.	Color of Wire	Signal Name [Specification]
38	R/L	-

Connector No.	E28
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	FG211PC0383003



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	V	-
3	R	-

Connector No.	E34
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAAZ2FB-ARZ4-LH



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

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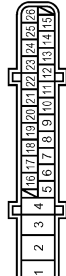
AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

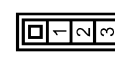
HEADLAMP AIMING CONTROL (AUTO)

Connector No.	E38
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAAZFE-AHZ4-LH



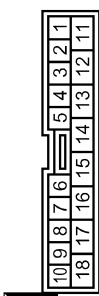
Terminal No.	Color of Wire	Signal Name [Specification]
26	L	CAN-L
	L	CAN-H

Connector No.	E47
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	FC211PC03S30003




Terminal No.	Color of Wire	Signal Name [Specification]
1	B	
2	V	
3	R	

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



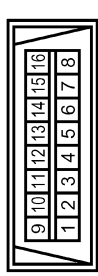
Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	
10	V	
16	R	

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-NS16-TM4



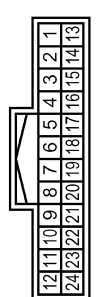
Terminal No.	Color of Wire	Signal Name [Specification]
49	P	
50	L	
51	P	
52	L	

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



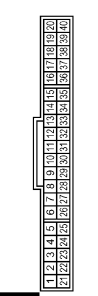
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	
7	O	
14	P	

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




Terminal No.	Color of Wire	Signal Name [Specification]
3	O	
15	Y	

Connector No.	M24
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
31	Y	VEHICLE SPEED (8-PULSE)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	
50	L	
51	P	
52	L	

Fail Safe

JCLWA0355GB

INFOID:000000001188723

DTC	Fail-safe	Cancellation
B2080: ECU TROUBLE	Fix aiming motor drive signal to approximately 0 V	Headlamp (LO) OFF
B2081: INITIAL NOT DONE	Fix with the light axis facing downward	Sensor initialization is completed

AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

DTC	Fail-safe		Cancellation
B2082: SENSOR OUT OF RANGE	After engine start (Less than 5 seconds after headlight (LO) ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward	When sensor signal returns to normal range
	While driving (5 seconds or more after headlight (LO) ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection	
B2083: SEN SIG NOT PLAUSIBLE	<ul style="list-style-type: none"> • Maintain the aiming motor drive signal output at the time of DTC detection • Maintain the light axis at the time of DTC detection 		Headlamp (LO) OFF
B2084: VOLTAGE UNDER LIMIT	After engine start (Less than 5 seconds after headlight (LO) ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward	Headlamp (LO) OFF
	While driving (5 seconds or more after headlight (LO) ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection	
B2085: LOWBEAM SIG OPEN LINE	After engine start (Less than 5 seconds after headlight (LO) ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward	Headlamp (LO) OFF
	While driving (5 seconds or more after headlight (LO) ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection	
B2086: FRQ. OVER LIMIT	After engine start (Less than 5 seconds after headlight (LO) ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward	Headlamp (LO) OFF
	While driving (5 seconds or more after headlight (LO) ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection	
B2087: SHORT TO GROUND	Maintain the light axis at the time of DTC detection		Headlamp (LO) OFF
B2088: SHORT TO BATTERY	Maintain the light axis at the time of DTC detection		Headlamp (LO) OFF
B2089: NO CAR TYPE SELECTED	Fix aiming motor drive signal output to approximately 0 V		Write configuration is completed

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DTC Inspection Priority Chart

INFOID:000000001188724

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

Priority	DTC
1	<ul style="list-style-type: none"> • B2089: NO CAR TYPE SELECTED • B2080: ECU TROUBLE
2	<ul style="list-style-type: none"> • B2081: INITIAL NOT DONE
3	<ul style="list-style-type: none"> • B2082: SENSOR OUT OF RANGE • B2083: SEN SIG NOT PLAUSIBLE • B2084: VOLTAGE UNDER LIMIT • B2085: LOWBEAM SIG OPEN LINE • B2086: FRQ. OVER LIMIT • B2087: SHORT TO GROUND • B2088: SHORT TO BATTERY

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AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

DTC Index

INFOID:000000001188725

DTC	Fail-safe	Reference
B2080: ECU TROUBLE	×	EXL-39, "Description"
B2081: INITIAL NOT DONE	×	EXL-40, "DTC Logic"
B2082: SENSOR OUT OF RANGE	×	EXL-41, "DTC Logic"
B2083: SEN SIG NOT PLAUSIBLE	×	EXL-43, "DTC Logic"
B2084: VOLTAGE UNDER LIMIT	×	EXL-44, "DTC Logic"
B2085: LOWBEAM SIG OPEN LINE	×	EXL-45, "Description"
B2086: FRQ. OVER LIMIT	×	EXL-47, "Description"
B2087: SHORT TO GROUND	×	EXL-49, "DTC Logic"
B2088: SHORT TO BATTERY	×	EXL-50, "DTC Logic"
B2089: NO CAR TYPE SELECTED	×	EXL-51, "DTC Logic"

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000001188726

CAUTION:

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

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Halogen bulb (HI) • Harness between IPDM E/R and the front combination lamp • Front combination lamp (headlamp housing assembly) • IPDM E/R 	Headlamp (HI) circuit Refer to EXL-56 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-163 .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.	IPDM E/R	
	When ignition switch is turned OFF.	—	
High beam indicator lamp is not turned ON. [The headlamp (HI) is turned ON.]		Combination meter	<ul style="list-style-type: none"> • Combination meter Data monitor "HI-BEAM IND" • BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp (LO) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Xenon bulb (LO) • Harness between IPDM E/R and the front combination lamp • Front combination lamp (xenon headlamp) • IPDM E/R 	Headlamp (LO) circuit Refer to EXL-58 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-164 .	
Headlamp (LO) is not turned OFF.	When ignition switch is turned ON.	IPDM E/R	
	When ignition switch is turned OFF.	—	
Headlamp HI and LO are not turned ON.		<ul style="list-style-type: none"> • Harness between front combination lamp and the ground • Front combination lamp (headlamp housing assembly) 	Headlamp ground circuit Refer to EXL-60 .
Each lamps are not turned ON/OFF with the lighting switch AUTO.		<ul style="list-style-type: none"> • Combination switch • Harness between the combination switch and BCM • BCM 	Combination switch Refer to BCS-64 .
		<ul style="list-style-type: none"> • Light & rain sensor • Harness between the light & rain sensor and BCM • BCM 	Light & rain sensor Refer to EXL-72 .
Front fog lamp is not turned ON.	One side	<ul style="list-style-type: none"> • Front fog lamp bulb • Harness between IPDM E/R and the front fog lamp • Front fog lamp • IPDM E/R 	Front fog lamp circuit Refer to EXL-65 .
	Both sides	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-166 .	
Front fog lamp is not turned ON.			

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom	Possible cause	Inspection item	
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)	Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "FR FOG IND" BCM (HEAD LAMP) Active test "FR FOG LAMP" 	
Parking lamp is not turned ON.	<ul style="list-style-type: none"> Parking lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R 	Parking lamp circuit Refer to EXL-67 .	
Tail lamp is not turned ON.	<ul style="list-style-type: none"> Tail lamp bulb Harness between IPDM E/R and the rear combination lamp Rear combination lamp 	Tail lamp circuit Refer to EXL-77 .	
License plate lamp is not turned ON.	<ul style="list-style-type: none"> License plate lamp bulb Harness between IPDM E/R and the license plate lamp License plate lamp 	License plate lamp circuit Refer to EXL-79 .	
Tail lamp and the license plate lamp are not turned ON.	<ul style="list-style-type: none"> Fuse Harness between IPDM E/R and the rear combination lamp IPDM E/R 	Tail lamp circuit Refer to EXL-77 .	
<ul style="list-style-type: none"> Parking lamp, the tail lamp and the license plate lamp are not turned ON. Parking lamp, the tail lamp and the license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.)	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-165 .		
Tail lamp indicator is not turned ON. (Parking/tail lamps are turned ON.)	Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "LIGHT IND" BCM (HEAD LAMP) Active test "TAIL LAMP" 	
Turn signal lamp does not blink.	Indicator lamp is normal. (Applicable side performs the high flasher activation.)	<ul style="list-style-type: none"> Harness between BCM and each turn signal lamp Turn signal lamp bulb 	Turn signal circuit Refer to EXL-69 .
	Indicator lamp is included.	<ul style="list-style-type: none"> Combination switch Harness between the combination switch and BCM BCM 	Combination switch Refer to BCS-64 .
Turn signal indicator lamp does not blink. (Turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> Turn signal indicator lamp signal - BCM Combination meter 	<ul style="list-style-type: none"> Combination meter Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> Combination meter power supply and the ground circuit Combination meter 	Combination meter Power supply and the ground circuit Refer to MWI-34 .
<ul style="list-style-type: none"> Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.)	<ul style="list-style-type: none"> Hazard switch Harness between the hazard switch and BCM BCM 	Hazard switch Refer to EXL-75 .	

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> • Harness between BCM and rear fog lamp • Rear fog lamp bulb • BCM 	Rear fog lamp circuit Refer to EXL-80 .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> • Combination switch • Harness between combination switch and BCM • BCM 	Combination switch Refer to BCS-64 .
Rear fog lamp indicator lamp does not turn on. (Rear fog lamp turns ON)		<ul style="list-style-type: none"> • Rear fog lamp status signal - BCM • Combination meter 	<ul style="list-style-type: none"> • Combination meter Data monitor "REAR FOG IND" • BCM (HEAD LAMP) Active test "RR FOG LAMP"
Headlamp auto aiming does not activate.		<ul style="list-style-type: none"> • Harness between auto levelizer control unit and aiming motor. • Front combination lamp (Aiming motor) • Auto levelizer control unit 	Aiming motor Refer to EXL-63 .

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EXL

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

NORMAL OPERATING CONDITION

Description

INFOID:000000001188727

XENON HEADLAMP

- Brightness and the color of light may change slightly immediately after turning the headlamp ON until the xenon bulb becomes stable. This is normal.
- Illumination time lag may occur between right and left. This is normal.

AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes the control difference. This is normal.

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description

INFOID:000000001188728

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:000000001188729

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

ⓂCONSULT-III DATA MONITOR

1. Select "HL HI REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2ND)	HI or PASS	On
		LO	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-56. "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:000000001188730

Both side headlamps (LO) are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001188731

1. CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2. CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

ⓂCONSULT-III DATA MONITOR

1. Select "HL LO REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status	
HL LO REQ	Lighting switch	2ND	On
		OFF	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

3. HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-58, "Component Function Check"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:000000001188732

The parking, license plate, tail lamps and each illumination are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001188733

1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none">• Parking lamp• Tail lamp• License plate lamp	IPDM E/R	#49	10 A

Is the fuse fusing?

YES >> Repair the applicable circuit. And then replace the fuse.

NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

3.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select "TAIL & CLR REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status
TAIL & CLR REQ	Lighting switch	1ST On
		OFF Off

Is the item status normal?

YES >> GO TO 4.

NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

4.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-77, "Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:000000001188734

The front fog lamps are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001188735

1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#43	15 A

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
- NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning part.

3.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

ⓅCONSULT-III DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status	
FR FOG REQ	Front fog lamp switch (With lighting switch 1ST)	ON	On
		OFF	Off

Is the item status normal?

- YES >> GO TO 4.
- NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-65, "Component Function Check"](#).

Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
- NO >> Repair or replace the malfunctioning part.

PRECAUTION

PRECAUTIONS

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

INFOID:000000001188736

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 AIRBAG" 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 AIRBAG".
- 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 For Xenon Headlamp Service

INFOID:000000001188737

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

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HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

ON-VEHICLE MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description

INFOID:000000001188738

PREPARATION BEFORE ADJUSTING

NOTE:

- For details, refer to the regulations in your own country.
- Perform aiming if the vehicle front body has been repaired and/or the headlamp assembly has been replaced.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

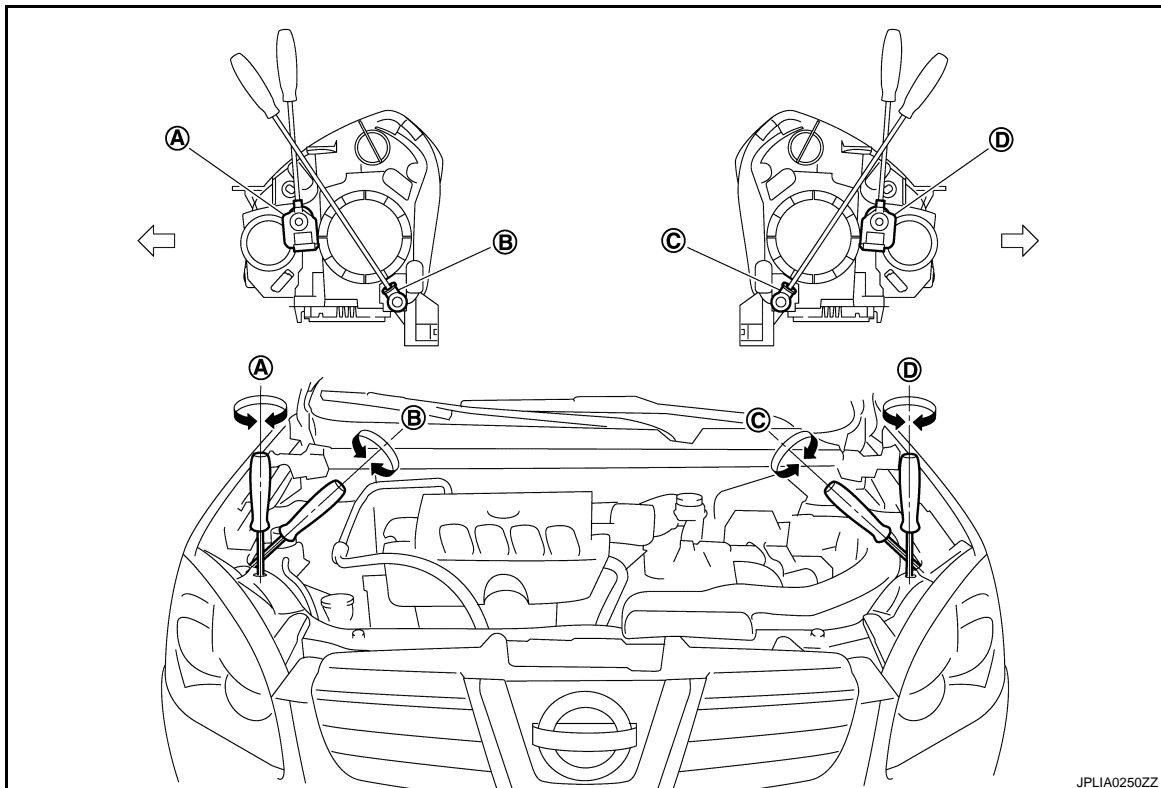
- Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.

AIMING ADJUSTMENT SCREW



JPLIA0250ZZ

- A. Headlamp RH (UP/DOWN) adjustment screw
- B. Headlamp RH (INSIDE/OUTSIDE) adjustment screw
- C. Headlamp LH (INSIDE/OUTSIDE) adjustment screw
- D. Headlamp LH (UP/DOWN) adjustment screw

↔: Vehicle center

HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

	Adjustment screw	Screw driver rotation	Facing direction
A	Headlamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Headlamp RH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE
C	Headlamp LH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE
D	Headlamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN

LHD

LHD : Aiming Adjustment Procedure

INFOID:000000001188739

- Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

- Face the vehicle squarely toward the screen and make the distance between the headlamp center and the screen 10 m (32.8 ft).

- Start the engine and illuminate the headlamp (LO).

NOTE:

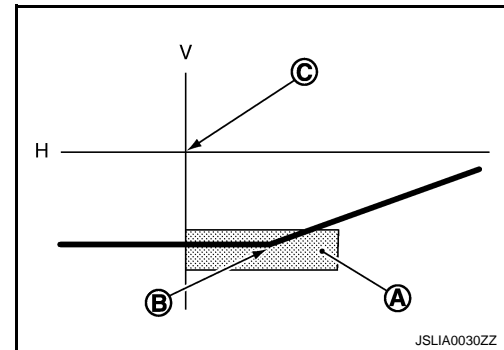
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

- Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area
- B. Elbow point
- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

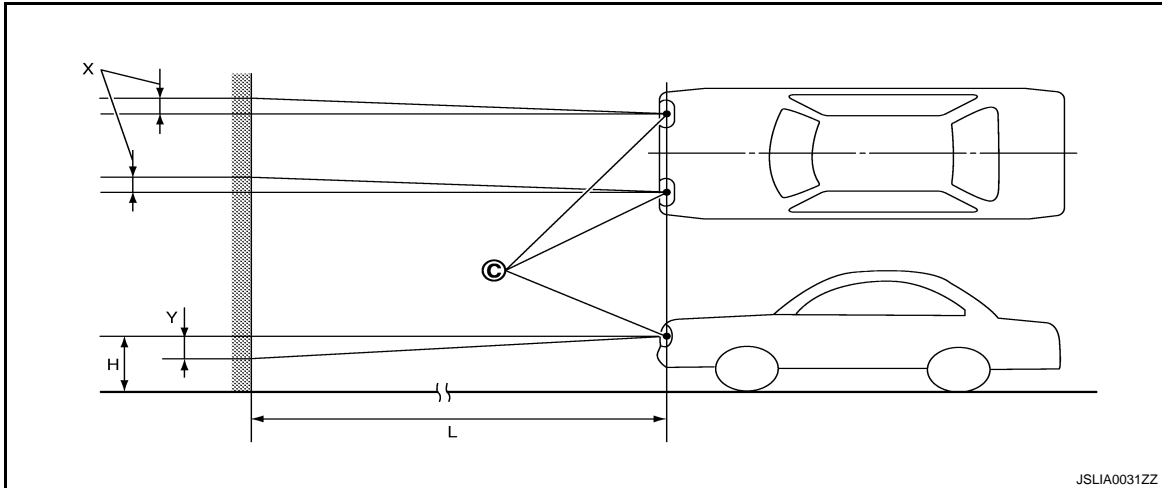
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Right side from headlamp centerline)
100 – 124 (3.94 – 4.88)	Within 120 (4.72)

HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]



JSLIA0031ZZ

- C. Vertical center line of headlamp H. Horizontal center line of headlamp L. Distance from headlamp center to screen
X. Aiming adjustment area (lateral) Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

RHD

RHD : Aiming Adjustment Procedure

INFOID:000000001188740

1. Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the headlamp center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the headlamp (LO).

NOTE:

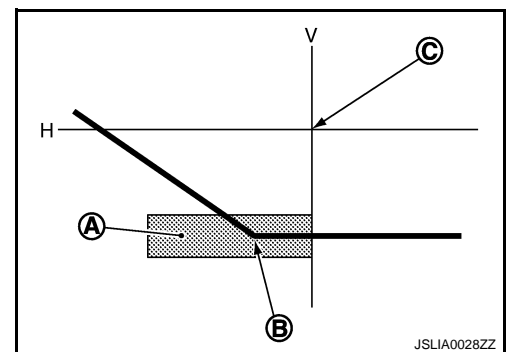
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

4. Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



JSLIA0028ZZ

- A. Aiming adjustment area
B. Elbow point
C. Headlamp center

HEADLAMP AIMING ADJUSTMENT

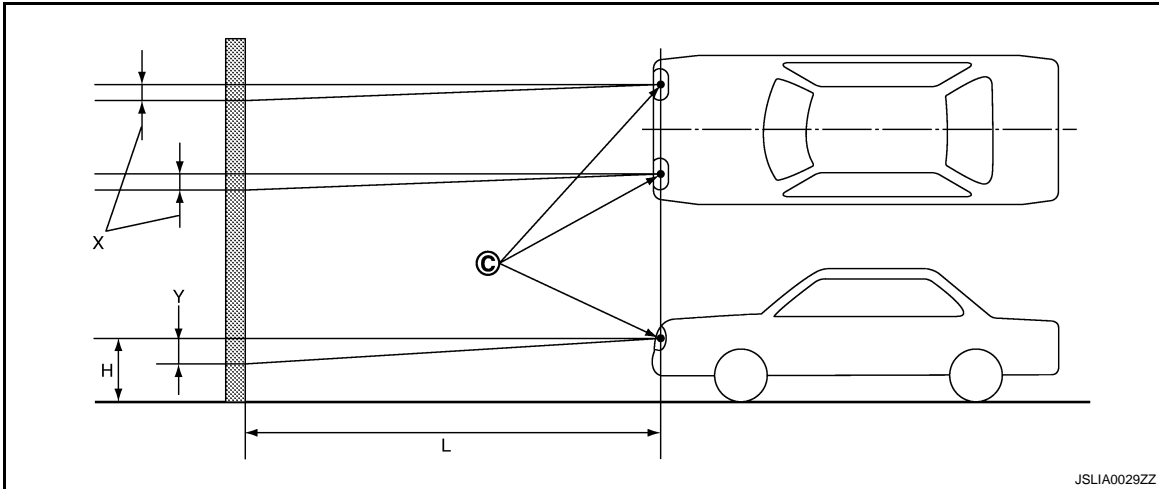
< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Left side from headlamp centerline)
100 – 124 (3.94 – 4.88)	Within 120 (4.72)



- C. Vertical center line of headlamp
- H. Horizontal center line of headlamp
- L. Distance from headlamp center to screen
- X. Aiming adjustment area (lateral)
- Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

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EXL

FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description

INFOID:000000001188741

PREPARATION BEFORE ADJUSTING

NOTE:

For details, refer to the regulations in your own country.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

- Wipe out dirt on the front fog lamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.

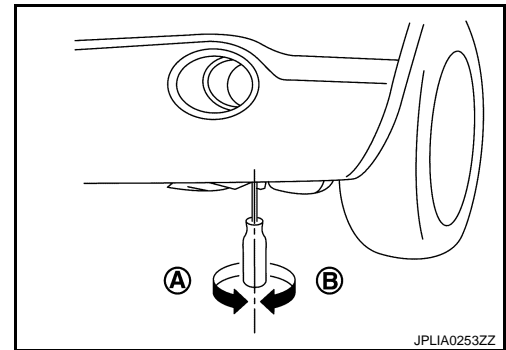
AIMING ADJUSTMENT SCREW

- Turn the aiming adjusting screw for adjustment.
- For the position and direction of the adjusting screw, refer to the figure.

NOTE:

A screwdriver or hexagonal wrench (6 mm) can be used for adjustment.

- A. UP
- B. DOWN



Aiming Adjustment Procedure

INFOID:000000001188742

1. Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the front fog lamp center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the front fog lamp.

NOTE:

Block light from the front fog lamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

4. Use the aiming adjustment screw to adjust the elbow point projected by the front fog lights on the screen, so that it is within the aiming adjustment area.

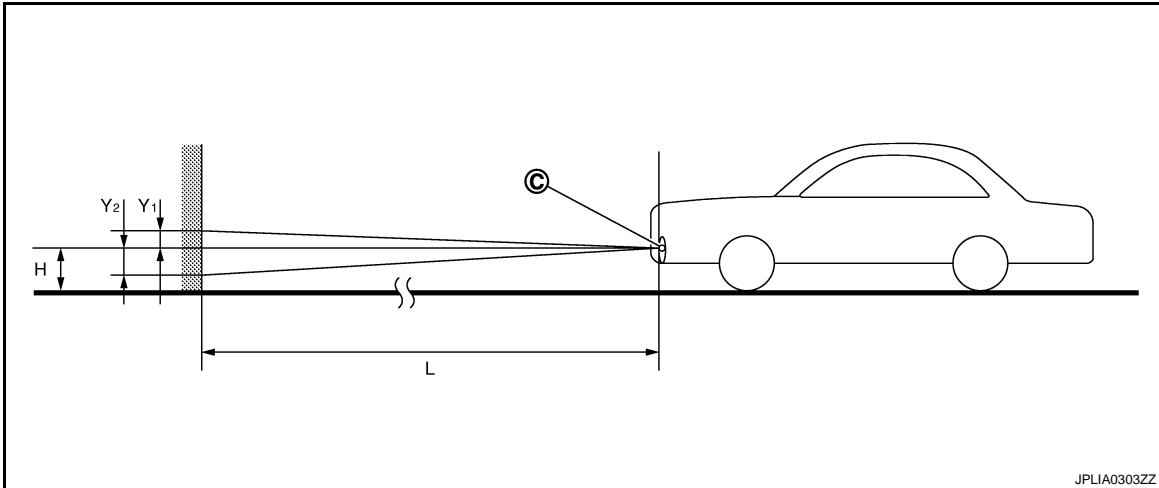
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y1) (Upper side from front fog lamp center height)	Vertical direction (Y2) (Lower side from front fog lamp center height)
100 (3.94)	200 (7.87)

FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]



- | | | |
|---|---|--|
| C. Vertical center line of front fog lamp | H. Horizontal center line of front fog lamp | L. Distance from front fog lamp center to screen |
| Y1. Aiming adjustment area (Upper) | Y2. Aiming adjustment area (Lower) | |

Distance from front fog lamp center to screen (L) : 10 m (32.8 ft)

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EXL

FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

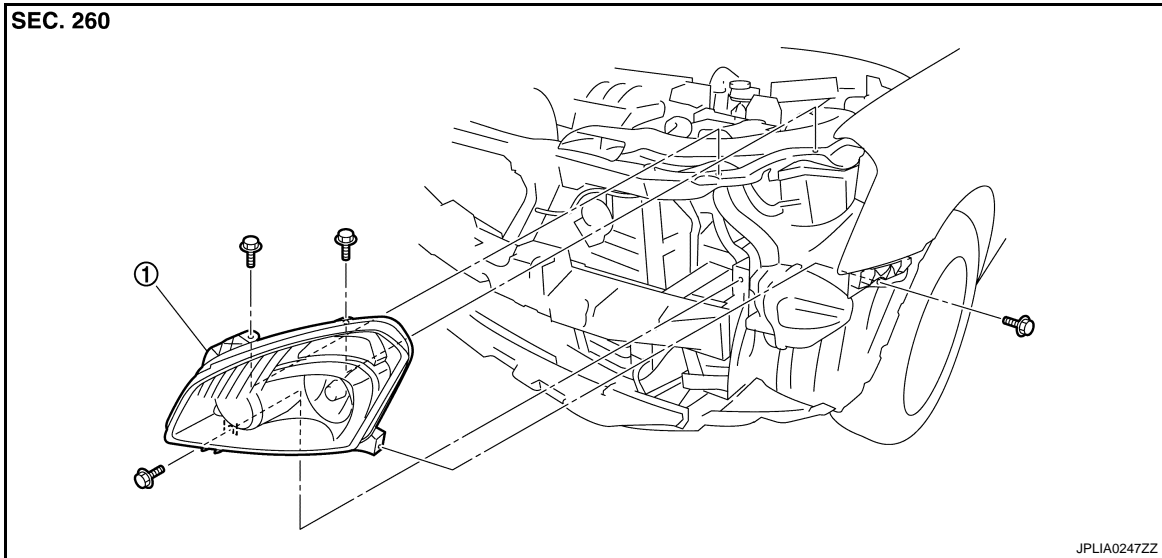
ON-VEHICLE REPAIR

FRONT COMBINATION LAMP

Exploded View

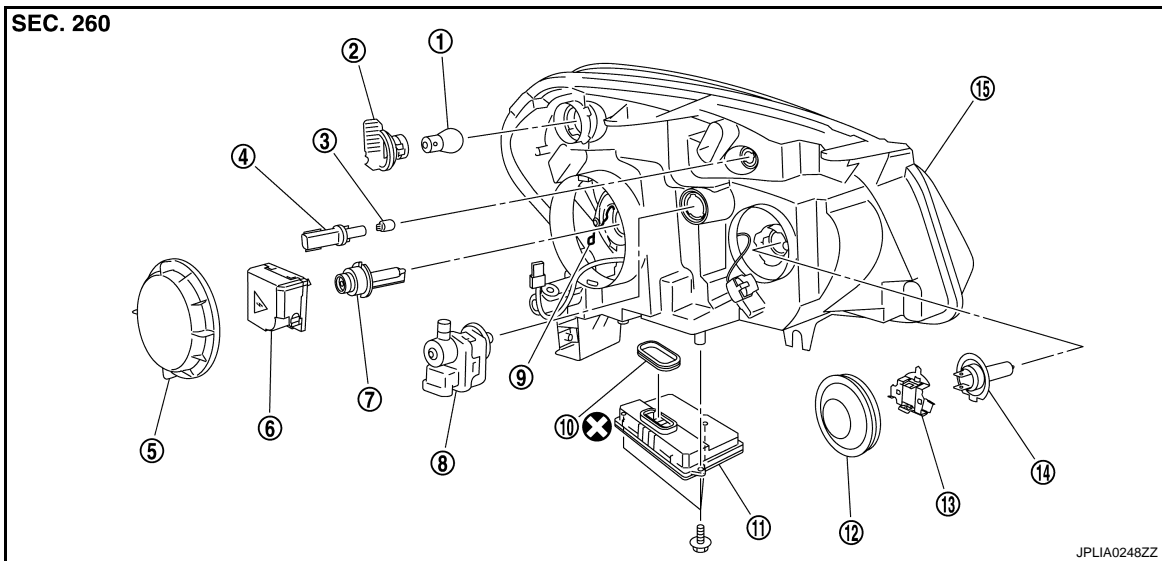
INFOID:000000001188743

REMOVAL



1. Front combination lamp

DISASSEMBLY



- | | | |
|--------------------------------|---------------------------------------|-------------------------------|
| 1. Front turn signal lamp bulb | 2. Front turn signal lamp bulb socket | 3. Parking lamp bulb |
| 4. Parking lamp bulb socket | 5. Resin cap | 6. Xenon bulb socket |
| 7. Xenon bulb (LO) | 8. Headlamp aiming motor | 9. Retaining spring |
| 10. Seal packing | 11. HID control unit | 12. Back cover |
| 13. Retaining plate | 14. Halogen bulb (HI) | 15. Headlamp housing assembly |

Refer to [GI-4, "Components"](#) for symbols not described above.

FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

Removal and Installation

INFOID:000000001188744

REMOVAL

CAUTION:

Disconnect the battery negative terminal or the fuse.

1. Remove front bumper fascia. Refer to [EXT-11, "Exploded View"](#).
2. Remove the headlamp mounting bolts.
3. Pull out the headlamp assembly forward the vehicle.
4. Disconnect the connector before removing the headlamp assembly.

INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-168, "Description"](#).

Replacement

INFOID:000000001188745

CAUTION:

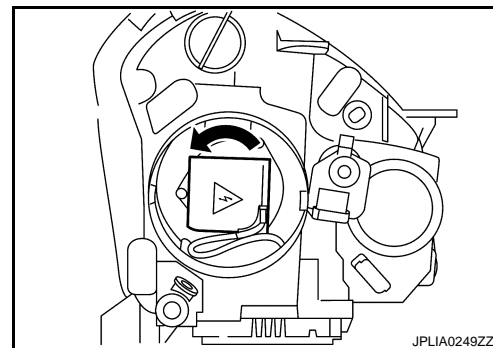
- Disconnect the battery negative terminal or the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.

HEADLAMP BULB (LO)

1. Remove the air duct (when replace a left). Keep a service area.
2. Rotate the resin cap counterclockwise and unlock it.
3. Disconnect the terminal which connect to a socket.
4. Rotate the bulb socket counterclockwise and unlock it.
5. Unlock the retaining spring. And then remove the bulb.

CAUTION:

Never break the xenon bulb ceramic tube when replacing the bulb.



HEADLAMP BULB (HI)

1. Remove the air duct (when replace a left). Keep a service area.
2. Remove the back cover.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

PARKING LAMP BULB

1. Rotate the bulb socket clockwise and unlock it.
2. Remove the bulb from the bulb socket.

FRONT TURN SIGNAL LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

Disassembly and Assembly

INFOID:000000001188746

DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Disconnect the terminal which connect to a socket.
3. Rotate the xenon bulb socket counterclockwise and unlock it.

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FRONT COMBINATION LAMP

[XENON TYPE]

< ON-VEHICLE REPAIR >

4. Unlock the retaining spring. And then remove the xenon bulb.
5. Remove the HID control unit installation screw.
6. Remove the screw. Disconnect the connector from HID control unit.
7. Remove the back cover.
8. Rotate the halogen bulb socket counterclockwise and unlock it.
9. Remove the halogen bulb from the halogen bulb socket.
10. Rotate the parking lamp bulb socket clockwise and unlock it.
11. Remove the parking lamp bulb from the bulb socket.
12. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
13. Remove the front turn signal lamp bulb from the bulb socket.
14. Rotate the headlamp aiming motor counterclockwise and unlock it.
15. Remove the headlamp aiming motor.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

- **Install HID control unit securely.**
- **After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**

FRONT FOG LAMP

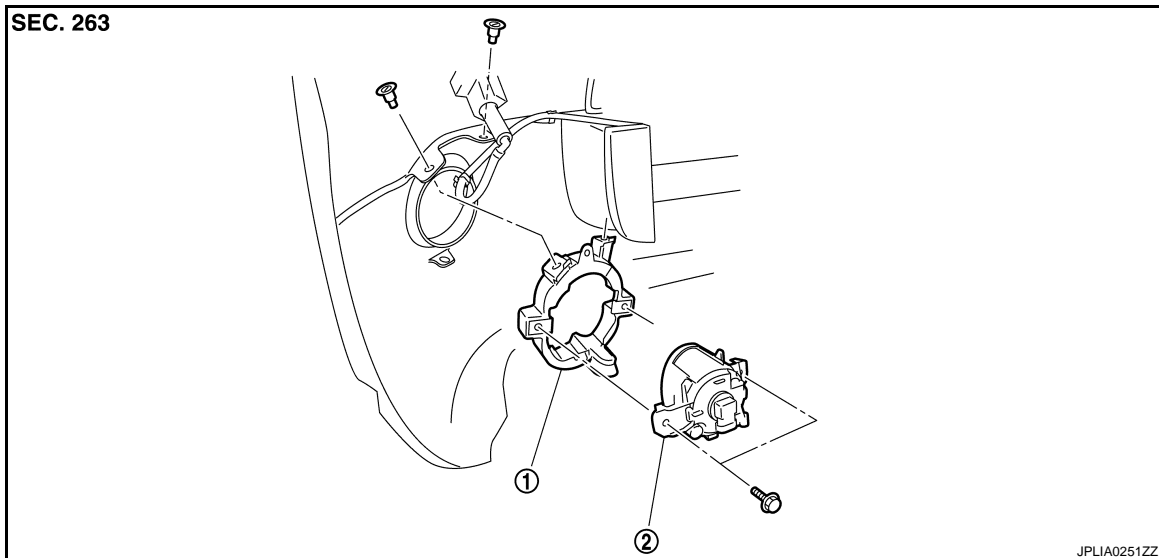
< ON-VEHICLE REPAIR >

[XENON TYPE]

FRONT FOG LAMP

Exploded View

INFOID:000000001188747



1. Front fog lamp bracket
2. Front fog lamp

Removal and Installation

INFOID:000000001188748

REMOVAL

1. Remove the inner fender protector. Keep a service area. Refer to [EXT-21. "Exploded View"](#).
2. Disconnect the front fog lamp connector.
3. Remove the screw. Remove the front fog lamp.
4. Remove the clip. Remove the front fog lamp bracket.

INSTALLATION

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-172. "Description"](#).

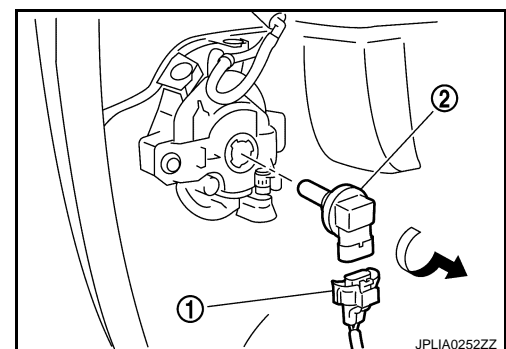
Replacement

INFOID:000000001188749

CAUTION:

Disconnect the battery negative terminal or the fuse.

1. Remove the fender protector. Keep the service area.
2. Disconnect the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.



LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[XENON TYPE]

LIGHT & RAIN SENSOR

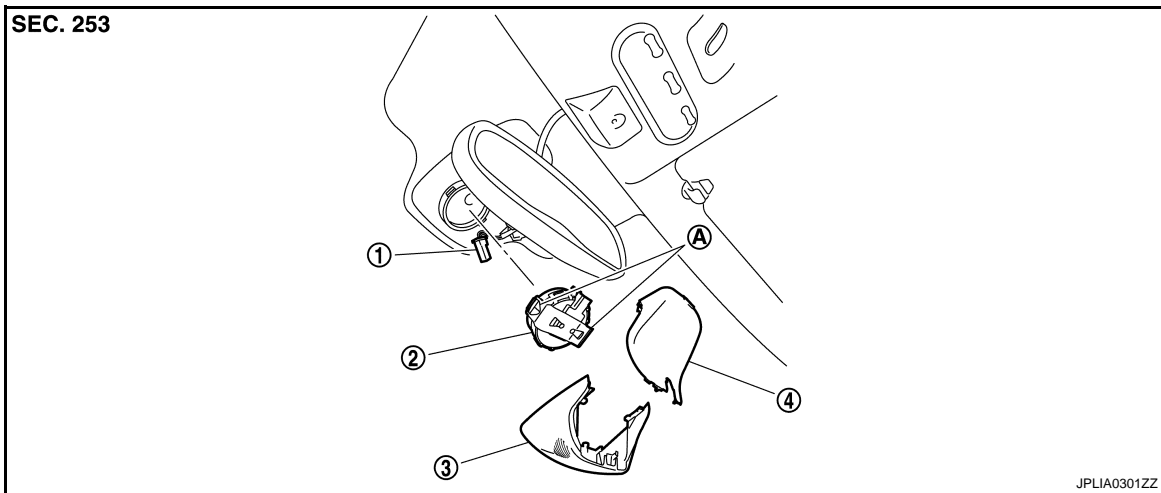
Exploded View

INFOID:000000001188750

CAUTION:

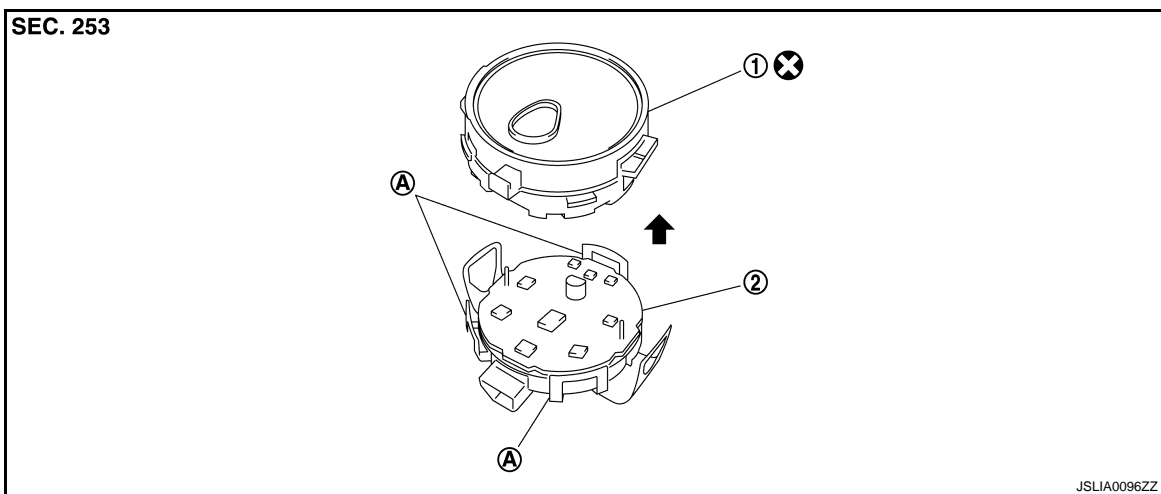
- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

REMOVAL



1. Light & rain sensor connector
2. Light & rain sensor
3. Inside mirror cover (lower)
4. Inside mirror cover (upper)
- A. Metal spring clip

DISASSEMBLY



1. Light & rain sensor housing
2. Light & rain sensor
- A. Pawl

Refer to [GI-4, "Components"](#) for symbols not described above.

CAUTION:

Never touch the electronic circuit board.

LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[XENON TYPE]

Removal and Installation

INFOID:000000001188751

CAUTION:

- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

REMOVAL

1. Remove the inside mirror cover (upper and lower). Refer to [MIR-18, "Exploded View"](#).
2. Disengage the both sides of metal spring clips, and remove the light & rain sensor from the windshield.
3. Disconnect light & rain sensor connector.

NOTE:

When replacing the light & rain sensor housing;
Disengage the pawls, and remove the light & rain sensor housing from the light & rain sensor.

CAUTION:

Never touch the electronic circuit board.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Surface of windshield should be cleaned.
- Never touch gel/adhesive of new part.

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LIGHTING & TURN SIGNAL SWITCH

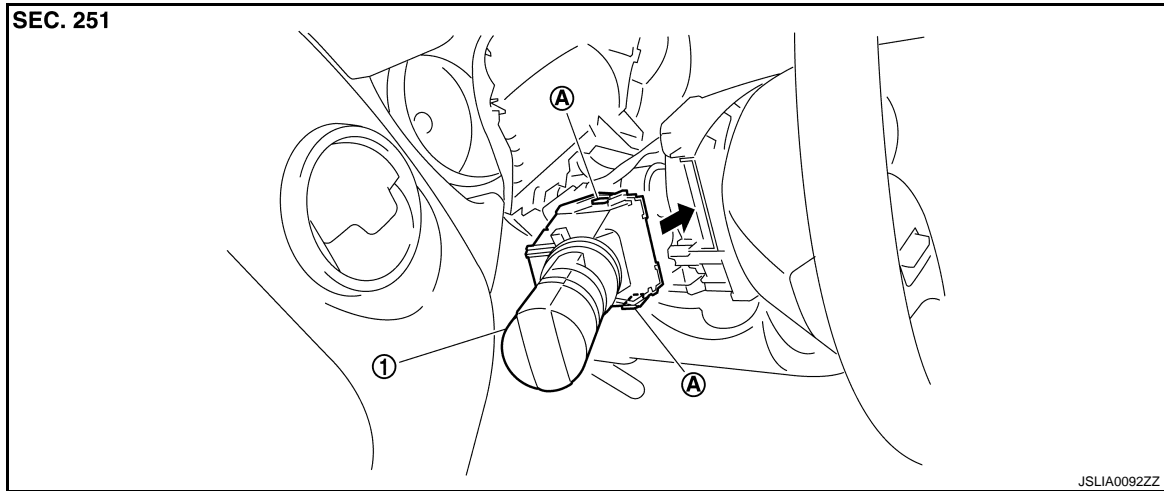
< ON-VEHICLE REPAIR >

[XENON TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:000000001188752



- 1. Light & turn signal switch
- A. Pawl

Removal and Installation

INFOID:000000001188753

REMOVAL

1. Remove steering column cover. Refer to [IP-11. "Exploded View"](#).
2. While pressing pawls, pull the light & turn signal switch. And disconnect from the switch base.

INSTALLATION

Installation is the reverse order of removal.

SIDE TURN SIGNAL LAMP

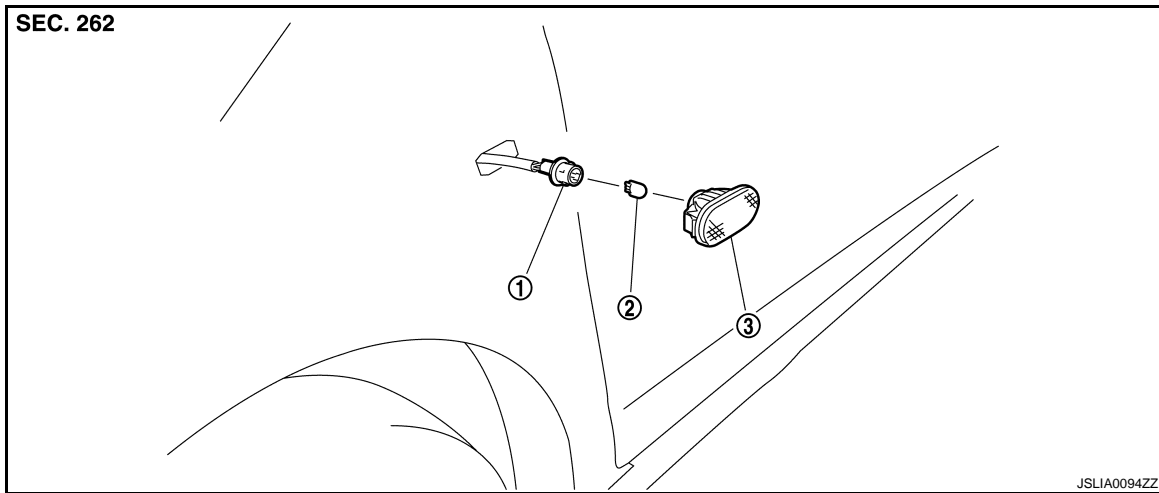
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[XENON TYPE]

SIDE TURN SIGNAL LAMP

Exploded View

INFOID:000000001188754



1. Side turn signal lamp bulb socket
2. Side turn signal lamp bulb
3. Side turn signal lamp housing

Removal and Installation

INFOID:000000001188755

CAUTION:
Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Insert a spatula or the similar tool under the side turn signal lamp. While pushing the pawl of the lamp, pull off the lamp from the vehicle.
2. Disconnect side turn signal lamp connector.

NOTE:

Support side turn signal lamp harness with tape so that it won't fall into the front fender.

INSTALLATION

Install in the reverse order of removal.

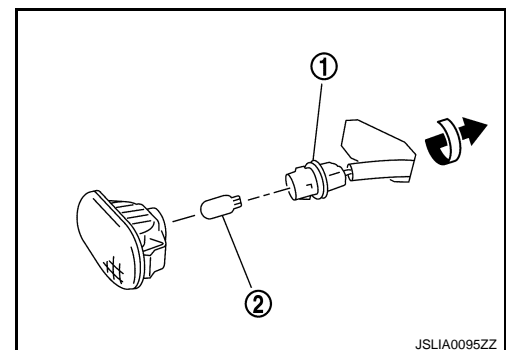
Replacement

INFOID:000000001188756

CAUTION:
Disconnect battery negative terminal or remove the fuse.

SIDE TURN SIGNAL LAMP BULB

1. Remove the side turn signal lamp.
2. Rotate the bulb socket (1) counterclockwise and unlock it.
NOTE:
Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.
3. Remove the bulb (2) from the bulb socket.



HAZARD SWITCH

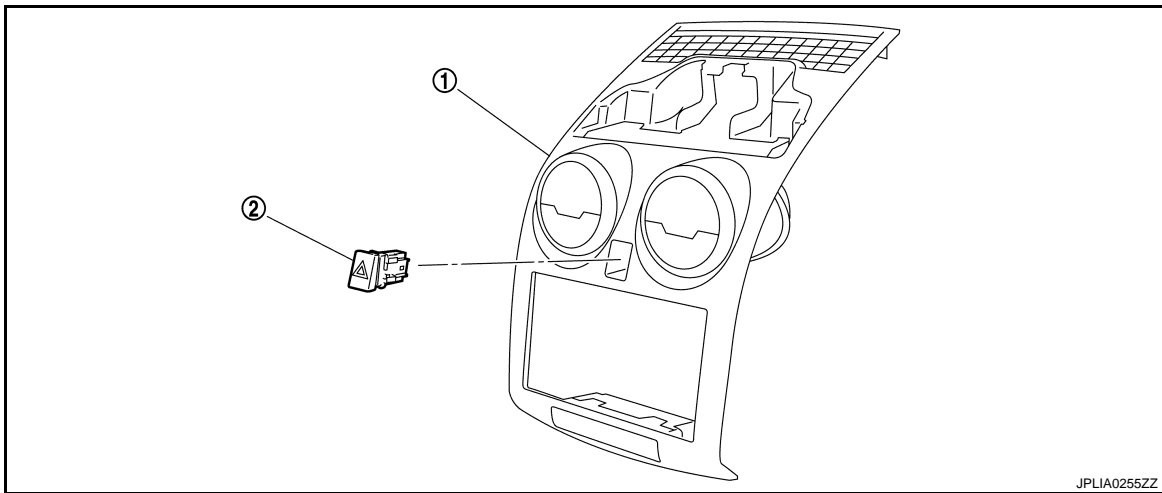
< ON-VEHICLE REPAIR >

[XENON TYPE]

HAZARD SWITCH

Exploded View

INFOID:000000001188757



1. Cluster lid C

2. Hazard switch

Removal and Installation

INFOID:000000001188758

REMOVAL

1. Remove the cluster lid C. Refer to [IP-11. "Exploded View"](#).
2. Widen the pawl. Remove hazard switch.

INSTALLATION

Install in the reverse order of removal.

AUTO LEVELIZER CONTROL UNIT

< ON-VEHICLE REPAIR >

[XENON TYPE]

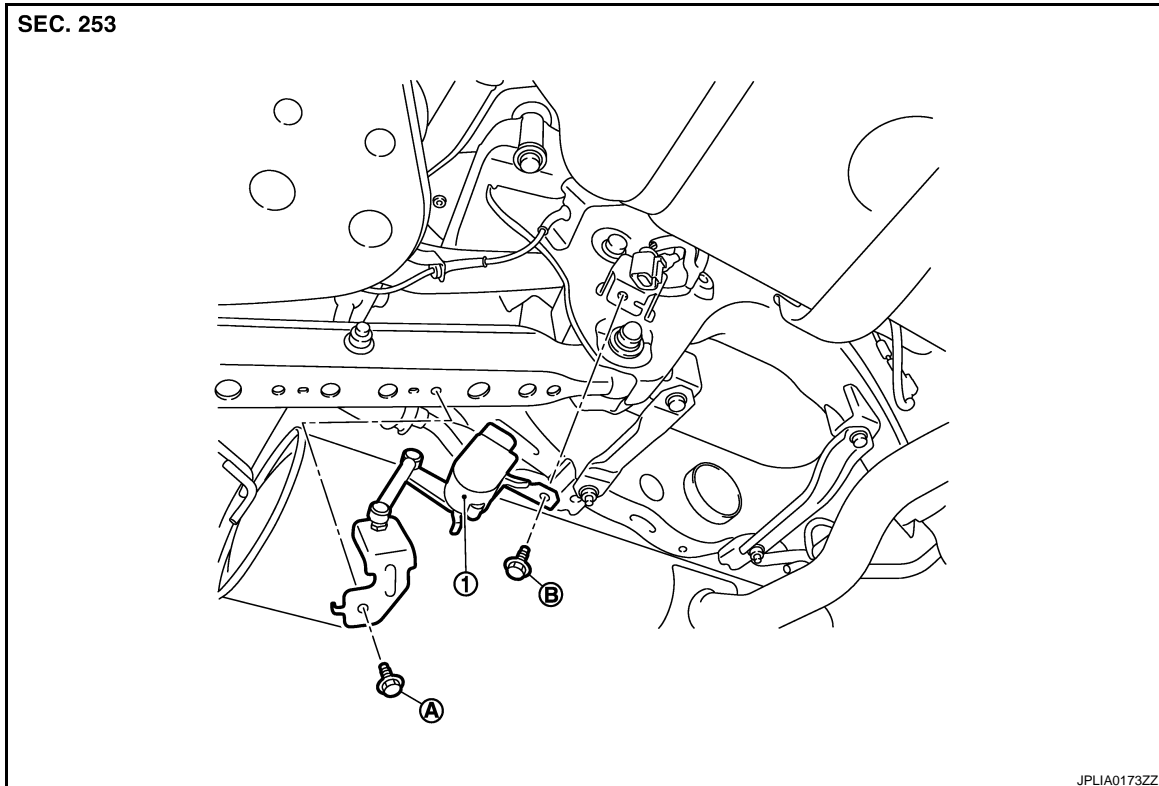
AUTO LEVELIZER CONTROL UNIT

Exploded View

INFOID:000000001188759

CAUTION:

Before replacing the auto levelizer control unit, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [EXL-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).



1. Auto levelizer control unit
- A. Sensor lever link bracket bolt
- B. Auto levelizer control unit mounting bolt

Removal and Installation

INFOID:000000001188760

CAUTION:

Before replacing the auto levelizer control unit, perform "READ CONFIGURATION" to save or print current vehicle specification. Refer to [EXL-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

Removal

1. Remove auto levelizer control unit mounting bolt.
2. Remove sensor lever link bracket bolt.
3. Disconnect auto levelizer control unit connector.
4. Remove auto levelizer control unit.

Installation

Install in the reverse order of removal.

CAUTION:

- Be sure to perform "SENSOR INITIALIZE" with CONSULT-III if auto levelizer control unit is removed.
- Be sure to perform "WRITE CONFIGURATION" with CONSULT-III when replacing the auto levelizer control unit.

Refer to [EXL-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

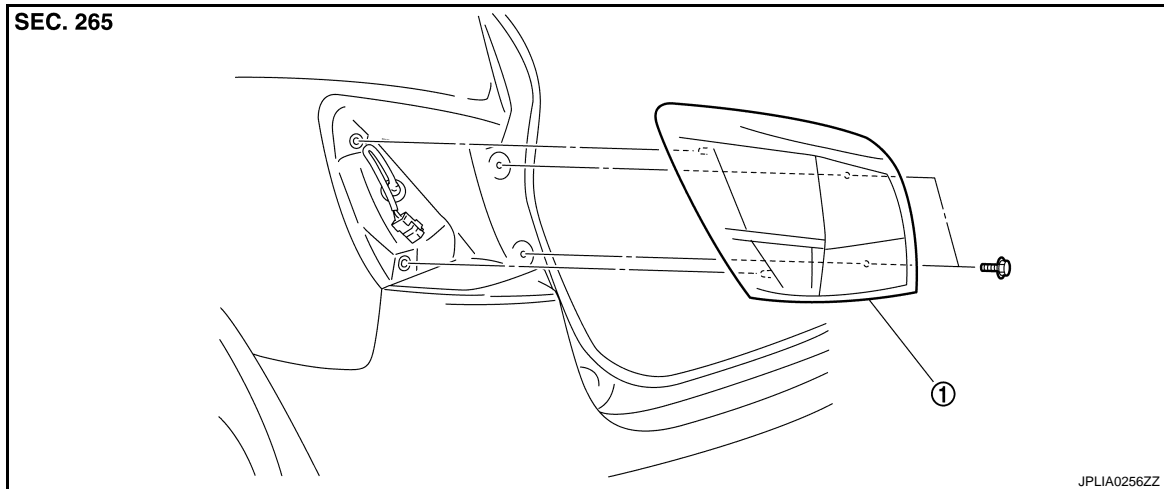
[XENON TYPE]

REAR COMBINATION LAMP

Exploded View

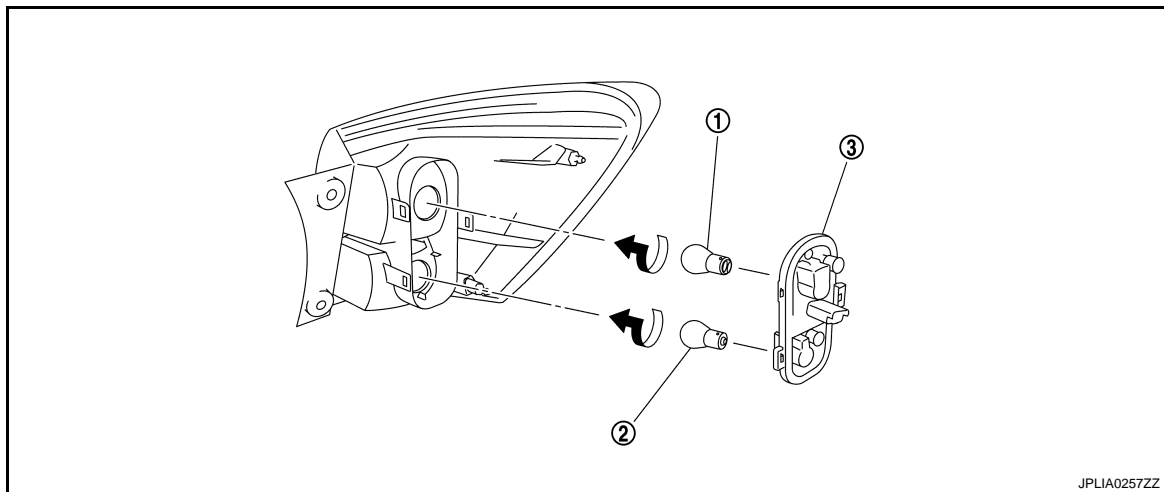
INFOID:000000001188761

REMOVAL



1. Rear combination lamp

DISASSEMBLY



1. Tail lamp bulb
2. Rear turn signal lamp bulb
3. Bulb cover

Removal and Installation

INFOID:000000001188762

CAUTION:
Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Remove the rear combination lamp.
3. Disconnect rear combination lamp connector.

INSTALLATION

Install in the reverse order of removal.

REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

Replacement

INFOID:000000001188763

CAUTION:

Disconnect the battery negative terminal or the fuse.

TAIL LAMP BULB

1. Remove the rear combination lamp.
2. Remove the bulb cover.
3. Rotate the tail lamp bulb counterclockwise, and remove it.

REAR TURN SIGNAL LAMP BULB

1. Remove the rear combination lamp.
2. Remove the bulb cover.
3. Rotate the rear turn signal lamp bulb counterclockwise, and remove it.

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HIGH-MOUNTED STOP LAMP

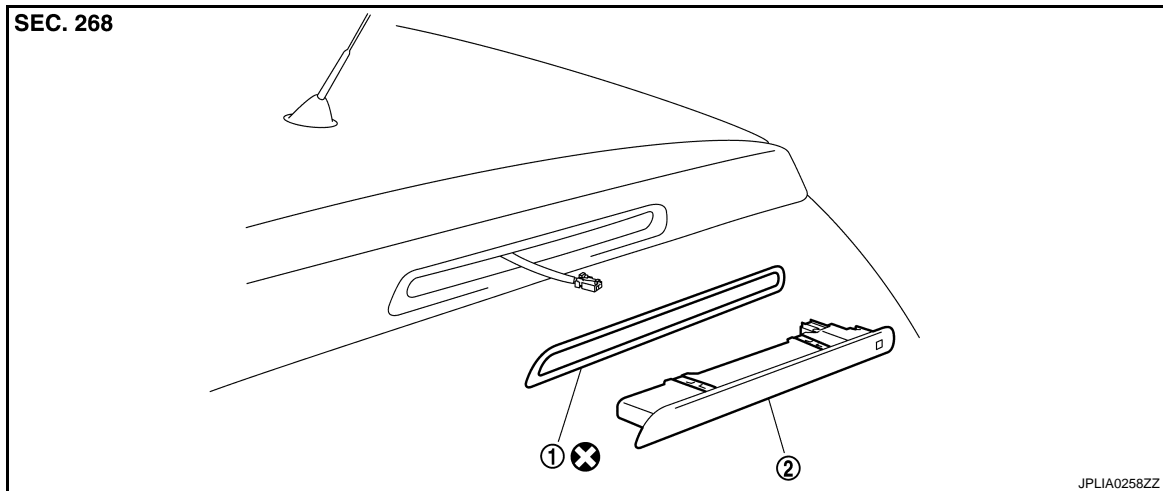
< ON-VEHICLE REPAIR >

[XENON TYPE]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000001188764



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4, "Components"](#) for symbols not described above.

Removal and Installation

INFOID:000000001188765

CAUTION:

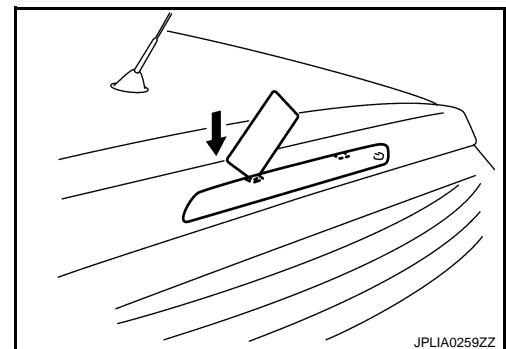
Disconnect battery negative terminal or remove the fuse.

REMOVAL

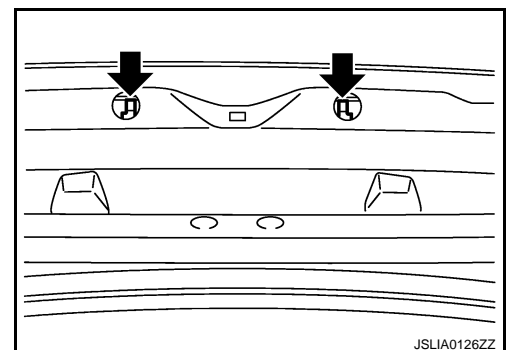
1. Insert a cards upper the high-mounted stop lamp. And unlock metal clips (upper).

CAUTION:

Never use a thick tool.



2. Remove the back door finisher upper. Refer to [EXT-31, "Exploded View"](#).
3. Unlock metal clips (lower side).
4. Pull off the high-mounted stop lamp from the vehicle.
5. Disconnect the high-mounted stop lamp connector.
6. Remove the rear washer tube.



INSTALLATION

Install in the reverse order of removal.

BACK-UP LAMP

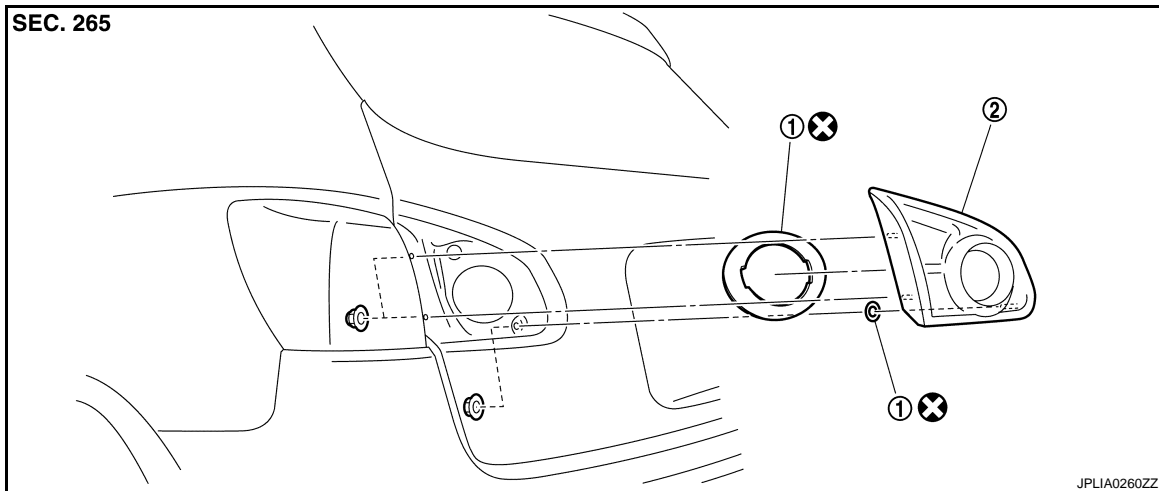
< ON-VEHICLE REPAIR >

[XENON TYPE]

BACK-UP LAMP

Exploded View

INFOID:000000001188766



1. Seal packing
2. Back-up lamp

Refer to [GI-4, "Components"](#) for symbols not described above.

Removal and Installation

INFOID:000000001188767

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Remove back door trim finisher lower. Refer to [INT-26, "Exploded View"](#).
2. Disconnect back-up lamp connector.
3. Remove back-up lamp mounting nuts. And then remove back-up lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

Replacement

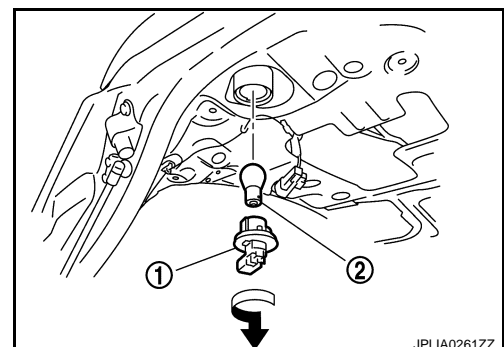
INFOID:000000001188768

CAUTION:

Disconnect the battery negative terminal or the fuse.

BACK-UP LAMP BULB

1. Remove back door trim finisher lower. Refer to [INT-26, "Exploded View"](#).
2. Disconnect the back-up lamp connector.
3. Rotate the bulb socket (1) counterclockwise and unlock it.
4. Remove the bulb (2) from the socket.



LICENSE PLATE LAMP

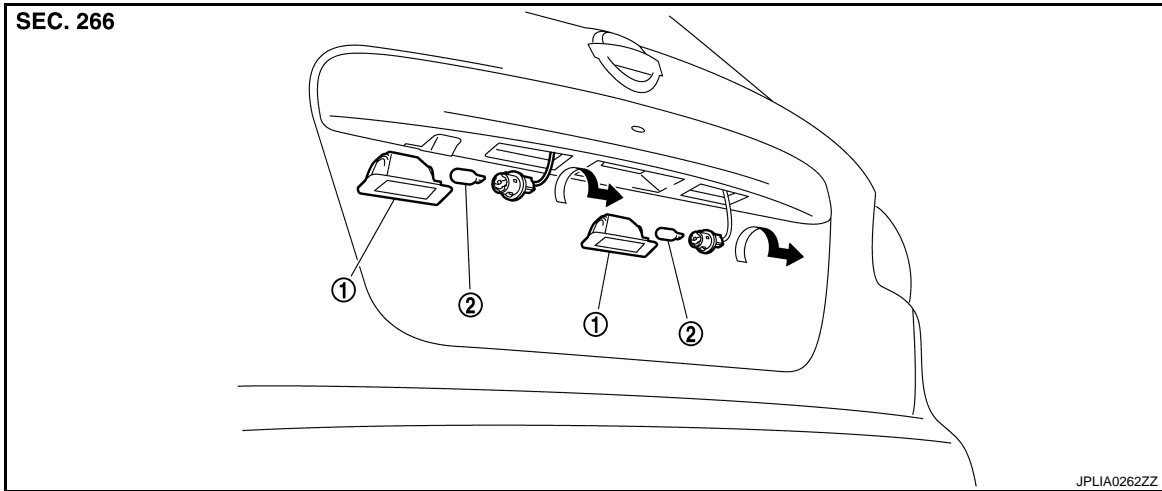
< ON-VEHICLE REPAIR >

[XENON TYPE]

LICENSE PLATE LAMP

Exploded View

INFOID:000000001188769



1. License plate lamp housing
2. License plate lamp bulb

Removal and Installation

INFOID:000000001188770

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. While pressing the license plate lamp to direction right side, pull it to direction outside and then remove it.
2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000001188771

CAUTION:

Disconnect the battery negative terminal or the fuse.

LICENSE PLATE LAMP BULB

1. Remove license plate lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the socket.

REAR FOG LAMP

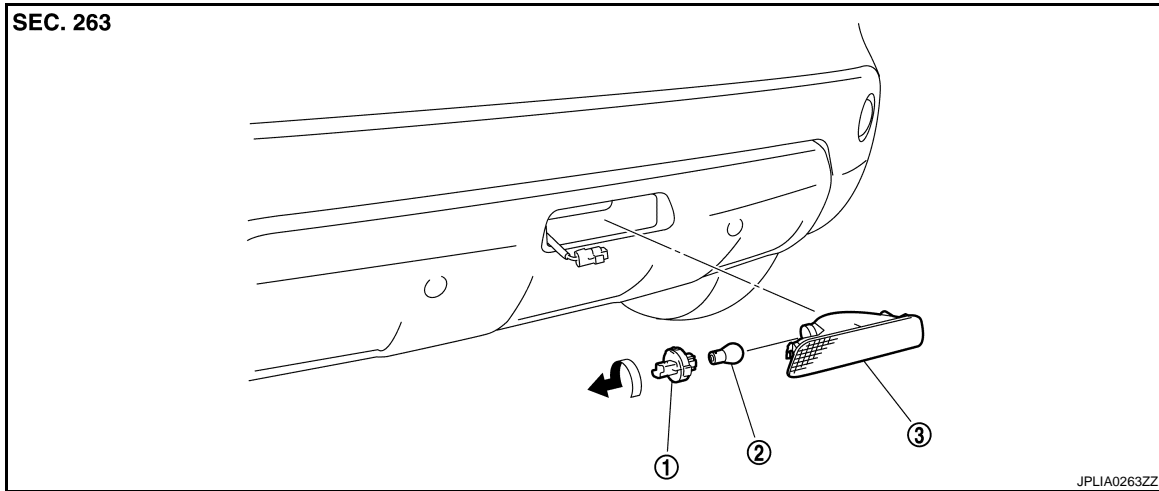
< ON-VEHICLE REPAIR >

[XENON TYPE]

REAR FOG LAMP

Exploded View

INFOID:000000001188772



1. Rear fog lamp bulb socket

2. Rear fog lamp bulb

3. Rear fog lamp housing

Removal and Installation

INFOID:000000001188773

CAUTION:
Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the rear fog lamp housing. And pull off the rear fog lamp from the vehicle.
2. Disconnect rear fog lamp connector.

INSTALLATION

Installation is the reverse order of removal.

Replacement

INFOID:000000001188774

CAUTION:
Disconnect battery negative terminal or remove the fuse.

REAR FOG LAMP BULB

1. Remove the rear fog lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from its socket.

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[XENON TYPE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000001188775

Item		Type	Wattage (W)
Front combination lamp	Headlamp (LO)	D2R (XENON)	35
	Headlamp (HI)	H7	55
	Front turn signal lamp	PY21W (Amber)	21
	Parking lamp	W5W	5
Front fog lamp		H11	55
Side turn signal lamp		WY5W (Amber)	5
Rear combination lamp	Stop lamp/Tail lamp	P21/5W	21/5
	Rear turn signal lamp	P21W	21
Back-up lamp		P21W	21
License plate lamp		W5W	5
High-mounted stop lamp		LED	—
Rear fog lamp		P21W	21

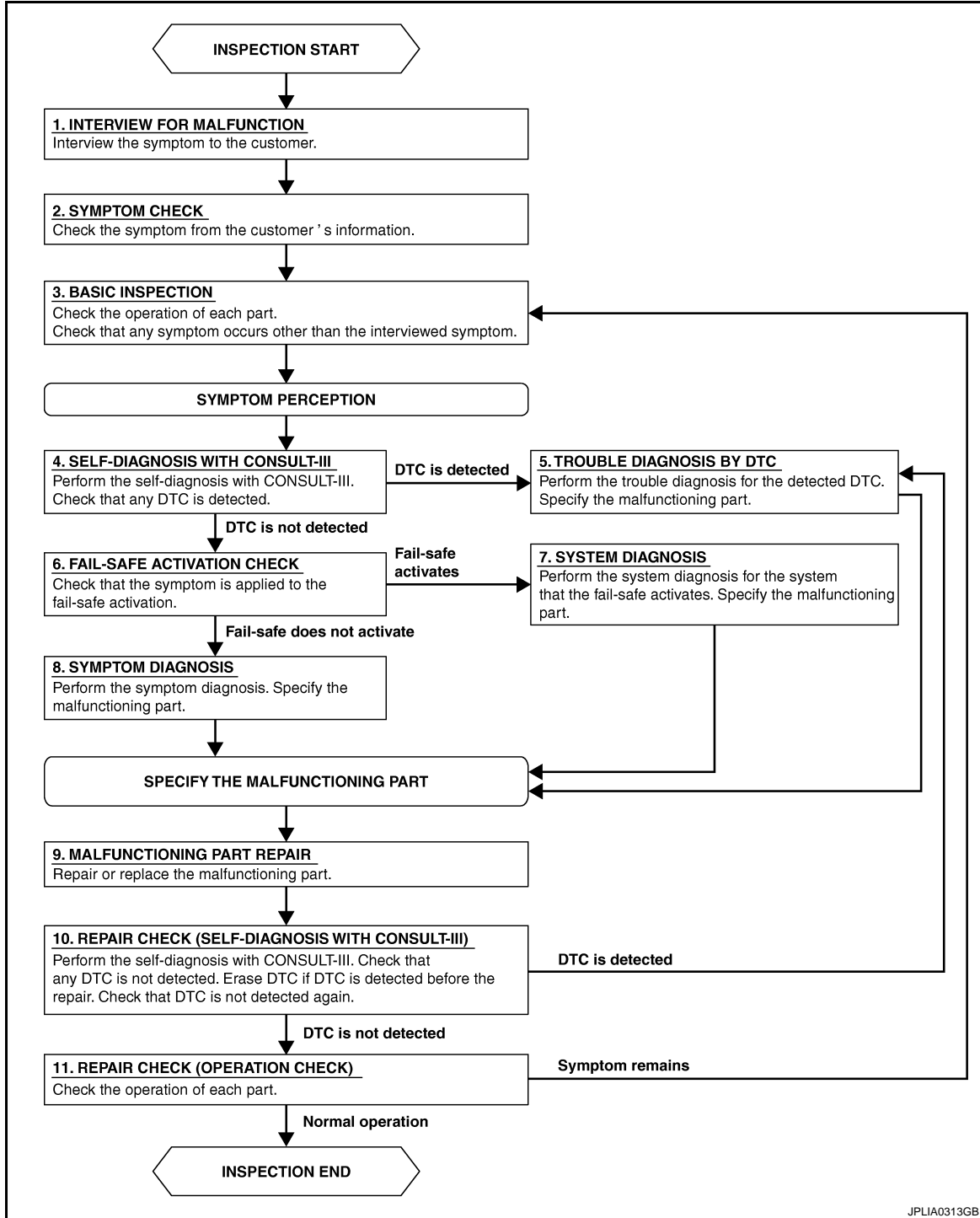
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001188776

OVERALL SEQUENCE



DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

DIAGNOSIS AND REPAIR WORKFLOW

[HALOGEN TYPE]

< BASIC INSPECTION >

>> GO TO 2.

2. SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3.

3. BASIC INSPECTION

Check the operation of each part. Check that any symptom occurs other than the interviewed symptom.

>> GO TO 4.

4. SELF-DIAGNOSIS WITH CONSULT-III

Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

5. TROUBLE DIAGNOSIS BY DTC

Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.

>> GO TO 9.

6. FAIL-SAFE ACTIVATION CHECK

Check that the symptom is applied to the fail-safe activation.

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

7. SYSTEM DIAGNOSIS

Perform the system diagnosis for the system that the fail-safe activates. Specify the malfunctioning part.

>> GO TO 9.

8. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

9. MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)

Perform the self-diagnosis with CONSULT-III. Check that any DTC is not detected. Erase DTC if DTC is detected before the repair. Check that DTC is not detected again.

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 11.

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

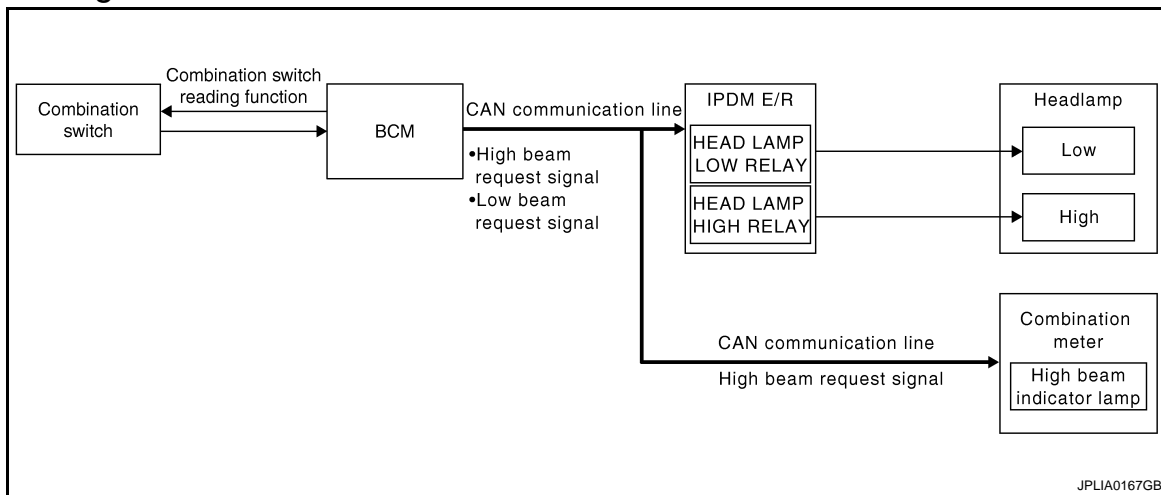
YES >> INSPECTION END

NO >> GO TO 3.

FUNCTION DIAGNOSIS

HEADLAMP SYSTEM

System Diagram



System Description

INFOID:000000001527691

OUTLINE

Headlamp is controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

HEADLAMP (LO) OPERATION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM transmits the low beam request signal to IPDM E/R with CAN communication according to the headlamp (LO) ON condition.

Headlamp (LO) ON condition

- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- Daytime running light ON judgment (With daytime running light system)
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

HEADLAMP (HI) OPERATION

- BCM transmits the high beam request signal to IPDM E/R and the combination meter with CAN communication according to the headlamp (HI) ON condition.

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND or AUTO (auto light function ON judgment)
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

FOLLOW ME HOME FUNCTION

When the driver is moving to the house entrance from the own vehicle, headlamp is kept still ON by the follow me home function of BCM.

- When BCM detects the input of lighting switch PASS with all of following condition, it transmits the low beam request signal for a period of time to IPDM E/R through CAN communication.
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.
- Ignition switch OFF
- Lighting switch OFF or AUTO

NOTE:

HEADLAMP SYSTEM

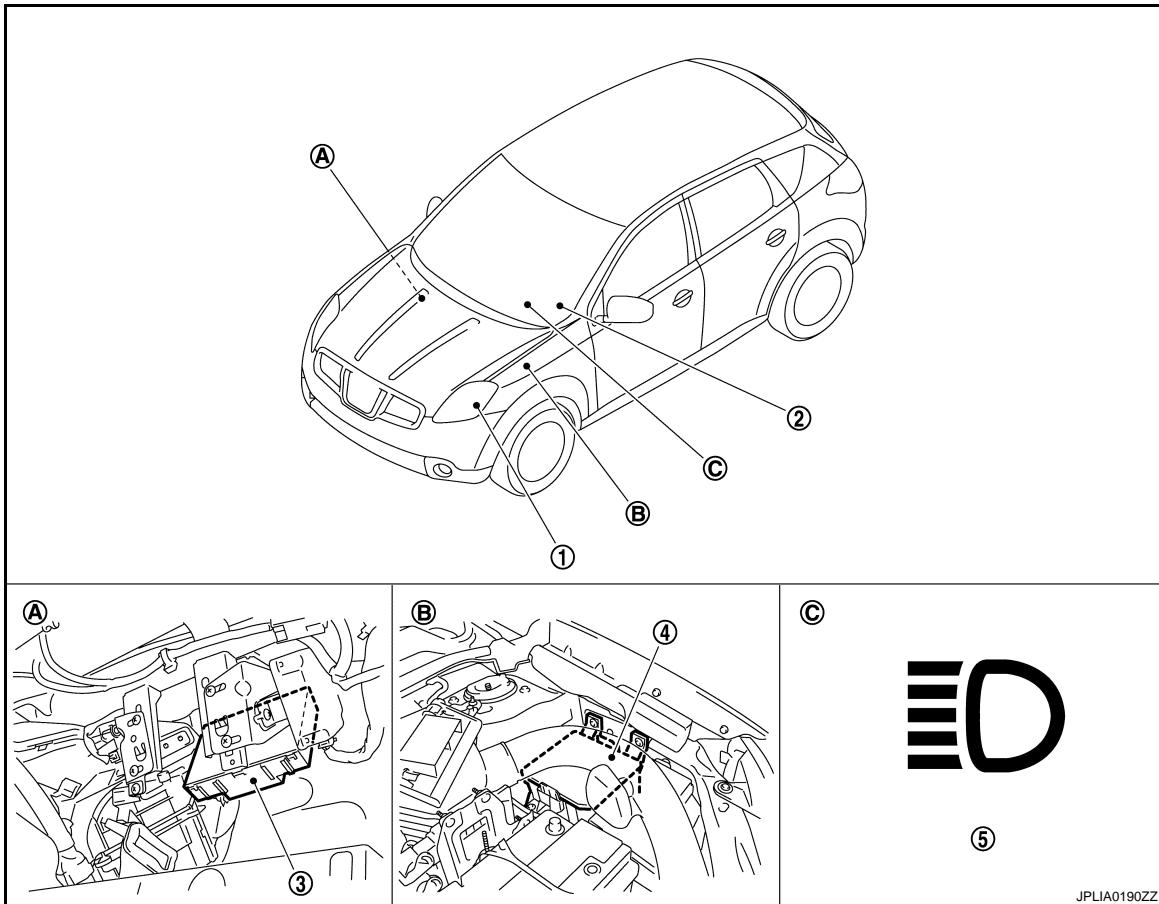
[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Follow me home function activating time can be set by CONSULT-III. Refer to [EXL-30, "HEADLAMP : CONSULT-III Function \(BCM - HEAD LAMP\)"](#).

Component Parts Location

INFOID:000000001527692



- | | | |
|-----------------------|-----------------------------|-----------------------------|
| 1. Headlamp | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. High beam indicator lamp | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

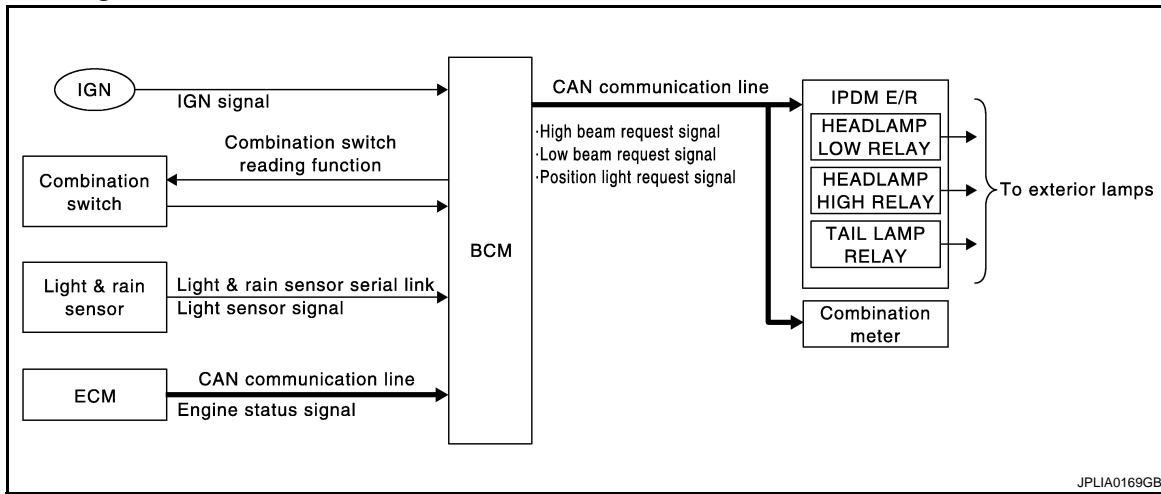
Component Description

INFOID:000000001188780

Part	Description
BCM	<ul style="list-style-type: none"> Judges each switch condition by the combination switch reading function. Judges that the headlamp is turned ON according to the vehicle condition. - Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication). - Requests the high beam indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication).

AUTO LIGHT SYSTEM

System Diagram



System Description

INFOID:000000001527711

OUTLINE

- Auto light system is controlled by each function of BCM and IPDM E/R.

Control by BCM

- Combination switch reading function
- Headlamp control function
- Auto light function

Control by IPDM E/R

- Relay control function
- Auto light function turns the exterior lamps* ON/OFF automatically according to the outside brightness.
*: Headlamp (LO/HI), parking lamp, tail lamp (Headlamp HI depends on the combination switch condition.)

AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link.
- BCM judges the ON/OFF status of the exterior lamp according to ON/OFF requests from light & rain sensor and the vehicle condition.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

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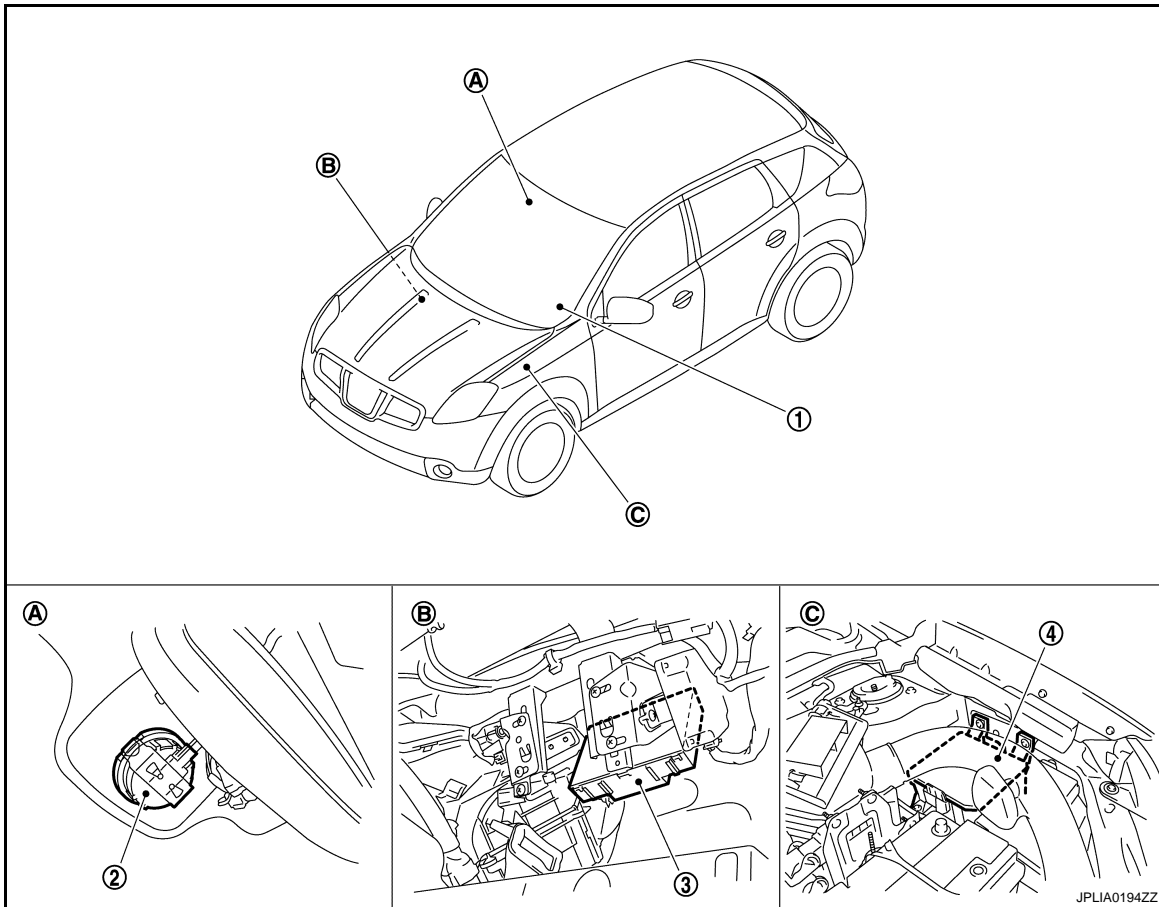
AUTO LIGHT SYSTEM

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001527712



1. Combination switch

4. IPDM E/R

A. Windshield upper

2. Light & rain sensor

B. Over the glove box

3. BCM

C. Engine room (left side)

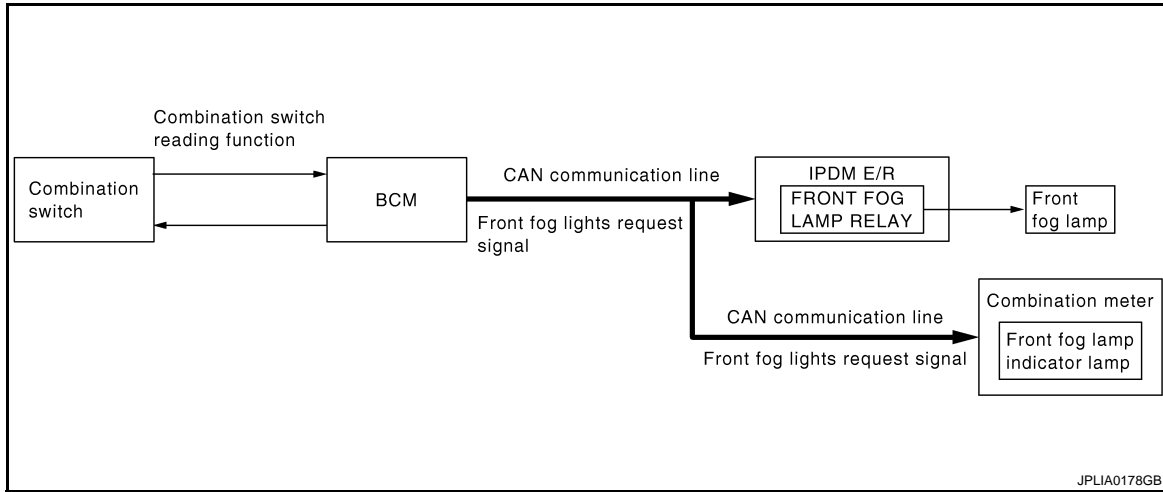
Component Description

INFOID:000000001527713

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link. • Judges the ON/OFF status of the exterior lamp according to requests from light & rain sensor and the vehicle condition. • Requests ON/OFF of each relay to IPDM E/R (with CAN communication).
IPDM E/R	Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Light & rain sensor	Refer to EXL-230, "Description" .

FRONT FOG LAMP SYSTEM

System Diagram



System Description

INFOID:000000001527715

OUTLINE

Front fog lamp is controlled by combination switch reading function and front fog lamp control function of BCM, and relay control function of IPDM E/R.

FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog lights request signal to IPDM E/R and the combination meter with CAN communication according to the front fog lamp ON condition.

Front fog lamp ON condition

- Front fog lamp switch ON
- Lighting switch 1ST, 2ND, or AUTO (ignition switch ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog lights request signal.
- Combination meter turns the front fog lamp indicator lamp ON according to the front fog lights request signal.

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EXL

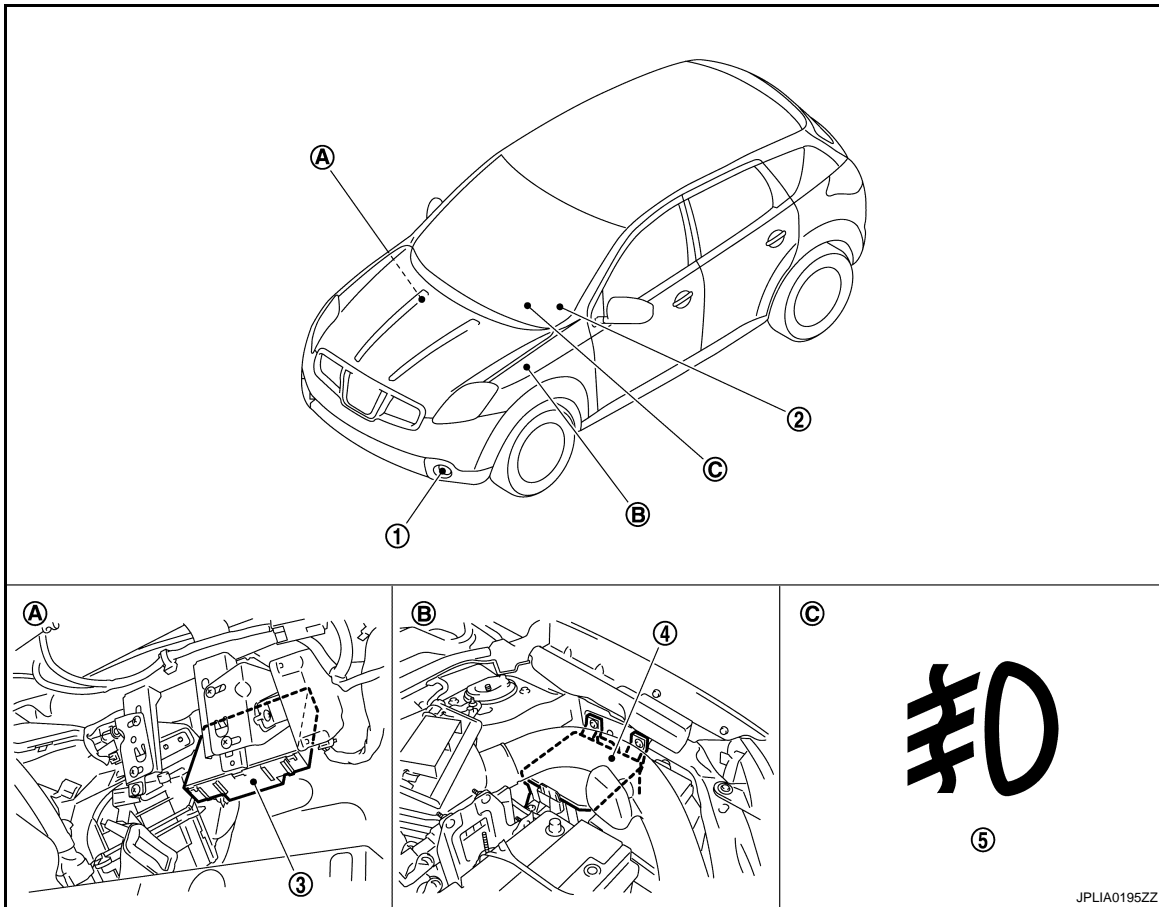
FRONT FOG LAMP SYSTEM

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001527716



- | | | |
|-----------------------|----------------------------------|-----------------------------|
| 1. Front fog lamp | 2. Combination switch | 3. BCM |
| 4. IPDM E/R | 5. Front fog lamp indicator lamp | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

Component Description

INFOID:000000001527717

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the front fog lamp ON/OFF status according to the vehicle condition. - Requests the front fog lamp relay ON to IPDM E/R (with CAN communication). - Requests the front fog lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (Front fog lamp indicator lamp)	Turns the front fog lamp indicator lamp ON according to the request from BCM.

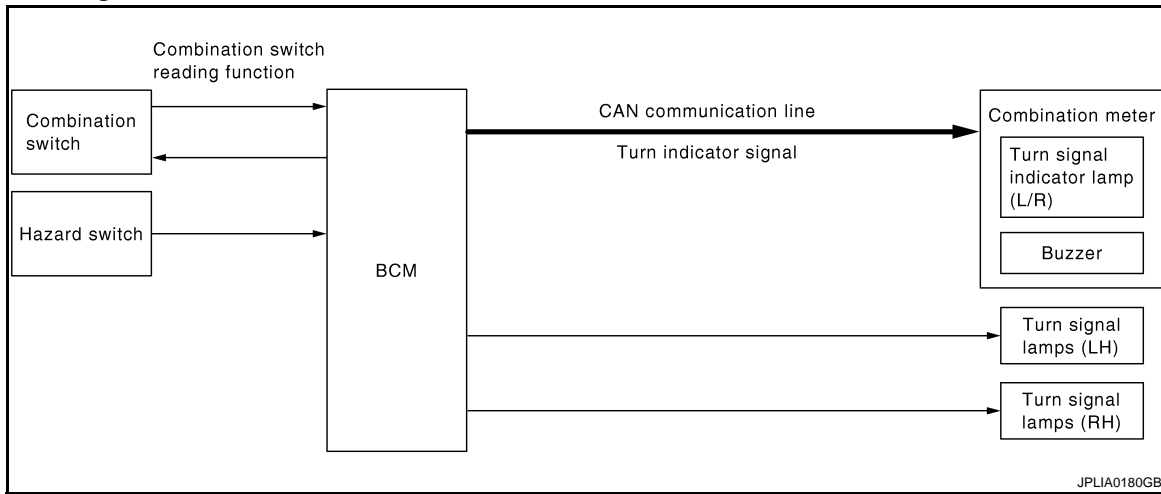
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

System Diagram



System Description

INFOID:000000001527723

OUTLINE

Turn signal lamp and the hazard warning lamp is controlled by combination switch reading function and the flasher control function of BCM.

TURN SIGNAL LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM supplies voltage to the right (left) turn signal lamp circuit when the ignition switch is turned ON and the turn signal switch is in the right (left) position. BCM blinks the turn signal lamp.

HAZARD WARNING LAMP OPERATION

BCM supplies voltage to both turn signal lamp circuit when the hazard switch is turned ON. BCM blinks the hazard warning lamp.

TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

- BCM transmits the turn signal indicator lamp signal to the combination meter with CAN communication while the turn signal lamp and the hazard warning lamp are operating.
- Combination meter outputs the turn signal sound with the integrated buzzer while blinking the turn signal indicator lamp according to the turn signal indicator lamp signal.

3-TIME FLASHER FUNCTION

By a short touch of the turn signal lever, BCM flashes 3 times the turn signal lamps in the selected direction.

HIGH FLASHER OPERATION (FAIL-SAFE)

- BCM detects the turn signal lamp circuit status from the terminal voltage.
- BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

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

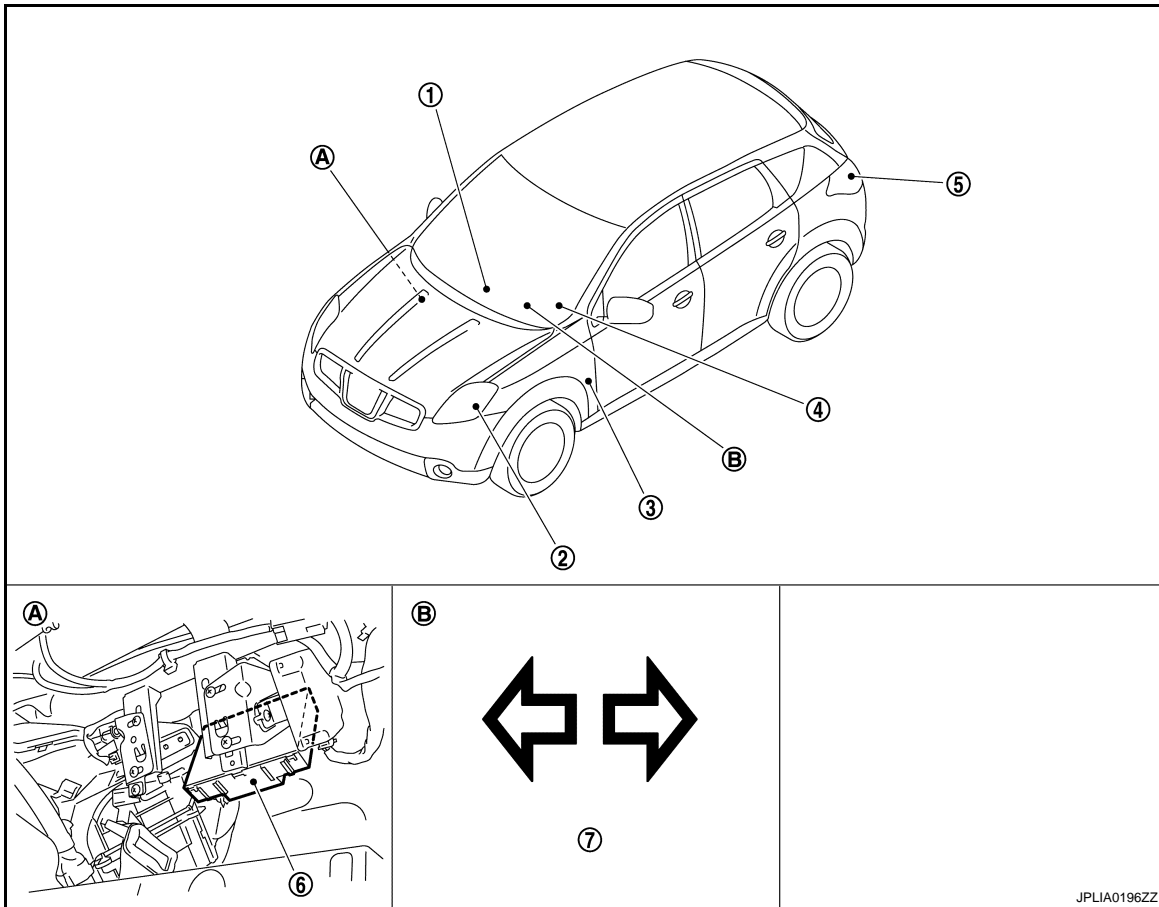
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000001527724



- | | | |
|-------------------------------|-----------------------------|--------------------------|
| 1. Hazard switch | 2. Front turn signal lamp | 3. Side turn signal lamp |
| 4. Combination switch | 5. Rear turn signal lamp | 6. BCM |
| 7. Turn signal indicator lamp | | |
| A. Over the glove box | B. On the combination meter | |

Component Description

INFOID:000000001527725

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks. • Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
Combination meter (Turn signal indicator lamp & buzzer)	Blinks the turn signal indicator lamp and outputs the turn signal operating sound with integrated buzzer according to the request from BCM (with CAN communication).

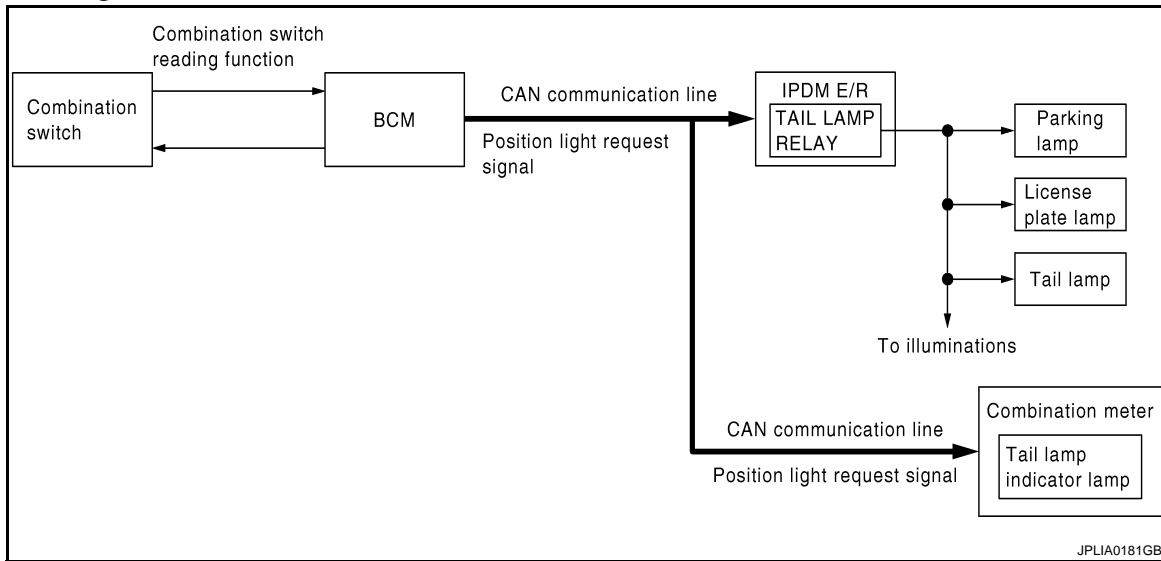
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

System Diagram



System Description

INFOID:000000001527727

OUTLINE

Parking, license plate and tail lamps are controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the position light request signal to IPDM E/R and the combination meter with CAN communication according to the ON/OFF condition of the parking, license plate and tail lamps.

Parking, license plate and tail lamps ON condition

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate and tail lamps ON according to the position light request signal.
- Combination meter turns the tail lamp indicator lamp ON according to the position light request signal.

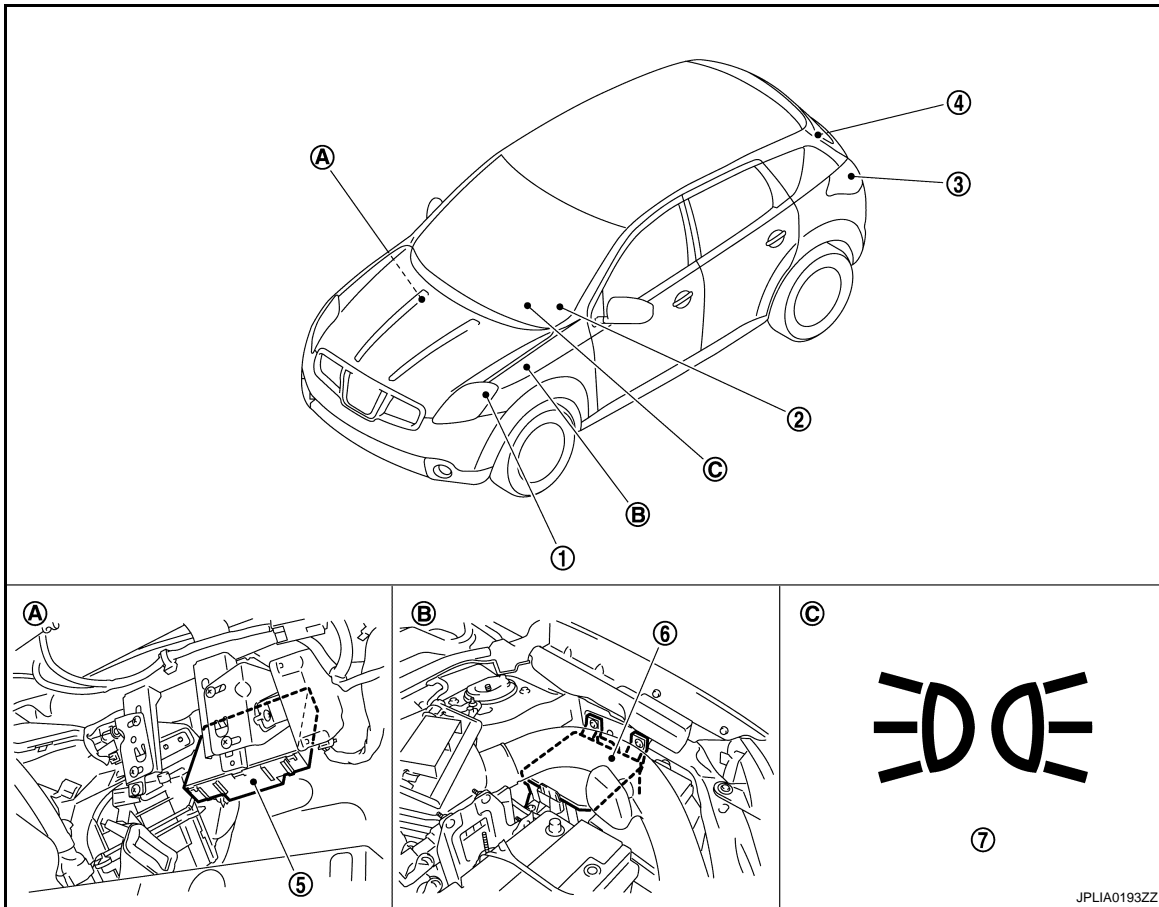
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000001527728



- | | | |
|-----------------------------|----------------------------|-----------------------------|
| 1. Parking lamp | 2. Combination switch | 3. Tail lamp |
| 4. License plate lamp | 5. BCM | 6. IPDM E/R |
| 7. Tail lamp indicator lamp | | |
| A. Over the glove box | B. Engine room (left side) | C. On the combination meter |

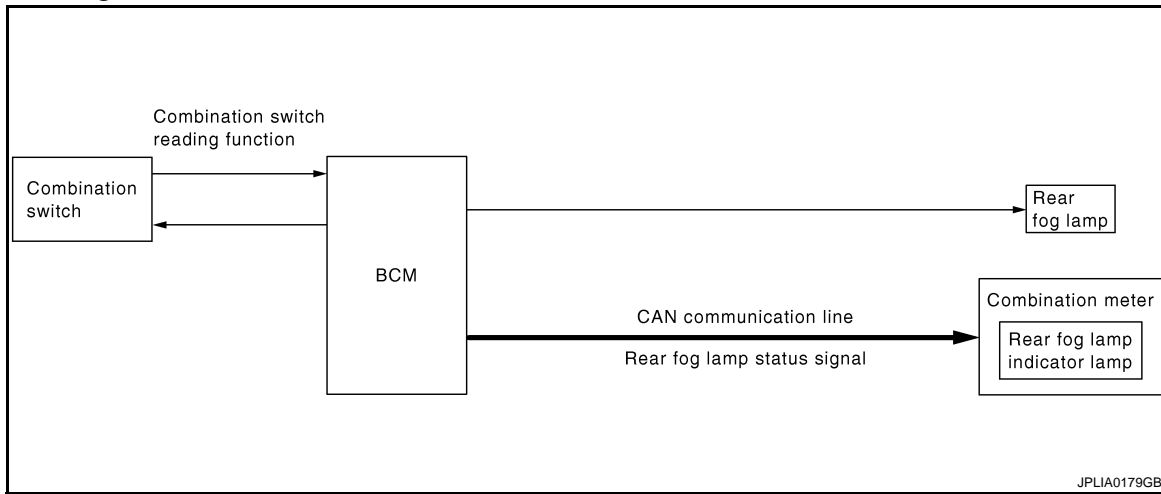
Component Description

INFOID:000000001527729

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition. - Requests the tail lamp relay ON to IPDM E/R (with CAN communication). - Requests the tail lamp indicator lamp ON to the combination meter (with CAN communication).
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM (with CAN communication).

REAR FOG LAMP SYSTEM

System Diagram



System Description

INFOID:000000001527731

OUTLINE

Rear fog lamp is controlled with the combination switch reading function and the rear fog lamp control function of BCM.

REAR FOG LAMP OPERATION

- BCM detects the condition of the combination switch by the combination switch reading function.
- BCM supplies voltage to rear fog lamp according to the rear fog lamp ON condition.

Rear fog lamp ON condition

- Rear fog lamp switch signal is input with front fog lamp ON and rear fog lamp OFF

Rear fog lamp OFF condition

- Rear fog lamp switch signal is input with rear fog lamp ON
- Front fog lamp OFF
- BCM transmits the rear fog lamp status signal to the combination meter with CAN communication.
- Combination meter turns the rear fog lamp indicator lamp ON according to the rear fog lamp status signal.

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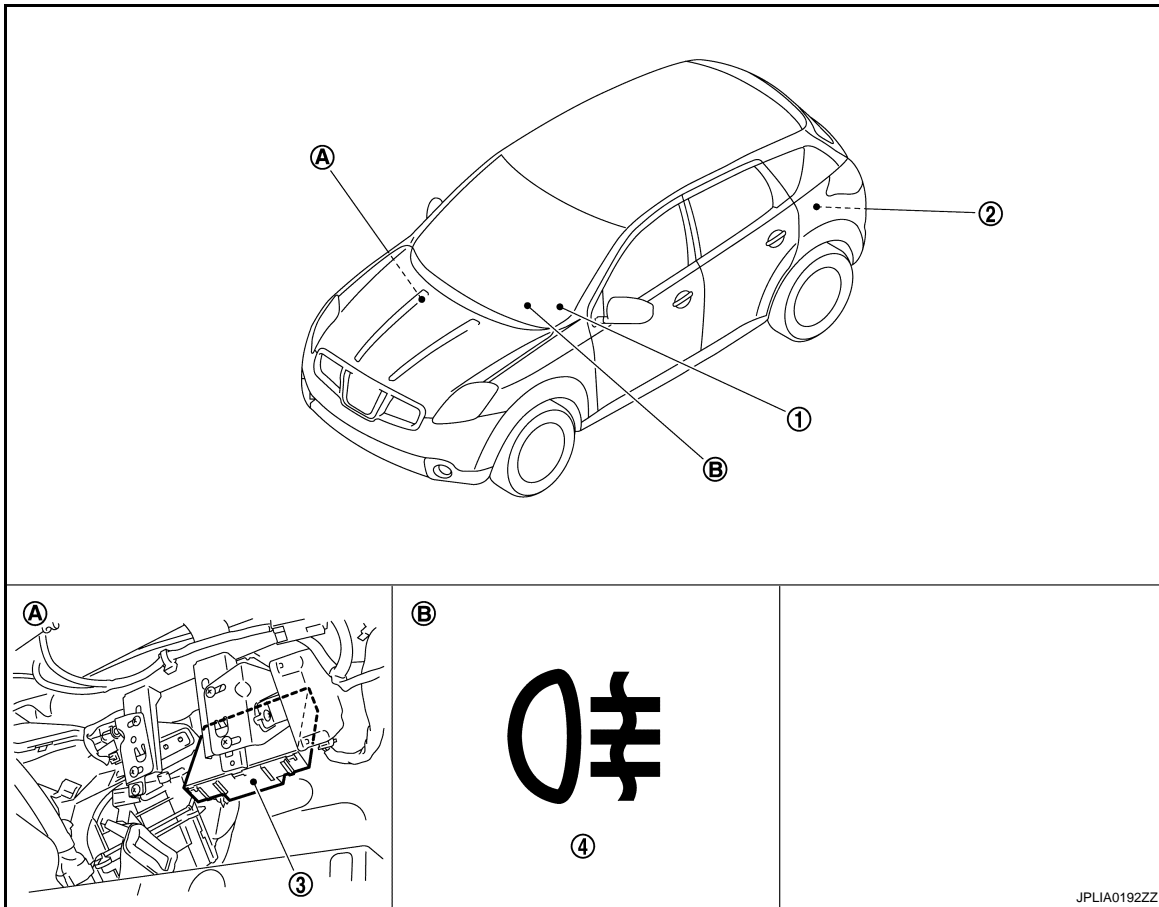
REAR FOG LAMP SYSTEM

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000001527732



- | | | |
|---------------------------------|-----------------------------|--------|
| 1. Combination switch | 2. Rear fog lamp | 3. BCM |
| 4. Rear fog lamp indicator lamp | | |
| A. Over the glove box | B. On the combination meter | |

Component Description

INFOID:000000001527733

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Judges that the rear fog lamp is turned ON according to the vehicle status - Supplies voltage to the rear fog lamp - Requests the rear fog lamp indicator lamp ON to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10. "System Diagram" .
Combination meter (Rear fog lamp indicator lamp)	Turns the rear fog lamp indicator lamp ON according to the request from BCM (with CAN communication).

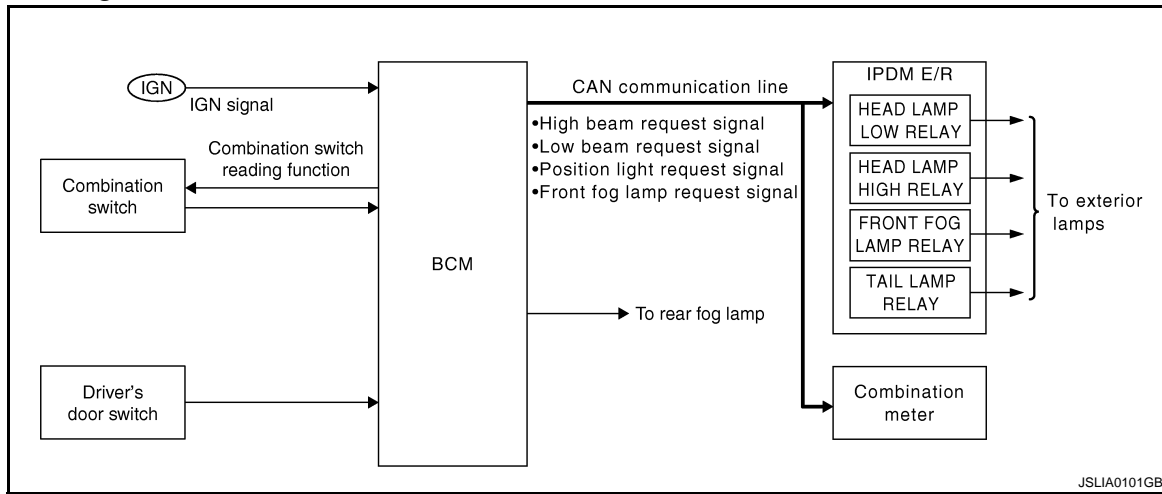
EXTERIOR LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

EXTERIOR LAMP BATTERY SAVER SYSTEM

System Diagram



System Description

INFOID:000000001527735

OUTLINE

- Exterior lamp battery saver system is controlled by each function of BCM and IPDM E/R.

Control by BCM

- Combination switch reading function
- Headlamp control function
- Exterior lamp battery saver function

Control by IPDM E/R

- Relay control function
 - BCM turns the exterior lamps* OFF to prevent the battery from over-discharge when a driver exits the vehicle with the exterior lamps ON.
- *: Headlamp (LO/HI), parking lamp, tail lamp, license plate lamp, front fog lamp and rear fog lamp

EXTERIOR LAMP BATTERY SAVER ACTIVATION

BCM turns the exterior lamps OFF (battery saver is activated) when all of following condition.

- Exterior lamps ON
- Ignition switch OFF
- Driver's door switch is turned from OFF → ON (door opening)

NOTE:

When any of following condition (after the exterior lamp battery saver is activated), exterior lamps can be turned ON.

- Ignition switch is turned from OFF → ON
- Lighting switch is turned from OFF → 1ST/2ND

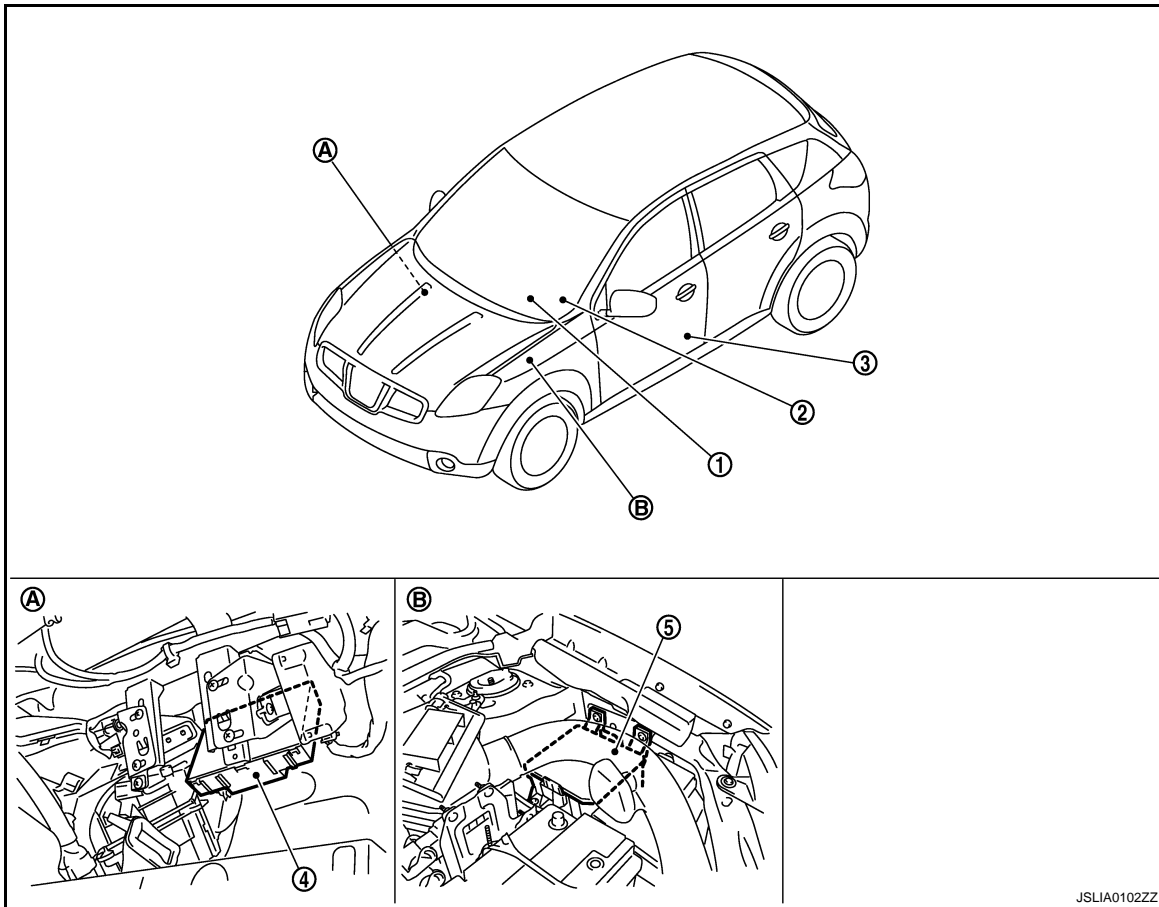
EXTERIOR LAMP BATTERY SAVER SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Component Parts Location

INFOID:000000001527736



- | | | |
|-----------------------|----------------------------|-------------------------|
| 1. Combination meter | 2. Combination switch | 3. Driver's door switch |
| 4. BCM | 5. IPDM E/R | |
| A. Over the glove box | B. Engine room (left side) | |

Component Description

INFOID:000000001527737

Part	Description
BCM	<ul style="list-style-type: none"> • Detects each switch condition by the combination switch reading function. • Activates the battery saver to turn the exterior lamps OFF according to the vehicle condition. - Requests each relay OFF to IPDM E/R (with CAN communication). - Turns rear fog lamp OFF.
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to BCS-10, "System Diagram" .
Driver's door switch	Inputs the door switch signal to BCM.

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000001527738

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. Refer to EXL-300, "DTC Index" .
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul style="list-style-type: none"> Enables to read and save the vehicle specification. Enables to write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

HEADLAMP

HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)

INFOID:000000001527739

WORK SUPPORT

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Service item	Setting item	Setting	
HEAD LIGHT TIMER	MODE 1	10 sec.	Sets follow me home function activating time.
	MODE 2*	30 sec.	

*: Initial setting

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
TAIL LAMP SW [On/Off]	
AUTO LIGHT SW [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
ENGINE RUNNING [On/Off]	The engine status received from ECM with CAN communication
LIT-SEN FAIL [OK/NOTOK]	<ul style="list-style-type: none"> The sensor status received from light & rain sensor with serial link The serial link condition that BCM judges
AUT LIGHT SYS [On/Off]	Auto light system status received from light & rain sensor with serial link
HD LIGHT TIME [Sec]	Setting time of the follow me home function set by the work support

ACTIVE TEST

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.
RR FOG LAMP	On	<ul style="list-style-type: none"> Outputs the voltage to turn the rear fog lamp ON. Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.
	Off	<ul style="list-style-type: none"> Stops the voltage to turn the rear fog lamp OFF. Stops the rear fog lamp status signal transmission.
DAYTIME RUNNING LIGHT	On	Transmits the day time running light request signal to IPDM E/R with CAN communication to turn the each lamps ON.
	Off	Stops the day time running light request signal transmission.

FLASHER

FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:000000001527740

DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
HAZARD SW [On/Off]	The switch status input from the hazard switch
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	

ACTIVE TEST

Test item	Operation	Description
FLASHER	RH	Outputs the voltage to turn the right side turn signal lamps ON.
	LH	Outputs the voltage to turn the left side turn signal lamps ON.
	Off	Stops the voltage to turn the turn signal lamps OFF.

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:000000001527741

Auto active test

Description

In auto active test mode, the IPDM E/R sends a drive signal to the following systems to check their operation.

- Oil pressure warning lamp
- Rear window defogger
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (LO, HI)

Operation procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)

NOTE:

When auto active test is performed with hood opened, sprinkle water on windshield beforehand.

2. Turn ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.

CAUTION:

Close passenger door.

4. Turn the ignition switch ON within 10 seconds. Then the horn sounds once and the auto active test starts.
5. The oil pressure warning lamp starts blinking when the auto active test starts.
6. After a series of the following operations is repeated 3 times, auto active test is completed.

NOTE:

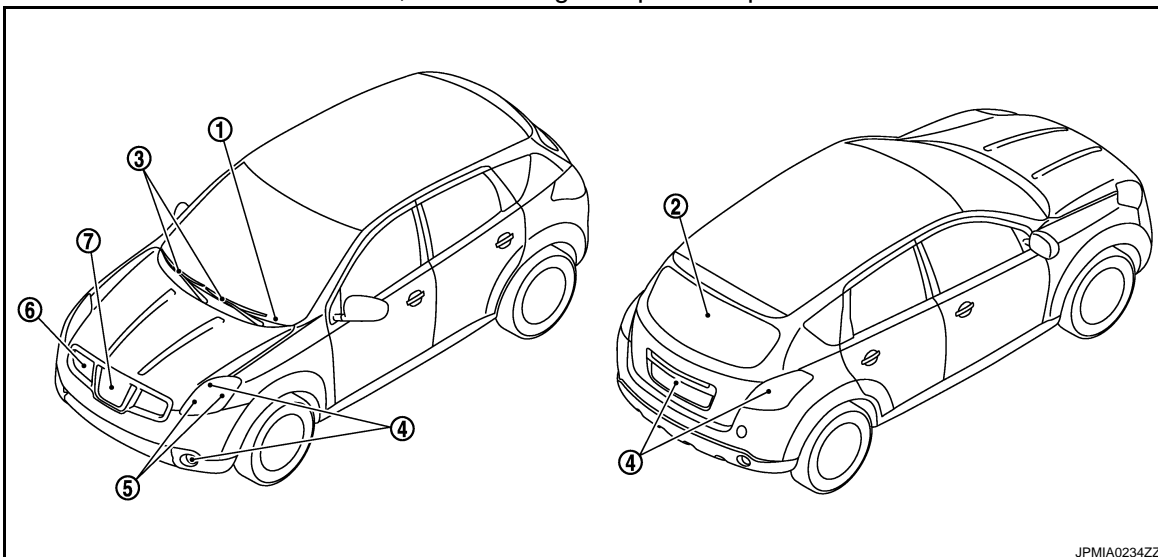
When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.

CAUTION:

- If auto active test mode cannot be actuated, check door switch system.
- Never start the engine.

Inspection in auto active test mode

When auto active test mode is actuated, the following 6 steps are repeated 3 times.



JPMIA0234ZZ

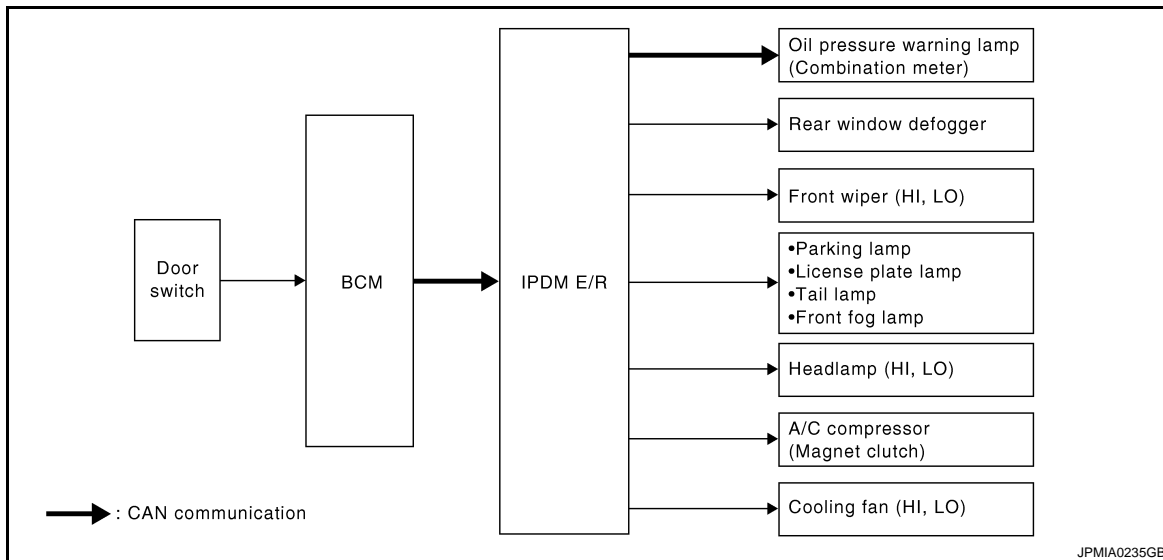
DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test.
2	Rear window defogger	10 seconds
3	Front wiper	LO for 5 seconds → HI for 5 seconds
4	<ul style="list-style-type: none"> • Parking lamps • License plate lamps • Tail lamps • Front fog lamps 	10 seconds
5	Headlamps	LO ↔ HI 5 times
6	A/C compressor (magnet clutch)	ON ↔ OFF 5 times
7	Cooling fan	LO for 5 seconds → HI for 5 seconds

Concept of auto active test



- IPDM E/R starts the auto active test with the door switch signals transmitted by BCM via CAN communication. Therefore, the CAN communication line between IPDM E/R and BCM is considered normal if the auto active test starts successfully.
- The auto active test facilitates troubleshooting if any systems controlled by IPDM E/R cannot be operated.

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate	Perform auto active test. Does the rear window defogger operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> • Rear window defogger • Rear window defogger ground circuit • Harness or connector between IPDM E/R and rear window defogger • IPDM E/R
Any of the following components do not operate <ul style="list-style-type: none"> • Parking lamps • License plate lamps • Tail lamps • Front fog lamps • Headlamp (HI, LO) • Front wiper (HI, LO) 	Perform auto active test. Does the applicable system operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> • Lamp or motor • Lamp or motor ground circuit • Harness or connector between IPDM E/R and applicable system • IPDM E/R

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Symptom	Inspection contents	Possible cause
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES <ul style="list-style-type: none"> • Communication signal between BCM and auto amp. (with auto A/C) • Communication signal between BCM and heater control panel (without auto A/C, with manual A/C) • BCM • CAN communication signal between BCM and ECM • CAN communication signal between ECM and IPDM E/R
		NO <ul style="list-style-type: none"> • Magnet clutch • Harness or connector between IPDM E/R and magnet clutch • IPDM E/R
Oil pressure warning lamp does not operate	Perform auto active test. Does the oil pressure warning lamp blink?	YES <ul style="list-style-type: none"> • Harness or connector between IPDM E/R and oil pressure switch • Oil pressure switch • IPDM E/R
		NO <ul style="list-style-type: none"> • CAN communication signal between IPDM E/R and BCM • CAN communication signal between BCM and combination meter • Combination meter
Cooling fan does not operate	Perform auto active test. Does the cooling fan operate?	YES <ul style="list-style-type: none"> • ECM signal input circuit • CAN communication signal between ECM and IPDM E/R
		NO <ul style="list-style-type: none"> • Cooling fan • Cooling fan ground circuit • Harness or connector between IPDM E/R and cooling fan • IPDM E/R • Cooling fan relay-3* • Harness or connector between IPDM E/R and cooling fan relay-3* • Harness or connector between cooling fan and cooling fan relay-3*

NOTE:

*: MR engine and K9K engine models

CONSULT - III Function (IPDM E/R)

INFOID:000000001527742

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with IPDM E/R.

Diagnosis mode	Description
Ecu Identification	Allows confirmation of IPDM E/R part number.
Self Diagnostic Result	Displays the diagnosis results judged by IPDM E/R.
Data Monitor	Displays the real-time input/output data from IPDM E/R input/output data.
Active Test	IPDM E/R can provide a drive signal to electronic components to check their operations.
CAN Diag Support Monitor	The results of transmit/receive diagnosis of CAN communication can be read.

SELF DIAGNOSTIC

Refer to [EXL-312. "DTC Index"](#).

DATA MONITOR

Monitor item

DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item [Unit]	MAIN SIGNALS	Description	
MOTOR FAN REQ [1 - 4]	×	Displays the value of the cooling fan speed signal received from ECM via CAN communication.	A
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.	B
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.	C
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.	D
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.	E
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication.	F
HL WASHER REQ [Off/On]		Displays the status of the headlamp washer request signal received from BCM via CAN communication.	G
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.	H
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.	I
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.	J
ST RLY REQ [Off/On]		Displays the status of the ignition and starter request signal received from BCM via CAN communication.	K
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.	L
RR DEF REQ [Off/On]	×	Displays the status of the rear defogger request signal received from BCM via CAN communication.	M
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.	N
REV SW [Off/On]		Displays the status of the reverse switch judged by IPDM E/R.	O
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R. NOTE: This item is monitored only the vehicle with the Vehicle Security (Theft Warning) system.	P
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication. NOTE: This item is monitored only the vehicle with the Vehicle Security (Theft Warning) system.	EXL
HORN CHIRP [Off/On]		NOTE: This item is indicated, but not monitored.	M
IGN ON SW [Off/On]		Displays the status of the ignition switch judged by IPDM E/R.	N

ACTIVE TEST

Test item

Test item	Operation	Description
REAR DEFOGGER	Off	OFF
	On	Operates the rear window defogger relay.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay (low operation).
	3	Operates the cooling fan relay (high operation).
	4	
HEAD LAMP WASHER	On	Operates the headlamp washer relay for 1 second.
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals.
	Fog	Operates the front fog lamp relay.
HORN	On	Operates horn relay for 20 ms.

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000001527743

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	9
57		J
37	ACC power supply	5
38	Ignition power supply	4

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		Ignition switch position			
(+)	(-)				
BCM		OFF	ACC	ON	
Connector	Terminal				
M65	37	Ground	Approx. 0 V	Battery voltage	Battery voltage
	38		Approx. 0 V	Approx. 0 V	Battery voltage
M66	41		Battery voltage	Battery voltage	Battery voltage
M67	57		Battery voltage	Battery voltage	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	55		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Di-

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

agnosis Procedure

INFOID:000000001527744

1.CHECK FUSIBLE LINK

Check that the following IPDM E/R fusible link is not blown.

Terminal No.	Signal name	Fusible link No.
1	Battery power supply	D (with gasoline engine)
		B (with diesel engine)
2		C (with gasoline engine)
		D (with diesel engine)
53		L (except HR engine models)
		M (HR engine models)

Is the fusible link fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check voltage between IPDM E/R harness connector and ground.

Terminals		(-)	Voltage (Approx.)
(+)	IPDM E/R		
Connector	Terminal	Ground	Battery voltage
E9	1		
	2		
E14	53		

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R connectors.
2. Check continuity between IPDM E/R harness connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		Exist
E10	5		
	6		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

EXTERIOR LAMP FUSE

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

EXTERIOR LAMP FUSE

Description

INFOID:000000001527746

Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A
Headlamp LO (LH)	IPDM E/R	#46	15 A
Headlamp LO (RH)	IPDM E/R	#45	15 A
Front fog lamp	IPDM E/R	#43	15 A
<ul style="list-style-type: none"> • Parking lamp • Tail lamp • License plate lamp • Each illumination 	IPDM E/R	#49	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	M/T models	IPDM E/R	#54
	CVT models	IPDM E/R	#55

Diagnosis Procedure

INFOID:000000001527747

1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A
Headlamp LO (LH)	IPDM E/R	#46	15 A
Headlamp LO (RH)	IPDM E/R	#45	15 A
Front fog lamp	IPDM E/R	#43	15 A
<ul style="list-style-type: none"> • Parking lamp • Tail lamp • License plate lamp • Each illumination 	IPDM E/R	#49	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	M/T models	IPDM E/R	#54
	CVT models	IPDM E/R	#55

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
 NO >> The fuse is normal.

HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:000000001527748

1. CHECK HEADLAMP (HI) OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the headlamp switches to the high beam.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (HI) is turned ON.

Hi : Headlamp (HI) ON

Off : Headlamp (HI) OFF

NOTE:

ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

- YES >> Headlamp (HI) circuit is normal.
NO >> Refer to [EXL-218, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527749

1. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
IPDM E/R			External lamp	Battery voltage
Connector	Terminal			
RH	E13	45	Hi	Battery voltage
LH		46	Off	0 V

Is the measurement value normal?

- YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK HEADLAMP (HI) OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	45	E45	2	Existed
LH		46	E26	2	

Does continuity exist?

HEADLAMP (HI) CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

- YES >> Replace the front combination lamp.
NO >> Repair the harnesses or connectors.

3. CHECK HEADLAMP (HI) FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#48	10 A
Headlamp HI (RH)	IPDM E/R	#47	10 A

Is the fuse fusing?

- YES >> GO TO 4.
NO >> Replace IPDM E/R.

4. CHECK FRONT COMBINATION LAMP (HI) SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between the IPDM E/R harness connector terminal and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	45	Not existed
LH		46	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

A
B
C
D
E
F
G
H
I
J
K
EXL
M
N
O
P

HEADLAMP (LO) CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (LO) CIRCUIT

Component Function Check

INFOID:000000001527750

1. CHECK HEADLAMP (LO) OPERATION

⊗ IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the headlamp is turned ON.

Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.

NO >> Refer to [EXL-220, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001518881

1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓟ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)	(-)			
IPDM E/R			External lamp	Battery voltage
Connector	Terminal			
RH	E12	24	LO	0 V
LH	E13	44	OFF	

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK HEADLAMP (LO) OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E12	24	E45	1	Existed
LH	E13	44	E26	1	

Does continuity exist?

YES >> Replace the front combination lamp (headlamp housing assembly).

NO >> Repair the harnesses or connectors.

HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

3. CHECK HEADLAMP (LO) FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp LO (LH)	IPDM E/R	#45	15 A
Headlamp LO (RH)	IPDM E/R	#46	15 A

Is the fuse fusing?

- YES >> GO TO 4.
NO >> Replace IPDM E/R.

4. CHECK HEADLAMP (LO) SHORT CIRCUIT

1. Disconnect IPDM E/R connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E12	24	Not existed	
LH	E13	44		

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

A
B
C
D
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F
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H
I
J
K

EXL

M
N
O
P

HEADLAMP GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP GROUND CIRCUIT

Diagnosis Procedure

INFOID:000000001527751

1. CHECK HEADLAMP GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector.
3. Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E45	4	Ground	Existed
LH	E26	4		

Does continuity exist?

- YES >> Headlamp ground circuit is normal.
NO >> Repair the harnesses or connectors.

FRONT FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:000000001527752

1. CHECK FRONT FOG LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the front fog lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the front fog lamp is turned ON.

Fog : Front fog lamp ON
Off : Front fog lamp OFF

Is the front fog lamp turned ON?

- YES >> Front fog lamp circuit is normal.
NO >> Refer to [EXL-223, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527753

1. CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#43	15 A

Is the fuse fusing?

- YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK FRONT FOG LAMP SHORT CIRCUIT

1. Disconnect IPDM E/R connector and the front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	36	Not existed
LH		43	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

3. CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.

FRONT FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
IPDM E/R			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E13	36	Fog	0 V
LH		43	Off	

Is the measurement value normal?

- YES >> GO TO 5.
 NO >> Replace IPDM E/R.

5. CHECK FRONT FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	36	E48	1	Existed
LH		43	E30	1	

Does continuity exist?

- YES >> GO TO 6.
 NO >> Repair the harnesses or connectors.

6. CHECK FRONT FOG LAMP GROUND CIRCUIT OPEN CIRCUIT

Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E48	2	Ground	Existed
LH	E30	2		

Does continuity exist?

- YES >> Replace the front fog lamp.
 NO >> Repair the harnesses or connectors.

PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:000000001527754

1. CHECK PARKING LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the parking lamp turned ON?

- YES >> Parking lamp circuit is normal.
NO >> Refer to [EXL-225, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527755

1. CHECK PARKING LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Parking lamp	IPDM E/R	#49	10 A

Is the fuse fusing?

- YES >> GO TO 2.
NO >> GO TO 3.

2. CHECK PARKING LAMP SHORT CIRCUIT

1. Disconnect IPDM E/R connector and the front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E13	37	Not existed
LH		47	

Does continuity exist?

- YES >> Repair the harnesses or connectors. And then replace the fuse.
NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

3. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 4.
NO >> Replace the bulb.

4. CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.

PARKING LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
IPDM E/R			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E13	37	TAIL	0 V
LH		47	Off	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

5. CHECK PARKING LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E13	37	E43	1	Existed
LH		47	E24	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

Check continuity between the front combination lamp harness connector and the ground.

Front combination lamp			Ground	Continuity
Connector	Terminal			
RH	E43	2	Ground	Existed
LH	E24	2		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:000000001527756

BCM performs the high flasher operation (fail-safe) if any bulb or harness of the turn signal lamp circuit is open.

NOTE:

The turn signal lamp blinks at normal speed when using the hazard warning lamp.

Component Function Check

INFOID:000000001527757

1. CHECK TURN SIGNAL LAMP

Ⓜ CONSULT-III ACTIVE TEST

1. Select "FLASHER" of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamp is turned ON.

- LH** : Turn signal lamp (LH) ON
- RH** : Turn signal lamp (RH) OFF
- Off** : The turn signal lamp OFF

Are the turn signal lamps turned ON?

- YES >> Turn signal lamp circuit is normal.
- NO >> Refer to [EXL-227. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001188825

1. CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 2.
- NO >> Replace the bulb.

2. CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector, side turn signal lamp connector, or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
BCM			Turn signal switch	
Connector	Terminal			
RH	M66	48	LH or RH	
LH		47		
			Ground	
			OFF	0 V

Is the measurement value normal?

- YES >> GO TO 3.
- NO >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between the BCM harness connector and the front combination lamp, side turn signal lamp or the rear combination lamp harness connector.

Front turn signal lamp

BCM		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E45	Existed
LH		47	E26	

Side turn signal lamp

BCM		Side turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E40	Existed
LH		47	E23	

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	B59	Existed
LH		47	B80	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

BCM		Ground	Continuity
Connector	Terminal		
RH	M66	48	Not existed
LH		47	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

Check continuity between the BCM harness connector and the front combination lamp, side turn signal lamp or the rear combination lamp and the ground.

Front turn signal lamp

Front combination lamp		Ground	Continuity
Connector	Terminal		
RH	E45	4	Existed
LH	E26		

Side turn signal lamp

Side turn signal lamp		Ground	Continuity
Connector	Terminal		
RH	E40	2	Existed
LH	E23		

TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

Rear turn signal lamp

Rear combination lamp		Terminal	Ground	Continuity
Connector				Existed
RH	B59	4		Existed
LH	B80			

Does continuity exist?

- YES >> Replace the front combination lamp, the side turn signal lamp or the rear combination lamp.
- NO >> Repair the harnesses or connectors.

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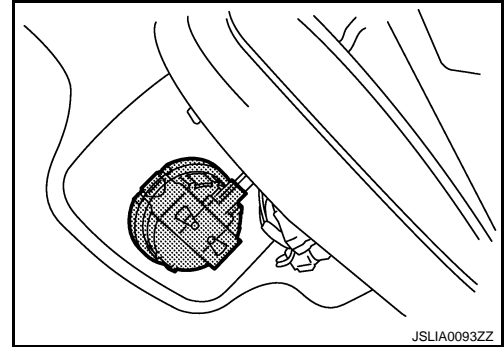
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LIGHT & RAIN SENSOR

Description

INFOID:000000001527758

- The light & rain sensor detects the outside ambient light level, forward light level, rain level and sensor conditions.
- Based on ambient light level (day/night detection), forward light level (tunnel detection), rain level (poor visibility detection) and sensor conditions it judges ON/OFF condition for exterior lamps.
- And it transmits exterior lamp ON/OFF request to the BCM by the light & rain sensor serial link.
- BCM controls each function depending on the signals. And it detects the light & rain sensor serial link error and the light & rain sensor malfunction.



Component Function Check

INFOID:000000001527759

1. CHECK LIGHT & RAIN SENSOR BY CONSULT-III

CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "LIT-SEN FAIL" of BCM (HEADLAMP) data monitor item.
3. Turn the lighting switch AUTO.
4. Start the engine.
5. Check the monitor status.

Monitor item	Condition	Status
LIT-SEN FAIL	Light & rain sensor is normal	OK
	<ul style="list-style-type: none"> • Light & rain sensor inside abnormality • Light & rain sensor serial link error 	NOTOK

Is it displayed with "OK"?

- YES >> Light & rain sensor is normal.
 NO >> Refer to [EXL-230, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527760

1. CHECK LIGHT & RAIN SENSOR POWER SUPPLY OUTPUT

1. Turn the ignition switch OFF.
2. Disconnect the light & rain sensor connector.
3. Check the voltage between the light & rain sensor harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		Ground
Connector	Terminal	
R13	1	
		12 V

Is the measurement value normal?

- YES >> GO TO 2.
 NO >> GO TO 3.

2. CHECK LIGHT & RAIN SENSOR SIGNAL OUTPUT

Check the voltage between the light & rain sensor harness connector and the ground.

LIGHT & RAIN SENSOR

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		Ground
Connector	Terminal	
R13	2	
		12 V

Is the measurement value normal?

- YES >> GO TO 7.
NO >> GO TO 5.

3. CHECK LIGHT & RAIN SENSOR POWER SUPPLY OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R13	1	M66	42	Existed

Does continuity exist?

- YES >> GO TO 4.
NO >> Repair the harnesses or connectors.

4. CHECK LIGHT & RAIN SENSOR POWER SUPPLY SHORT CIRCUIT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	1		Not existed

Does continuity exist?

- YES >> Repair the harnesses or connectors.
NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

5. CHECK LIGHT & RAIN SENSOR SIGNAL OPEN CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R13	2	M66	17	Existed

Does continuity exist?

- YES >> GO TO 6.
NO >> Repair the harnesses or connectors.

6. CHECK LIGHT & RAIN SENSOR SIGNAL SHORT CIRCUIT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	2		Not existed

Does continuity exist?

- YES >> Repair the harnesses or connectors.
NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

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LIGHT & RAIN SENSOR

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

7. CHECK LIGHT & RAIN SENSOR GROUND OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R13	3		Existed

Does continuity exist?

- YES >> Replace the light & rain sensor.
NO >> Repair the harnesses or connectors.

HAZARD SWITCH

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

HAZARD SWITCH

Component Function Check

INFOID:000000001527761

1. CHECK HAZARD SWITCH SIGNAL BY CONSULT-III

CONSULT-III DATA MONITOR

- Turn the ignition switch ON.
- Select "HAZARD SW" of BCM (FLASHER) data monitor item.
- With operating the hazard switch, check the monitor status.

Monitor item	Condition		Monitor status
HAZARD SW	Hazard switch	ON	On
		OFF	Off

Is the item status normal?

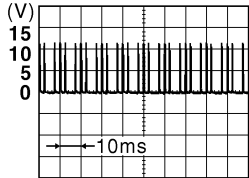
- YES >> Hazard switch circuit is normal.
 NO >> Refer to [EXL-233, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527762

1. CHECK HAZARD SWITCH SIGNAL INPUT

With operating the hazard switch, check the voltage between the BCM harness connector and the ground.

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
BCM		Hazard switch	0 V
Connector	Terminal		
M65	8	ON	
		OFF	
		Ground	

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Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).
 NO >> GO TO 2.

2. CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

- Turn the ignition switch OFF.
- Disconnect the hazard switch connector and BCM connector.
- Check continuity between the hazard switch harness connector and the BCM harness connector.

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	3	M65	8	Existed

Does continuity exist?

- YES >> GO TO 3.
 NO >> Repair the harnesses or connectors.

3. CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

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EXL

HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	3		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

4.CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

Check continuity between the hazard switch harness connector and the ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	2		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

TAIL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:000000001527763

1.CHECK TAIL LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the tail lamp is turned ON.

TAIL : Tail lamp ON

Off : Tail lamp OFF

Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.

NO >> Refer to [EXL-235, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527764

1.CHECK TAIL LAMP FUSE

1. Turn the ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"> • Tail lamp • License plate lamp 	IPDM E/R	#49	10 A

Is the fuse fusing?

YES >> Repair the malfunctioning part before replacing the fuse.

NO >> GO TO 2.

2.CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Disconnect the rear combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" of IPDM E/R active test item.
4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

Terminals		Test item	Voltage (Approx.)
(+)	(-)		
IPDM E/R		EXTERNAL LAMP	Voltage (Approx.)
Connector	Terminal		
E13	38	TAIL	Battery voltage
		Off	0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R.

3.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.

TAIL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

3. Check continuity between the IPDM E/R harness connector and the rear combination lamp harness connector.

IPDM E/R		Rear combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E13	38	B59	2	Existed
LH			B80	2	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

4. CHECK TAIL LAMP GROUND OPEN CIRCUIT

Check continuity between the rear combination lamp harness connector and the ground.

Rear combination lamp			Ground	Continuity
Connector	Terminal			
RH	B59	4	Ground	Existed
LH	B80	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

LICENSE PLATE LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

INFOID:000000001527765

NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON.

1.CHECK LICENSE PLATE LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-9, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the lighting switch, check that the license plate lamp is turned ON.

TAIL : License plate lamp ON

Off : License plate lamp OFF

Is the license plate lamp turned ON?

YES >> License plate lamp circuit is normal.

NO >> Refer to [EXL-237, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527766

1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK LICENSE PLATE LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector and the license plate lamp connector.
3. Check continuity between the IPDM E/R harness connector and the license plate lamp harness connector.

IPDM E/R		License plate lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E13	D185	1	Existed
LH		D184	1	

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

3.CHECK LICENSE PLATE LAMP GROUND OPEN CIRCUIT

Check continuity between the license plate lamp harness connector and the ground.

License plate lamp			Ground	Continuity
Connector	Terminal			
RH	D185	2	Existed	
LH	D184	2		

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

REAR FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

REAR FOG LAMP CIRCUIT

Component Function Check

INFOID:000000001527767

1. CHECK REAR FOG LAMP OPERATION

CONSULT-III ACTIVE TEST

1. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
2. With operating the test items, check that the rear fog lamp is turned ON.

On : Rear fog lamp ON

Off : Rear fog lamp OFF

Is rear fog lamp turned ON?

- YES >> Rear fog lamp circuit is normal.
NO >> Refer to [EXL-238, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000001527768

1. CHECK REAR FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

- YES >> GO TO 2.
NO >> Replace the bulb.

2. CHECK REAR FOG LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the rear fog lamp connector.
3. Turn the ignition switch ON.
4. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
5. With operating the test items, check voltage between BCM harness connector and ground.

Terminals		Test item	Voltage (approx.)
(+)	(-)		
BCM		RR FOG LAMP	
Connector	Terminal		
M66	49	On	12 V
		Off	0 V

Is the measurement value normal?

- YES >> GO TO 3.
NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

3. CHECK REAR FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM harness connector and rear fog lamp harness connector.

BCM		Rear fog lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	49	B90	1	Existed

Does continuity exist?

- YES >> GO TO 4.
NO >> Repair the harnesses or connectors.

REAR FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

4. CHECK REAR FOG LAMP SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	49		Not existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

5. CHECK REAR FOG LAMP GROUND OPEN CIRCUIT

Check continuity between rear fog lamp harness connector and ground.

Rear fog lamp		Ground	Continuity
Connector	Terminal		
B90	2		Existed

Does continuity exist?

YES >> Replace the rear fog lamp.

NO >> Repair the harnesses or connectors.

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HEADLAMP SYSTEM

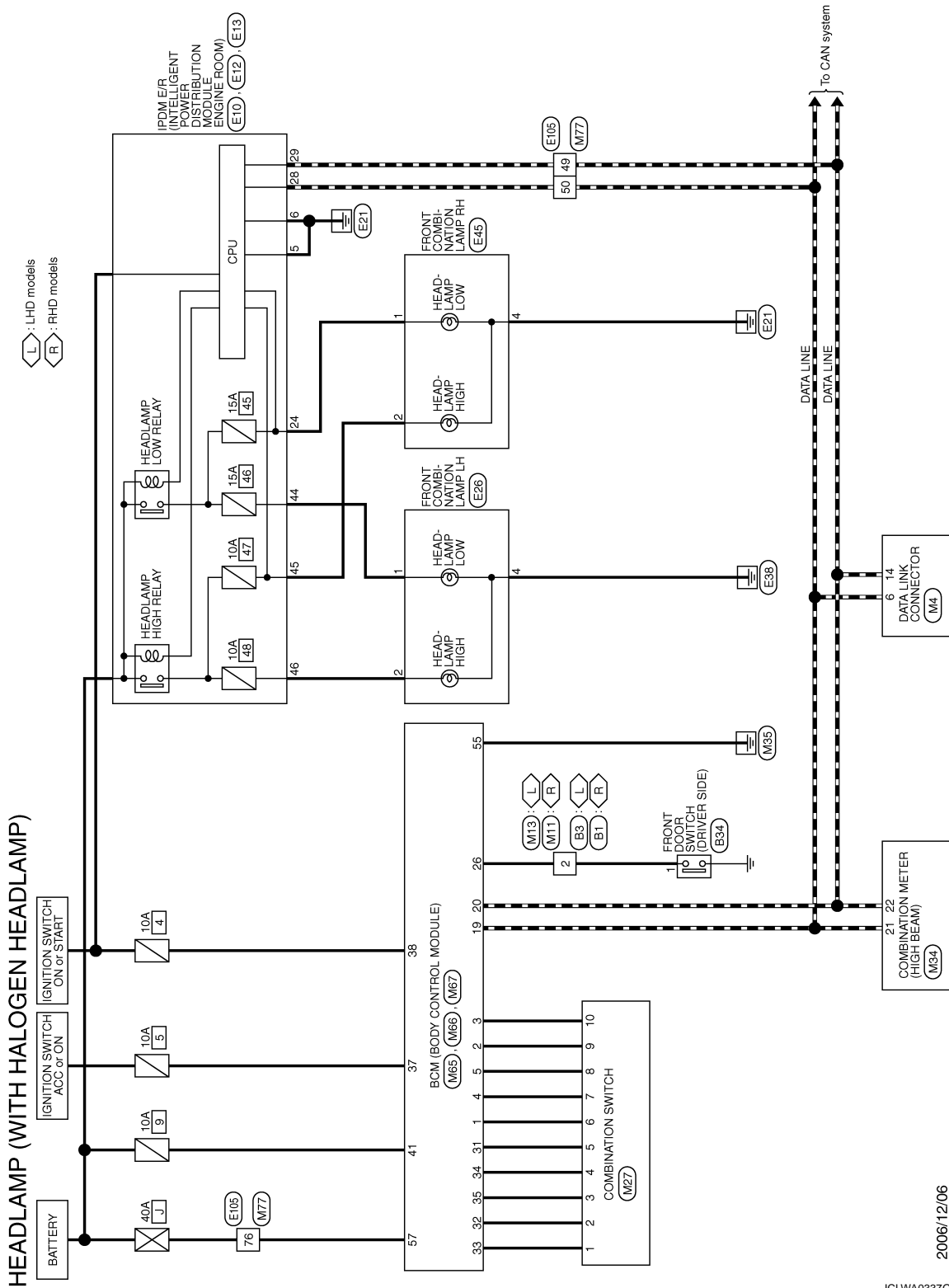
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP SYSTEM

Wiring Diagram - HEADLAMP -

INFOID:000000001188837



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HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (WITH HALOGEN HEADLAMP)

<table border="1"> <tr><td>Connector No.</td><td>B1</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH24MW</td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>R/W</td></tr> <tr><td>Signal Name [Specification]</td><td>-[RHD models]</td></tr> </table>	Connector No.	B1	Connector Name	WIRE TO WIRE	Connector Type	TH24MW	Terminal No.	2	Color of Wire	R/W	Signal Name [Specification]	-[RHD models]	<table border="1"> <tr><td>Connector No.</td><td>B3</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH24MW</td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>R/W</td></tr> <tr><td>Signal Name [Specification]</td><td>-[LHD models]</td></tr> </table>	Connector No.	B3	Connector Name	WIRE TO WIRE	Connector Type	TH24MW	Terminal No.	2	Color of Wire	R/W	Signal Name [Specification]	-[LHD models]	<table border="1"> <tr><td>Connector No.</td><td>B34</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (DRIVER SIDE)</td></tr> <tr><td>Connector Type</td><td>AG2FW</td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Color of Wire</td><td>R/W</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Connector No.	B34	Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type	AG2FW	Terminal No.	1	Color of Wire	R/W	Signal Name [Specification]	-	<table border="1"> <tr><td>Connector No.</td><td>E10</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>MO8FE-LC</td></tr> </table> <table border="1"> <tr><td>Terminal No.</td><td>5</td></tr> <tr><td>Color of Wire</td><td>B</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>6</td></tr> <tr><td>Color of Wire</td><td>B</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Connector No.	E10	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	MO8FE-LC	Terminal No.	5	Color of Wire	B	Signal Name [Specification]	-	Terminal No.	6	Color of Wire	B	Signal Name [Specification]	-																																										
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HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

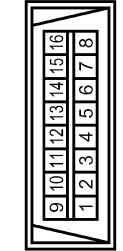
HEADLAMP (WITH HALOGEN HEADLAMP)

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH30MW-AS16-TM4



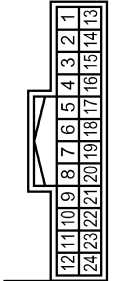
Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

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



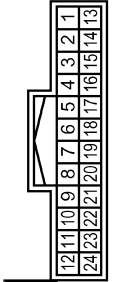
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

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



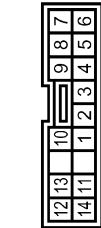
Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-[RHD models]

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



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

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



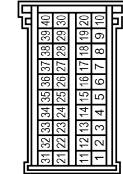
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT1
2	G	INPUT2
3	L	INPUT3
4	GR	INPUT4
5	BR	INPUT5
6	P	OUTPUT1
7	R	OUTPUT2
8	W	OUTPUT5
9	Y	OUTPUT4
10	LG	OUTPUT3

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



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

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4QFB



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

34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

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HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP (WITH HALOGEN HEADLAMP)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21IPG122S1017



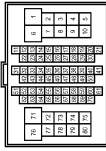
Terminal No.	Color of Wire	Signal Name (Specification)
41	V	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21IPG083S0017



Terminal No.	Color of Wire	Signal Name (Specification)
55	B	GND(POWER)
57	Y	BAT(F/L)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH8DFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
49	P	-
50	L	-
76	Y	-

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HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

Description

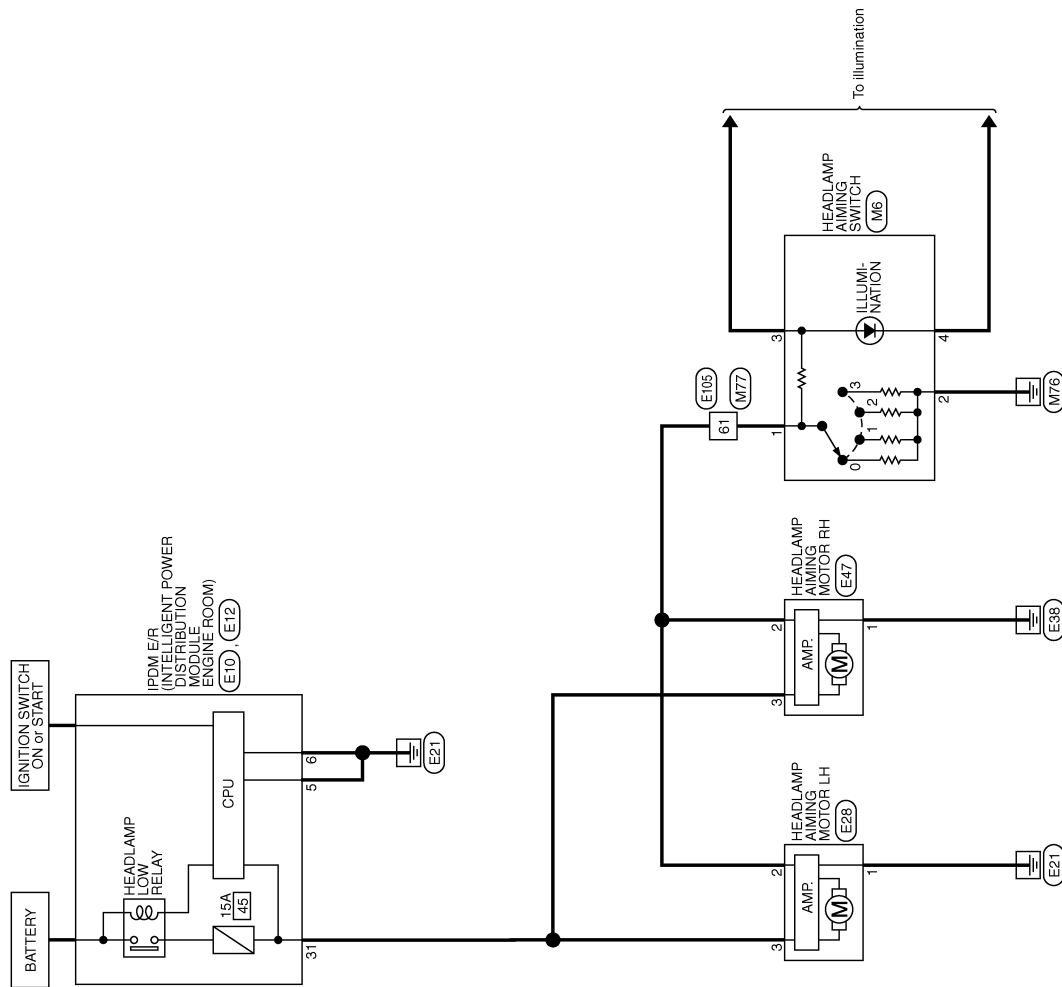
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The headlamp levelizer adjusts the headlamp light axis upward and downward with the aiming motor integrated in the front combination lamp.

Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (MANUAL) -

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HEADLAMP AIMING CONTROL (MANUAL)



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HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< COMPONENT DIAGNOSIS >

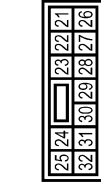
[HALOGEN TYPE]

HEADLAMP AIMING CONTROL (MANUAL)

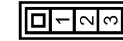
Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



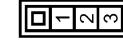
Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



Connector No.	E28
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	FC121P0303S0003



Connector No.	E17
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	FC121P0303S0003



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

Terminal No.	31	R	Color of Wire		Signal Name [Specification]	
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Terminal No.	1	B	Color of Wire		Signal Name [Specification]	
	2	V				
	3	R				

Terminal No.	1	B	Color of Wire		Signal Name [Specification]	
	2	V				
	3	R				

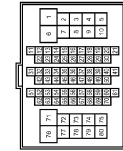
Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-NS16-TM4



Connector No.	M6
Connector Name	HEADLAMP AIMING SWITCH
Connector Type	J04FW



Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-NS16-TM4



Terminal No.	61	V	Color of Wire		Signal Name [Specification]	
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Terminal No.	1	V	Color of Wire		Signal Name [Specification]	
	2	B				
	3	R				
	4	B				

Terminal No.	61	V	Color of Wire		Signal Name [Specification]	
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Component Inspection

1. CHECK HEADLAMP AIMING SWITCH

1. Remove the headlamp aiming switch.

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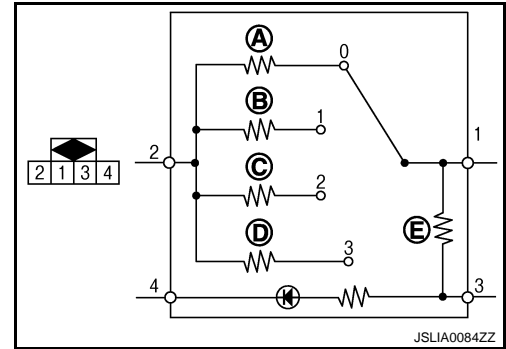
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HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

2. Check the resistance among each headlamp aiming switch terminal.



2WD models

Headlamp aiming switch		Condition	Resistance (Approx.)
Terminal		Switch position	
1	2	0	A: 160 Ω
		1	B: 274 Ω
		2	C: 698 Ω
		3	D: 1400 Ω
	3	—	E: 390 Ω

4WD models (except M9R engine)

Headlamp aiming switch		Condition	Resistance (Approx.)
Terminal		Switch position	
1	2	0	A: 160 Ω
		1	B: 274 Ω
		2	C: 510 Ω
		3	D: 1100 Ω
	3	—	E: 390 Ω

4WD models (M9R engine)

Headlamp aiming switch		Condition	Resistance (Approx.)
Terminal		Switch position	
1	2	0	A: 160 Ω
		1	B: 274 Ω
		2	C: 470 Ω
		3	D: 1000 Ω
	3	—	E: 390 Ω

Is the measurement value normal?

- YES >> Headlamp aiming switch is normal.
- NO >> Replace the headlamp aiming switch.

AUTO LIGHT SYSTEM

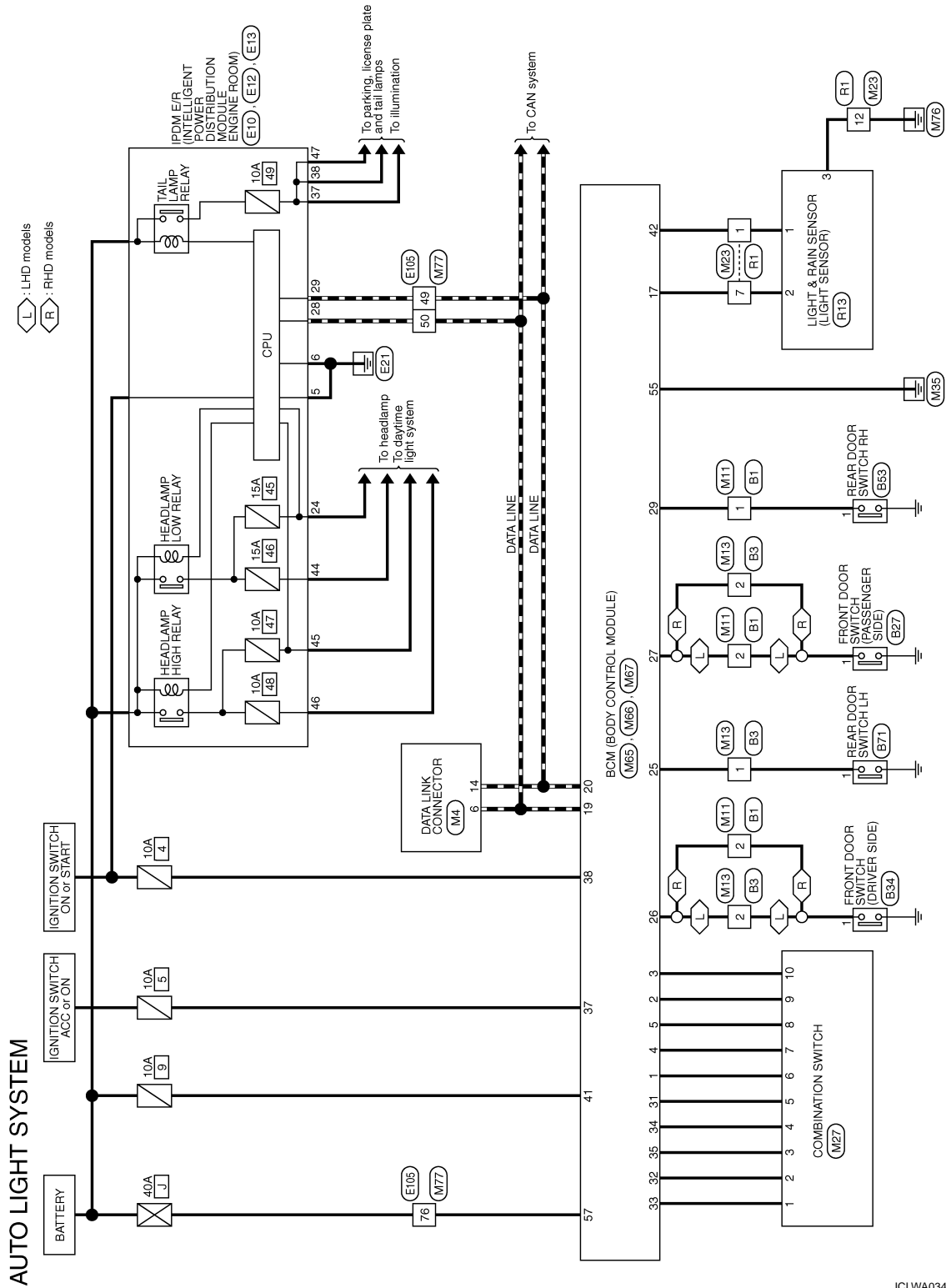
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

Wiring Diagram - AUTO LIGHT SYSTEM -

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2006/12/08

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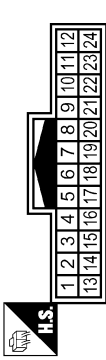
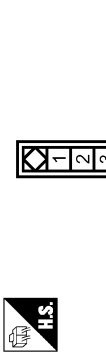
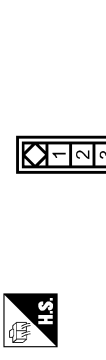
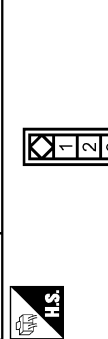
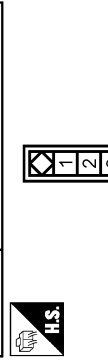
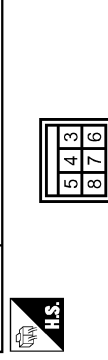

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AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

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AUTO LIGHT SYSTEM

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B1</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH24MW</td></tr> </table>	Connector No.	B1	Connector Name	WIRE TO WIRE	Connector Type	TH24MW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> <tr><td>2</td><td>BR</td><td>-[LHD models] -[RHD models]</td></tr> <tr><td>2</td><td>R/W</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-	2	BR	-[LHD models] -[RHD models]	2	R/W	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> <tr><td>2</td><td>R/W</td><td>-[LHD models] -[RHD models]</td></tr> <tr><td>2</td><td>BR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-	2	R/W	-[LHD models] -[RHD models]	2	BR	-
Connector No.	B1																																
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Connector No.	B3																																
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B27</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (PASSENGER SIDE)</td></tr> <tr><td>Connector Type</td><td>AC3FW</td></tr> </table>	Connector No.	B27	Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)	Connector Type	AC3FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>BR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	BR	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>BR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	BR	-												
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1	BR	-																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B34</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (DRIVER SIDE)</td></tr> <tr><td>Connector Type</td><td>AC3FW</td></tr> </table>	Connector No.	B34	Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type	AC3FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>R/W</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/W	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>R/W</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/W	-												
Connector No.	B34																																
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)																																
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1	R/W	-																															
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B53</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH RH</td></tr> <tr><td>Connector Type</td><td>AC3FW</td></tr> </table>	Connector No.	B53	Connector Name	REAR DOOR SWITCH RH	Connector Type	AC3FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>LG</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	LG	-												
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B71</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH LH</td></tr> <tr><td>Connector Type</td><td>AC3FW</td></tr> </table>	Connector No.	B71	Connector Name	REAR DOOR SWITCH LH	Connector Type	AC3FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>1</td><td>GR</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	1	GR	-												
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E10</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>M06FE-LC</td></tr> </table>	Connector No.	E10	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	M06FE-LC		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> <tr><td>6</td><td>B</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	5	B	-	6	B	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>5</td><td>B</td><td>-</td></tr> <tr><td>6</td><td>B</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	5	B	-	6	B	-						
Connector No.	E10																																
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E12</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS12FW-CS</td></tr> </table>	Connector No.	E12	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS12FW-CS		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>24</td><td>R/Y</td><td>-</td></tr> <tr><td>28</td><td>L</td><td>-</td></tr> <tr><td>29</td><td>P</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	24	R/Y	-	28	L	-	29	P	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>Color of Wire</td><td>Signal Name [Specification]</td></tr> <tr><td>24</td><td>R/Y</td><td>-</td></tr> <tr><td>28</td><td>L</td><td>-</td></tr> <tr><td>29</td><td>P</td><td>-</td></tr> </table>	Terminal No.	Color of Wire	Signal Name [Specification]	24	R/Y	-	28	L	-	29	P	-
Connector No.	E12																																
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																
Connector Type	NS12FW-CS																																
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Terminal No.	Color of Wire	Signal Name [Specification]																															
24	R/Y	-																															
28	L	-																															
29	P	-																															

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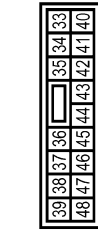
AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

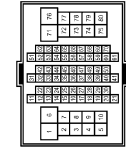
AUTO LIGHT SYSTEM

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-GS



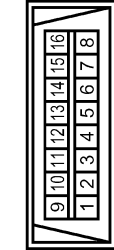
Terminal No.	Color of Wire	Signal Name [Specification]
37	R/W	-
38	R/L	-
44	L	-
45	L/W	-
46	G	-
47	R/L	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



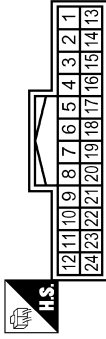
Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
76	Y	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



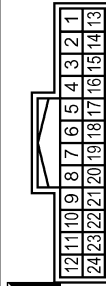
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

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



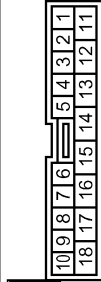
Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	BR	-[LHD models]
2	R	-[RHD models]

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



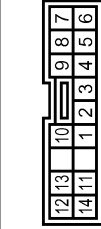
Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	-
2	R	-[LHD models]
2	BR	-[RHD models]

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
7	BR	-
12	B	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



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

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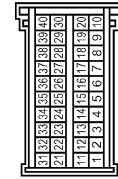
AUTO LIGHT SYSTEM

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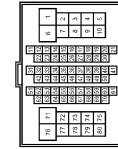
AUTO LIGHT SYSTEM

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84CFB



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	COMBI SW OUTPUT 1
2	Y	COMBI SW OUTPUT 4
3	LG	COMBI SW OUTPUT 3
4	R	COMBI SW OUTPUT 2
5	W	COMBI SW OUTPUT 5
17	BR	LIGHT & RAIN SENS
18	L	CAN-H
20	P	CAN-L
25	GR	DOOR SW (RL)
26	R	DOOR SW (DR)
27	BR	DOOR SW (AS)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH83FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
76	Y	-

29	LG	DOOR SW (RR)
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F)USE
42	V	ROOM LAMP POWER SUPPLY

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AMP 988705-1



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	+IG
2	BR	SIG
3	B	GND

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC063S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F)/L

Connector No.	M67
Connector Name	WIRE TO WIRE
Connector Type	TH83FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
60	BR	DOOR SW (RR)
61	BR	DOOR SW (DR)
62	BR	DOOR SW (AS)
63	BR	DOOR SW (RR)
64	BR	DOOR SW (DR)

DAYTIME RUNNING LIGHT SYSTEM

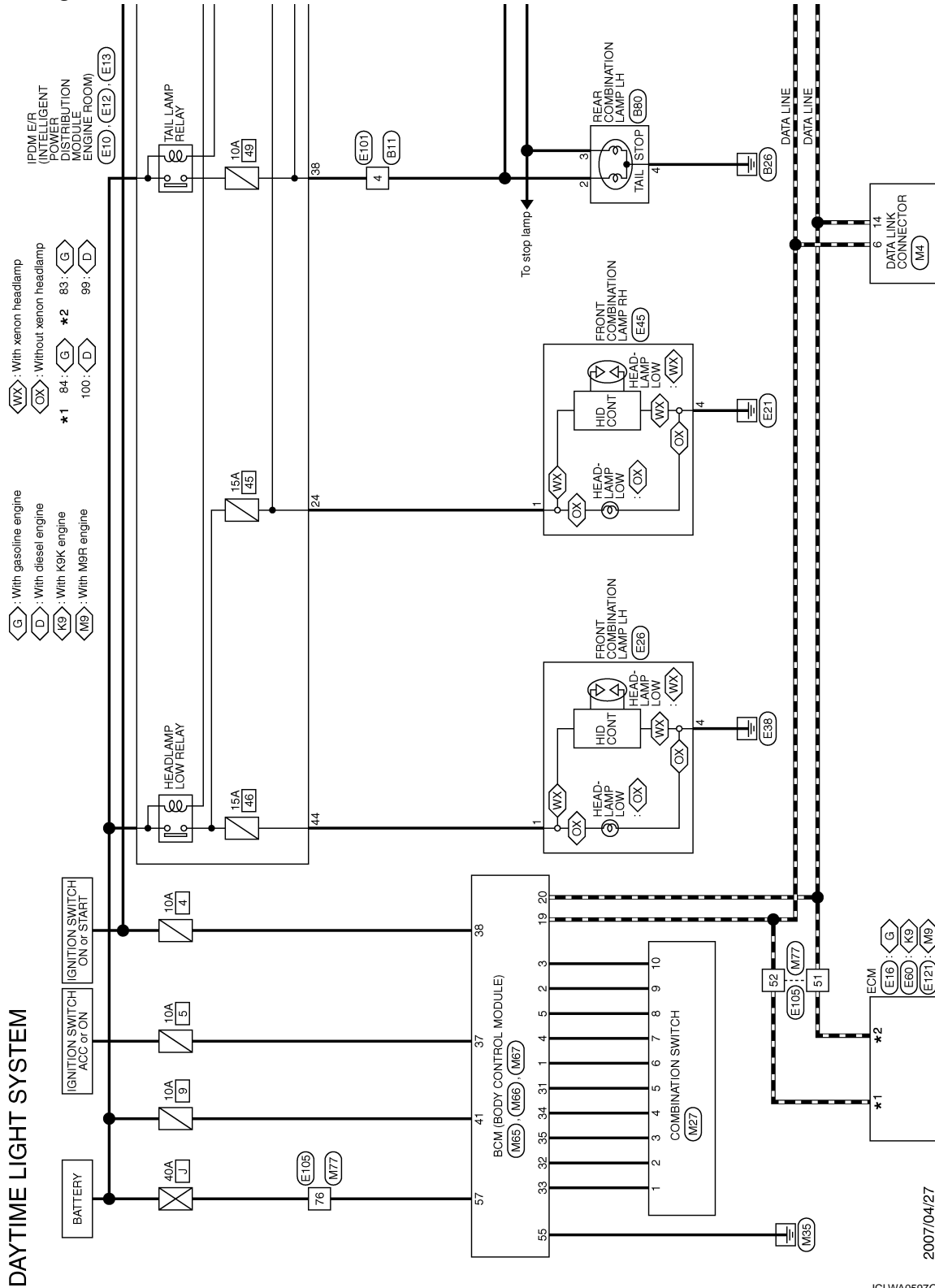
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[HALOGEN TYPE]

DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -

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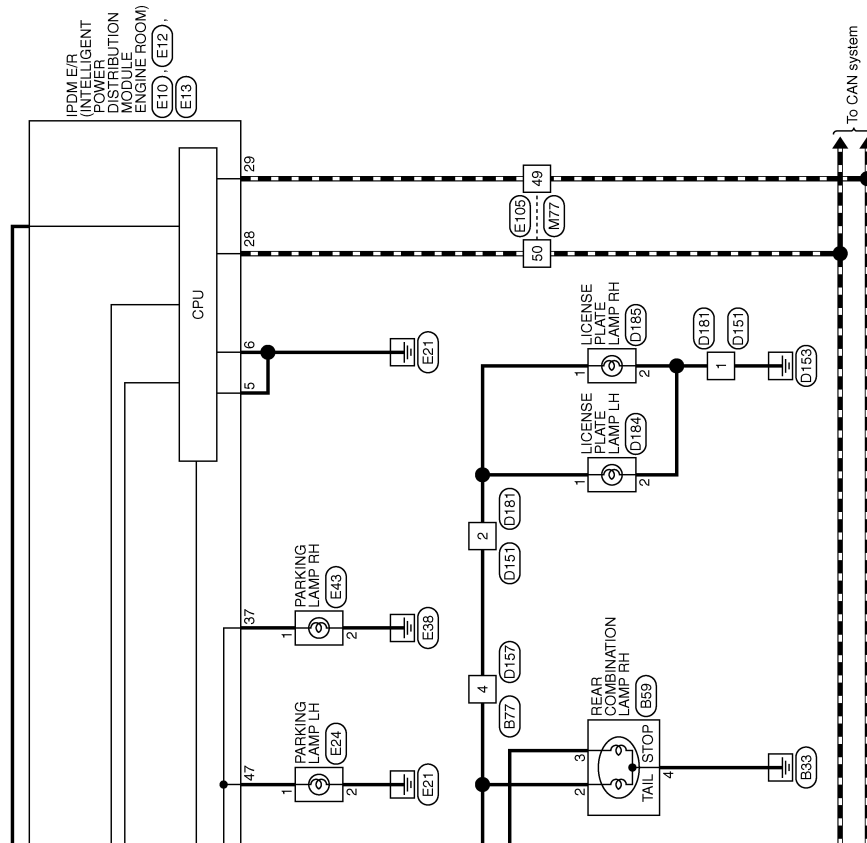
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DAYTIME RUNNING LIGHT SYSTEM

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DAYTIME RUNNING LIGHT SYSTEM

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[HALOGEN TYPE]

DAYTIME LIGHT SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK DMW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	B58
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FGI 21JP0042S4021



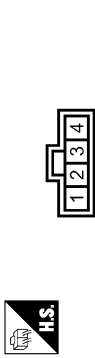
Terminal No.	Color of Wire	Signal Name [Specification]
2	R/L	-
3	R/W	-
4	B	-

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	TH08FW



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FGI 21JP0042S4021



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/L	-
3	R/W	-
4	B	-

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	TH08MW



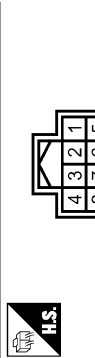
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	R/L	-

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	TH08MW



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	TH08FW



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

Connector No.	D184
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TRW 3029423100D



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

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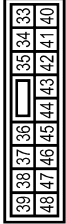





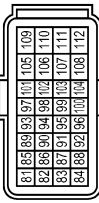






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DAYTIME RUNNING LIGHT SYSTEM

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[HALOGEN TYPE]

DAYTIME LIGHT SYSTEM

<table border="1"> <tr><td>Connector No.</td><td>D185</td></tr> <tr><td>Connector Name</td><td>LICENSE PLATE LAMP RH</td></tr> <tr><td>Connector Type</td><td>TRW 302042100D</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>1</td><td>R/L</td><td>-</td></tr> <tr><td>2</td><td>B</td><td>-</td></tr> </table>	Connector No.	D185	Connector Name	LICENSE PLATE LAMP RH	Connector Type	TRW 302042100D	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/L	-	2	B	-	<table border="1"> <tr><td>Connector No.</td><td>E13</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS16FW-GS</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>37</td><td>R/W</td><td>-</td></tr> <tr><td>38</td><td>R/L</td><td>-</td></tr> <tr><td>44</td><td>L</td><td>-</td></tr> <tr><td>47</td><td>R/L</td><td>-</td></tr> </table>	Connector No.	E13	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS16FW-GS	Terminal No.	Color of Wire	Signal Name [Specification]	37	R/W	-	38	R/L	-	44	L	-	47	R/L	-
Connector No.	D185																																				
Connector Name	LICENSE PLATE LAMP RH																																				
Connector Type	TRW 302042100D																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
1	R/L	-																																			
2	B	-																																			
Connector No.	E13																																				
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																				
Connector Type	NS16FW-GS																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
37	R/W	-																																			
38	R/L	-																																			
44	L	-																																			
47	R/L	-																																			
<table border="1"> <tr><td>Connector No.</td><td>E10</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>M09FE-LC</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>5</td><td>B</td><td>-</td></tr> <tr><td>6</td><td>B</td><td>-</td></tr> </table>	Connector No.	E10	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	M09FE-LC	Terminal No.	Color of Wire	Signal Name [Specification]	5	B	-	6	B	-	<table border="1"> <tr><td>Connector No.</td><td>E12</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS12FW-GS</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>24</td><td>R/Y</td><td>-</td></tr> <tr><td>28</td><td>L</td><td>-</td></tr> <tr><td>29</td><td>P</td><td>-</td></tr> </table>	Connector No.	E12	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS12FW-GS	Terminal No.	Color of Wire	Signal Name [Specification]	24	R/Y	-	28	L	-	29	P	-			
Connector No.	E10																																				
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																				
Connector Type	M09FE-LC																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
5	B	-																																			
6	B	-																																			
Connector No.	E12																																				
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																				
Connector Type	NS12FW-GS																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
24	R/Y	-																																			
28	L	-																																			
29	P	-																																			
<table border="1"> <tr><td>Connector No.</td><td>E18</td></tr> <tr><td>Connector Name</td><td>ECM</td></tr> <tr><td>Connector Type</td><td>MAA24FE-MEA8-LH</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>83</td><td>P</td><td>CAN-LI</td></tr> <tr><td>84</td><td>L</td><td>CAN-HI</td></tr> </table>	Connector No.	E18	Connector Name	ECM	Connector Type	MAA24FE-MEA8-LH	Terminal No.	Color of Wire	Signal Name [Specification]	83	P	CAN-LI	84	L	CAN-HI	<table border="1"> <tr><td>Connector No.</td><td>E43</td></tr> <tr><td>Connector Name</td><td>PARKING LAMP RH</td></tr> <tr><td>Connector Type</td><td>RH02FB</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>1</td><td>R/W</td><td>-</td></tr> <tr><td>2</td><td>B</td><td>-</td></tr> </table>	Connector No.	E43	Connector Name	PARKING LAMP RH	Connector Type	RH02FB	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/W	-	2	B	-						
Connector No.	E18																																				
Connector Name	ECM																																				
Connector Type	MAA24FE-MEA8-LH																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
83	P	CAN-LI																																			
84	L	CAN-HI																																			
Connector No.	E43																																				
Connector Name	PARKING LAMP RH																																				
Connector Type	RH02FB																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
1	R/W	-																																			
2	B	-																																			
<table border="1"> <tr><td>Connector No.</td><td>E24</td></tr> <tr><td>Connector Name</td><td>PARKING LAMP LH</td></tr> <tr><td>Connector Type</td><td>RH02FB</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>1</td><td>R/L</td><td>-</td></tr> <tr><td>2</td><td>B</td><td>-</td></tr> </table>	Connector No.	E24	Connector Name	PARKING LAMP LH	Connector Type	RH02FB	Terminal No.	Color of Wire	Signal Name [Specification]	1	R/L	-	2	B	-	<table border="1"> <tr><td>Connector No.</td><td>E26</td></tr> <tr><td>Connector Name</td><td>FRONT COMBINATION LAMP LH</td></tr> <tr><td>Connector Type</td><td>AMP 85360D-1</td></tr> </table>   <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>1</td><td>L</td><td>-</td></tr> <tr><td>4</td><td>B</td><td>-</td></tr> </table>	Connector No.	E26	Connector Name	FRONT COMBINATION LAMP LH	Connector Type	AMP 85360D-1	Terminal No.	Color of Wire	Signal Name [Specification]	1	L	-	4	B	-						
Connector No.	E24																																				
Connector Name	PARKING LAMP LH																																				
Connector Type	RH02FB																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
1	R/L	-																																			
2	B	-																																			
Connector No.	E26																																				
Connector Name	FRONT COMBINATION LAMP LH																																				
Connector Type	AMP 85360D-1																																				
Terminal No.	Color of Wire	Signal Name [Specification]																																			
1	L	-																																			
4	B	-																																			

JCLWA0600GB

DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

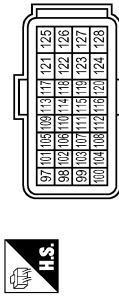
DAYTIME LIGHT SYSTEM

Connector No.	E43
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 933600-1



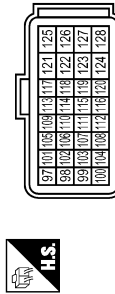
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/Y	-
4	B	-

Connector No.	E60
Connector Name	ECM
Connector Type	MAA2FEB-MEA8-LH



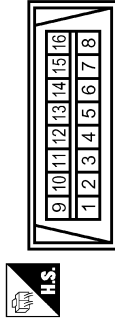
Terminal No.	Color of Wire	Signal Name [Specification]
98	P	MAIN CAN-L (BODY)
100	L	MAIN CAN-H (BODY)

Connector No.	E121
Connector Name	ECM
Connector Type	MAA2FEB-MEA8-LH



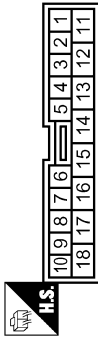
Terminal No.	Color of Wire	Signal Name [Specification]
98	P	MAIN CAN-L (BODY)
100	L	MAIN CAN-H (BODY)

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



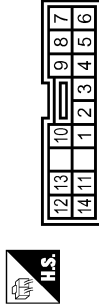
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK10FW-NS8



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
51	P	-
52	L	-
76	Y	-

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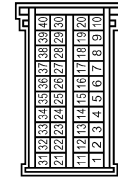
DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

DAYTIME LIGHT SYSTEM

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84CFB



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH63FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
51	P	-
52	L	-
76	Y	-

35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F)USE

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC063S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F)L

FRONT FOG LAMP SYSTEM

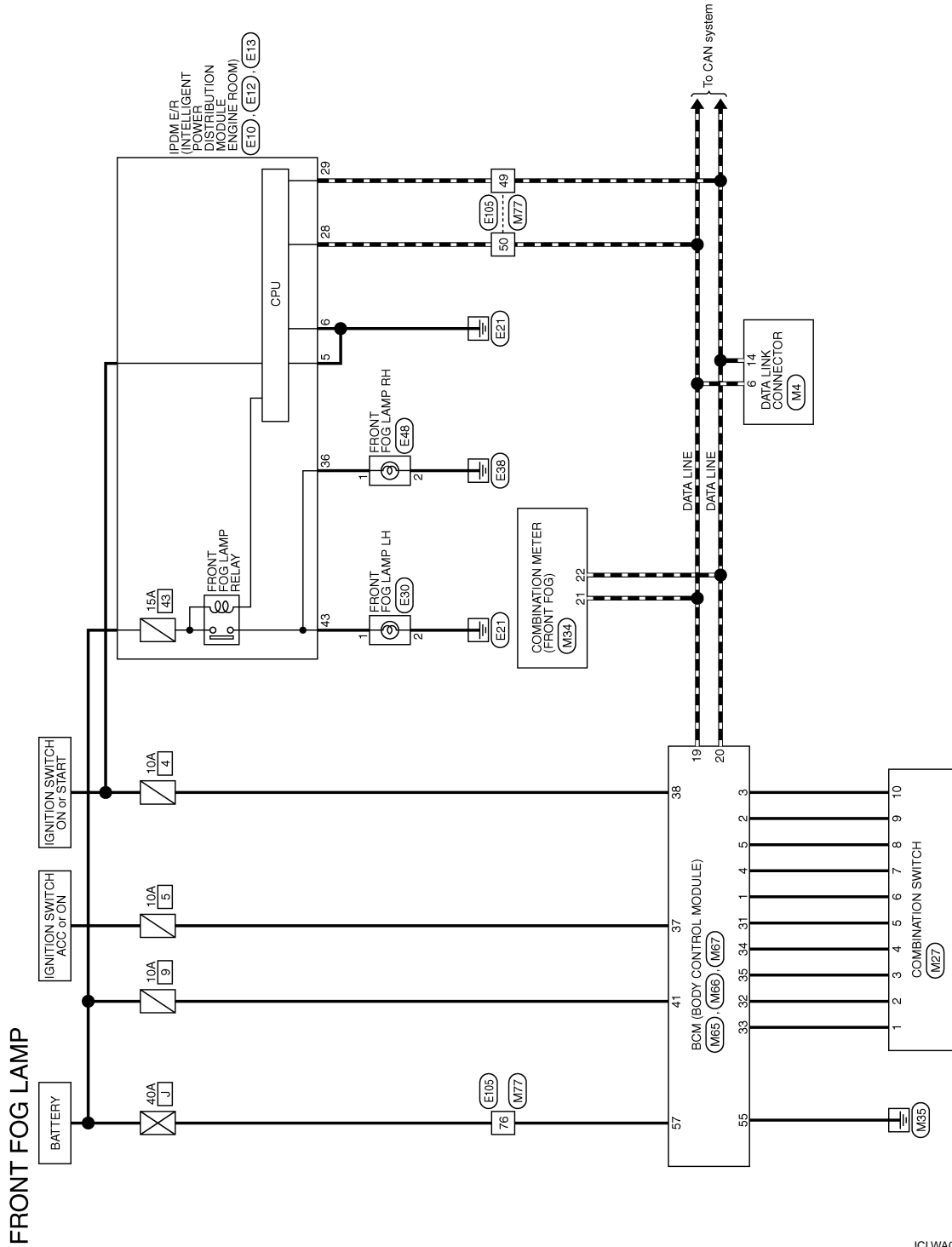
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP SYSTEM

Wiring Diagram - FRONT FOG LAMP -

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2006/12/08

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A
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P

EXL

FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP

Connector No. E10	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) M06FE-LC		Terminal No. 5	Color of Wire B	Signal Name [Specification]	Terminal No. 1	Color of Wire W	Signal Name [Specification]
Connector No. E10	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) M06FE-LC		Terminal No. 6	Color of Wire B	Signal Name [Specification]	Terminal No. 2	Color of Wire B	Signal Name [Specification]
Connector No. E12	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) NS12FW-CS		Terminal No. 28	Color of Wire L	Signal Name [Specification]	Terminal No. 1	Color of Wire W/B	Signal Name [Specification]
Connector No. E12	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) NS12FW-CS		Terminal No. 29	Color of Wire P	Signal Name [Specification]	Terminal No. 2	Color of Wire B	Signal Name [Specification]
Connector No. E13	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) NS16FW-CS		Terminal No. 36	Color of Wire W	Signal Name [Specification]	Terminal No. 1	Color of Wire W/B	Signal Name [Specification]
Connector No. E13	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) NS16FW-CS		Terminal No. 43	Color of Wire W/B	Signal Name [Specification]	Terminal No. 2	Color of Wire B	Signal Name [Specification]
Connector No. E105	WIPE TO WIRE FH30MW-NS16-TM4		Terminal No. 49	Color of Wire P	Signal Name [Specification]	Terminal No. 1	Color of Wire V	Signal Name [Specification]
Connector No. E105	WIPE TO WIRE FH30MW-NS16-TM4		Terminal No. 50	Color of Wire L	Signal Name [Specification]	Terminal No. 2	Color of Wire G	Signal Name [Specification]
Connector No. E105	WIPE TO WIRE FH30MW-NS16-TM4		Terminal No. 76	Color of Wire Y	Signal Name [Specification]	Terminal No. 3	Color of Wire L	Signal Name [Specification]
Connector No. E48	FRONT FOG LAMP RH FCI 240P-C023S4019		Terminal No. 1	Color of Wire W	Signal Name [Specification]	Terminal No. 4	Color of Wire GR	Signal Name [Specification]
Connector No. E48	FRONT FOG LAMP RH FCI 240P-C023S4019		Terminal No. 2	Color of Wire B	Signal Name [Specification]	Terminal No. 5	Color of Wire BR	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 1	Color of Wire V	Signal Name [Specification]	Terminal No. 6	Color of Wire P	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 2	Color of Wire G	Signal Name [Specification]	Terminal No. 7	Color of Wire R	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 3	Color of Wire L	Signal Name [Specification]	Terminal No. 8	Color of Wire W	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 4	Color of Wire GR	Signal Name [Specification]	Terminal No. 9	Color of Wire Y	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 5	Color of Wire BR	Signal Name [Specification]	Terminal No. 10	Color of Wire LG	Signal Name [Specification]
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 6	Color of Wire P	Signal Name [Specification]			
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 7	Color of Wire R	Signal Name [Specification]			
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 8	Color of Wire W	Signal Name [Specification]			
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 9	Color of Wire Y	Signal Name [Specification]			
Connector No. M27	COMBINATION SWITCH TK16FW		Terminal No. 10	Color of Wire LG	Signal Name [Specification]			

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FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

FRONT FOG LAMP

Connector No.	M64
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



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

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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC063S0017



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

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84QFB



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

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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6QFW-NS16-TM4



6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	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	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Terminal No.	Color of Wire	Signal Name [Specification]
48	P	-
50	L	-
76	Y	-

35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC123S1017



52	51	50	49	48	47	46	45	44	43	42	41
----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F/USE)

A
B
C
D
E
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G
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I
J
K
EXL
M
N
O
P

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

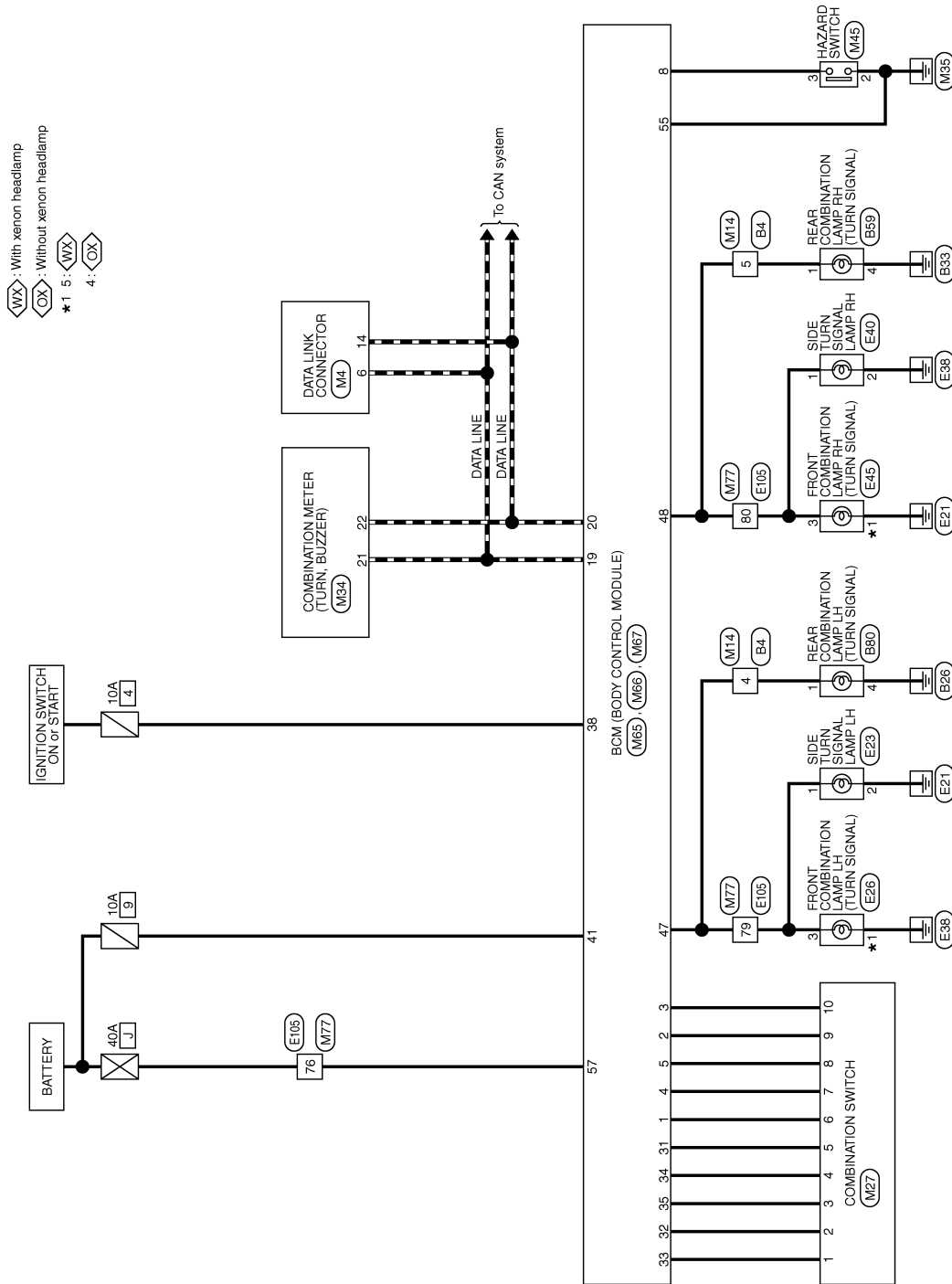
[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

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TURN SIGNAL AND HAZARD WARNING LAMPS



(WX) : With xenon headlamp
 (OX) : Without xenon headlamp
 * 1 : (WX)
 4 : (OX)

2006/12/08

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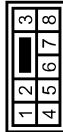
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS08MW-GS



Terminal No.	Color of Wire	Signal Name [Specification]
4	BR	-
5	G/B	-

Connector No.	B5B
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FGI 211P0042S4021



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

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FGI 211P0042S4021



Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	-
4	B	-

Connector No.	E23
Connector Name	SIDE TURN SIGNAL LAMP LH
Connector Type	TRW 3020423100D



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

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	AMP 953600-1



Terminal No.	Color of Wire	Signal Name [Specification]
3	G/Y	-
4	B	-
5	B	-

Connector No.	E40
Connector Name	SIDE TURN SIGNAL LAMP RH
Connector Type	TRW 3020423100D



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

Connector No.	E45
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	AMP 953600-1



Terminal No.	Color of Wire	Signal Name [Specification]
3	G/B	-
4	B	-
5	B	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
76	Y	-
79	G/Y	-
80	G/B	-

A
B
C
D
E
F
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H
I
J
K
L
M
N
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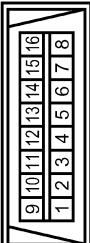




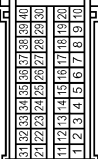


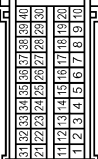

EXL

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

TURN SIGNAL AND HAZARD WARNING LAMPS

<table border="1"> <tr><td>Connector No.</td><td>M4</td></tr> <tr><td>Connector Name</td><td>DATA LINK CONNECTOR</td></tr> <tr><td>Connector Type</td><td>BD16FW</td></tr> </table>  <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>6</td><td>L</td><td>-</td></tr> <tr><td>14</td><td>P</td><td>-</td></tr> </table>	Connector No.	M4	Connector Name	DATA LINK CONNECTOR	Connector Type	BD16FW	Terminal No.	Color of Wire	Signal Name [Specification]	6	L	-	14	P	-	<table border="1"> <tr><td>Connector No.</td><td>M4</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>NS08FW-CS</td></tr> </table>  <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>4</td><td>BR</td><td>-</td></tr> <tr><td>5</td><td>GR</td><td>-</td></tr> </table>	Connector No.	M4	Connector Name	WIRE TO WIRE	Connector Type	NS08FW-CS	Terminal No.	Color of Wire	Signal Name [Specification]	4	BR	-	5	GR	-	<table border="1"> <tr><td>Connector No.</td><td>M27</td></tr> <tr><td>Connector Name</td><td>COMBINATION SWITCH</td></tr> <tr><td>Connector Type</td><td>TK16FW</td></tr> </table>  <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>1</td><td>V</td><td>INPUT1</td></tr> <tr><td>2</td><td>G</td><td>INPUT2</td></tr> <tr><td>3</td><td>L</td><td>INPUT3</td></tr> <tr><td>4</td><td>GR</td><td>INPUT4</td></tr> <tr><td>5</td><td>BR</td><td>INPUT5</td></tr> <tr><td>6</td><td>P</td><td>OUTPUT1</td></tr> <tr><td>7</td><td>R</td><td>OUTPUT2</td></tr> <tr><td>8</td><td>W</td><td>OUTPUT5</td></tr> <tr><td>9</td><td>Y</td><td>OUTPUT5</td></tr> <tr><td>10</td><td>LG</td><td>OUTPUT3</td></tr> </table>	Connector No.	M27	Connector Name	COMBINATION SWITCH	Connector Type	TK16FW	Terminal No.	Color of Wire	Signal Name [Specification]	1	V	INPUT1	2	G	INPUT2	3	L	INPUT3	4	GR	INPUT4	5	BR	INPUT5	6	P	OUTPUT1	7	R	OUTPUT2	8	W	OUTPUT5	9	Y	OUTPUT5	10	LG	OUTPUT3	<table border="1"> <tr><td>Connector No.</td><td>M34</td></tr> <tr><td>Connector Name</td><td>COMBINATION METER</td></tr> <tr><td>Connector Type</td><td>SAB40FW</td></tr> </table>  <table border="1"> <tr><th>Terminal No.</th><th>Color of Wire</th><th>Signal Name [Specification]</th></tr> <tr><td>21</td><td>L</td><td>CAN-H</td></tr> <tr><td>22</td><td>P</td><td>CAN-L</td></tr> </table>	Connector No.	M34	Connector Name	COMBINATION METER	Connector Type	SAB40FW	Terminal No.	Color of Wire	Signal Name [Specification]	21	L	CAN-H	22	P	CAN-L
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JCLWA0614GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

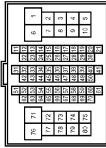
TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21IP02083S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

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



Terminal No.	Color of Wire	Signal Name [Specification]
76	Y	-
79	BR	-
80	GR	-

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

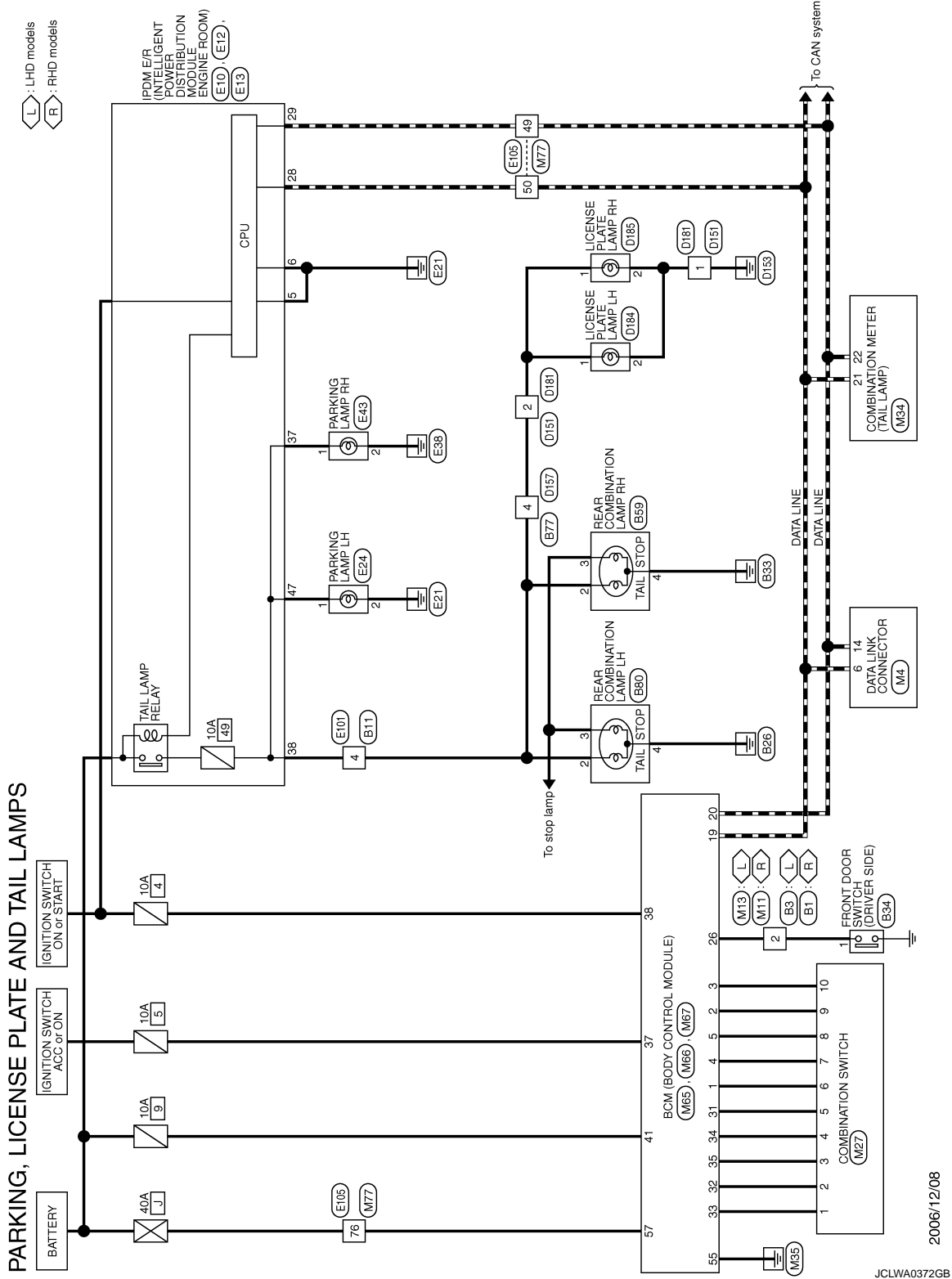
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -

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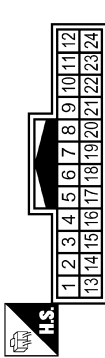
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

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



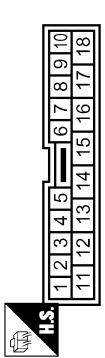
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Color of Wire			
Signal Name [Specification]			-[RHD models]

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



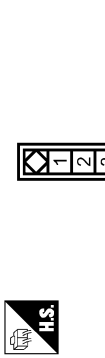
Terminal No.	2	R/W	
Color of Wire			
Signal Name [Specification]			-[LHD models]

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK10MW-NS8



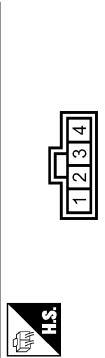
Terminal No.	4	R/L	
Color of Wire			
Signal Name [Specification]			-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	AG3FW



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

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FCI 21IP0042S4021



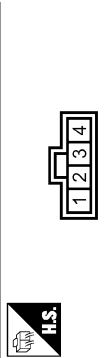
Terminal No.	2	R/L	
Color of Wire			
Signal Name [Specification]			-
Terminal No.	3	R/W	
Color of Wire			
Signal Name [Specification]			-
Terminal No.	4	B	
Color of Wire			
Signal Name [Specification]			-

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	TH8BW



Terminal No.	4	R/L	
Color of Wire			
Signal Name [Specification]			-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FCI 21IP0042S4021



Terminal No.	2	R/L	
Color of Wire			
Signal Name [Specification]			-
Terminal No.	3	R/W	
Color of Wire			
Signal Name [Specification]			-
Terminal No.	4	B	
Color of Wire			
Signal Name [Specification]			-

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	TH8BW



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

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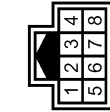
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

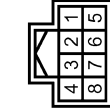
PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	TH08MW



Terminal No.	Color of Wire	Signal Name [Specification]
4	R/L	-

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	TH08FW



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

Connector No.	D184
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TRW 3029423100D



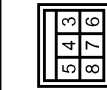
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/L	-
2	B	-

Connector No.	D185
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TRW 3029423100D



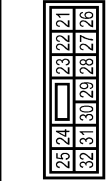
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/L	-
2	B	-

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



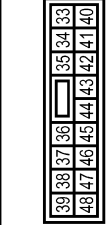
Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



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

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
37	R/W	-
38	R/L	-
47	R/L	-

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	RH02FB



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

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	RH02FB



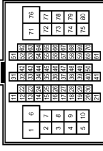
Terminal No.	1	2
Color of Wire	R/W	B
Signal Name [Specification]	-	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK1DFW-NS3



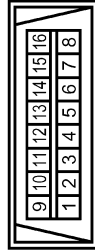
Terminal No.	4
Color of Wire	R/L
Signal Name [Specification]	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



Terminal No.	49	50	76
Color of Wire	P	L	Y
Signal Name [Specification]	-	-	-

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



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

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



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

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



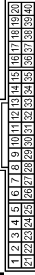
Terminal No.	2
Color of Wire	R
Signal Name [Specification]	-[LHD models]

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	21	22
Color of Wire	L	P
Signal Name [Specification]	CAN-H	CAN-L

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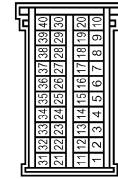
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA84CFB



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH63FW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
76	Y	-

34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
37	R	ACG SW
38	W	IGN SW

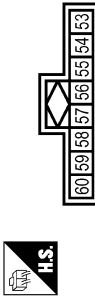


Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC12S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F-USE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC06S30017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

STOP LAMP

< COMPONENT DIAGNOSIS >

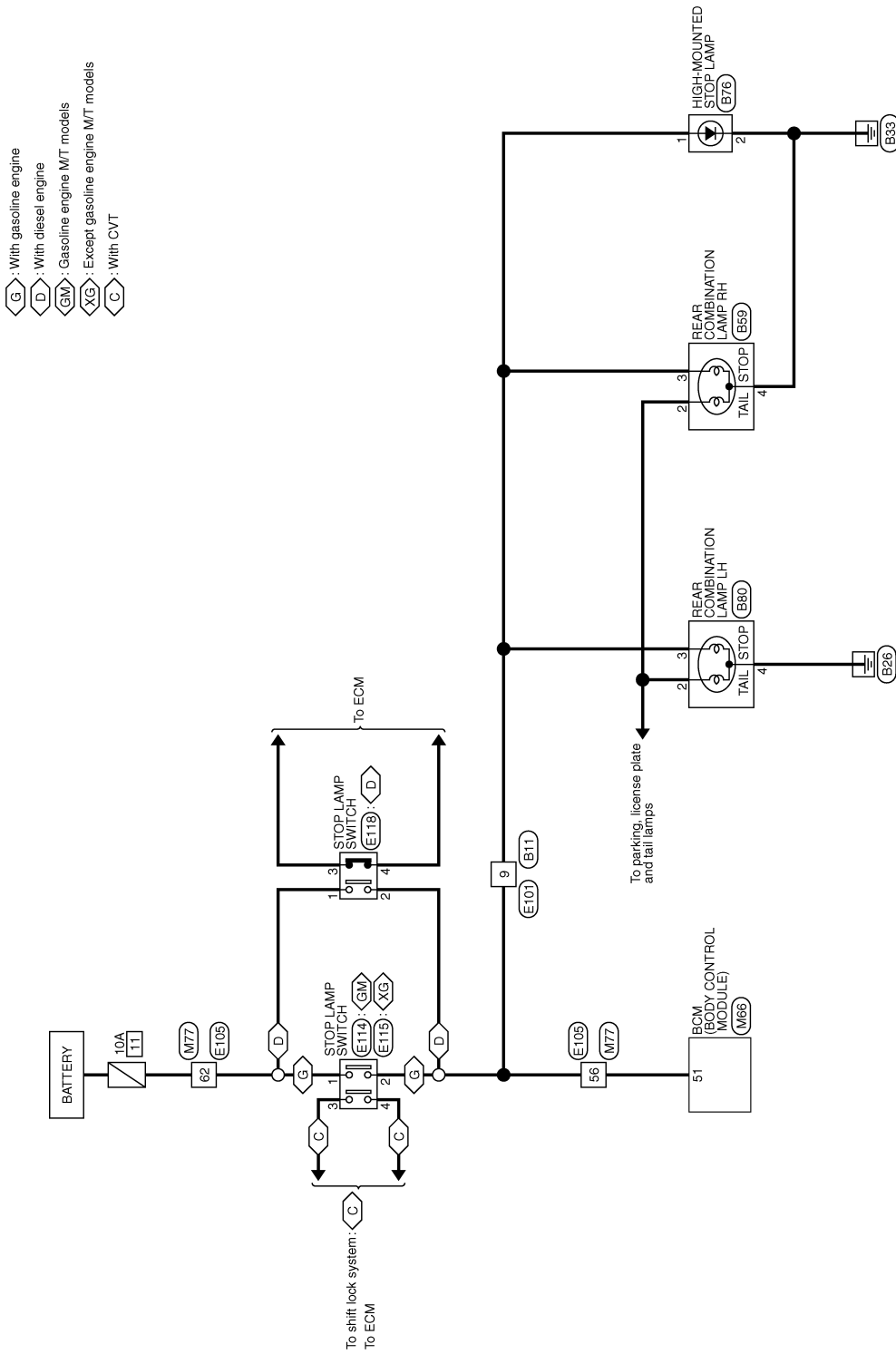
[HALOGEN TYPE]

STOP LAMP

Wiring Diagram - STOP LAMP -

INFOID:000000001527774

STOP LAMP



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STOP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]


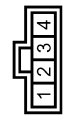
STOP LAMP

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK DMW-NS8



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

Connector No.	B58
Connector Name	REAR COMBINATION LAMP RH
Connector Type	FCI 21P-C042S4021


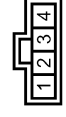
Terminal No.	Color of Wire	Signal Name [Specification]
2	R/L	-
3	R/W	-
4	B	-

Connector No.	B76
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	SICMA 11 7703297543



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

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	FCI 21P-C042S4021


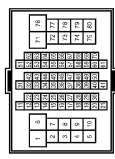
Terminal No.	Color of Wire	Signal Name [Specification]
2	R/L	-
3	R/W	-
4	B	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK DFV-NS8



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	FH3DMW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
56	R/W	-
62	V	-

Connector No.	E114
Connector Name	STOP LAMP SWITCH
Connector Type	MD2FB

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

Connector No.	E115
Connector Name	STOP LAMP SWITCH
Connector Type	MD4FW-LC

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	R/W	-
3	G	-
4	B	-

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STOP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

STOP LAMP

Connector No.	E118
Connector Name	STOP LAMP SWITCH
Connector Type	MDJFW-LC



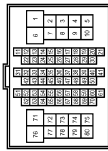
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	R/W	-
3	O	-
4	W/L	-

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FGI 211PG123S1017



Terminal No.	Color of Wire	Signal Name [Specification]
51	R/W	STOP LAMP SW [With Intelligent Key]
51	R	STOP LAMP SW [Without Intelligent Key]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6DFW-NS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
56	R	-[Except RHD models with Intelligent Key]
56	R/W	-[RHD models with Intelligent Key]
62	V	-

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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

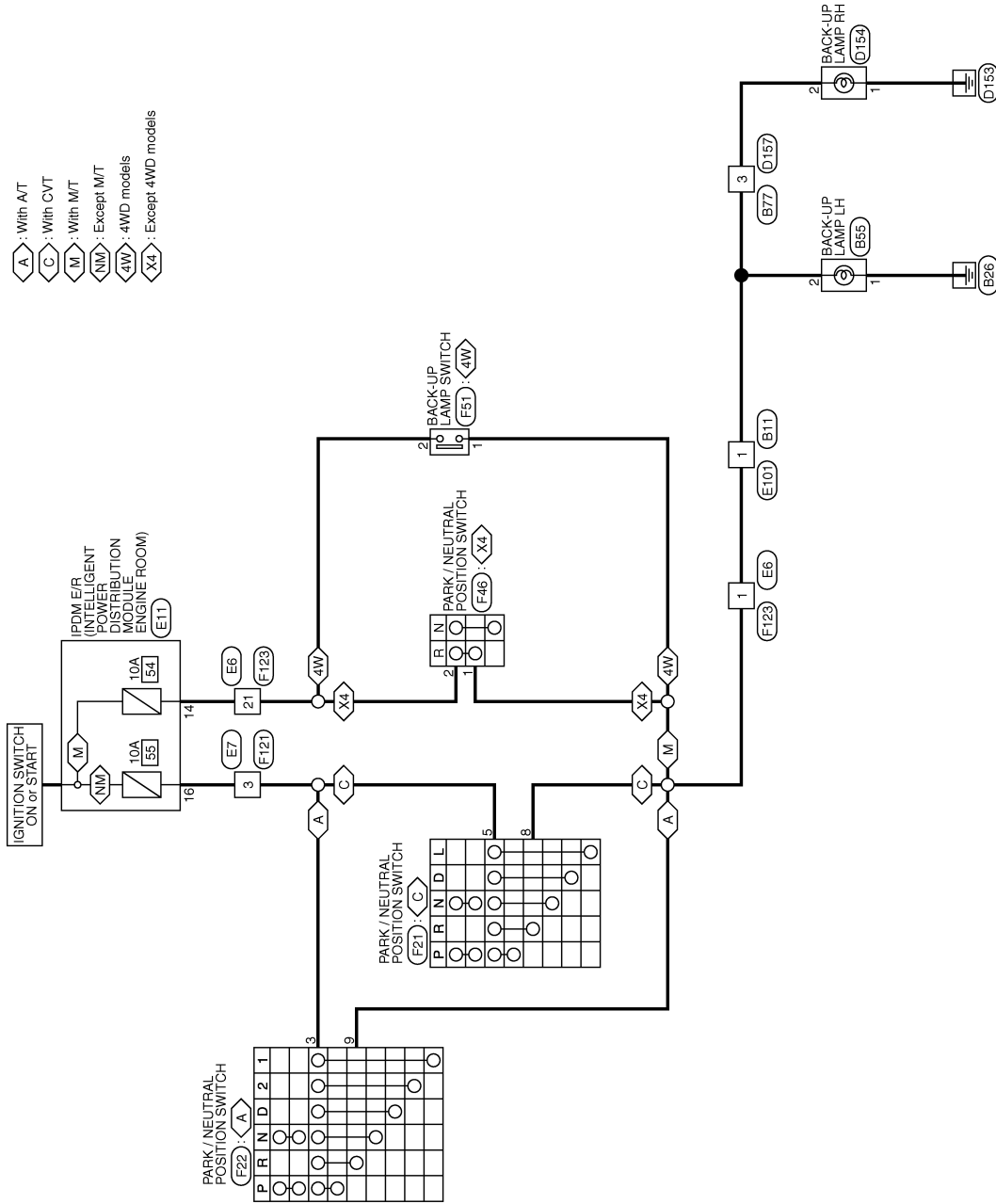
[HALOGEN TYPE]

BACK-UP LAMP

Wiring Diagram - BACK-UP LAMP -

INFOID:000000001527775

BACK-UP LAMP



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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

BACK-UP LAMP

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-NS8



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

Connector No.	B55
Connector Name	BACK-UP LAMP LH
Connector Type	FGI21JP02ZS3049



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

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	TH08FW



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/G	-

Connector No.	D154
Connector Name	BACK-UP LAMP RH
Connector Type	FGI21JP02ZS3049



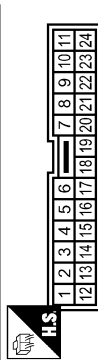
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	Y/G	-

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	TH08MW



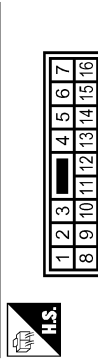
Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/G	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V



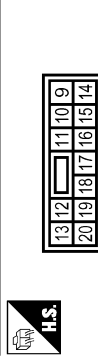
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-
2	R/B	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
14	R/B	-
16	Y/R	-

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BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

BACK-UP LAMP

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TK DFV-NS3



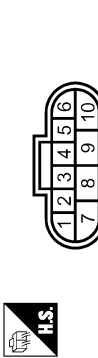
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-

Connector No.	F21
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	RK08FG



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y/R	-
8	Y/G	-

Connector No.	F22
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	YD08FB-HS4



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	VIGN
9	Y/G	R RANGE SWITCH

Connector No.	F4E
Connector Name	PARK/NEUTRAL POSITION SWITCH
Connector Type	FEA03FG



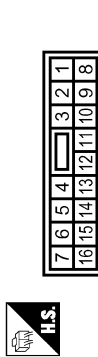
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-
2	R/B	-

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



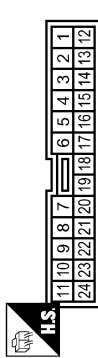
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-
2	R/B	-

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-GS



Terminal No.	Color of Wire	Signal Name [Specification]
3	Y/R	-

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y/G	-
21	R/B	-

REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

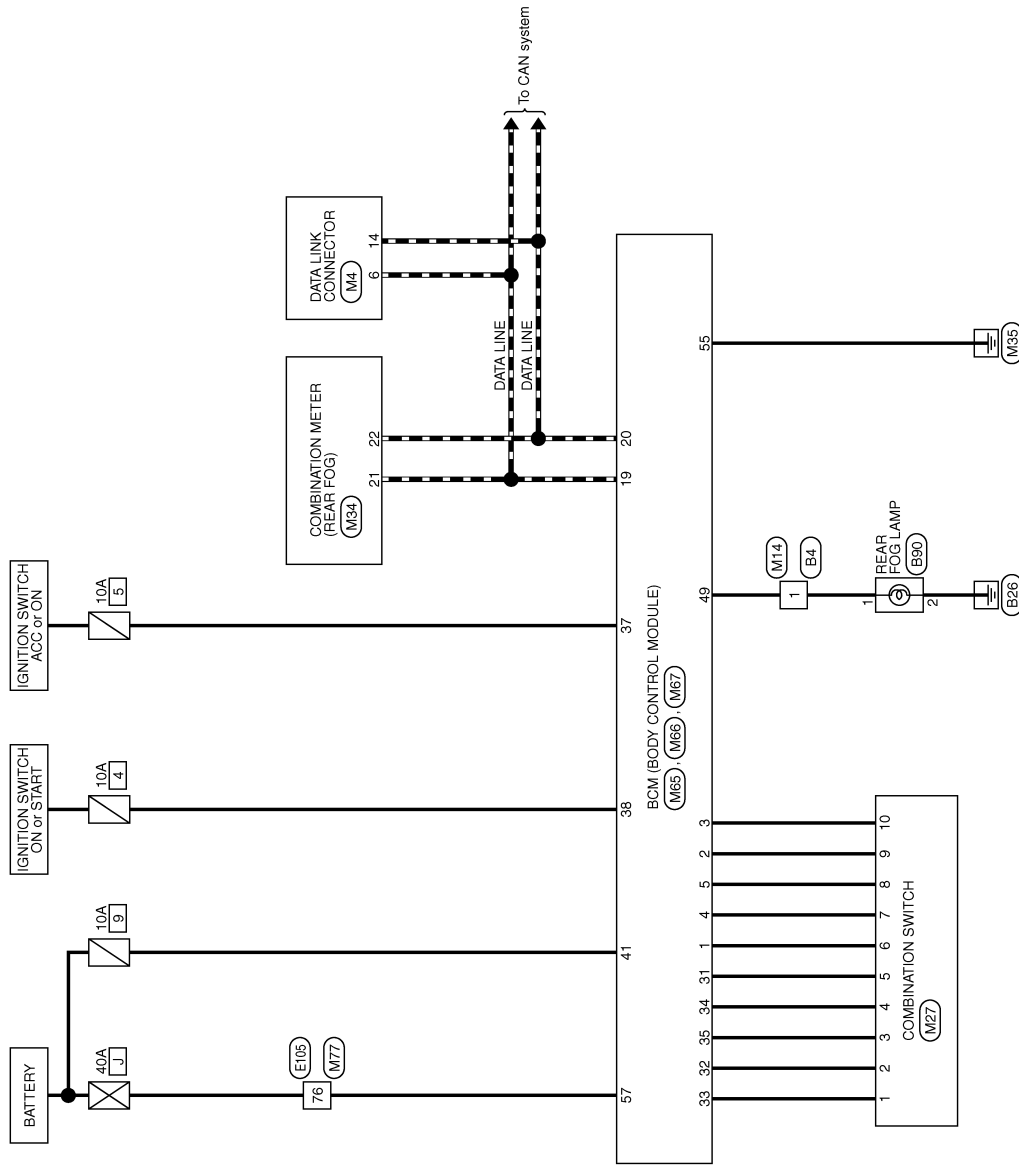
[HALOGEN TYPE]

REAR FOG LAMP SYSTEM

Wiring Diagram - REAR FOG LAMP -

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REAR FOG LAMP



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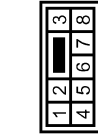
REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

REAR FOG LAMP

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-GS



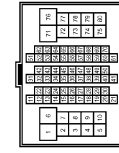
Terminal No.	1	Y	-	-
Color of Wire				
Signal Name [Specification]				

Connector No.	B90
Connector Name	REAR FOG LAMP
Connector Type	FEA02FB



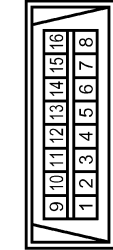
Terminal No.	1	Y	-	-
Color of Wire				
Signal Name [Specification]				
Terminal No.	2	B	-	-
Color of Wire				
Signal Name [Specification]				

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS16-TM4



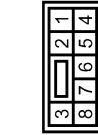
Terminal No.	76	Y	-	-
Color of Wire				
Signal Name [Specification]				

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



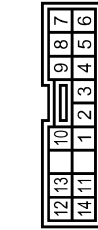
Terminal No.	6	L	-	-
Color of Wire				
Signal Name [Specification]				
Terminal No.	14	P	-	-
Color of Wire				
Signal Name [Specification]				

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-GS



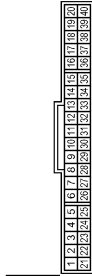
Terminal No.	1	Y	-	-
Color of Wire				
Signal Name [Specification]				

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



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

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



Terminal No.	21	L		CAN-H
Color of Wire				
Signal Name [Specification]				
Terminal No.	22	P		CAN-L
Color of Wire				
Signal Name [Specification]				

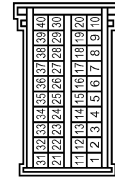
REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

REAR FOG LAMP

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4DFB



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

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH6JFW-NS16-TM4



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

35	L	COMBI SW INPUT 3
37	R	ACC SW
38	W	IGN SW

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211P012S1017



Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(F USE)
49	Y	REAR FOG LAMP

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FQI 211P008S0017



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND(POWER)
57	Y	BAT(F/L)

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001527781

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ACC ON SW	Ignition switch OFF	Off
	Ignition switch ACC or ON	On
AIR COND SW	A/C switch OFF	Off
	A/C switch ON	On
AUT LIGHT SYS	Outside of the room is bright	Off
	Outside of the room is dark	On
AUTO LIGHT SW	Lighting switch OFF	Off
	Lighting switch AUTO	On
AUTO RELOCK	Auto lock function does not operate	Off
	Auto lock function is operating	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
BATTERY VOLT NOTE: Diesel engine models only	Ignition switch ON	Approximately the same as power supply voltage
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the LOCK side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the UNLOCK side	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status		
ELEC PWR CUT NOTE: Diesel engine models only	Engine running	Fan switch ON (when engine coolant is cool) NOTE: Depending on the ambient temperature, battery voltage, etc.	Off	A
		The current status maintained with the signal from ECM received.	FREEZ	B
		<ul style="list-style-type: none"> • Fan switch OFF • Fan switch ON after engine warming UP NOTE: Depending on the engine coolant temperature, ambient temperature, battery voltage, etc.	INHBT	C
ENG COOLNT T NOTE: Diesel engine models only	Engine running	Approximately the same as water temperature gauge reading	D	
ENGINE RPM NOTE: Diesel engine models only	Engine running	Approximately the same as tachometer reading	E	
ENGINE RUN	Engine stopped	Off	F	
	Engine running	On	G	
ENGINE STATUS NOTE: Diesel engine models only	Engine stopped	STOP	H	
	While the engine stalls	STALL	I	
	Engine running	RUN	J	
	At engine cranking	CRA	K	
FAN ON SIG	Fan switch OFF	Off	L	
	Fan switch ON	On	M	
FR FOG SW	Front fog lamp switch OFF	Off	N	
	Front fog lamp switch ON	On	O	
FR WASHER SW	Front washer switch OFF	Off	P	
	Front washer switch ON	On	EXL	
FR WIPER LOW	Front wiper switch OFF	Off	Q	
	Front wiper switch LO	On	R	
FR WIPER HI	Front wiper switch OFF	Off	S	
	Front wiper switch HI	On	T	
FR WIPER INT	Front wiper switch OFF	Off	U	
	Front wiper switch INT	On	V	
FR WIPER STOP	Any position other than front wiper stop position	Off	W	
	Front wiper stop position	On	X	
GLS BREAK SEN	The vehicle without glass break sensor	On	Y	
	The vehicle with glass break sensor	Off	Z	
HAZARD SW	When hazard switch is not pressed	Off	AA	
	When hazard switch is pressed	On	AB	
HD LIGHT TIME	—	Displays a setting time of the follow me home function set by the work support	AC	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
HEAD LAMP SW 1	Lighting switch OFF	Off
	Lighting switch 2ND	On
HEAD LAMP SW 2	Lighting switch OFF	Off
	Lighting switch 2ND	On
HI BEAM SW	Lighting switch OFF	Off
	Lighting switch HI	On
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
H/L WASH SW	NOTE: The item is indicated, but not monitored	Off
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
IGN SW CAN	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
I-KEY LOCK	LOCK button of Intelligent Key is not pressed	Off
	LOCK button of Intelligent Key is pressed	On
I-KEY UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
KEYLESS LOCK	LOCK button of key fob is not pressed	Off
	LOCK button of key fob is pressed	On
KEY LESS PANIC	NOTE: The item is indicated, but not monitored	Off
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off
	UNLOCK button of key fob is pressed	On
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK
	Light & rain sensor is with internal error	NOT OK
MEMORY 1	Key fob ID code is not registered in "Memory 1"	Off
	Key fob ID code is registered in "Memory 1"	On
MEMORY 2	Key fob ID code is not registered in "Memory 2"	Off
	Key fob ID code is registered in "Memory 2"	On
MEMORY 3	Key fob ID code is not registered in "Memory 3"	Off
	Key fob ID code is registered in "Memory 3"	On
MEMORY 4	Key fob ID code is not registered in "Memory 4"	Off
	Key fob ID code is registered in "Memory 4"	On
MEMORY 5	Key fob ID code is not registered in "Memory 5"	Off
	Key fob ID code is registered in "Memory 5"	On
OIL PRESS SW	<ul style="list-style-type: none"> • Ignition switch OFF or ACC • Engine running 	Off
	Ignition switch ON	On
OUT SIDE TEMP NOTE: Diesel engine models	Ignition switch ON	Approximately the same as outside air temperature

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
PASSING SW	Other than lighting switch PASS	Off	A
	Lighting switch PASS	On	
REVERSE SW CAN	Except selector lever R position	Off	B
	Selector lever R position	On	
PUSH SW	Return to ignition switch to LOCK position	Off	C
	Press ignition switch	On	
REAR DEF SW	Rear window defogger switch OFF	Off	D
	Rear window defogger switch ON	On	
RR FOG SW	Rear fog lamp switch OFF	Off	E
	Rear fog lamp switch ON	On	
RR WASHER SW	Rear washer switch OFF	Off	F
	Rear washer switch ON	On	
RR WIPER INT	Rear wiper switch OFF	Off	G
	Rear wiper switch INT	On	
RR WIPER ON	Rear wiper switch OFF	Off	H
	Rear wiper switch ON	On	
RR WIPER STOP	Rear wiper stop position	Off	I
	Other than rear wiper stop position	On	
SHOCK SENSOR	Ignition switch ON	NOMAL	J
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off	
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On	
TAIL LAMP SW	Lighting switch OFF	Off	K
	Lighting switch 1ST	On	
TRNK OPNR SW	When back door opener switch is not pressed	Off	L
	When back door opener switch is pressed	On	
TURN SIGNAL L	Turn signal switch OFF	Off	M
	Turn signal switch LH	On	
TURN SIGNAL R	Turn signal switch OFF	Off	N
	Turn signal switch RH	On	
UNLOCK SHOCK	Other than the following	Off	O
	During the unlock operation interlocked with air bag	On	
VEHICLE SPEED	While driving	Equivalent to speedometer reading	P

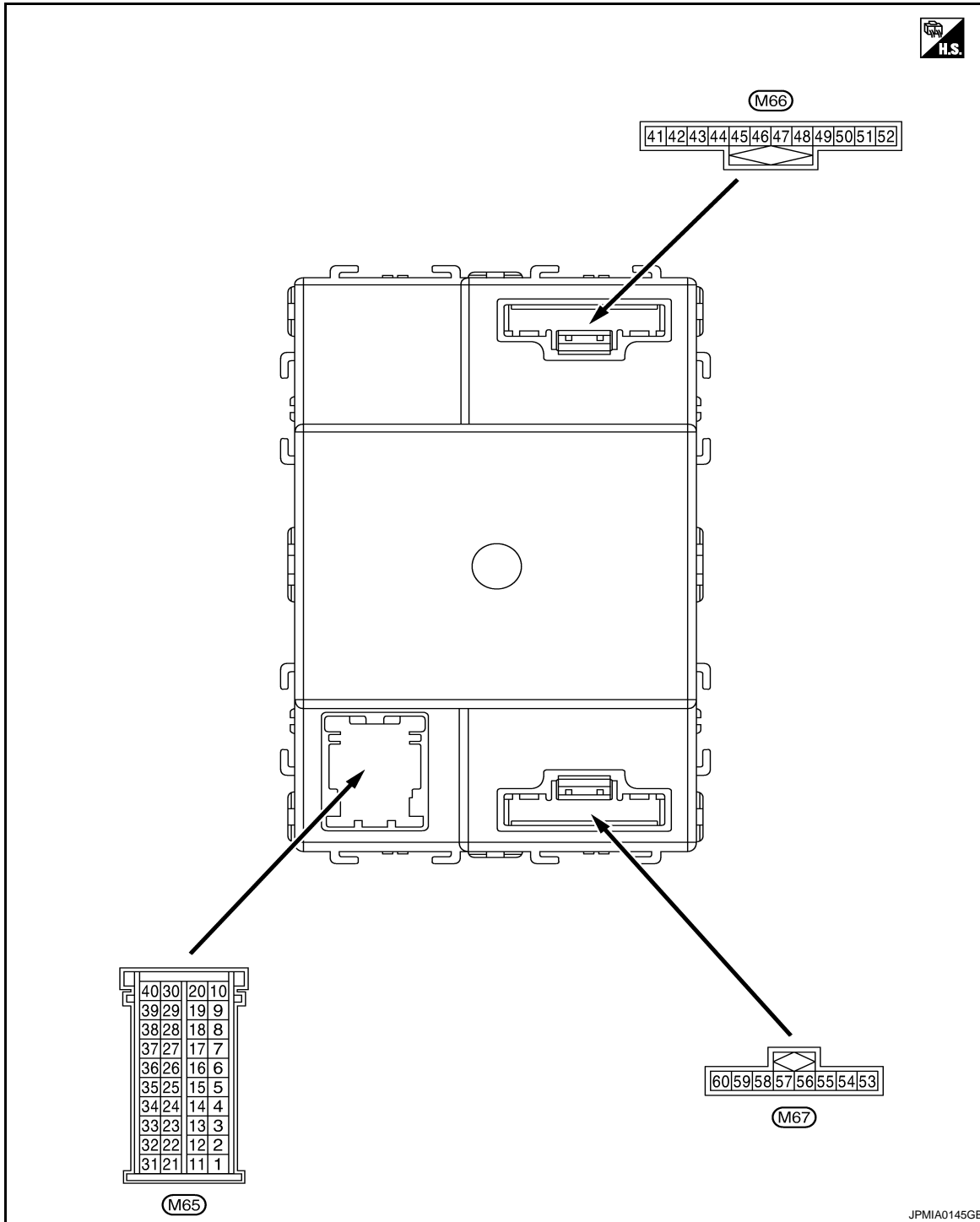
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

TERMINAL LAYOUT



PHYSICAL VALUES

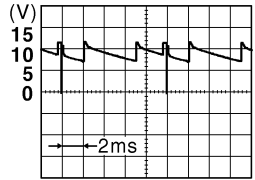
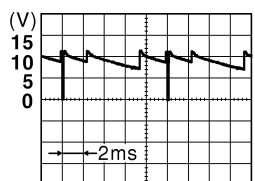
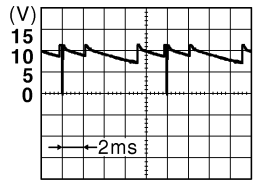
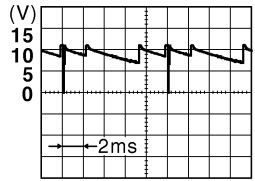
CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to [BCS-27, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-10, "System Description"](#).

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
1 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
					<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7 	
2 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Front fog lamp switch ON	
					Turn signal switch LH	
3 (LG)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	
					Rear fog lamp switch OFF	
					Front wiper switch MIST	
					Front wiper switch INT	
					Front wiper switch LO	
4 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6 	9.1 V					

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BCM (BODY CONTROL MODULE)

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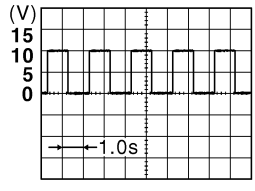
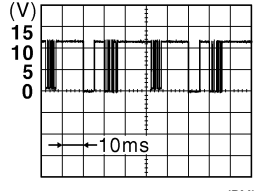
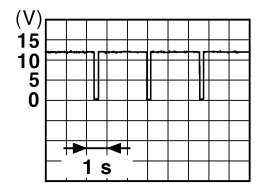
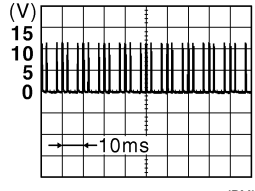
[HALOGEN TYPE]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

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

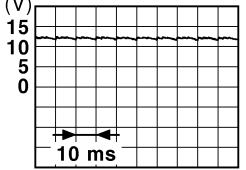
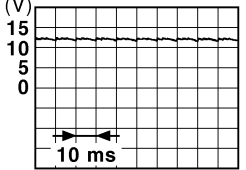
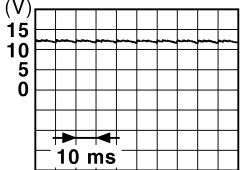
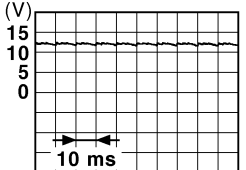
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BCM (BODY CONTROL MODULE)

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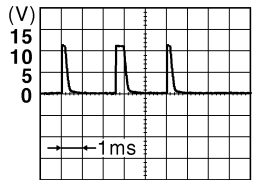
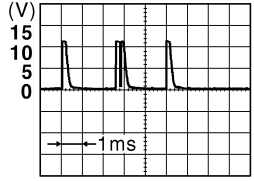
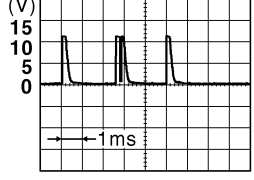
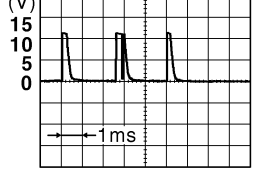
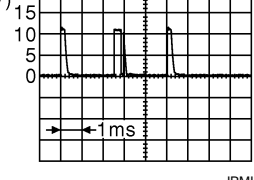
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
24 (GR)	Ground	Door lock status indicator	Output	Door lock status indicator	ON	Battery voltage
					OFF	0 V
25 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p>
						ON (When rear door LH opened)
26 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p>
						ON (When driver door opened)
27 (BR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p>
						ON (When passenger door opened)
28 (G)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	Battery voltage
						ON (When back door opened)
29 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p>
						ON (When rear door RH opened)
30 (SB)	Ground	Audio link	Input/ Output	—	—	—

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

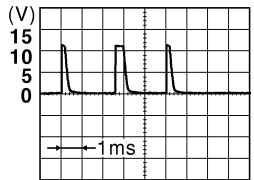
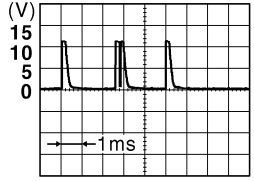
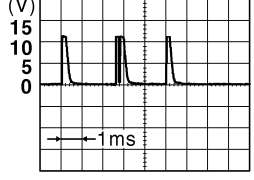
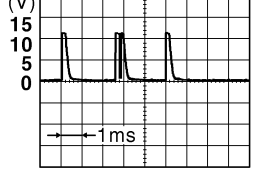
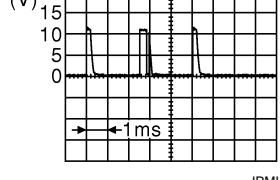
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
31 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.3 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0169GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch OFF	<ul style="list-style-type: none"> • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7  <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

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BCM (BODY CONTROL MODULE)

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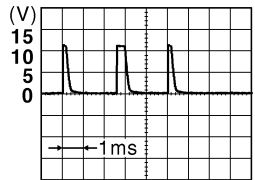
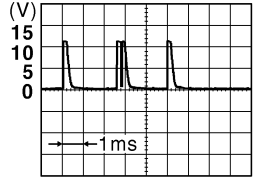
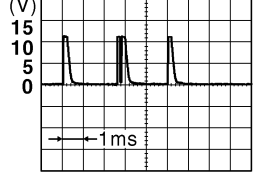
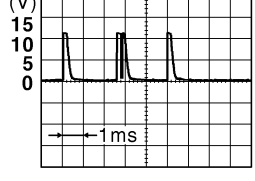
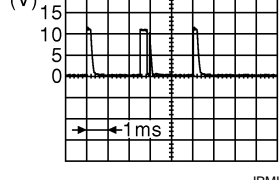
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
32 (G)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	 <p style="text-align: right; margin-right: 50px;">1.4 V</p>
					Lighting switch PASS	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Lighting switch 2ND	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Front wiper switch INT	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Front wiper switch HI	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

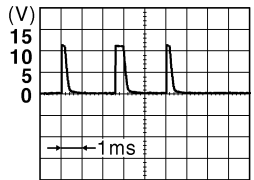
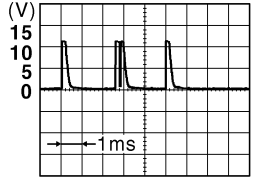
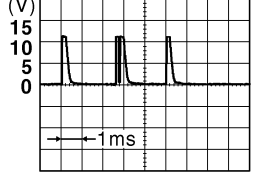
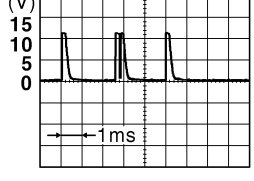
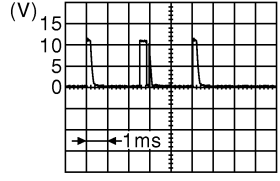
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
33 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	 <p style="text-align: center;">1.4 V</p>
					Turn signal switch LH	 <p style="text-align: center;">1.3 V</p>
					Turn signal switch RH	 <p style="text-align: center;">1.3 V</p>
					Front wiper switch LO	 <p style="text-align: center;">1.3 V</p>
					Front washer switch ON	 <p style="text-align: center;">1.3 V</p>

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BCM (BODY CONTROL MODULE)

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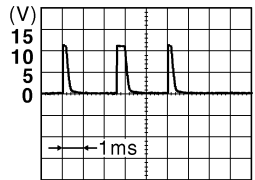
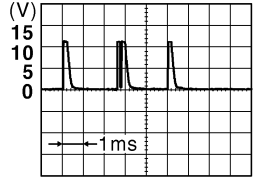
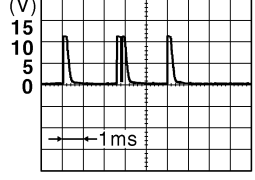
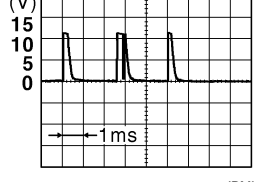
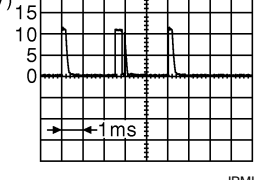
[HALOGEN TYPE]

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

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

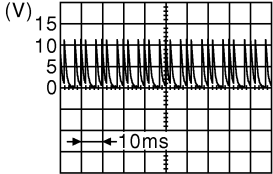
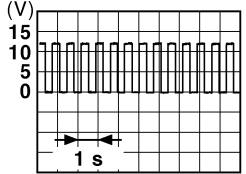
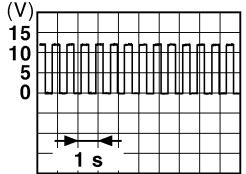
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EXL

BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

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

*1: With Intelligent Key system

*2: Without Intelligent Key system

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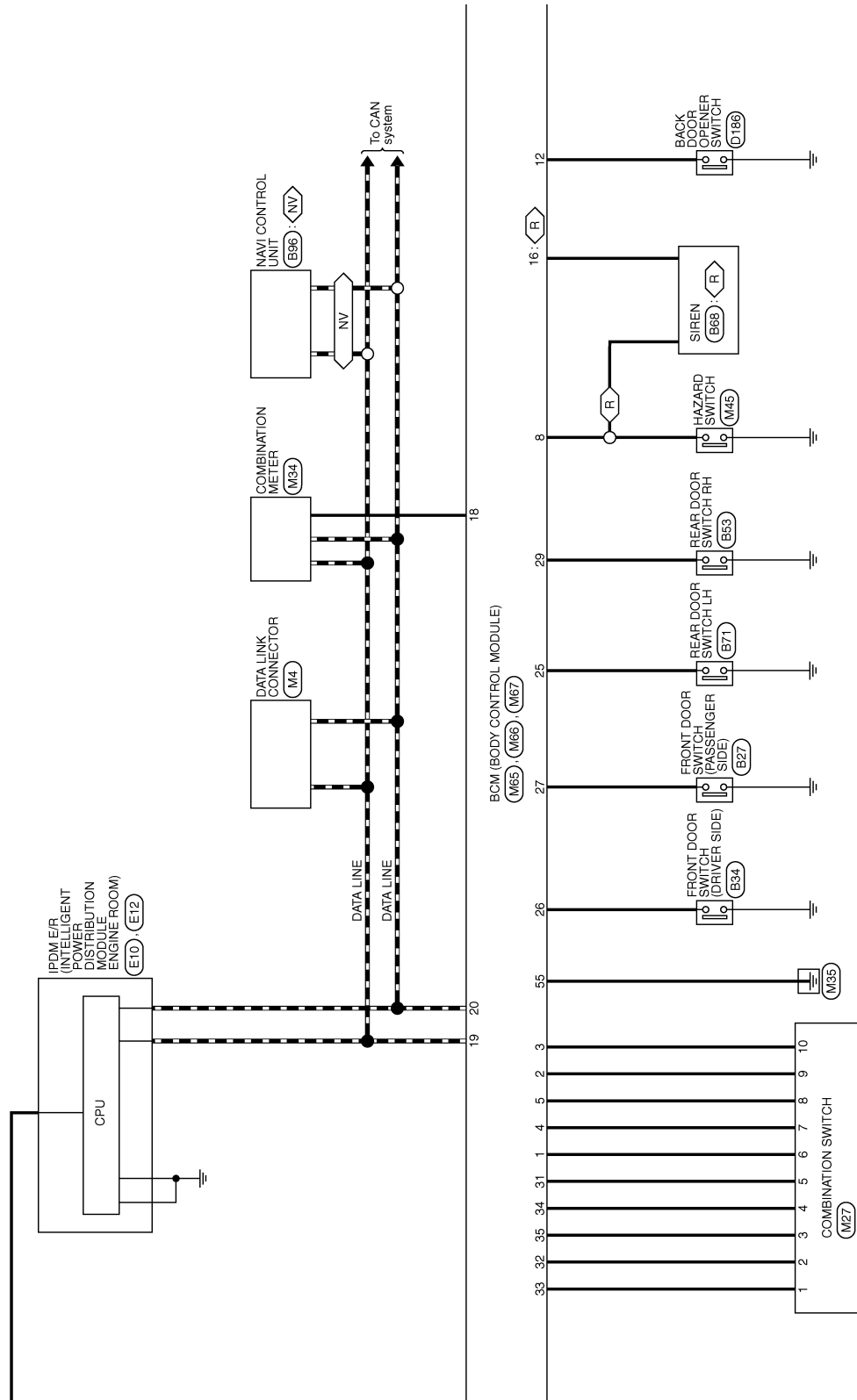
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BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

R : RHD models
NV : With navigation system



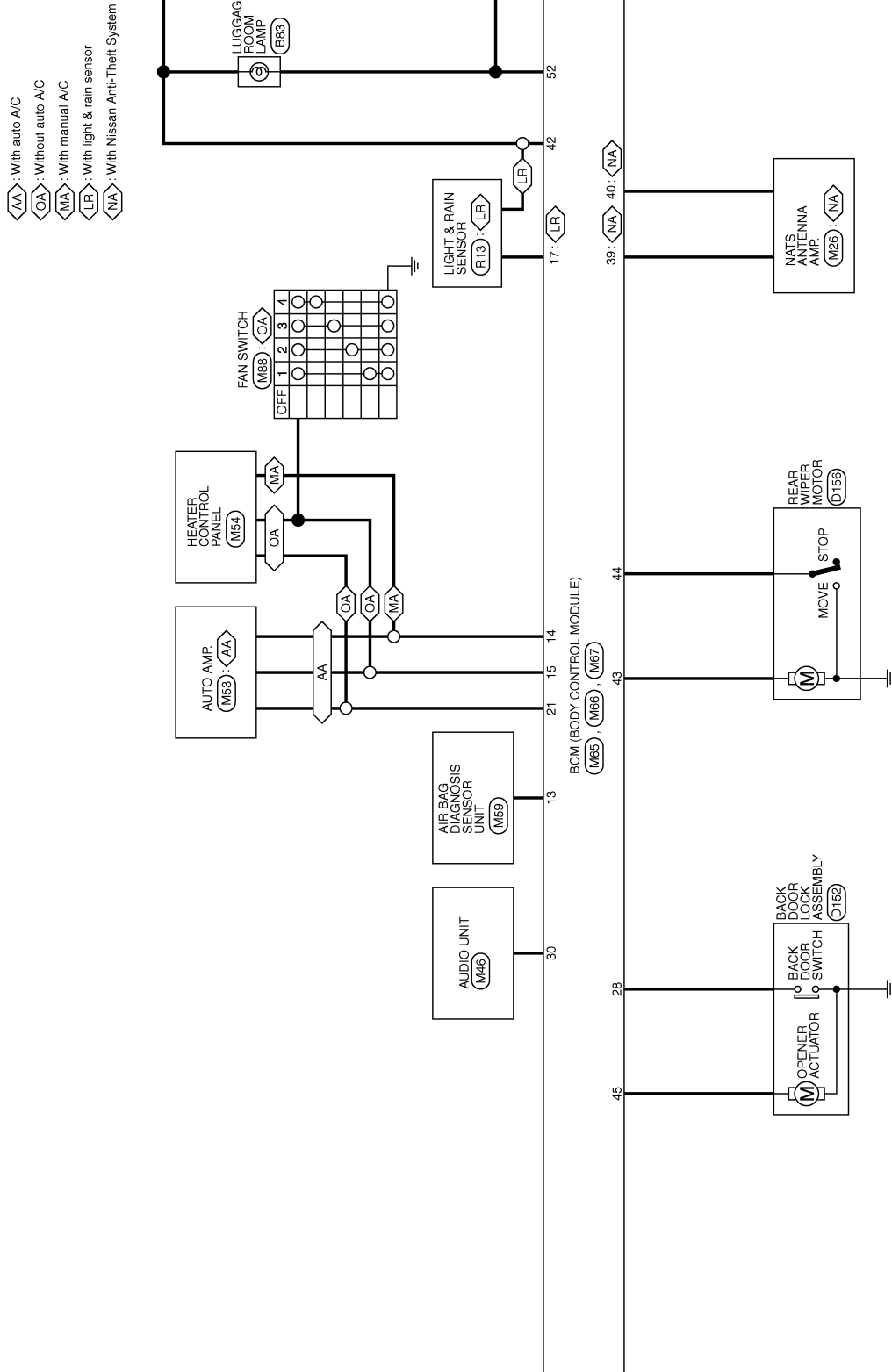
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BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >



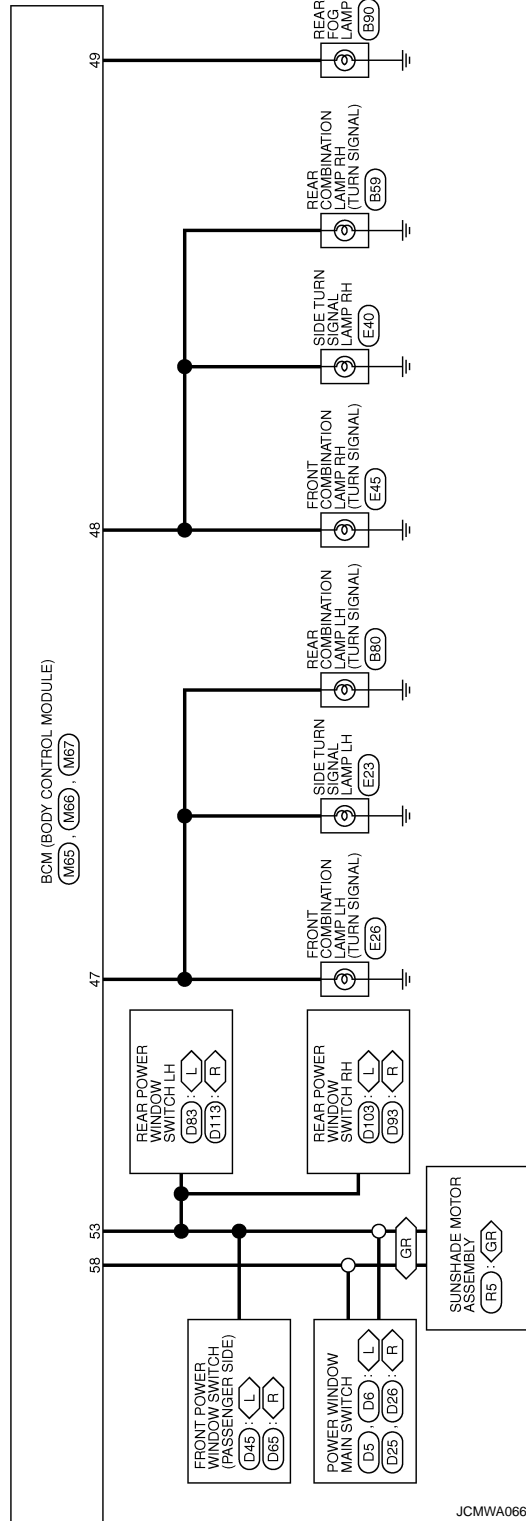
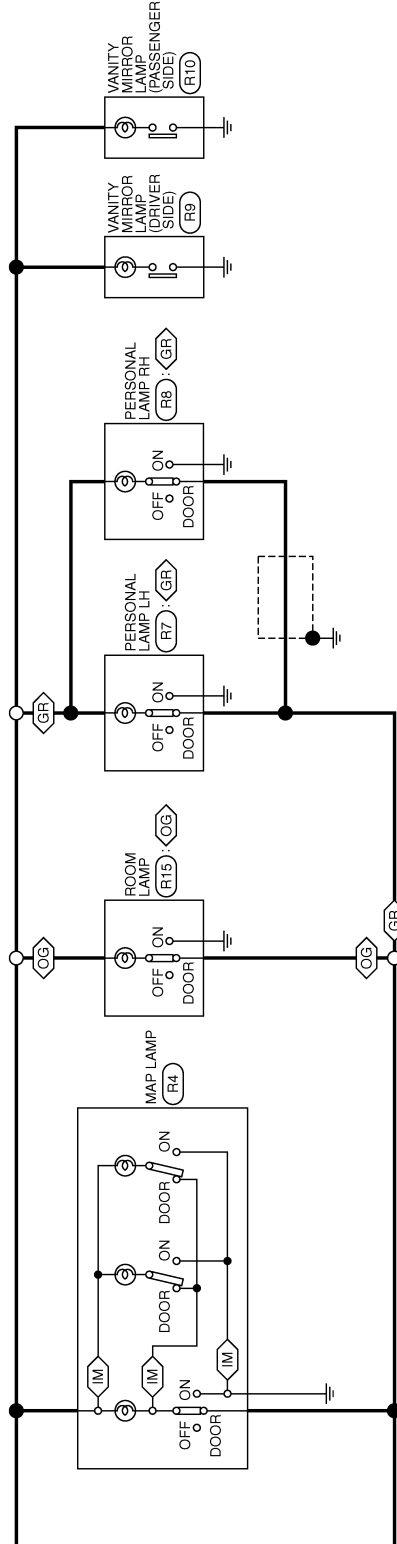
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BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

- : LHD models
- : RHD models
- : With integrated map lamp
- : With glass top roof
- : Without glass top roof



JCMWA0667GE

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

BCM (BODY CONTROL MODULE)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC68S0017



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

Terminal No.	Color of Wire	Signal Name [Specification]
15	LG/B	BLOWER FAN SW
16	GR	ALARM LINK
17	BR	LIGHT & RAIN SENS
18	SB	SECURITY INDICATOR
19	L	CAN-H
20	P	CAN-L
21	SB	REAR DEFROGGER SW
24	GR	DOOR LOCK STATUS IND
24	GR	DOOR SW (RL)
25	R	DOOR SW (DR)
26	R	DOOR SW (AS)
27	BR	DOOR SW (BACK)
28	G	DOOR SW (RR)
29	LG	AUDIO LINK
30	SB	AUDIO LINK
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
36	V	KEY SW
37	R	ACC SW
38	W	IGN SW
39	P	MATS ANTENNA AMP.
40	LG	MATS ANTENNA AMP.

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 21PC123S1017



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

Fail Safe

Fail-safe index

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

JCMWA0668Gt

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2191: DIFFERENCE OF KEY	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2195: ANTI SCANNING	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC
B2196: DONGLE NG	<ul style="list-style-type: none"> Inhibits engine cranking Inhibits steering lock unlocking (Intelligent Key unit) Fuel cut (ECM) 	Erase DTC

REAR WIPER CONTROL

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

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

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

NOTE:

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

TURN SIGNAL LAMP CONTROL

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

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

NOTE:

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

LIGHT & RAIN SENSOR MALFUNCTION DETECTION FUNCTION

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

Auto Light Control

Headlamp is turned ON.

Front Wiper Control

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

DTC Inspection Priority Chart

INFOID:000000001527784

Priority	DTC
1	<ul style="list-style-type: none"> U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
2	<ul style="list-style-type: none"> B2190: NATS ANTENNA AMP B2191: DIFFERNCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2194: DISCORD BCM-I-KEY B2195: ANTI SCANNING B2196: DONGLE NG

DTC Index

INFOID:000000001527785

NOTE:

Details of time display

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

CONSULT display	TIME		Fail-safe	Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	0	1 - 39	—	BCS-33
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	BCS-34
B2190: NATS ANTENNA AMP	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-45 • Without Intelligent Key system SEC-194
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-47 • Without Intelligent Key system SEC-196
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-48 • Without Intelligent Key system SEC-197
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-50 • Without Intelligent Key system SEC-199
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	SEC-51
B2195: ANTI SCANNING	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-52 • Without Intelligent Key system SEC-200
B2196: DONGLE NG	CRNT	PAST	×	<ul style="list-style-type: none"> • With Intelligent Key system SEC-53 • Without Intelligent Key system SEC-201

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Reference Value

INFOID:000000001527786

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 3
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
HL WASHER REQ	Ignition switch ON, and low beam headlamp is ON	Front washer switch OFF	Off
		Front washer switch ON (When headlamp washer is operating)	On
FR WIP REQ	Ignition switch ON	Front wiper switch OFF	STOP
		Front wiper switch INT	1LOW
		Front wiper switch LO	Low
		Front wiper switch HI	Hi
WIP AUTO STOP	Ignition switch ON	Front wiper stop position	STOP P
		Any position other than front wiper stop position	ACT P
WIP PROT	Ignition switch ON	Front wiper operates normally	Off
		Front wiper stops due to fail-safe operation (cut-out operation)	BLOCK
ST RLY REQ NOTE: Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

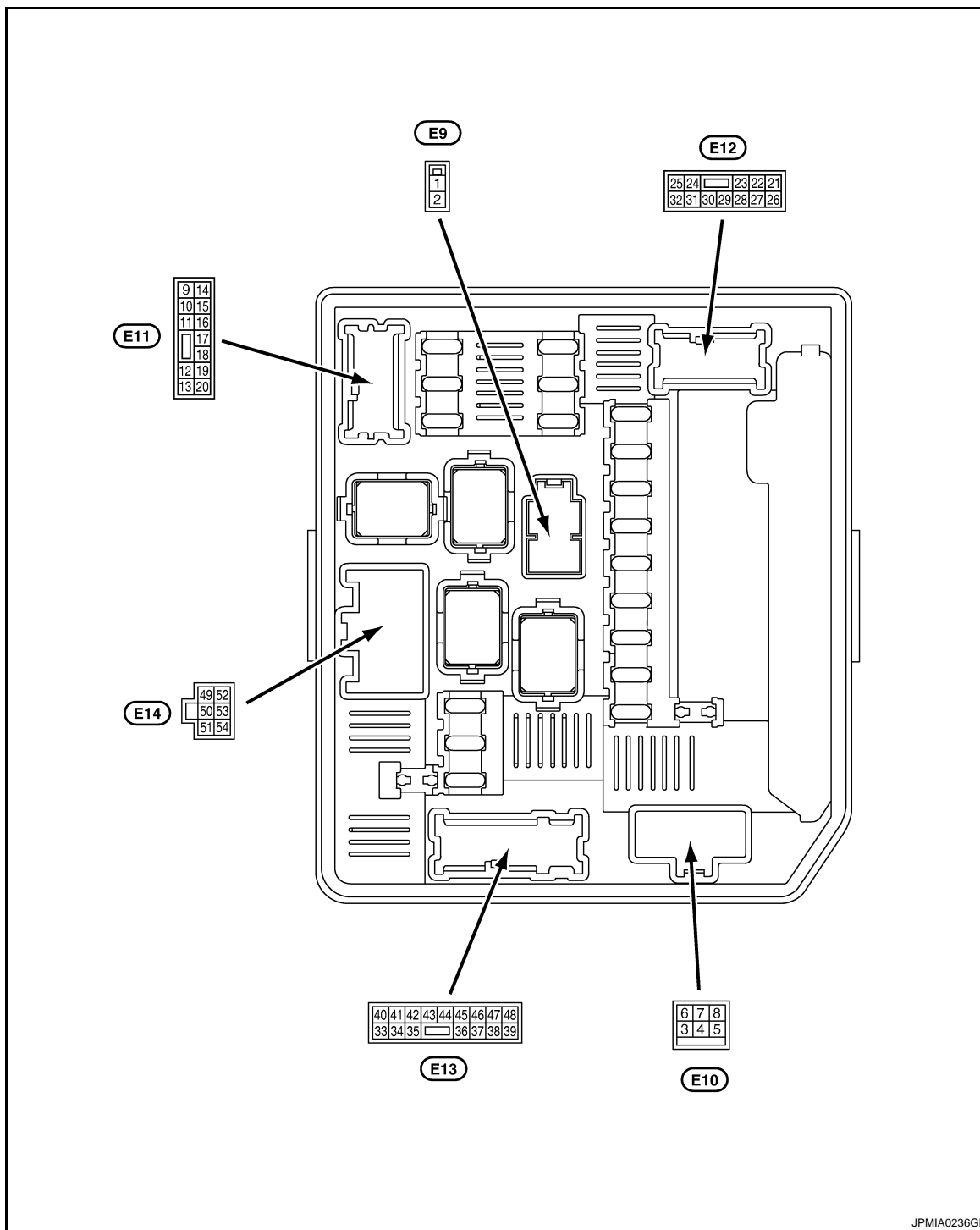
Monitor Item	Condition	Value/Status
REV SW	Except selector lever R position	Off
	Selector lever R position	On
HOOD SW NOTE: This item is monitored only on the vehicle with the Vehicle Security (Theft Warning) system.	Close the hood	Off
	Open the hood	On
THFT HRN REQ NOTE: This item is monitored only on the vehicle with the Vehicle Security (Theft Warning) system.	Not operation	Off
	Horn is activated with Vehicle Security (Theft Warning) system.	On
HORN CHIRP	NOTE: This item is indicated, but not monitored.	Off
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

TERMINAL LAYOUT



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PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
1 (G)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
2 (R)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage
5 (B)	Ground	Ground	—	Ignition switch ON	0 V

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
6 (B)	Ground	Ground	—	Ignition switch ON	0 V	
7 (Y)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
8 (Y/R)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
9 (G)	Ground	ECM relay power supply	Output	Ignition switch ON	Battery voltage	
10*1 (L/R)	Ground	ECM relay power supply	Output	Ignition switch ON	Battery voltage	
11*2 (O)	Ground	PTC heater 1 relay control	Output	PTC heater OFF	Battery voltage	
				PTC heater ON	0 V	
12*2 (G/Y)	Ground	PTC heater 2 relay control	Output	PTC heater OFF	Battery voltage	
				PTC heater ON	0 V	
14 (R/B)	Ground	Ignition power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
15 (Y/L)*1 (B/R)*2	Ground	ECM relay control	Input	<ul style="list-style-type: none"> • Engine running • Ignition switch OFF (For a few seconds after turning ignition switch OFF) 	0 - 1.0 V*1	
				<ul style="list-style-type: none"> • Ignition switch OFF (For a few seconds after turning ignition switch OFF) 	0.6 V*2	
				Ignition switch OFF or ACC (More than a few seconds after turning ignition switch OFF)	Battery voltage	
16*3 (Y/R)	Ground	Ignition relay power supply	Output	Ignition switch ON	Battery voltage	
				Ignition switch OFF or ACC	0 V	
19*1 (R/O)	Ground	Ignition relay power supply	Output	Ignition switch ON	Battery voltage	
				Ignition switch OFF or ACC	0 V	
21*4 (GR)	Ground	Hood switch	Input	Close the hood	0 V → Battery voltage → 0 V	
				Open the hood	0 V	
22 (Y/G)	Ground	Reverse switch	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	<ul style="list-style-type: none"> • Selector lever "R" (Except M/T models) • M/T control lever "R" (M/T models) 	Battery voltage
				Ignition switch ON	<ul style="list-style-type: none"> • Selector lever in any position other than "R" (Except M/T models) • M/T control lever in any position other than "R" (M/T models) 	0 V
23 (Y/B)	Ground	A/C relay power supply	Output	Engine stopped	0 V	
				Engine running	A/C switch OFF	0 V
				Engine running	A/C switch ON (A/C compressor is operating)	Battery voltage
24 (R/Y)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF	0 V	
				Lighting switch 2ND	Battery voltage	

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
25*1 (G/L)	Ground	ETC relay control	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 - 1.0 V
26 (O)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
27 (W)	Ground	Oil pressure switch	Input	Engine stopped		0 V
				Engine running		Battery voltage
28 (L)	—	CAN-H	Input/ Output	—	—	
29 (P)	—	CAN-L	Input/ Output	—	—	
30*4 (L)	Ground	Horn relay control	Output	The horn is not activated		Battery voltage
				The horn is activated		0 V
31 (R)	Ground	Headlamp LO (sensor)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
32*1 (R/Y)	Ground	ETC relay power supply	Output	Ignition switch ON		Battery voltage
33*1 (B/O)	Ground	Fuel pump relay control	Input	<ul style="list-style-type: none"> • Engine running • Ignition switch ON (For 1 second after turning ignition switch ON) 		0 - 1.0 V
				Ignition switch ON (More than 1 second after turning ignition switch ON)		Battery voltage
34 (R/B)	Ground	Starter relay power supply	Input	Ignition switch ON (Except M/T models)	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
				Ignition switch ON (M/T models)		Battery voltage
35 (W/L)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
36 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 1ST	Front fog lamp switch ON	Battery voltage
					Front fog lamp switch OFF	0 V
37 (R/W)	Ground	Parking lamp (RH)	Output	Lighting switch 1ST		Battery voltage
				Lighting switch OFF		0 V
38 (R/L)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch 1ST		Battery voltage
				Lighting switch OFF		0 V
39 (GR)	Ground	Headlamp washer relay control	Output	Ignition switch ON	When headlamp washer is operating	0 V
					When headlamp washer is not operating	Battery voltage
40*1 (BR/Y)*5 (SB)*6	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
42*1 (B/Y)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> Ignition switch OFF or ACC Approximately 1 second or more after turning the ignition switch ON 	0 V
				<ul style="list-style-type: none"> Approximately 1 second after turning the ignition switch ON Engine running 	Battery voltage
43 (W/B)	Ground	Front fog lamp (LH)	Output	Lighting switch 1ST	Front fog lamp switch ON
					Front fog lamp switch OFF
44 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF	0 V
				Lighting switch 2ND	Battery voltage
45 (L/W)	Ground	Headlamp HI (RH)	Output	<ul style="list-style-type: none"> Lighting switch 2ND and HI lighting switch PASS 	Battery voltage
				Lighting switch OFF	0 V
46 (G)	Ground	Headlamp HI (LH)	Output	<ul style="list-style-type: none"> Lighting switch 2ND and HI Lighting switch PASS 	Battery voltage
				Lighting switch OFF	0 V
47 (R/L)	Ground	Parking lamp (LH)	Output	Lighting switch 1ST	Battery voltage
				Lighting switch OFF	0 V
48*7 (Y)	Ground	Cooling fan relay-3 control	Output	When cooling fan does HI operation	0 V
				When cooling fan does OFF or LO operation	Battery voltage
49 (B)	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch ON
					Rear window defogger switch OFF
50 (B/R)	Ground	Starter relay power supply	Output	When engine is cranking	Battery voltage
				When engine is not cranking	0 V
51 (P)	Ground	Ignition switch START	Input	Ignition switch START	Battery voltage
				Ignition switch OFF, ACC or ON	0 V
52 (W)	Ground	Cooling fan relay-1 power supply	Output	When cooling fan does LO or HI operation	Battery voltage
				When cooling fan does OFF operation	0 V
53 (W/B)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF	Battery voltage
54*5 (R)	Ground	Cooling fan relay-2 power supply	Input	When cooling fan does HI operation	Battery voltage
				When cooling fan does OFF or LO operation	0 V

*1: HR engine and MR engine models

*2: K9K engine and M9R engine models

*3: Except M/T models only

*4: With vehicle security (theft warning) system

*5: HR engine models

*6: MR engine models

*7: MR engine, K9K engine and M9R engine models

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

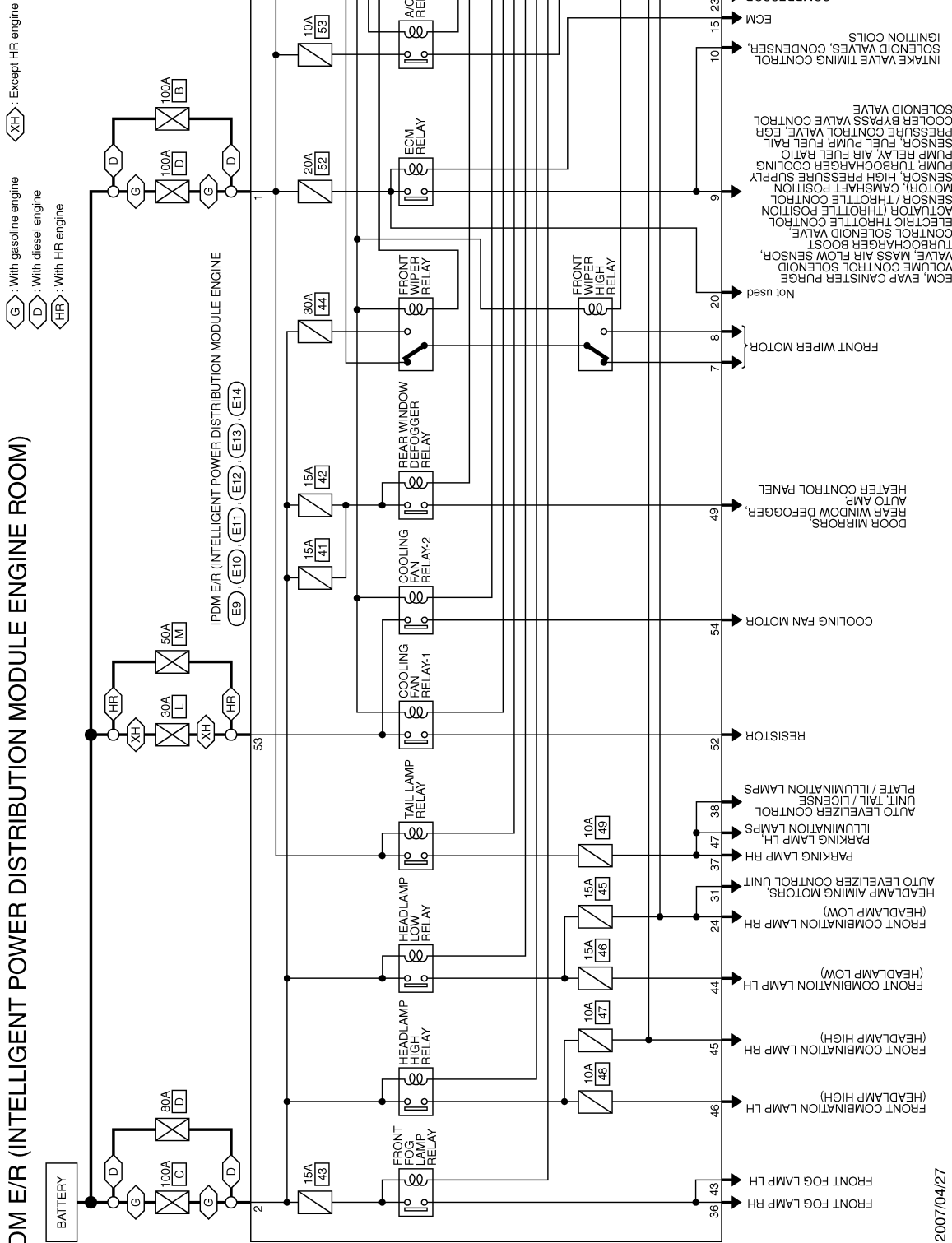
< ECU DIAGNOSIS >

[HALOGEN TYPE]

Wiring Diagram - IPDM E/R -

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)



2007/04/27

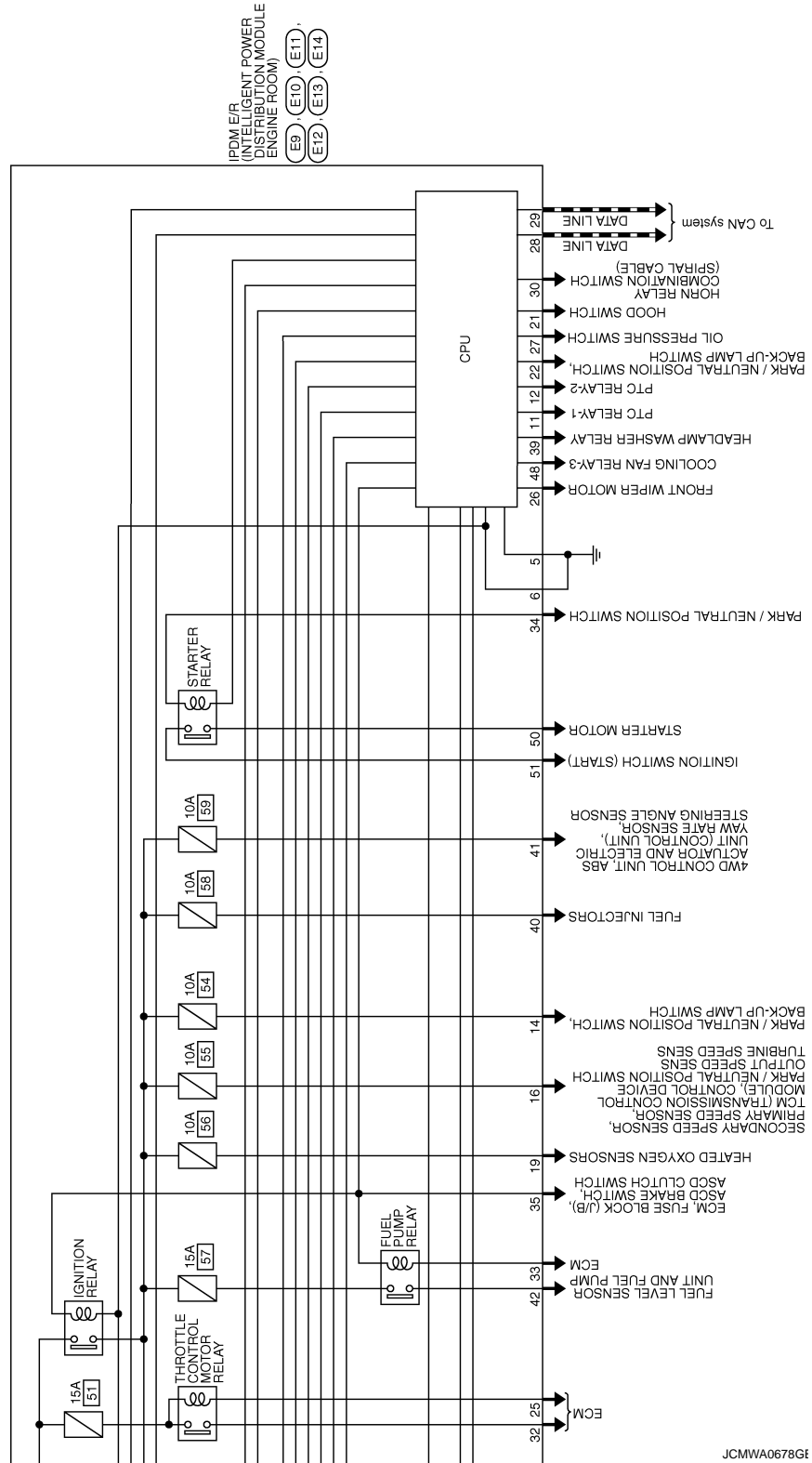
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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]



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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	L02FB-MC



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



5	4	3
8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	-
6	B	-
7	Y	-
8	Y/R	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBR-CS



13	12	11	10	9
20	19	18	17	16
15	14	13	12	11

Terminal No.	Color of Wire	Signal Name [Specification]
9	G	-
10	L/R	-
11	O	-
12	G/Y	-
14	R/B	-
15	Y/L	- [With gasoline engine]
15	B/R	- [With diesel engine]
16	Y/R	-
19	R/O	-
20	-	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FW-CS



25	24	23	22	21
32	31	30	29	28
27	26	25	24	23

Terminal No.	Color of Wire	Signal Name [Specification]
21	GR	-
22	Y/G	-
23	Y/B	-
24	R/Y	-
25	G/L	-
26	O	-
27	W	-
28	L	-
28	P	-
30	L	-
31	R	-

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-CS



39	38	37	36	35	34	33
48	47	46	45	44	43	42
41	40	39	38	37	36	35

Terminal No.	Color of Wire	Signal Name [Specification]
33	B/O	-
34	W/B	- [With A/T]
34	R/B	- [Except A/T]
35	W/L	-
36	W	-
37	R/W	-
38	R/L	-
38	GR	-
40	SB	- [With MR engine]
40	BR/Y	- [With HR engine]
41	P	-

42	B/Y	-
43	W/B	-
44	L	-
45	L/W	-
46	G	-
47	R/L	-
48	Y	- [Except MR engine]
48	W	- [With MR engine]

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	YZK 7283-5591-40-F



Terminal No.	Color of Wire	Signal Name (Specification)
48	B	- [Except MBR engine]
49	G	- [With MBR engine]
50	B/R	-
51	P	-
52	W	-
53	W/B	-
54	R	-

Fail Safe

CAN communication control

When CAN communication with ECM and BCM is impossible, IPDM E/R performs fail-safe control. After CAN communication recovers normally, it also returns to normal control.

If no CAN communication is available with ECM

JCMWA0680GE

INFOID:000000001527788

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> The cooling fan relay-2*¹ or the cooling fan relay-3*² turns ON when the ignition switch is turned ON Turns off the fan motor low relay when the ignition switch is turned OFF
A/C compressor	A/C relay OFF

*1: HR engine models

*2: MR engine, K9K engine and M9R engine models

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> The headlamp low relay turns ON when the ignition switch is turned ON The headlamp low relay turns OFF when the ignition switch is turned OFF Headlamp high relay OFF
<ul style="list-style-type: none"> Parking lamps License plate lamps Tail lamps Illuminations 	<ul style="list-style-type: none"> The tail lamp relay turns ON when the ignition switch is turned ON The tail lamp relay turns OFF when the ignition switch is turned OFF
Front wiper	<ul style="list-style-type: none"> The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed. The front wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating.
Front fog lamps	Front fog lamp relay OFF
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Headlamp washer	Headlamp washer relay OFF
PTC heater	PTC heater relay OFF

Ignition relay malfunction detection function

- The CPU integrated IPDM E/R monitors the voltage at the contact circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the ignition relay condition is different from the ignition switch ON signal.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay
—	ON	ON	—
—	OFF	OFF	—
—	OFF	ON	ON (10 minutes)
B2099: IGN RLY OFF	ON	OFF	—

NOTE:

The tail lamp relay is turned OFF when the ignition switch is turned ON.

Front wiper control

IPDM E/R detects the front wiper stop position with the front wiper auto stop signal.

When the front wiper auto stop signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop until ignition switch is turned OFF.

Ignition switch	Front wiper switch	Front wiper auto stop signal
ON	OFF	The front wiper auto stop signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper auto stop signal does not change for 10 seconds.

NOTE:

IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

DTC Index

INFOID:000000001527789

CONSULT display	Fail-safe	Timing ^{NOTE}		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	PCS-14
B2099: IGN RELAY OFF	—	CRNT	PAST	PCS-15
B209A: RAM ERROR	—	CRNT	PAST	PCS-16
B209B: ROM ERROR	—	CRNT	PAST	PCS-17
B2100: EEPROM	—	CRNT	PAST	PCS-18

NOTE:

The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:000000001188858

CAUTION:

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

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Halogen bulb (HI) • Harness between IPDM E/R and the front combination lamp • Front combination lamp (headlamp housing assembly) • IPDM E/R 	Headlamp (HI) circuit Refer to EXL-218 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-317 .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	IPDM E/R	—
High beam indicator lamp is not turned ON. [The headlamp (HI) is turned ON.]		Combination meter	<ul style="list-style-type: none"> • Combination meter Data monitor "HI-BEAM IND" • BCM (HEAD LAMP) Active test "HEADLAMP"
Headlamp (LO) is not turned ON.	One side	<ul style="list-style-type: none"> • Fuse • Halogen bulb (LO) • Harness between IPDM E/R and the front combination lamp • Front combination lamp (headlamp housing assembly) • IPDM E/R 	Headlamp (LO) circuit Refer to EXL-222 .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-318 .	
Headlamp (LO) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	IPDM E/R	—
Headlamp HI and LO are not turned ON.		<ul style="list-style-type: none"> • Harness between front combination lamp and the ground • Front combination lamp (headlamp housing assembly) 	Headlamp ground circuit Refer to EXL-222 .
Each lamps are not turned ON/OFF with the lighting switch AUTO.		<ul style="list-style-type: none"> • Combination switch • Harness between the combination switch and BCM • BCM 	Combination switch Refer to BCS-64 .
		<ul style="list-style-type: none"> • Light & rain sensor • Harness between the light & rain sensor and BCM • BCM 	Light & rain sensor Refer to EXL-230 .
Front fog lamp is not turned ON.	One side	<ul style="list-style-type: none"> • Front fog lamp bulb • Harness between IPDM E/R and the front fog lamp • Front fog lamp • IPDM E/R 	Front fog lamp circuit Refer to EXL-223 .
	Both sides	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-320 .	
Front fog lamp is not turned ON.			

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

[HALOGEN TYPE]

< SYMPTOM DIAGNOSIS >

Symptom	Possible cause	Inspection item	
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)	Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "FR FOG IND" BCM (HEAD LAMP) Active test "FR FOG LAMP" 	
Parking lamp is not turned ON.	<ul style="list-style-type: none"> Parking lamp bulb Harness between IPDM E/R and the front combination lamp Front combination lamp IPDM E/R 	Parking lamp circuit Refer to EXL-225 .	
Tail lamp is not turned ON.	<ul style="list-style-type: none"> Tail lamp bulb Harness between IPDM E/R and the rear combination lamp Rear combination lamp 	Tail lamp circuit Refer to EXL-235 .	
License plate lamp is not turned ON.	<ul style="list-style-type: none"> License plate lamp bulb Harness between IPDM E/R and the license plate lamp License plate lamp 	License plate lamp circuit Refer to EXL-237 .	
Tail lamp and the license plate lamp are not turned ON.	<ul style="list-style-type: none"> Fuse Harness between IPDM E/R and the rear combination lamp IPDM E/R 	Tail lamp circuit Refer to EXL-235 .	
<ul style="list-style-type: none"> Parking lamp, the tail lamp and the license plate lamp are not turned ON. Parking lamp, the tail lamp and the license plate lamp are not turned OFF. (Each illumination is turned ON/OFF.)	Symptom diagnosis "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-319 .		
Tail lamp indicator is not turned ON. (Parking/tail lamps are turned ON.)	Combination meter	<ul style="list-style-type: none"> Combination meter Data monitor "LIGHT IND" BCM (HEAD LAMP) Active test "TAIL LAMP" 	
Turn signal lamp does not blink.	Indicator lamp is normal. (Applicable side performs the high flasher activation.)	<ul style="list-style-type: none"> Harness between BCM and each turn signal lamp Turn signal lamp bulb 	Turn signal circuit Refer to EXL-235 .
	Indicator lamp is included.	<ul style="list-style-type: none"> Combination switch Harness between the combination switch and BCM BCM 	Combination switch Refer to BCS-64 .
Turn signal indicator lamp does not blink. (Turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> Turn signal indicator lamp signal - BCM Combination meter 	<ul style="list-style-type: none"> Combination meter Data monitor "TURN IND" BCM (FLASHER) Active test "FLASHER"
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> Combination meter power supply and the ground circuit Combination meter 	Combination meter Power supply and the ground circuit Refer to MWI-34 .
<ul style="list-style-type: none"> Hazard warning lamp does not activate. Hazard warning lamp continues activating. (Turn signal is normal.)	<ul style="list-style-type: none"> Hazard switch Harness between the hazard switch and BCM BCM 	Hazard switch Refer to EXL-233 .	

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symptom		Possible cause	Inspection item
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> • Harness between BCM and rear fog lamp • Rear fog lamp bulb • BCM 	Rear fog lamp circuit Refer to EXL-238 .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> • Combination switch • Harness between combination switch and BCM • BCM 	Combination switch Refer to BCS-64 .
Rear fog lamp indicator lamp does not turn on. (Rear fog lamp turns ON)		<ul style="list-style-type: none"> • Rear fog lamp status signal - BCM • Combination meter 	<ul style="list-style-type: none"> • Combination meter Data monitor "REAR FOG IND" • BCM (HEAD LAMP) Active test "RR FOG LAMP"

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EXL

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

NORMAL OPERATING CONDITION

Description

INFOID:000000001188859

AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes the control difference. This is normal.

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description

INFOID:000000001527790

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:000000001527791

1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

 CONSULT-III DATA MONITOR

1. Select "HL HI REQ" of IPDM E/R data monitor item.

2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2ND)	HI or PASS	On
		LO	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-65. "Exploded View"](#).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-218. "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:000000001527792

Both side headlamps (LO) are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001527793

1. CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2. CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

ⓂCONSULT-III DATA MONITOR

1. Select "HL LO REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status	
HL LO REQ	Lighting switch	2ND	On
		OFF	Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

3. HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-220, "Component Function Check"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:000000001527794

The parking, license plate, tail lamps and each illumination are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001527795

1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none">• Parking lamp• Tail lamp• License plate lamp	IPDM E/R	#49	10 A

Is the fuse fusing?

YES >> Repair the applicable circuit. And then replace the fuse.

NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

3.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select "TAIL & CLR REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status
TAIL & CLR REQ	Lighting switch	1ST On
		OFF Off

Is the item status normal?

YES >> GO TO 4.

NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

4.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-235, "Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:000000001527796

The front fog lamps are not turned ON in any condition.

Diagnosis Procedure

INFOID:000000001527797

1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#43	15 A

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
- NO >> GO TO 2.

2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-64, "Symptom Table"](#).

Is the combination switch normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning part.

3.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

ⓅCONSULT-III DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status
FR FOG REQ	Front fog lamp switch (With lighting switch 1ST)	ON On
		OFF Off

Is the item status normal?

- YES >> GO TO 4.
- NO >> Replace BCM. Refer to [BCS-65, "Exploded View"](#).

4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-223, "Component Function Check"](#).

Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
- NO >> Repair or replace the malfunctioning part.

PRECAUTION

PRECAUTIONS

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

INFOID:000000001188868

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 AIRBAG" 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 AIRBAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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EXL

HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

ON-VEHICLE MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Description

INFOID:000000001188869

PREPARATION BEFORE ADJUSTING

NOTE:

- For details, refer to the regulations in your own country.
- Perform aiming if the vehicle front body has been repaired and/or the headlamp assembly has been replaced.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

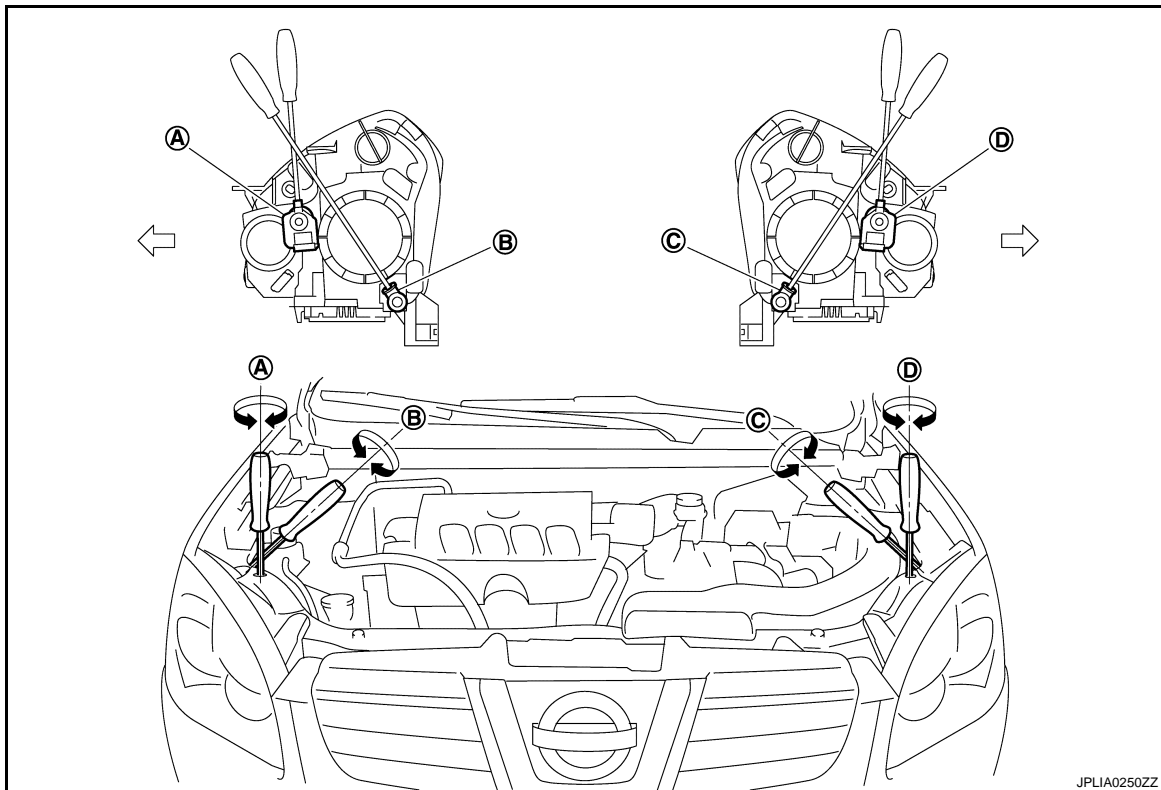
- Wipe out dirt on the headlamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.
- Headlamp aiming switch sets to "0".

AIMING ADJUSTMENT SCREW



JPLIA0250ZZ

- A. Headlamp RH (UP/DOWN) adjustment screw
- B. Headlamp RH (INSIDE/OUTSIDE) adjustment screw
- C. Headlamp LH (INSIDE/OUTSIDE) adjustment screw
- D. Headlamp LH (UP/DOWN) adjustment screw

←: Vehicle center

HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

	Adjustment screw	Screw driver rotation	Facing direction
A	Headlamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Headlamp RH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE
C	Headlamp LH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE
D	Headlamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN

LHD

LHD : Aiming Adjustment Procedure

INFOID:000000001527801

- Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

- Face the vehicle squarely toward the screen and make the distance between the headlamp center and the screen 10 m (32.8 ft).

- Start the engine and illuminate the headlamp (LO).

NOTE:

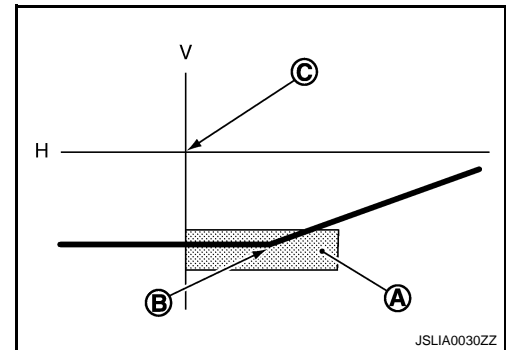
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

- Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area
- B. Elbow point
- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

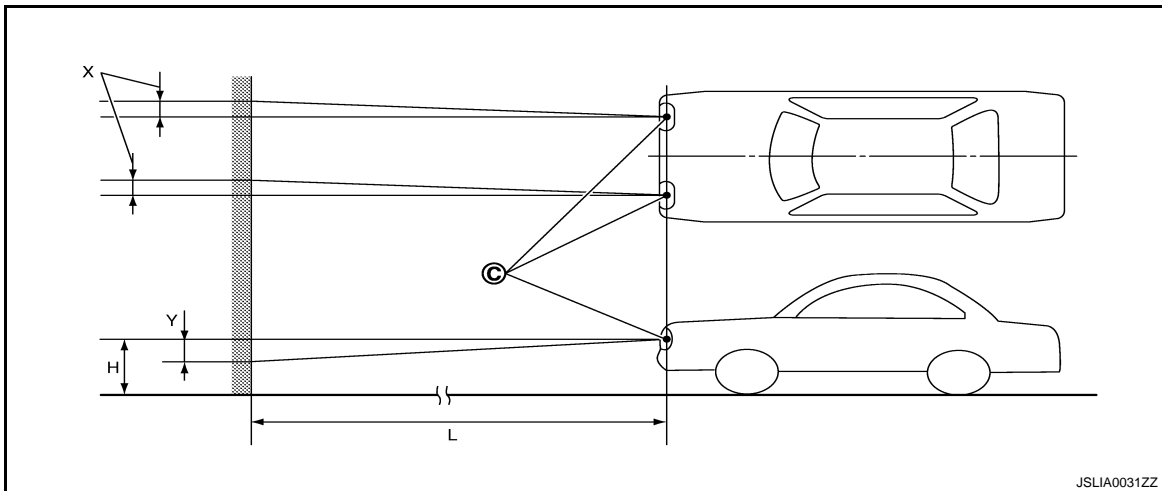
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Right side from headlamp centerline)
100 – 124 (3.94 – 4.88)	Within 120 (4.72)

HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]



JSLIA0031ZZ

- C. Vertical center line of headlamp H. Horizontal center line of headlamp L. Distance from headlamp center to screen
X. Aiming adjustment area (lateral) Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

RHD

RHD : Aiming Adjustment Procedure

INFOID:000000001527802

1. Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the headlamp center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the headlamp (LO).

NOTE:

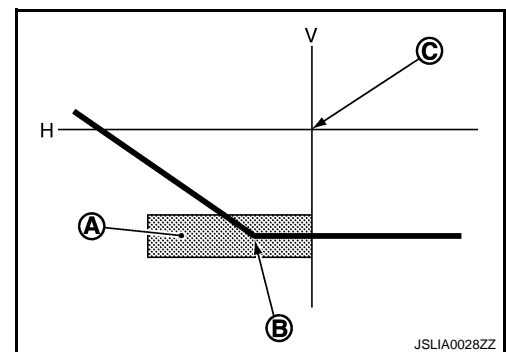
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

4. Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



JSLIA0028ZZ

- A. Aiming adjustment area
B. Elbow point
C. Headlamp center

HEADLAMP AIMING ADJUSTMENT

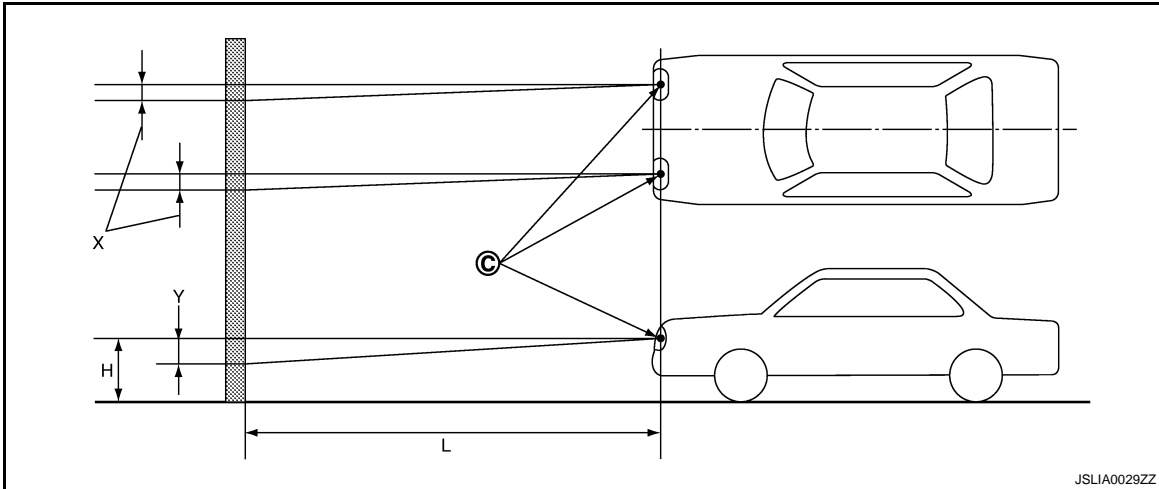
< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Left side from headlamp centerline)
100 – 124 (3.94 – 4.88)	Within 120 (4.72)



- C. Vertical center line of headlamp
- H. Horizontal center line of headlamp
- L. Distance from headlamp center to screen
- X. Aiming adjustment area (lateral)
- Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

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EXL

FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

FRONT FOG LAMP AIMING ADJUSTMENT

Description

INFOID:000000001527799

PREPARATION BEFORE ADJUSTING

NOTE:

For details, refer to the regulations in your own country.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

- Wipe out dirt on the front fog lamp.

CAUTION:

Never use organic solvent (thinner, gasoline etc.)

- Ride alone on the driver seat.

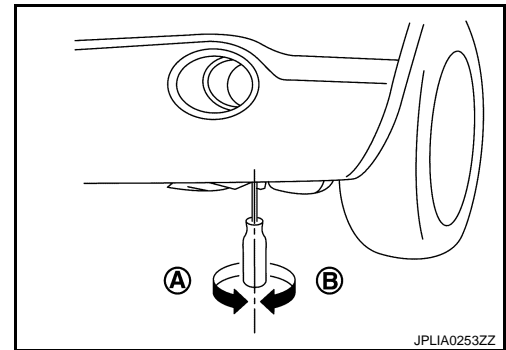
AIMING ADJUSTMENT SCREW

- Turn the aiming adjusting screw for adjustment.
- For the position and direction of the adjusting screw, refer to the figure.

NOTE:

A screwdriver or hexagonal wrench (6 mm) can be used for adjustment.

- A. UP
- B. DOWN



Aiming Adjustment Procedure

INFOID:000000001527800

1. Place the screen.

NOTE:

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the front fog lamp center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the front fog lamp.

NOTE:

Block light from the front fog lamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

CAUTION:

Never cover lens surface with tape, etc. because it is made from plastic.

4. Use the aiming adjustment screw to adjust the elbow point projected by the front fog lights on the screen, so that it is within the aiming adjustment area.

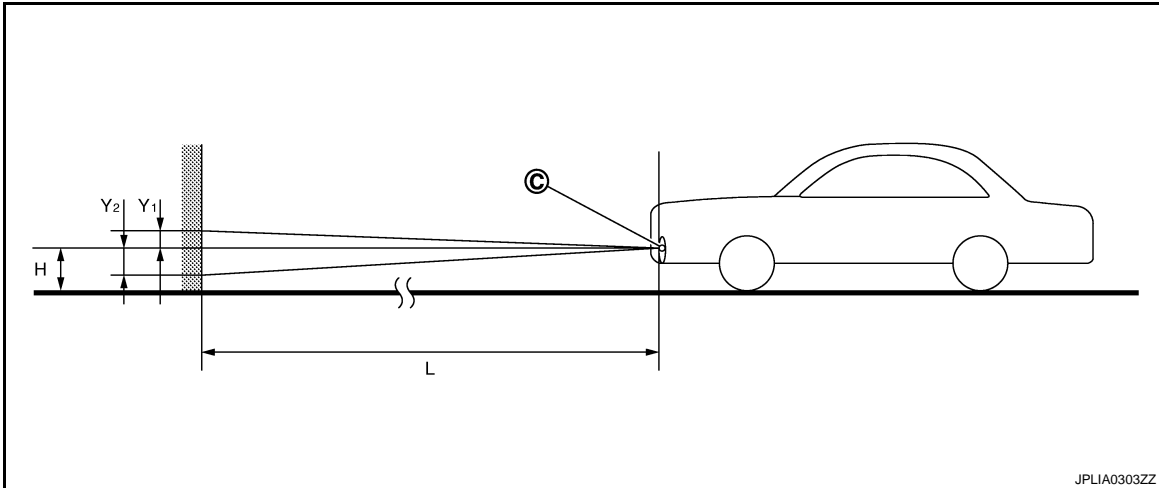
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y1) (Upper side from front fog lamp center height)	Vertical direction (Y2) (Lower side from front fog lamp center height)
100 (3.94)	200 (7.87)

FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]



- | | | |
|---|---|--|
| C. Vertical center line of front fog lamp | H. Horizontal center line of front fog lamp | L. Distance from front fog lamp center to screen |
| Y1. Aiming adjustment area (Upper) | Y2. Aiming adjustment area (Lower) | |

Distance from front fog lamp center to screen (L) : 10 m (32.8 ft)

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EXL

FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

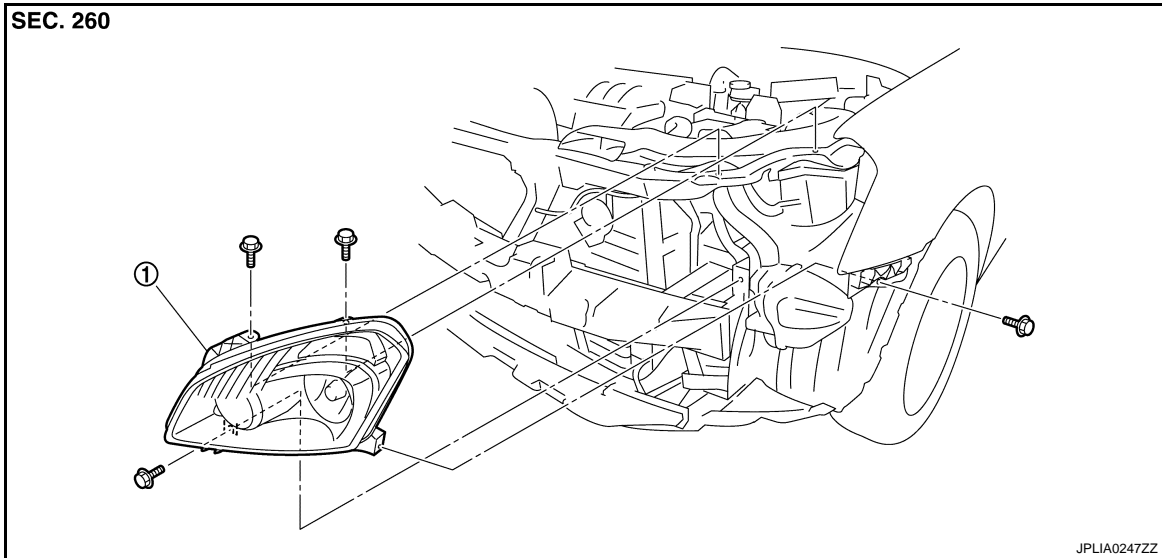
ON-VEHICLE REPAIR

FRONT COMBINATION LAMP

Exploded View

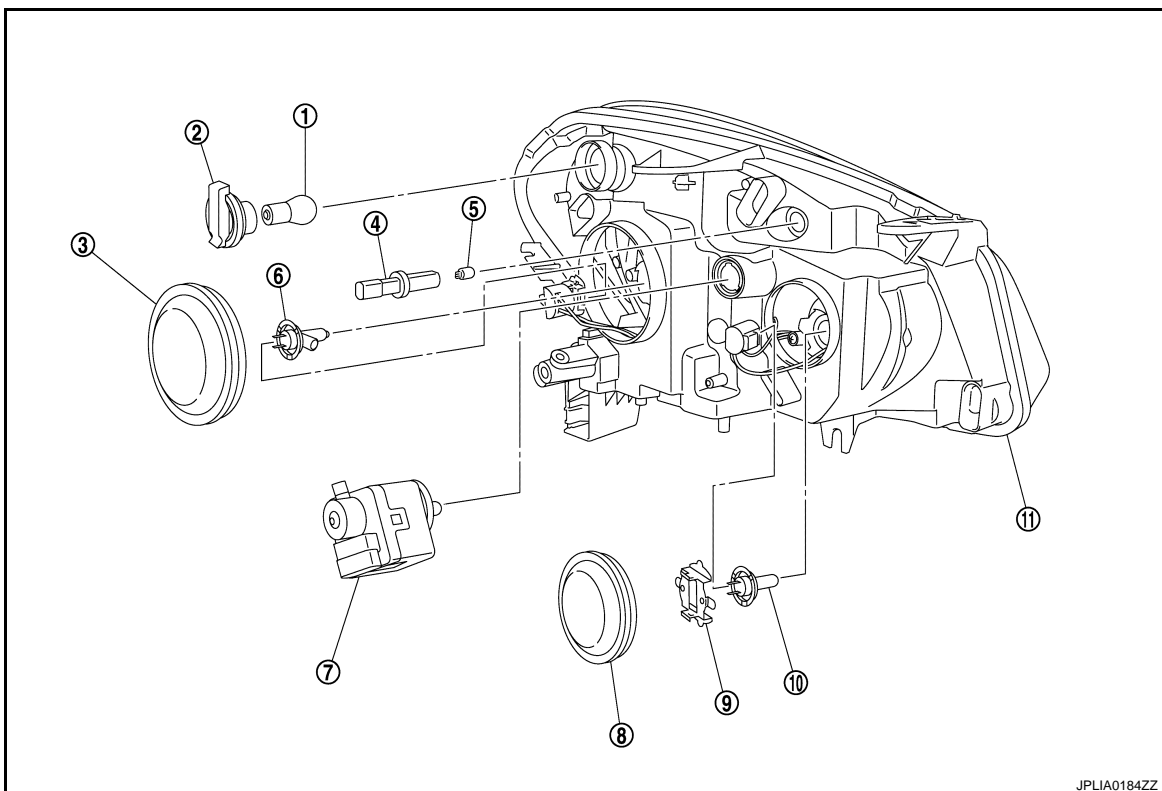
INFOID:000000001188874

REMOVAL



1. Front combination lamp

DISASSEMBLY



- | | | |
|--------------------------------|---------------------------------------|----------------------|
| 1. Front turn signal lamp bulb | 2. Front turn signal lamp bulb socket | 3. Back cover |
| 4. Parking lamp bulb socket | 5. Parking lamp bulb | 6. Halogen bulb (LO) |

FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

- | | | |
|--------------------------|-------------------------------|--------------------|
| 7. Headlamp aiming motor | 8. Back cover | 9. Retaining plate |
| 10. Halogen bulb (HI) | 11. Headlamp housing assembly | |

A

Removal and Installation

INFOID:000000001188875

REMOVAL

CAUTION:

Disconnect the battery negative terminal or the fuse.

1. Remove front bumper fascia. Refer to [EXT-11, "Exploded View"](#).
2. Remove the headlamp mounting bolts.
3. Pull out the headlamp assembly forward the vehicle.
4. Disconnect the connector before removing the headlamp assembly.

B

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INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-322, "Description"](#).

E

Replacement

INFOID:000000001188876

CAUTION:

- **Disconnect the battery negative terminal or the fuse.**
- **After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**

F

G

HEADLAMP BULB (LO)

1. Remove the air duct (when replace a left). Keep a service area.
2. Remove the back cover.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

H

HEADLAMP BULB (HI)

1. Remove the air duct (when replace a left). Keep a service area.
2. Remove the back cover.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb from the bulb socket.

J

K

PARKING LAMP BULB

1. Rotate the bulb socket clockwise and unlock it.
2. Remove the bulb from the bulb socket.

EXL

FRONT TURN SIGNAL LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

M

Disassembly and Assembly

INFOID:000000001188877

DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Remove the back cover.
3. Rotate the halogen bulb (LO) socket counterclockwise and unlock it.
4. Remove the halogen bulb (LO) from the bulb socket.
5. Remove the back cover.
6. Rotate the halogen bulb (HI) socket counterclockwise and unlock it.
7. Remove the halogen bulb (HI) from the bulb socket.
8. Rotate the parking lamp bulb socket clockwise and unlock it.
9. Remove the parking lamp bulb from the bulb socket.

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FRONT COMBINATION LAMP

[HALOGEN TYPE]

< ON-VEHICLE REPAIR >

10. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
11. Remove the front turn signal lamp bulb from the bulb socket.
12. Rotate the headlamp aiming motor counterclockwise and unlock it.
13. Remove the headlamp aiming motor.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

- **After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**

FRONT FOG LAMP

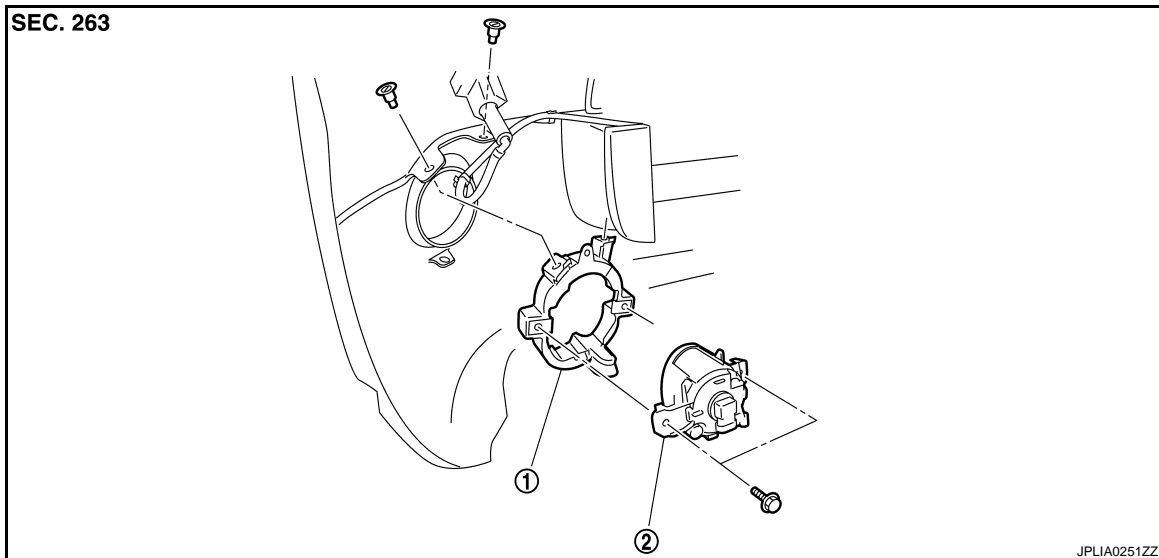
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

FRONT FOG LAMP

Exploded View

INFOID:000000001532274



1. Front fog lamp bracket
2. Front fog lamp

Removal and Installation

INFOID:000000001532275

REMOVAL

1. Remove the inner fender protector. Keep a service area. Refer to [EXT-21, "Exploded View"](#).
2. Disconnect the front fog lamp connector.
3. Remove the screw. Remove the front fog lamp.
4. Remove the clip. Remove the front fog lamp bracket.

INSTALLATION

Installation is the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to [EXL-326, "Description"](#).

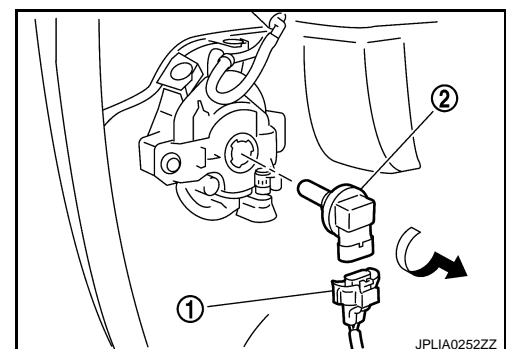
Replacement

INFOID:000000001532276

CAUTION:

Disconnect the battery negative terminal or the fuse.

1. Remove the fender protector. Keep the service area.
2. Disconnect the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.



LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

LIGHT & RAIN SENSOR

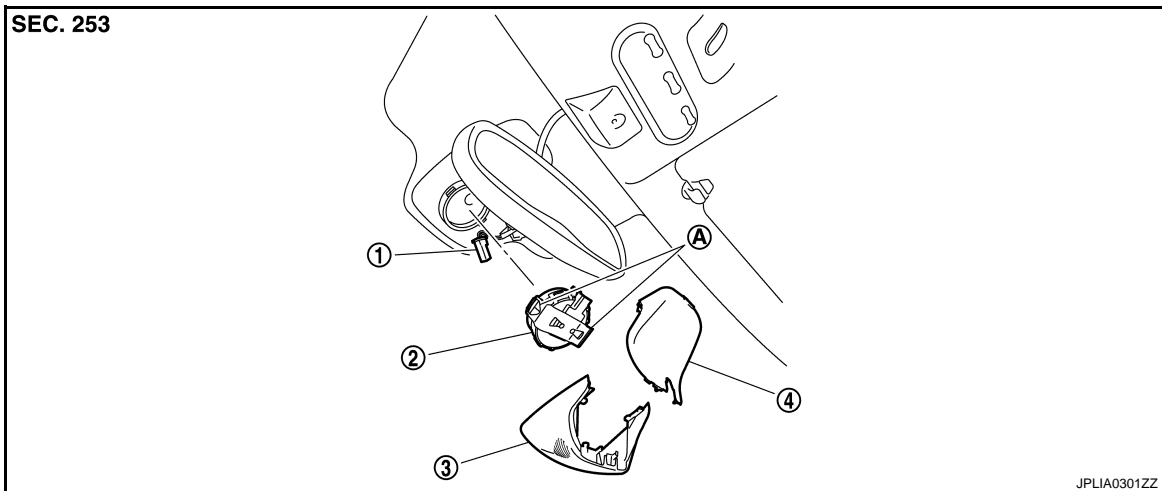
Exploded View

INFOID:000000001532277

CAUTION:

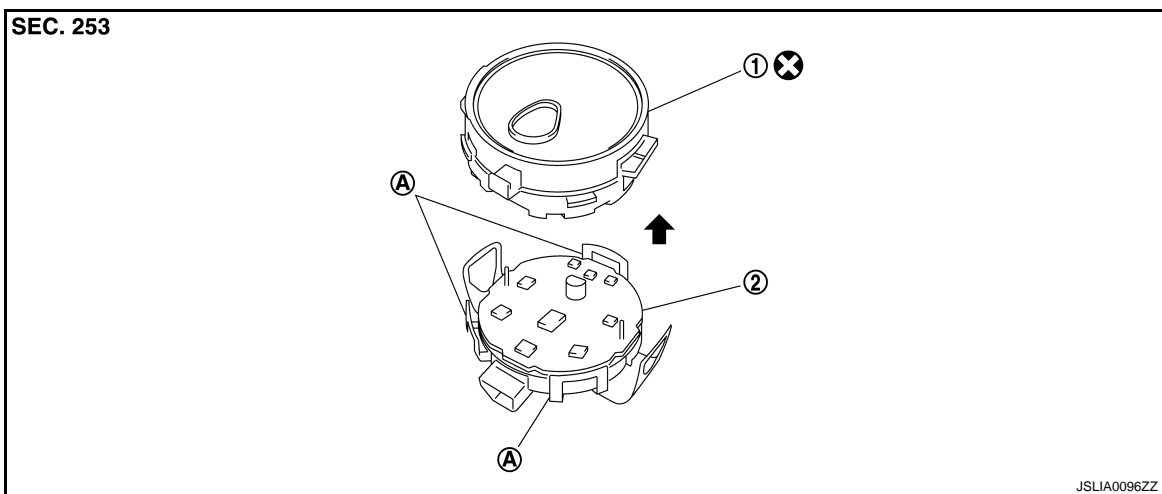
- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

REMOVAL



1. Light & rain sensor connector 2. Light & rain sensor 3. Inside mirror cover (lower)
4. Inside mirror cover (upper)
A. Metal spring clip

DISASSEMBLY



1. Light & rain sensor housing 2. Light & rain sensor
A. Pawl

Refer to [GI-4, "Components"](#) for symbols not described above.

CAUTION:

Never touch the electronic circuit board.

LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

Removal and Installation

INFOID:000000001532278

CAUTION:

- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

REMOVAL

1. Remove the inside mirror cover (upper and lower). Refer to [MIR-18, "Exploded View"](#).
2. Disengage the both sides of metal spring clips, and remove the light & rain sensor from the windshield.
3. Disconnect light & rain sensor connector.

NOTE:

When replacing the light & rain sensor housing;
Disengage the pawls, and remove the light & rain sensor housing from the light & rain sensor.

CAUTION:

Never touch the electronic circuit board.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Surface of windshield should be cleaned.
- Never touch gel/adhesive of new part.

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LIGHTING & TURN SIGNAL SWITCH

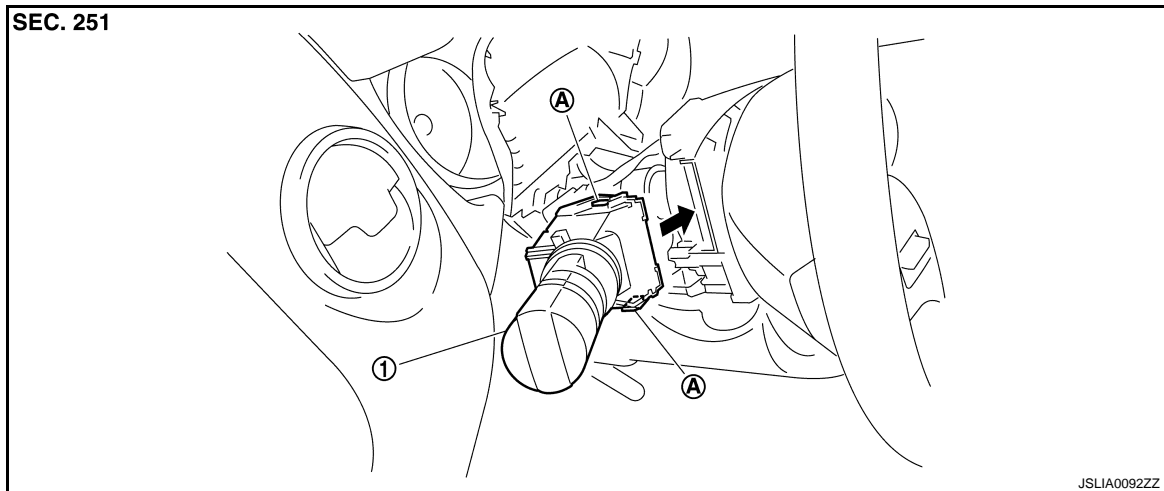
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:000000001532279



- 1. Light & turn signal switch
- A. Pawl

Removal and Installation

INFOID:000000001532280

REMOVAL

1. Remove steering column cover. Refer to [IP-11, "Exploded View"](#).
2. While pressing pawls, pull the light & turn signal switch. And disconnect from the switch base.

INSTALLATION

Installation is the reverse order of removal.

SIDE TURN SIGNAL LAMP

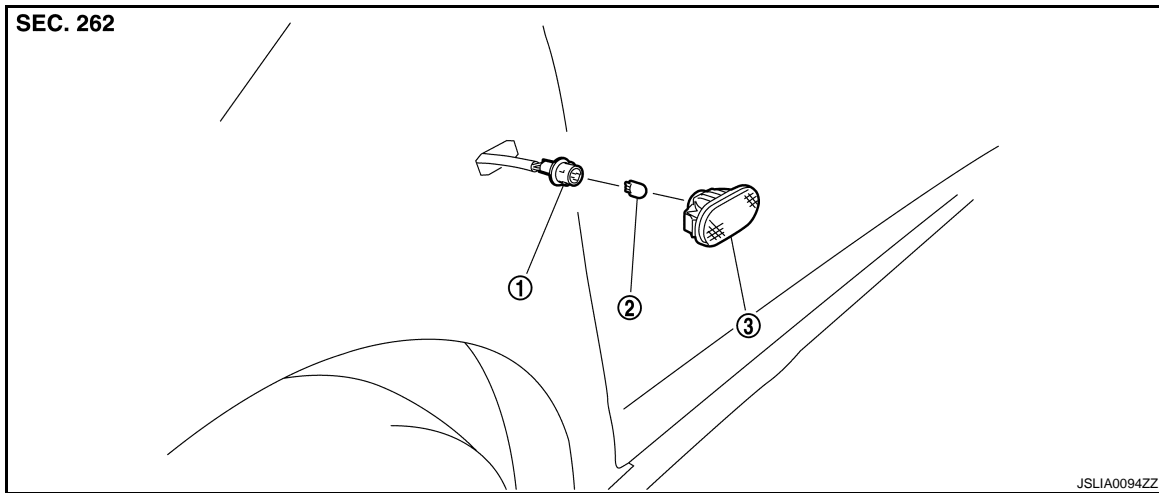
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

SIDE TURN SIGNAL LAMP

Exploded View

INFOID:000000001532281



1. Side turn signal lamp bulb socket
2. Side turn signal lamp bulb
3. Side turn signal lamp housing

Removal and Installation

INFOID:000000001532282

CAUTION:
Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Insert a spatula or the similar tool under the side turn signal lamp. While pushing the pawl of the lamp, pull off the lamp from the vehicle.
2. Disconnect side turn signal lamp connector.

NOTE:

Support side turn signal lamp harness with tape so that it won't fall into the front fender.

INSTALLATION

Install in the reverse order of removal.

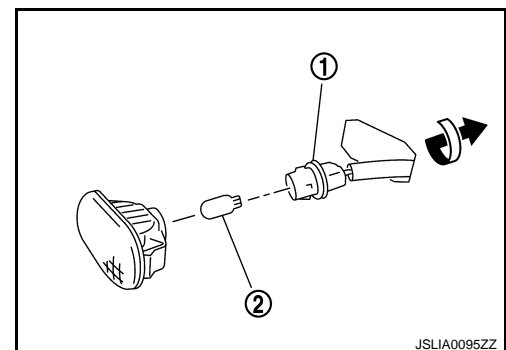
Replacement

INFOID:000000001532283

CAUTION:
Disconnect battery negative terminal or remove the fuse.

SIDE TURN SIGNAL LAMP BULB

1. Remove the side turn signal lamp.
2. Rotate the bulb socket (1) counterclockwise and unlock it.
NOTE:
Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.
3. Remove the bulb (2) from the bulb socket.



HAZARD SWITCH

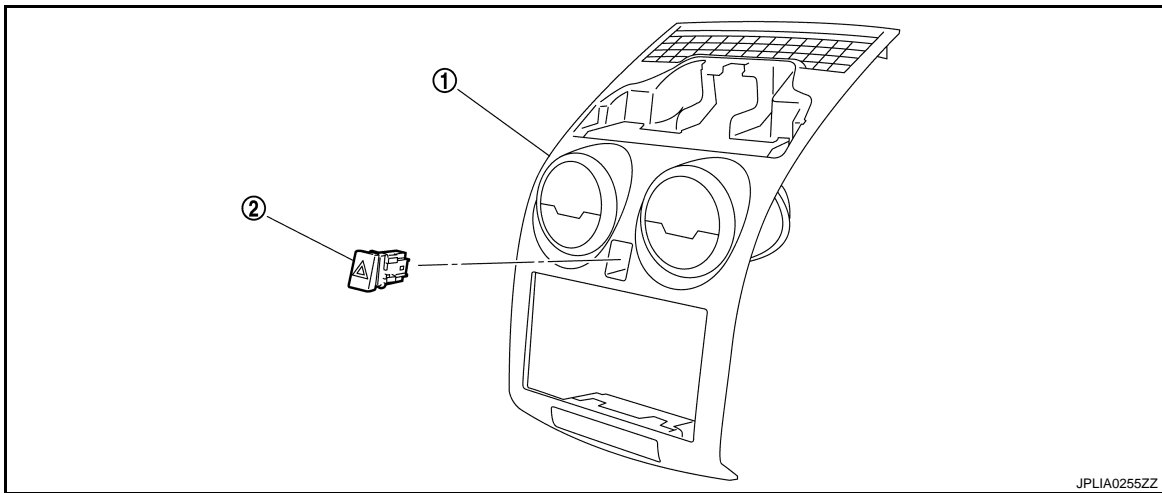
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

HAZARD SWITCH

Exploded View

INFOID:000000001532284



1. Cluster lid C

2. Hazard switch

Removal and Installation

INFOID:000000001532285

REMOVAL

1. Remove the cluster lid C. Refer to [IP-11. "Exploded View"](#).
2. Widen the pawl. Remove hazard switch.

INSTALLATION

Install in the reverse order of removal.

HEADLAMP AIMING SWITCH

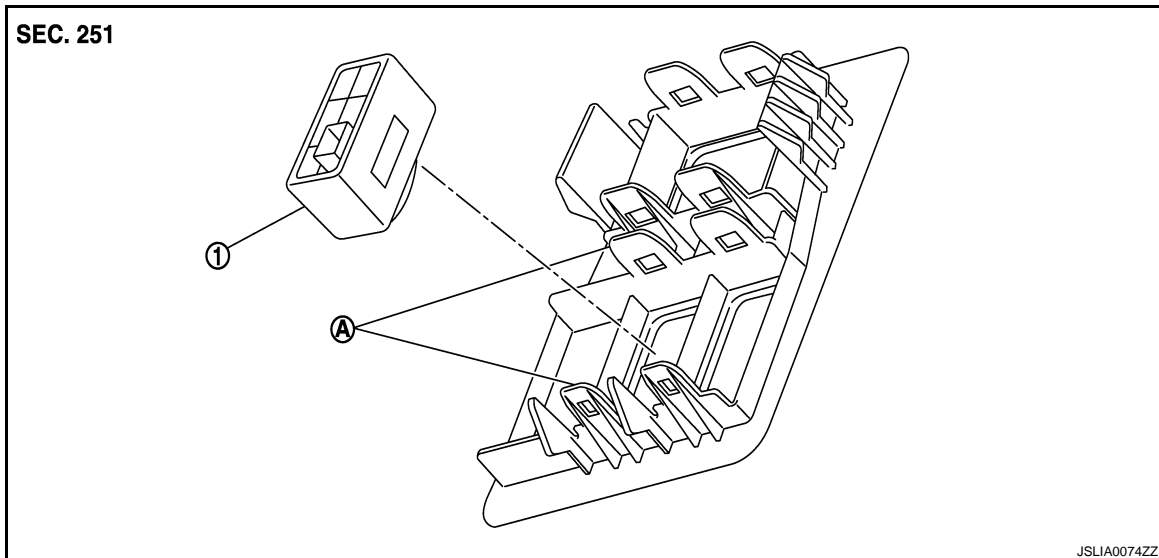
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

HEADLAMP AIMING SWITCH

Exploded View

INFOID:000000001188890



- 1. Headlamp aiming switch
- A. Pawls

Removal and Installation

INFOID:000000001188891

Removal

1. Remove the switch holder. Refer to [IP-11, "Exploded View"](#).
2. Widen the pawl. Remove headlamp aiming switch.

Installation

Install in the reverse order of removal.

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REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

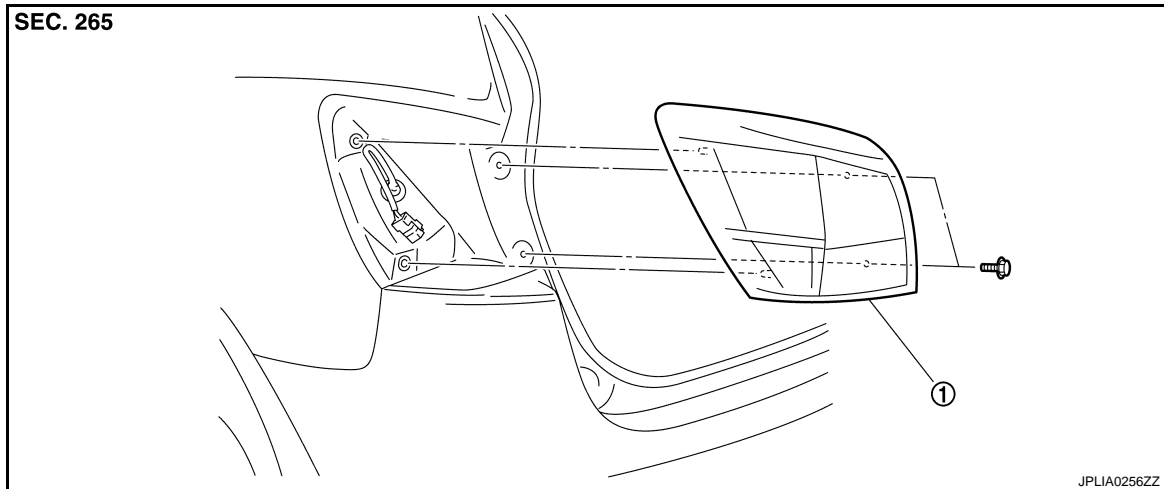
[HALOGEN TYPE]

REAR COMBINATION LAMP

Exploded View

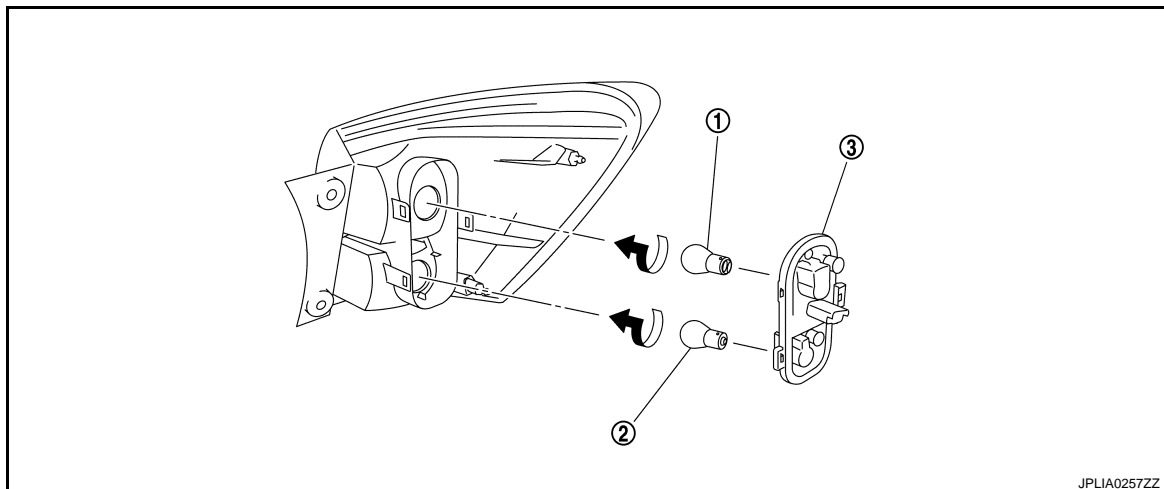
INFOID:000000001532286

REMOVAL



1. Rear combination lamp

DISASSEMBLY



1. Tail lamp bulb
2. Rear turn signal lamp bulb
3. Bulb cover

Removal and Installation

INFOID:000000001532287

CAUTION:
Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Remove the rear combination lamp.
3. Disconnect rear combination lamp connector.

INSTALLATION

Install in the reverse order of removal.

REAR COMBINATION LAMP

[HALOGEN TYPE]

< ON-VEHICLE REPAIR >

Replacement

INFOID:000000001532288

CAUTION:

Disconnect the battery negative terminal or the fuse.

TAIL LAMP BULB

1. Remove the rear combination lamp.
2. Remove the bulb cover.
3. Rotate the tail lamp bulb counterclockwise, and remove it.

REAR TURN SIGNAL LAMP BULB

1. Remove the rear combination lamp.
2. Remove the bulb cover.
3. Rotate the rear turn signal lamp bulb counterclockwise, and remove it.

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HIGH-MOUNTED STOP LAMP

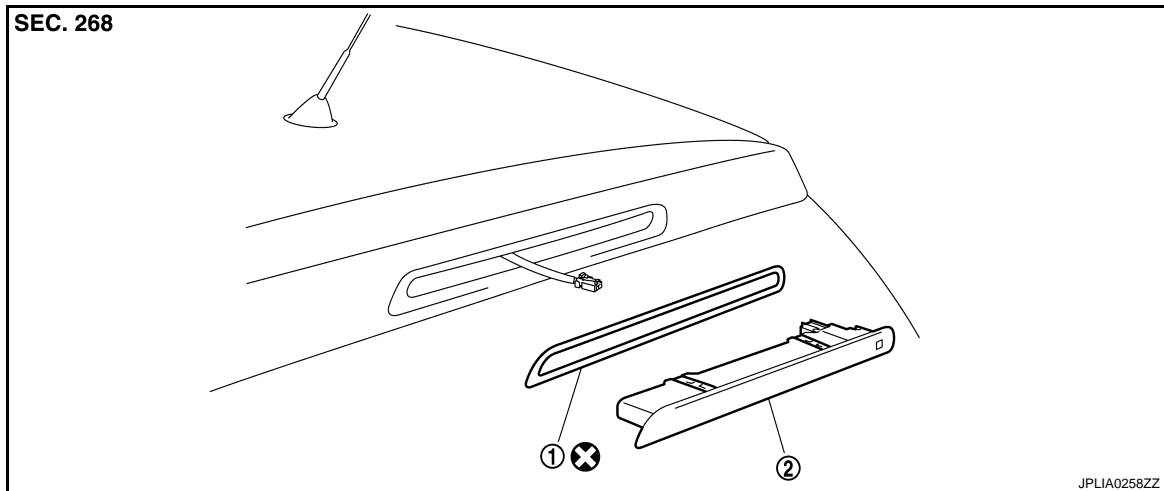
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000001532289



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4, "Components"](#) for symbols not described above.

Removal and Installation

INFOID:000000001532290

CAUTION:

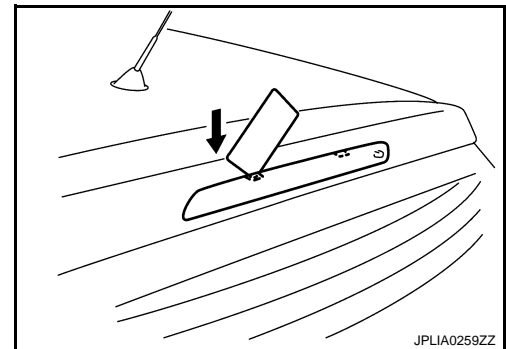
Disconnect battery negative terminal or remove the fuse.

REMOVAL

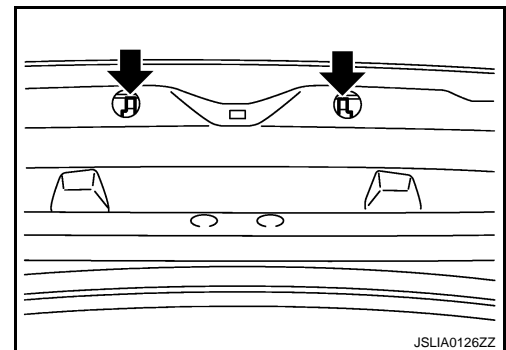
1. Insert a cards upper the high-mounted stop lamp. And unlock metal clips (upper).

CAUTION:

Never use a thick tool.



2. Remove the back door finisher upper. Refer to [EXT-31, "Exploded View"](#).
3. Unlock metal clips (lower side).
4. Pull off the high-mounted stop lamp from the vehicle.
5. Disconnect the high-mounted stop lamp connector.
6. Remove the rear washer tube.



INSTALLATION

Install in the reverse order of removal.

BACK-UP LAMP

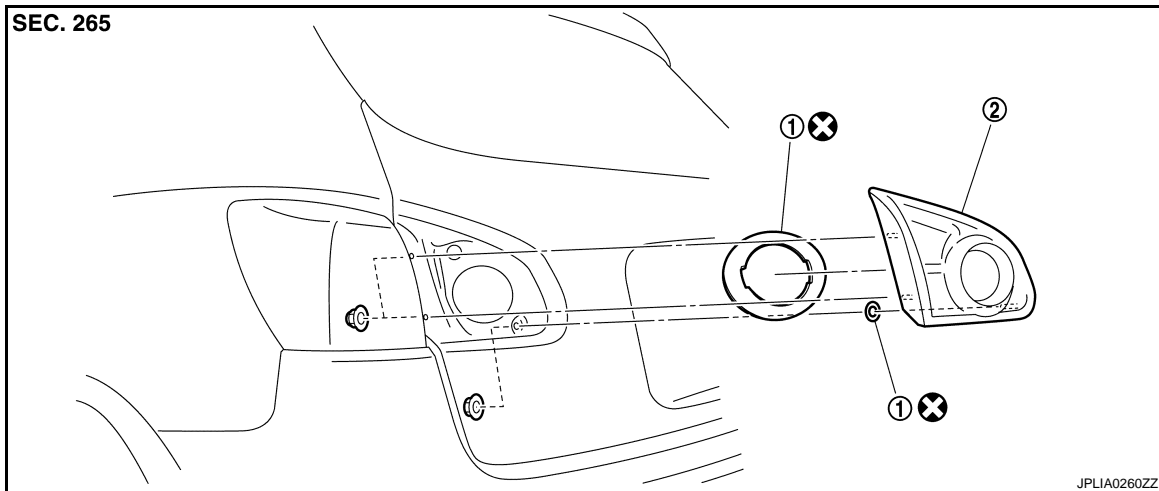
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

BACK-UP LAMP

Exploded View

INFOID:000000001532291



1. Seal packing
2. Back-up lamp

Refer to [GI-4, "Components"](#) for symbols not described above.

Removal and Installation

INFOID:000000001532292

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Remove back door trim finisher lower. Refer to [INT-26, "Exploded View"](#).
2. Disconnect back-up lamp connector.
3. Remove back-up lamp mounting nuts. And then remove back-up lamp.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

Seal packing cannot be reused.

Replacement

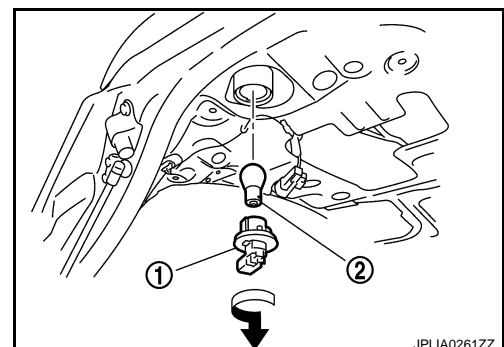
INFOID:000000001532293

CAUTION:

Disconnect the battery negative terminal or the fuse.

BACK-UP LAMP BULB

1. Remove back door trim finisher lower. Refer to [INT-26, "Exploded View"](#).
2. Disconnect the back-up lamp connector.
3. Rotate the bulb socket (1) counterclockwise and unlock it.
4. Remove the bulb (2) from the socket.



LICENSE PLATE LAMP

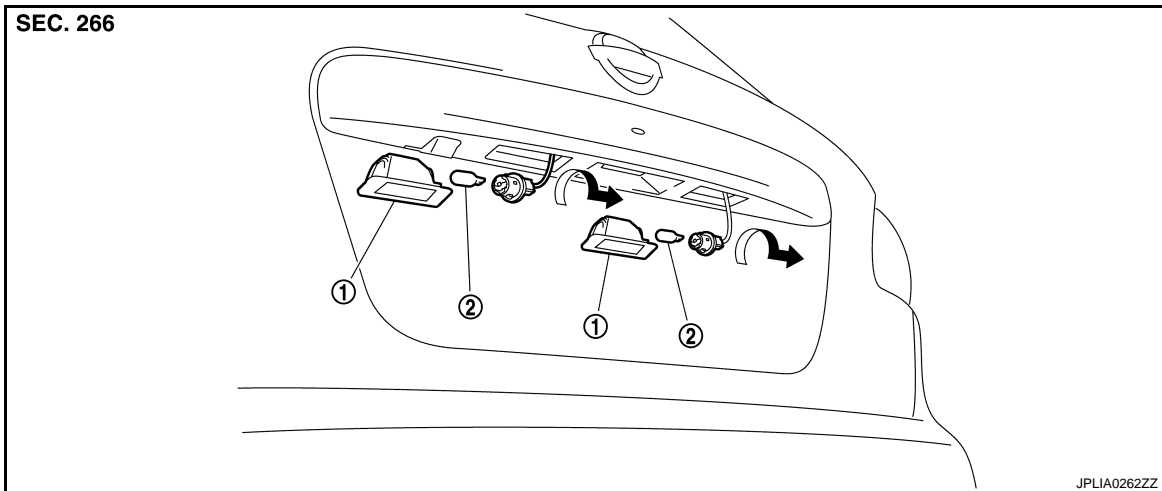
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

LICENSE PLATE LAMP

Exploded View

INFOID:000000001532294



1. License plate lamp housing
2. License plate lamp bulb

Removal and Installation

INFOID:000000001532295

CAUTION:

Disconnect the battery negative terminal or the fuse.

REMOVAL

1. While pressing the license plate lamp to direction right side, pull it to direction outside and then remove it.
2. Disconnect the connector.

INSTALLATION

Install in the reverse order of removal.

Replacement

INFOID:000000001532296

CAUTION:

Disconnect the battery negative terminal or the fuse.

LICENSE PLATE LAMP BULB

1. Remove license plate lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the socket.

REAR FOG LAMP

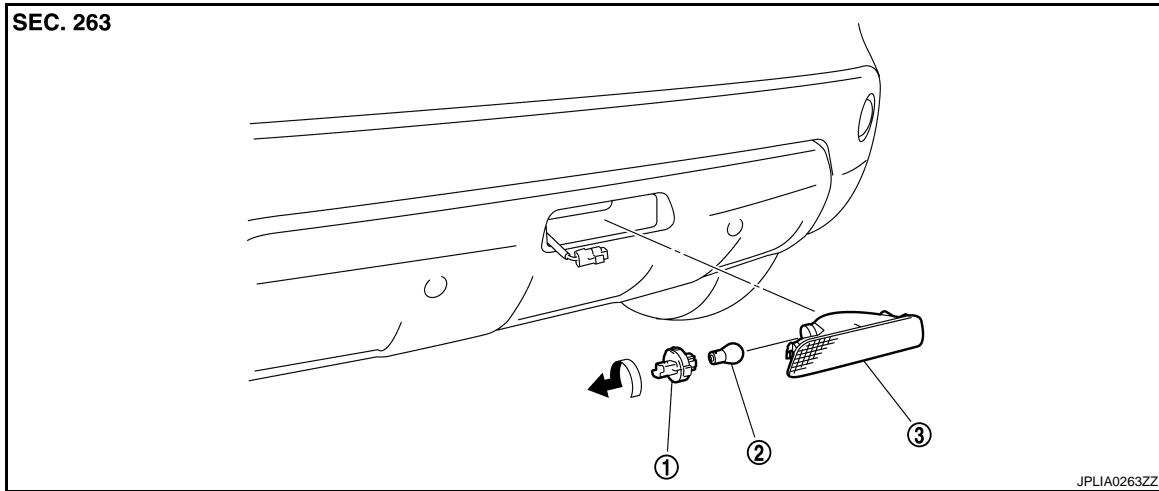
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

REAR FOG LAMP

Exploded View

INFOID:000000001532297



1. Rear fog lamp bulb socket

2. Rear fog lamp bulb

3. Rear fog lamp housing

Removal and Installation

INFOID:000000001532298

CAUTION:

Disconnect battery negative terminal or remove the fuse.

REMOVAL

1. Insert any appropriate tool into the gap between the rear fog lamp housing. And pull off the rear fog lamp from the vehicle.
2. Disconnect rear fog lamp connector.

INSTALLATION

Installation is the reverse order of removal.

Replacement

INFOID:000000001532299

CAUTION:

Disconnect battery negative terminal or remove the fuse.

REAR FOG LAMP BULB

1. Remove the rear fog lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from its socket.

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[HALOGEN TYPE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:000000001188906

Item		Type	Wattage (W)
Front combination lamp	Headlamp (LO)	H7	55
	Headlamp (HI)	H7	55
	Front turn signal lamp	PY21W (Amber)	21
	Parking lamp	W5W	5
Front fog lamp		H11	55
Side turn signal lamp		WY5W (Amber)	5
Rear combination lamp	Stop lamp/Tail lamp	P21/5W	21/5
	Rear turn signal lamp	P21W	21
Back-up lamp		P21W	21
License plate lamp		W5W	5
High-mounted stop lamp		LED	—
Rear fog lamp		P21W	21