

SECTION **EXL**

EXTERIOR LIGHTING SYSTEM

CONTENTS

LED HEADLAMP	
PRECAUTION	6
PRECAUTIONS	6
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	6
Precaution for Work	6
PREPARATION	7
PREPARATION	7
Special Service Tool	7
SYSTEM DESCRIPTION	8
COMPONENT PARTS	8
Component Parts Location	8
Optical Sensor	9
Hazard Switch	9
Daytime Running Light Relay	9
LED Headlamp Control Module	10
SYSTEM	11
HEADLAMP SYSTEM	11
HEADLAMP SYSTEM : System Description	11
HEADLAMP SYSTEM : Fail-safe	12
AUTO LIGHT SYSTEM	12
AUTO LIGHT SYSTEM : System Description	12
DAYTIME RUNNING LIGHT SYSTEM	13
DAYTIME RUNNING LIGHT SYSTEM : System Description	13
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM	14
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description	14
PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM	15
PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description	15
PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : Fail-Safe	15
BACK-UP LAMP SYSTEM	16
BACK-UP LAMP SYSTEM : System Description	16
FRONT FOG LAMP SYSTEM	16
FRONT FOG LAMP SYSTEM : System Description	16
FRONT FOG LAMP SYSTEM : Fail-Safe	17
EXTERIOR LAMP BATTERY SAVER SYSTEM	17
EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description	17
DIAGNOSIS SYSTEM (BCM)	19
COMMON ITEM	19
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)	19
HEADLAMP	20
HEADLAMP : CONSULT Function (BCM - HEADLAMP)	20
FLASHER	22
FLASHER : CONSULT Function (BCM - FLASHER)	22
INT LAMP	22
INT LAMP : CONSULT Function (BCM - INT LAMP)	22
DOOR LOCK	23
DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)	23
DIAGNOSIS SYSTEM (IPDM E/R)	25
Diagnosis Description	25
CONSULT Function (IPDM E/R)	26

ECU DIAGNOSIS INFORMATION	29	FRONT SIDE MARKER LAMP CIRCUIT	99
BCM, IPDM E/R	29	Component Function Check	99
List of ECU Reference	29	Diagnosis Procedure	99
WIRING DIAGRAM	30	TAIL LAMP CIRCUIT	101
HEADLAMP	30	Component Function Check	101
Wiring Diagram	30	Diagnosis Procedure	101
DAYTIME RUNNING LIGHT SYSTEM	37	LICENSE PLATE LAMP CIRCUIT	103
Wiring Diagram	37	Component Function Check	103
AUTO LIGHT SYSTEM	43	Diagnosis Procedure	103
Wiring Diagram	43	FRONT FOG LAMP CIRCUIT	105
FRONT FOG LAMP SYSTEM	50	Component Function Check	105
Wiring Diagram	50	Diagnosis Procedure	105
TURN SIGNAL AND HAZARD WARNING		TURN SIGNAL LAMP CIRCUIT	107
LAMP SYSTEM	55	Component Function Check	107
Wiring Diagram	55	Diagnosis Procedure	107
PARKING, LICENSE PLATE AND TAIL		OPTICAL SENSOR	110
LAMPS SYSTEM	63	Component Function Check	110
Wiring Diagram	63	Diagnosis Procedure	110
STOP LAMP	73	HAZARD SWITCH	113
Wiring Diagram	73	Component Function Check	113
BACK-UP LAMP	77	Diagnosis Procedure	113
Wiring Diagram	77	SYMPTOM DIAGNOSIS	115
BASIC INSPECTION	85	EXTERIOR LIGHTING SYSTEM SYMPTOMS..	115
DIAGNOSIS AND REPAIR WORK FLOW	85	Symptom Table	115
Work Flow	85	NORMAL OPERATING CONDITION	118
LED HEADLAMP OPERATION INSPECTION..	88	Description	118
Work Procedure	88	BOTH SIDE HEADLAMPS (HI) ARE NOT	
DTC/CIRCUIT DIAGNOSIS	89	TURNED ON	119
HEADLAMP (HI) CIRCUIT	89	Description	119
Component Function Check	89	Diagnosis Procedure	119
Diagnosis Procedure	89	BOTH SIDE HEADLAMPS (LO) ARE NOT	
HEADLAMP (LO) CIRCUIT	91	TURNED ON	120
Component Function Check	91	Description	120
Diagnosis Procedure	91	Diagnosis Procedure	120
DAYTIME RUNNING LIGHT RELAY CIRCUIT		PARKING, LICENSE PLATE, SIDE MARKER	
.....	93	AND TAIL LAMPS ARE NOT TURNED ON ...	121
Component Function Check	93	Description	121
Diagnosis Procedure	93	Diagnosis Procedure	121
Component Inspection	94	BOTH SIDE FRONT FOG LAMPS ARE NOT	
LED HEADLAMP	96	TURNED ON	122
Diagnosis Procedure	96	Description	122
PARKING LAMP CIRCUIT	97	Diagnosis Procedure	122
Component Function Check	97	PERIODIC MAINTENANCE	123
Diagnosis Procedure	97	HEADLAMP AIMING ADJUSTMENT	123
		Inspection	123
		Aiming Adjustment Procedure	124

FRONT FOG LAMP AIMING ADJUSTMENT ..	126	Disassembly and Assembly	145	
Aiming Adjustment	126			A
REMOVAL AND INSTALLATION	128	SERVICE DATA AND SPECIFICATIONS (SDS)	146	
FRONT COMBINATION LAMP	128	SERVICE DATA AND SPECIFICATIONS (SDS)	146	B
Exploded View	128	Bulb Specifications	146	
Removal and Installation	128	HALOGEN HEADLAMP		C
Bulb Replacement	128			
FRONT FOG LAMP	130	PRECAUTION	147	D
Exploded View	130	PRECAUTIONS	147	
Removal and Installation	130	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	147	E
Bulb Replacement	130	Precaution for Work	147	
DOOR MIRROR TURN SIGNAL LAMP	132	PREPARATION	148	F
Removal and Installation	132	PREPARATION	148	
OPTICAL SENSOR	133	Special Service Tool	148	G
Exploded View	133	SYSTEM DESCRIPTION	149	
Removal and Installation	133	COMPONENT PARTS	149	H
LIGHTING & TURN SIGNAL SWITCH	134	Component Parts Location	149	
Exploded View	134	Optical Sensor	150	I
Removal and Installation	134	Hazard Switch	150	
HAZARD SWITCH	135	Daytime Running Light Relay	150	J
Exploded View	135	SYSTEM	151	
Removal and Installation	135	HEADLAMP SYSTEM	151	K
REAR COMBINATION LAMP	136	HEADLAMP SYSTEM : System Description	151	
Exploded View	136	HEADLAMP SYSTEM : Fail-safe	151	
Removal and Installation	136	AUTO LIGHT SYSTEM	152	
Bulb Replacement	136	AUTO LIGHT SYSTEM : System Description	152	
HIGH-MOUNTED STOP LAMP	138	DAYTIME RUNNING LIGHT SYSTEM	153	EXL
Exploded View	138	DAYTIME RUNNING LIGHT SYSTEM : System Description	153	
Removal and Installation	138	TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM	153	M
Bulb Replacement	138	TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description	154	
LICENSE PLATE LAMP	139	PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM	154	O
Exploded View	139	PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description	154	
Removal and Installation	139	PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : Fail-Safe	155	P
Bulb Replacement	139	BACK-UP LAMP SYSTEM	155	
BACK-UP LAMP ASSEMBLY	141	BACK-UP LAMP SYSTEM : System Description	156	
Exploded View	141	FRONT FOG LAMP SYSTEM	156	
Removal and Installation	141	FRONT FOG LAMP SYSTEM : System Description	156	
Bulb Replacement	141	FRONT FOG LAMP SYSTEM : Fail-Safe	157	
REAR REFLEX REFLECTOR	143			
Exploded View	143			
Removal and Installation	143			
UNIT DISASSEMBLY AND ASSEMBLY .	144			
FRONT COMBINATION LAMP	144			
Exploded View	144			
Disassembly and Assembly	144			
REAR COMBINATION LAMP	145			
Exploded View	145			

EXTERIOR LAMP BATTERY SAVER SYSTEM	157	Component Function Check	223
EXTERIOR LAMP BATTERY SAVER SYSTEM :		Diagnosis Procedure	223
System Description	157		
DIAGNOSIS SYSTEM (BCM)	158	HEADLAMP (LO) CIRCUIT	225
COMMON ITEM	158	Component Function Check	225
COMMON ITEM : CONSULT Function (BCM -		Diagnosis Procedure	225
COMMON ITEM)	158	DAYTIME RUNNING LIGHT RELAY CIRCUIT	
HEADLAMP	159		..227
HEADLAMP : CONSULT Function (BCM - HEAD-		Component Function Check	227
LAMP)	159	Diagnosis Procedure	227
FLASHER	161	Component Inspection	228
FLASHER : CONSULT Function (BCM - FLASH-		PARKING LAMP CIRCUIT	230
ER)	161	Component Function Check	230
DIAGNOSIS SYSTEM (IPDM E/R)	162	Diagnosis Procedure	230
Diagnosis Description	162	FRONT SIDE MARKER LAMP CIRCUIT	232
CONSULT Function (IPDM E/R)	163	Component Function Check	232
ECU DIAGNOSIS INFORMATION	166	Diagnosis Procedure	232
BCM, IPDM E/R	166	TAIL LAMP CIRCUIT	234
List of ECU Reference	166	Component Function Check	234
WIRING DIAGRAM	167	Diagnosis Procedure	234
HEADLAMP	167	LICENSE PLATE LAMP CIRCUIT	236
Wiring Diagram	167	Component Function Check	236
DAYTIME RUNNING LIGHT SYSTEM	172	Diagnosis Procedure	236
Wiring Diagram	172	FRONT FOG LAMP CIRCUIT	238
AUTO LIGHT SYSTEM	178	Component Function Check	238
Wiring Diagram	178	Diagnosis Procedure	238
FRONT FOG LAMP SYSTEM	185	TURN SIGNAL LAMP CIRCUIT	240
Wiring Diagram	185	Component Function Check	240
TURN SIGNAL AND HAZARD WARNING		Diagnosis Procedure	240
LAMP SYSTEM	190	OPTICAL SENSOR	243
Wiring Diagram	190	Component Function Check	243
PARKING, LICENSE PLATE AND TAIL		Diagnosis Procedure	243
LAMPS SYSTEM	198	HAZARD SWITCH	246
Wiring Diagram	198	Component Function Check	246
STOP LAMP	208	Diagnosis Procedure	246
Wiring Diagram	208	SYMPTOM DIAGNOSIS	248
BACK-UP LAMP	212	EXTERIOR LIGHTING SYSTEM SYMPTOMS	248
Wiring Diagram	212	Symptom Table	248
BASIC INSPECTION	220	NORMAL OPERATING CONDITION	251
DIAGNOSIS AND REPAIR WORK FLOW	220	Description	251
Work Flow	220	BOTH SIDE HEADLAMPS (HI) ARE NOT	
DTC/CIRCUIT DIAGNOSIS	223	TURNED ON	252
HEADLAMP (HI) CIRCUIT	223	Description	252
		Diagnosis Procedure	252
		BOTH SIDE HEADLAMPS (LO) ARE NOT	
		TURNED ON	253
		Description	253
		Diagnosis Procedure	253

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON ...	254	
Description	254	
Diagnosis Procedure	254	
BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON	255	
Description	255	
Diagnosis Procedure	255	
PERIODIC MAINTENANCE	256	
HEADLAMP AIMING ADJUSTMENT	256	
Inspection	256	
Aiming Adjustment Procedure	257	
FRONT FOG LAMP AIMING ADJUSTMENT ..	259	
Aiming Adjustment	259	
REMOVAL AND INSTALLATION	261	
FRONT COMBINATION LAMP	261	
Exploded View	261	
Removal and Installation	261	
Bulb Replacement	261	
FRONT FOG LAMP	263	
Exploded View	263	
Removal and Installation	263	
Bulb Replacement	263	
DOOR MIRROR TURN SIGNAL LAMP	265	
Removal and Installation	265	
OPTICAL SENSOR	266	
Exploded View	266	
Removal and Installation	266	
LIGHTING & TURN SIGNAL SWITCH	267	
Exploded View	267	
Removal and Installation	267	
HAZARD SWITCH	268	
Exploded View	268	
Removal and Installation	268	
REAR COMBINATION LAMP	269	A
Exploded View	269	
Removal and Installation	269	
Bulb Replacement	269	B
HIGH-MOUNTED STOP LAMP	271	
Exploded View	271	C
Removal and Installation	271	
Bulb Replacement	271	
LICENSE PLATE LAMP	272	D
Exploded View	272	
Removal and Installation	272	
Bulb Replacement	272	E
BACK-UP LAMP ASSEMBLY	274	
Exploded View	274	F
Removal and Installation	274	
Bulb Replacement	274	
REFLEX REFLECTOR	276	G
Exploded View	276	
Removal and Installation	276	
UNIT DISASSEMBLY AND ASSEMBLY ..	277	H
FRONT COMBINATION LAMP	277	
Exploded View	277	I
Disassembly and Assembly	277	
REAR COMBINATION LAMP	278	J
Exploded View	278	
Disassembly and Assembly	278	
SERVICE DATA AND SPECIFICATIONS (SDS)	279	K
SERVICE DATA AND SPECIFICATIONS (SDS)	279	EXL
Bulb Specifications	279	
		M
		N
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PRECAUTION

PRECAUTIONS

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

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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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000011573897

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
 - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
 - For genuine leather seats, use a genuine leather seat cleaner.

PREPARATION

< PREPARATION >

[LED HEADLAMP]

PREPARATION

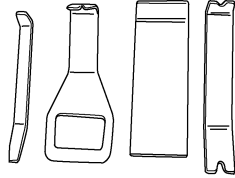
PREPARATION

Special Service Tool

INFOID:0000000011573898

The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set	Removing trim components



AWJIA0483ZZ

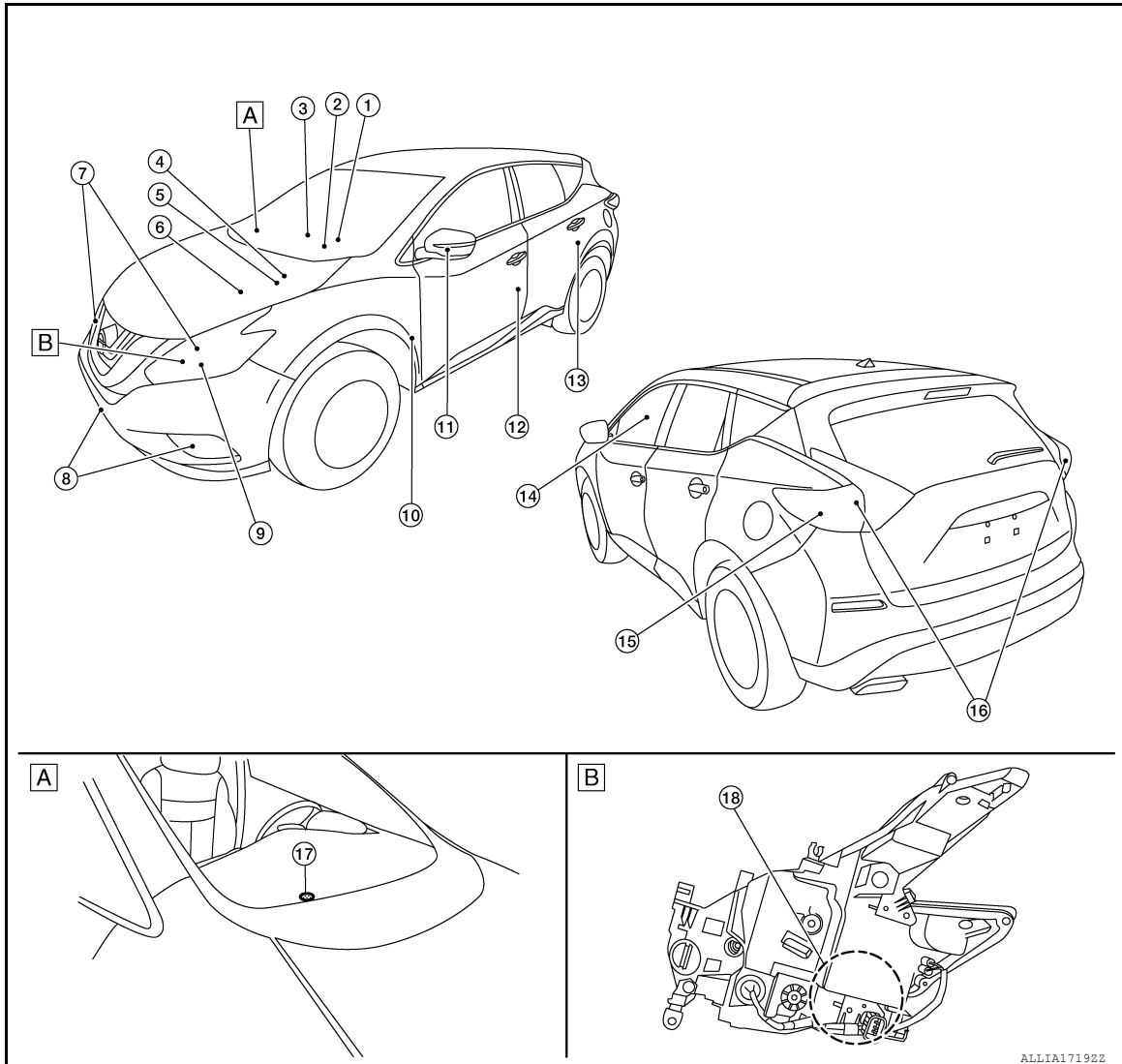
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SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000011552694



A. Right hand side of instrument panel B. Front combination lamp (back)

No.	Part	Function
1.	Combination meter	Refer to MWI-9, "METER SYSTEM : System Description" .
2.	BCM	• Detects each switch condition by the combination switch reading function. • Judges that the exterior lamps are turned ON according to the vehicle condition. • Requests the headlamp (HI/LO), tail lamp and front fog lamp ON to IPDM E/R (via CAN communication). • Requests high beam indicator lamp ON to the combination meter (via CAN communication). • Judges the outside brightness from the optical sensor signal. • Judges the ON/OFF timing according to the vehicle condition. • Judges the ON/OFF status of the exterior lamp according to the outside brightness and the vehicle condition. • Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

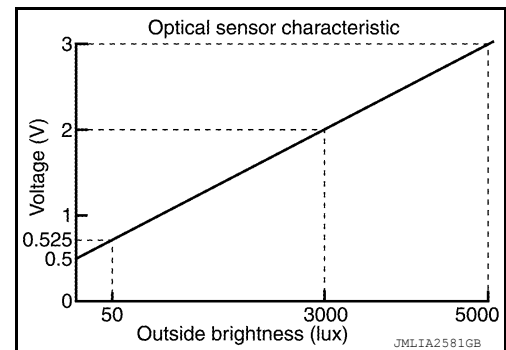
[LED HEADLAMP]

No.	Part	Function
3.	Combination switch (Lighting and turn signal switch)	Refer to MWI-5, "METER SYSTEM : Component Parts Location" for detailed installation location.
4.	IPDM E/R	- Supplies voltage to the load according to the request from BCM (via CAN communication). - Refer to PCS-5, "Component Parts Location" for detailed installation location.
5.	Front fog lamp relay	Supplies voltage to front fog lamps when operated by IPDM E/R.
6.	Daytime running lamp relay	Supplies voltage to the daytime running lamps according to request from IPDM E/R. Refer to component below.
7.	Front combination lamps	Refer to EXL-146, "Bulb Specifications" .
8.	Front fog lamps	Refer to EXL-146, "Bulb Specifications" .
9.	Front turn signal lamp LH	Refer to EXL-146, "Bulb Specifications" .
10.	Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the daytime light system.
11.	Door mirror turn signal LH	Refer to EXL-146, "Bulb Specifications" .
12.	Front door switch LH	Transmits the door open signal to the BCM to operate the autolight system. Refer to DLK-22, "Front Door Switch" for front door switch or DLK-22, "Rear Door Switch" for rear door switch.
13.	Rear door switch LH	
14.	Hazard switch	Refer to EXL-9, "Hazard Switch" for detailed installation location.
15.	Rear turn signal lamp LH	Refer to EXL-146, "Bulb Specifications" .
16.	Rear combination lamps	Refer to EXL-146, "Bulb Specifications" .
17.	Optical sensor	Refer to EXL-9, "Optical Sensor" .
18.	LED headlamp control module	LED headlamp control module is integrated into the front combination lamp and turns the LED headlamp ON according to the request from IPDM E/R.

Optical Sensor

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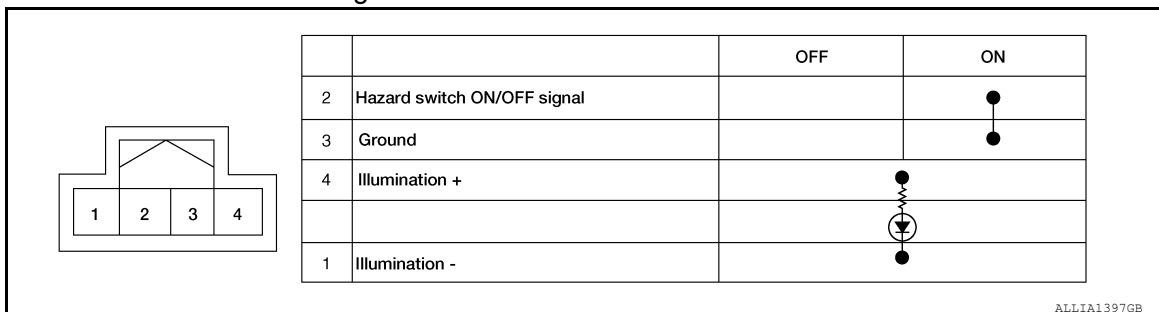
Optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.



Hazard Switch

INFOID:0000000011552696

Inputs the hazard switch ON/OFF signal to BCM.



Daytime Running Light Relay

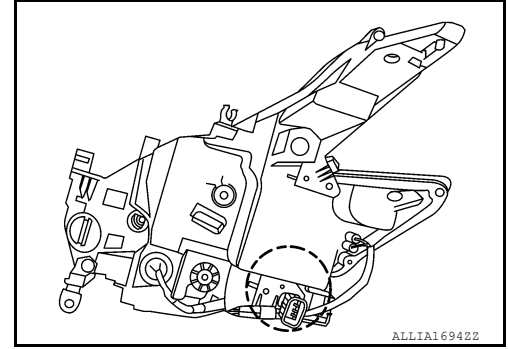
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Power is provided to the daytime running light relay according to request from IPDM E/R.

LED Headlamp Control Module

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- LED headlamp control module is integrated into the front combination lamp and turns the LED headlamp ON according to the request from IPDM E/R.



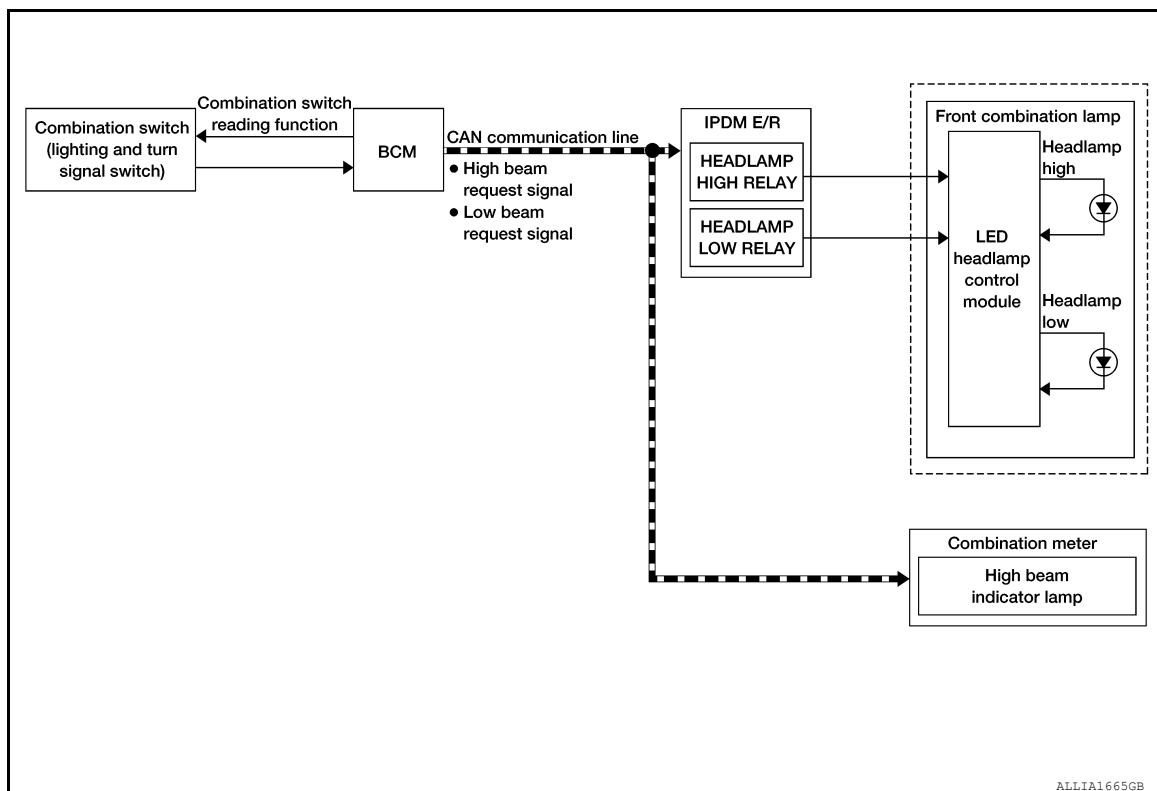
SYSTEM

HEADLAMP SYSTEM

HEADLAMP SYSTEM : System Description

INFOID:0000000011564153

SYSTEM DIAGRAM



OUTLINE

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

HEADLAMP (LO) OPERATION

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

Headlamp (LO) ON condition

- Lighting switch 2ND
- Lighting switch AUTO with the ignition switch ON (Only when the illumination judgment by auto light system is ON. For details, refer to [EXL-12, "AUTO LIGHT SYSTEM : System Description".](#))
- Lighting switch PASS
- IPDM E/R turns the integrated headlamp low relay ON according to low beam request signal and supplies power supply to LED headlamp control module.
- LED headlamp control module turns the headlamp (LO) ON according to the power supply from IPDM E/R.

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
- Lighting switch HI with the lighting switch AUTO and ignition switch ON (Only when the illumination judgment by auto light system is ON and the illumination judgment by high beam assist system is ON. For details, refer to [EXL-12, "AUTO LIGHT SYSTEM : System Description".](#))
- Lighting switch PASS

SYSTEM

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

- 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 according to high beam request signal and supplies power supply to LED headlamp control module.
- LED headlamp control module turns the headlamp (HI) ON according to the power supply from IPDM E/R.

HEADLAMP WARNING OPERATION

Headlamp warning warns the driver that there is a malfunction in LED headlamp system. Refer to [MWI-15, "INFORMATION DISPLAY : System Description"](#).

HEADLAMP SYSTEM : Fail-safe

INFOID:000000011564154

CAN COMMUNICATION CONTROL

When CAN communication with 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 BCM

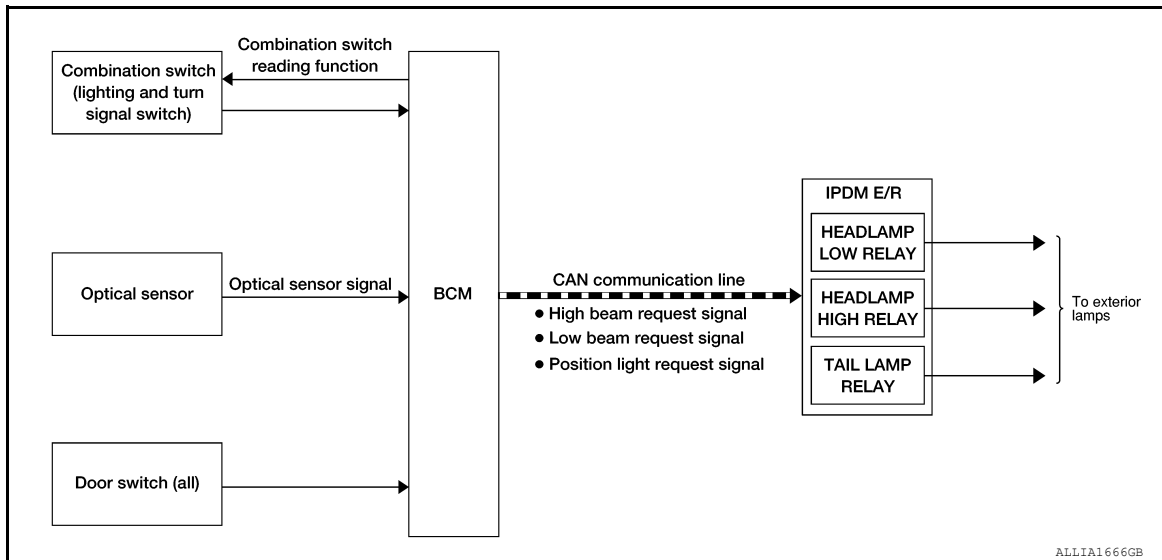
Control part	Fail-safe operation
Headlamp	• Turns ON the headlamp low relay when the ignition switch is turned ON • Turns OFF the headlamp low relay when the ignition switch is turned OFF • Headlamp high relay OFF

AUTO LIGHT SYSTEM

AUTO LIGHT SYSTEM : System Description

INFOID:000000011564140

SYSTEM DIAGRAM



OUTLINE

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

Control by BCM

- Combination switch (lighting and turn signal switch) reading function
- Headlamp control function
- Auto light function
- Delay timer function
- Auto light adjustment system

Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and delay timer function.
- Auto light function automatically turns ON/OFF the exterior lamps* and each illumination automatically, depending on the outside brightness.

SYSTEM

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF, depending on the vehicle condition with the auto light function after a certain period of time.

*: Headlamps (LO/HI), parking lamps, side marker lamps and tail lamps. Headlamp HI depends on the combination switch (lighting and turn signal switch) condition.

AUTO LIGHT FUNCTION

- BCM detects the combination switch (lighting and turn signal switch) condition with the combination switch (lighting and turn signal switch) reading function.
- BCM supplies voltage to optical sensor when the ignition switch is turned to ON or ACC.
- Optical sensor converts outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.
- BCM judges outside brightness from the optical sensor signal and judges ON/OFF condition of the exterior lamp and each illumination according to the outside brightness.
- BCM transmits each request signal to IPDM E/R and combination meter via CAN communication according to ON/OFF condition by the auto light function.

NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to [BCS-19. "HEADLAMP : CONSULT Function \(BCM - HEADLAMP\)"](#).

AUTO LIGHT ADJUSTMENT SYSTEM

The auto light adjustment system automatically, dims/brightens the display, according to brightness outside the vehicle, when lighting switch 1ST, lighting switch 2ND or lighting switch AUTO is operated. Refer to [INL-8. "ILLUMINATION CONTROL SYSTEM : System Description"](#).

DELAY TIMER FUNCTION

BCM turns the exterior lamp OFF depending on the vehicle condition with the auto light function when the ignition switch is turned OFF.

- Turns the exterior lamp OFF 5 minutes after detecting that any door opens. (Door switch ON).
- Turns the exterior lamp OFF a certain period of time* after closing all doors. (Door switch ON→OFF).
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.

*: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [BCS-19. "HEADLAMP : CONSULT Function \(BCM - HEADLAMP\)"](#).

NOTE:

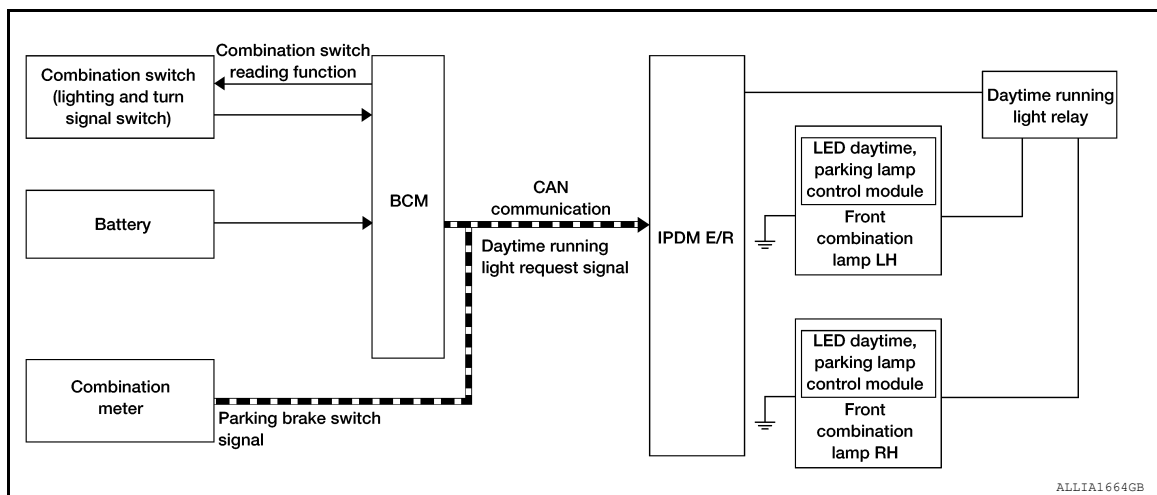
When any position other than the light switch AUTO is set, the auto light system function switches to the exterior lamp battery saver function.

DAYTIME RUNNING LIGHT SYSTEM

DAYTIME RUNNING LIGHT SYSTEM : System Description

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SYSTEM DIAGRAM



OUTLINE

- Turns the front combination lamps on through the LED daytime, parking lamp control module as the daytime running light.
- Daytime running light is controlled by daytime running light control function and combination switch (lighting and turn signal switch) reading function of BCM, and relay control function of IPDM E/R.

< SYSTEM DESCRIPTION >

DAYTIME RUNNING LIGHT OPERATION

- BCM detects the combination switch (lighting and turn signal switch) condition by the combination switch (lighting and turn signal switch) reading function.
- BCM detects the vehicle condition according to ignition switch
- BCM detects the parking brake condition by the parking brake switch signal received from combination meter using CAN communication.
- BCM transmits the daytime running light request signal to IPDM E/R using CAN communication according to the daytime running light ON condition.

Daytime running light ON condition:

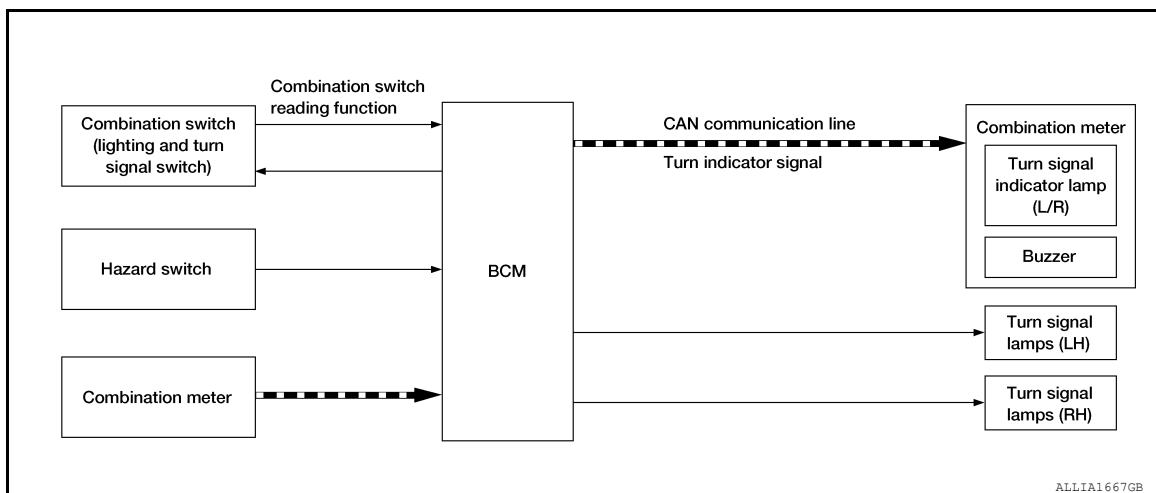
- Vehicle condition READY
- Lighting switch OFF or 1ST
- Lighting switch AUTO, and the auto light function OFF judgment
- Parking brake switch OFF
- IPDM E/R controls the daytime running light relay (ground-side) to turn ON according to the daytime running light request signal.
- Power is supplied from the daytime running light relay to front combination lamp RH and LH, and then daytime running lamps are illuminated.

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description

INFOID:0000000011564096

SYSTEM DIAGRAM



OUTLINE

Turn signal lamp and the hazard warning lamp are controlled by combination switch (lighting and turn signal switch) reading function and the flasher control function of BCM.

TURN SIGNAL LAMP OPERATION

- BCM detects the combination switch (lighting and turn signal switch) condition by the combination switch (lighting and turn signal switch) reading function.
- BCM supplies voltage to the right (left) turn signal lamp circuit when the ignition switch is 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 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 using 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 FLASH FUNCTION

SYSTEM

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

- By a short touch of the turn signal lever, BCM blinks the turn signal three times in the selected direction.
- Cancels the operation when short touch of the turn signal lever in the reverse direction during the 3-time flasher function operation.

HIGH FLASHER OPERATION

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

NOTE:

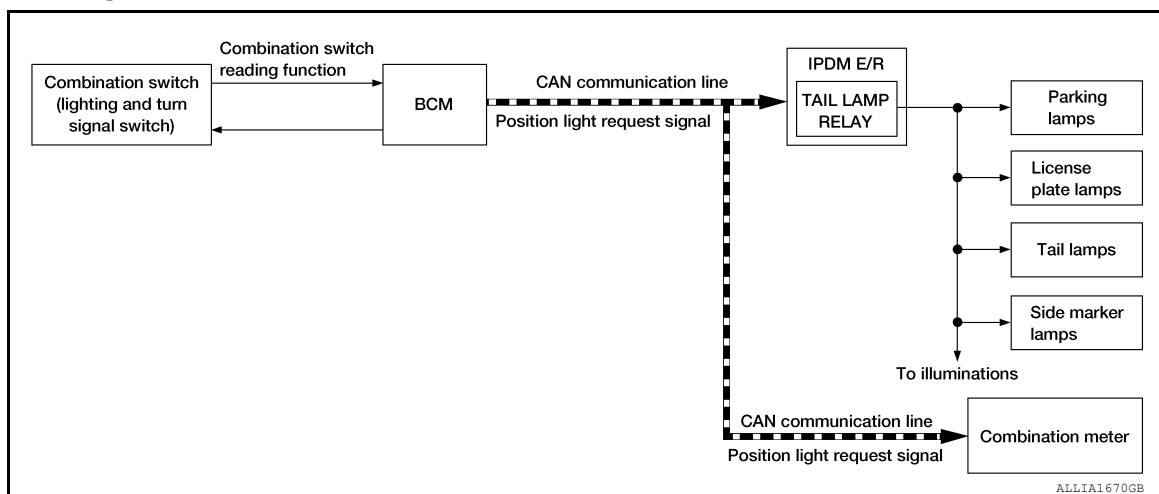
The blinking speed is normal while operating the hazard warning lamp.

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System Description

INFOID:000000011564097

SYSTEM DIAGRAM



OUTLINE

Parking, license plate, side marker and tail lamps are controlled by combination switch (lighting and turn signal switch) reading function, headlamp control function of BCM, and relay control function of IPDM E/R.

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS OPERATION

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

Parking, license plate, side marker and tail lamps ON condition:

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment
- Lighting switch AUTO, with the front fog lamp switch ON and the ignition switch ON
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking, license plate, side marker 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, SIDE MARKER AND TAIL LAMP SYSTEM : Fail-Safe

INFOID:000000011564098

CAN COMMUNICATION CONTROL

When CAN communication with 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 BCM

SYSTEM

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

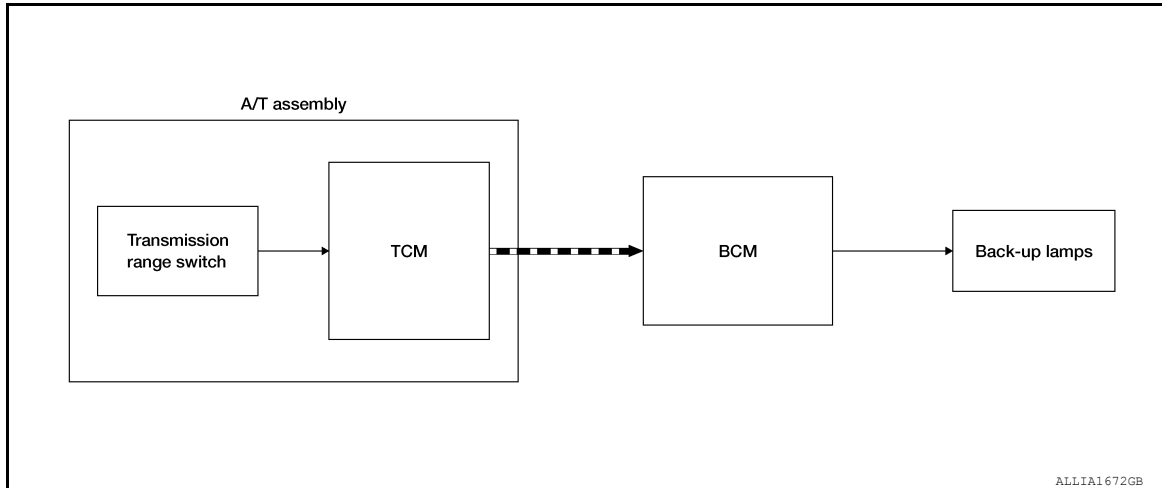
Control part	Fail-safe operation
• Parking lamps • License plate lamps • Illumination • Tail lamps • Side marker lamps	• Turns ON the tail lamp relay when the ignition switch is turned ON • Turns OFF the tail lamp relay when the ignition switch is turned OFF

BACK-UP LAMP SYSTEM

BACK-UP LAMP SYSTEM : System Description

INFOID:0000000011564264

SYSTEM DIAGRAM



OUTLINE

Back-up lamp is controlled by back-up lamp control function of TCM.

BACK-UP LAMP OPERATION

- TCM detects the shift selector lever position status from transmission range switch.
- TCM sends request signal via CAN communication and turns the back-up lamps on when back-up lamp conditions are satisfied.

Back-up lamp ON condition:

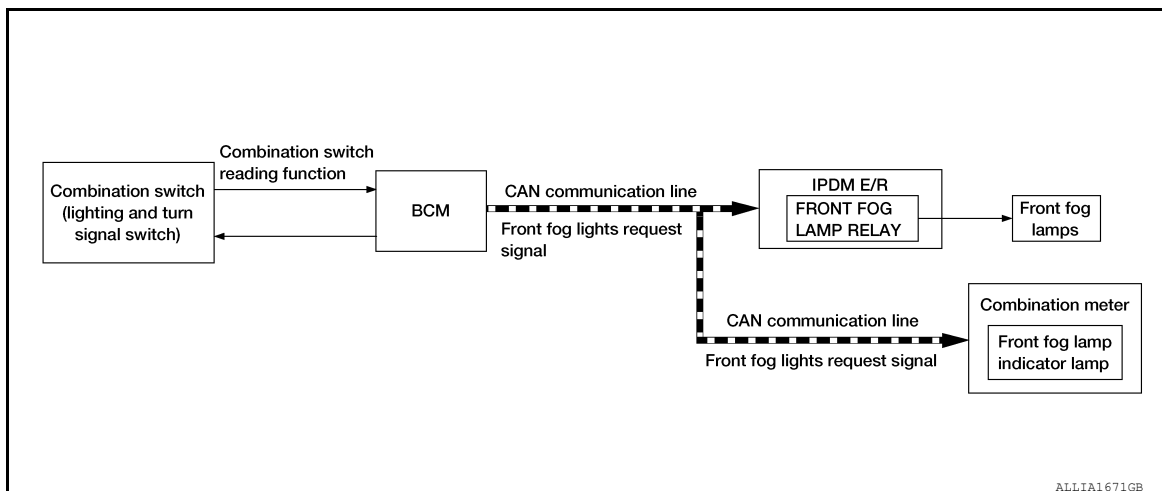
- Ignition switch ON
- Shift selector lever position R

FRONT FOG LAMP SYSTEM

FRONT FOG LAMP SYSTEM : System Description

INFOID:0000000011564099

SYSTEM DIAGRAM



< SYSTEM DESCRIPTION >

OUTLINE

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

FRONT FOG LAMP OPERATION

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

Front fog lamp ON condition:

- Front fog lamp switch ON, and any of the following condition is satisfied.(except for the high beam ON):

- Lighting switch 2ND
- Lighting switch AUTO and the 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 : Fail-Safe

INFOID:0000000011564100

CAN COMMUNICATION CONTROL

When CAN communication with 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 BCM

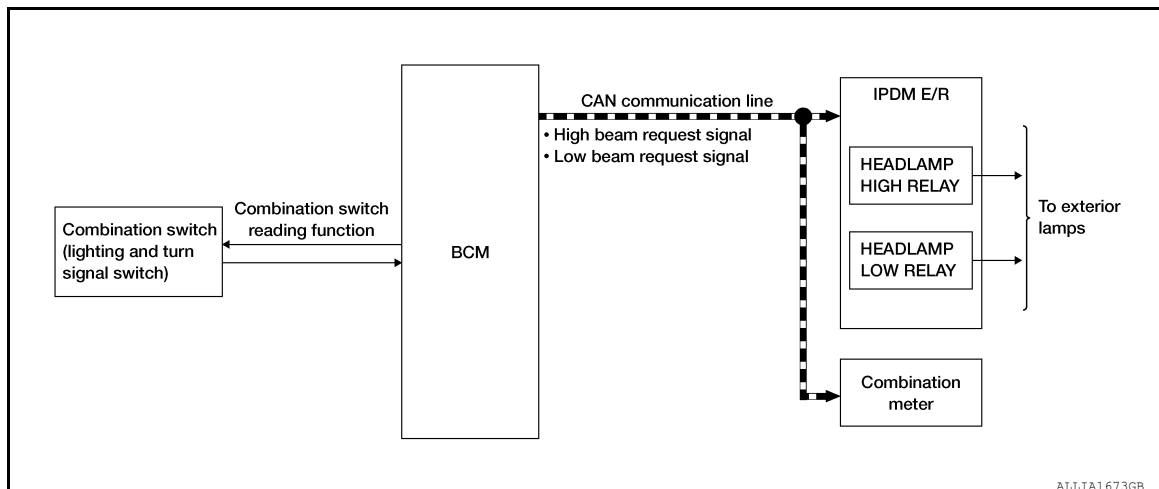
Control part	Fail-safe operation
Front fog lamp	Front fog lamp relay OFF

EXTERIOR LAMP BATTERY SAVER SYSTEM

EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description

INFOID:0000000011564262

SYSTEM DIAGRAM



OUTLINE

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

Control by BCM

- Combination switch (lighting and turn signal switch) reading function
- Exterior lamp battery saver function

Control by IPDM E/R

- Relay control function
- BCM turns the exterior lamp OFF*, according to the vehicle status when ignition switch is turned OFF while exterior lamp is ON, for preventing battery discharge.

*: Headlamp (HI/LO).

EXTERIOR LAMP BATTERY SAVER ACTIVATION

- BCM activates the timer and turns the exterior lamp OFF 45 seconds after the ignition switch is turned from ON→OFF with the exterior lamps ON.
- When in any of following conditions (after the exterior lamp battery saver is activated), exterior lamps can be turned ON:
 - Ignition switch is turned from OFF→ACC/ON
 - Lighting switch is changed

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011565064

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	- The vehicle specification can be read and saved. - The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions:

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

[LED HEADLAMP]

< SYSTEM DESCRIPTION >

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*).
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK"* to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopped and selector lever is in P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*
	OFF>ACC		While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF)*
	OFF		Power supply position is "OFF" (Ignition switch OFF)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000011565065

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TURN SIGNAL R [On/Off]	Indicates condition of combination switch.
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
OPTI SEN (DTCT) [V]	Indicates outside brightness voltage signal from optical sensor.
OPTI SEN (FILT) [V]	Indicates outside brightness voltage signal from optical sensor filtered by BCM.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
TWILIGHT ON	MODE2*	Auto lamp function ON.
	MODE1	Auto lamp function OFF.
WIPER LINK	MODE4	This mode is not used.
	MODE3*	Wiper link function operates in INT, LOW and HI.
	MODE2	Wiper link function operates in LOW and HI.
	MODE1	Wiper link function OFF.
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).
	MODE3	More sensitive than MODE2.
	MODE2	More sensitive than normal setting (turns ON earlier).
	MODE1*	Normal setting.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

Support Item	Setting	Description
ILL DELAY SET	MODE 8	Auto lamp delay timer.
	MODE 7	
	MODE 6	
	MODE 4	
	MODE 5	
	MODE 3	
	MODE 2	
	MODE 1*	

* : Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:0000000011565066

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	Indicates condition of hazard switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support item	Setting	Description
3-TIME FLASHER SETTING	ON*	3-Time flasher setting ON.
	OFF	3-Time flasher setting OFF.

* : Initial setting

INT LAMP

INT LAMP : CONSULT Function (BCM - INT LAMP)

INFOID:0000000011565067

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
REQ SW -RR [On/Off]	Indicates condition of rear door request switch RH.
REQ SW -RL [On/Off]	Indicates condition of rear door request switch LH.

DIAGNOSIS SYSTEM (BCM)

[LED HEADLAMP]

< SYSTEM DESCRIPTION >

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
UNLK SEN -DR [On/Off]	Indicates condition of door unlock sensor.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.
TRNK/KAT MNTR [On/Off]	Indicates condition of luggage room lamp switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
INT LAMP	This test is able to check interior room lamp operation [On/Off].
STEP LAMP TEST	This test is able to check step lamp operation [On/Off].

WORK SUPPORT

NOTE:

The items listed below are the only applicable Work Support items for this vehicle. If other items are displayed on CONSULT, do not use or change the setting for these other items.

Support Item	Setting	Description
SCENARIO LIGHTING SETTING	On	NOTE: Do not use this function since interior room lamp control is changed.
	Off*	
FOG LAMP OVERRIDE	On*	Fog lamp override function ON.
	Off	Fog lamp override function OFF.

* : Initial setting

DOOR LOCK

DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)

INFOID:0000000011565068

SELF DIAGNOSTIC RESULT

Refer to [BCS-52. "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW-DR [On/Off]	Indicates condition of door request switch LH.
REQ SW-AS [On/Off]	Indicates condition of door request switch RH.
REQ SW-BD/TR [On/Off]	Indicates condition of back door request switch.
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

Monitor Item [Unit]	Description
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.
CDL UNLOCK SW [On/Off]	Indicates condition of unlock signal from door lock and unlock switch.
KEY CYL LK-SW [On/Off]	Indicates condition of lock signal from door key cylinder switch.
KEY CYL UN-SW [On/Off]	Indicates condition of unlock signal from door key cylinder switch.

ACTIVE TEST

Test Item	Description
DOOR LOCK	This test is able to check door lock operation [ALL LOCK/ALL UNLK].

WORK SUPPORT

Support Item	Setting	Description
DOOR LOCK-UNLOCK SET	On*	Automatic door locks function ON.
	Off	Automatic door locks function OFF.
AUTO UNLOCK TYPE	MODE2	Driver door only unlocks automatically.
	MODE1*	All doors unlock automatically.
AUTO LOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors lock automatically when shifted out of P (park).
	MODE1*	Doors lock automatically when vehicle speed reaches 24 km/h (15 mph).
	Off	—
AUTO UNLOCK FUNCTION	MODE3	This mode is not used.
	MODE2	Doors unlock automatically when shifted into P (park).
	MODE1*	Doors unlock automatically when ignition is switched from ON to OFF.
	Off	—
SIGNATURE LIGHT SETTING	On*	Signature light setting ON.
	Off	Signature light setting OFF.

* : Initial setting

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:0000000011565069

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:

- Front wiper (LO, HI)
- Front fog lamps
- Parking lamps
- Side marker lamps
- Tail lamps
- License plate lamps
- Daytime running lamps
- Headlamps (LO, HI)
- A/C compressor
- Cooling fans (LO, HI)

Operation Procedure

CAUTION:

Do not start the engine.

NOTE:

When auto active test is performed with hood opened, sprinkle water on windshield before hand.

NOTE:

- If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-179, "Component Function Check"](#).
 - When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.
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 front door switch LH 10 times. Then turn the ignition switch OFF.
 4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once, and the auto active test starts.
 5. After a series of the following operations is repeated 3 times, auto active test is completed.

Inspection in Auto Active Test Mode

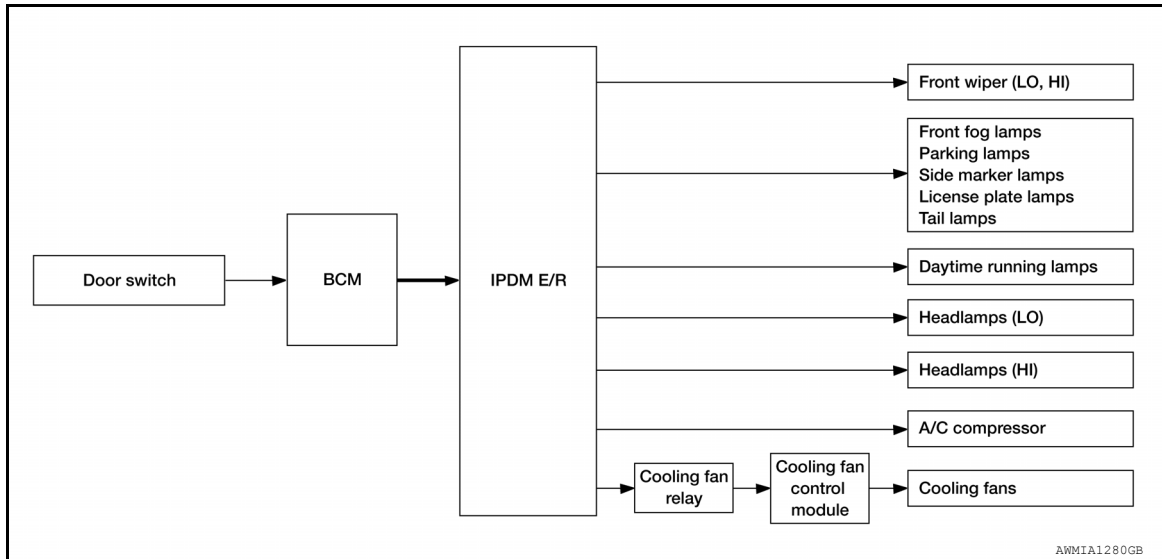
When auto active test mode is actuated, the following operation sequence is repeated 3 times.

Operation sequence	Inspection Location	Operation
1	Front wiper	LO for 3 seconds → HI for 3 seconds
2	• Front fog lamps • Parking lamps • Side marker lamps • Tail lamps • License plate lamps	10 seconds
3	Daytime running lamps	10 seconds
4	Headlamps	LO ⇔ HI 5 times
5	A/C compressor	ON ⇔ OFF 5 times
6*	Cooling fans	LO for 5 seconds → HI for 5 seconds

*: Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

< SYSTEM DESCRIPTION >

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
Any of the following components do not operate • Front fog lamps • Parking lamps • Side marker lamps • License plate lamps • Tail lamps • Daytime running lamps • Headlamp (HI, LO) • Front wiper	Perform auto active test. Does the applicable system operate?	YES	BCM signal input circuit
		NO	• Lamp or motor • Lamp or motor ground circuit • Harness or connector between IPDM E/R and applicable system • IPDM E/R
Cooling fans do not operate	Perform auto active test. Do the cooling fans operate?	YES	• ECM signal input circuit • CAN communication signal between ECM and IPDM E/R
		NO	• Cooling fans • Harness or connectors between cooling fans and cooling fan control module • Cooling fan control module • Harness or connectors between cooling fan relay and cooling fan control module • Cooling fan relay • Harness or connectors between IPDM E/R and cooling fan relay • IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:0000000011565070

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

DIAGNOSIS SYSTEM (IPDM E/R)

[LED HEADLAMP]

< SYSTEM DESCRIPTION >

APPLICATION ITEM

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

Direct Diagnostic Mode	Description
ECU Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to [PCS-21, "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
MOTOR FAN REQ [%]	×	Indicates cooling fan speed signal received from ECM on CAN communication line.
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line.
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line.
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line.
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line.
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line.
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal.
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation.
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line.
IGN RLY [On/Off]	×	Indicates condition of ignition relay.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
INTER/NP SW [On/Off]		Indicates condition of CVT shift position.
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line.
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line.
ST/INH RLY [Off/ ST /INH]		Indicates condition of starter relay and starter control relay.
DETENT SW [On/Off]		Indicates condition of CVT shift selector (park position switch).
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line.
HOOD SW [On/Off]		Indicates condition of hood switch.
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line.
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line.
HOOD SW 2 [On/Off]		Indicates condition of hood switch 2.

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[LED HEADLAMP]

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [On].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Low/Off].
MOTOR FAN	This test is able to check cooling fan operation [4/3/2/1].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Low/Tail/Off].

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

INFOID:0000000011564102

ECU	Reference
BCM	BCS-30, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"
IPDM E/R	PCS-13, "Reference Value"
	PCS-20, "Fail Safe"
	PCS-21, "DTC Index"

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HEADLAMP

< WIRING DIAGRAM >

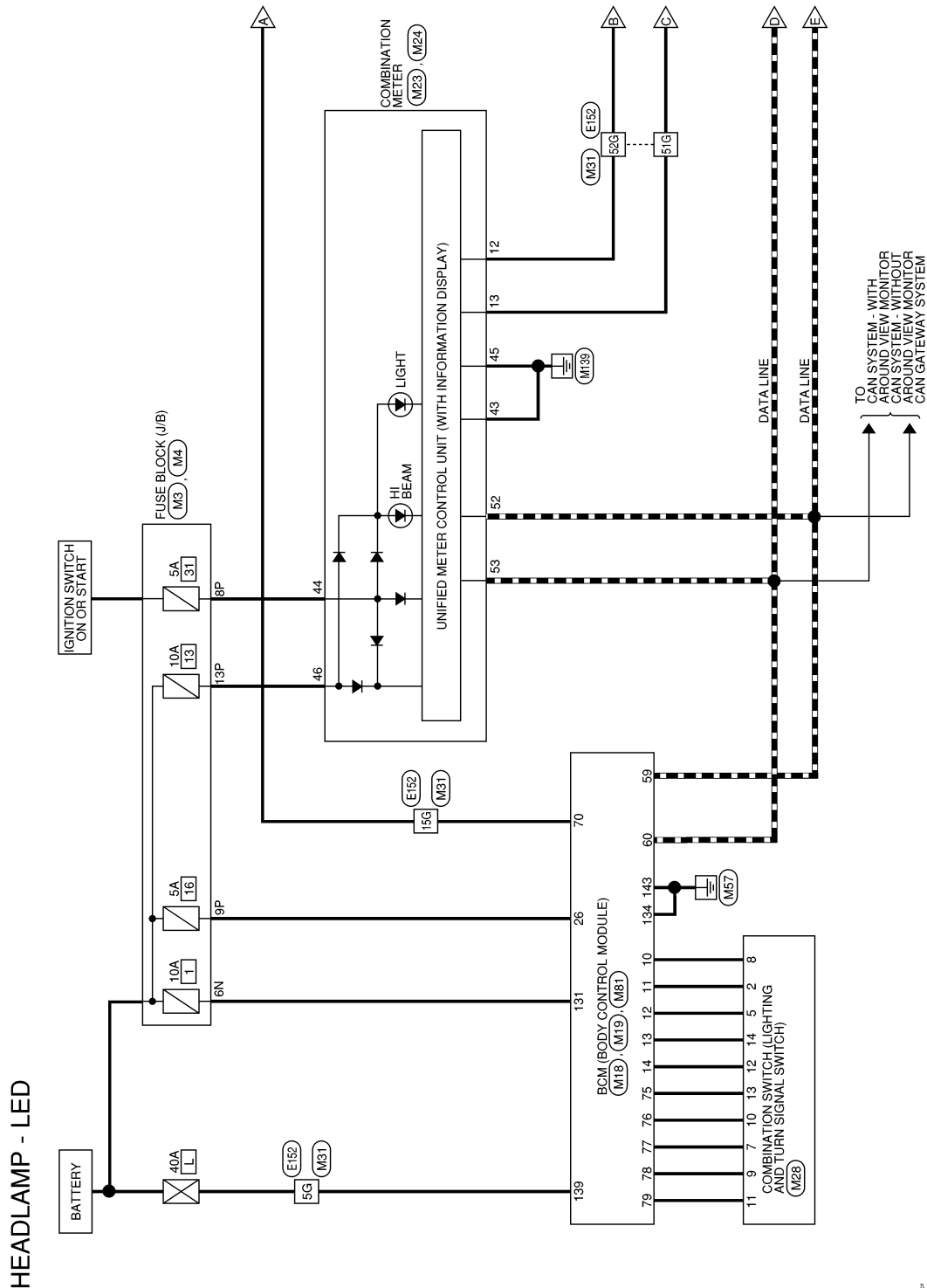
[LED HEADLAMP]

WIRING DIAGRAM

HEADLAMP

Wiring Diagram

INFOID:000000011564103

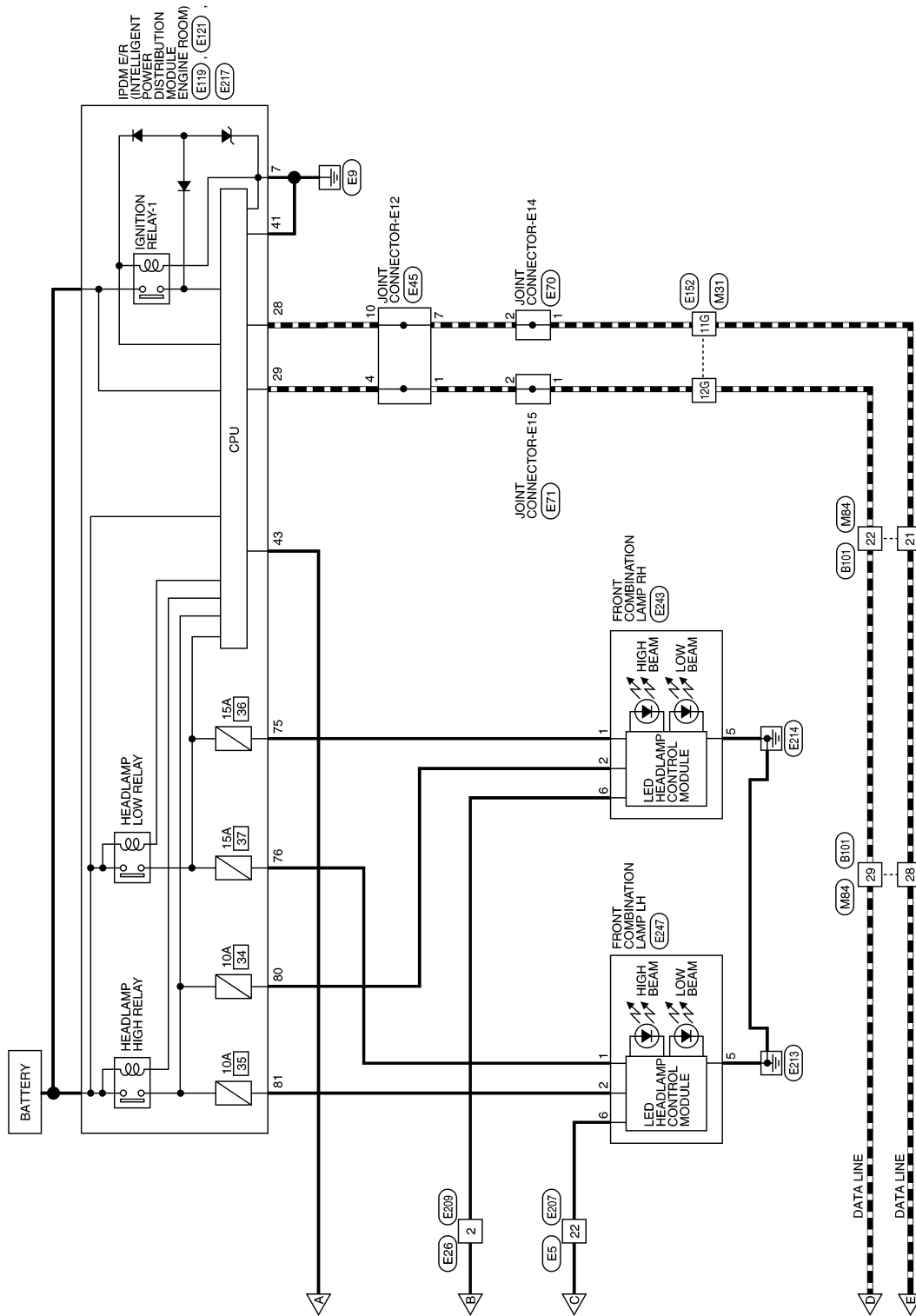


AALWA1068GB

HEADLAMP

< WIRING DIAGRAM >

[LED HEADLAMP]



AALWA1069GB

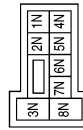
HEADLAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

HEADLAMP CONNECTORS - LED

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



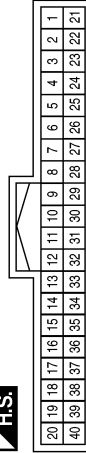
Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	-

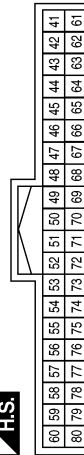
Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5

Terminal No.	Color of Wire	Signal Name
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

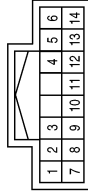
HEADLAMP

< WIRING DIAGRAM >

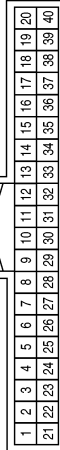
[LED HEADLAMP]

Terminal No.	Color of Wire	Signal Name
11	W	-
12	P	-
13	BG	-
14	G	-

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



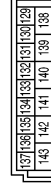
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-

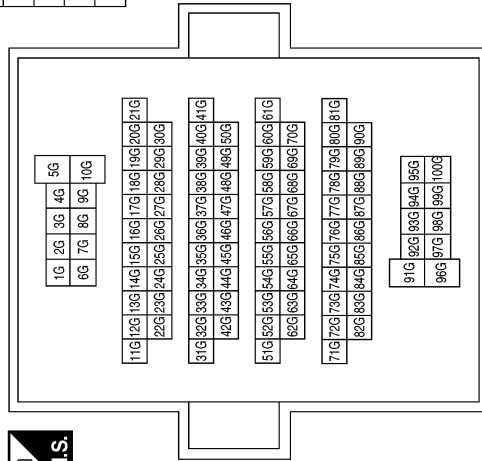
Terminal No.	Color of Wire	Signal Name
12	Y	LED HEAD LAMP R
13	GR	LED HEAD LAMP L

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-
51G	GR	-
52G	Y	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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HEADLAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	E5
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
2	Y	-

Terminal No.	Color of Wire	Signal Name
22	GR	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



6	5	4	3	2	1
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Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



6	5	4	3	2	1
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Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



12	11	10	9	8	7	6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

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HEADLAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



7	8	9		10	11
12	13	14	15	16	17
				18	

Terminal No.	Color of Wire	Signal Name
7	B	P-GND

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

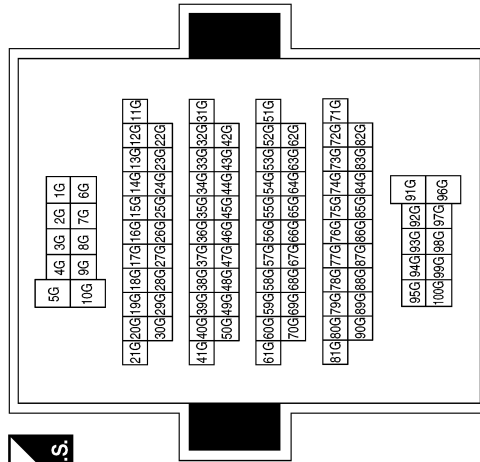
Connector No.	E207
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-
51G	GR	-
52G	Y	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AALIA3056GB

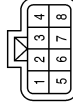
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HEADLAMP

< WIRING DIAGRAM >

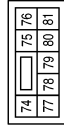
[LED HEADLAMP]

Connector No.	E243
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



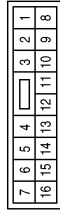
Terminal No.	Color of Wire	Signal Name
1	SB	-
2	LG	-
5	B	-
6	Y	-

Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



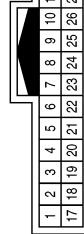
Terminal No.	Color of Wire	Signal Name
75	SB	HEADLAMP LO RH (WITH LED)
76	L	HEADLAMP LO LH
80	LG	HEADLAMP HI RH (WITH LED)
81	G	HEADLAMP HI LH

Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Color	WHITE



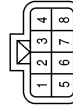
Terminal No.	Color of Wire	Signal Name
2	Y	-

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Connector No.	E247
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	G	-
5	B	-
6	L/O	-

AALIA3057GB

DAYTIME RUNNING LIGHT SYSTEM

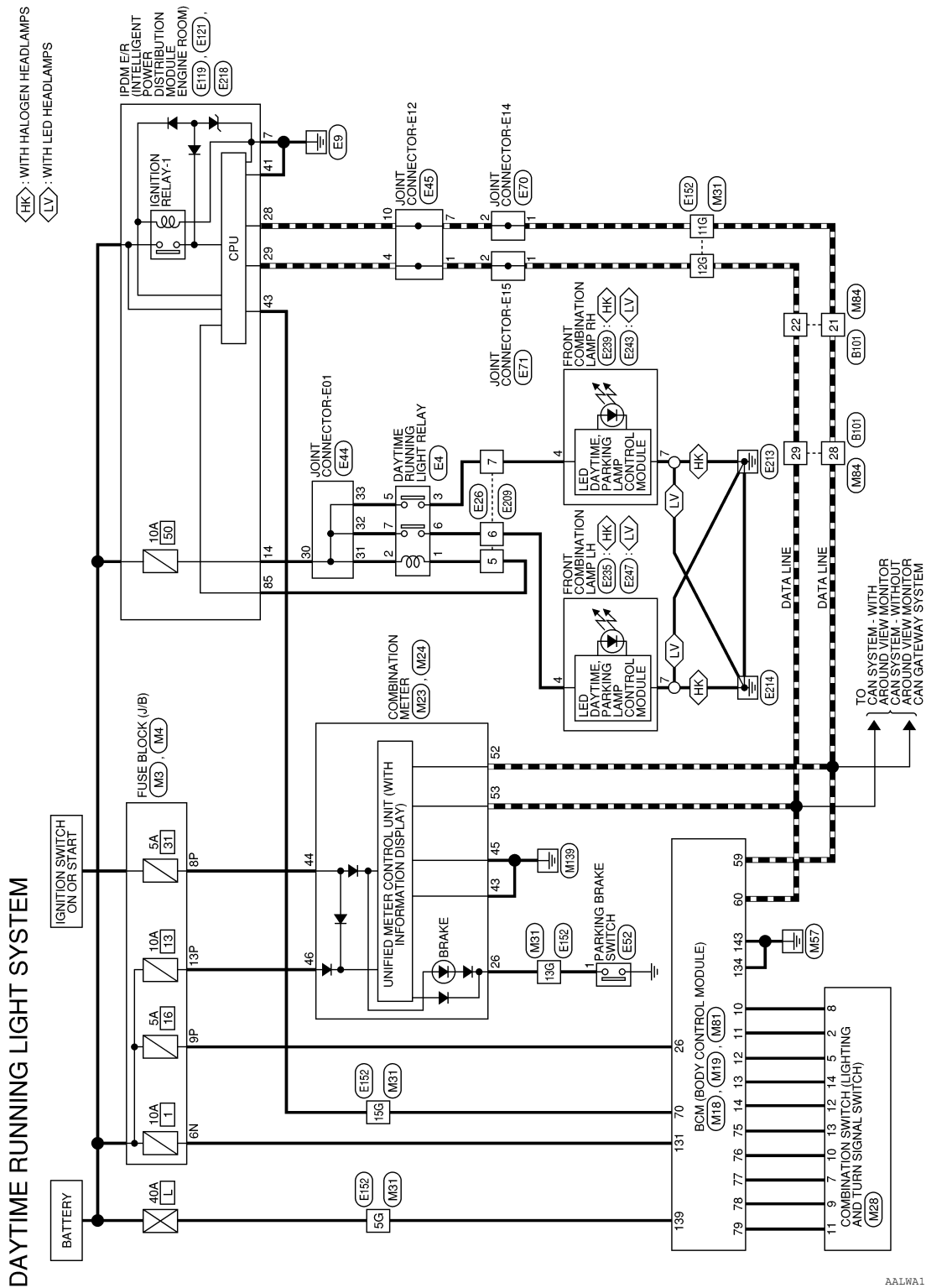
[LED HEADLAMP]

< WIRING DIAGRAM >

DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram

INFOID:0000000011564104



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DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

DAYTIME RUNNING LIGHT SYSTEM CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



3N	2N	1N
8N	7N	6N
5N	4N	



7P	8P	5P	4P
16P	15P	14P	13P
12P	11P	10P	9P
8P			

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

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



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

Terminal No.	Color of Wire	Signal Name
6N	W	-

Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



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
26	BR	PKB SW

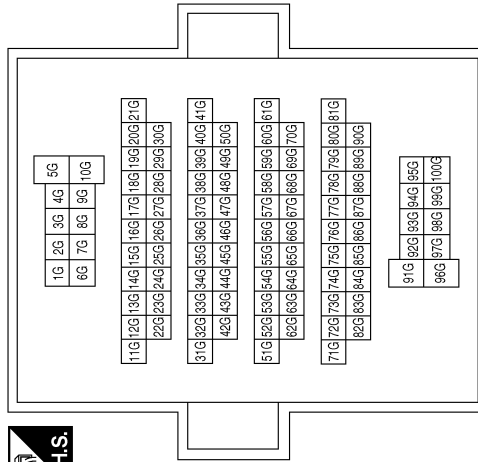
DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

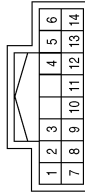
[LED HEADLAMP]

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
13G	BR	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

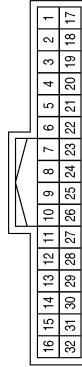


Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

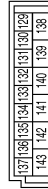
Connector No.	E4
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Color	BROWN



Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	-
2	LG	-
3	BR	-
5	LG	-
6	SB	-
7	LG	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

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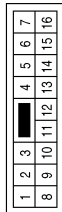
A B C D E F G H I J K EXL M N O P

DAYTIME RUNNING LIGHT SYSTEM

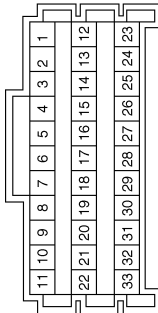
< WIRING DIAGRAM >

[LED HEADLAMP]

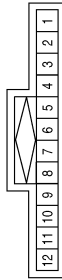
Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
5	Y	-
6	SB	-
7	BR	-

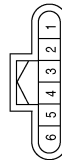
Terminal No.	Color of Wire	Signal Name
30	LG	-
31	LG	-
32	LG	-
33	LG	-

Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

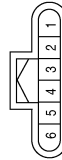
Connector No.	E52
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	LG	-

Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

7	8		9	10	11
12	13	14	15	16	17
				18	



Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
7	B	P-GND
14	LG	DTRL

Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Color	WHITE

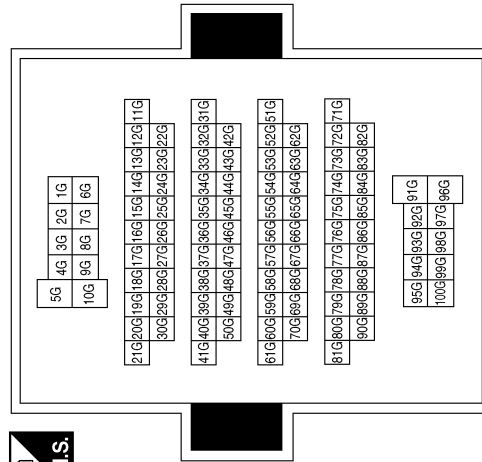
7	6	5	4	3	2	1
16	15	14	13		11	8
				10	9	



Terminal No.	Color of Wire	Signal Name
5	Y/V	-
6	GR/BR	-
7	W/G	-

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
13G	LG	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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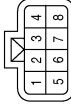
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DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

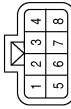
[LED HEADLAMP]

Connector No.	E239
Connector Name	FRONT COMBINATION LAMP RH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



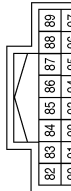
Terminal No.	Color of Wire	Signal Name
4	W/G	-
7	B	-

Connector No.	E235
Connector Name	FRONT COMBINATION LAMP LH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



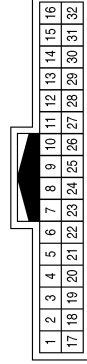
Terminal No.	Color of Wire	Signal Name
4	GR/BR	-
7	B	-

Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



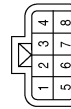
Terminal No.	Color of Wire	Signal Name
85	Y/V	DTRL RLY

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



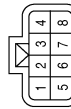
Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Connector No.	E247
Connector Name	FRONT COMBINATION LAMP LH (WITH LED HEADLAMPS)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
4	GR/BR	-
7	B	-

Connector No.	E243
Connector Name	FRONT COMBINATION LAMP RH (WITH LED HEADLAMPS)
Connector Color	BLACK



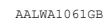
Terminal No.	Color of Wire	Signal Name
4	W/G	-
7	B	-

AALIA3029GB

[LED HEADLAMP]

AUTO LIGHT SYSTEM

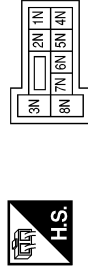
INFOID:0000000011564105



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AUTO LIGHT SYSTEM CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	-

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



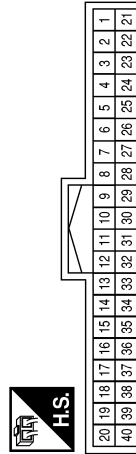
Terminal No.	Color of Wire	Signal Name
9P	L	-

Connector No.	M15
Connector Name	OPTICAL SENSOR
Connector Color	WHITE



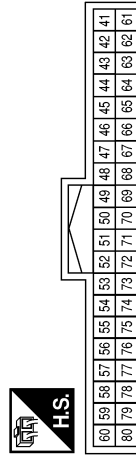
Terminal No.	Color of Wire	Signal Name
1	W	-
2	G	-
3	R	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



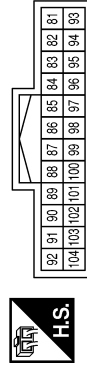
Terminal No.	Color of Wire	Signal Name
3	W	A/L POWER SUPPLY 5V
4	G	A/L SIGNAL
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
17	R	GND RF A/L
26	L	SHORTING INPUT

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



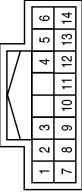
Terminal No.	Color of Wire	Signal Name
82	W	RL DOOR SW
93	R	RR DOOR SW
94	G	AS DOOR SW
96	BG	DR DOOR SW

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

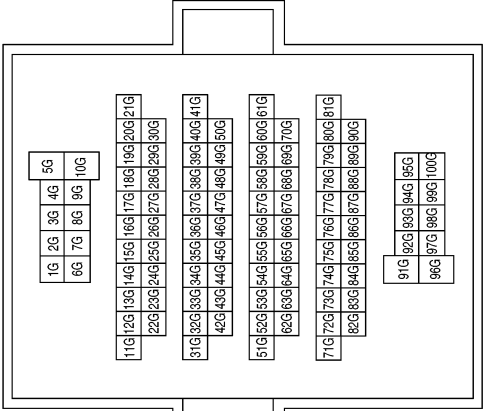
[LED HEADLAMP]

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



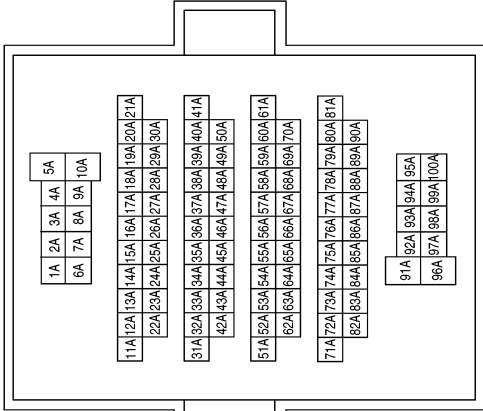
Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
76A	BG	-
77A	W	-

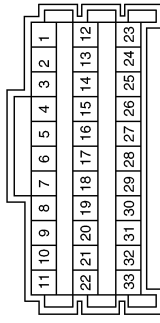
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AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



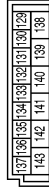
Terminal No.	Color of Wire	Signal Name
23	BG	-
25	BG	-

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



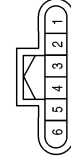
Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-
31	R	-
32	G	-

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



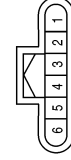
Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



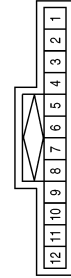
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

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AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

7	8			9	10	11
12	13	14	15	16	17	18



Terminal No.	Color of Wire	Signal Name
7	B	P-GND
9	G	TAIL RH
10	L	TAIL LH

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

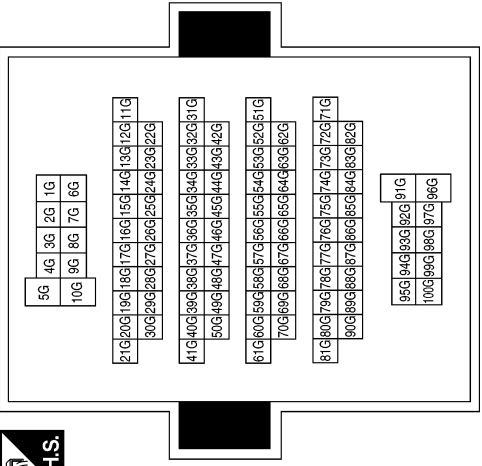
74		75	76	
77	78	79	80	81



Terminal No.	Color of Wire	Signal Name
75	SB	HEADLAMP LO RH (WITH LED HEADLAMPS)
75	L/W	HEADLAMP LO RH (WITH HALOGEN HEADLAMPS)
76	L	HEADLAMP LO LH
80	LG	HEADLAMP HI RH (WITH LED HEADLAMPS)
80	G/W	HEADLAMP HI RH (WITH HALOGEN HEADLAMPS)
81	G	HEADLAMP HI LH

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE

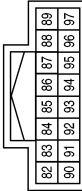


AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

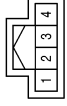
[LED HEADLAMP]

Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

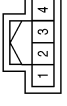
Terminal No.	Color of Wire	Signal Name
90	GR	CLEARANCE

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE

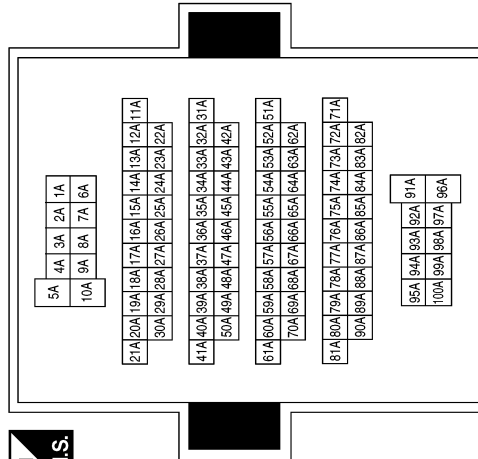
Terminal No.	Color of Wire	Signal Name
3	O	—

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE

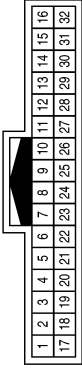



Terminal No.	Color of Wire	Signal Name
3	W	—

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	GRAY

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
21	P	—
22	L	—
28	P	—
29	L	—
31	G/W	—
32	V	—

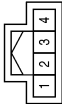
AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

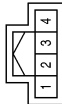
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Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	3
Color of Wire	GW
Signal Name	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



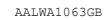
Terminal No.	3
Color of Wire	V
Signal Name	-

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[LED HEADLAMP]

FRONT FOG LAMP SYSTEM

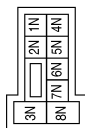
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[LED HEADLAMP]

< WIRING DIAGRAM >

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	-



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



Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-



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

Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

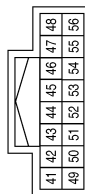


60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1



Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	I	CAN-H

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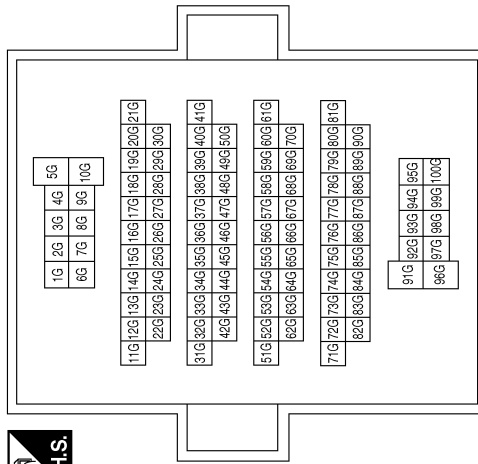
FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

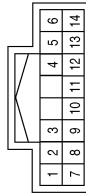
[LED HEADLAMP]

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

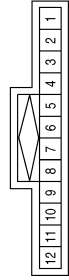


Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

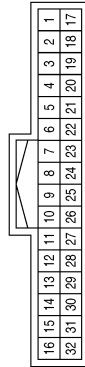


Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

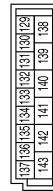
Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

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FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK

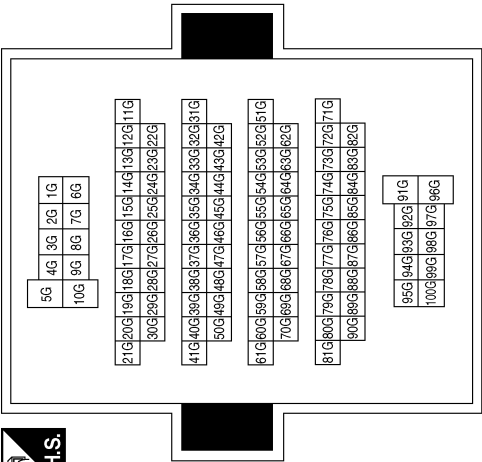


6	5	4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



7	8			9	10	11
12	13	14	15	16	17	18

Terminal No.	Color of Wire	Signal Name
7	B	P-GND

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FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

74		75	76
77	78	79	80
			81



Terminal No.	Color of Wire	Signal Name
78	W	FR FOG LAMP RH
79	L	FR FOG LAMP LH

Connector No.	E241
Connector Name	FRONT FOG LAMP RH
Connector Color	BLACK



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

Connector No.	E242
Connector Name	FRONT FOG LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	B	-

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



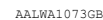
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

[LED HEADLAMP]

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

INFOID:0000000011564108

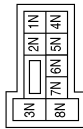


[LED HEADLAMP]

< WIRING DIAGRAM >

TURN SIGNAL AND HAZARD WARNING LAMPS CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	—

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



Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

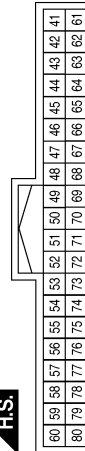
Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



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

Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT
36	W	HAZARD SW

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
92	R	RR FLASHER
103	BG	RL FLASHER

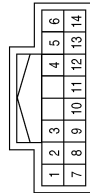
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

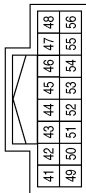
Terminal No.	Color of Wire	Signal Name
11	W	-
12	P	-
13	BG	-
14	G	-

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-

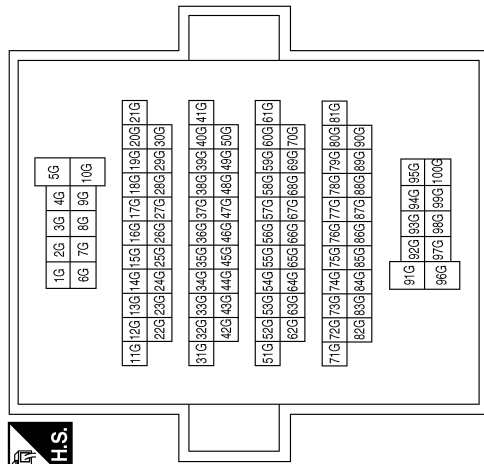
Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Terminal No.	Color of Wire	Signal Name
1G	SB	-
5G	L	-
7G	LG	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AALIA3070GB

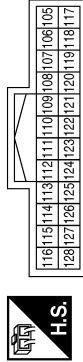
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J
K
EXL
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TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

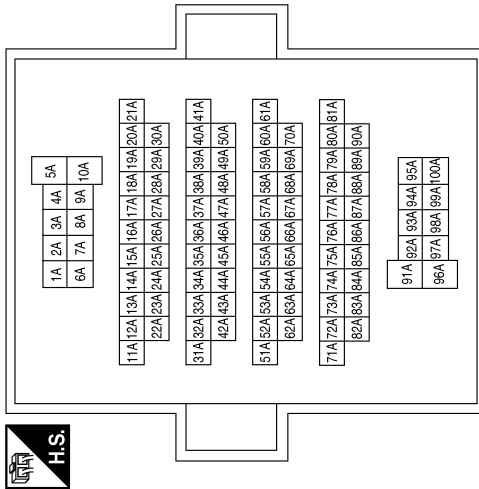
Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



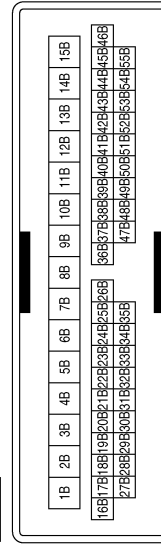
Terminal No.	Color of Wire	Signal Name
105	LG	FR SR FLASHER
117	SB	FL SL FLASHER

Terminal No.	Color of Wire	Signal Name
73A	BG	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY

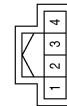


Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE



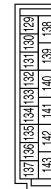
Terminal No.	Color of Wire	Signal Name
15B	B	-
32B	LG	-

Connector No.	M83
Connector Name	HAZARD SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	B	-

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND 2
139	L	BAT POWER F/L
143	GR	GND 1

AALIA3071GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

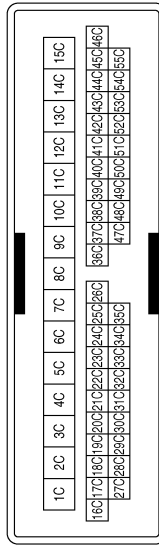
[LED HEADLAMP]

Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Connector No.	M168
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	W	-
11	G	-

Terminal No.	Color of Wire	Signal Name
15C	B	-
32C	SB	-

Terminal No.	Color of Wire	Signal Name
8	R	-

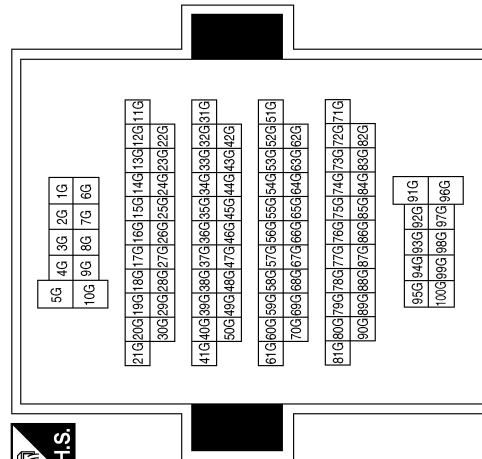
Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
1G	W	-
5G	P	-
7G	G	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
10	BR	-
11	GR	-

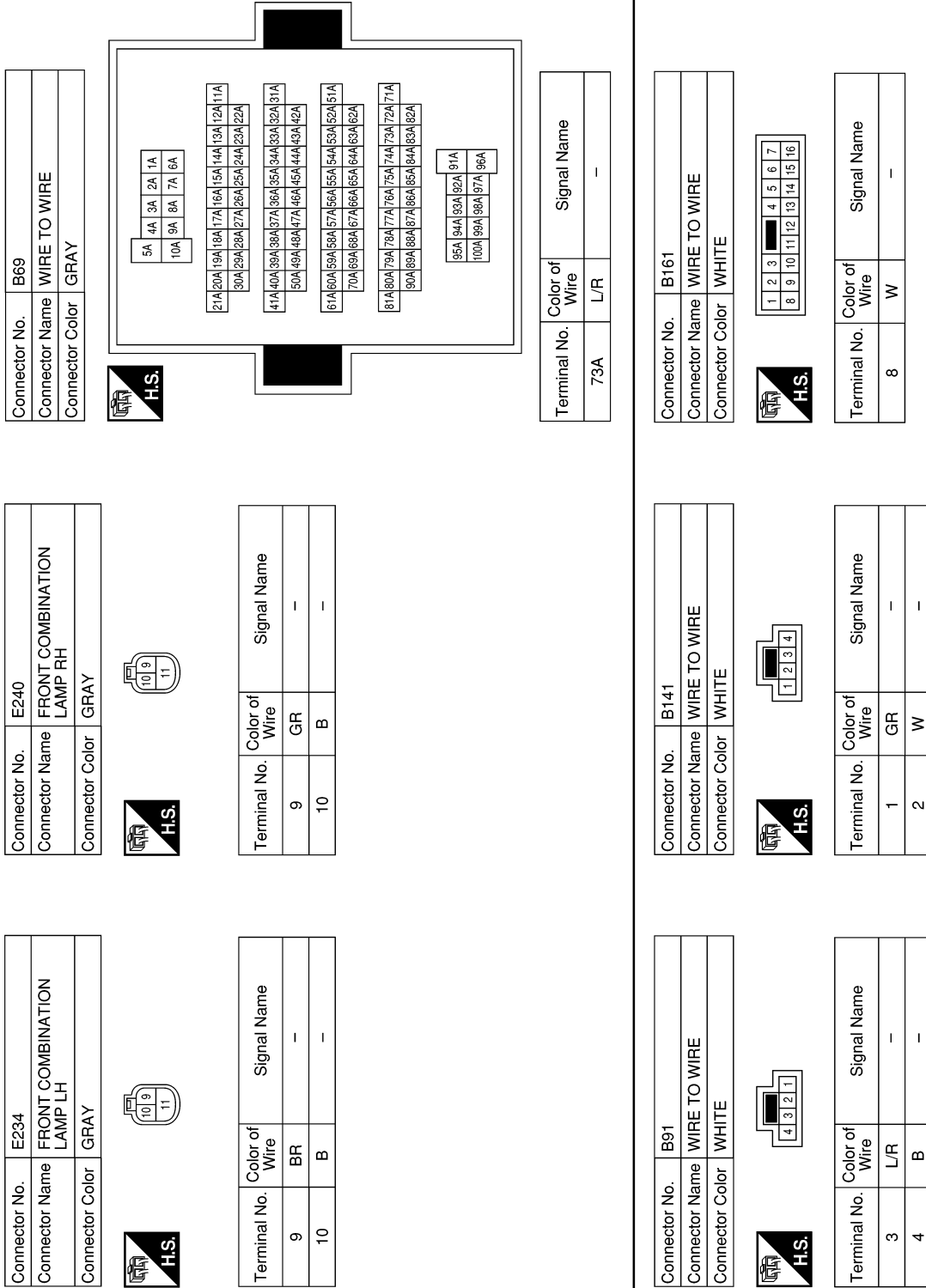
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AALIA3072GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]



AALIA3073GB

[LED HEADLAMP]

A
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F
G
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K
EXL
M
N
O
P



Terminal No.	Color of Wire	Signal Name
7	GR	-
8	W	-



Terminal No.	Color of Wire	Signal Name
3	L/R	-
4	GR	-

2015 Murano

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	D107
Connector Name	DOOR MIRROR RH
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
20	G/O	—
21	B/W	—

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B
46B	45B	44B	43B	42B	41B	40B	39B	38B	37B	36B	35B	34B	33B	32B
31B	30B	29B	28B	27B	26B	25B	24B	23B	22B	21B	20B	19B	18B	17B
16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B

Terminal No.	Color of Wire	Signal Name
15B	B	—
32B	G/O	—

AALIA3075GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

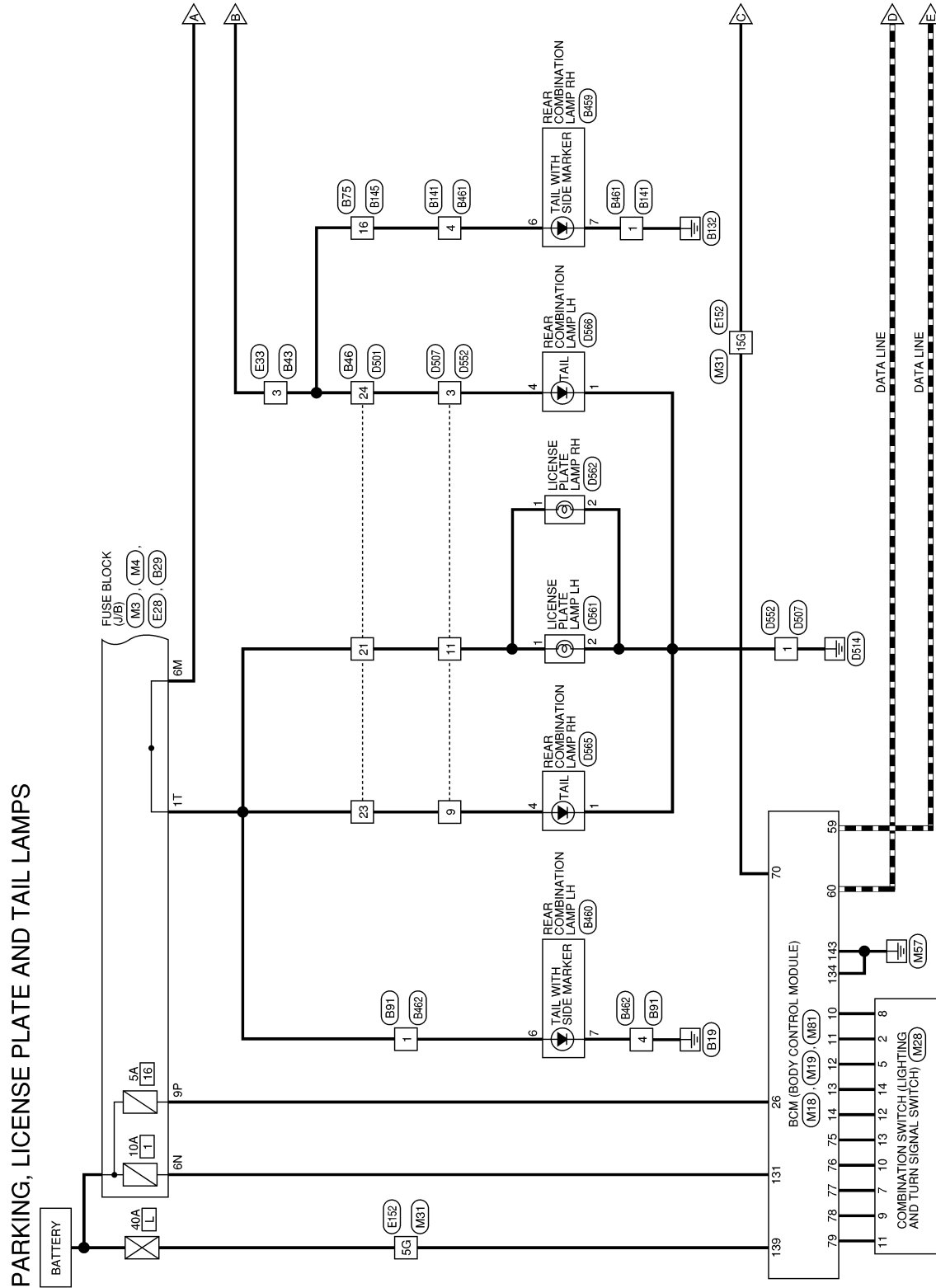
< WIRING DIAGRAM >

[LED HEADLAMP]

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram

INFOID:0000000011564109



AALWA1070GB

[LED HEADLAMP]

AAI.WA1071GB

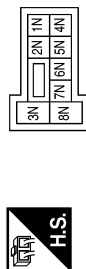
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

PARKING, LICENSE PLATE AND TAIL LAMPS CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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



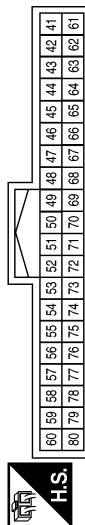
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
6N	W	-

Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56

Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

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

Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

AALIA3058GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

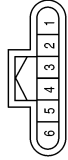
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

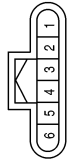
[LED HEADLAMP]

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



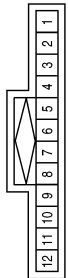
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



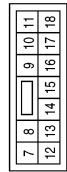
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



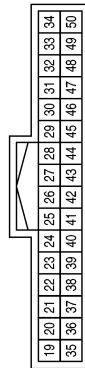
Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	B	P-GND
9	G	TAIL RH
10	L	TAIL LH

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

AALIA3060GB

A
B
C
D
E
F
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EXL
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N
O
P

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	B43
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3
4	5	6
7	8	



Terminal No.	Color of Wire	Signal Name
3	W	—

Connector No.	B29
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

2T	1T
6T	5T
4T	3T



Terminal No.	Color of Wire	Signal Name
1T	O	—

Connector No.	E247
Connector Name	FRONT COMBINATION LAMP RH (WITH LED HEADLAMPS)
Connector Color	BLACK

1	2	3	4
5	6	7	8



Terminal No.	Color of Wire	Signal Name
3	O	—
7	B	—
8	P	—

Connector No.	B91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	O	—
4	B	—

Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Color	GRAY

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



Terminal No.	Color of Wire	Signal Name
16	W	—

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
21	R	—
23	L	—
24	W	—

AALIA3062GB

A
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	B145
Connector Name	WIRE TO WIRE
Connector Color	GRAY

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



Terminal No.	Color of Wire	Signal Name
16	W	—

Connector No.	B141
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	GR	—
4	W	—

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
21	P	—
22	L	—
28	P	—
29	L	—

Connector No.	B461
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
1	GR	—
4	W	—

Connector No.	B460
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

6	5	8	7
---	---	---	---



Terminal No.	Color of Wire	Signal Name
6	W	—
7	GR	—

Connector No.	B459
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

6	5	8	7
---	---	---	---



Terminal No.	Color of Wire	Signal Name
6	W	—
7	GR	—

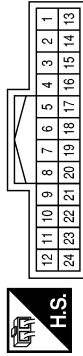
AALIA3063GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

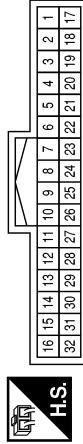
[LED HEADLAMP]

Connector No.	D507
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
3	W	-
9	L	-
11	O	-

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	O	-
23	L	-
24	W	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
4	GR	-

Connector No.	D562
Connector Name	LICENSE PLATE LAMP RH
Connector Color	BROWN



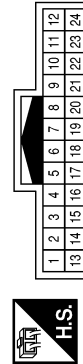
Terminal No.	Color of Wire	Signal Name
1	O	-
2	B	-

Connector No.	D561
Connector Name	LICENSE PLATE LAMP LH
Connector Color	BROWN



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

Connector No.	D552
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
3	W	-
9	L	-
11	O	-

AALIA3064GB

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	D566
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
4	W	-

Connector No.	D565
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



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

AALIA3065GB

STOP LAMP

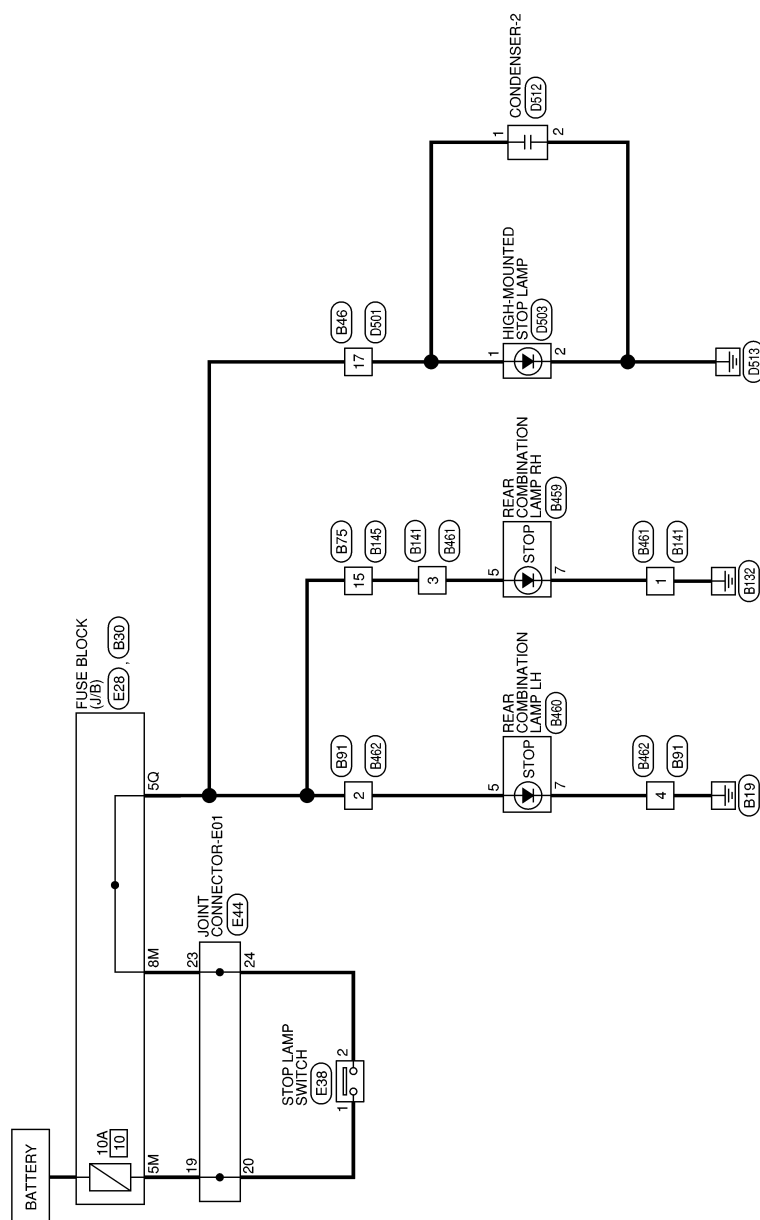
< WIRING DIAGRAM >

[LED HEADLAMP]

STOP LAMP

Wiring Diagram

INFOID:0000000011564110



STOP LAMP

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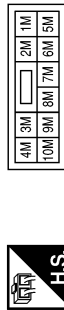
STOP LAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

STOP LAMP CONNECTORS

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



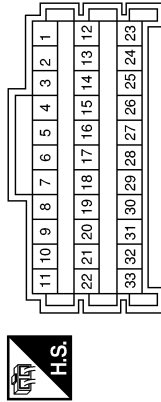
Terminal No.	Color of Wire	Signal Name
5M	W	-
8M	P	-

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	P	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



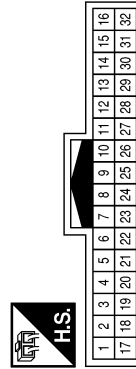
Terminal No.	Color of Wire	Signal Name
19	W	-
20	W	-
23	P	-
24	P	-

Connector No.	B30
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5Q	G	-

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	G	-

Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
15	G	-

STOP LAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	B145
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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

Terminal No.	Color of Wire	Signal Name
15	G	-

Connector No.	B141
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	GR	-
3	G	-

Connector No.	B91
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

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

Connector No.	B461
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	GR	-
3	G	-

Connector No.	B460
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY



6	5
8	7

Terminal No.	Color of Wire	Signal Name
5	G	-
7	GR	-

Connector No.	B459
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY



6	5
8	7

Terminal No.	Color of Wire	Signal Name
5	G	-
7	GR	-

AALIA3067GB

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STOP LAMP

< WIRING DIAGRAM >

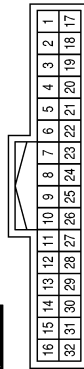
[LED HEADLAMP]

Connector No.	D503
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Color	BROWN



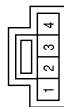
Terminal No.	Color of Wire	Signal Name
1	G/W	-
2	B	-

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	G/W	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
4	GR	-

Connector No.	D512
Connector Name	CONDENSER-2
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	G/W	-
2	B	-

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BACK-UP LAMP

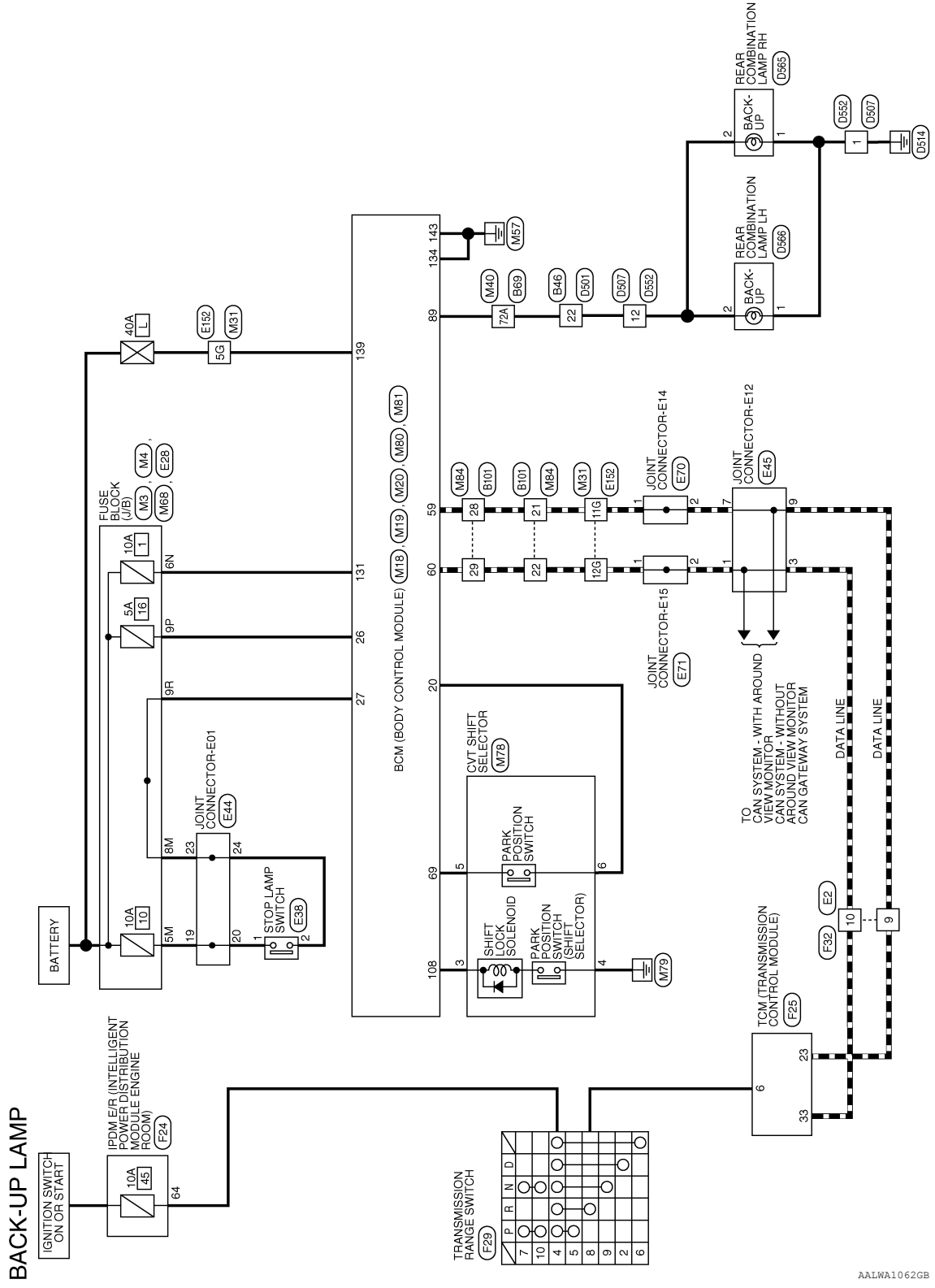
< WIRING DIAGRAM >

[LED HEADLAMP]

BACK-UP LAMP

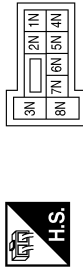
Wiring Diagram

INFOID:0000000011564111



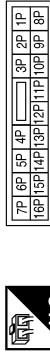
BACK-UP LAMP CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



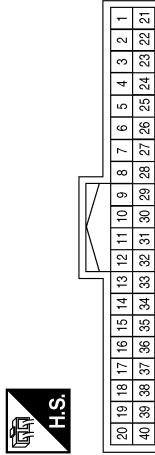
Terminal No.	Color of Wire	Signal Name
6N	W	-

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



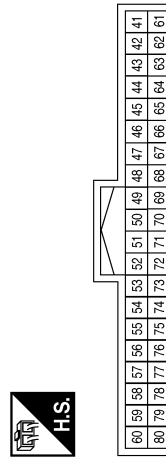
Terminal No.	Color of Wire	Signal Name
9P	L	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



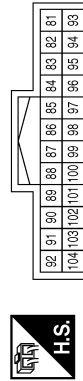
Terminal No.	Color of Wire	Signal Name
20	W	SHIFT P
26	L	SHORTING INPUT
27	G	BRAKE SW LAMP

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
69	G	AT DEVICE OUT

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
89	LG	REVERSE LAMP OUT

BACK-UP LAMP

< WIRING DIAGRAM >

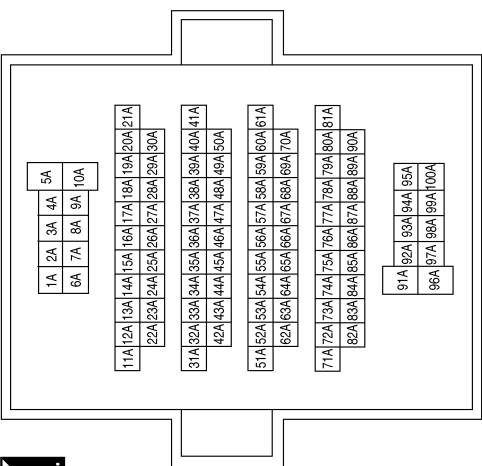
[LED HEADLAMP]

Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



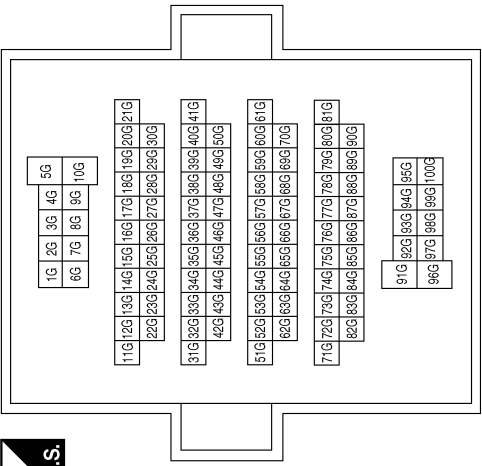
Terminal No.	Color of Wire	Signal Name
9R	G	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
72A	LG	-

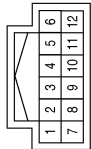
Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-

Terminal No.	Color of Wire	Signal Name
3	G	-
4	B	-
5	G	-
6	W	-

Connector No.	M78
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



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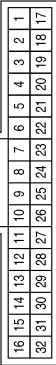
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BACK-UP LAMP

< WIRING DIAGRAM >

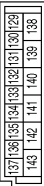
[LED HEADLAMP]

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE

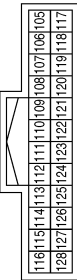
Terminal No.	Color of Wire	Signal Name
21	P	—
22	L	
28	P	
29	L	

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK

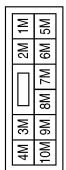
Terminal No.	Color of Wire	Signal Name
108	G	SHIFT LOCK SOLENOID OUT

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE




Terminal No.	Color of Wire	Signal Name
1	W	—
2	P	—

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
5M	W	—
8M	P	—

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE




Terminal No.	Color of Wire	Signal Name
9	P	—
10	L	—

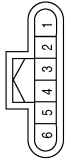
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BACK-UP LAMP

< WIRING DIAGRAM >

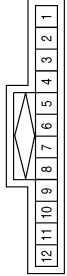
[LED HEADLAMP]

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



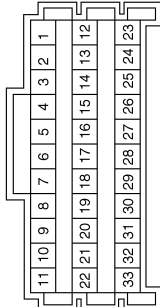
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



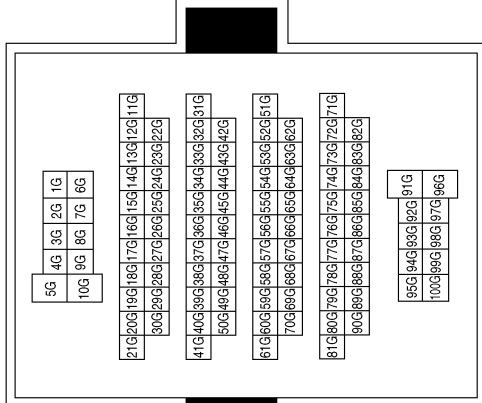
Terminal No.	Color of Wire	Signal Name
1	L	-
3	L	-
7	P	-
9	P	-

Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE

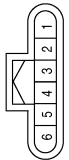


Terminal No.	Color of Wire	Signal Name
19	W	-
20	W	-
23	P	-
24	P	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

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BACK-UP LAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	F29
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



6	5	4	3	2	1
10	9	8	7		

Terminal No.	Color of Wire	Signal Name
4	LG	—
8	BR	—

Connector No.	F25
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



31	32	33	34	35	36	37	38	39	40	47	48
21	22	23	24	25	26	27	28	29	30	45	46
11	12	13	14	15	16	17	18	19	20	43	44
1	2	3	4	5	6	7	8	9	10	41	42

Terminal No.	Color of Wire	Signal Name
6	BR	R RANGE SW
23	P	CAN-L
33	L	CAN-H

Connector No.	F24
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



62	63	64	65	66	67
68	69	70	71	72	73

Terminal No.	Color of Wire	Signal Name
64	LG	START IG EGI

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
22	G/W	—

Connector No.	F32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
9	P	—
10	L	—

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BACK-UP LAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

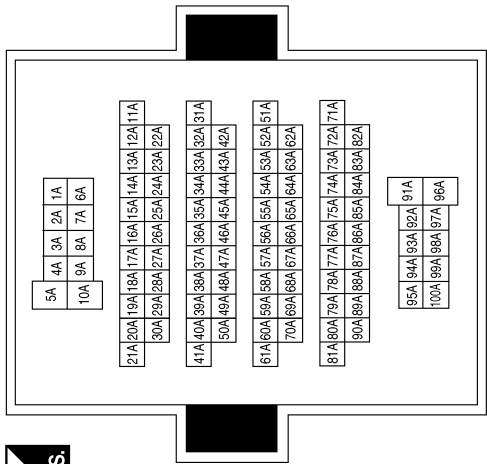


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
72A	G/W	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Connector No.	D552
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	D507
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	B	-
12	G/W	-

Terminal No.	Color of Wire	Signal Name
1	B	-
12	G/W	-

Terminal No.	Color of Wire	Signal Name
22	G/W	-

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BACK-UP LAMP

< WIRING DIAGRAM >

[LED HEADLAMP]

Connector No.	D566
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	G/W	-

Connector No.	D565
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	G/W	-

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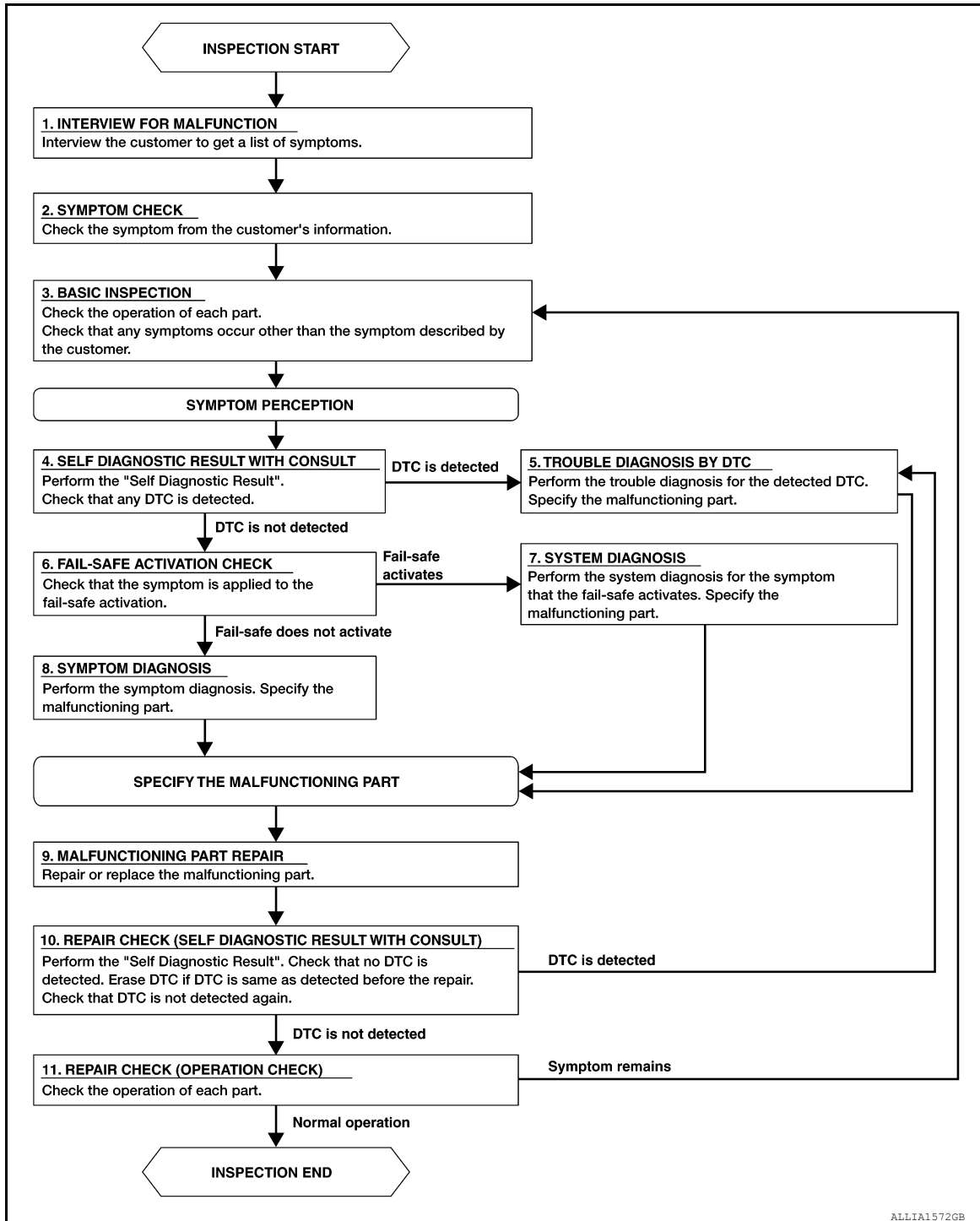
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000011564144

OVERALL SEQUENCE



ALLIA1572GB

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[LED HEADLAMP]

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2.

2. SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3.

3. BASIC INSPECTION

Check the operation of each part. Check any concerns that occur other than those mentioned in the customer interview.

>> GO TO 4.

4. SELF DIAGNOSTIC RESULT WITH CONSULT

Perform the "Self Diagnostic Result". 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

Determine if the customer's concern is related to 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 in which 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 DIAGNOSTIC RESULT WITH CONSULT)

Perform the "Self Diagnostic Result". Verify that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again.

Is any DTC detected?

DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[LED HEADLAMP]

YES >> GO TO 5.
NO >> GO TO 11.

A

11.REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

B

Does it operate normally?

YES >> Inspection End.
NO >> GO TO 3.

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LED HEADLAMP OPERATION INSPECTION

Work Procedure

INFOID:0000000011517232

1. CHECK START

1. In the cool LED status (wait for more than 10 minutes after turning headlamp OFF), turn ON and turn OFF headlamp several times. Check that headlamp operates normally each time.
2. In the cool LED status, turn headlamp ON, wait until headlamp enters the stable status (approximately 5 minutes after turning headlamp ON) and then check that headlamp operates normally without blinking or flickering.
3. In the warm LED status (turn headlamp ON for more than 15 minutes and wait for 1 minute after turning OFF), turn ON and turn OFF the headlamp several times. Check that headlamp operates normally each time.
4. Turn headlamp ON for approximately 30 minutes and then check that headlamp operates normally without difference in brightness between LH and RH, blinking or flickering.

Is the inspection result normal?

- YES >> Inspection End.
NO >> Refer to [EXL-115, "Symptom Table"](#).

DTC/CIRCUIT DIAGNOSIS

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:0000000011565198

1. CHECK HEADLAMP (HI) OPERATION

④ With CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the headlamp (HI) blinks.

Hi : Headlamp (HI) blinks (ON/OFF is repeated
1 second each.)

Off : Headlamp (HI) OFF

⊗ Without CONSULT

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

Is the inspection result normal?

- YES >> Headlamp (HI) circuit is normal.
NO >> Refer to [EXL-89, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011565199

1. CHECK HEADLAMP (HI) FUSE

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

Unit	Location	Fuse No.	Capacity
Headlamp HI (RH)	IPDM E/R	34	10A
Headlamp HI (LH)		35	

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

④ With CONSULT

1. Disconnect applicable front combination lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable front combination lamp harness connector and ground.

+			-	Test item		Voltage
Front combination lamp						
Connector	Terminal					
RH	E243	2	Ground	EXTERNAL LAMPS	Hi	Battery voltage
					Off	0
LH	E247				Hi	Battery voltage
					Off	0

Is the inspection result normal?

- YES >> Perform the LED headlamp diagnosis. Refer to [EXL-96, "Diagnosis Procedure"](#).
NO >> GO TO 3.

3. CHECK HEADLAMP (HI) POWER SUPPLY CIRCUIT

HEADLAMP (HI) CIRCUIT

[LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

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

Front combination lamp		IPDM E/R		Continuity
Connector		Terminal	Connector	
RH	E243	2	E217	80
LH	E247			81

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-37, "Removal and Installation"](#).
- NO >> Repair or replace harness.

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

HEADLAMP (LO) CIRCUIT

Component Function Check

INFOID:0000000011565200

1.CHECK HEADLAMP (LO) OPERATION

Ⓐ With CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the headlamp (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Ⓑ Without CONSULT

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

Is the inspection result normal?

YES >> Headlamp (LO) circuit is normal.

NO >> Refer to [EXL-91, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011565201

1.CHECK HEADLAMP (LO) FUSE

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

Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	36	15A
Headlamp LO (LH)		37	

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓐ With CONSULT

1. Disconnect applicable front combination lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable front combination lamp harness connector and ground.

+		-	Test item	Voltage		
Front combination lamp						
Connector	Terminal					
RH	E243	1	Ground	EXTERNAL LAMPS	Lo	Battery voltage
					Off	0
LH	E247				Lo	Battery voltage
					Off	0

Is the inspection result normal?

YES >> Perform the LED headlamp diagnosis. Refer to [EXL-96, "Diagnosis Procedure"](#).

NO >> GO TO 3.

3.CHECK HEADLAMP (LO) POWER SUPPLY CIRCUIT

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

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

Front combination lamp		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
RH	E243	E217	75	Yes
LH	E247		76	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).
NO >> Repair or replace harness.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

DAYTIME RUNNING LIGHT RELAY CIRCUIT

Component Function Check

INFOID:0000000011564118

1.CHECK DAYTIME RUNNING LIGHT OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check daytime running light operation.

On : EXTERNAL LAMPS Hi
Off : EXTERNAL LAMPS Off

Is the inspection result normal?

- YES >> Daytime running light relay circuit is normal.
NO >> Refer to [EXL-93, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564119

Regarding Wiring Diagram information. Refer to [EXL-37, "Wiring Diagram"](#).

1.CHECK DAYTIME RUNNING LIGHT RELAY FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Fuse No.	Capacity
Daytime running light relay	50	10A

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2.CHECK DAYTIME RUNNING LIGHT RELAY POWER SUPPLY

1. Remove daytime running light relay.
2. Check voltage between daytime running light relay harness connector and ground.

(+)		(-)	Voltage (Approx.)
Daytime running light relay			
Connector	Terminal		
E4	2	Ground	Battery voltage
	7		
	5		

Is the inspection result normal?

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

3.CHECK DAYTIME RUNNING LIGHT RELAY

Check daytime running light relay. Refer to [EXL-94, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace daytime running light relay.

4.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL OUTPUT

CONSULT

1. Install daytime running light relay.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

[LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
- While operating the test item, check voltage between IPDM E/R harness connector and ground.

(+)		(-)	Test item		Voltage (Approx.)
IPDM E/R					
Connector	Terminal				
E218	85	Ground	EXTERNAL LAMPS	On	0 V
				Off	Battery voltage

Is the inspection result normal?

YES >> Daytime running light relay circuit is OK.

NO-1 (Fixed at 0 V)>>GO TO 5.

NO-2 (Fixed at battery voltage) >>Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

5.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL (OPEN) CIRCUIT

- Turn ignition switch OFF.
- Remove daytime running light relay.
- Disconnect IPDM E/R harness connector.
- Check continuity between IPDM E/R harness connector and daytime running light relay harness connector.

IPDM E/R		Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	
E218	85	E4	1	Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL (SHORT) CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E218	85		No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

NO >> Repair or replace harness.

Component Inspection

INFOID:0000000011564120

1.CHECK DAYTIME RUNNING LIGHT RELAY

- Turn ignition switch OFF.
- Remove daytime running light relay.
- Apply battery voltage to daytime running light relay between terminals 1 and 2.
- Check continuity between daytime running light relay terminals.

Daytime running light relay		Condition		Continuity
Terminal				
7	6	Voltage	Apply	Yes
			Not Apply	No
5	3		Apply	Yes
			Not Apply	No

Is the inspection result normal?

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

YES >> Daytime running light relay is normal.
NO >> Replace daytime running light relay.

A

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LED HEADLAMP

Diagnosis Procedure

INFOID:0000000011564121

Regarding Wiring Diagram information. Refer to [EXL-30, "Wiring Diagram"](#).

1. CHECK HEADLAMP (LO) GROUND CIRCUIT

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

Front combination lamp			Ground	Continuity
Connector		Terminal		Yes
RH	E243	5		
LH	E247			

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2. CHECK LED HEADLAMP CONTROL MODULE

Install the normal LED headlamp control module to the applicable headlamp. Check that the lighting switch is turned ON. Refer to [EXL-10, "LED Headlamp Control Module"](#).

Is the headlamp turned ON?

YES >> Replace LED headlamp control module. Refer to [EXL-128, "Removal and Installation"](#).

NO >> GO TO 3.

3. CHECK HEADLAMP

Install the normal headlamp to the applicable headlamp. Check that the headlamp is turned ON. Refer to [EXL-96, "Diagnosis Procedure"](#).

Is the headlamp turned ON?

YES >> Replace headlamp. Refer to [EXL-128, "Removal and Installation"](#).

NO >> LED headlamp is normal. Check headlamp control system.

PARKING LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

PARKING LAMP CIRCUIT

Component Function Check

INFOID:0000000011564124

1.CHECK PARKING LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the inspection result normal?

- YES >> Parking lamp circuit is normal.
NO >> Refer to [EXL-97, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564125

Regarding Wiring Diagram information. Refer to [EXL-63, "Wiring Diagram"](#).

1.CHECK PARKING LAMP FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Location	Fuse No.	Capacity
• Parking lamps • Front side marker lamps	IPDM E/R	52	10A

Is the inspection result normal?

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

2.CHECK PARKING LAMP CIRCUIT

1. Disconnect the following connectors:
 - IPDM E/R
 - Front combination lamps
 - Rear combination lamps
2. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		No
E218	90		

Is the inspection result normal?

- YES >> Replace fuse. (Replace IPDM E/R if blown fuse is found again.)
NO >> Replace the blown fuse after repairing the affected circuit.

3.CHECK PARKING LAMP

Check applicable LED lamp.

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace applicable LED lamp.

4.CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect front combination lamp connector.

PARKING LAMP CIRCUIT

[LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
- While operating the test items, check voltage between IPDM E/R harness connector and ground.

(+)		(−)	Test item		Voltage (Approx.)
IPDM E/R					
Connector	Terminal				
E218	90	Ground	EXTERNAL LAMPS	TAIL	Battery voltage
				Off	0 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

5. CHECK PARKING LAMP POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect IPDM E/R connector.
- Check continuity between IPDM E/R harness connector and front combination lamp harness connector.

Front combination lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	E243	3	E218	90	Yes
LH	E247				

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6. CHECK PARKING LAMP GROUND CIRCUIT

Check continuity between front combination lamp harness connector and ground.

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E243	7		Yes
LH	E247			

Is the inspection result normal?

YES >> Check corresponding lamp socket and harness. Repair or replace if necessary.

NO >> Repair or replace harness.

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

FRONT SIDE MARKER LAMP CIRCUIT

Component Function Check

INFOID:0000000011564126

1.CHECK PARKING LAMP OPERATION

Check that the parking lamp is turned ON.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check parking lamp circuit. Refer to [EXL-97, "Component Function Check"](#).

2.CHECK FRONT SIDE MARKER LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".

2. While operating the test items, check that the front side marker lamp is turned ON.

TAIL : Front side marker lamp ON

Off : Front side marker lamp OFF

Is the inspection result normal?

YES >> Front side marker lamp circuit is normal.

NO >> Refer to [EXL-99, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564127

Regarding Wiring Diagram information. Refer to [EXL-63, "Wiring Diagram"](#).

1.CHECK FRONT SIDE MARKER LAMP BULB

Check applicable lamp bulb.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb.

2.CHECK FRONT SIDE MARKER LAMP POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R connector and front side marker lamp connector.

3. Check continuity between IPDM E/R harness connector and front side marker lamp harness connector.

EXL

Front combination lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	E243	8	E218	90	Yes
LH	E247				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK FRONT SIDE MARKER LAMP GROUND CIRCUIT

Check continuity between front side marker lamp harness connector and ground.

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E243	7		Yes
LH	E247			

Is the inspection result normal?

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.
NO >> Repair or replace harness.

TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

TAIL LAMP CIRCUIT

Component Function Check

INFOID:0000000011564128

1.CHECK TAIL LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the tail lamp is turned ON.

TAIL : Tail Lamp ON
Off : Tail lamp OFF

Is the inspection result normal?

- YES >> Tail lamp circuit is normal.
NO >> Refer to [EXL-101, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564129

Regarding Wiring Diagram information. Refer to [EXL-63, "Wiring Diagram"](#).

1.CHECK PARKING LAMP OPERATION

Check that the parking lamp is turned ON.

Is the inspection result normal?

- YES [When tail lamp RH or LH does not turn ON.]>>GO TO 2.
NO >> Check parking lamp circuit. Refer to [EXL-97, "Component Function Check"](#).

2.CHECK TAIL LAMP (LH) FUSE

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

Unit	Location	Fuse No.	Capacity
Tail lamp RH	IPDM E/R	52	10A
Tail lamp LH		51	

Is the inspection result normal?

- YES >> GO TO 3.
NO >> Replace the blown fuse after repairing the affected circuit.

3.CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect rear combination lamp RH or LH connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable rear combination lamp harness connector and ground.

(+) Rear combination lamp		(-)	Test item	Voltage (Approx.)		
Connector	Terminal					
RH	D565	4	Ground	EXTERNAL LAMPS	TAIL	Battery voltage
					Off	0 V
LH	D566				TAIL	Battery voltage
					Off	0 V

TAIL LAMP CIRCUIT

[LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 4.

4. CHECK TAIL LAMP POWER SUPPLY (SHORT) CIRCUIT

1. Disconnect IPDM E/R connector and rear combination lamp RH or LH connector.
2. Check continuity between IPDM E/R harness connector and ground.

(+)		(-)	Continuity
IPDM E/R			
Connector	Terminal		
E121	9	Ground	No
	10		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK TAIL LAMP POWER SUPPLY (OPEN) CIRCUIT

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

Rear combination lamp		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
RH	B459	E121	9	Yes
LH	B460		10	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#)

NO >> Repair or replace harness.

6. CHECK TAIL LAMP GROUND CIRCUIT

Check continuity between rear combination lamp harness connector and ground.

Rear combination lamp		Ground	Continuity
Connector	Terminal		
RH	B459		Yes
LH	B460	7	

Is the inspection result normal?

YES >> Replace rear combination lamp. Refer to [EXL-136. "Removal and Installation"](#).

NO >> Repair or replace harness.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

INFOID:0000000011564130

1.CHECK TAIL LAMP LH OPERATION

Check that the tail lamp LH is turned ON.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check tail lamp circuit. Refer to [EXL-101, "Component Function Check"](#).

2.CHECK LICENSE PLATE LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".

2. While 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 inspection result normal?

YES >> License plate lamp circuit is normal.

NO >> Refer to [EXL-103, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564131

Regarding Wiring Diagram information. Refer to [EXL-63, "Wiring Diagram"](#).

1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb.

2.CHECK LICENSE PLATE LAMP POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R connector and license plate lamp connector.

3. Check continuity between IPDM E/R harness connector and license plate lamp harness connector.

License plate lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	D562	1	E121	10	Yes
LH	D561				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK LICENSE PLATE LAMP GROUND CIRCUIT

Check continuity between license plate lamp harness connector and ground.

License plate lamp			Ground	Continuity
Connector		Terminal		
RH	D562	2		Yes
LH	D561			

Is the inspection result normal?

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.
NO >> Repair or replace harness.

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000011564132

1.CHECK FRONT FOG LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While 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 inspection result normal?

- YES >> Front fog lamp circuit is normal.
NO >> Refer to [EXL-105, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564133

Regarding Wiring Diagram information. Refer to [EXL-50, "Wiring Diagram"](#).

1.CHECK FRONT FOG LAMP FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	49	15A

Is the inspection result normal?

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

2.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect front fog lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check the voltage between IPDM E/R harness connector and ground.

(+)		(-)	Test item	Voltage (Approx.)		
Front fog lamp						
Connector	Terminal					
RH	E241	1	Ground	EXTERNAL LAMPS	Fog	Battery voltage
					Off	0 V
LH	E242				Fog	Battery voltage
					Off	0 V

Is the inspection result normal?

- YES >> GO TO 5.
NO >> GO TO 3.

3.CHECK FRONT FOG LAMP POWER SUPPLY (SHORT) CIRCUIT

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

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

IPDM E/R		Ground	Continuity
Connector	Terminal		
E217	78		No
	79		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK FRONT FOG LAMP POWER SUPPLY (OPEN) CIRCUIT

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

Front fog lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	E241	1	E217	78	Yes
LH	E242			79	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK FRONT FOG LAMP GROUND CIRCUIT

Check continuity between front fog lamp harness connector and ground.

Front fog lamp			Ground	Continuity
Connector		Terminal		
RH	E241	2		Yes
LH	E242			

Is the inspection result normal?

YES >> Replace bulb. Refer to [EXL-146. "Bulb Specifications"](#).

NO >> Repair or replace harness.

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

TURN SIGNAL LAMP CIRCUIT

Component Function Check

INFOID:0000000011565262

1.CHECK TURN SIGNAL LAMP

CONSULT

1. Select "FLASHER" in "Active Test" mode of "BCM (FLASHER)".
2. While operating the test items, check that the turn signal lamp blinks.

LH : Turn signal lamp LH blinking

RH : Turn signal lamp RH blinking

OFF : The turn signal lamp OFF

Is the inspection result normal?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to [EXL-107, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011565263

Regarding Wiring Diagram information, refer to [EXL-55, "Wiring Diagram"](#).

1.CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb to be sure the proper bulb standard is in use and the bulb is not open.

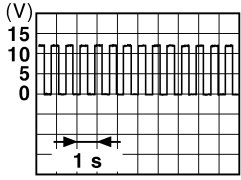
Is the bulb OK?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

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

Front combination lamp		(-)	Voltage
Connector	Terminal		
LH	E234	Ground	 PKID0926E
RH	E240		

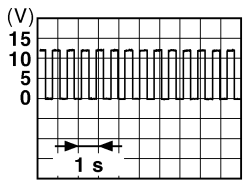
5. With turn signal switch operating, check the voltage between the door mirror harness connector and ground.

Door mirror		(-)	Voltage
Connector	Terminal		

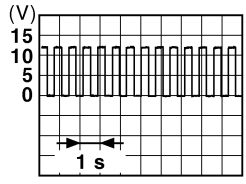
TURN SIGNAL LAMP CIRCUIT

[LED HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

LH	D4	20	Ground	
RH	D107			

6. With turn signal switch operating, check the voltage between the rear combination lamp harness connector and ground.

Rear combination lamp		(-)	Voltage
Connector	Terminal		
LH	B460	4	
RH	B459		

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

3.CHECK TURN SIGNAL LAMP POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between the BCM harness connector and the front combination lamp connector.

Front combination lamp			BCM		Continuity
Connector	Terminal		Connector	Terminal	
LH	E234	9	M80	117	Yes
RH	E240			105	

4. Check continuity between the BCM harness connector and the door mirror connector.

Door mirror lamp			BCM		Continuity
Connector	Terminal		Connector	Terminal	
LH	D4	20	M80	117	Yes
RH	D107			105	

5. Check continuity between the BCM harness connector and the rear combination lamp connector.

Rear combination lamp			BCM		Continuity
Connector	Terminal		Connector	Terminal	
LH	B460	8	M20	103	Yes
RH	B459			92	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair the harness or connector.

4.CHECK TURN SIGNAL LAMP GROUND CIRCUIT

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

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

Front combination lamp		—	Continuity	
Connector				Terminal
LH	E234	10	Ground	Yes
RH	E240			

2. Check continuity between the door mirror harness connector and ground.

Door mirror lamp		—	Continuity	
Connector				Terminal
LH	D4	21	Ground	Yes
RH	D107			

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

Rear combination lamp		—	Continuity
Connector	Terminal		
LH	B460	Ground	Yes
RH	B459		

Is the inspection result normal?

- YES >> Replace the malfunctioning lamp.
- NO >> Repair the harness or connector.

OPTICAL SENSOR

Component Function Check

INFOID:0000000011564136

1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT

CONSULT

1. Turn ignition switch ON.
2. Select "HEADLAMP" in "Data Monitor" mode of "BCM".
3. Turn lighting switch AUTO.
4. With the optical sensor illuminating, check the monitor status.

Monitor item	Condition		Voltage (Approx.)
OPTISEN (DTCT)	Optical sensor	When illuminating	3.1 V or more *
		When shutting off light	0.6 V or less

*: Illuminates the optical sensor. The value may be less than the standard value if brightness is weak.

Is the inspection result normal?

- YES >> Optical sensor is normal.
 NO >> Refer to [EXL-110. "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564137

Regarding Wiring Diagram information. Refer to [EXL-43. "Wiring Diagram"](#).

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

1. Turn ignition switch ON.
2. Turn lighting switch AUTO.
3. Check voltage between optical sensor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Optical sensor			
Connector	Terminal		
M15	1	Ground	5 V

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> GO TO 4.

2.CHECK OPTICAL SENSOR GROUND INPUT

Check voltage between optical sensor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Optical sensor			
Connector	Terminal		
M15	3	Ground	0 V

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> GO TO 6.

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

While illuminating the optical sensor, check voltage between optical sensor harness connector and ground.

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

(+)		(-)	Condition		Voltage (Approx.)
Optical sensor					
Connector	Terminal				
M15	2	Ground	Optical sensor	When illuminating	3.1 V or more *
				When shutting off light	0.6 V or less

*: Illuminate the optical sensor. The value may be less than the standard if brightness is weak.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the optical sensor. Refer to [EXL-133, "Removal and Installation"](#).

4.CHECK OPTICAL SENSOR (OPEN) CIRCUIT

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	1	M18	3	Yes

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK OPTICAL SENSOR (SHORT) CIRCUIT

Check continuity between optical sensor harness connector and ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M15	1		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

6.CHECK OPTICAL SENSOR GROUND CIRCUIT

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	3	M18	17	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

7.CHECK OPTICAL SENSOR SIGNAL (OPEN) CIRCUIT

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

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	2	M18	4	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

8.CHECK OPTICAL SENSOR (SHORT) CIRCUIT

Check continuity between optical sensor harness connector and ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M15	2		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

HAZARD SWITCH

Component Function Check

INFOID:0000000011564138

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

CONSULT

1. Turn ignition switch ON.
2. Select "FLASHER" in "Data Monitor" mode of "BCM".
3. While operating the hazard switch, check the monitor status.

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

Is the inspection result normal?

- YES >> Hazard switch circuit is normal.
NO >> Refer to [EXL-113, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011564139

Regarding Wiring Diagram information. Refer to [EXL-55, "Wiring Diagram"](#).

1.CHECK HAZARD SWITCH SIGNAL INPUT

1. Turn ignition switch OFF.
2. Disconnect hazard switch connector.
3. Check voltage between hazard switch connector and ground.

(+)		(-)	Voltage (Approx.)
Hazard switch			
Connector	Terminal		
M83	2	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 4.
NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL (OPEN) CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between hazard switch harness connector and BCM harness connector.

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M83	2	M18	36	Yes

Is the inspection result normal?

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

3.CHECK HAZARD SWITCH SIGNAL (SHORT) CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M83	2		No

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[LED HEADLAMP]

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

4. CHECK HAZARD SWITCH GROUND CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M83	3		Yes

Is the inspection result normal?

YES >> Replace hazard switch. Refer to [EXL-135, "Removal and Installation"](#).

NO >> Repair or replace harness.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000011517317

NOTE:

Perform the "Self Diagnostic Result" with CONSULT 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	• Fuse • Headlamp (HI) power supply circuit • Front combination lamp internal circuit - LED (headlamp high) - LED headlamp control module - Harness • IPDM E/R	Headlamp (HI) circuit Refer to EXL-89, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-119, "Diagnosis Procedure" .	
High beam indicator lamp is not turned ON [Headlamp (HI) is turned ON]		Combination meter	• Combination meter "Data Monitor""HI-BEAM IND" • "BCM (HEAD LAMP)" "Active Test""HEAD LAMP"
Headlamp (LO) is not turned ON	One side	• Fuse • Headlamp (LO) power supply circuit • Front combination lamp internal circuit - LED (headlamp low) - LED headlamp control module - Harness • IPDM E/R	Headlamp (LO) circuit Refer to EXL-91, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-120, "Diagnosis Procedure" .	
Headlamp (HI) and (LO) is not turned ON		• LED headlamp ground circuit • Front combination lamp internal circuit - LED headlamp control module - Harness	LED headlamp Refer to EXL-96, "Diagnosis Procedure" .
Headlamp warning remains ON [Headlamp (LO) is turned ON]		• LED headlamp warning signal circuit • Front combination lamp internal circuit - LED headlamp control module - Harness • Combination meter	Headlamp warning Refer to MWI-15, "INFORMATION DISPLAY : System Description" .
Each lamp is not turned ON/OFF with lighting switch AUTO		• Combination switch input/output signal circuit • Combination switch • BCM	Combination switch Refer to BCS-80, "Symptom Table" .
		• Optical sensor power supply/ground/signal circuit • Optical sensor • BCM	Optical sensor Refer to EXL-110, "Component Function Check" .

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

Symptom	Possible cause	Inspection item
Parking lamp is not turned ON	• Fuse • Parking lamp power supply/ground circuit • Front combination lamp internal circuit - LED (parking lamp) - Control circuit - Harness • IPDM E/R	Parking lamp circuit Refer to EXL-97. "Component Function Check" .
Side marker lamp is not turned ON [Parking lamp is turned ON]	Front combination lamp internal circuit • Side marker lamp • Control circuit • Harness	Replace front combination lamp Refer to EXL-128. "Removal and Installation" .
Tail lamp is not turned ON	• Fuse • Tail lamp power supply/ground circuit • Rear combination lamp internal circuit - LED (tail lamp) - Harness • IPDM E/R	Tail lamp circuit Refer to EXL-101. "Component Function Check" .
License plate lamp is not turned ON [Tail lamp is turned ON]	• License plate lamp power supply/ground circuit • License plate lamp bulb • License plate lamp bulb socket • IPDM E/R	License plate lamp circuit Refer to EXL-103. "Component Function Check" .
Parking lamp, license plate lamp, side marker lamp and tail lamp are not turned ON	Symptom diagnosis "PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-121. "Diagnosis Procedure" .	
Position lamp indicator is not turned ON (Parking lamp, license plate lamp, side marker lamp and tail lamp are turned ON)	Combination meter	• Combination meter "Data Monitor" "LIGHT IND" • BCM (HEAD LAMP) "Active Test" "TAIL LAMP"
Daytime running light is not turned ON	• Fuse • Daytime running light relay • Daytime running light relay power supply/control signal circuit • Daytime running light power supply/ground circuit • Front combination lamp internal circuit - LED (daytime running light) - Control circuit - Harness • IPDM E/R • BCM • ECM • Combination meter	• Daytime running light circuit Refer to EXL-93. "Component Function Check". • BCM (HEAD LAMP) "Data Monitor" "ENGINE STATE" • Combination meter "Data Monitor" "PKB SW"

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

Symptom		Possible cause	Inspection item
Back-up lamp is not turned ON		• Fuse • Back-up lamp relay • Back-up lamp relay power supply/control signal circuit • Back-up lamp power supply/ground circuit • Rear combination lamp internal circuit - Back-up lamp - Harness • Joint connector • TCM	Back-up lamp circuit Refer to EXL-101, "Component Function Check" .
Turn signal lamp does not blink	Indicator lamp is normal (Applicable side performs high flasher activation)	• Front turn signal lamp - Front turn signal lamp power supply/ground circuit - Front turn signal lamp • Side turn signal lamp - Side turn signal lamp power supply/ground circuit - Side turn signal lamp • Rear turn signal lamp - Rear turn signal lamp power supply/ground circuit - Bulb (rear turn signal lamp) - Rear turn signal lamp bulb socket/harness	Turn signal lamp circuit Refer to EXL-107, "Component Function Check" .
	Indicator lamp is included	• Combination switch input/output signal circuit • Combination switch • BCM	Combination switch Refer to BCS-80, "Symptom Table" .
Turn signal indicator lamp does not blink (Turn signal lamp is normal)	One side	Combination meter	—
	Both sides (Always)	• Turn indicator signal • BCM • Combination meter	• Combination meter "Data Monitor""TURN IND" • BCM (FLASHER) "Active Test""FLASHER"
	Both sides (Only when activating hazard warning lamp with ignition switch OFF)	• Combination meter power supply/ground circuit • Combination meter	Combination meter Power supply and ground circuit Refer to BCS-75, "Diagnosis Procedure" .
• Hazard warning lamp does not activate (Turn signal is normal) • Hazard warning lamp continues activating		• Hazard switch signal/ground circuit • Integral switch (hazard switch) • BCM	Hazard switch Refer to EXL-113, "Component Function Check" .
Front fog lamp is not turned ON	One side	• Front fog lamp power supply/ground circuit • Front fog lamp • IPDM E/R	Front fog lamp circuit Refer to EXL-105, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-122, "Diagnosis Procedure" .	
Front fog lamp indicator lamp is not turned ON (Front fog lamp is turned ON)		Combination meter	• Combination meter "Data Monitor""FR FOG IND" • BCM (HEAD LAMP) "Active Test""FR FOG LAMP"

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NORMAL OPERATING CONDITION

Description

INFOID:0000000011517318

LED HEADLAMP

- LED brightness and color may slightly change until the temperature becomes stable. This is not a malfunction.
- Illumination time lag may occur between right and left. This is not a malfunction.
- Brightness may be reduced due to aged deterioration of LED.

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 is normal.

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description

INFOID:0000000011517319

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:0000000011517320

1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80, "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

ⓘ With CONSULT

1. Select "HL HI REQ" in "Data Monitor" mode of "IPDM E/R".
2. While 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 inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37, "Removal and Installation"](#).

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

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BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:0000000011517321

Both side headlamps (LO) are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517322

1.CHECK COMBINATION SWITCH

Check combination switch. Refer to [BCS-80. "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

Ⓔ With CONSULT

1. Select "HL LO REQ" in "Data Monitor" mode of "IPDM E/R".
2. While operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL LO REQ	Lighting switch	2ND	On
		OFF	Off

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

NO >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:0000000011517323

The parking, license plate, side marker and tail lamps are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517324

1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

Ⓔ With CONSULT

1. Select "TAIL & CLR REQ" in "Data Monitor" mode of "IPDM E/R".

2. While operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
TAIL & CLR REQ	Lighting switch	1ST	On
		OFF	Off

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37, "Removal and Installation"](#).

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[LED HEADLAMP]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:0000000011517325

Both side front fog lamps are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517326

1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80. "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

Ⓔ With CONSULT

1. Select "FR FOG REQ" in "Data Monitor" mode of "IPDM E/R".
2. While 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 >> Perform the front fog lamp diagnosis. Refer to [EXL-105. "Diagnosis Procedure"](#).

NO >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Inspection

INFOID:0000000011568820

PREPARATION BEFORE ADJUSTING

Before performing aiming adjustment, check the following:

- Make sure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Make sure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- Confirm spare tire, jack and tools are properly stowed.
- Carefully wipe off any dirt from headlamp lens.

CAUTION:

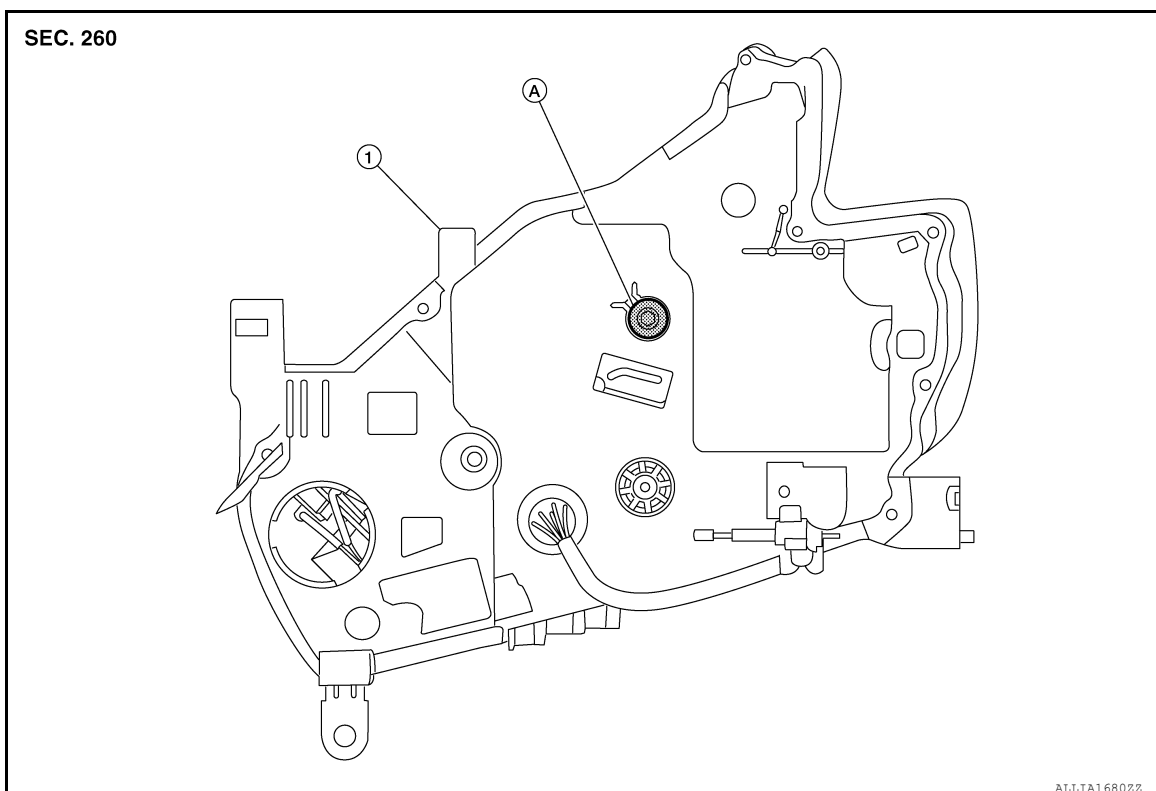
Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

NOTE:

- For headlamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adjustable.
- Use adjusting screw to perform aiming adjustment.
- Perform headlamp aiming if:
 - The vehicle front body has been repaired;
 - The front combination lamp has been removed or replaced;
 - Any outfitting has been installed;
 - The vehicle's standard load condition has been substantially increased.

AIMING ADJUSTMENT SCREW



HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

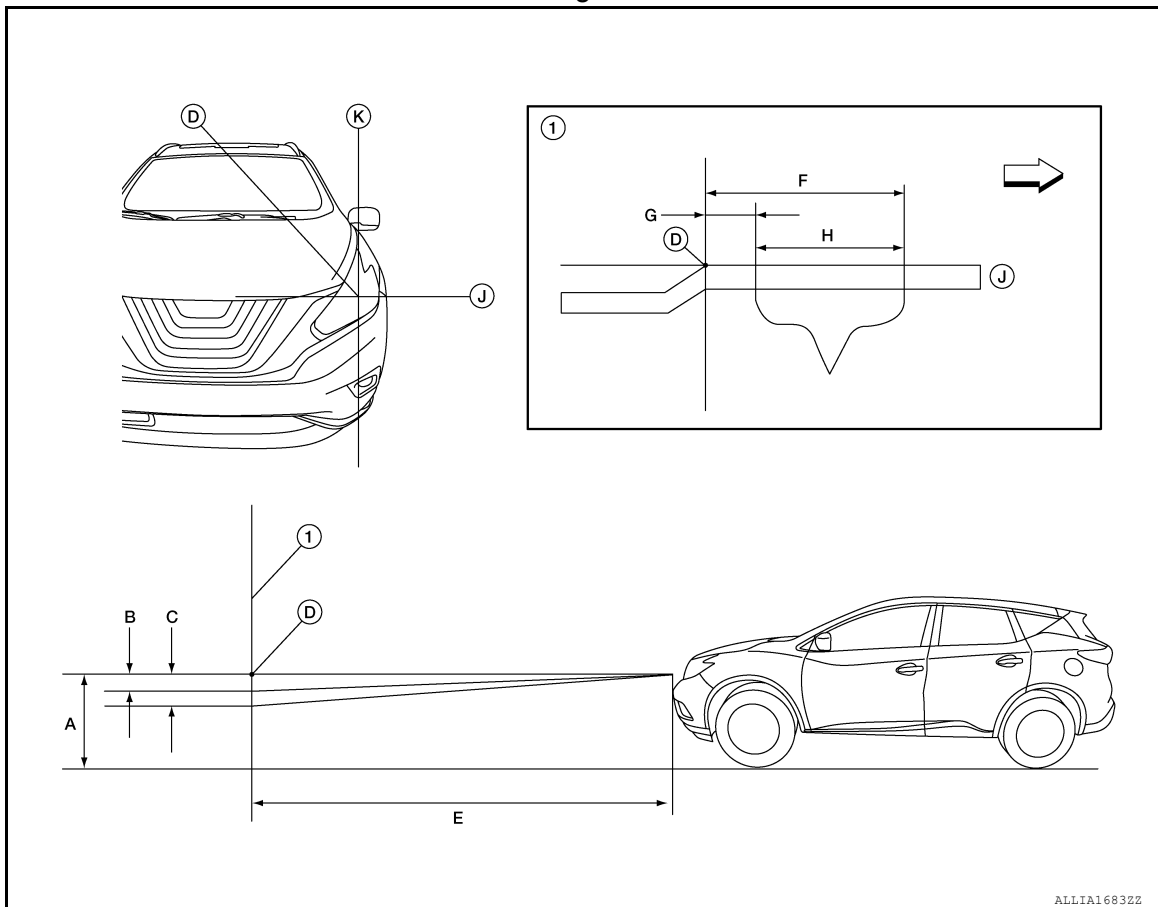
1. Front combination lamp
(view from rear)

- A. Headlamp HI/LO (UP/DOWN) adjustment screw

Aiming Adjustment Procedure

INFOID:0000000011568821

Aiming Chart



- | | | | | | |
|----|--|----|--|---|----------------------------|
| 1. | Adjustment screen | A. | Distance of horizontal aiming evaluation line from ground | B. | Maximum cutoff line height |
| C. | Minimum cutoff line height | D. | Center of headlamp bulb | E. | 10 m (33 ft) |
| F. | Maximum aim evaluation distance from vertical center on aiming screen 399 mm (3°R) | G. | Minimum aim evaluation distance from vertical center on aiming screen 133 mm (1°R) | H. | Aim evaluation area |
| J. | Horizontal aiming evaluation line | K. | Vertical aiming evaluation line |  | Right |

B (Maximum cutoff line height)

17 mm (0.7 in)

0.1° up

C (Minimum cutoff line height)

44 mm (1.7 in)

0.25° down

LOW BEAM AND HIGH BEAM

NOTE:

- Basic illuminating area for evaluation and/or adjustment should be within range shown on aiming chart.

1. Use adjustment screw to perform aiming adjustment.

- **Ensure fog lamps are turned off.**

2. Block the opposite headlamp from projecting a beam pattern onto the adjustment screen, using a suitable object. Aim each headlamp individually.

CAUTION:

Do not cover the lens surface with tape, etc.

3. Place the screen on the same level and flat surface as the vehicle.

NOTE:

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

Surface should be free of any debris that would cause a difference between the headlamp center and the adjustment screen.

4. Face the front of the vehicle to the screen and measure distance between the headlamp center and the screen surface.

Distance between the headlamp center and the screen (D) : 10 m (33 ft)

5. Start the engine. Turn the headlamp on.
6. Determine the preferred vertical aim range dimensions, using the aiming chart.
7. Measure the projected beam within the aim evaluation segment on the screen.
8. Adjust the beam pattern of each headlamp until the aim evaluation segment (the area relative to both the highest and lowest cutoff line height) is positioned within the vertical aim range dimensions shown on the aiming chart.

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FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

FRONT FOG LAMP AIMING ADJUSTMENT

Aiming Adjustment

INFOID:000000011569150

PREPARATION BEFORE ADJUSTING

The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb. Before performing aiming adjustment procedure, check the following:

- Ensure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- Confirm spare tire, jack and tools are properly stowed.
- Carefully wipe off any dirt from headlamp lens.

CAUTION:

Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

NOTE:

- For fog lamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adjustable.
- Use adjusting screw to perform aiming adjustment.
- Perform fog lamp aiming if:
 - The vehicle front body has been repaired.
 - The front fog lamp has been removed or replaced.
 - Any outfitting has been installed.
 - The vehicle's standard load condition has been substantially increased.

Aiming Adjustment Procedure

1. Place the screen.

NOTE:

- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.

2. Face the vehicle with the screen. Maintain 7.62 m (25.0 ft) between the front fog lamp center and the screen.

3. Start the engine. Turn the front fog lamp ON.

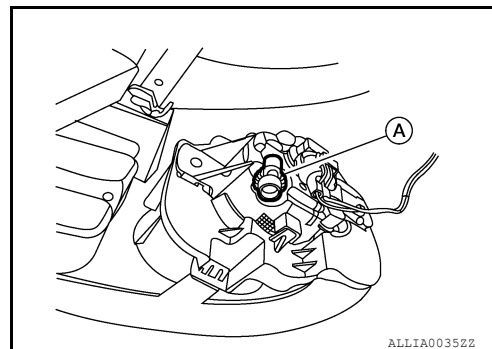
NOTE:

Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

CAUTION:

Do not cover the lens surface with a tape etc. The lens is made of resin.

4. Adjust aiming by turning the adjusting screw (A).



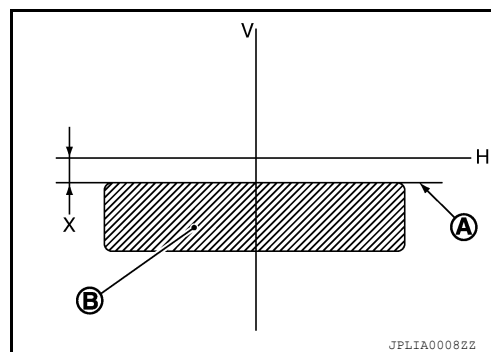
FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[LED HEADLAMP]

5. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 100 mm (4 in).

- A : Cutoff line
B : High illuminance area
H : Horizontal center line of front fog lamp
V : Vertical center line of front fog lamp
X : Cutoff line height



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FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

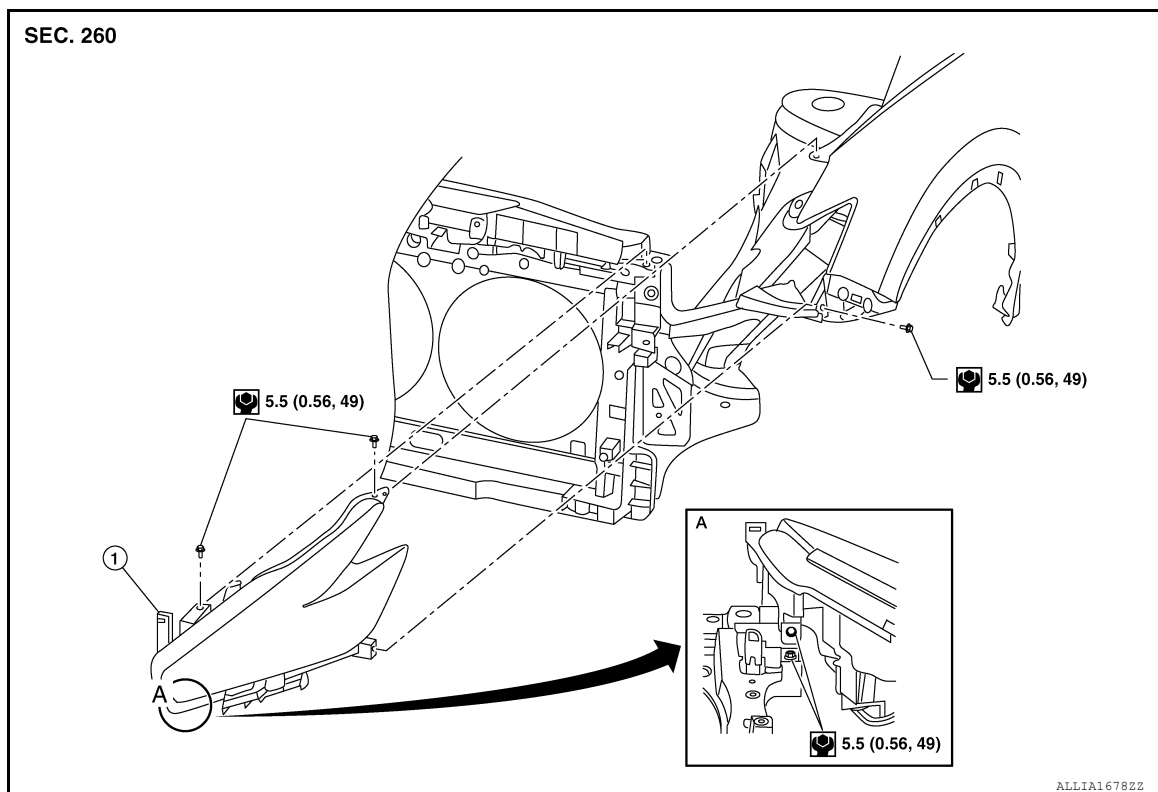
[LED HEADLAMP]

REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

INFOID:0000000011568823



1. Front combination lamp

Removal and Installation

INFOID:0000000011568824

REMOVAL

1. Remove front bumper fascia. Refer to [EXT-25, "Removal and Installation"](#).
2. Remove front combination lamp bolts.
3. Pull front combination lamp forward.
4. Disconnect harness connectors from front combination lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

NOTE:

After installation, perform headlamp aiming adjustment. Refer to [EXL-123, "Inspection"](#).

Bulb Replacement

INFOID:0000000011568825

HEADLAMP BULB

The headlamp bulb is LED and not serviced separately. Refer to [EXL-128, "Removal and Installation"](#).

SIDE MARKER LAMP BULB

Removal

1. Rotate bulb socket counterclockwise and remove from front combination lamp.
2. Remove bulb from bulb socket.

Installation

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

TURN SIGNAL LAMP BULB

Removal

1. Remove front combination lamp. Refer to [EXL-128, "Removal and Installation"](#).
2. Rotate bulb socket counterclockwise and remove from front combination lamp.
3. Remove bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

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FRONT FOG LAMP

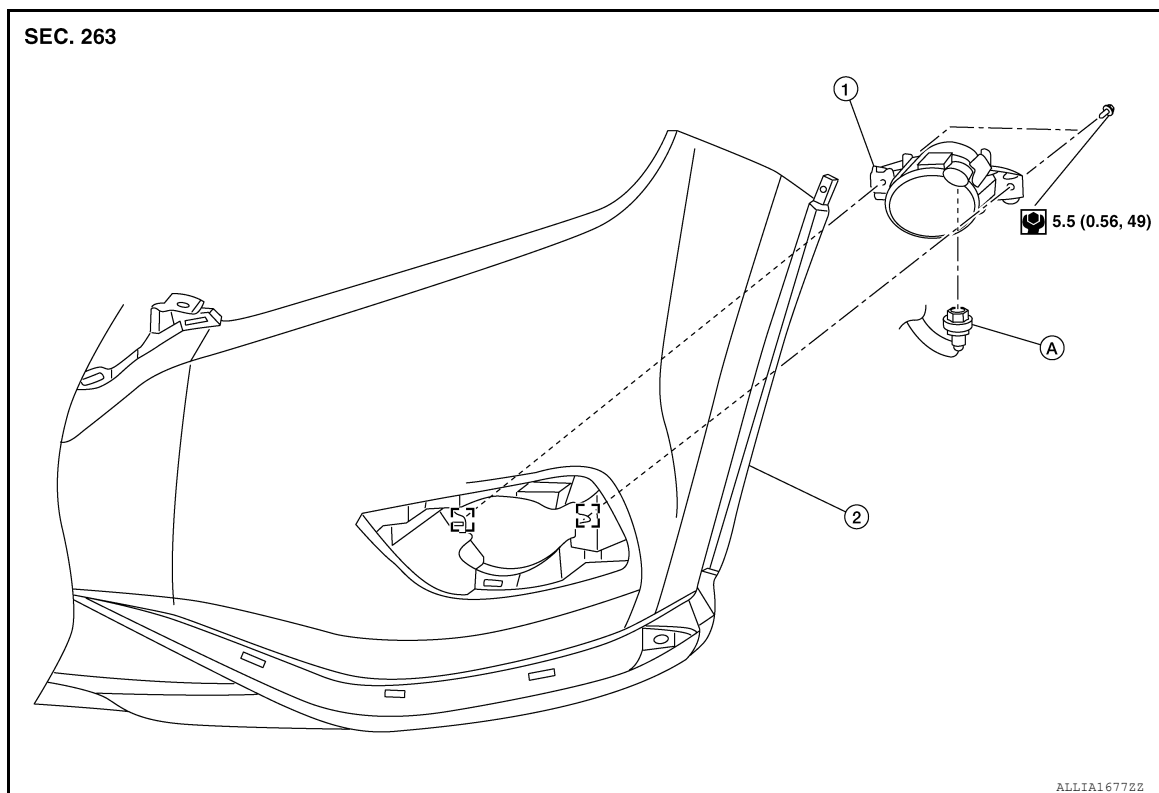
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

FRONT FOG LAMP

Exploded View

INFOID:0000000011568831



1. Front fog lamp

2. Front bumper fascia

A. Front fog lamp harness connector

□ Metal clip

Removal and Installation

INFOID:0000000011568832

REMOVAL

1. Partially remove front fender protector. Refer to [EXT-36, "FENDER PROTECTOR : Exploded View"](#).
2. Disconnect harness connector from front fog lamp.
3. Remove front fog lamp bolts and front fog lamp.

INSTALLATION

Installation in the reverse order of removal.

NOTE:

After installation, perform front fog lamp aiming adjustment. Refer to [EXL-126, "Aiming Adjustment"](#).

Bulb Replacement

INFOID:0000000011568833

WARNING:

Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

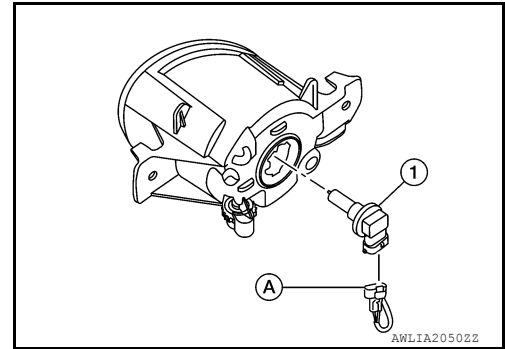
1. Partially remove front fender protector. Refer to [EXT-38, "FRONT OVER FENDER : Removal and Installation"](#).

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

2. Disconnect harness connector from front fog lamp (A).
3. Rotate bulb (1) counterclockwise and remove.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Install bulb securely for watertightness.

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DOOR MIRROR TURN SIGNAL LAMP

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

DOOR MIRROR TURN SIGNAL LAMP

Removal and Installation

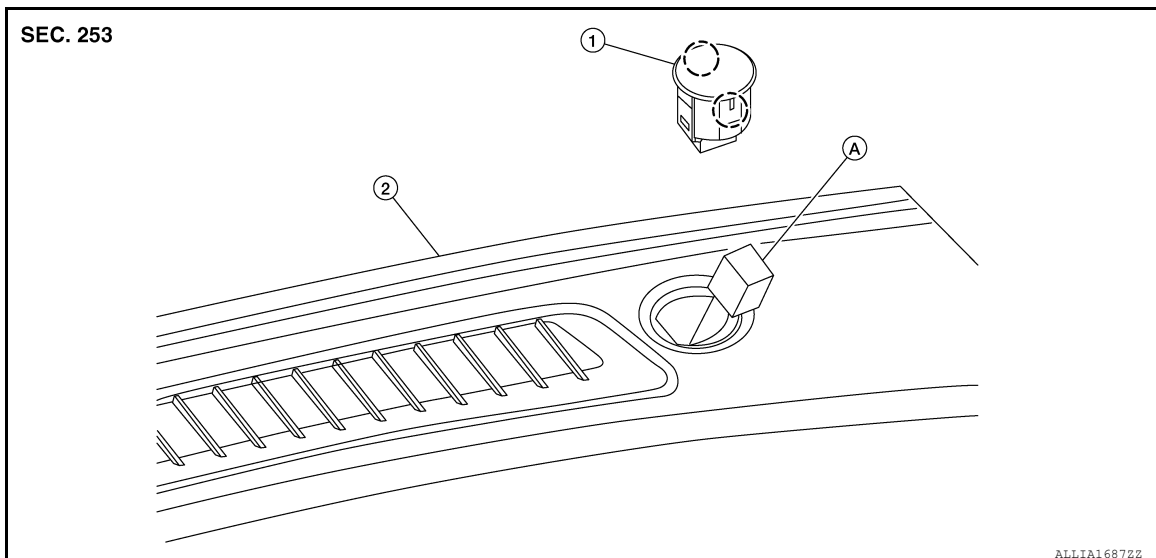
INFOID:0000000011568842

The door mirror turn signal lamp is serviced as part of the door mirror. Refer to [MIR-21, "Removal and Installation"](#).

OPTICAL SENSOR

Exploded View

INFOID:0000000011568844



1. Optical sensor

2. Defroster grille

A. Harness connector

○ : Pawl

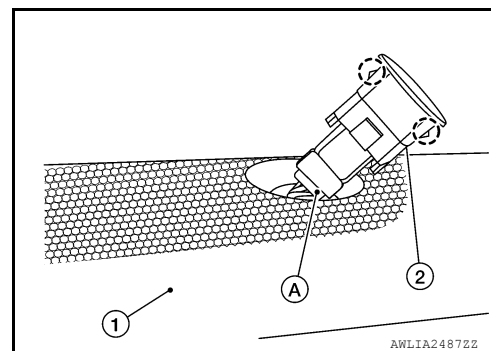
Removal and Installation

INFOID:0000000011568845

REMOVAL

Release pawls and remove optical sensor (2) from defroster grille (1) using a suitable tool.

○ : Pawl



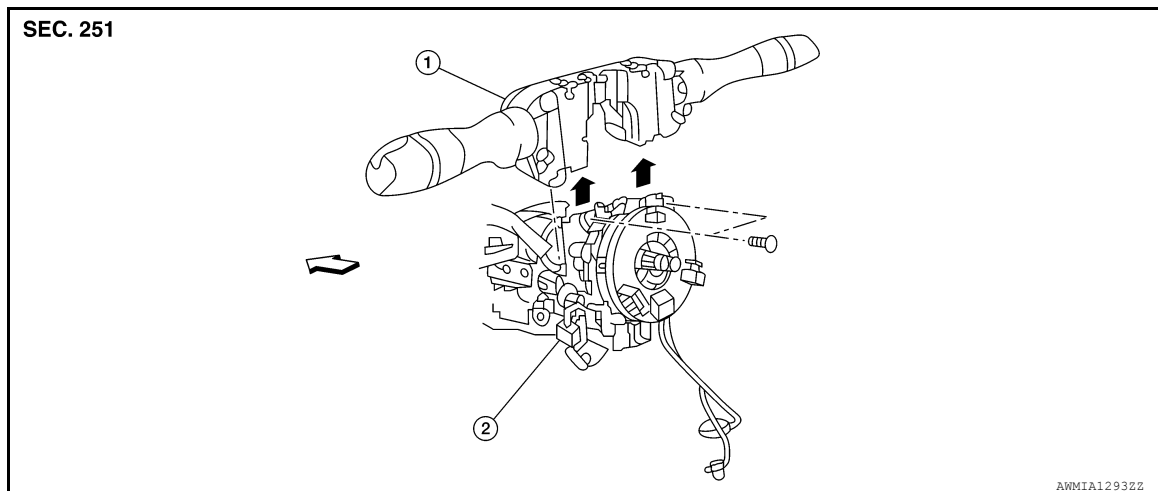
INSTALLATION

Installation is in the reverse order of removal.

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:0000000011569096



1. Combination switch

2. Combination switch harness connector ← Front

Removal and Installation

INFOID:0000000011569097

REMOVAL

1. Disconnect both the negative and positive battery terminals, then wait at least three minutes. Refer to [PG-86, "Exploded View"](#).
2. Remove the steering column covers. Refer to [JP-18, "Removal and Installation"](#).
3. Remove the combination switch screws.
4. Disconnect the harness connector from the combination switch and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- After the work is completed, make sure no system malfunction is detected by air bag warning lamp.
- In case a malfunction is detected by the air bag warning lamp, reset with the self-diagnosis function and delete the memory with CONSULT.
- If a malfunction is still detected after the above operation, perform self-diagnosis to repair malfunctions. Refer to [SRC-17, "SRS Final Check"](#).

HAZARD SWITCH

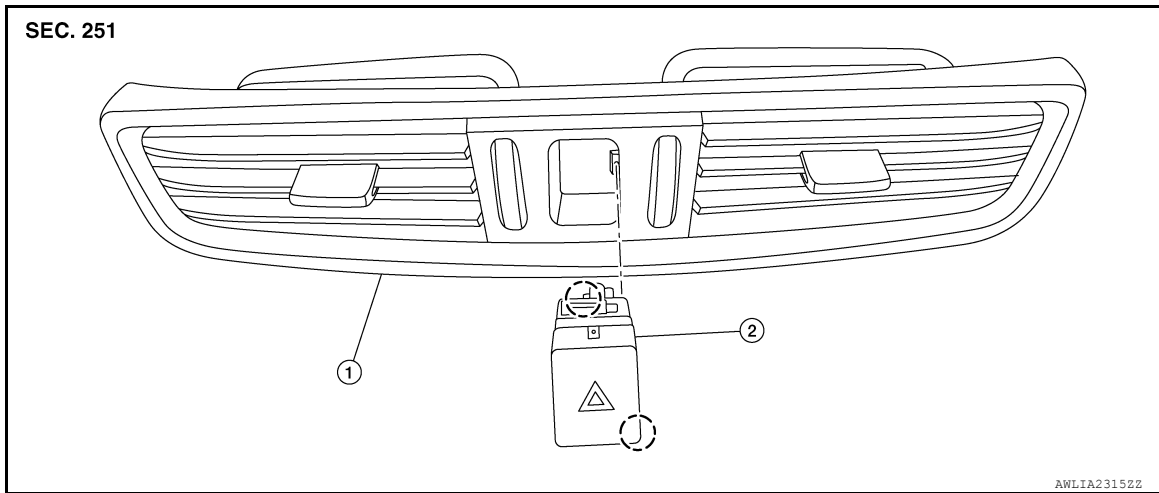
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

HAZARD SWITCH

Exploded View

INFOID:0000000011568846



1. Center ventilator grille

2. Hazard switch

3. Pawl

Removal and Installation

INFOID:0000000011568847

REMOVAL

1. Remove center ventilator grille. Refer to [VTL-10. "CENTER VENTILATOR DUCT : Removal and Installation"](#).
2. Release pawls and remove hazard switch.

INSTALLATION

Installation is in the reverse order of removal.

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REAR COMBINATION LAMP

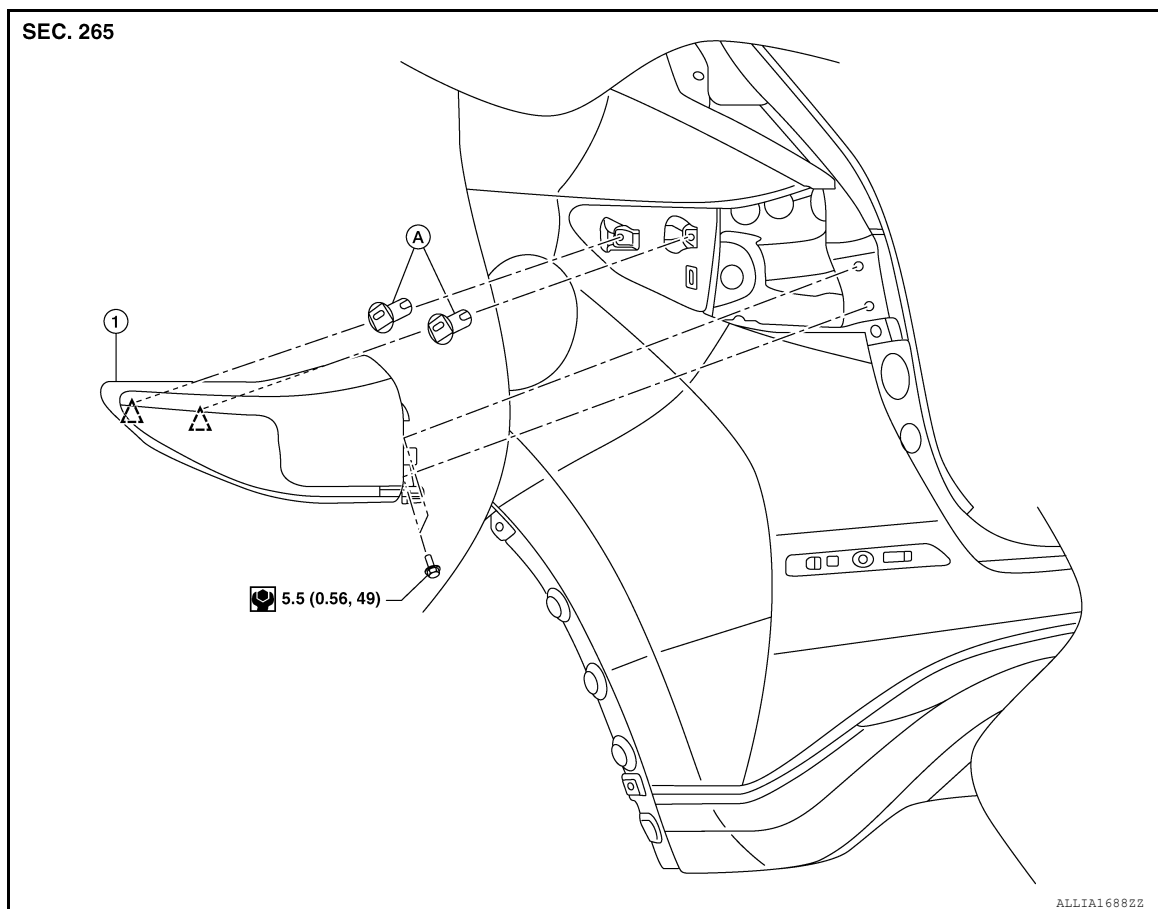
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

REAR COMBINATION LAMP

Exploded View

INFOID:0000000011568854



1. Rear combination lamp

A. Grommet

Clip

Removal and Installation

INFOID:0000000011568855

REMOVAL

1. Remove rear combination lamp side cover.
2. Remove rear combination lamp bolts.
3. Pull rear combination lamp sideward to release clip and locators.
4. Disconnect harness connector from rear combination lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011568856

WARNING:

Do not touch bulb with bare hand while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

STOP LAMP BULB

The stop lamp bulb is LED and not serviced separately. Refer to [EXL-136, "Removal and Installation"](#).

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

SIDE MARKER LAMP BULB

Removal

1. Remove rear combination lamp. Refer to [EXL-136. "Removal and Installation"](#).
2. Rotate side marker bulb socket counterclockwise and remove.
3. Remove side marker bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

TURN SIGNAL LAMP BULB

Removal

1. Remove rear combination lamp. Refer to [EXL-136. "Removal and Installation"](#).
2. Rotate turn signal lamp bulb socket counterclockwise and remove.
3. Remove turn signal lamp bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

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HIGH-MOUNTED STOP LAMP

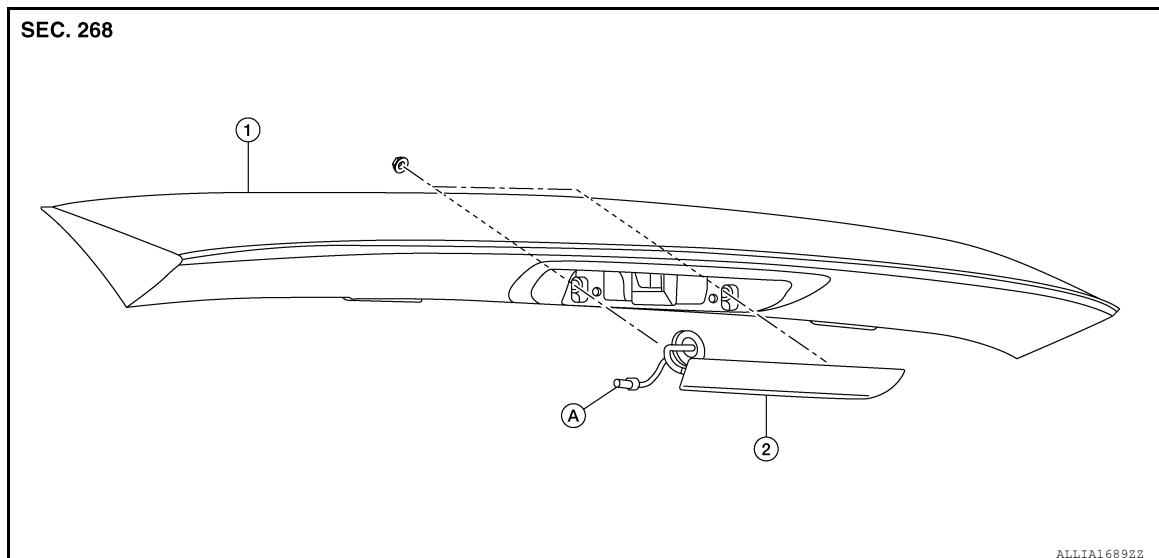
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:0000000011568857



1. Rear spoiler

2. High-mounted stop lamp

A. Harness connector

Removal and Installation

INFOID:0000000011568858

REMOVAL

1. Remove rear spoiler. Refer to [EXT-51, "Removal and Installation"](#).
2. Remove nuts and remove high-mounted stop lamp.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011568859

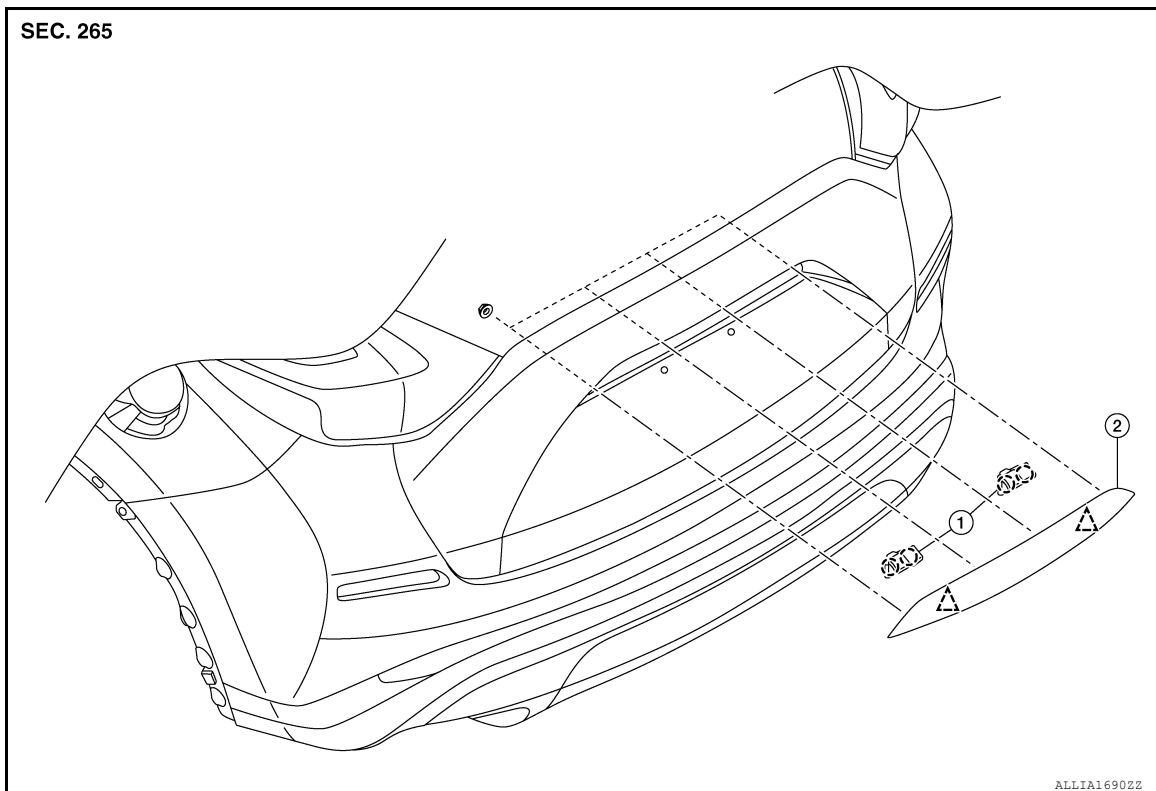
HIGH-MOUNTED STOP LAMP BULB

The high-mounted stop lamp bulb is LED and not serviced separately. Refer to [EXL-138, "Removal and Installation"](#).

LICENSE PLATE LAMP

Exploded View

INFOID:0000000011568860



1. License plate lamp

2. Back door outer finisher

Clip

Pawl

Removal and Installation

INFOID:0000000011568861

REMOVAL

1. Remove back door outer finisher. Refer to [EXT-53, "Removal and Installation"](#).
2. Disconnect harness connector from license plate lamp.
3. Release pawls and push license plate lamp forward.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011568862

WARNING:

Do not touch bulb with your hand while it is on or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

1. Remove back door lower finisher. Refer to [INT-34, "BACK DOOR LOWER FINISHER : Removal and Installation"](#).
2. Rotate license plate lamp bulb socket counterclockwise and remove.

LICENSE PLATE LAMP

[LED HEADLAMP]

< REMOVAL AND INSTALLATION >

3. Remove license plate lamp bulb from bulb socket.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

BACK-UP LAMP ASSEMBLY

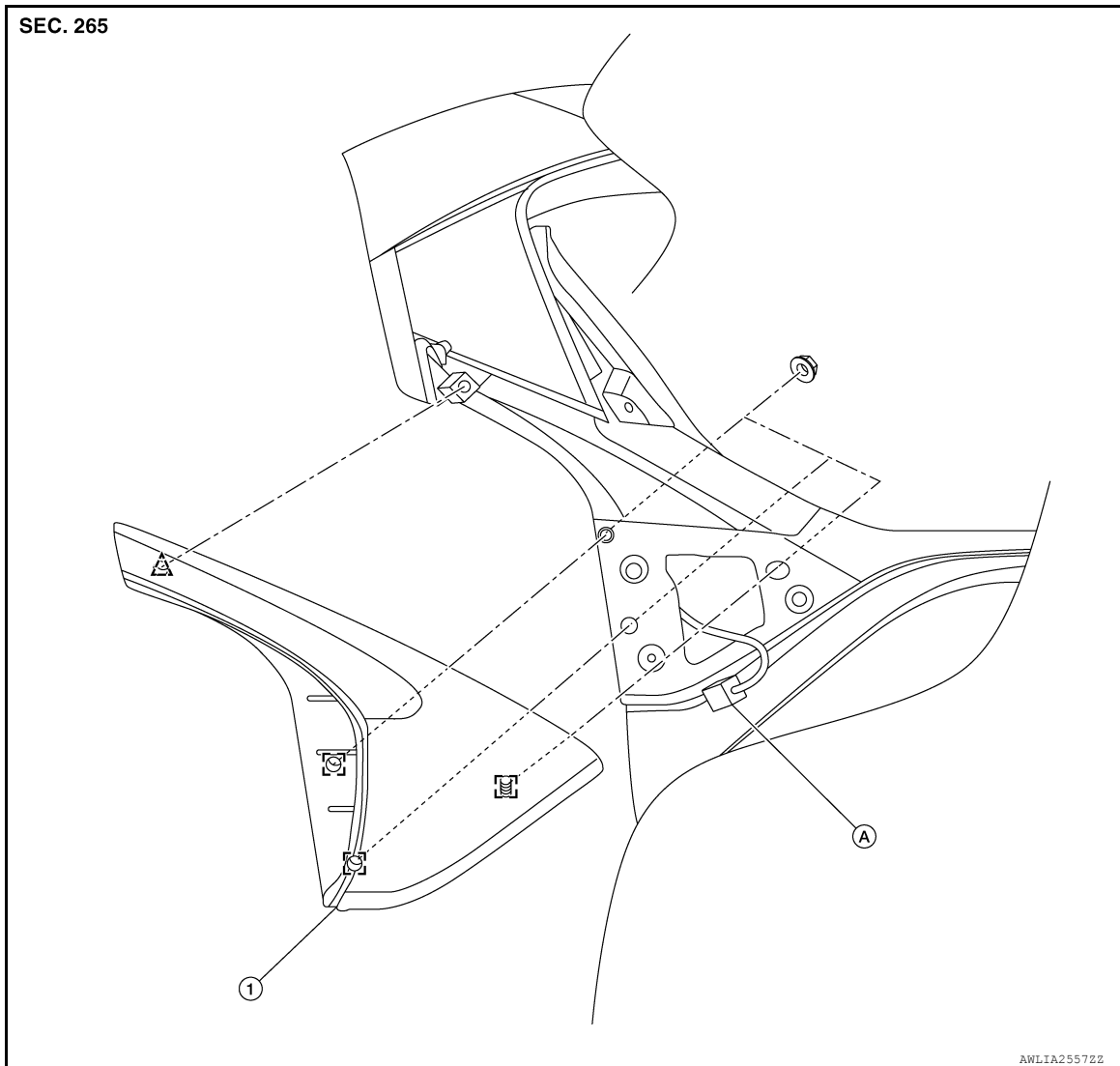
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

BACK-UP LAMP ASSEMBLY

Exploded View

INFOID:0000000011568863



1. Back-up lamp assembly

A. Harness connector

□ Metal stud

△ Clip

Removal and Installation

INFOID:0000000011568864

REMOVAL

1. Remove back door lower finisher. Refer to [INT-34, "BACK DOOR LOWER FINISHER : Removal and Installation"](#).
2. Remove back-up lamp assembly nuts.
3. Disconnect harness connector, pull back-up lamp assembly rearward and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011568865

WARNING:

Do not touch bulb with bare hand while it is lit or right after being turned off. Burning may result.

BACK-UP LAMP ASSEMBLY

< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

1. Remove back-up lamp assembly. Refer to [EXL-141, "Removal and Installation"](#).
2. Rotate back-up lamp bulb socket counterclockwise and remove.
3. Remove back-up lamp bulb from bulb socket.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

REAR REFLEX REFLECTOR

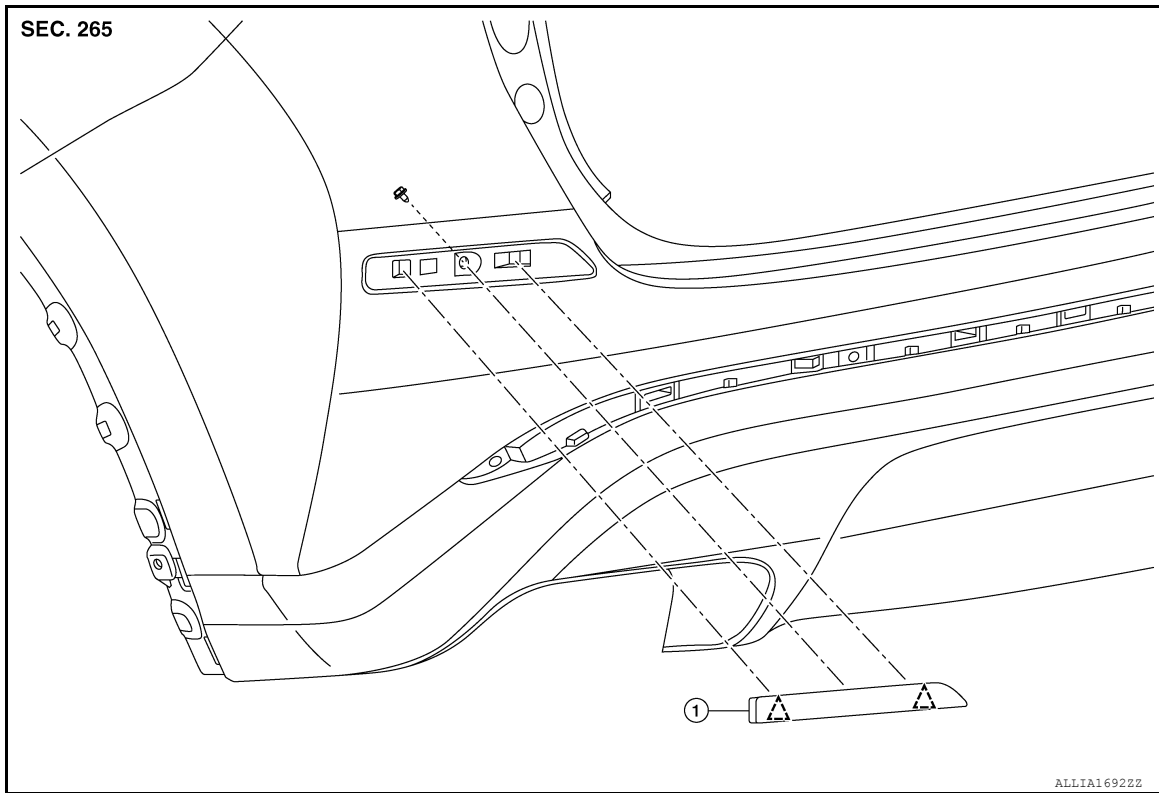
< REMOVAL AND INSTALLATION >

[LED HEADLAMP]

REAR REFLEX REFLECTOR

Exploded View

INFOID:0000000011517363



Removal and Installation

INFOID:0000000011517364

REMOVAL

1. Remove rear bumper fascia. Refer to [EXT-27, "Removal and Installation"](#).
2. Remove rear reflex reflector fixing screw and pawls and then remove rear reflex reflector.

INSTALLATION

Install in the reverse order of removal.

FRONT COMBINATION LAMP

< UNIT DISASSEMBLY AND ASSEMBLY >

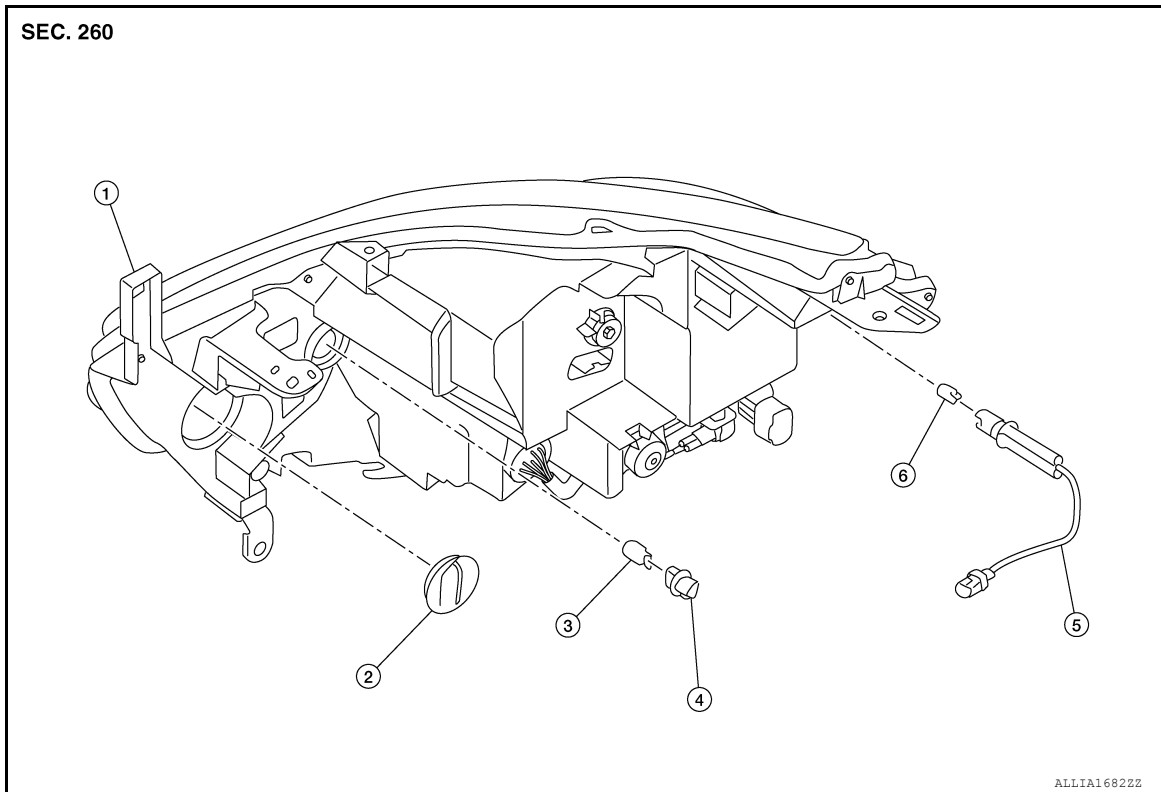
[LED HEADLAMP]

UNIT DISASSEMBLY AND ASSEMBLY

FRONT COMBINATION LAMP

Exploded View

INFOID:0000000011568848



- | | | |
|---------------------------------|----------------------------------|--------------------------|
| 1. Front combination lamp | 2. Front combination lamp cover | 3. Turn signal lamp bulb |
| 4. Turn signal lamp bulb socket | 5. Side marker lamp bulb harness | 6. Side marker lamp bulb |

Disassembly and Assembly

INFOID:0000000011568849

DISASSEMBLY

1. Remove front combination lamp. Refer to [EXL-128, "Removal and Installation"](#).
2. Rotate turn signal lamp bulb socket counterclockwise and remove.
3. Remove turn signal lamp bulb from bulb socket.
4. Rotate side marker lamp bulb socket counterclockwise and remove.
5. Remove side marker lamp bulb from bulb socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

During assembly, be sure to install bulb sockets securely to ensure watertightness.

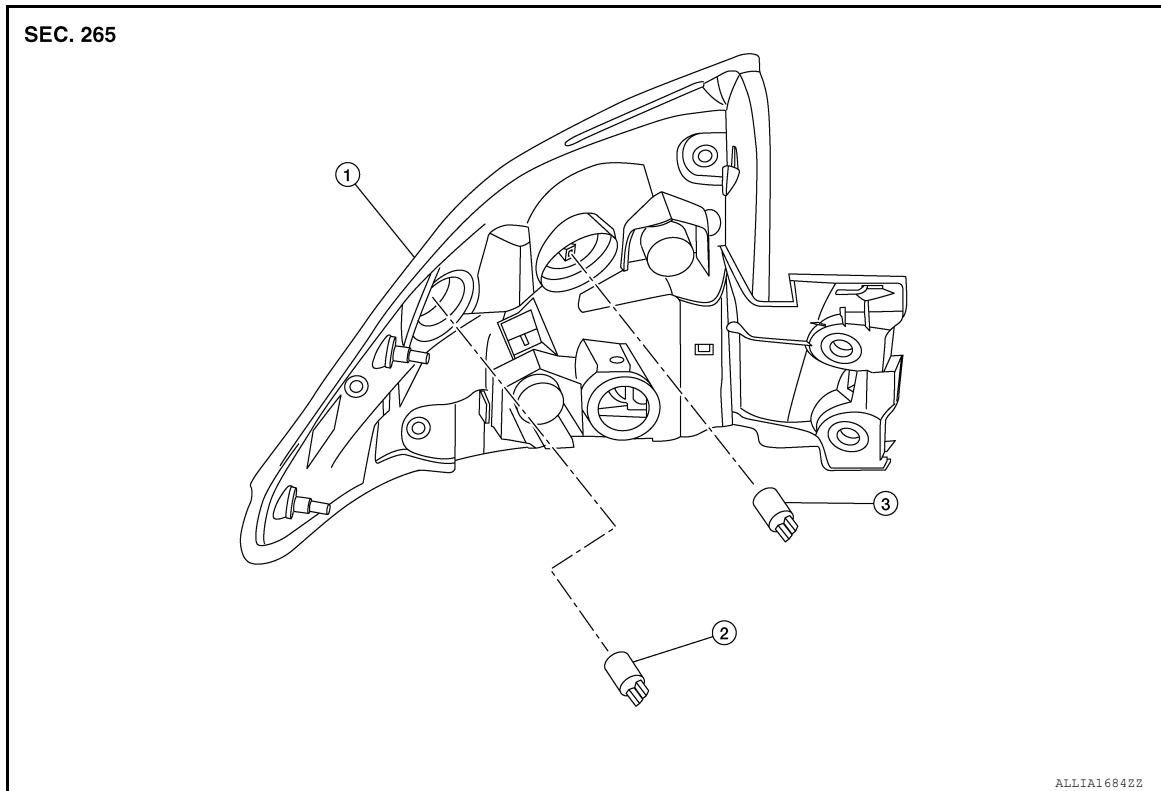
REAR COMBINATION LAMP

< UNIT DISASSEMBLY AND ASSEMBLY >

[LED HEADLAMP]

REAR COMBINATION LAMP

Exploded View



1. Rear combination lamp

2. Side marker lamp bulb

3. Turn signal lamp bulb

Disassembly and Assembly

INFOID:0000000011568851

DISASSEMBLY

1. Remove rear combination lamp. Refer to [EXL-136, "Removal and Installation"](#).
2. Rotate side marker lamp bulb socket counterclockwise and remove.
3. Remove side marker bulb from bulb socket.
4. Rotate turn signal lamp bulb socket counterclockwise and remove.
5. Remove turn signal lamp bulb from bulb socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

During assembly, be sure to install bulb sockets securely to ensure watertightness.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[LED HEADLAMP]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000011568866

Item		Type	Wattage (W)
Front combination lamp	High beam	LED	23
	Low beam		23
	Turn signal lamp	7444NA	28/8
	Side marker lamp	W5W	5
	Daytime running lamp	LED	1.5/10.7
Front fog lamp (if equipped)		H8	35
Door mirror turn signal lamp		LED	—
Rear combination lamp	Stop lamp	LED	0.6/1.6
	Side marker lamp	W5W	5
	Turn signal lamp	WY21W	21
Back-up lamp		921	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	0.85

*: Always check with the Parts Department for the latest parts info.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000011569067

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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

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

Precaution for Work

INFOID:0000000011573899

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
 - Water soluble dirt:
 - Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
 - Then rub with a soft, dry cloth.
 - Oily dirt:
 - Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty area.
 - Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
 - Then rub with a soft, dry cloth.
 - Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
 - For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

[HALOGEN HEADLAMP]

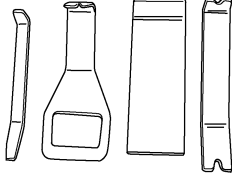
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000011573900

The actual shape of the tools may differ from those illustrated here.

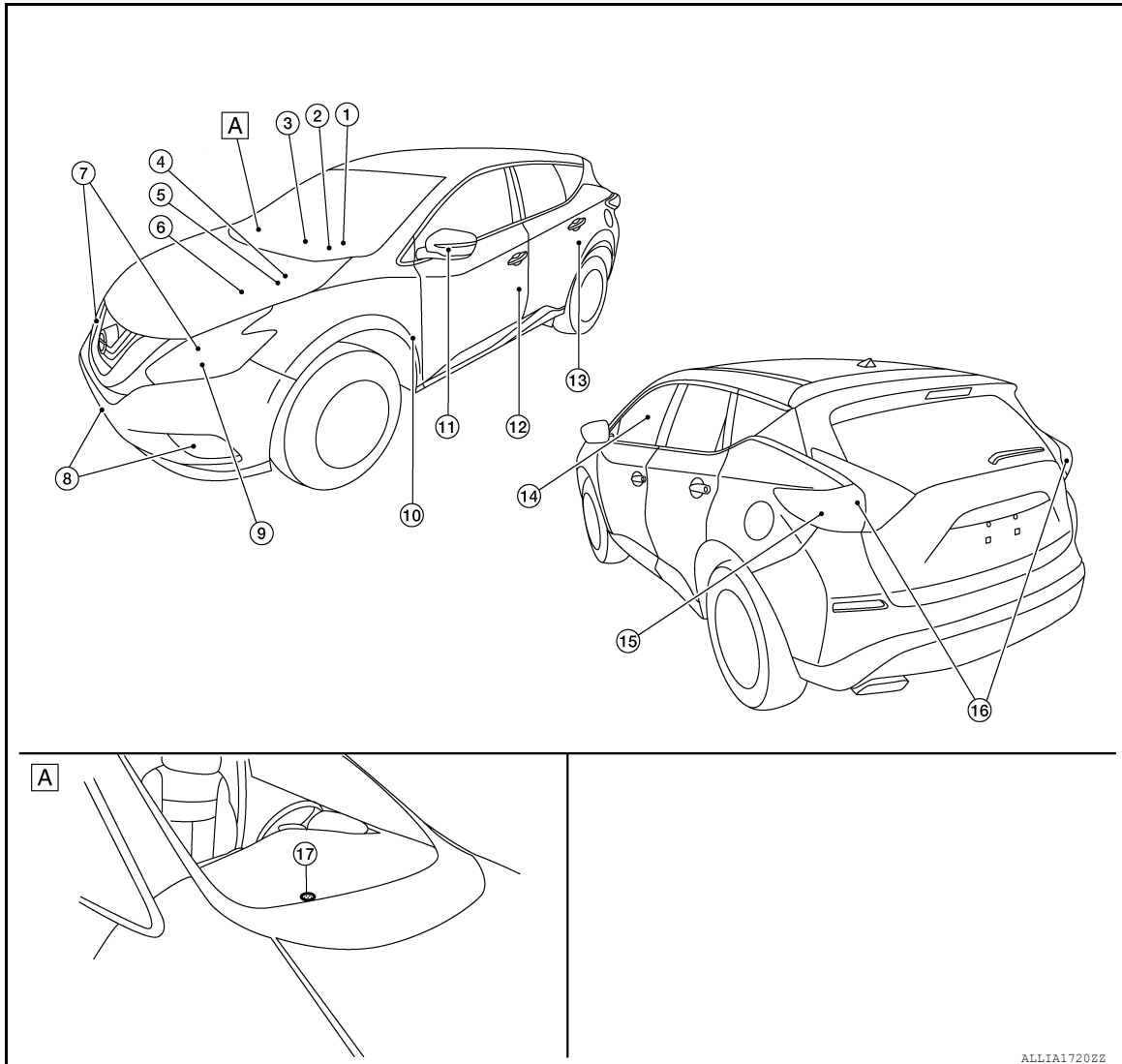
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000011564283



A. Right hand side of instrument panel

No.	Part	Function
1.	Combination meter	Refer to MWI-7, "METER SYSTEM : Combination Meter" .
2.	BCM	• Detects each switch condition by the combination switch reading function. • Judges that the exterior lamps are turned ON according to the vehicle condition. • Requests the headlamp (HI/LO), tail lamp and front fog lamp ON to IPDM E/R (via CAN communication). • Requests high beam indicator lamp ON to the combination meter (via CAN communication). • Judges the outside brightness from the optical sensor signal. • Judges the ON/OFF timing according to the vehicle condition. • Judges the ON/OFF status of the exterior lamp according to the outside brightness and the vehicle condition. • Refer to BCS-4, "BODY CONTROL SYSTEM : Component Parts Location" for detailed installation location.

COMPONENT PARTS

< SYSTEM DESCRIPTION >

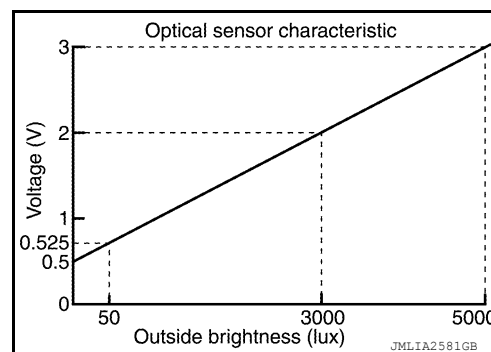
[HALOGEN HEADLAMP]

No.	Part	Function
3.	Combination switch (Lighting and turn signal switch)	Refer to MWI-5, "METER SYSTEM : Component Parts Location" for detailed installation location.
4.	IPDM E/R	- Supplies voltage to the load according to the request from BCM (via CAN communication). - Refer to PCS-5, "Component Parts Location" for detailed installation location.
5.	Front fog lamp relay	Supplies voltage to front fog lamps when operated by IPDM E/R.
6.	Daytime running lamp relay	Supplies voltage to the daytime running lamps according to request from IPDM E/R. Refer to EXL-150, "Daytime Running Light Relay" .
7.	Front combination lamps	Refer to EXL-279, "Bulb Specifications" .
8.	Front fog lamps	Refer to EXL-279, "Bulb Specifications" .
9.	Front turn signal lamp LH	Refer to EXL-279, "Bulb Specifications" .
10.	Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the daytime light system.
11.	Door mirror turn signal LH	Refer to EXL-279, "Bulb Specifications" .
12.	Front door switch LH	Transmits the door open signal to the BCM to operate the autolight system. Refer to DLK-22, "Front Door Switch" for front door switch or DLK-22, "Rear Door Switch" for rear door switch.
13.	Rear door switch LH	
14.	Hazard switch	Refer to EXL-150, "Hazard Switch" .
15.	Rear turn signal lamp LH	Refer to EXL-279, "Bulb Specifications" .
16.	Rear combination lamps	Refer to EXL-279, "Bulb Specifications" .
17.	Optical sensor	Refer to EXL-150, "Optical Sensor" .

Optical Sensor

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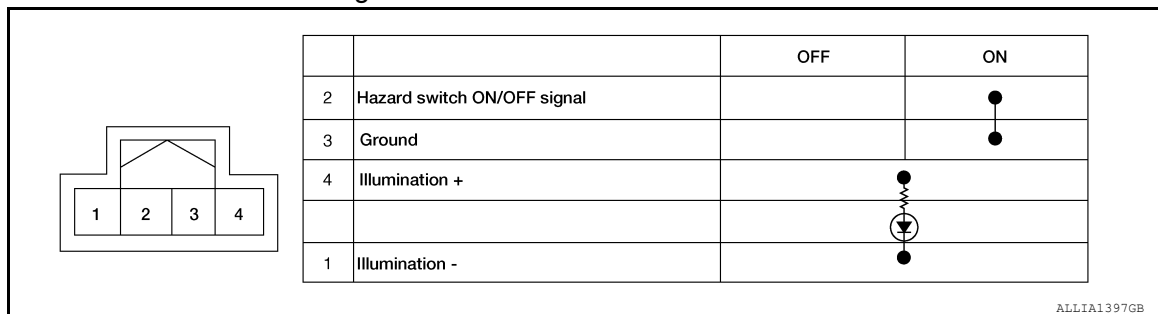
Optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.



Hazard Switch

INFOID:000000011564285

Inputs the hazard switch ON/OFF signal to BCM.



ALLIA1397GB

Daytime Running Light Relay

INFOID:000000011564286

Power is provided to the daytime running light relay according to request from IPDM E/R.

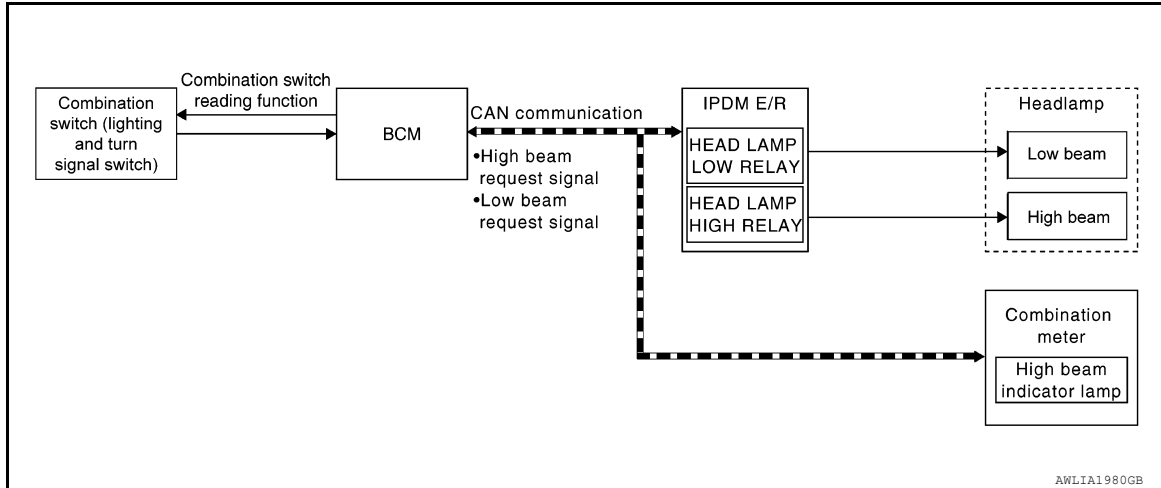
SYSTEM

HEADLAMP SYSTEM

HEADLAMP SYSTEM : System Description

INFOID:0000000011517059

SYSTEM DIAGRAM



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 (auto light function ON judgment)
- Lighting switch PASS
- 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.

HEADLAMP SYSTEM : Fail-safe

INFOID:0000000011517061

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 BCM

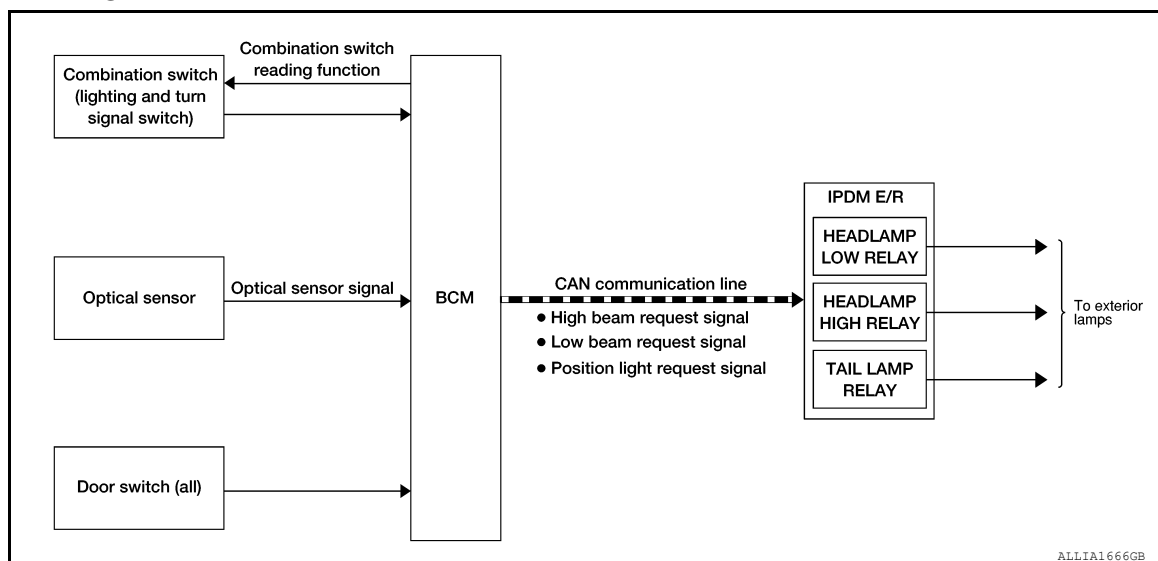
Control part	Fail-safe operation
Headlamp	• Turns ON the headlamp low relay when the ignition switch is turned ON • Turns OFF the headlamp low relay when the ignition switch is turned OFF • Headlamp high relay OFF

AUTO LIGHT SYSTEM

AUTO LIGHT SYSTEM : System Description

INFOID:000000011569129

SYSTEM DIAGRAM



OUTLINE

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

Control by BCM

- Combination switch (lighting and turn signal switch) reading function
- Headlamp control function
- Auto light function
- Delay timer function
- Auto light adjustment system

Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and delay timer function.
- Auto light function automatically turns ON/OFF the exterior lamps* and each illumination automatically, depending on the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF, depending on the vehicle condition with the auto light function after a certain period of time.

*: Headlamps (LO/HI), parking lamps, side marker lamps and tail lamps. Headlamp HI depends on the combination switch (lighting and turn signal switch) condition.

AUTO LIGHT FUNCTION

- BCM detects the combination switch (lighting and turn signal switch) condition with the combination switch (lighting and turn signal switch) reading function.
- BCM supplies voltage to optical sensor when the ignition switch is turned to ON or ACC.
- Optical sensor converts outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.
- BCM judges outside brightness from the optical sensor signal and judges ON/OFF condition of the exterior lamp and each illumination according to the outside brightness.
- BCM transmits each request signal to IPDM E/R and combination meter via CAN communication according to ON/OFF condition by the auto light function.

NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to [BCS-19, "HEADLAMP : CONSULT Function \(BCM - HEADLAMP\)"](#).

AUTO LIGHT ADJUSTMENT SYSTEM

The auto light adjustment system automatically, dims/brightens the display, according to brightness outside the vehicle, when lighting switch 1ST, lighting switch 2ND or lighting switch AUTO is operated. Refer to [INL-8, "ILLUMINATION CONTROL SYSTEM : System Description"](#).

DELAY TIMER FUNCTION

BCM turns the exterior lamp OFF depending on the vehicle condition with the auto light function when the ignition switch is turned OFF.

- Turns the exterior lamp OFF 5 minutes after detecting that any door opens. (Door switch ON).
- Turns the exterior lamp OFF a certain period of time* after closing all doors. (Door switch ON→OFF).
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.

*: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [BCS-19, "HEAD-LAMP : CONSULT Function \(BCM - HEADLAMP\)"](#).

NOTE:

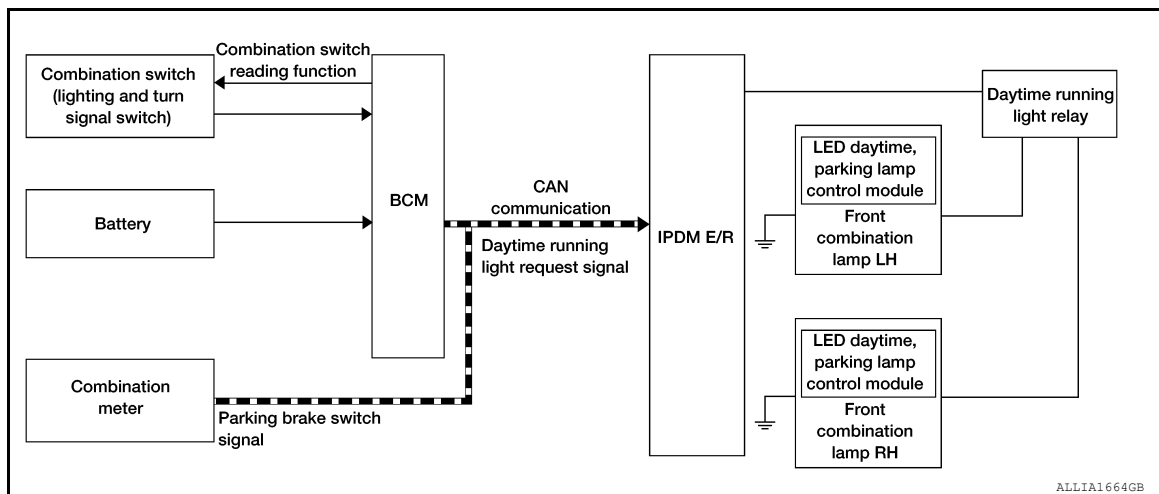
When any position other than the light switch AUTO is set, the auto light system function switches to the exterior lamp battery saver function.

DAYTIME RUNNING LIGHT SYSTEM

DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:0000000011569130

SYSTEM DIAGRAM



OUTLINE

- Turns the front combination lamps on through the LED daytime, parking lamp control module as the daytime running light.
- Daytime running light is controlled by daytime running light control function and combination switch (lighting and turn signal switch) reading function of BCM, and relay control function of IPDM E/R.

DAYTIME RUNNING LIGHT OPERATION

- BCM detects the combination switch (lighting and turn signal switch) condition by the combination switch (lighting and turn signal switch) reading function.
- BCM detects the vehicle condition according to ignition switch
- BCM detects the parking brake condition by the parking brake switch signal received from combination meter using CAN communication.
- BCM transmits the daytime running light request signal to IPDM E/R using CAN communication according to the daytime running light ON condition.

Daytime running light ON condition:

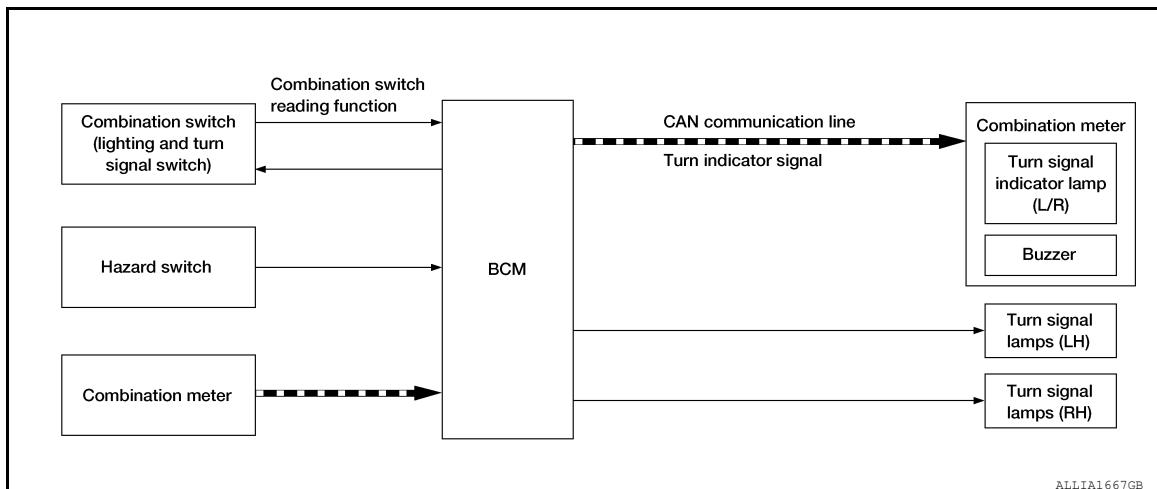
- Vehicle condition READY
- Lighting switch OFF or 1ST
- Lighting switch AUTO, and the auto light function OFF judgment
- Parking brake switch OFF
- IPDM E/R controls the daytime running light relay (ground-side) to turn ON according to the daytime running light request signal.
- Power is supplied from the daytime running light relay to front combination lamp RH and LH, and then daytime running lamps are illuminated.

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description

INFOID:000000011569131

SYSTEM DIAGRAM



OUTLINE

Turn signal lamp and the hazard warning lamp are controlled by combination switch (lighting and turn signal switch) reading function and the flasher control function of BCM.

TURN SIGNAL LAMP OPERATION

- BCM detects the combination switch (lighting and turn signal switch) condition by the combination switch (lighting and turn signal switch) reading function.
- BCM supplies voltage to the right (left) turn signal lamp circuit when the ignition switch is 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 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 using 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 FLASH FUNCTION

- By a short touch of the turn signal lever, BCM blinks the turn signal three times in the selected direction.
- Cancels the operation when short touch of the turn signal lever in the reverse direction during the 3-time flasher function operation.

HIGH FLASHER OPERATION

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

NOTE:

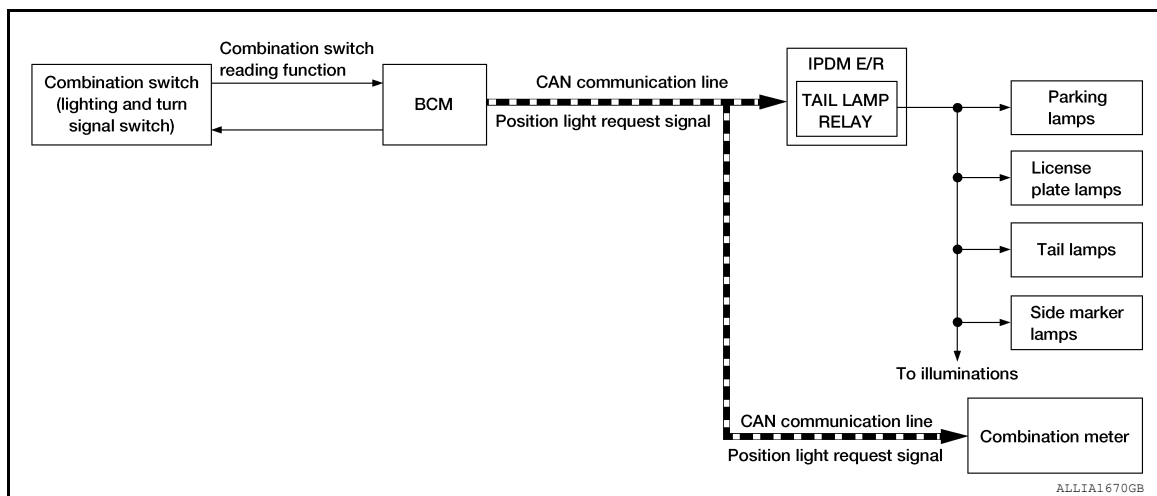
The blinking speed is normal while operating the hazard warning lamp.

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM : System De-

scription

SYSTEM DIAGRAM



OUTLINE

Parking, license plate, side marker and tail lamps are controlled by combination switch (lighting and turn signal switch) reading function, headlamp control function of BCM, and relay control function of IPDM E/R.

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS OPERATION

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

Parking, license plate, side marker and tail lamps ON condition:

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment
- Lighting switch AUTO, with the front fog lamp switch ON and the ignition switch ON
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking, license plate, side marker 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, SIDE MARKER AND TAIL LAMP SYSTEM : Fail-Safe

CAN COMMUNICATION CONTROL

When CAN communication with 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 BCM

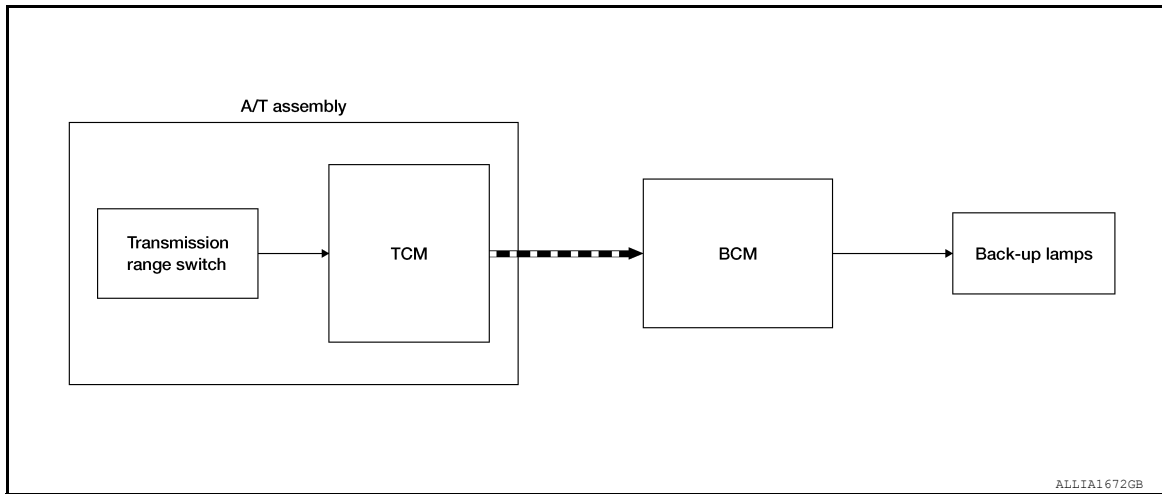
Control part	Fail-safe operation
• Parking lamps • License plate lamps • Illumination • Tail lamps • Side marker lamps	• Turns ON the tail lamp relay when the ignition switch is turned ON • Turns OFF the tail lamp relay when the ignition switch is turned OFF

BACK-UP LAMP SYSTEM

BACK-UP LAMP SYSTEM : System Description

INFOID:0000000011569134

SYSTEM DIAGRAM



OUTLINE

Back-up lamp is controlled by back-up lamp control function of TCM.

BACK-UP LAMP OPERATION

- TCM detects the shift selector lever position status from transmission range switch.
- TCM sends request signal via CAN communication and turns the back-up lamps on when back-up lamp conditions are satisfied.

Back-up lamp ON condition:

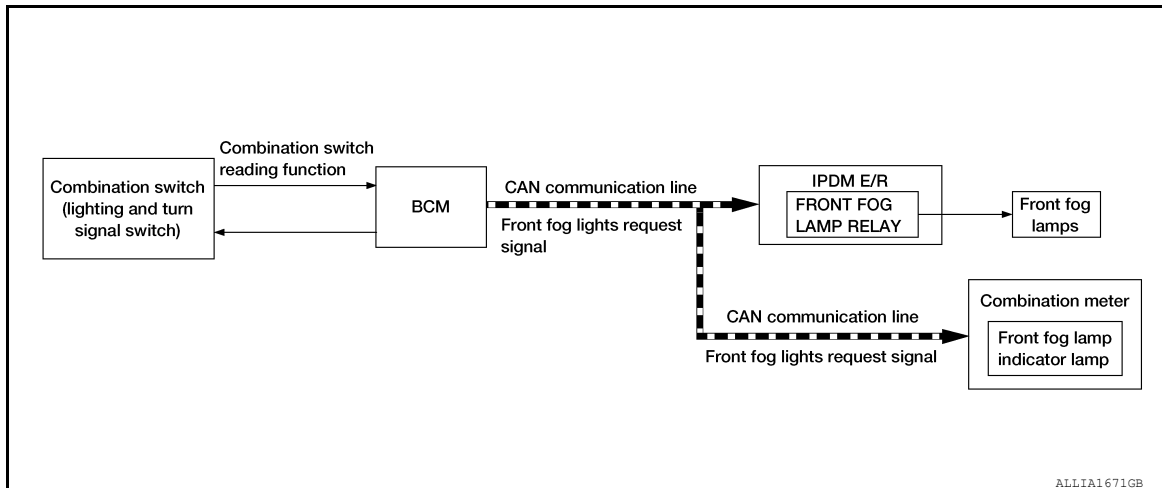
- Ignition switch ON
- Shift selector lever position R

FRONT FOG LAMP SYSTEM

FRONT FOG LAMP SYSTEM : System Description

INFOID:0000000011569135

SYSTEM DIAGRAM



OUTLINE

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

FRONT FOG LAMP OPERATION

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

SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

Front fog lamp ON condition:

- Front fog lamp switch ON, and any of the following condition is satisfied.(except for the high beam ON):
 - Lighting switch 2ND
 - Lighting switch AUTO and the 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 : Fail-Safe

INFOID:0000000011569136

CAN COMMUNICATION CONTROL

When CAN communication with 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 BCM

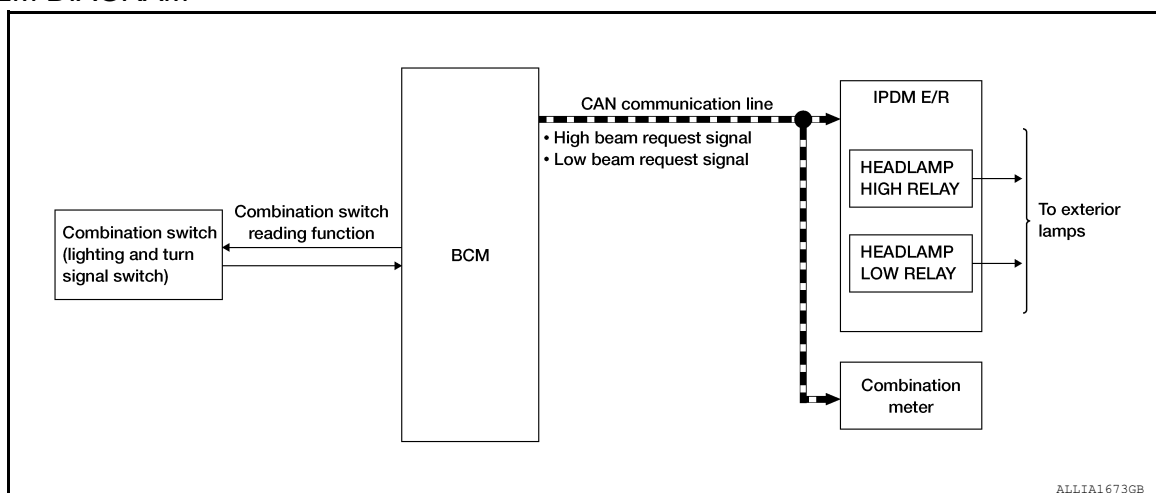
Control part	Fail-safe operation
Front fog lamp	Front fog lamp relay OFF

EXTERIOR LAMP BATTERY SAVER SYSTEM

EXTERIOR LAMP BATTERY SAVER SYSTEM : System Description

INFOID:0000000011569137

SYSTEM DIAGRAM



OUTLINE

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

Control by BCM

- Combination switch (lighting and turn signal switch) reading function
- Exterior lamp battery saver function

Control by IPDM E/R

- Relay control function
 - BCM turns the exterior lamp OFF*, according to the vehicle status when ignition switch is turned OFF while exterior lamp is ON, for preventing battery discharge.
- *: Headlamp (HI/LO).

EXTERIOR LAMP BATTERY SAVER ACTIVATION

- BCM activates the timer and turns the exterior lamp OFF 45 seconds after the ignition switch is turned from ON→OFF with the exterior lamps ON.
- When in any of following conditions (after the exterior lamp battery saver is activated), exterior lamps can be turned ON:
 - Ignition switch is turned from OFF→ACC/ON
 - Lighting switch is changed

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011566413

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	- The vehicle specification can be read and saved. - The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions:

System	Sub System	Direct Diagnostic Mode						
		ECU Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×	×		
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEADLAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×			
Back door open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×			

FREEZE FRAME DATA (FFD)

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed at the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) at the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power position status at the moment a particular DTC is detected*	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK"*).
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK"* to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopped and selector lever is in P position.)
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*
	OFF>ACC		While turning power supply position from "OFF" to "ACC"
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK"*.) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF)*
	OFF		Power supply position is "OFF" (Ignition switch OFF)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition is switched OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:

*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position, and any of the following conditions are met:

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000011566414

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

Monitor Item [Unit]	Description
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates engine status received from ECM on CAN communication line.
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.
TURN SIGNAL R [On/Off]	Indicates condition of combination switch.
TURN SIGNAL L [On/Off]	
TAIL LAMP SW [On/Off]	
HI BEAM SW [On/Off]	
HEAD LAMP SW 1 [On/Off]	
HEAD LAMP SW 2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.
DOOR SW-RR [On/Off]	Indicates condition of rear door switch RH.
DOOR SW-RL [On/Off]	Indicates condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicates condition of back door switch.
OPTI SEN (DTCT) [V]	Indicates outside brightness voltage signal from optical sensor.
OPTI SEN (FILT) [V]	Indicates outside brightness voltage signal from optical sensor filtered by BCM.

ACTIVE TEST

Test Item	Description
FR FOG LAMP	This test is able to check front fog lamp operation [On/Off].
DAYTIME RUNNING LIGHT	This test is able to check daytime running lamp operation [On/Off].
ILL DIM SIGNAL	This test is able to check head lamp illumination dimming operation [On/Off].

WORK SUPPORT

Support Item	Setting	Description
TWILIGHT ON	MODE2*	Auto lamp function ON.
	MODE1	Auto lamp function OFF.
WIPER LINK	MODE4	This mode is not used.
	MODE3*	Wiper link function operates in INT, LOW and HI.
	MODE2	Wiper link function operates in LOW and HI.
	MODE1	Wiper link function OFF.
CUSTOM A/LIGHT SETTING	MODE4	Less sensitive than normal setting (turns ON later).
	MODE3	More sensitive than MODE2.
	MODE2	More sensitive than normal setting (turns ON earlier).
	MODE1*	Normal setting.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

Support Item	Setting	Description
ILL DELAY SET	MODE 8	Auto lamp delay timer.
	MODE 7	
	MODE 6	
	MODE 4	
	MODE 5	
	MODE 3	
	MODE 2	
	MODE 1*	

* : Initial setting

FLASHER

FLASHER : CONSULT Function (BCM - FLASHER)

INFOID:000000011566415

DATA MONITOR

Monitor Item [Unit]	Description
REQ SW -DR [On/Off]	Indicates condition of door request switch LH.
REQ SW -AS [On/Off]	Indicates condition of door request switch RH.
PUSH SW [On/Off]	Indicates condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Indicates condition of turn signal function of combination switch.
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	Indicates condition of hazard switch.
RKE-LOCK [On/Off]	Indicates condition of lock signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates condition of unlock signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates condition of panic alarm signal from Intelligent Key.

ACTIVE TEST

Test Item	Description
FLASHER	This test is able to check turn signal lamp operation [Off/LH/RH].

WORK SUPPORT

Support item	Setting	Description
3-TIME FLASHER SETTING	ON*	3-Time flasher setting ON.
	OFF	3-Time flasher setting OFF.

* : Initial setting

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:0000000011566518

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:

- Front wiper (LO, HI)
- Front fog lamps
- Parking lamps
- Side marker lamps
- Tail lamps
- License plate lamps
- Daytime running lamps
- Headlamps (LO, HI)
- A/C compressor
- Cooling fans (LO, HI)

Operation Procedure

CAUTION:

Do not start the engine.

NOTE:

When auto active test is performed with hood opened, sprinkle water on windshield before hand.

NOTE:

- If auto active test mode cannot be actuated, check door switch system. Refer to [DLK-179, "Component Function Check"](#).
 - When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.
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 front door switch LH 10 times. Then turn the ignition switch OFF.
 4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once, and the auto active test starts.
 5. After a series of the following operations is repeated 3 times, auto active test is completed.

Inspection in Auto Active Test Mode

When auto active test mode is actuated, the following operation sequence is repeated 3 times.

Operation sequence	Inspection Location	Operation
1	Front wiper	LO for 3 seconds → HI for 3 seconds
2	• Front fog lamps • Parking lamps • Side marker lamps • Tail lamps • License plate lamps	10 seconds
3	Daytime running lamps	10 seconds
4	Headlamps	LO ⇄ HI 5 times
5	A/C compressor	ON ⇄ OFF 5 times
6*	Cooling fans	LO for 5 seconds → HI for 5 seconds

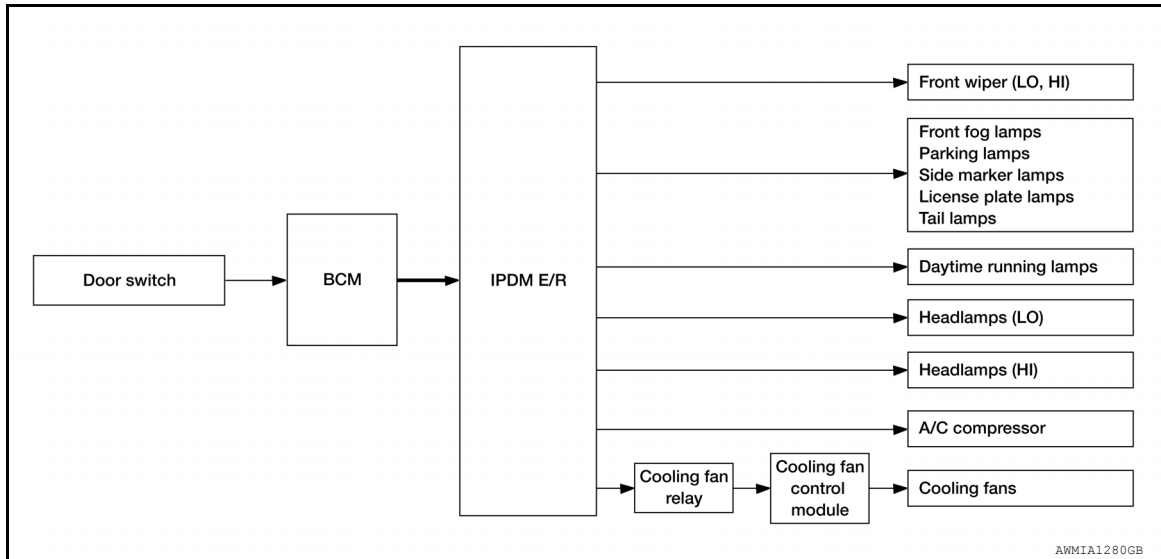
*: Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN HEADLAMP]

< SYSTEM DESCRIPTION >

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
Any of the following components do not operate • Front fog lamps • Parking lamps • Side marker lamps • License plate lamps • Tail lamps • Daytime running lamps • Headlamp (HI, LO) • Front wiper	Perform auto active test. Does the applicable system operate?	YES	BCM signal input circuit
		NO	• Lamp or motor • Lamp or motor ground circuit • Harness or connector between IPDM E/R and applicable system • IPDM E/R
Cooling fans do not operate	Perform auto active test. Do the cooling fans operate?	YES	• ECM signal input circuit • CAN communication signal between ECM and IPDM E/R
		NO	• Cooling fans • Harness or connectors between cooling fans and cooling fan control module • Cooling fan control module • Harness or connectors between cooling fan relay and cooling fan control module • Cooling fan relay • Harness or connectors between IPDM E/R and cooling fan relay • IPDM E/R

CONSULT Function (IPDM E/R)

INFOID:0000000011566519

CAUTION:

After disconnecting the CONSULT vehicle interface (VI) from the data link connector, the ignition must be cycled OFF → ON (for at least 5 seconds) → OFF. If this step is not performed, the BCM may not go to "sleep mode", potentially causing a discharged battery and a no-start condition.

DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN HEADLAMP]

< SYSTEM DESCRIPTION >

APPLICATION ITEM

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

Direct Diagnostic Mode	Description
ECU Identification	The IPDM E/R part number is displayed.
Self Diagnostic Result	The IPDM E/R self diagnostic results are displayed.
Data Monitor	The IPDM E/R input/output data is displayed in real time.
Active Test	The IPDM E/R activates outputs to test components.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to [PCS-21, "DTC Index"](#).

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
MOTOR FAN REQ [%]	×	Indicates cooling fan speed signal received from ECM on CAN communication line.
AC COMP REQ [On/Off]	×	Indicates A/C compressor request signal received from ECM on CAN communication line.
TAIL&CLR REQ [On/Off]	×	Indicates position light request signal received from BCM on CAN communication line.
HL LO REQ [On/Off]	×	Indicates low beam request signal received from BCM on CAN communication line.
HL HI REQ [On/Off]	×	Indicates high beam request signal received from BCM on CAN communication line.
FR FOG REQ [On/Off]	×	Indicates front fog light request signal received from BCM on CAN communication line.
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Indicates front wiper request signal received from BCM on CAN communication line.
WIP AUTO STOP [STOP P/ACT P]	×	Indicates condition of front wiper auto stop signal.
WIP PROT [Off/BLOCK]	×	Indicates condition of front wiper fail-safe operation.
IGN RLY1 -REQ [On/Off]		Indicates ignition switch ON signal received from BCM on CAN communication line.
IGN RLY [On/Off]	×	Indicates condition of ignition relay.
PUSH SW [On/Off]		Indicates condition of push-button ignition switch.
INTER/NP SW [On/Off]		Indicates condition of CVT shift position.
ST RLY CONT [On/Off]		Indicates starter relay status signal received from BCM on CAN communication line.
IHBT RLY -REQ [On/Off]		Indicates starter control relay signal received from BCM on CAN communication line.
ST/INH1 RLY [Off/ ST /INH1]		Indicates condition of starter relay and starter control relay.
DETENT SW [On/Off]		Indicates condition of CVT shift selector (park position switch).
DTRL REQ [Off]		Indicates daytime light request signal received from BCM on CAN communication line.
HOOD SW [On/Off]		Indicates condition of hood switch.
THFT HRN REQ [On/Off]		Indicates theft warning horn request signal received from BCM on CAN communication line.
HORN CHIRP [On/Off]		Indicates horn reminder signal received from BCM on CAN communication line.
HOOD SW 2 [On/Off]		Indicates condition of hood switch 2.

DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN HEADLAMP]

ACTIVE TEST

Test item	Description
HORN	This test is able to check horn operation [On].
FRONT WIPER	This test is able to check wiper motor operation [Hi/Low/Off].
MOTOR FAN	This test is able to check cooling fan operation [4/3/2/1].
EXTERNAL LAMPS	This test is able to check external lamp operation [Fog/Hi/Low/Tail/Off].

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

INFOID:0000000011517083

ECU	Reference
BCM	BCS-30, "Reference Value"
	BCS-50, "Fail Safe"
	BCS-51, "DTC Inspection Priority Chart"
	BCS-52, "DTC Index"
IPDM E/R	PCS-13, "Reference Value"
	PCS-20, "Fail Safe"
	PCS-21, "DTC Index"

HEADLAMP

[HALOGEN HEADLAMP]

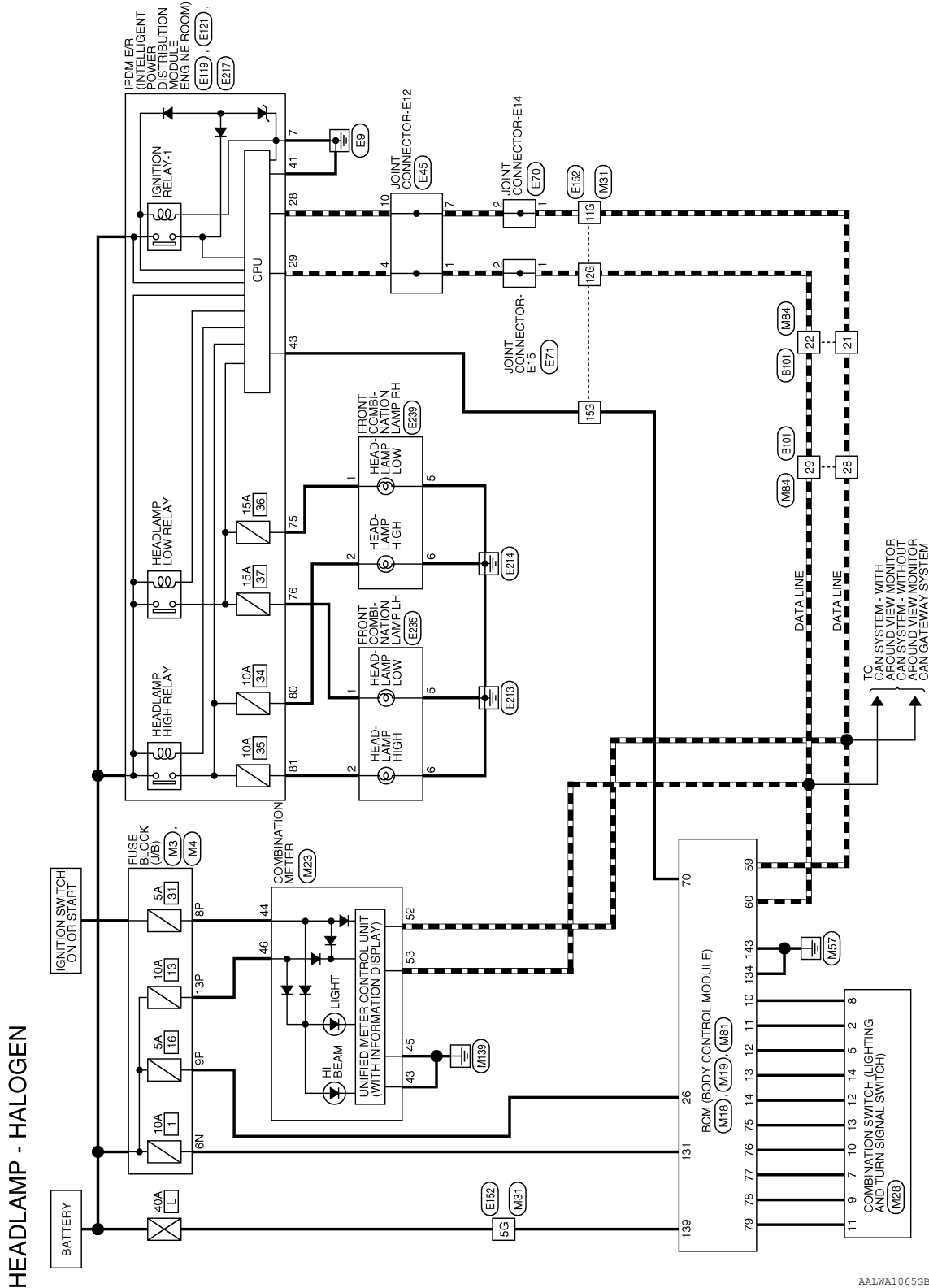
< WIRING DIAGRAM >

WIRING DIAGRAM

HEADLAMP

Wiring Diagram

INFOID:0000000011564145



AALWA1065GB

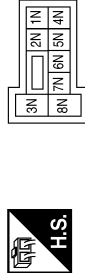
HEADLAMP

< WIRING DIAGRAM >

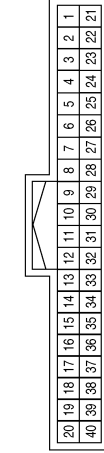
[HALOGEN HEADLAMP]

HEADLAMP CONNECTORS - HALOGEN

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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



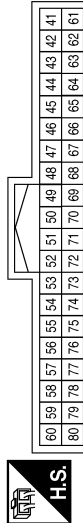
Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN

Terminal No.	Color of Wire	Signal Name
6N	W	-

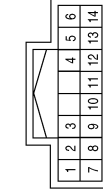
Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

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HEADLAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

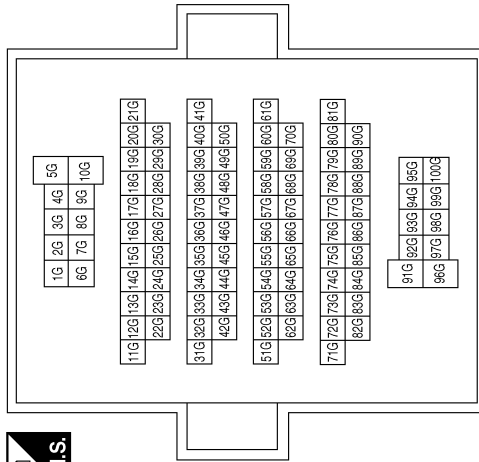


137	138	139	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



6	5	4	3	2	1
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Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



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

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

AALIA3047GB

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

HEADLAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

7	8	9		10	11
12	13	14	15	16	17
				18	



Terminal No.	Color of Wire	Signal Name
7	B	P-GND

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK

6	5	4	3	2	1
---	---	---	---	---	---



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

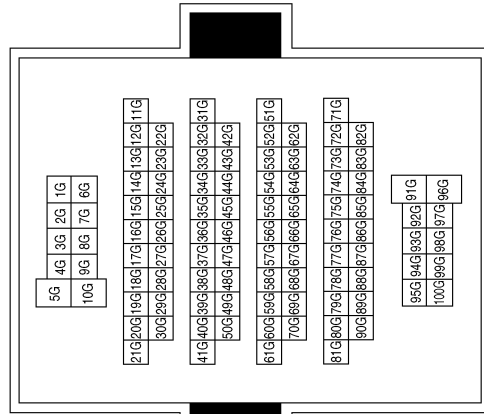
74		75	76
77	78	79	80
			81



Terminal No.	Color of Wire	Signal Name
75	L/W	HEADLAMP LO RH (WITH HALOGEN)
76	L	HEADLAMP LO LH
80	G/W	HEADLAMP HI RH (WITH HALOGEN)
81	G	HEADLAMP HI LH

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



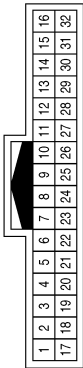
AALIA3048GB

HEADLAMP

< WIRING DIAGRAM >

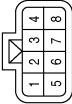
[HALOGEN HEADLAMP]

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



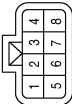
Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Connector No.	E239
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L/W	-
2	G/W	-
5	B	-
6	B	-

Connector No.	E235
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	G	-
5	B	-
6	B	-

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AALIA3049GB

DAYTIME RUNNING LIGHT SYSTEM

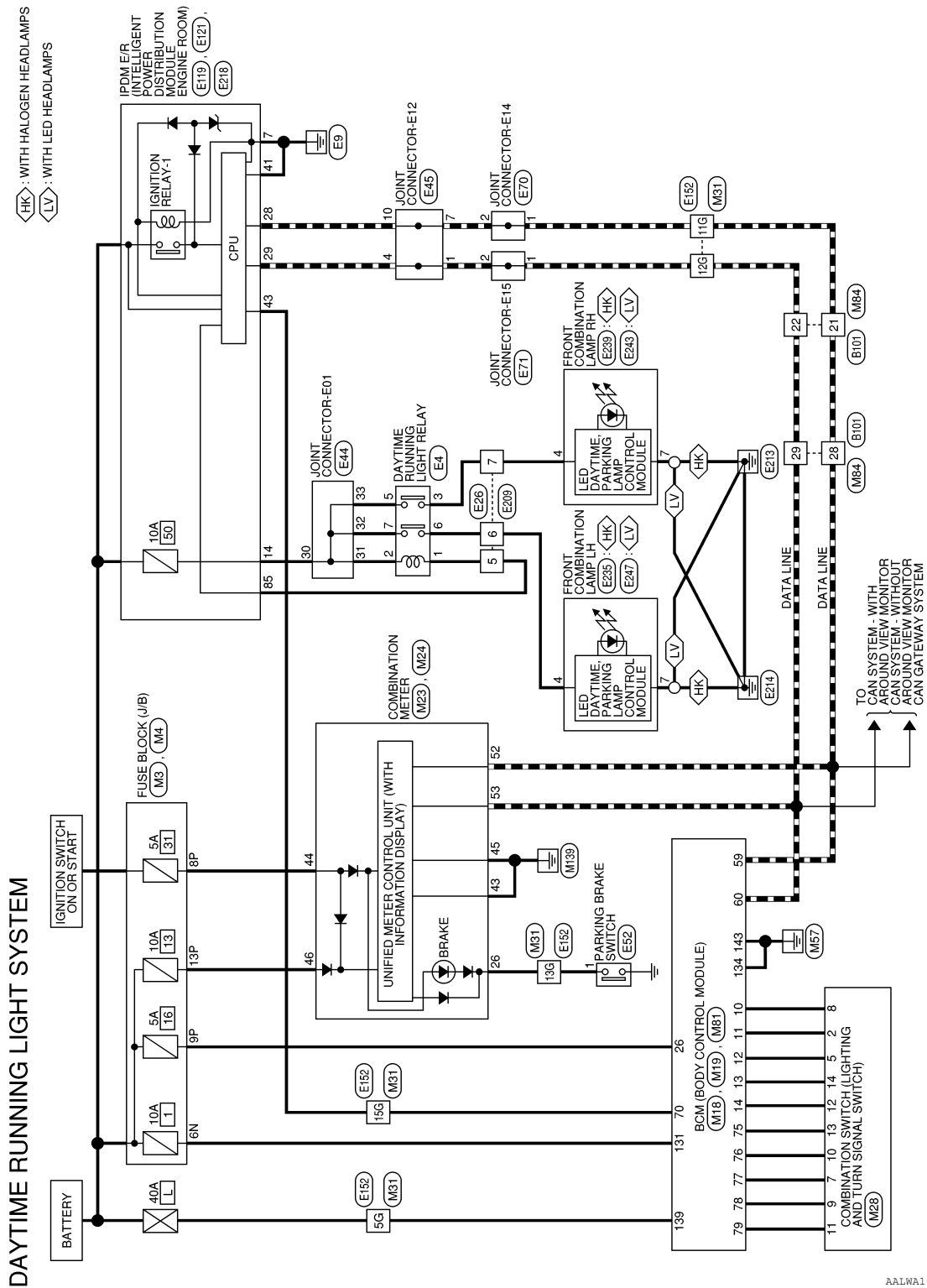
[HALOGEN HEADLAMP]

< WIRING DIAGRAM >

DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram

INFOID:0000000011564146



AALWA1060GB

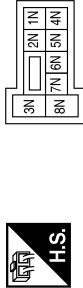
DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

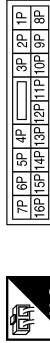
DAYTIME RUNNING LIGHT SYSTEM CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



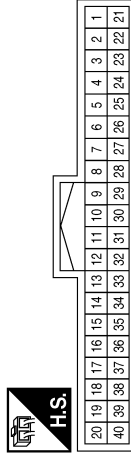
Terminal No.	Color of Wire	Signal Name
6N	W	-

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



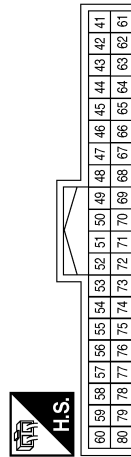
Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



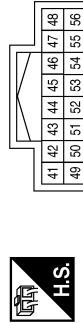
Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



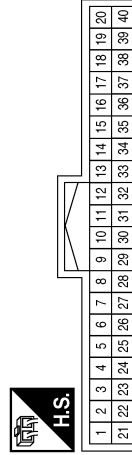
Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
26	BR	PKB SW

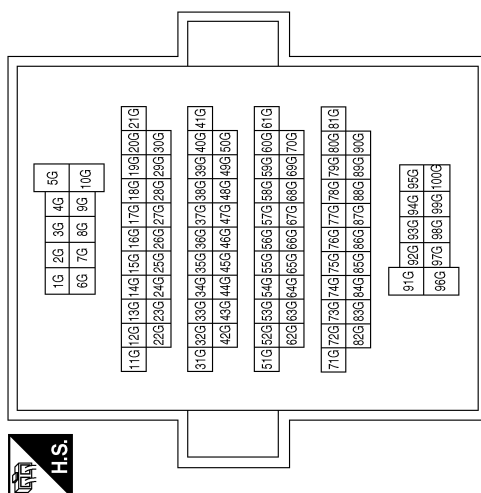
DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

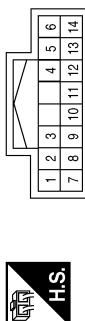
[HALOGEN HEADLAMP]

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
13G	BR	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

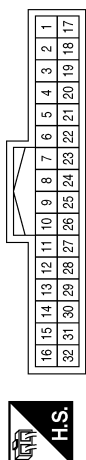


Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

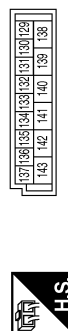
Connector No.	E4
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Color	BROWN



Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	Y	-
2	LG	-
3	BR	-
5	LG	-
6	SB	-
7	LG	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

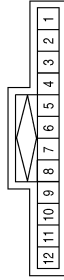
AALIA3026GB

DAYTIME RUNNING LIGHT SYSTEM

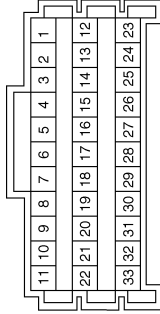
< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

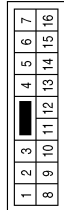
Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Connector No.	E26
Connector Name	WIRE TO WIRE
Connector Color	WHITE

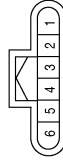


Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

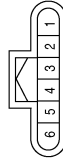
Terminal No.	Color of Wire	Signal Name
30	LG	-
31	LG	-
32	LG	-
33	LG	-

Terminal No.	Color of Wire	Signal Name
5	Y	-
6	SB	-
7	BR	-

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



Connector No.	E52
Connector Name	PARKING BRAKE SWITCH
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Terminal No.	Color of Wire	Signal Name
1	LG	-

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DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

7	8	9		10	11	
12	13	14	15	16	17	18



Terminal No.	Color of Wire	Signal Name
7	B	P-GND
14	LG	DTRL

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E209
Connector Name	WIRE TO WIRE
Connector Color	WHITE

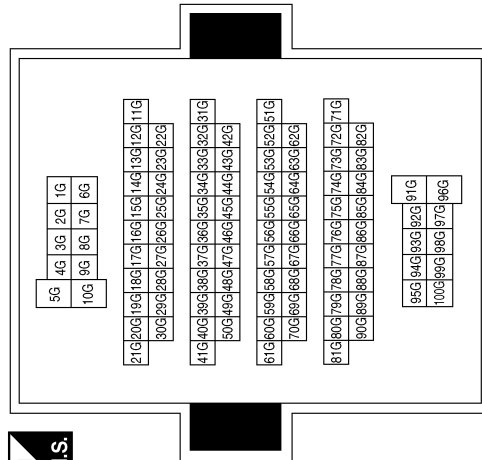
7	6	5	4	3	2	1		
16	15	14	13	12	11	10	9	8



Terminal No.	Color of Wire	Signal Name
5	Y/V	-
6	GR/BR	-
7	W/G	-

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
13G	LG	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



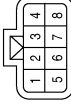
AALIA3028GB

DAYTIME RUNNING LIGHT SYSTEM

< WIRING DIAGRAM >

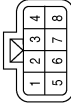
[HALOGEN HEADLAMP]

Connector No.	E239
Connector Name	FRONT COMBINATION LAMP RH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



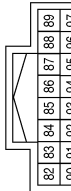
Terminal No.	Color of Wire	Signal Name
4	W/G	-
7	B	-

Connector No.	E235
Connector Name	FRONT COMBINATION LAMP LH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



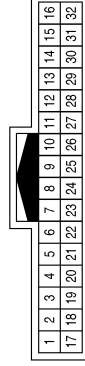
Terminal No.	Color of Wire	Signal Name
4	GR/BR	-
7	B	-

Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



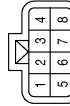
Terminal No.	Color of Wire	Signal Name
85	Y/V	DTRL RLY

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



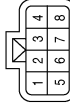
Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Connector No.	E247
Connector Name	FRONT COMBINATION LAMP LH (WITH LED HEADLAMPS)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
4	GR/BR	-
7	B	-

Connector No.	E243
Connector Name	FRONT COMBINATION LAMP RH (WITH LED HEADLAMPS)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
4	W/G	-
7	B	-

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AUTO LIGHT SYSTEM CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	-

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



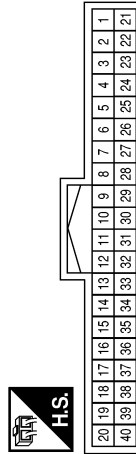
Terminal No.	Color of Wire	Signal Name
9P	L	-

Connector No.	M15
Connector Name	OPTICAL SENSOR
Connector Color	WHITE

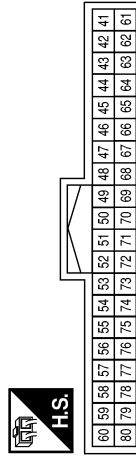


Terminal No.	Color of Wire	Signal Name
1	W	-
2	G	-
3	R	-

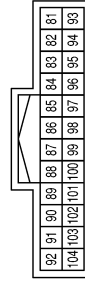
Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



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



Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Terminal No.	Color of Wire	Signal Name
3	W	A/L POWER SUPPLY 5V
4	G	A/L SIGNAL
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
17	R	GND RF A/L
26	L	SHORTING INPUT

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Terminal No.	Color of Wire	Signal Name
82	W	RL DOOR SW
93	R	RR DOOR SW
94	G	AS DOOR SW
96	BG	DR DOOR SW

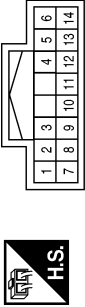
AALIA3030GB

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

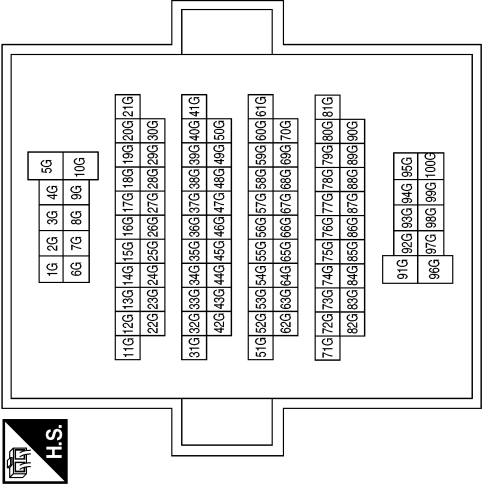
[HALOGEN HEADLAMP]

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



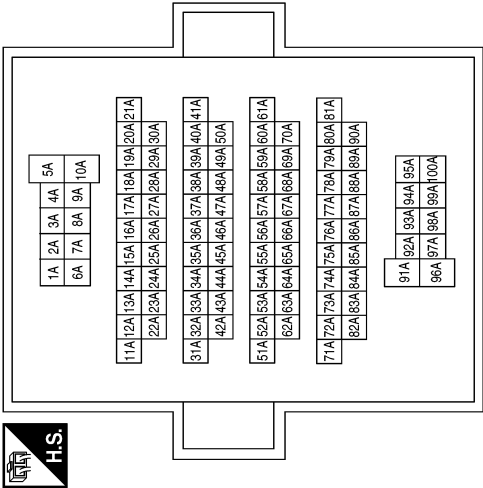
Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY



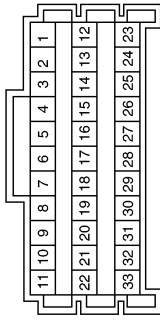
Terminal No.	Color of Wire	Signal Name
76A	BG	-
77A	W	-

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

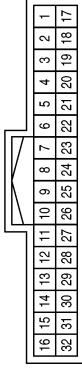
[HALOGEN HEADLAMP]

Connector No.	M175
Connector Name	JOINT CONNECTOR-M22
Connector Color	WHITE



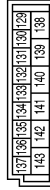
Terminal No.	Color of Wire	Signal Name
23	BG	-
25	BG	-

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



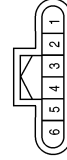
Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-
31	R	-
32	G	-

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



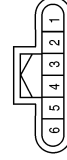
Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



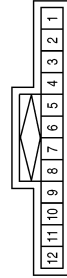
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

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

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

7	8	9		10	11
12	13	14	15	16	17
				18	



Terminal No.	Color of Wire	Signal Name
7	B	P-GND
9	G	TAIL RH
10	L	TAIL LH

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

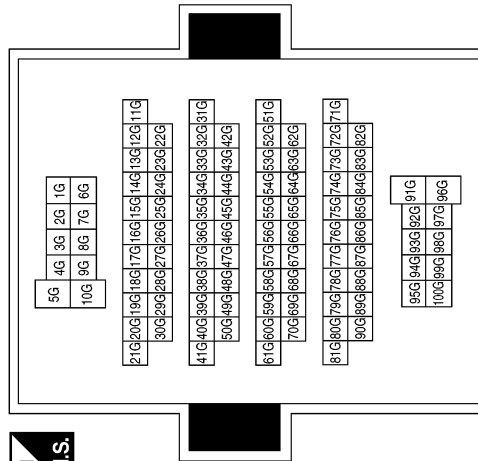
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

74		75	76	
77	78	79	80	81



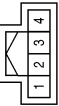
Terminal No.	Color of Wire	Signal Name
75	SB	HEADLAMP LO RH (WITH LED HEADLAMPS)
75	LW	HEADLAMP LO RH (WITH HALOGEN HEADLAMPS)
76	L	HEADLAMP LO LH
80	LG	HEADLAMP HI RH (WITH LED HEADLAMPS)
80	GW	HEADLAMP HI RH (WITH HALOGEN HEADLAMPS)
81	G	HEADLAMP HI LH

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

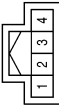
[HALOGEN HEADLAMP]

Connector No.	B18
Connector Name	REAR DOOR SWITCH LH
Connector Color	WHITE



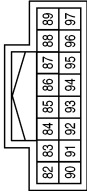
Terminal No.	Color of Wire	Signal Name
3	W	-

Connector No.	B8
Connector Name	FRONT DOOR SWITCH LH
Connector Color	WHITE



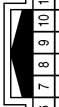
Terminal No.	Color of Wire	Signal Name
3	O	-

Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
90	GR	CLEARANCE

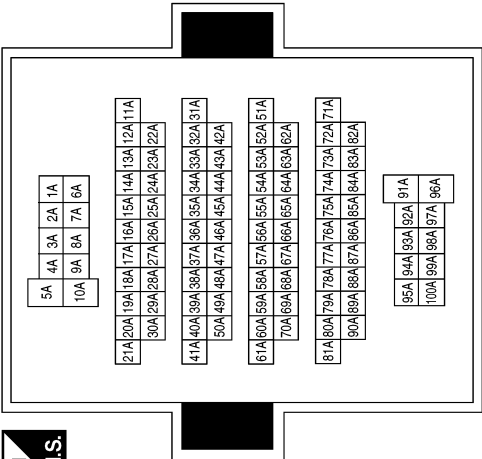
Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-
31	G/W	-
32	V	-

Terminal No.	Color of Wire	Signal Name
76A	O	-
77A	W	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	GRAY



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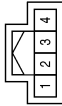
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EXL
M
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O
P

AUTO LIGHT SYSTEM

< WIRING DIAGRAM >

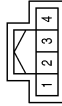
[HALOGEN HEADLAMP]

Connector No.	B116
Connector Name	REAR DOOR SWITCH RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
3	GW	-

Connector No.	B108
Connector Name	FRONT DOOR SWITCH RH
Connector Color	WHITE



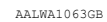
Terminal No.	Color of Wire	Signal Name
3	V	-

AALIA3035GB

[HALOGEN HEADLAMP]

FRONT FOG LAMP SYSTEM

INFOID:0000000011564148



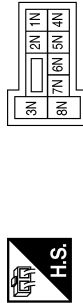
FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

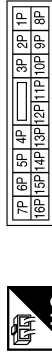
FRONT FOG LAMP CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



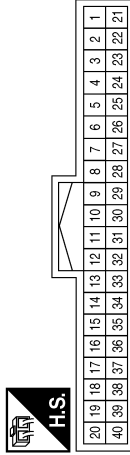
Terminal No.	Color of Wire	Signal Name
6N	W	-

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



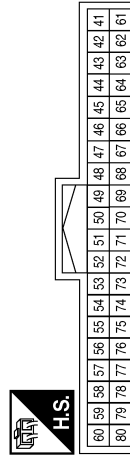
Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



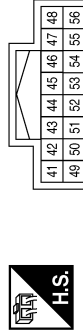
Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

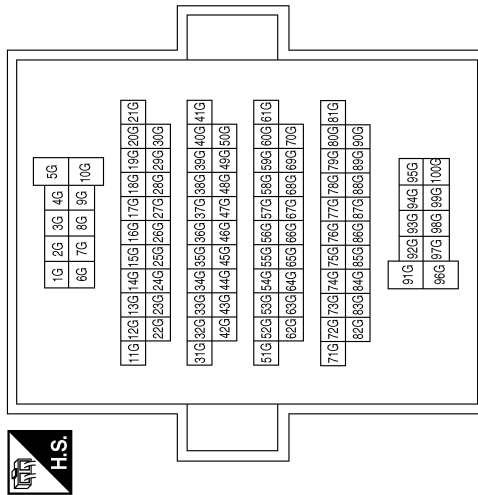
FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

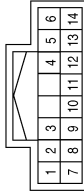
[HALOGEN HEADLAMP]

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE

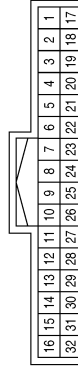


Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-
11	W	-
12	P	-
13	BG	-
14	G	-

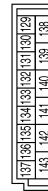
Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

AALIA3043GB

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

FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



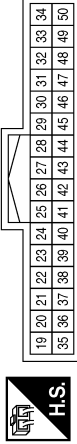
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



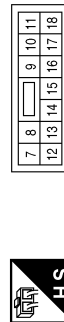
Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



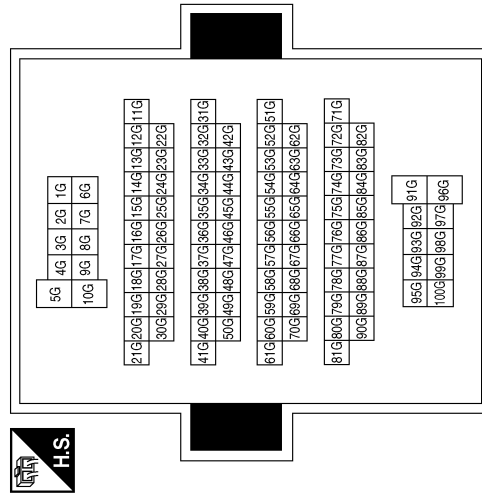
Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7	B	P-GND

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AALIA3044GB

FRONT FOG LAMP SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E242
Connector Name	FRONT FOG LAMP LH
Connector Color	BLACK



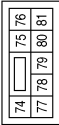
Terminal No.	Color of Wire	Signal Name
1	L	-
2	B	-

Connector No.	E241
Connector Name	FRONT FOG LAMP RH
Connector Color	BLACK



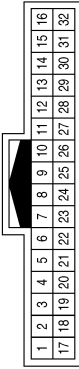
Terminal No.	Color of Wire	Signal Name
1	W	-
2	B	-

Connector No.	E217
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
78	W	FR FOG LAMP RH
79	L	FR FOG LAMP LH

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

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EXL

[HALOGEN HEADLAMP]

INFOID:0000000011564149

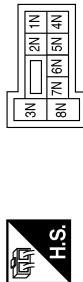
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

TURN SIGNAL AND HAZARD WARNING LAMPS CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



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

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



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

Terminal No.	Color of Wire	Signal Name
6N	W	-

Terminal No.	Color of Wire	Signal Name
8P	BG	-
9P	L	-
13P	W	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT
36	W	HAZARD SW

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



60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45	44	43	42	41
80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64	63	62	61

Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



92	91	90	89	88	87	86	85	84	83	82	81
104	103	102	101	100	99	98	97	96	95	94	93

Terminal No.	Color of Wire	Signal Name
92	R	RR FLASHER
103	BG	RL FLASHER

AALIA3069GB

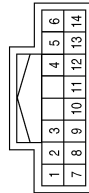
TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

[HALOGEN HEADLAMP]

< WIRING DIAGRAM >

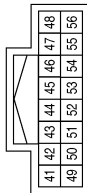
Terminal No.	Color of Wire	Signal Name
11	W	-
12	P	-
13	BG	-
14	G	-

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	BG	-
5	R	-
7	R	-
8	W	-
9	G	-
10	P	-

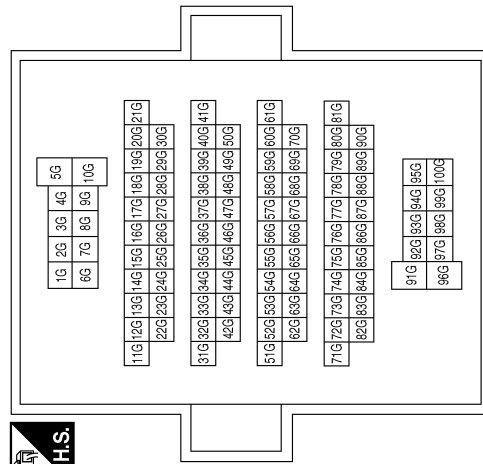
Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Terminal No.	Color of Wire	Signal Name
1G	SB	-
5G	L	-
7G	LG	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



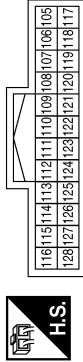
AALIA3070GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

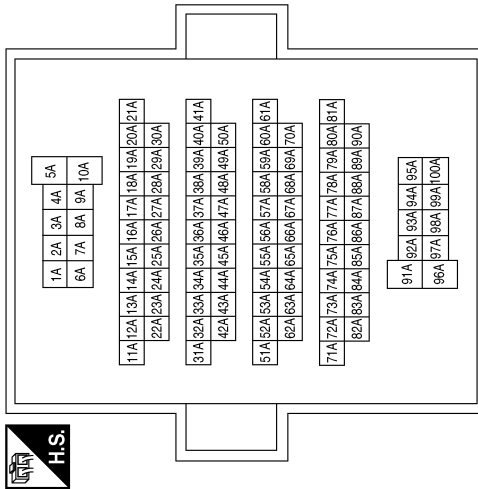
Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
105	LG	FR SR FLASHER
117	SB	FL SL FLASHER

Terminal No.	Color of Wire	Signal Name
73A	BG	-

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Connector No.	M91
Connector Name	WIRE TO WIRE
Connector Color	WHITE



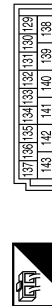
Terminal No.	Color of Wire	Signal Name
15B	B	-
32B	LG	-

Connector No.	M83
Connector Name	HAZARD SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W	-
3	B	-

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND 2
139	L	BAT POWER F/L
143	GR	GND 1

AALIA3071GB

A
B
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H
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J
K
EXL
M
N
O
P

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

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



1C	2C	3C	4C	5C	6C	7C	8C	9C	10C	11C	12C	13C	14C	15C												
16C	17C	18C	19C	20C	21C	22C	23C	24C	25C	26C	[REDACTED]															
[REDACTED]											27C	28C	29C	30C	31C	32C	33C	34C	35C							
[REDACTED]											[REDACTED]					36C	37C	38C	39C	40C	41C	42C	43C	44C	45C	46C
[REDACTED]											[REDACTED]					47C	48C	49C	50C	51C	52C	53C	54C	55C		

Terminal No.	Color of Wire	Signal Name
15C	B	-
32C	SB	-



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

Terminal No.	Color of Wire	Signal Name
8	R	-



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

Terminal No.	Color of Wire	Signal Name
1G	W	—
5G	P	—
7G	G	—



5G	4G	2G	1G
10G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
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39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
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48G	47G	46G	45G
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30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
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9G	8G	7G	6G
5G	4G	3G	2G
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12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
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30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
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13G	12G	11G	10G
9G	8G	7G	6G
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6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
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9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
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24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
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53G	52G	51G	50G
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30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
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30G	29G	28G	27G
26G	25G	24G	23G
21G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	9G	8G	7G
6G	5G	4G	3G
2G	20G	19G	18G
17G	16G	15G	14G
13G	12G	11G	10G
9G	8G	7G	6G
5G	4G	3G	2G
1G	40G	39G	38G
37G	36G	35G	34G
33G	32G	31G	30G
29G	28G	27G	26G
24G	23G	22G	21G
20G	19G	18G	17G
16G	15G	14G	13G
12G	11G	10G	9G
8G	7G	6G	5G
4G	3G	2G	1G
9G	8G	7G	6G
5G	4G	3G	2G
1G	60G	59G	58G
57G	56G	55G	54G
53G	52G	51G	50G
48G	47G	46G	45G
43G	42G	41G	40G
39G	38G	37G	36G
34G	33G	32G	31G
30G			



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

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Terminal No.	Color of Wire	Signal Name
3	L/R	-
4	B	-

AALIA3073GB

A
B
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EX
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P

EXL

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

[illegible]

5	7
6	8

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

[illegible]

1	2	3	4
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Terminal No.	Color of Wire	Signal Name
3	L/R	-
4	GR	-

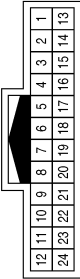
AALTA3074GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< WIRING DIAGRAM >

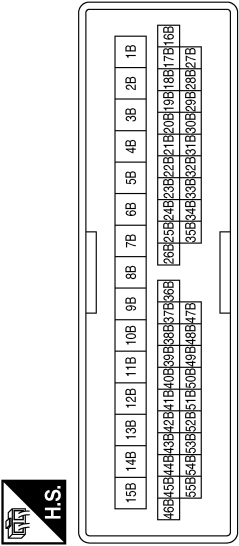
[HALOGEN HEADLAMP]

Connector No.	D107
Connector Name	DOOR MIRROR RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
20	G/O	-
21	B/W	-

Connector No.	D101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
15B	B	-
32B	G/O	-

AALIA3075GB

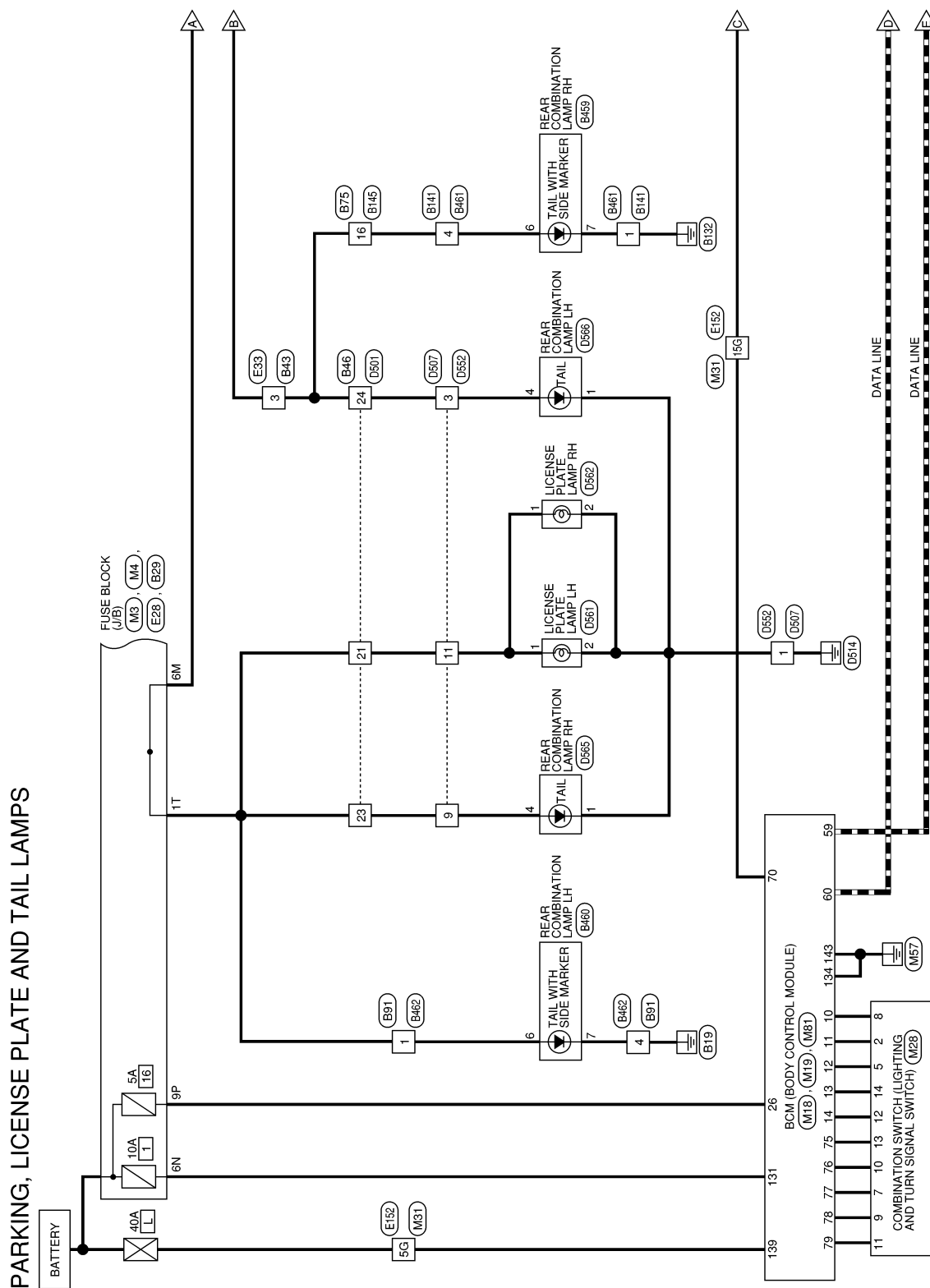
A
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K
EXL
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P

EXL

[HALOGEN HEADLAMP]

Wiring Diagram

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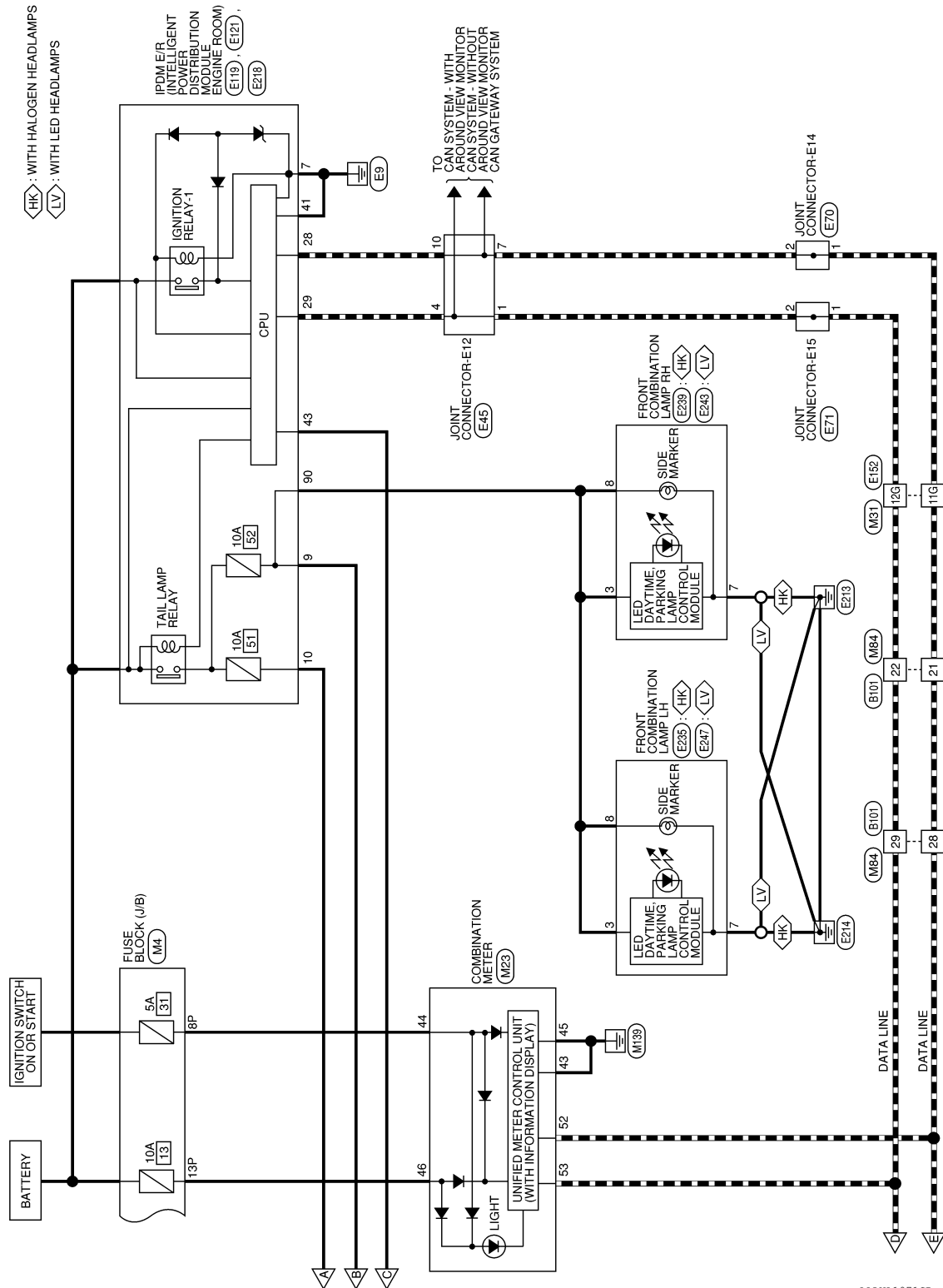


AAI.WA1070GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]



AALWA1071GB

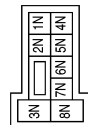
PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

PARKING, LICENSE PLATE AND TAIL LAMPS CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



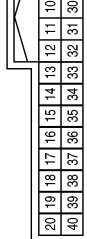
Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
6N	W	—

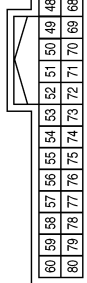
Terminal No.	Color of Wire	Signal Name
8P	BG	—
9P	L	—
13P	W	—

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN

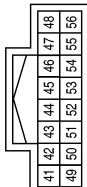


Terminal No.	Color of Wire	Signal Name
10	W	COMBI SW IN 5
11	BG	COMBI SW IN 4
12	R	COMBI SW IN 3
13	G	COMBI SW IN 2
14	P	COMBI SW IN 1
26	L	SHORTING INPUT

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



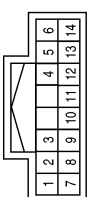
Connector No.	M23
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	R	COMBI SW OUT 3
78	G	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Terminal No.	Color of Wire	Signal Name
43	B	GND1
44	BG	POWER (IGN)
45	B	GND2
46	W	POWER (BAT)
52	P	CAN-L
53	L	CAN-H

Connector No.	M28
Connector Name	COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	BG	—
5	R	—
7	R	—
8	W	—
9	G	—
10	P	—
11	W	—
12	P	—
13	BG	—
14	G	—

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE

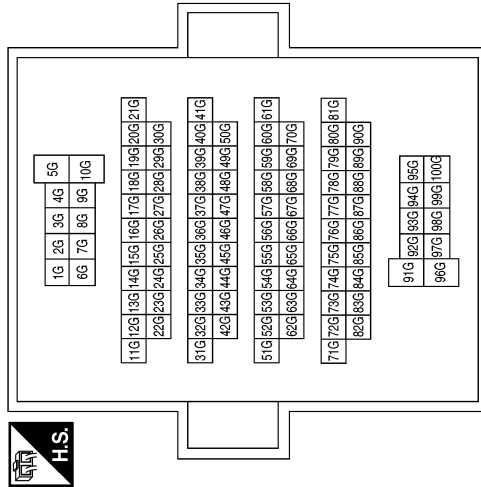
137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000
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Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Terminal No.	Color of Wire	Signal Name
5G	L	-
11G	P	-
12G	L	-
15G	P	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	WHITE

3	2	1
8	7	6
5	4	



Terminal No.	Color of Wire	Signal Name
3	G	-

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

4M	3M	2M	1M
10M	9M	8M	7M
6M	5M		



Terminal No.	Color of Wire	Signal Name
6M	L	-

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

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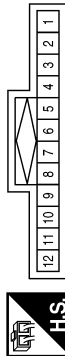
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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
4	L	-
7	P	-
10	P	-

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



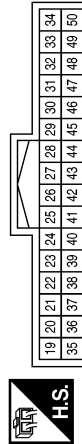
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
28	P	CAN-L
29	L	CAN-H
41	B	S-GND
43	L	IGN SIGNAL

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



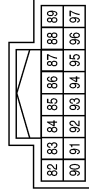
Terminal No.	Color of Wire	Signal Name
7	B	P-GND
9	G	TAIL RH
10	L	TAIL LH

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

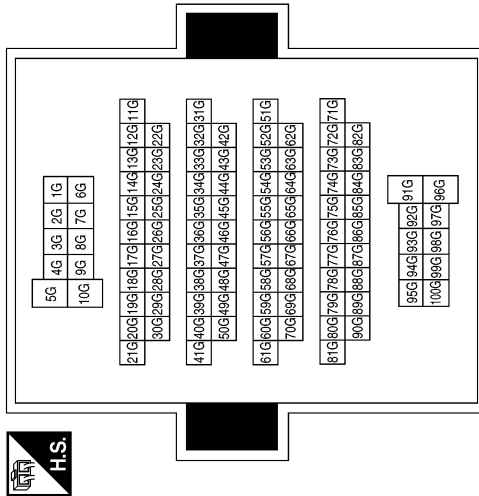
Connector No.	E218
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



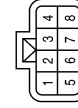
Terminal No.	90	Color of Wire	GR	Signal Name	CLEARANCE
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Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-
15G	L	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE

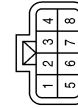


Connector No.	E243
Connector Name	FRONT COMBINATION LAMP RH (WITH LED HEADLAMPS)
Connector Color	BLACK



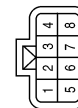
Terminal No.	Color of Wire	Signal Name
3	GR	-
7	B	-
8	W	-

Connector No.	E239
Connector Name	FRONT COMBINATION LAMP RH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	GR	-
7	B	-
8	W	-

Connector No.	E235
Connector Name	FRONT COMBINATION LAMP LH (WITH HALOGEN HEADLAMPS)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
3	O	-
7	B	-
8	P	-

AALIA3061GB

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

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	B43
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3
4	5	6
7	8	



Terminal No.	Color of Wire	Signal Name
3	W	—

Connector No.	B29
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE

2T	1T
6T	5T
4T	3T



Terminal No.	Color of Wire	Signal Name
1T	O	—

Connector No.	E247
Connector Name	FRONT COMBINATION LAMP RH (WITH LED HEADLAMPS)
Connector Color	BLACK

1	2	3	4
5	6	7	8



Terminal No.	Color of Wire	Signal Name
3	O	—
7	B	—
8	P	—

Connector No.	B91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	O	—
4	B	—

Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Color	GRAY

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



Terminal No.	Color of Wire	Signal Name
16	W	—

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	Color of Wire	Signal Name
21	R	—
23	L	—
24	W	—

AALIA3062GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	B145
Connector Name	WIRE TO WIRE
Connector Color	GRAY

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



Terminal No.	16
Color of Wire	W
Signal Name	—

Connector No.	B141
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4
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Terminal No.	1	4
Color of Wire	GR	W
Signal Name	—	—

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

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



Terminal No.	21	22	28	29
Color of Wire	P	L	P	L
Signal Name	—	—	—	—

Connector No.	B461
Connector Name	WIRE TO WIRE
Connector Color	WHITE

4	3	2	1
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Terminal No.	1	4
Color of Wire	GR	W
Signal Name	—	—

Connector No.	B460
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

6	5	7
8		



Terminal No.	6	7
Color of Wire	W	GR
Signal Name	—	—

Connector No.	B459
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

6	5	7
8		



Terminal No.	6	7
Color of Wire	W	GR
Signal Name	—	—

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PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	D507
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	B	-
3	W	-
9	L	-
11	O	-

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
21	O	-
23	L	-
24	W	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Color	WHITE



1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	W	-
4	GR	-

Connector No.	D562
Connector Name	LICENSE PLATE LAMP RH
Connector Color	BROWN



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

Connector No.	D561
Connector Name	LICENSE PLATE LAMP LH
Connector Color	BROWN



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

Connector No.	D552
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	B	-
3	W	-
9	L	-
11	O	-

AALIA3064GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

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Connector No.	D566	
Connector Name	REAR COMBINATION LAMP LH	
Connector Color	WHITE	



Terminal No.	Color of Wire	Signal Name
1	B	-
4	W	-

Connector No.	D565	
Connector Name	REAR COMBINATION LAMP RH	
Connector Color	WHITE	



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

AALIA3065GB

STOP LAMP

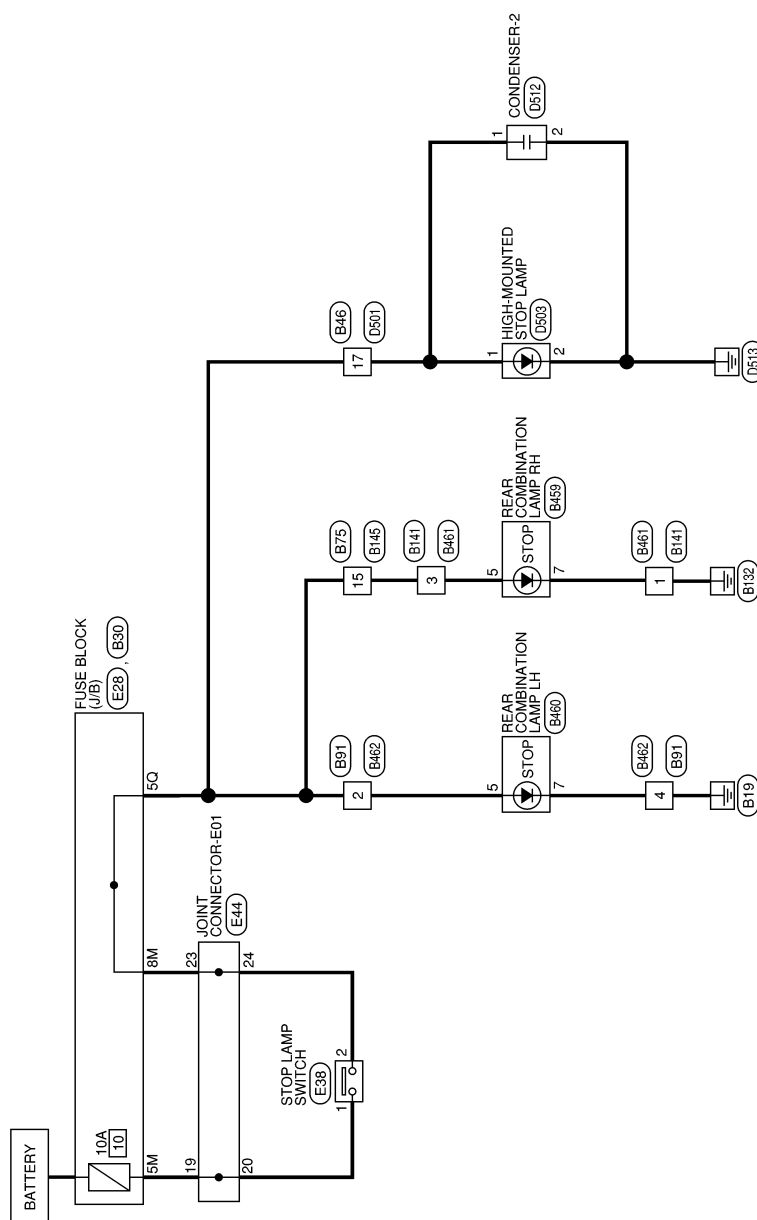
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[HALOGEN HEADLAMP]

STOP LAMP

Wiring Diagram

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STOP LAMP

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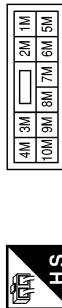
STOP LAMP

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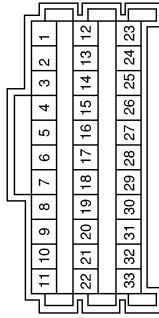
[HALOGEN HEADLAMP]

STOP LAMP CONNECTORS

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE

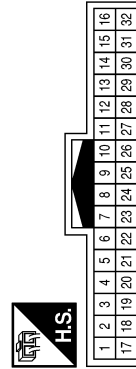


Terminal No.	Color of Wire	Signal Name
5M	W	-
8M	P	-

Terminal No.	Color of Wire	Signal Name
1	W	-
2	P	-

Terminal No.	Color of Wire	Signal Name
19	W	-
20	W	-
23	P	-
24	P	-

Connector No.	B30
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	B75
Connector Name	WIRE TO WIRE
Connector Color	GRAY

Terminal No.	Color of Wire	Signal Name
5Q	G	-

Terminal No.	Color of Wire	Signal Name
17	G	-

Terminal No.	Color of Wire	Signal Name
15	G	-

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STOP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	B145
Connector Name	WIRE TO WIRE
Connector Color	GRAY

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



Terminal No.	Color of Wire	Signal Name
15	G	-

Connector No.	B141
Connector Name	WIRE TO WIRE
Connector Color	WHITE

1	2	3	4
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Terminal No.	Color of Wire	Signal Name
1	GR	-
3	G	-

Connector No.	B91
Connector Name	WIRE TO WIRE
Connector Color	WHITE

4	3	2	1
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Terminal No.	Color of Wire	Signal Name
2	G	-
4	B	-

Connector No.	B461
Connector Name	WIRE TO WIRE
Connector Color	WHITE

4	3	2	1
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Terminal No.	Color of Wire	Signal Name
1	GR	-
3	G	-

Connector No.	B460
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

6	5
8	7



Terminal No.	Color of Wire	Signal Name
5	G	-
7	GR	-

Connector No.	B459
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

6	5
8	7



Terminal No.	Color of Wire	Signal Name
5	G	-
7	GR	-

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STOP LAMP

< WIRING DIAGRAM >

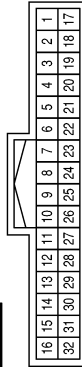
[HALOGEN HEADLAMP]

Connector No.	D503
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Color	BROWN



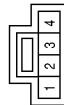
Terminal No.	Color of Wire	Signal Name
1	G/W	-
2	B	-

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	G/W	-

Connector No.	B462
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	G	-
4	GR	-

Connector No.	D512
Connector Name	CONDENSER-2
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
1	G/W	-
2	B	-

AALIA3068GB

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BACK-UP LAMP

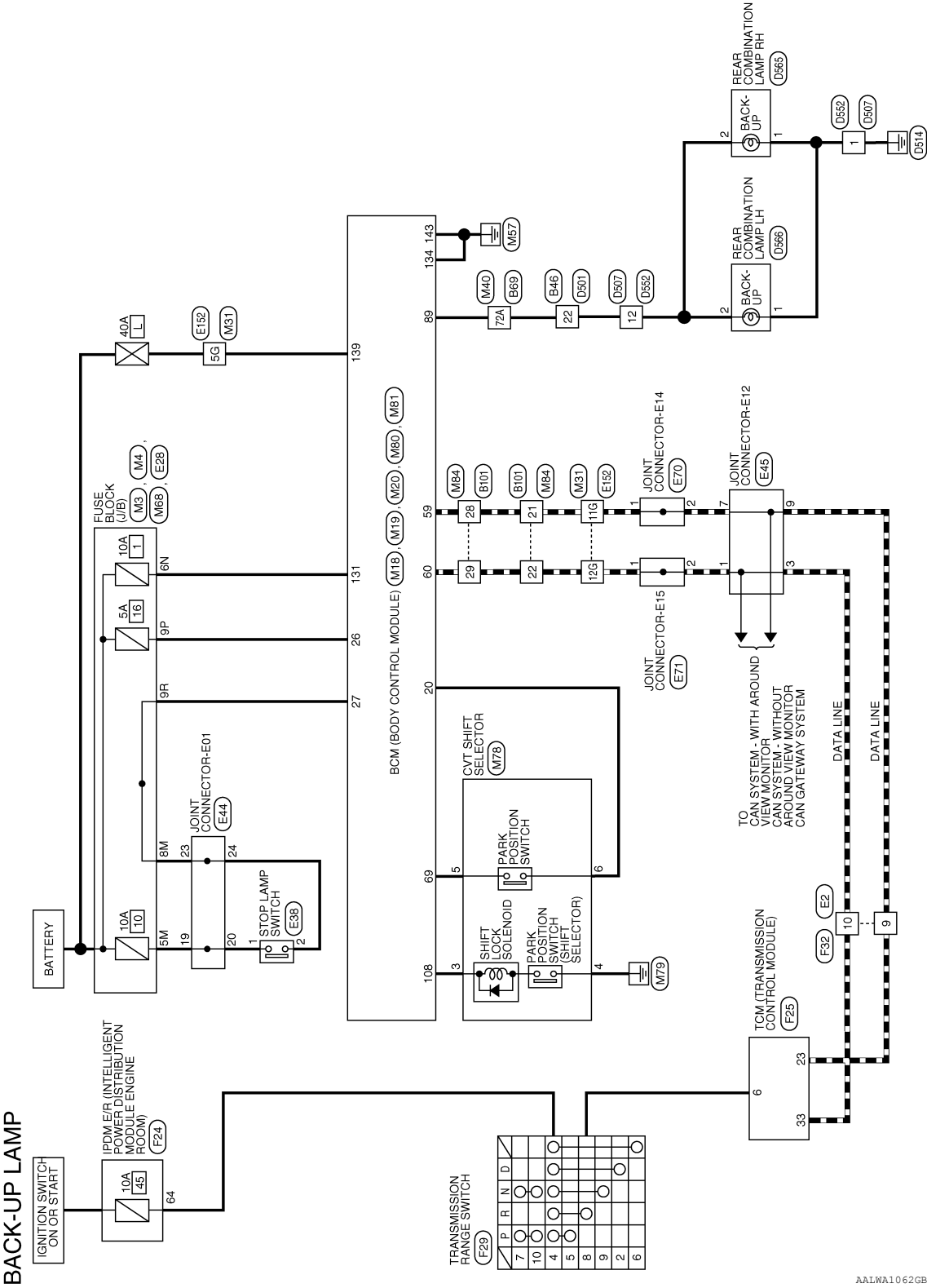
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[HALOGEN HEADLAMP]

BACK-UP LAMP

Wiring Diagram

INFOID:000000011564152



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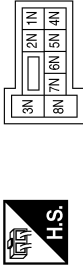
BACK-UP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

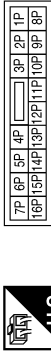
BACK-UP LAMP CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



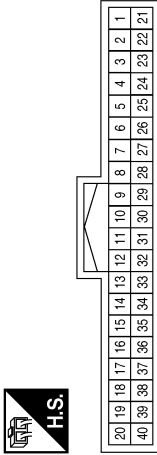
Terminal No.	Color of Wire	Signal Name
6N	W	-

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



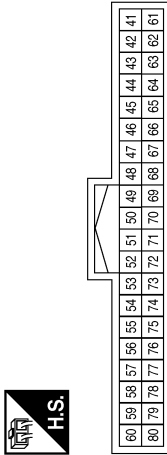
Terminal No.	Color of Wire	Signal Name
9P	L	-

Connector No.	M18
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GREEN



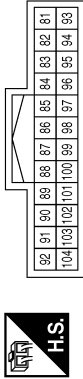
Terminal No.	Color of Wire	Signal Name
20	W	SHIFT P
26	L	SHORTING INPUT
27	G	BRAKE SW LAMP

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



Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
69	G	AT DEVICE OUT

Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
89	LG	REVERSE LAMP OUT

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BACK-UP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

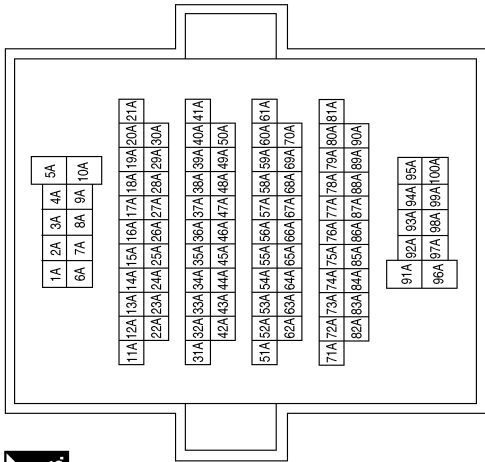
Connector No.	M68
Connector Name	FUSE BLOCK (J/B)
Connector Color	BROWN



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

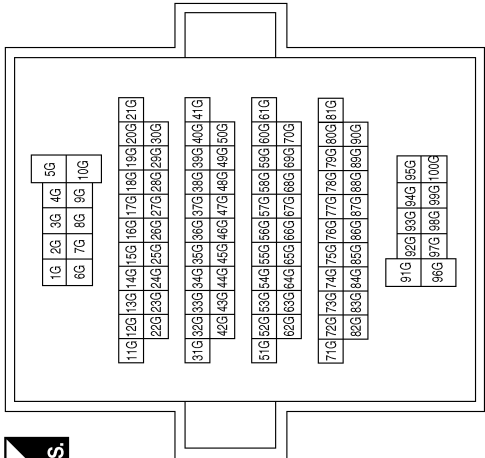
Terminal No.	Color of Wire	Signal Name
9R	G	—

Connector No.	M40
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
72A	LG	—

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
5G	L	—
11G	P	—
12G	L	—

Connector No.	M78
Connector Name	CVT SHIFT SELECTOR
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
3	G	—
4	B	—
5	G	—
6	W	—

BACK-UP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	M84
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
21	P	—
22	L	
28	P	
29	L	

Connector No.	M81
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	WHITE



137	136	135	134	133	132	131	130	129
143	142	141	140	139	138			

Terminal No.	Color of Wire	Signal Name
131	W	BAT BCM FUSE
134	GR	GND2
139	L	BAT POWER F/L
143	GR	GND1

Connector No.	M80
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	BLACK



116	115	114	113	112	111	110	109	108	107	106	105
128	127	126	125	124	123	122	121	120	119	118	117

Terminal No.	Color of Wire	Signal Name
108	G	SHIFT LOCK SOLENOID OUT

Connector No.	E38
Connector Name	STOP LAMP SWITCH
Connector Color	WHITE



3	4
1	2

Connector No.	E28
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



4M	3M		2M	1M	
10M	9M	8M	7M	6M	5M

Connector No.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	W	—
2	P	—

Terminal No.	Color of Wire	Signal Name
5M	W	—
8M	P	—

Terminal No.	Color of Wire	Signal Name
9	P	—
10	L	—

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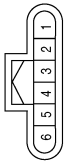
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BACK-UP LAMP

< WIRING DIAGRAM >

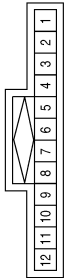
[HALOGEN HEADLAMP]

Connector No.	E70
Connector Name	JOINT CONNECTOR-E14
Connector Color	BLACK



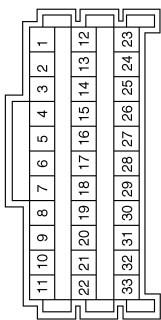
Terminal No.	Color of Wire	Signal Name
1	P	-
2	P	-

Connector No.	E45
Connector Name	JOINT CONNECTOR-E12
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	L	-
3	L	-
7	P	-
9	P	-

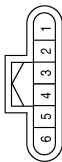
Connector No.	E44
Connector Name	JOINT CONNECTOR-E01
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
19	W	-
20	W	-
23	P	-
24	P	-

Terminal No.	Color of Wire	Signal Name
5G	P	-
11G	P	-
12G	L	-

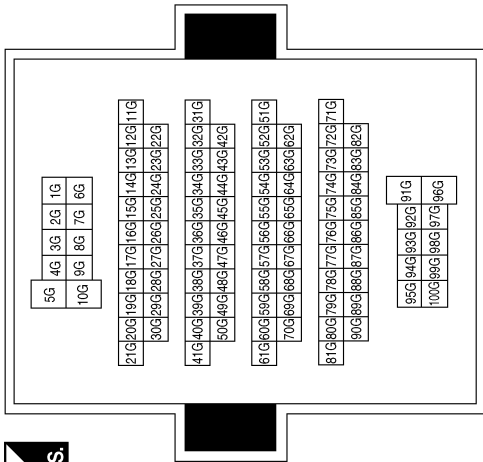
Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Connector No.	E71
Connector Name	JOINT CONNECTOR-E15
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	L	-
2	L	-



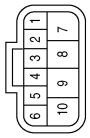
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BACK-UP LAMP

< WIRING DIAGRAM >

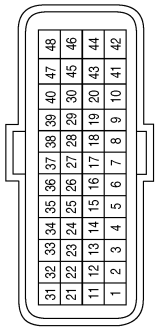
[HALOGEN HEADLAMP]

Connector No.	F29
Connector Name	TRANSMISSION RANGE SWITCH
Connector Color	BLACK



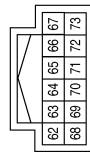
Terminal No.	Color of Wire	Signal Name
4	LG	-
8	BR	-

Connector No.	F25
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Color	BLACK



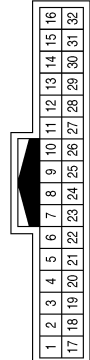
Terminal No.	Color of Wire	Signal Name
6	BR	R RANGE SW
23	P	CAN-L
33	L	CAN-H

Connector No.	F24
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



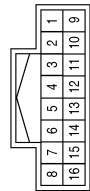
Terminal No.	Color of Wire	Signal Name
64	LG	START IG EGI

Connector No.	B46
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
22	G/W	-

Connector No.	F32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
9	P	-
10	L	-

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BACK-UP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE

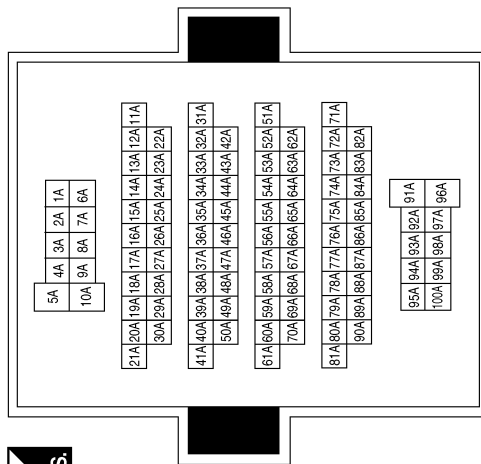


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Terminal No.	Color of Wire	Signal Name
21	P	-
22	L	-
28	P	-
29	L	-

Terminal No.	Color of Wire	Signal Name
72A	G/W	-

Connector No.	B69
Connector Name	WIRE TO WIRE
Connector Color	GRAY



Connector No.	D552
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	D507
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Connector No.	D501
Connector Name	WIRE TO WIRE
Connector Color	WHITE



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

Terminal No.	Color of Wire	Signal Name
1	B	-
12	G/W	-

Terminal No.	Color of Wire	Signal Name
1	B	-
12	G/W	-

Terminal No.	Color of Wire	Signal Name
22	G/W	-

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BACK-UP LAMP

< WIRING DIAGRAM >

[HALOGEN HEADLAMP]

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Connector No.	D566
Connector Name	REAR COMBINATION LAMP LH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	G/W	-

Connector No.	D565
Connector Name	REAR COMBINATION LAMP RH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	-
2	G/W	-

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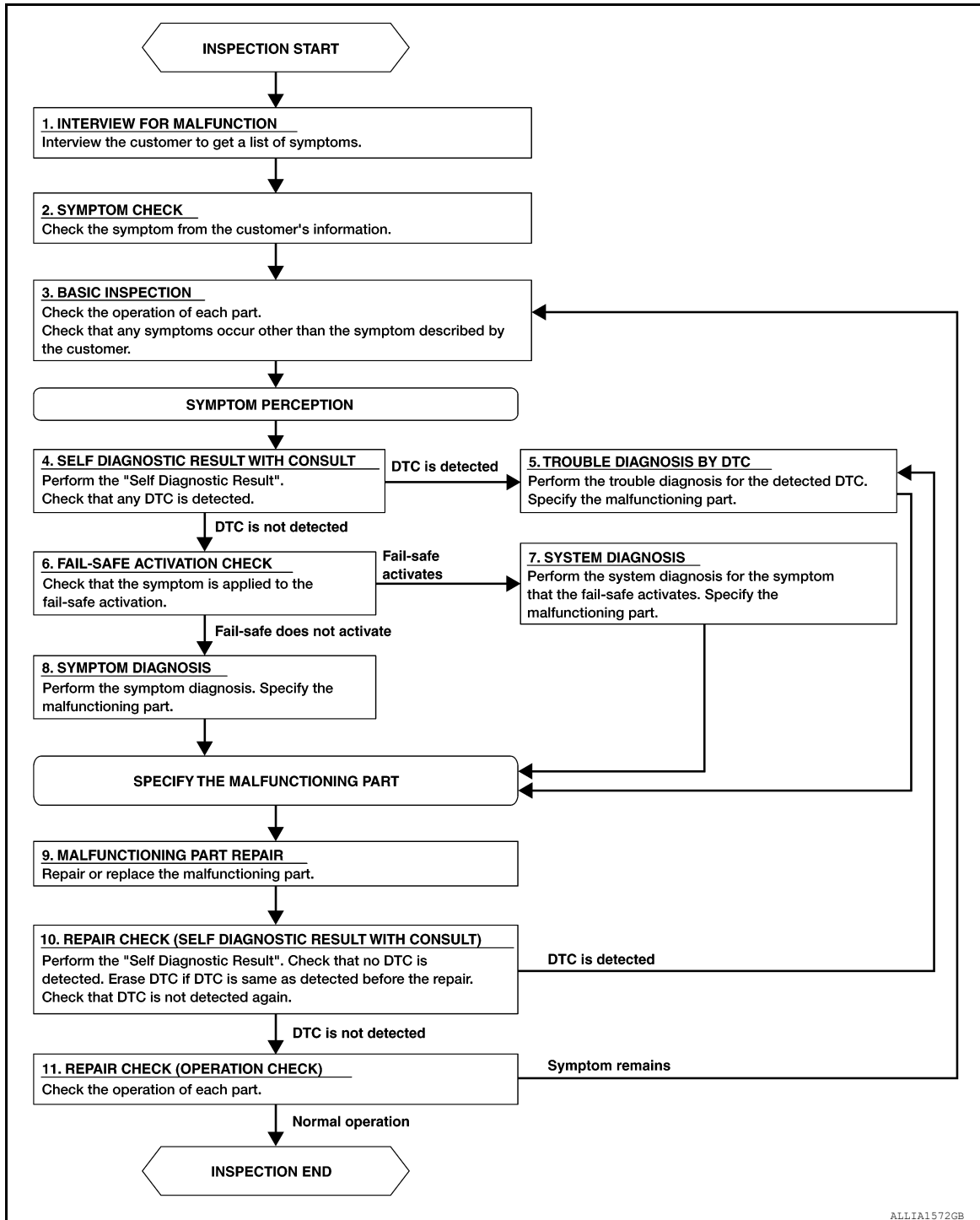
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000011564143

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[HALOGEN HEADLAMP]

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Find out what the customer's concerns are.

>> GO TO 2.

2. SYMPTOM CHECK

Verify the symptom from the customer's information.

>> GO TO 3.

3. BASIC INSPECTION

Check the operation of each part. Check any concerns that occur other than those mentioned in the customer interview.

>> GO TO 4.

4. SELF DIAGNOSTIC RESULT WITH CONSULT

Perform the "Self Diagnostic Result". 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

Determine if the customer's concern is related to 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 in which 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 DIAGNOSTIC RESULT WITH CONSULT)

Perform the "Self Diagnostic Result". Verify that no DTCs are detected. Erase all DTCs detected prior to the repair. Verify that DTC is not detected again.

Is any DTC detected?

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DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[HALOGEN HEADLAMP]

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.

DTC/CIRCUIT DIAGNOSIS

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:0000000011565471

1. CHECK HEADLAMP (HI) OPERATION

④ With CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the headlamp (HI) blinks.

Hi : Headlamp (HI) blinks (ON/OFF is repeated
1 second each.)

Off : Headlamp (HI) OFF

⊗ Without CONSULT

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

Is the inspection result normal?

YES >> Headlamp (HI) circuit is normal.

NO >> Refer to [EXL-223, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011565472

1. CHECK HEADLAMP (HI) FUSE

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

Unit	Location	Fuse No.	Capacity
Headlamp HI (RH)	IPDM E/R	34	10A
Headlamp HI (LH)		35	

Is the inspection result normal?

YES >> GO TO 2.

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

2. CHECK HEADLAMP (HI) OUTPUT VOLTAGE

④ With CONSULT

1. Disconnect applicable front combination lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable front combination lamp harness connector and ground.

+		-	Test item	Voltage		
Front combination lamp						
Connector	Terminal					
RH	E239	2	Ground	EXTERNAL LAMPS	Hi	Battery voltage
					Off	0
LH	E235				Hi	Battery voltage
					Off	0

Is the inspection result normal?

YES >> Replace the headlamp bulb. Refer to [EXL-279, "Bulb Specifications"](#).

NO >> GO TO 3.

3. CHECK HEADLAMP (HI) POWER SUPPLY CIRCUIT

HEADLAMP (HI) CIRCUIT

[HALOGEN HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

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

Front combination lamp		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
RH	E239	E217	80	Yes
LH	E235		81	

Is the inspection result normal?

- YES >> Replace IPDM E/R. Refer to [PCS-37, "Removal and Installation"](#).
- NO >> Repair or replace harness.

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

HEADLAMP (LO) CIRCUIT

Component Function Check

INFOID:0000000011565475

1.CHECK HEADLAMP (LO) OPERATION

Ⓐ With CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the headlamp (LO) is turned ON.

Lo : Headlamp (LO) ON

Off : Headlamp (LO) OFF

Ⓑ Without CONSULT

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

Is the inspection result normal?

YES >> Headlamp (LO) circuit is normal.

NO >> Refer to [EXL-225, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011565476

1.CHECK HEADLAMP (LO) FUSE

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

Unit	Location	Fuse No.	Capacity
Headlamp LO (RH)	IPDM E/R	36	15A
Headlamp LO (LH)		37	

Is the inspection result normal?

YES >> GO TO 2.

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

2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

Ⓐ With CONSULT

1. Disconnect applicable front combination lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable front combination lamp harness connector and ground.

+		-	Test item	Voltage		
Front combination lamp						
Connector	Terminal					
RH	E239	1	Ground	EXTERNAL LAMPS	Lo	Battery voltage
					Off	0
LH	E235				Lo	Battery voltage
					Off	0

Is the inspection result normal?

YES >> Replace headlamp bulb. Refer to [EXL-279, "Bulb Specifications"](#).

NO >> GO TO 3.

3.CHECK HEADLAMP (LO) POWER SUPPLY CIRCUIT

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

HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

Front combination lamp		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
RH	E239	E217	75	Yes
LH	E235		76	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).
NO >> Repair or replace harness.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

DAYTIME RUNNING LIGHT RELAY CIRCUIT

Component Function Check

INFOID:0000000011573859

1.CHECK DAYTIME RUNNING LIGHT OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check daytime running light operation.

On : EXTERNAL LAMPS Hi

Off : EXTERNAL LAMPS Off

Is the inspection result normal?

- YES >> Daytime running light relay circuit is normal.
NO >> Refer to [EXL-227, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573860

Regarding Wiring Diagram information. Refer to [EXL-172, "Wiring Diagram"](#).

1.CHECK DAYTIME RUNNING LIGHT RELAY FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Fuse No.	Capacity
Daytime running light relay	50	10A

Is the inspection result normal?

- YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit.

2.CHECK DAYTIME RUNNING LIGHT RELAY POWER SUPPLY

1. Remove daytime running light relay.
2. Check voltage between daytime running light relay harness connector and ground.

(+)		(-)	Voltage (Approx.)
Daytime running light relay			
Connector	Terminal		
E4	2	Ground	Battery voltage
	7		
	5		

Is the inspection result normal?

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

3.CHECK DAYTIME RUNNING LIGHT RELAY

Check daytime running light relay. Refer to [EXL-228, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace daytime running light relay.

4.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL OUTPUT

CONSULT

1. Install daytime running light relay.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

[HALOGEN HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch ON.
- Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
- While operating the test item, check voltage between IPDM E/R harness connector and ground.

(+)		(-)	Test item		Voltage (Approx.)
IPDM E/R					
Connector	Terminal				
E218	85	Ground	EXTERNAL LAMPS	On	0 V
				Off	Battery voltage

Is the inspection result normal?

YES >> Daytime running light relay circuit is OK.

NO-1 (Fixed at 0 V)>>GO TO 5.

NO-2 (Fixed at battery voltage) >>Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

5.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL (OPEN) CIRCUIT

- Turn ignition switch OFF.
- Remove daytime running light relay.
- Disconnect IPDM E/R harness connector.
- Check continuity between IPDM E/R harness connector and daytime running light relay harness connector.

IPDM E/R		Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	
E218	85	E4	1	Yes

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK DAYTIME RUNNING LIGHT RELAY CONTROL SIGNAL (SHORT) CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E218	85		No

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

NO >> Repair or replace harness.

Component Inspection

INFOID:0000000011573861

1.CHECK DAYTIME RUNNING LIGHT RELAY

- Turn ignition switch OFF.
- Remove daytime running light relay.
- Apply battery voltage to daytime running light relay between terminals 1 and 2.
- Check continuity between daytime running light relay terminals.

Daytime running light relay		Condition		Continuity
Terminal				
7	6	Voltage	Apply	Yes
			Not Apply	No
5	3		Apply	Yes
			Not Apply	No

Is the inspection result normal?

DAYTIME RUNNING LIGHT RELAY CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

YES >> Daytime running light relay is normal.
NO >> Replace daytime running light relay.

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PARKING LAMP CIRCUIT

Component Function Check

INFOID:0000000011573862

1.CHECK PARKING LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the inspection result normal?

- YES >> Parking lamp circuit is normal.
 NO >> Refer to [EXL-230, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573863

Regarding Wiring Diagram information. Refer to [EXL-198, "Wiring Diagram"](#).

1.CHECK PARKING LAMP FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Location	Fuse No.	Capacity
• Parking lamps • Front side marker lamps	IPDM E/R	52	10A

Is the inspection result normal?

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

2.CHECK PARKING LAMP CIRCUIT

1. Disconnect the following connectors:
 - IPDM E/R
 - Front combination lamps
 - Rear combination lamps
2. Check continuity between IPDM E/R harness connector and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E218	90		No

Is the inspection result normal?

- YES >> Replace fuse. (Replace IPDM E/R if blown fuse is found again.)
 NO >> Replace the blown fuse after repairing the affected circuit.

3.CHECK PARKING LAMP

Check applicable LED lamp.

Is the inspection result normal?

- YES >> GO TO 4.
 NO >> Replace applicable LED lamp.

4.CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect front combination lamp connector.

PARKING LAMP CIRCUIT

[HALOGEN HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between IPDM E/R harness connector and ground.

(+)		(−)	Test item		Voltage (Approx.)
IPDM E/R					
Connector	Terminal				
E218	90	Ground	EXTERNAL LAMPS	TAIL	Battery voltage
				Off	0 V

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

5.CHECK PARKING LAMP POWER SUPPLY CIRCUIT

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

Front combination lamp			IPDM E/R		Continuity
Connector	Terminal		Connector	Terminal	
RH	E239	3	E218	90	Yes
LH	E235				

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK PARKING LAMP GROUND CIRCUIT

Check continuity between front combination lamp harness connector and ground.

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E239	7		Yes
LH	E235			

Is the inspection result normal?

YES >> Check corresponding lamp socket and harness. Repair or replace if necessary.

NO >> Repair or replace harness.

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

FRONT SIDE MARKER LAMP CIRCUIT

Component Function Check

INFOID:0000000011573864

1.CHECK PARKING LAMP OPERATION

Check that the parking lamp is turned ON.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check parking lamp circuit. Refer to [EXL-230, "Component Function Check"](#).

2.CHECK FRONT SIDE MARKER LAMP OPERATION

ⒶCONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".

2. While operating the test items, check that the front side marker lamp is turned ON.

TAIL : Front side marker lamp ON

Off : Front side marker lamp OFF

Is the inspection result normal?

YES >> Front side marker lamp circuit is normal.

NO >> Refer to [EXL-232, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573865

Regarding Wiring Diagram information. Refer to [EXL-198, "Wiring Diagram"](#).

1.CHECK FRONT SIDE MARKER LAMP BULB

Check applicable lamp bulb.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb.

2.CHECK FRONT SIDE MARKER LAMP POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R connector and front side marker lamp connector.

3. Check continuity between IPDM E/R harness connector and front side marker lamp harness connector.

Front combination lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	E239	8	E218	90	Yes
LH	E235				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK FRONT SIDE MARKER LAMP GROUND CIRCUIT

Check continuity between front side marker lamp harness connector and ground.

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E239	7		Yes
LH	E235			

Is the inspection result normal?

FRONT SIDE MARKER LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.
NO >> Repair or replace harness.

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TAIL LAMP CIRCUIT

Component Function Check

INFOID:0000000011573866

1.CHECK TAIL LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While operating the test items, check that the tail lamp is turned ON.

TAIL : Tail Lamp ON

Off : Tail lamp OFF

Is the inspection result normal?

YES >> Tail lamp circuit is normal.

NO >> Refer to [EXL-234, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573867

Regarding Wiring Diagram information. Refer to [EXL-198, "Wiring Diagram"](#).

1.CHECK PARKING LAMP OPERATION

Check that the parking lamp is turned ON.

Is the inspection result normal?

YES [When tail lamp RH or LH does not turn ON.]>>GO TO 2.

NO >> Check parking lamp circuit. Refer to [EXL-230, "Component Function Check"](#).

2.CHECK TAIL LAMP (LH) FUSE

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

Unit	Location	Fuse No.	Capacity
Tail lamp RH	IPDM E/R	52	10A
Tail lamp LH		51	

Is the inspection result normal?

YES >> GO TO 3.

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

3.CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect rear combination lamp RH or LH connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check voltage between applicable rear combination lamp harness connector and ground.

(+) Rear combination lamp		(-)	Test item	Voltage (Approx.)
Connector	Terminal			
RH	D565	Ground	EXTERNAL LAMPS	TAIL
				Off
LH	D566			TAIL
				Off

TAIL LAMP CIRCUIT

[HALOGEN HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 6.

NO >> GO TO 4.

4.CHECK TAIL LAMP POWER SUPPLY (SHORT) CIRCUIT

1. Disconnect IPDM E/R connector and rear combination lamp RH or LH connector.
2. Check continuity between IPDM E/R harness connector and ground.

(+) IPDM E/R		(-)	Continuity
Connector	Terminal		
E121	9	Ground	No
	10		

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK TAIL LAMP POWER SUPPLY (OPEN) CIRCUIT

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

Rear combination lamp		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
RH	B459	E121	9	Yes
LH	B460		10	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#)

NO >> Repair or replace harness.

6.CHECK TAIL LAMP GROUND CIRCUIT

Check continuity between rear combination lamp harness connector and ground.

Rear combination lamp			Ground	Continuity
Connector		Terminal		
RH	B459	7		Yes
LH	B460			

Is the inspection result normal?

YES >> Replace rear combination lamp. Refer to [EXL-269. "Removal and Installation"](#).

NO >> Repair or replace harness.

LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

LICENSE PLATE LAMP CIRCUIT

Component Function Check

INFOID:0000000011573868

1.CHECK TAIL LAMP LH OPERATION

Check that the tail lamp LH is turned ON.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Check tail lamp circuit. Refer to [EXL-234, "Component Function Check"](#).

2.CHECK LICENSE PLATE LAMP OPERATION

ⒶCONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".

2. While 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 inspection result normal?

YES >> License plate lamp circuit is normal.

NO >> Refer to [EXL-236, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573869

Regarding Wiring Diagram information. Refer to [EXL-198, "Wiring Diagram"](#).

1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace bulb.

2.CHECK LICENSE PLATE LAMP POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect IPDM E/R connector and license plate lamp connector.

3. Check continuity between IPDM E/R harness connector and license plate lamp harness connector.

License plate lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	D562	1	E121	10	Yes
LH	D561				

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK LICENSE PLATE LAMP GROUND CIRCUIT

Check continuity between license plate lamp harness connector and ground.

License plate lamp			Ground	Continuity
Connector		Terminal		
RH	D562	2		Yes
LH	D561			

Is the inspection result normal?

LICENSE PLATE LAMP CIRCUIT

[HALOGEN HEADLAMP]

< DTC/CIRCUIT DIAGNOSIS >

YES >> Check corresponding bulb socket and harness. Repair or replace if necessary.
NO >> Repair or replace harness.

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FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

FRONT FOG LAMP CIRCUIT

Component Function Check

INFOID:0000000011573870

1.CHECK FRONT FOG LAMP OPERATION

CONSULT

1. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
2. While 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 inspection result normal?

- YES >> Front fog lamp circuit is normal.
NO >> Refer to [EXL-238, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573871

Regarding Wiring Diagram information. Refer to [EXL-185, "Wiring Diagram"](#).

1.CHECK FRONT FOG LAMP FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown:

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	49	15A

Is the inspection result normal?

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

2.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

CONSULT

1. Disconnect front fog lamp connector.
2. Turn ignition switch ON.
3. Select "EXTERNAL LAMPS" in "Active Test" mode of "IPDM E/R".
4. While operating the test items, check the voltage between IPDM E/R harness connector and ground.

(+)		Terminal	(-)	Test item		Voltage (Approx.)
Front fog lamp						
Connector						
RH	E241	1	Ground	EXTERNAL LAMPS	Fog	Battery voltage
					Off	0 V
LH	E242				Fog	Battery voltage
					Off	0 V

Is the inspection result normal?

- YES >> GO TO 5.
NO >> GO TO 3.

3.CHECK FRONT FOG LAMP POWER SUPPLY (SHORT) CIRCUIT

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

FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

IPDM E/R		Ground	Continuity
Connector	Terminal		
E217	78		No
	79		

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK FRONT FOG LAMP POWER SUPPLY (OPEN) CIRCUIT

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

Front fog lamp			IPDM E/R		Continuity
Connector		Terminal	Connector	Terminal	
RH	E241	1	E217	78	Yes
LH	E242			79	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to [PCS-37. "Removal and Installation"](#).

NO >> Repair or replace harness.

5.CHECK FRONT FOG LAMP GROUND CIRCUIT

Check continuity between front fog lamp harness connector and ground.

Front fog lamp			Ground	Continuity
Connector		Terminal		
RH	E241	2		Yes
LH	E242			

Is the inspection result normal?

YES >> Replace bulb. Refer to [EXL-146. "Bulb Specifications"](#).

NO >> Repair or replace harness.

EXL

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

TURN SIGNAL LAMP CIRCUIT

Component Function Check

INFOID:0000000011573872

1.CHECK TURN SIGNAL LAMP

CONSULT

1. Select "FLASHER" in "Active Test" mode of "BCM (FLASHER)".
2. While operating the test items, check that the turn signal lamp blinks.

LH : Turn signal lamp LH blinking

RH : Turn signal lamp RH blinking

OFF : The turn signal lamp OFF

Is the inspection result normal?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to [EXL-240, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573873

Regarding Wiring Diagram information, refer to [EXL-190, "Wiring Diagram"](#).

1.CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb to be sure the proper bulb standard is in use and the bulb is not open.

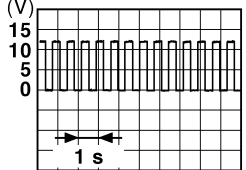
Is the bulb OK?

YES >> GO TO 2.

NO >> Replace the bulb.

2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

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

Front combination lamp		(-)	Voltage
Connector	Terminal		
LH	E234	Ground	
RH	E240		

PKID0926B

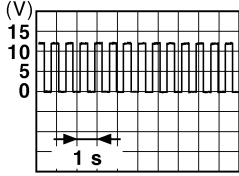
5. With turn signal switch operating, check the voltage between the door mirror harness connector and ground.

Door mirror		(-)	Voltage
Connector	Terminal		

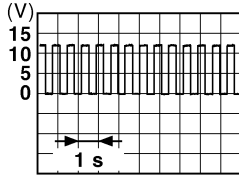
TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

LH	D4	20	Ground	 PKID0926E
RH	D107			

6. With turn signal switch operating, check the voltage between the rear combination lamp harness connector and ground.

Rear combination lamp		(-)	Voltage
Connector	Terminal		
LH	B460	4	 PKID0926E
RH	B459		

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 3.

3.CHECK TURN SIGNAL LAMP POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM connector.
- Check continuity between the BCM harness connector and the front combination lamp connector.

Front combination lamp			BCM		Continuity
Connector	Terminal	9	Connector	Terminal	
LH	E234		M80	117	Yes
RH	E240			105	

4. Check continuity between the BCM harness connector and the door mirror connector.

Door mirror lamp			BCM		Continuity
Connector	Terminal	20	Connector	Terminal	
LH	D4		M80	117	Yes
RH	D107			105	

5. Check continuity between the BCM harness connector and the rear combination lamp connector.

Rear combination lamp			BCM		Continuity
Connector	Terminal	8	Connector	Terminal	
LH	B460		M20	103	Yes
RH	B459			92	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair the harness or connector.

4.CHECK TURN SIGNAL LAMP GROUND CIRCUIT

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

TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

Front combination lamp			—	Continuity
Connector		Terminal		
LH	E234	10	Ground	Yes
RH	E240			

2. Check continuity between the door mirror harness connector and ground.

Door mirror lamp			—	Continuity
Connector		Terminal		
LH	D4	21	Ground	Yes
RH	D107			

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

Rear combination lamp			—	Continuity
Connector		Terminal		
LH	B460	7	Ground	Yes
RH	B459			

Is the inspection result normal?

YES >> Replace the malfunctioning lamp.
NO >> Repair the harness or connector.

OPTICAL SENSOR

Component Function Check

INFOID:0000000011573874

1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT

CONSULT

1. Turn ignition switch ON.
2. Select "HEADLAMP" in "Data Monitor" mode of "BCM".
3. Turn lighting switch AUTO.
4. With the optical sensor illuminating, check the monitor status.

Monitor item	Condition		Voltage (Approx.)
OPTISEN (DTCT)	Optical sensor	When illuminating	3.1 V or more *
		When shutting off light	0.6 V or less

*: Illuminates the optical sensor. The value may be less than the standard value if brightness is weak.

Is the inspection result normal?

- YES >> Optical sensor is normal.
 NO >> Refer to [EXL-243, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573875

Regarding Wiring Diagram information. Refer to [EXL-178, "Wiring Diagram"](#).

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

1. Turn ignition switch ON.
2. Turn lighting switch AUTO.
3. Check voltage between optical sensor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Optical sensor			
Connector	Terminal		
M15	1	Ground	5 V

Is the inspection result normal?

- YES >> GO TO 2.
 NO >> GO TO 4.

2.CHECK OPTICAL SENSOR GROUND INPUT

Check voltage between optical sensor harness connector and ground.

(+)		(-)	Voltage (Approx.)
Optical sensor			
Connector	Terminal		
M15	3	Ground	0 V

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> GO TO 6.

3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

While illuminating the optical sensor, check voltage between optical sensor harness connector and ground.

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

(+) Optical sensor		(-)	Condition		Voltage (Approx.)
Connector	Terminal				
M15	2	Ground	Optical sensor	When illuminating	3.1 V or more *
				When shutting off light	0.6 V or less

*: Illuminate the optical sensor. The value may be less than the standard if brightness is weak.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Replace the optical sensor. Refer to [EXL-266, "Removal and Installation"](#).

4.CHECK OPTICAL SENSOR (OPEN) CIRCUIT

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	1	M18	3	Yes

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5.CHECK OPTICAL SENSOR (SHORT) CIRCUIT

Check continuity between optical sensor harness connector and ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M15	1		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

6.CHECK OPTICAL SENSOR GROUND CIRCUIT

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

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	3	M18	17	Yes

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

7.CHECK OPTICAL SENSOR SIGNAL (OPEN) CIRCUIT

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

OPTICAL SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	2	M18	4	Yes

Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace harness.

8.CHECK OPTICAL SENSOR (SHORT) CIRCUIT

Check continuity between optical sensor harness connector and ground.

Optical sensor		Ground	Continuity
Connector	Terminal		
M15	2		No

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

HAZARD SWITCH

Component Function Check

INFOID:0000000011573876

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

CONSULT

1. Turn ignition switch ON.
2. Select "FLASHER" in "Data Monitor" mode of "BCM".
3. While operating the hazard switch, check the monitor status.

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

Is the inspection result normal?

- YES >> Hazard switch circuit is normal.
NO >> Refer to [EXL-246, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:0000000011573877

Regarding Wiring Diagram information. Refer to [EXL-190, "Wiring Diagram"](#).

1.CHECK HAZARD SWITCH SIGNAL INPUT

1. Turn ignition switch OFF.
2. Disconnect hazard switch connector.
3. Check voltage between hazard switch connector and ground.

(+)		(-)	Voltage (Approx.)
Hazard switch			
Connector	Terminal		
M83	2	Ground	Battery voltage

Is the inspection result normal?

- YES >> GO TO 4.
NO >> GO TO 2.

2.CHECK HAZARD SWITCH SIGNAL (OPEN) CIRCUIT

1. Disconnect BCM connector.
2. Check continuity between hazard switch harness connector and BCM harness connector.

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M83	2	M18	36	Yes

Is the inspection result normal?

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

3.CHECK HAZARD SWITCH SIGNAL (SHORT) CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M83	2		No

HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN HEADLAMP]

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

NO >> Repair or replace harness.

4. CHECK HAZARD SWITCH GROUND CIRCUIT

Check continuity between hazard switch harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M83	3		Yes

Is the inspection result normal?

YES >> Replace hazard switch. Refer to [EXL-268, "Removal and Installation"](#).

NO >> Repair or replace harness.

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000011517112

NOTE:

Perform the "Self Diagnostic Result" with CONSULT 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	- Fuse - Halogen bulb (HI) - Harness between IPDM E/R and headlamp (HI) - Harness between headlamp (HI) and ground - IPDM E/R	Headlamp (HI) circuit Refer to EXL-223, "Component Function Check" .
		- Harness between IPDM E/R and daytime running light relay - Daytime running light relay - IPDM E/R	Daytime running light relay circuit Refer to EXL-227, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to EXL-252, "Diagnosis Procedure" .	
High beam indicator lamp is not turned ON. [Headlamp (HI) is turned ON.]		Combination meter	- Combination meter "Data Monitor""HI-BEAM IND" - BCM (HEAD LAMP) "Active Test""HEADLAMP"
Headlamp (LO) is not turned ON.	One side	- Fuse - Halogen bulb (LO) - Harness between IPDM E/R and headlamp lamp (LO) - Harness between headlamp (LO) and ground - IPDM E/R	Headlamp (LO) circuit Refer to EXL-225, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to EXL-253, "Diagnosis Procedure" .	
Each lamp is not turned ON/OFF with lighting switch AUTO.		- Combination switch - Harness between combination switch and BCM - BCM	Combination switch Refer to BCS-80, "Symptom Table" .
		- Optical sensor - Harness between optical sensor and BCM - BCM	Optical sensor Refer to EXL-243, "Component Function Check" .
Daytime running light is not turned ON. [Headlamp (HI) is turned ON.]		- Fuse - Harness between IPDM E/R and daytime running light relay - Daytime running light relay - IPDM E/R - BCM - ECM - Combination meter	- Daytime running light relay circuit Refer to EXL-227, "Component Function Check". - BCM (HEADLAMP) "Data Monitor""ENGINE STATE" - Combination meter "Data Monitor""PKB SW" - BCM (HEADLAMP) "Active Test""DAYTIME RUNNING LIGHT"

EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

Symptom		Possible cause	Inspection item
Parking lamp is not turned ON.		• Fuse • Parking lamp LED • Harness between IPDM E/R and front combination lamp • IPDM E/R	Parking lamp circuit Refer to EXL-230, "Component Function Check" .
Front side marker lamp is not turned ON.		• Front side marker lamp bulb • Harness between IPDM E/R and front side marker lamp • Harness between front side marker lamp and ground • IPDM E/R	Front side marker lamp circuit Refer to EXL-232, "Component Function Check" .
Tail lamp (Rear side marker lamp) is not turned ON.		• Fuse • Tail lamp LED • Harness between IPDM E/R and rear combination lamp • Harness between and rear combination lamp and ground	Tail lamp circuit Refer to EXL-234, "Component Function Check" .
License plate lamp is not turned ON.		• License plate lamp bulb • Harness between IPDM E/R and license plate lamp • Harness between license plate lamp and ground	License plate lamp circuit Refer to EXL-236, "Component Function Check" .
Parking lamp, side marker lamp, tail lamp and license plate lamp are not turned ON.		Symptom diagnosis "PARKING, SIDE MARKER, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to EXL-254, "Diagnosis Procedure" .	
Tail lamp indicator is not turned ON. (Exterior lamps are turned ON.)		Combination meter	• Combination meter "Data Monitor" "LIGHT IND" • BCM (HEADLAMP) "Active Test" "TAIL LAMP"
Turn signal lamp does not blink.	Indicator lamp is normal. (Applicable side performs high flasher activation.)	• Turn signal lamp bulb • Door mirror • Harness between BCM and each turn signal lamp • Harness between each turn signal lamp and ground	Turn signal lamp circuit Refer to EXL-240, "Component Function Check" .
	Indicator lamp is included.	• Combination switch • Harness between combination switch and BCM • BCM	Combination switch Refer to BCS-80, "Symptom Table" .
Turn signal indicator lamp does not blink. (Turn signal lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	• Turn signal indicator lamp signal • BCM • Combination meter	• Combination meter "Data Monitor" "TURN IND" • BCM (FLASHER) "Active Test" "FLASHER"
	Both sides (Only when activating hazard warning lamp with ignition switch OFF)	• Combination meter power supply and ground circuit • Combination meter	Combination meter Power supply and ground circuit Refer to MWI-59, "COMBINATION METER : Diagnosis Procedure" .
• Hazard warning lamp does not activate. • Hazard warning lamp continues activating. (Turn signal is normal.)		• Hazard switch • Harness between hazard switch and BCM • Harness between hazard switch and ground • BCM	Hazard switch circuit Refer to EXL-246, "Component Function Check" .

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EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

Symptom		Possible cause	Inspection item
Front fog lamp is not turned ON.	One side	• Front fog lamp bulb • Harness between IPDM E/R and front fog lamp • Harness between front fog lamp and ground • IPDM E/R	Front fog lamp circuit Refer to EXL-238, "Component Function Check" .
	Both sides	Symptom diagnosis "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to EXL-255, "Diagnosis Procedure" .	

NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

NORMAL OPERATING CONDITION

Description

INFOID:0000000011517113

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 is normal.

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BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

Description

INFOID:0000000011517114

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

Diagnosis Procedure

INFOID:0000000011517115

1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80. "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

ⒶCONSULT DATA MONITOR

1. Select "HL HI REQ" in "Data Monitor" mode of "IPDM E/R".
2. While 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 inspection result normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check headlamp (HI) circuit. Refer to [EXL-223. "Component Function Check"](#).

Is the inspection result normal?

YES >> Refer to [GI-42. "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:0000000011517118

Both side headlamps (LO) are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517119

1.CHECK COMBINATION SWITCH

Check combination switch. Refer to [BCS-80, "Symptom Table"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

 CONSULT DATA MONITOR

1. Select "HL LO REQ" in "Data Monitor" mode of "IPDM E/R".
2. While operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL LO REQ	Lighting switch	2ND	On
		OFF	Off

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check headlamp (LO) circuit. Refer to [EXL-225, "Component Function Check"](#).

Is the inspection result normal?

YES >> Refer to [GI-42, "Intermittent Incident"](#).

NO >> Repair or replace the malfunctioning part.

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EXL

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON

Description

INFOID:0000000011517120

The parking, license plate, side marker, tail lamps and each illumination are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517121

1.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

ⒺCONSULT DATA MONITOR

1. Select "TAIL & CLR REQ" in "Data Monitor" mode of "IPDM E/R".
2. While operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
TAIL & CLR REQ	Lighting switch	1ST	On
		OFF	Off

Is the inspection result normal?

YES >> Replace IPDM E/R.

NO >> Replace BCM. Refer to [BCS-82. "Removal and Installation"](#).

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN HEADLAMP]

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:0000000011517122

The front fog lamps are not turned ON in any condition.

Diagnosis Procedure

INFOID:0000000011517123

1.CHECK FRONT FOG LAMP FUSE

1. Turn ignition switch OFF.
2. Check that the following fuse is not blown.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	49	15A

Is the inspection result normal?

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

2.CHECK FRONT FOG LAMP SHORT CIRCUIT

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

IPDM E/R			Ground	Continuity
Connector		Terminal		
RH	E217	78		No
LH		79		

Is the inspection result normal?

- YES >> Replace fuse. (Replace IPDM E/R if the fuse is blown again.)
NO >> Repair or replace harness and then replace the fuse.

3.COMBINATION SWITCH INSPECTION

Check combination switch. Refer to [BCS-80, "Symptom Table"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Repair or replace the malfunctioning part.

4.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

CONSULT DATA MONITOR

1. Select "FR FOG REQ" in "Data Monitor" mode of "IPDM E/R".
2. While 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 2ND)	ON	On
		OFF	Off

Is the item status normal?

- YES >> GO TO 5.
NO >> Replace BCM. Refer to [BCS-82, "Removal and Installation"](#).

5.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-238, "Component Function Check"](#).

Is the inspection result normal?

- YES >> Refer to [GI-42, "Intermittent Incident"](#).
NO >> Repair or replace the malfunctioning part.

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Inspection

INFOID:0000000011569028

PREPARATION BEFORE ADJUSTING

Before performing aiming adjustment, check the following:

- Make sure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Make sure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- Confirm spare tire, jack and tools are properly stowed.
- Carefully wipe off any dirt from headlamp lens.

CAUTION:

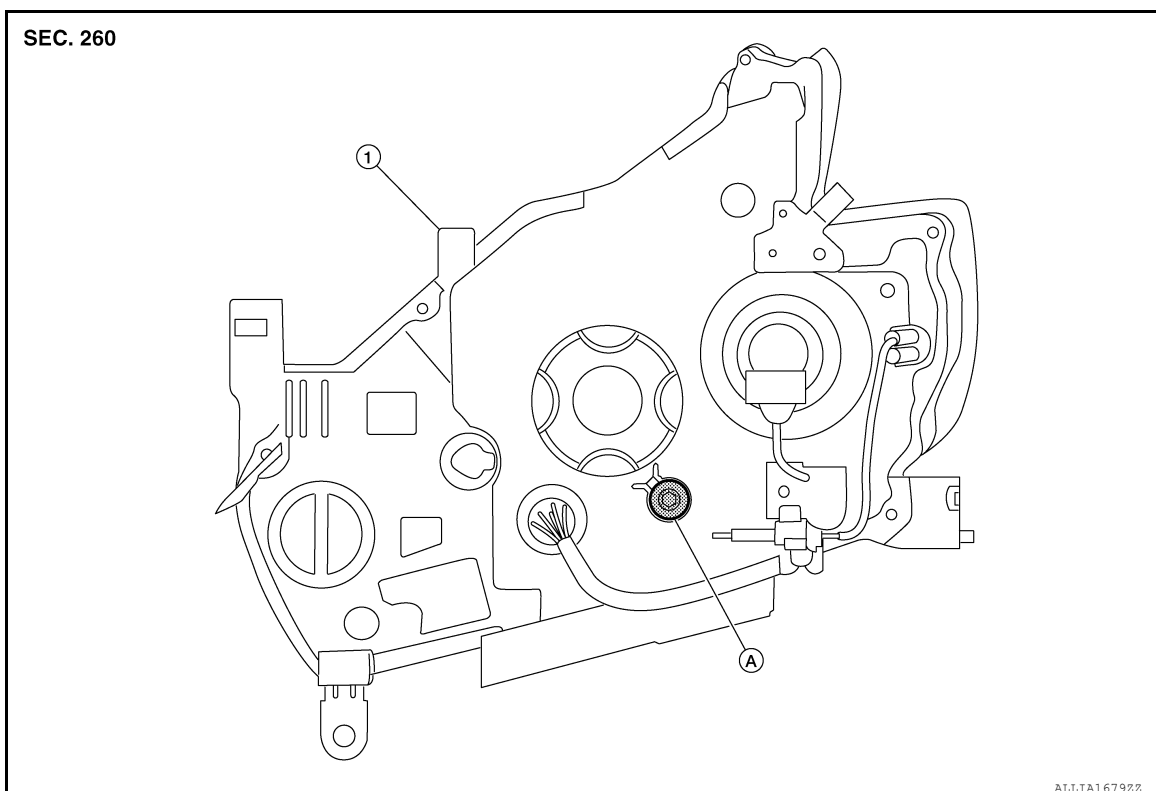
Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

NOTE:

- For headlamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adjustable.
- Use adjusting screw to perform aiming adjustment.
- Perform headlamp aiming if:
 - The vehicle front body has been repaired;
 - The front combination lamp has been removed or replaced;
 - Any outfitting has been installed;
 - The vehicle's standard load condition has been substantially increased.

AIMING ADJUSTMENT SCREW



HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN HEADLAMP]

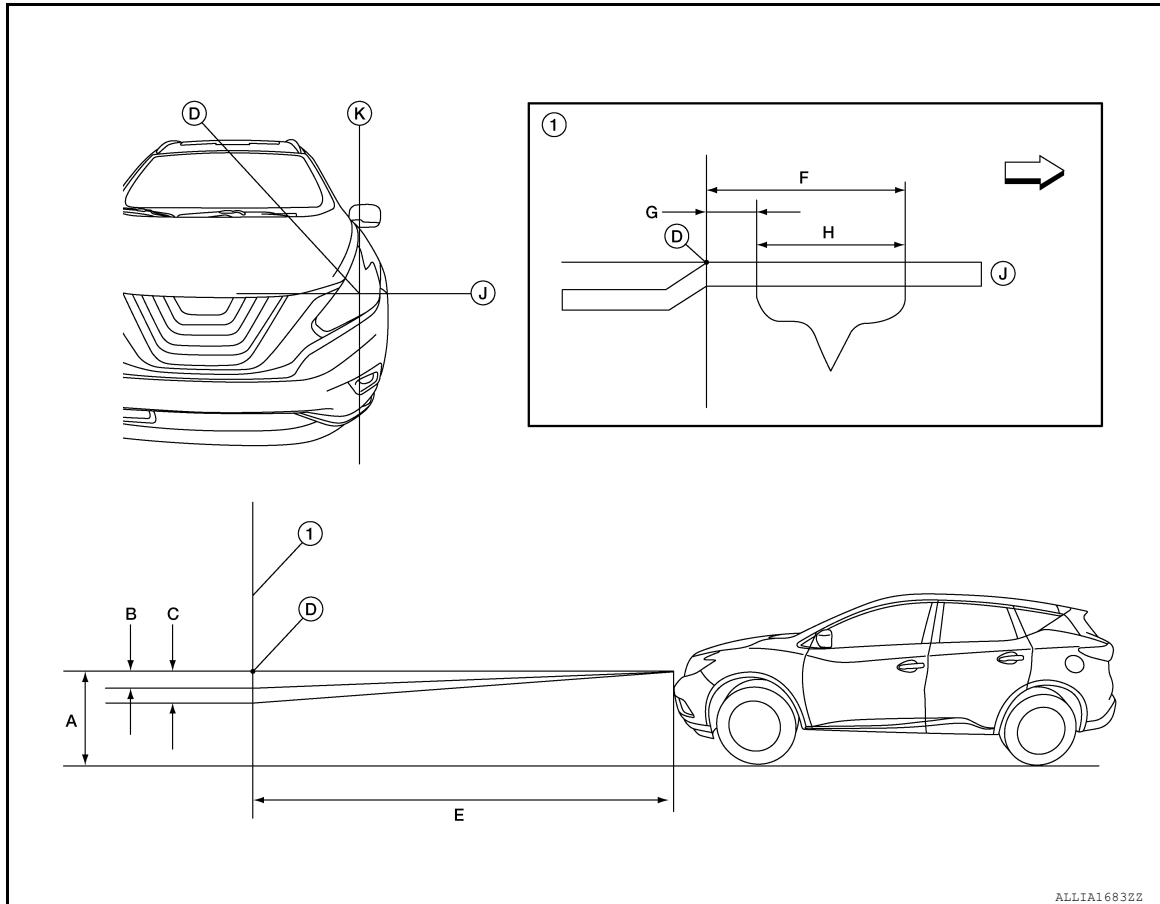
1. Front combination lamp
(view from rear)

- A. Headlamp HI/LO (UP/DOWN)
adjustment screw

Aiming Adjustment Procedure

INFOID:0000000011569029

Aiming Chart



- | | | |
|---|---|-------------------------------|
| 1. Adjustment screen | A. Distance of horizontal aiming evaluation line from ground | B. Maximum cutoff line height |
| C. Minimum cutoff line height | D. Center of headlamp bulb | E. 10 m (33 ft) |
| F. Maximum aim evaluation distance from vertical center on aiming screen 399 mm (3°R) | G. Minimum aim evaluation distance from vertical center on aiming screen 133 mm (1°R) | H. Aim evaluation area |
| J. Horizontal aiming evaluation line | K. Vertical aiming evaluation line | ⇒ Right |

B (Maximum cutoff line height)

17 mm (0.7 in)

0.1° up

C (Minimum cutoff line height)

44 mm (1.7 in)

0.25° down

LOW BEAM AND HIGH BEAM

NOTE:

- Basic illuminating area for evaluation and/or adjustment should be within range shown on aiming chart.

- Use adjustment screw to perform aiming adjustment.
 - **Ensure fog lamps are turned off.**
- Block the opposite headlamp from projecting a beam pattern onto the adjustment screen, using a suitable object. Aim each headlamp individually.

CAUTION:

Do not cover the lens surface with tape, etc.

- Place the screen on the same level and flat surface as the vehicle.

NOTE:

HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN HEADLAMP]

Surface should be free of any debris that would cause a difference between the headlamp center and the adjustment screen.

4. Face the front of the vehicle to the screen and measure distance between the headlamp center and the screen surface.

Distance between the headlamp center and the screen (D) : 10 m (33 ft)

5. Start the engine. Turn the headlamp on.
6. Determine the preferred vertical aim range dimensions, using the aiming chart.
7. Measure the projected beam within the aim evaluation segment on the screen.
8. Adjust the beam pattern of each headlamp until the aim evaluation segment (the area relative to both the highest and lowest cutoff line height) is positioned within the vertical aim range dimensions shown on the aiming chart.

FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN HEADLAMP]

FRONT FOG LAMP AIMING ADJUSTMENT

Aiming Adjustment

INFOID:0000000011569149

PREPARATION BEFORE ADJUSTING

The fog lamp is a semi-sealed beam type which uses a replaceable halogen bulb. Before performing aiming adjustment procedure, check the following:

- Ensure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to correct level, and fuel tank full.
- Remove cargo and/or luggage to maintain an unloaded vehicle condition.
- Confirm spare tire, jack and tools are properly stowed.
- Carefully wipe off any dirt from headlamp lens.

CAUTION:

Do not use organic solvent (thinner, gasoline etc.)

- Place a driver or equivalent weight of 68.5 kg (150 lb) on the driver seat.
- By hand, bounce the front and rear of the vehicle to settle the suspension and eliminate any static load.
- Place the front tires in the straight ahead position.
- Aim each headlamp individually and ensure other headlamp beam pattern is blocked from screen.

NOTE:

- For fog lamp aiming details, refer to regulations in your area.
- By regulation, no means for horizontal aim adjustment is provided from the factory; only vertical aim is adjustable.
- Use adjusting screw to perform aiming adjustment.
- Perform fog lamp aiming if:
 - The vehicle front body has been repaired.
 - The front fog lamp has been removed or replaced.
 - Any outfitting has been installed.
 - The vehicle's standard load condition has been substantially increased.

Aiming Adjustment Procedure

1. Place the screen.

NOTE:

- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.

2. Face the vehicle with the screen. Maintain 7.62 m (25.0 ft) between the front fog lamp center and the screen.

3. Start the engine. Turn the front fog lamp ON.

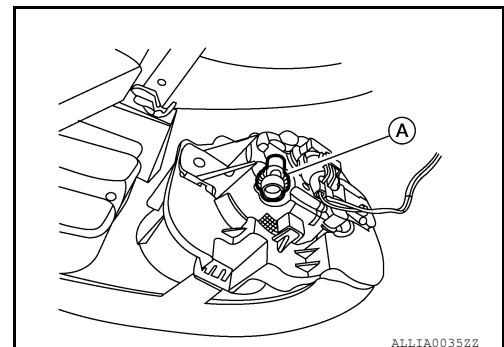
NOTE:

Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

CAUTION:

Do not cover the lens surface with a tape etc. The lens is made of resin.

4. Adjust aiming by turning the adjusting screw (A).



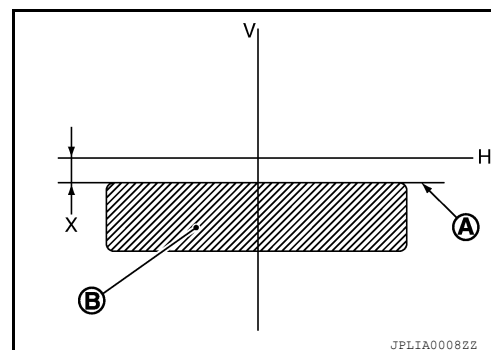
FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN HEADLAMP]

5. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 100 mm (4 in).

- A : Cutoff line
- B : High illuminance area
- H : Horizontal center line of front fog lamp
- V : Vertical center line of front fog lamp
- X : Cutoff line height



FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

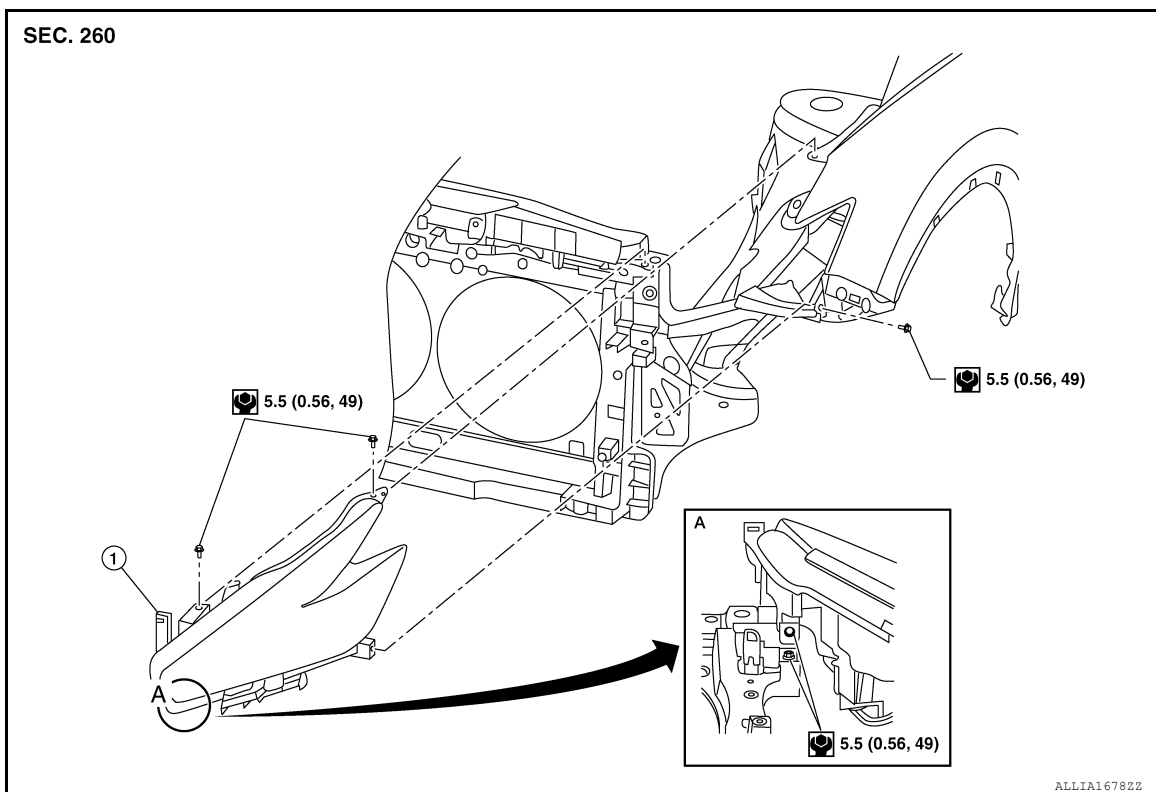
[HALOGEN HEADLAMP]

REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

INFOID:0000000011569031



1. Front combination lamp

Removal and Installation

INFOID:0000000011569032

REMOVAL

1. Remove front bumper fascia. Refer to [EXT-25, "Removal and Installation"](#).
2. Remove front combination lamp bolts.
3. Pull front combination lamp forward.
4. Disconnect harness connectors from front combination lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

NOTE:

After installation, perform headlamp aiming adjustment. Refer to [EXL-256, "Inspection"](#).

Bulb Replacement

INFOID:0000000011569033

WARNING:

Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

HEADLAMP (LOW BEAM) BULB

FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

Removal

1. Rotate bulb counterclockwise and remove from front combination lamp.
2. Disconnect harness connector from bulb and remove.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

HEADLAMP (HIGH BEAM) BULB

Removal

1. Remove plastic cover.
2. Rotate bulb counterclockwise and remove from front combination lamp.
3. Disconnect harness connector from bulb and remove.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

SIDE MARKER LAMP BULB

Removal

1. Rotate bulb counterclockwise and remove from front combination lamp.
2. Remove bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

TURN SIGNAL LAMP BULB

Removal

1. Rotate bulb socket counterclockwise and remove from front combination lamp.
2. Remove bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

FRONT FOG LAMP

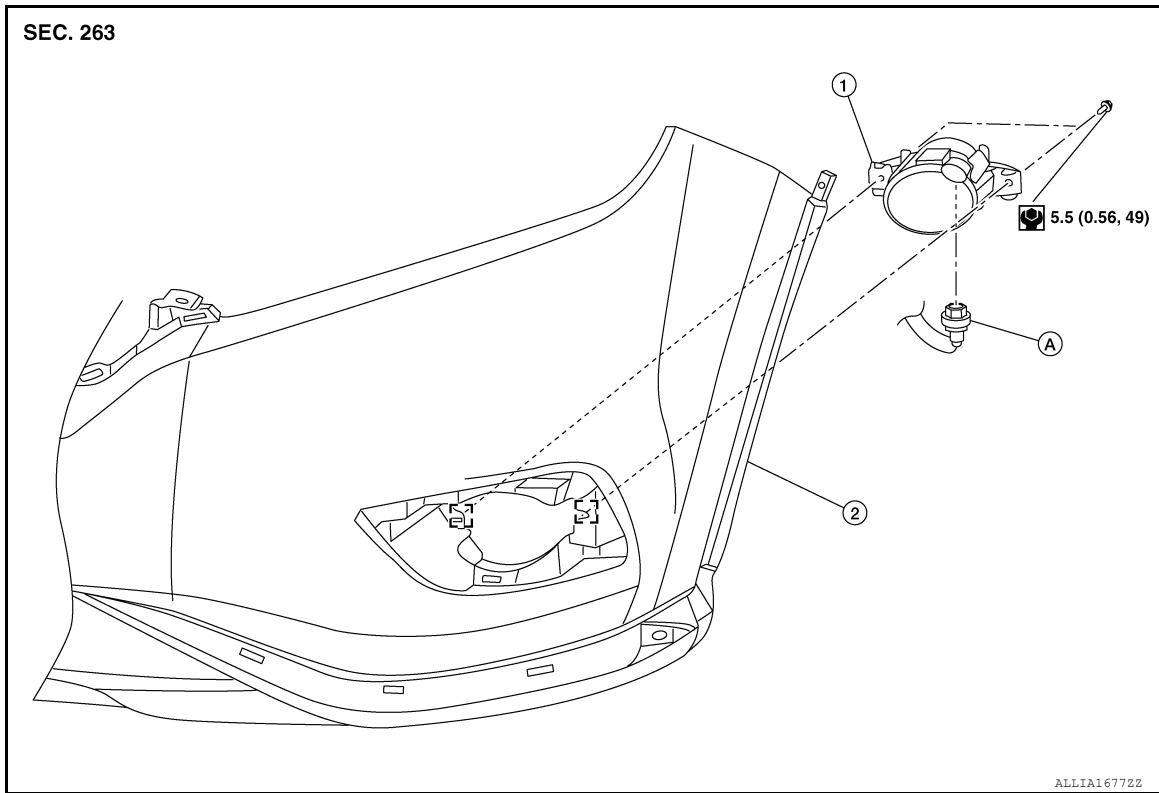
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

FRONT FOG LAMP

Exploded View

INFOID:0000000011569034



1. Front fog lamp

2. Front bumper fascia

A. Front fog lamp harness connector

□ Metal clip

Removal and Installation

INFOID:0000000011569035

REMOVAL

1. Partially remove front fender protector. Refer to [EXT-36, "FENDER PROTECTOR : Exploded View"](#).
2. Disconnect harness connector from front fog lamp.
3. Remove front fog lamp bolts and front fog lamp.

INSTALLATION

Installation in the reverse order of removal.

NOTE:

After installation, perform front fog lamp aiming adjustment. Refer to [EXL-126, "Aiming Adjustment"](#).

Bulb Replacement

INFOID:0000000011569036

WARNING:

Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture, smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

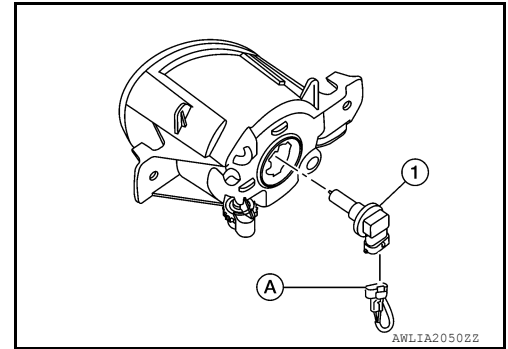
1. Partially remove front fender protector. Refer to [EXT-38, "FRONT OVER FENDER : Removal and Installation"](#).

FRONT FOG LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

2. Disconnect harness connector from front fog lamp (A).
3. Rotate bulb (1) counterclockwise and remove.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Install bulb securely for watertightness.

DOOR MIRROR TURN SIGNAL LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

DOOR MIRROR TURN SIGNAL LAMP

Removal and Installation

INFOID:0000000011569142

The door mirror turn signal lamp is serviced as part of the door mirror. Refer to [MIR-21. "Removal and Installation"](#).

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OPTICAL SENSOR

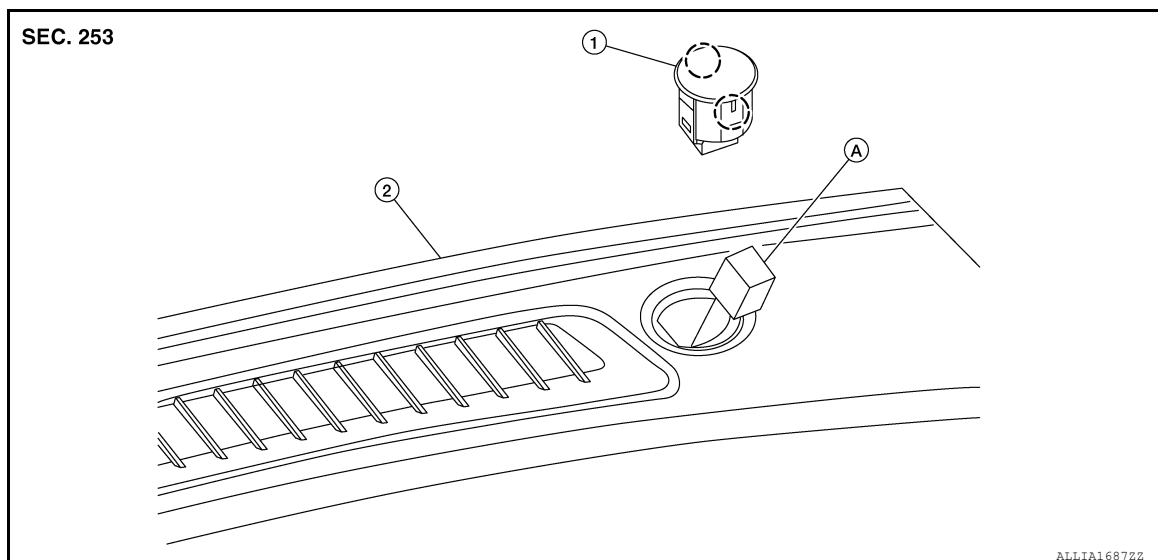
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

OPTICAL SENSOR

Exploded View

INFOID:0000000011569037



1. Optical sensor

2. Defroster grille

A. Harness connector

○: Pawl

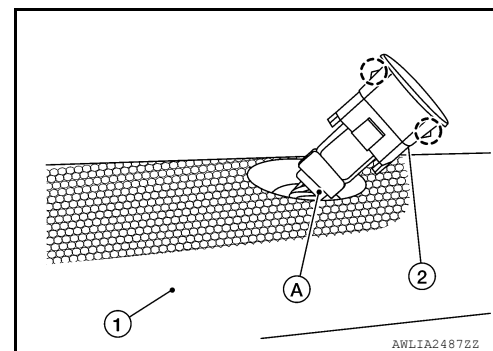
Removal and Installation

INFOID:0000000011569038

REMOVAL

Release pawls and remove the optical sensor (2) from defroster grille (1) using a suitable tool.

○: Pawl



INSTALLATION

Installation is in the reverse order of removal.

LIGHTING & TURN SIGNAL SWITCH

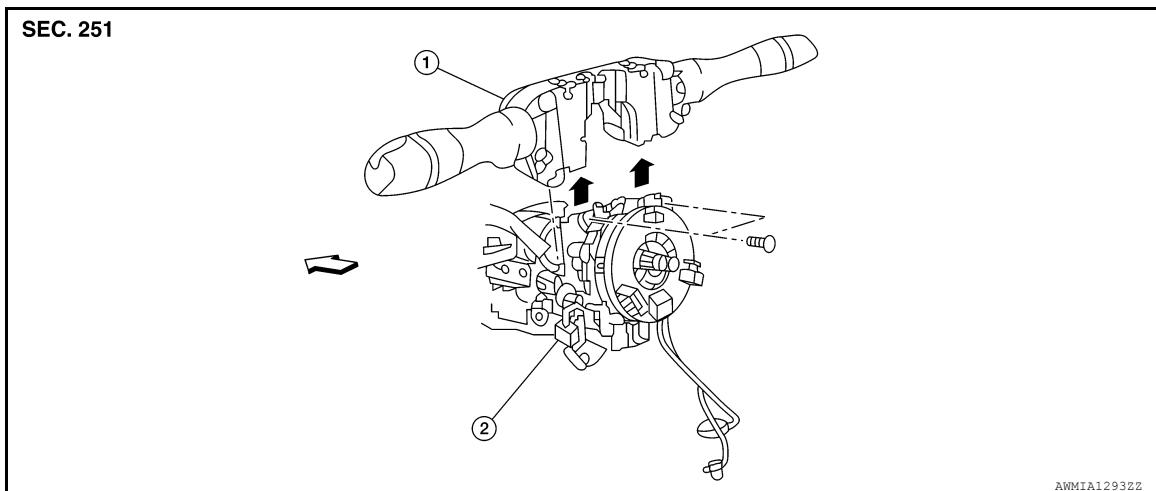
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:0000000011569093



1. Combination switch

2. Combination switch harness connector ← Front

Removal and Installation

INFOID:0000000011569094

REMOVAL

1. Disconnect both the negative and positive battery terminals, then wait at least three minutes. Refer to [PG-86, "Exploded View"](#).
2. Remove the steering column covers. Refer to [JP-18, "Removal and Installation"](#).
3. Remove the combination switch screws.
4. Disconnect the harness connector from the combination switch and remove.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- After the work is completed, make sure no system malfunction is detected by air bag warning lamp.
- In case a malfunction is detected by the air bag warning lamp, reset with the self-diagnosis function and delete the memory with CONSULT.
- If a malfunction is still detected after the above operation, perform self-diagnosis to repair malfunctions. Refer to [SRC-17, "SRS Final Check"](#).

EXL

HAZARD SWITCH

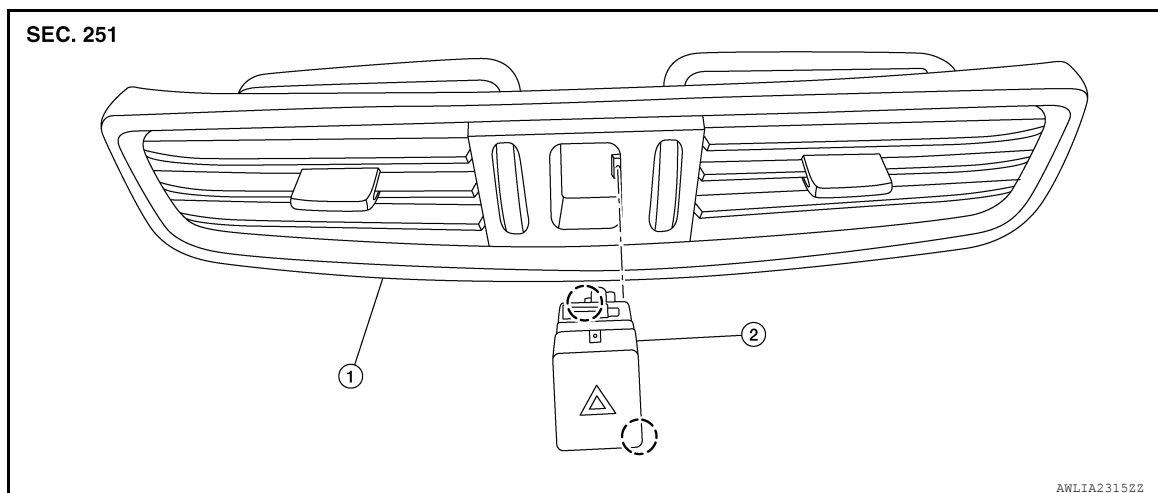
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

HAZARD SWITCH

Exploded View

INFOID:0000000011569041



1. Center ventilator grille

2. Hazard switch

○ Pawl

Removal and Installation

INFOID:0000000011569042

REMOVAL

1. Remove center ventilator grille. Refer to [VTL-10, "CENTER VENTILATOR DUCT : Removal and Installation"](#).
2. Release pawls and remove hazard switch.

INSTALLATION

Installation is in the reverse order of removal.

REAR COMBINATION LAMP

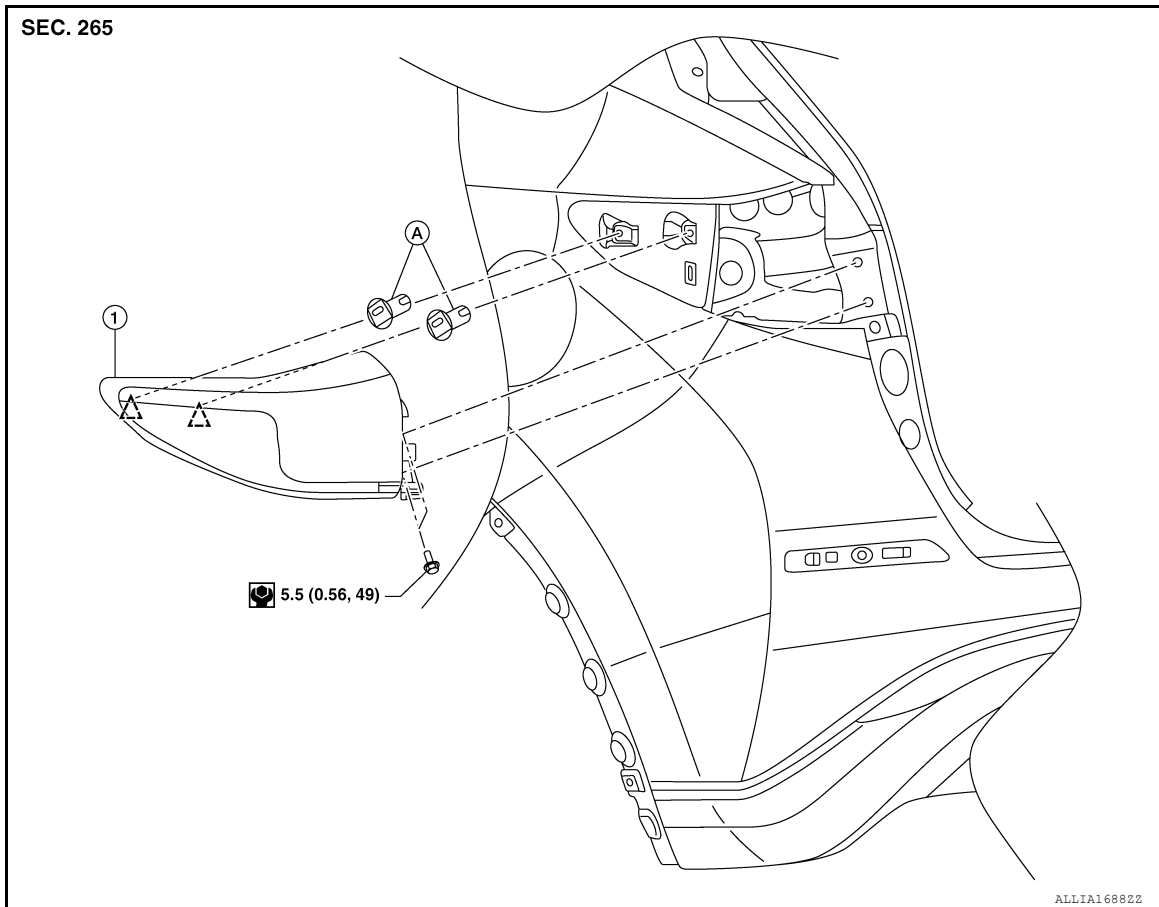
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

REAR COMBINATION LAMP

Exploded View

INFOID:0000000011569045



Removal and Installation

INFOID:0000000011569046

REMOVAL

1. Remove rear combination lamp side cover.
2. Remove rear combination lamp bolts.
3. Pull rear combination lamp sideward to release clip and locators.
4. Disconnect harness connector from rear combination lamp and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011569047

WARNING:

Do not touch bulb with bare hand while it is lit or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

STOP LAMP BULB

The stop lamp bulb is LED and not serviced separately. Refer to [EXL-136, "Removal and Installation"](#).

REAR COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

SIDE MARKER LAMP BULB

Removal

1. Remove rear combination lamp. Refer to [EXL-136. "Removal and Installation"](#).
2. Rotate side marker bulb socket counterclockwise and remove.
3. Remove side marker bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

TURN SIGNAL LAMP BULB

Removal

1. Remove rear combination lamp. Refer to [EXL-136. "Removal and Installation"](#).
2. Rotate turn signal lamp bulb socket counterclockwise and remove.
3. Remove turn signal lamp bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

HIGH-MOUNTED STOP LAMP

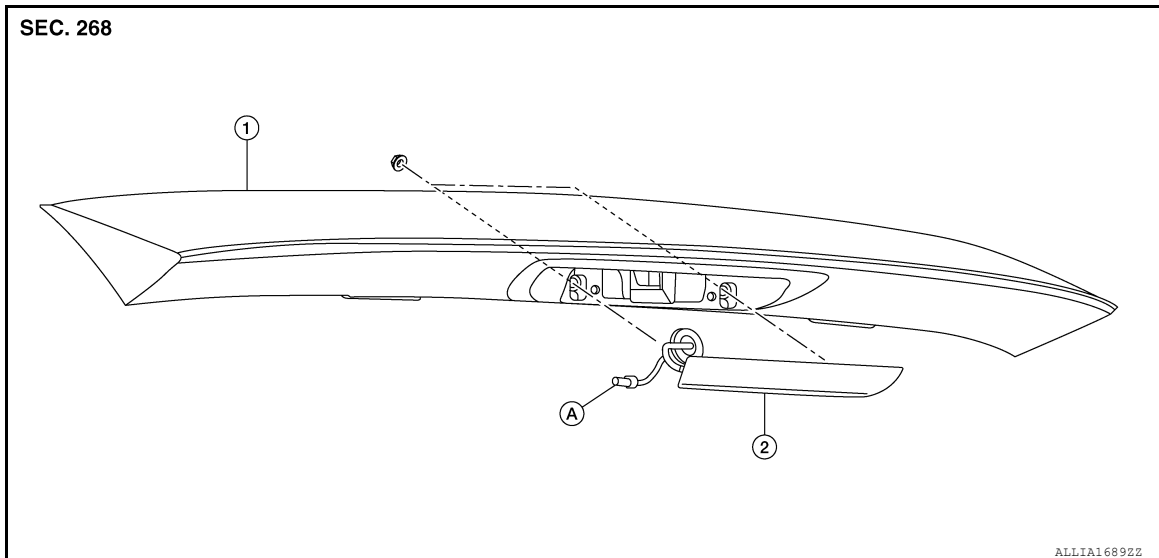
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:0000000011569048



Removal and Installation

INFOID:0000000011569144

REMOVAL

1. Remove rear spoiler. Refer to [EXT-51, "Removal and Installation"](#).
2. Remove nuts and remove high-mounted stop lamp.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011569050

HIGH-MOUNTED STOP LAMP BULB

The high-mounted stop lamp bulb is LED and not serviced separately. Refer to [EXL-138, "Removal and Installation"](#).

LICENSE PLATE LAMP

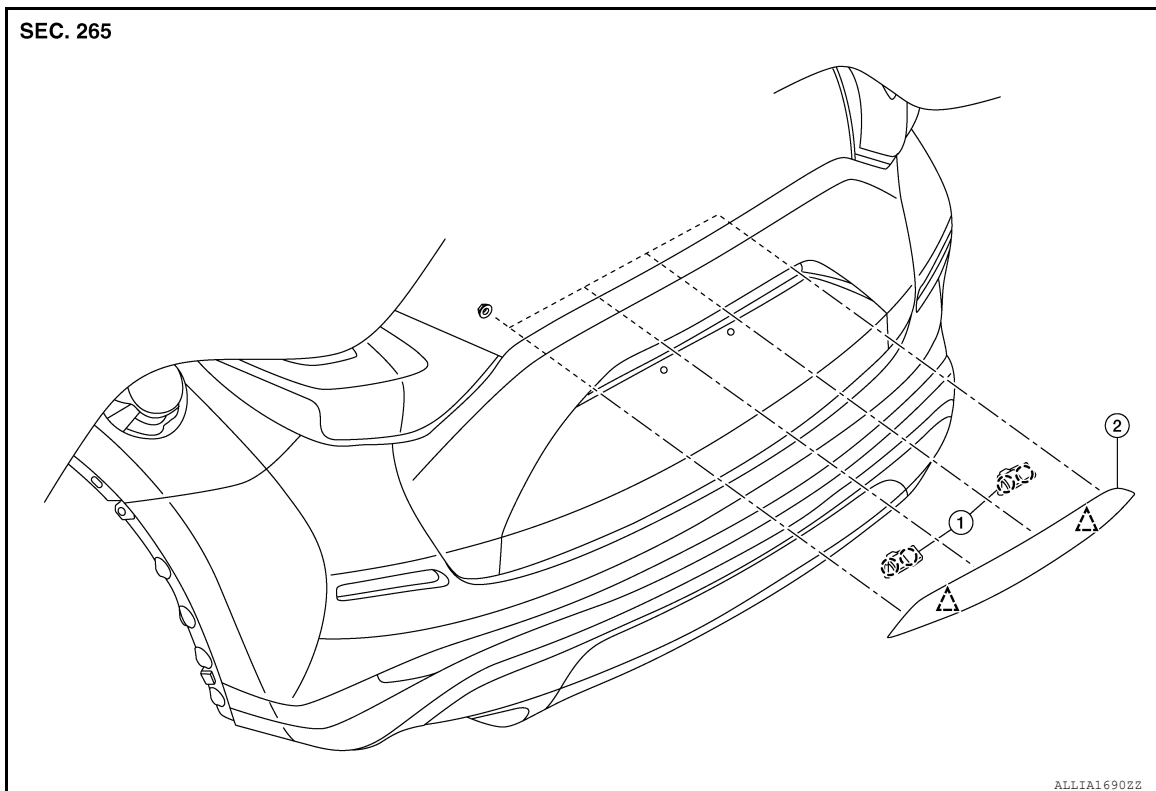
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

LICENSE PLATE LAMP

Exploded View

INFOID:000000011569054



1. License plate lamp

2. Back door outer finisher

△ Clip

○ Pawl

Removal and Installation

INFOID:000000011569055

REMOVAL

1. Remove back door outer finisher. Refer to [EXT-53, "Removal and Installation"](#).
2. Disconnect harness connector from license plate lamp.
3. Release pawls and push license plate lamp forward.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:000000011569056

WARNING:

Do not touch bulb with your hand while it is on or right after being turned off. Burning may result.

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

1. Remove back door lower finisher. Refer to [INT-34, "BACK DOOR LOWER FINISHER : Removal and Installation"](#).
2. Rotate license plate lamp bulb socket counterclockwise and remove.

LICENSE PLATE LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

3. Remove license plate lamp bulb from bulb socket.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

After installing bulb, install bulb socket securely for watertightness.

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BACK-UP LAMP ASSEMBLY

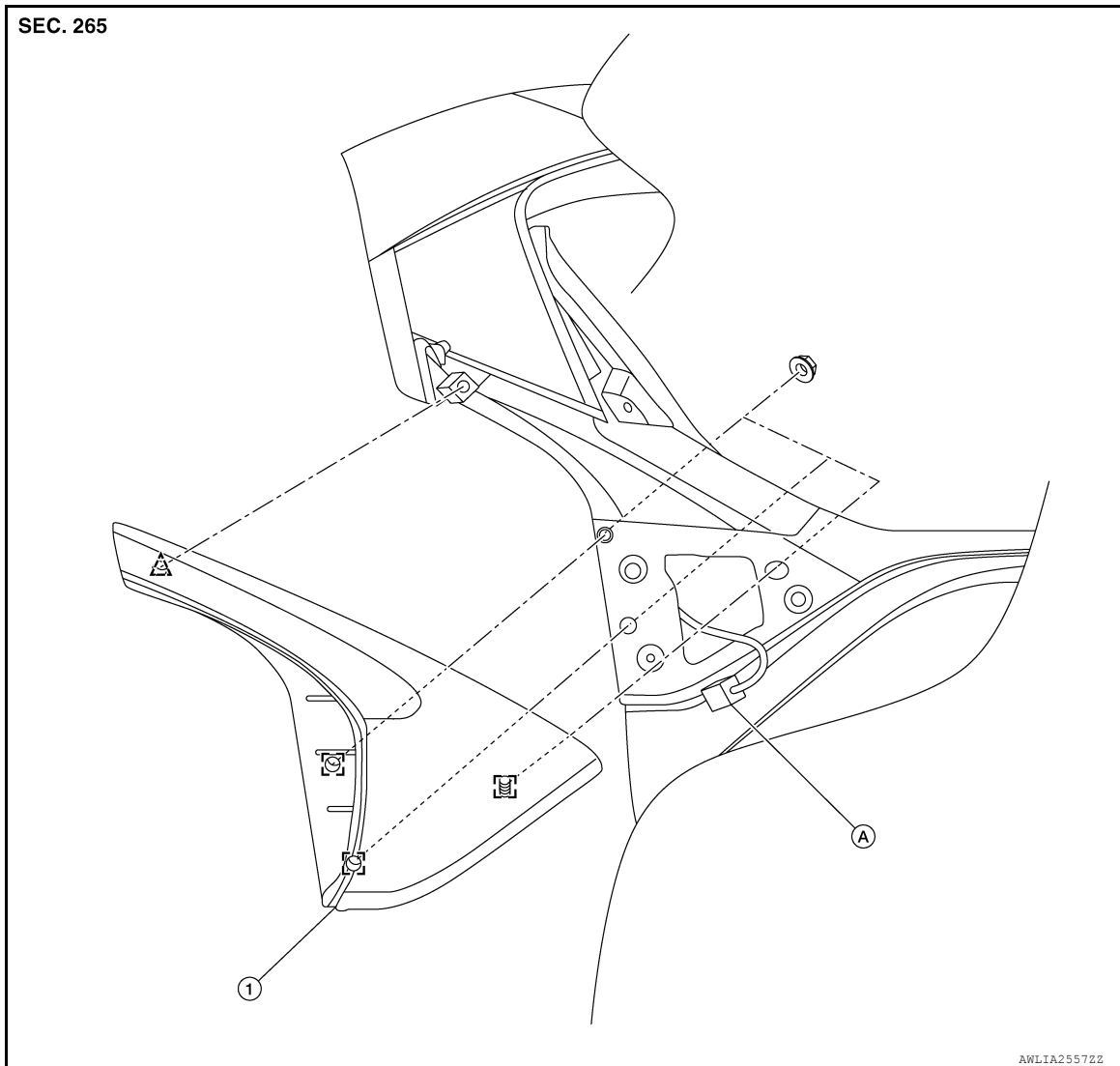
< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

BACK-UP LAMP ASSEMBLY

Exploded View

INFOID:0000000011569051



1. Back-up lamp assembly

A. Harness connector

□ Metal stud

△ Clip

Removal and Installation

INFOID:0000000011569148

REMOVAL

1. Remove back door lower finisher. Refer to [INT-34, "BACK DOOR LOWER FINISHER : Removal and Installation"](#).
2. Remove back-up lamp assembly nuts.
3. Disconnect harness connector, pull back-up lamp assembly rearward and remove.

INSTALLATION

Installation is in the reverse order of removal.

Bulb Replacement

INFOID:0000000011569053

WARNING:

Do not touch bulb with bare hand while it is lit or right after being turned off. Burning may result.

BACK-UP LAMP ASSEMBLY

< REMOVAL AND INSTALLATION >

[HALOGEN HEADLAMP]

CAUTION:

- Do not touch glass surface of bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.
- Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect performance of lamp. When replacing bulb, be sure to replace it with new one.

REMOVAL

1. Remove back-up lamp assembly. Refer to [EXL-141, "Removal and Installation"](#).
2. Rotate back-up lamp bulb socket counterclockwise and remove.
3. Remove back-up lamp bulb from bulb socket.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

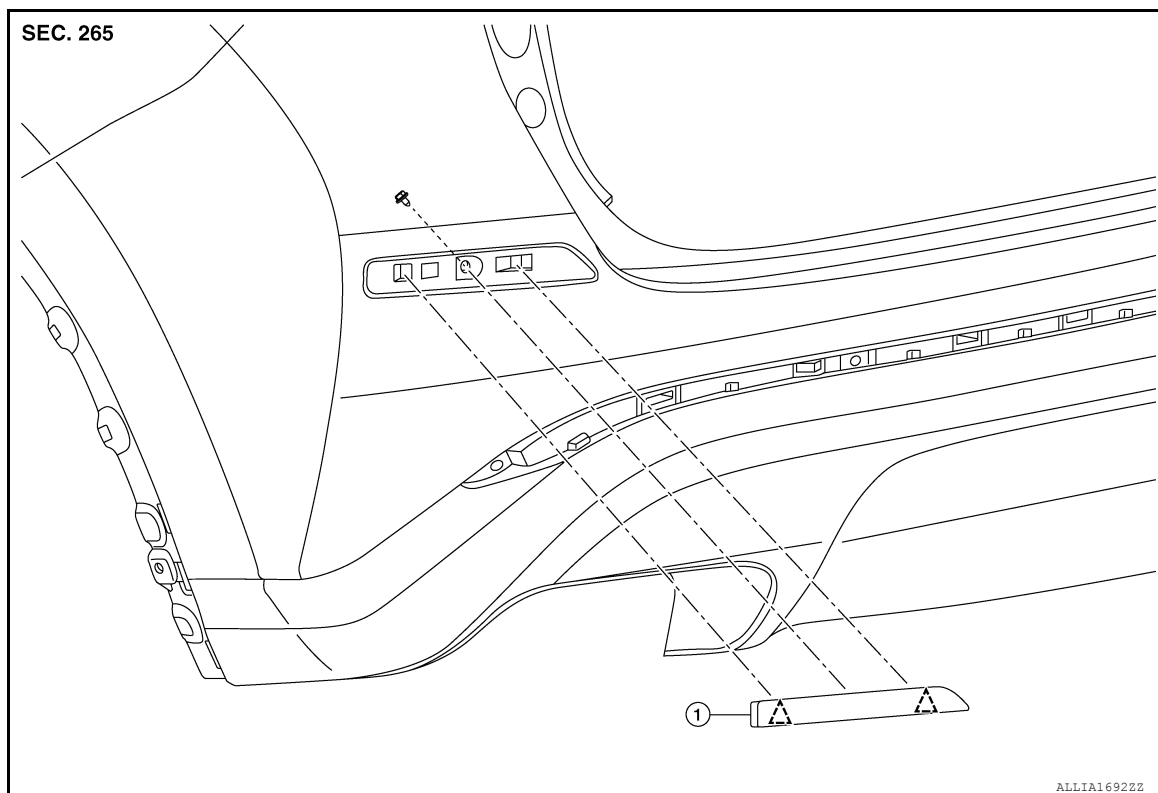
After installing bulb, install bulb socket securely for watertightness.

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REFLEX REFLECTOR

Exploded View

INFOID:000000011517152



1. Rear reflex reflector

 Clip

Removal and Installation

INFOID:000000011517153

REMOVAL

1. Remove rear bumper fascia. Refer to [EXT-27, "Removal and Installation"](#).
2. Remove rear reflex reflector fixing screw and pawls and then remove rear reflex reflector.

INSTALLATION

Install in the reverse order of removal.

FRONT COMBINATION LAMP

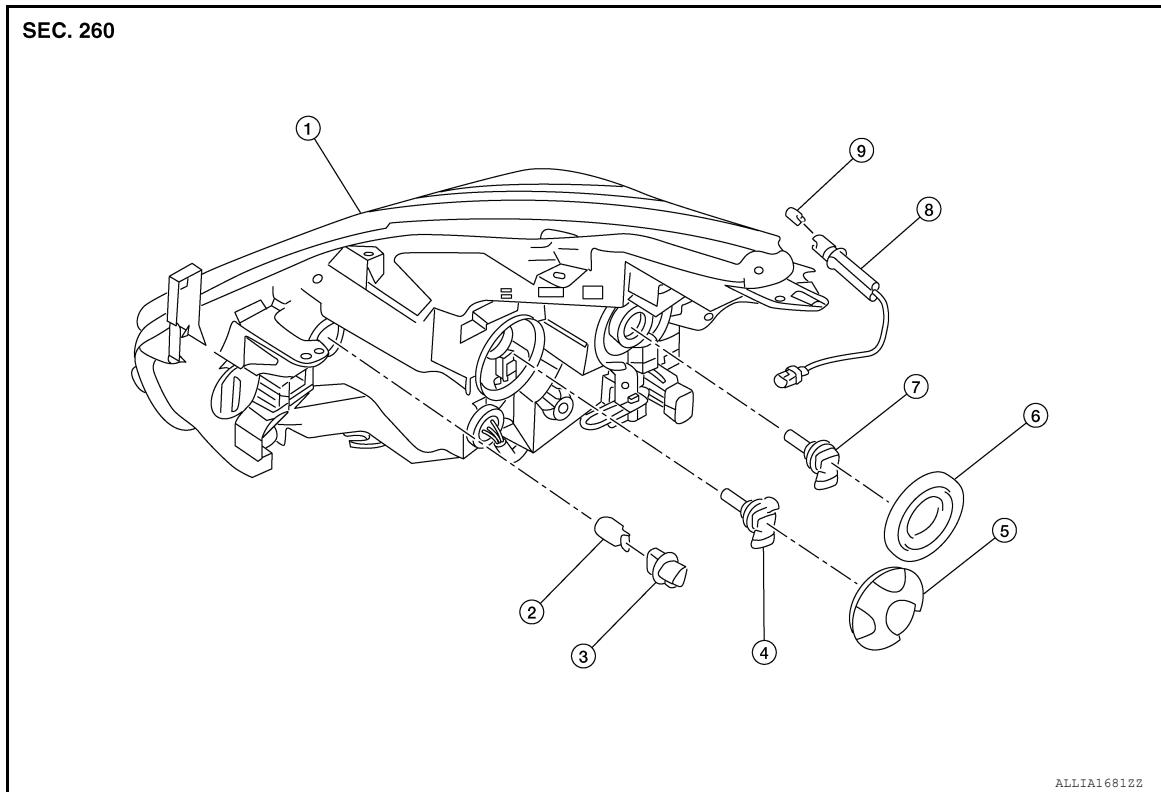
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[HALOGEN HEADLAMP]

UNIT DISASSEMBLY AND ASSEMBLY

FRONT COMBINATION LAMP

Exploded View



- | | | |
|---------------------------|----------------------------------|---------------------------------|
| 1. Front combination lamp | 2. Turn signal lamp bulb | 3. Turn signal lamp bulb socket |
| 4. High beam lamp bulb | 5. High beam lamp bulb cover | 6. Low beam lamp bulb grommet |
| 7. Low beam lamp bulb | 8. Side marker lamp bulb harness | 9. Side marker lamp bulb |

Disassembly and Assembly

INFOID:0000000011569062

DISASSEMBLY

1. Remove front combination lamp. Refer to [EXL-261, "Removal and Installation"](#).
2. Rotate headlamp (low beam) bulb counterclockwise and remove.
3. Disconnect harness connector from headlamp (low beam) bulb.
4. Remove plastic cover.
5. Rotate headlamp (high beam) bulb counterclockwise and remove.
6. Disconnect harness connector from headlamp (high beam) bulb.
7. Rotate side marker lamp bulb socket counterclockwise and remove.
8. Remove side marker lamp bulb from bulb socket.
9. Rotate turn signal lamp bulb socket counterclockwise and remove.
10. Remove turn signal lamp bulb from bulb socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

During assembly, be sure to install bulb sockets securely to ensure watertightness.

REAR COMBINATION LAMP

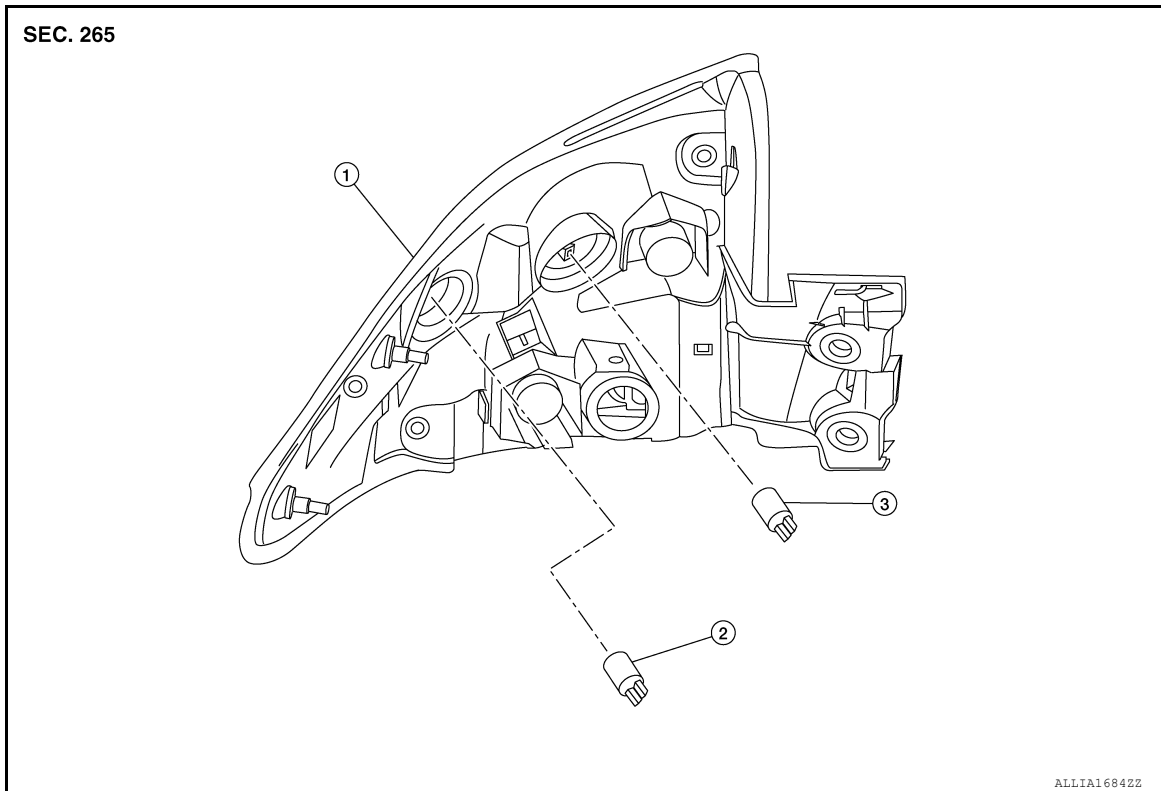
< UNIT DISASSEMBLY AND ASSEMBLY >

[HALOGEN HEADLAMP]

REAR COMBINATION LAMP

Exploded View

INFOID:0000000011569063



1. Rear combination lamp

2. Turn signal lamp bulb

3. Side marker lamp bulb

Disassembly and Assembly

INFOID:0000000011569064

DISASSEMBLY

1. Remove rear combination lamp. Refer to [EXL-269. "Removal and Installation"](#).
2. Rotate side marker lamp bulb socket counterclockwise and remove.
3. Remove side marker bulb from bulb socket.
4. Rotate turn signal lamp bulb socket counterclockwise and remove.
5. Remove turn signal lamp bulb from bulb socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

CAUTION:

During assembly, be sure to install bulb sockets securely to ensure watertightness.

SERVICE DATA AND SPECIFICATIONS (SDS)

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[HALOGEN HEADLAMP]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000011569057

Item		Type	Wattage (W)
Front combination lamp	High beam	H9	65
	Low beam	H11	55
	Turn signal lamp	7444NA	28/8
	Side marker lamp	WY21W	5
	Daytime running lamp	LED	1.5/10.7
Front fog lamp (if equipped)		H8	35
Door mirror turn signal lamp		LED	—
Rear combination lamp	Stop lamp	LED	0.6/1.6
	Side marker lamp	W5W	5
	Turn signal lamp	WY21W	21
Back-up lamp		921	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	0.85

*: Always check with the Parts Department for the latest parts info.

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