SECTION EXL
EXTERIOR LIGHTING SYSTEM

CONTENTS

XENON TYPE

PRECAUTION

PRECAUTIONS

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

INFOID:0000000011134615

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes dual stage front air bag modules. The SRS system may only deploy one front air bag, depending on the severity of a collision and whether the front passenger seat is occupied. 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

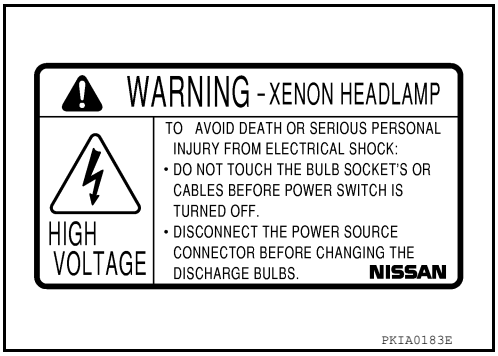
WARNING:

- **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.**

General precautions for service operations

INFOID:0000000011134616

- Do not work with wet hands.
- The xenon headlamp system includes a high voltage generating part. Be sure to disconnect battery negative cable (negative terminal) or power fuse before removing, installing, or touching the xenon headlamp (including lamp bulb).
- Turn the lighting switch OFF before disconnecting and connecting the connector.
- When turning the xenon headlamp on and while it is illuminated, do not touch the harness, bulb, and socket of the headlamp.
- When checking the headlamp on/off operation, check it on vehicle and with the power connected to the vehicle-side connector.



- Do not touch the headlamp bulb glass surface with bare hands or allow oil or grease to get on it. Do not touch the headlamp bulb just after the headlamp is turned off, because it is very hot.
- Install the xenon headlamp bulb socket correctly. If it is installed improperly, high-voltage leak or corona discharge may occur that can melt the bulb, connector or housing. Do not illuminate the xenon headlamp bulb out of the headlamp housing. Doing so can cause fire and harm your eyes.
- When the bulb has burned out, wrap it in a thick vinyl bag and discard. Do not break the bulb.
- Leaving the bulb removed from the headlamp housing for a long period of time can deteriorate the performance of the lens and reflector (dirt, clouding). Always prepare a new bulb and have it on hand when replacing the bulb.
- When adjusting the headlamp aiming, turn the aiming adjustment screw only in the tightening direction. If it is necessary to loosen the screw, first fully loosen the screw, and then turn it in the tightening direction.
- Do not use organic solvent (paint thinner or gasoline) to clean lamps and to remove old sealant.

Precaution for Work

INFOID:0000000011134617

- 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.

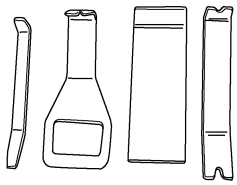
PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000011134618

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

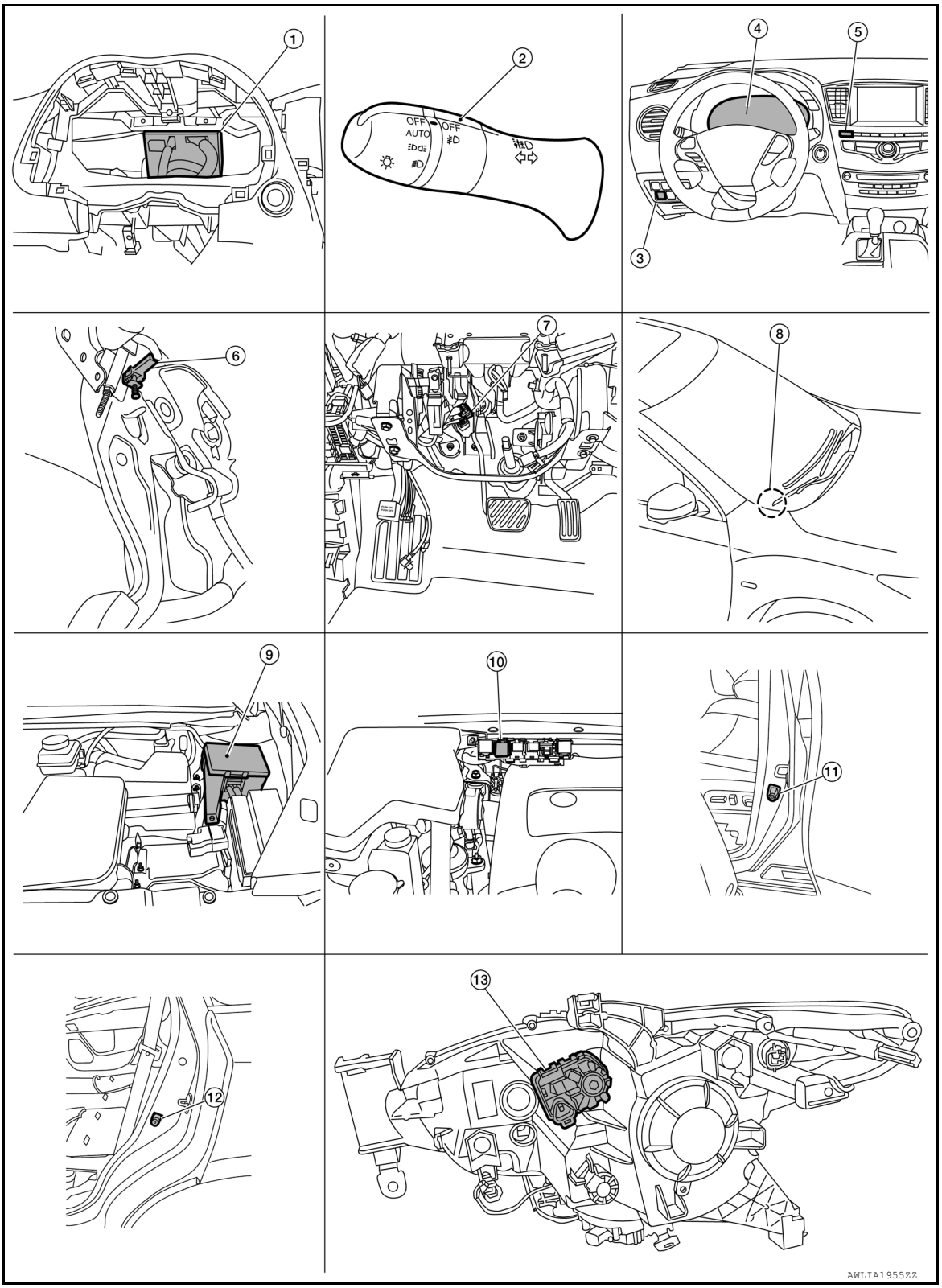
Tool number (TechMate No.) Tool name	Description
— (J-46534) Trim Tool Set  AWJIA0483ZZ	Removing trim components

SYSTEM DESCRIPTION

COMPONENT PARTS

Component Parts Location

INFOID:0000000011134619



1. BCM (view with combination meter removed)
2. Combination switch (lighting and turn signal switch)
3. Headlamp aiming switch
4. Combination meter
5. A/C and AV switch assembly (hazard switch)
6. Parking brake switch
7. Stop lamp switch
8. Optical sensor
9. IPDM E/R, (Front fog lamp relay, Headlamp high relay, Headlamp low relay, Tail lamp relay)
10. Daytime running light relay (if equipped)
11. Front door switch LH (RH similar)
12. Rear door switch LH (RH similar)
13. Front combination lamp RH (headlamp aiming motor) (LH similar)

Component Description

INFOID:0000000011134620

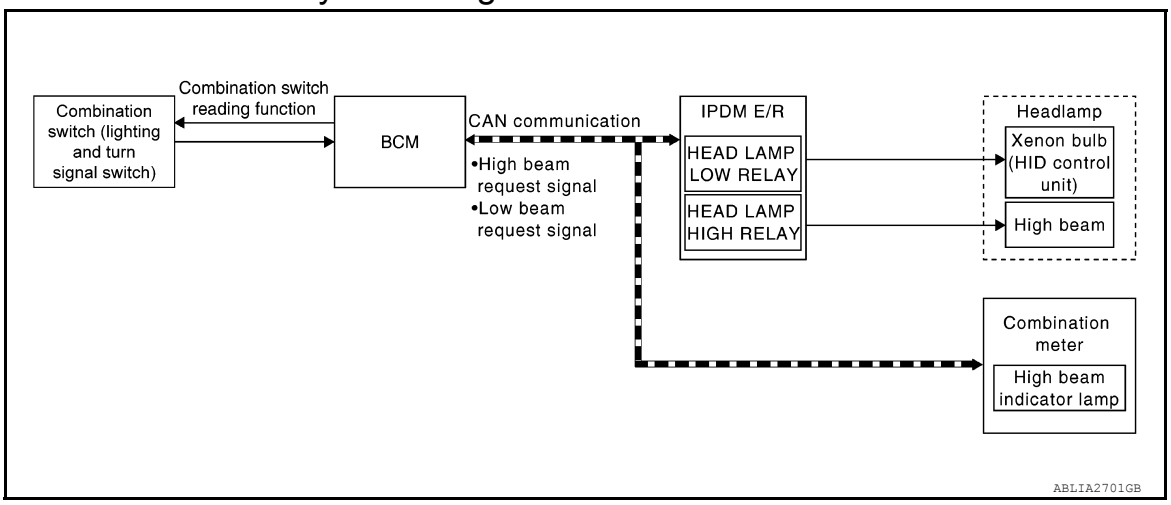
Part	Description
BCM	Controls the exterior lighting system.
Combination switch (Lighting & turn signal switch)	Refer to BCS-7, "COMBINATION SWITCH READING SYSTEM : System Description".
IPDM E/R	Controls the integrated relays and supplies voltage to the load according to the request from the BCM via CAN communication.
Stop lamp switch	Transmits stop lamp switch signal to BCM when the brake pedal is pressed to operate stop lamps.
Combination meter	Refer to MWI-9, "METER SYSTEM : System Description".
Daytime running light relay (if equipped)	Sends power to the daytime running lamp when operated by the IPDM E/R.
Front combination lamp RH (headlamp aiming motor)	Moves the headlamp up/down based on input from the headlamp aiming switch.
Front door switch LH/RH	Transmits the door open signal to the BCM to operate the autolight system.
Rear door switch LH/RH	
Optical sensor	Optical sensor converts the outside brightness (lux) to voltage and transmits the optical sensor signal to BCM to operate the autolight system.
Parking brake switch	Transmits the parking brake switch signal to the combination meter to operate the autolight system.
Headlamp aiming switch	Controls variable ground to the headlamp aiming motor signal to move the headlamp aiming motor up/down.
A/C and AV switch assembly (hazard switch)	Inputs the hazard switch signal to BCM.

SYSTEM

HEADLAMP SYSTEM

HEADLAMP SYSTEM : System Diagram

INFOID:0000000011134621



HEADLAMP SYSTEM : System Description

INFOID:0000000011134622

LOW BEAM OPERATION

When the lighting switch is in 2nd position, the BCM receives input requesting the headlamps to illuminate. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the IPDM E/R controls the headlamp low relay coil which supplies power to the low beam headlamps.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

With the lighting switch in the 2nd position and placed in HIGH position, the BCM receives input requesting the headlamp high beams to illuminate. The flash to pass feature can be used any time and also sends a signal to the BCM. This input is communicated to the IPDM E/R across the CAN communication lines. The CPU of the combination meter controls the ON/OFF status off the HIGH BEAM indicator. The CPU of the IPDM E/R controls the headlamp high relay coil which supplies power to the high beam headlamps.

The combination meter receives a high beam request signal (ON) through the CAN communication lines and turns the high beam indicator lamp ON.

EXTERIOR LAMP BATTERY SAVER CONTROL

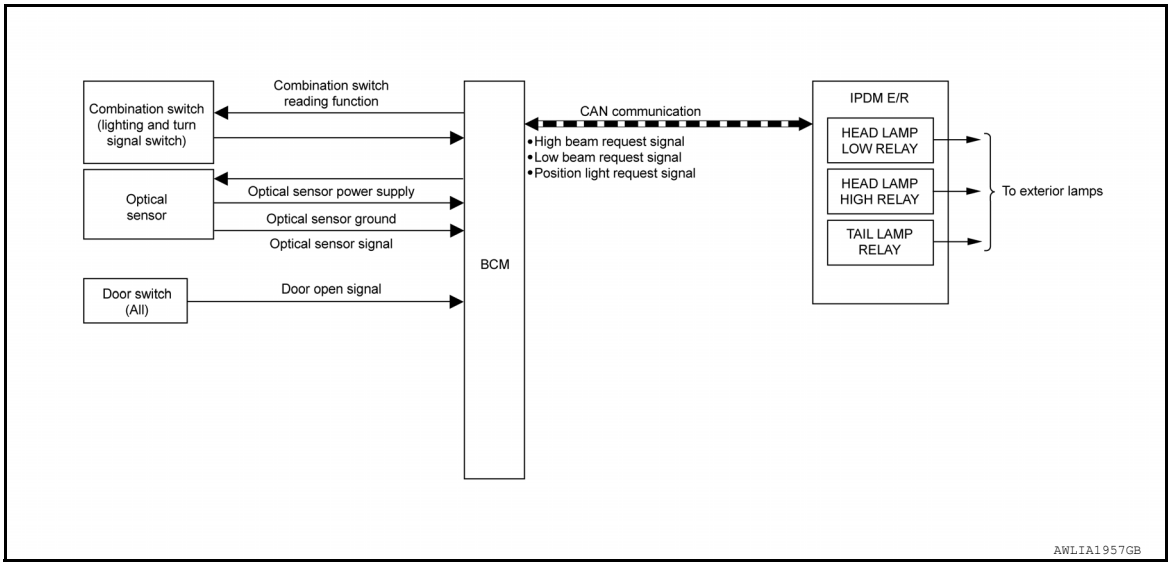
With the combination switch (lighting and turn signal switch) in the 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.

Under this condition, the headlamps remain illuminated for a period of time, unless the lighting switch position is changed. If the lighting switch position is changed, then the headlamps are turned off.

AUTO LIGHT SYSTEM

AUTO LIGHT SYSTEM : System Diagram

INFOID:0000000011134623



AUTO LIGHT SYSTEM : System Description

INFOID:0000000011134624

- BCM (Body Control Module) controls auto light operation according to signals from optical sensor, lighting switch and ignition switch.
- IPDM E/R (Intelligent Power Distribution Module Engine Room) operates parking, license plate, tail, front fog lamps and headlamps according to CAN communication signals from BCM.
- Optical sensor detects ambient brightness of 800 to 2,500 lux. And optical sensor converts light (lux) to voltage, then sends the optical sensor signal to BCM.

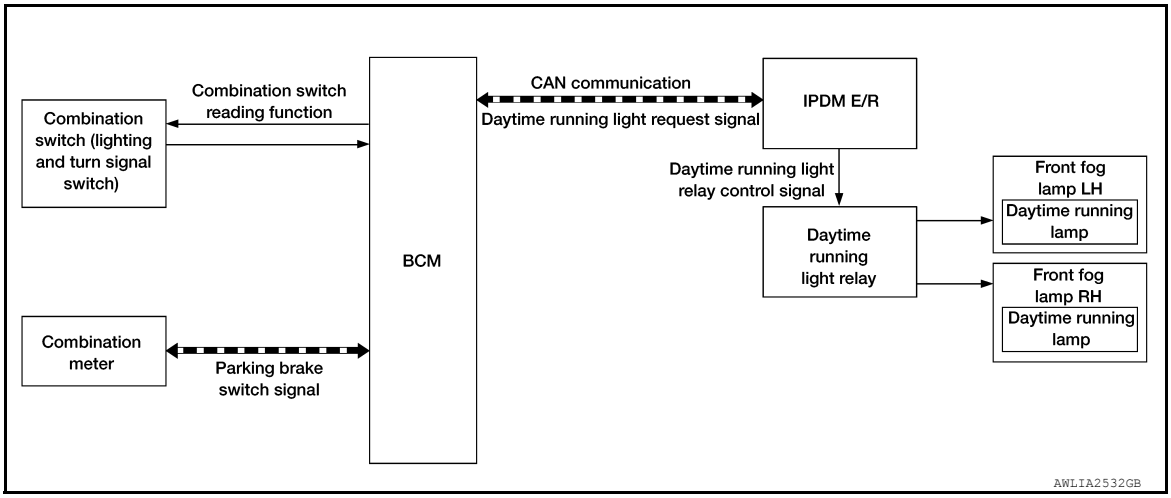
OUTLINE

The auto light control system has an optical sensor that detects outside brightness.
When the lighting switch is in AUTO position, it automatically turns ON/OFF the parking, license plate, tail, front fog lamps and headlamps in accordance with the ambient light. Sensitivity can be adjusted in four steps. For the details of the setting, Refer to BCS-17, "HEADLAMP : CONSULT Function (BCM - HEADLAMP)".

DAYTIME RUNNING LIGHT SYSTEM

DAYTIME RUNNING LIGHT SYSTEM : System Diagram

INFOID:0000000011134625



DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:0000000011134626

System Description

The daytime running light system is equipped with a daytime running light control that activates the daytime running lights within the front fog lamp assembly when the engine is operating. If the parking brake is applied, the daytime running lights will turn OFF. The daytime running lights will turn ON when the parking brake is released.

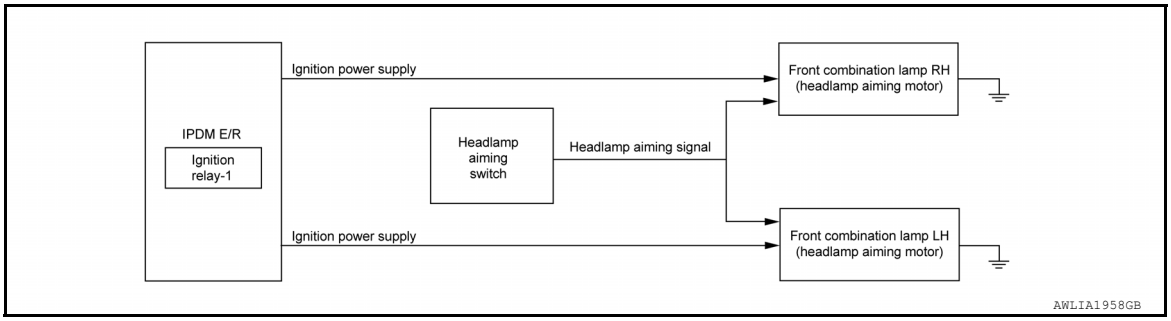
OPERATION

The BCM monitors inputs from the parking brake switch and the combination switch (lighting and turn signal switch) to determine when to operate the daytime running light system. The BCM sends a daytime running light request to the IPDM E/R via the CAN communication lines. The IPDM E/R grounds the daytime running light relay which in turn, provides power to the daytime running lights.

HEADLAMP AIMING CONTROL (MANUAL)

HEADLAMP AIMING CONTROL (MANUAL) : System Diagram

INFOID:0000000011134627



HEADLAMP AIMING CONTROL (MANUAL) : System Description

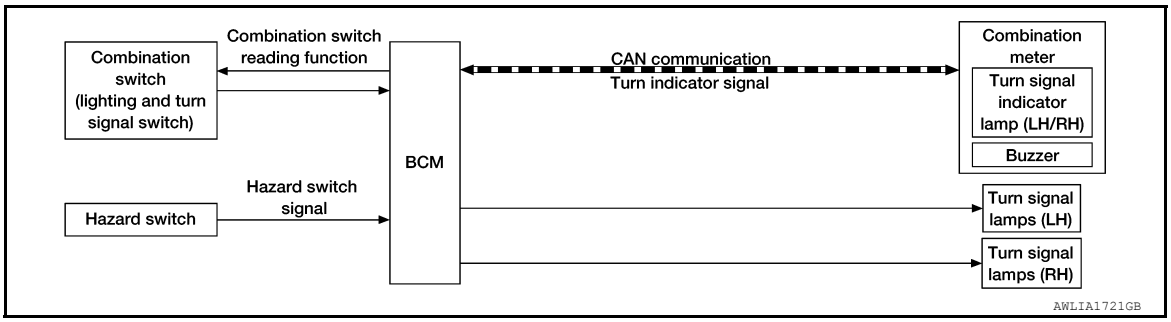
INFOID:0000000011134628

The headlamp aiming system (manual) controls the headlamp light axis height according to input from the headlamp aiming switch. The variable internal resistance of the headlamp aiming switch controls the signal ground of the headlamp aiming motors located on the front combination lamp LH and RH. The headlamp aiming system operates when the combination switch (lighting and turn signal switch) is in the 2nd position.

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Diagram

INFOID:0000000011134629



TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM : System Description

INFOID:0000000011134630

TURN SIGNAL OPERATION

When the combination switch (lighting and turn signal switch) is in LH or RH turn position with the ignition switch in the ON position, the BCM receives input requesting the turn RH or turn LH lamps to illuminate. The BCM controls the turn signal power to the respective turn signal lamp. The BCM also sends a turn indicator signal ON request via the CAN communication lines to the combination meter. The combination meter then activates the appropriate turn signal indicator and audible buzzer.

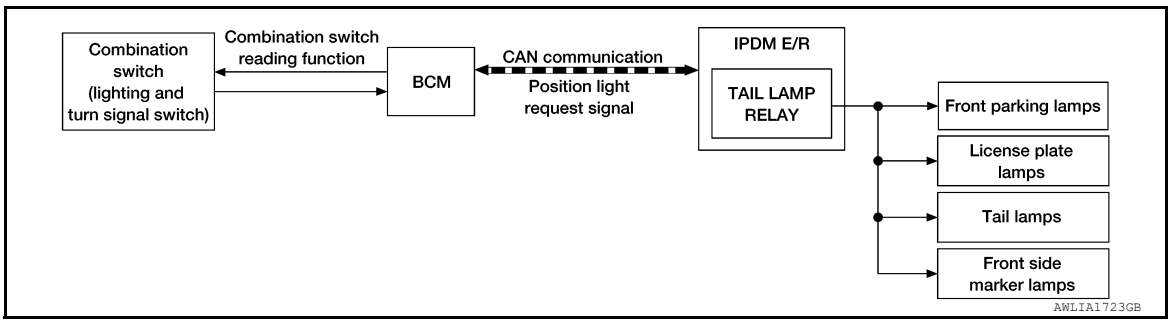
HAZARD LAMP OPERATION

When the hazard switch is in the ON position, the BCM receives input requesting the hazard lamps illuminate. The BCM controls the turn signal power to both the LH and RH turn signal lamps. The BCM sends a hazard indicator signal ON request via the CAN communication lines to the combination meter. The combination meter then activates both the LH and RH turn signal indicators and audible buzzer.

PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMP SYSTEM

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

INFOID:0000000011134631



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

INFOID:0000000011134632

PARKING, LICENSE PLATE AND TAIL LAMPS OPERATION

When the lighting switch is in 1st position, BCM detects the LIGHTING SWITCH 1st POSITION ON. The BCM sends a parking light ON request via the CAN communication lines to the IPDM E/R. The IPDM E/R then activates the tail lamp relay which sends power to the parking and instrument illumination circuits.

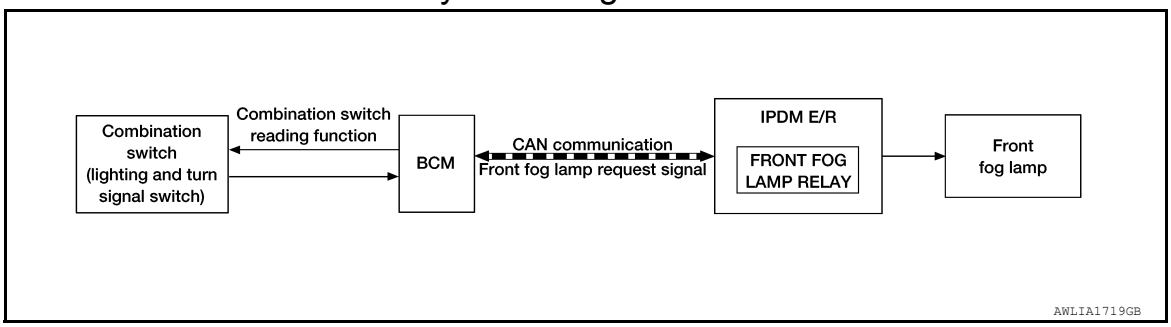
EXTERIOR LAMP BATTERY SAVER CONTROL

With the combination switch (lighting and turn signal switch) in the 2nd position and the ignition switch is turned from ON or ACC to OFF, the battery saver feature is activated.
Under this condition, the exterior lamps remain illuminated for a period of time unless the lighting switch position is changed. If the lighting switch position is changed, then the exterior lamps are turned off.

FRONT FOG LAMP SYSTEM

FRONT FOG LAMP SYSTEM : System Diagram

INFOID:0000000011134633



FRONT FOG LAMP SYSTEM : System Description

INFOID:0000000011134634

The front fog lamps are activated with the combination switch (lighting and turn signal switch). The lighting switch signal to the BCM is monitored with the BCM combination switch reading function. When the fog lamps are turned ON with the lighting switch, the BCM sends a front fog lamp request signal via CAN communication lines to the IPDM E/R. The IPDM E/R grounds the front fog lamp relay coil to activate the front fog lamps.

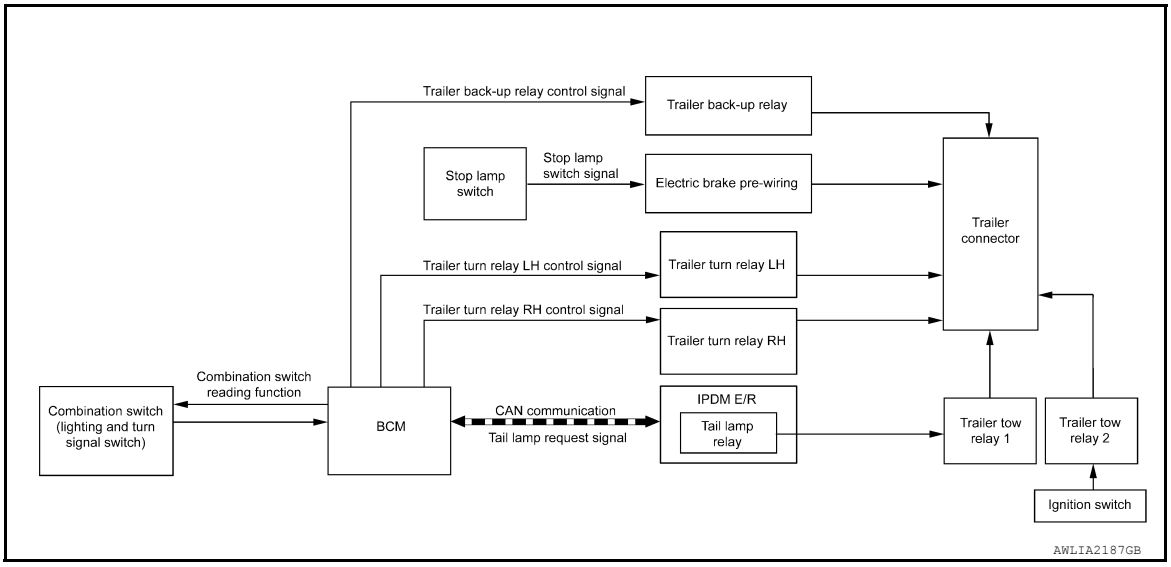
FRONT FOG LAMP OPERATION

When the lighting switch is in front fog lamp ON position and also in 1st or 2nd position or AUTO position (headlamp is ON), the BCM detects FR FOG ON and the HEAD LAMP 1, 2 ON or the AUTO LIGHT ON. The BCM sends a front fog lamp request ON signal via the CAN communication lines to the IPDM E/R. The IPDM E/R then turns ON the front fog lamp relay sending power to the front fog lamps.

TRAILER TOW SYSTEM

TRAILER TOW SYSTEM : System Diagram

INFOID:0000000011134635



TRAILER TOW SYSTEM : System Description

INFOID:0000000011134636

TRAILER TAIL LAMP OPERATION

The trailer tail lamps are controlled by the trailer tow relay 1. With the combination switch (lighting and turn signal switch) in the 1st position, the BCM detects the LIGHTING SWITCH 1st POSITION ON. The BCM sends a parking light ON request via the CAN communication lines to the IPDM E/R. The IPDM E/R then activates the tail lamp relay which activates the trailer tow relay 1 and sends power to the trailer connector.

TRAILER TURN SIGNAL LAMP OPERATION

The trailer turn signal lamps are controlled by the BCM. When the turn signal switch is in the LH or RH position with the ignition switch ON, the combination switch (lighting and turn signal switch) sends a signal to the BCM. The BCM detects the TURN RH or TURN LH ON request. The BCM sends a control signal to the respective trailer turn relay which sends power to the trailer connector.

TRAILER HAZARD LAMP OPERATION

The trailer hazard lamps are controlled by the BCM. When the hazard switch is pressed, the BCM detects the hazard ON request. The BCM then sends a control signal to both trailer turn relays which sends power to the trailer connector.

TRAILER BRAKE LAMP OPERATION

The trailer brake lamps operate when the brake pedal is pressed sending the stop lamp switch signal to the trailer connector.

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011544281

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.

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			×				

System	Sub System	Direct Diagnostic Mode						
		Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

HEADLAMP

HEADLAMP : CONSULT Function (BCM - HEADLAMP)

INFOID:0000000011544282

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.

DATA MONITOR

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*	Autolamp function ON.
	MODE1	Autolamp 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.
ILL DELAY SET	MODE 8	Autolamp 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:0000000011544283

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.

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].

DIAGNOSIS SYSTEM (IPDM E/R)

Diagnosis Description

INFOID:0000000011544284

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-171, "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.

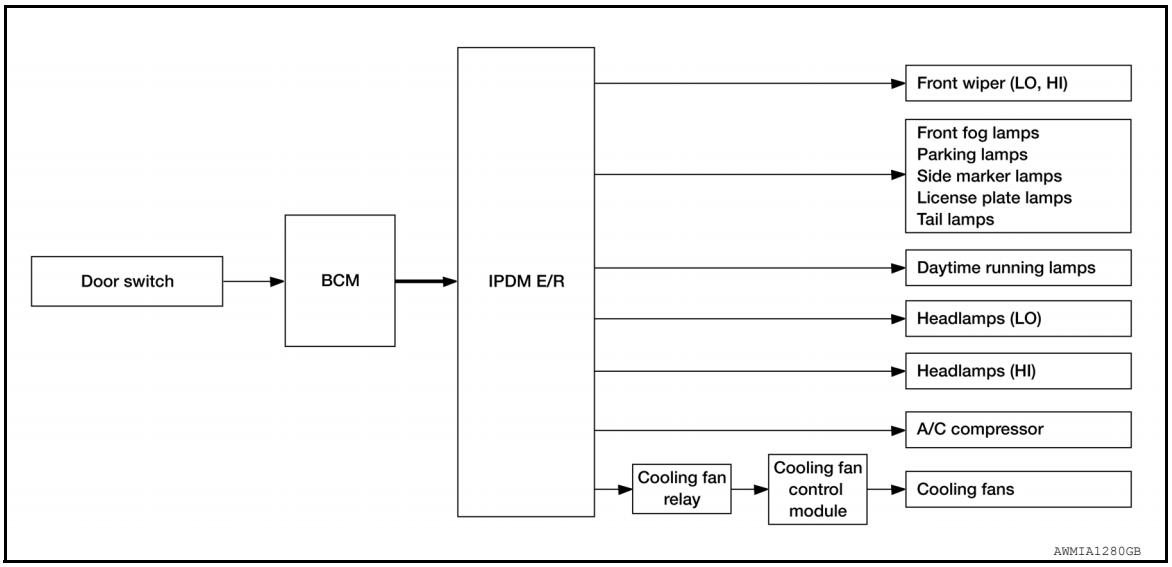
Inspection in Auto Active Test Mode

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.

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:0000000011544285

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.

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.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

ECU IDENTIFICATION

The IPDM E/R part number is displayed.

SELF DIAGNOSTIC RESULT

Refer to PCS-20, "DTC Index".

DATA MONITOR

Monitor Item [Unit]	Main Signals	Description
RAD 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/INHI RLY [Off/ ST /INHI]		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

Monitor Item [Unit]	Main Signals	Description
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

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/Lo/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/Lo/Tail/Off].

CAN DIAG SUPPORT MNTR

Refer to LAN-25, "CAN Diagnostic Support Monitor".

ECU DIAGNOSIS INFORMATION

BCM, IPDM E/R

List of ECU Reference

INFOID:0000000011134642

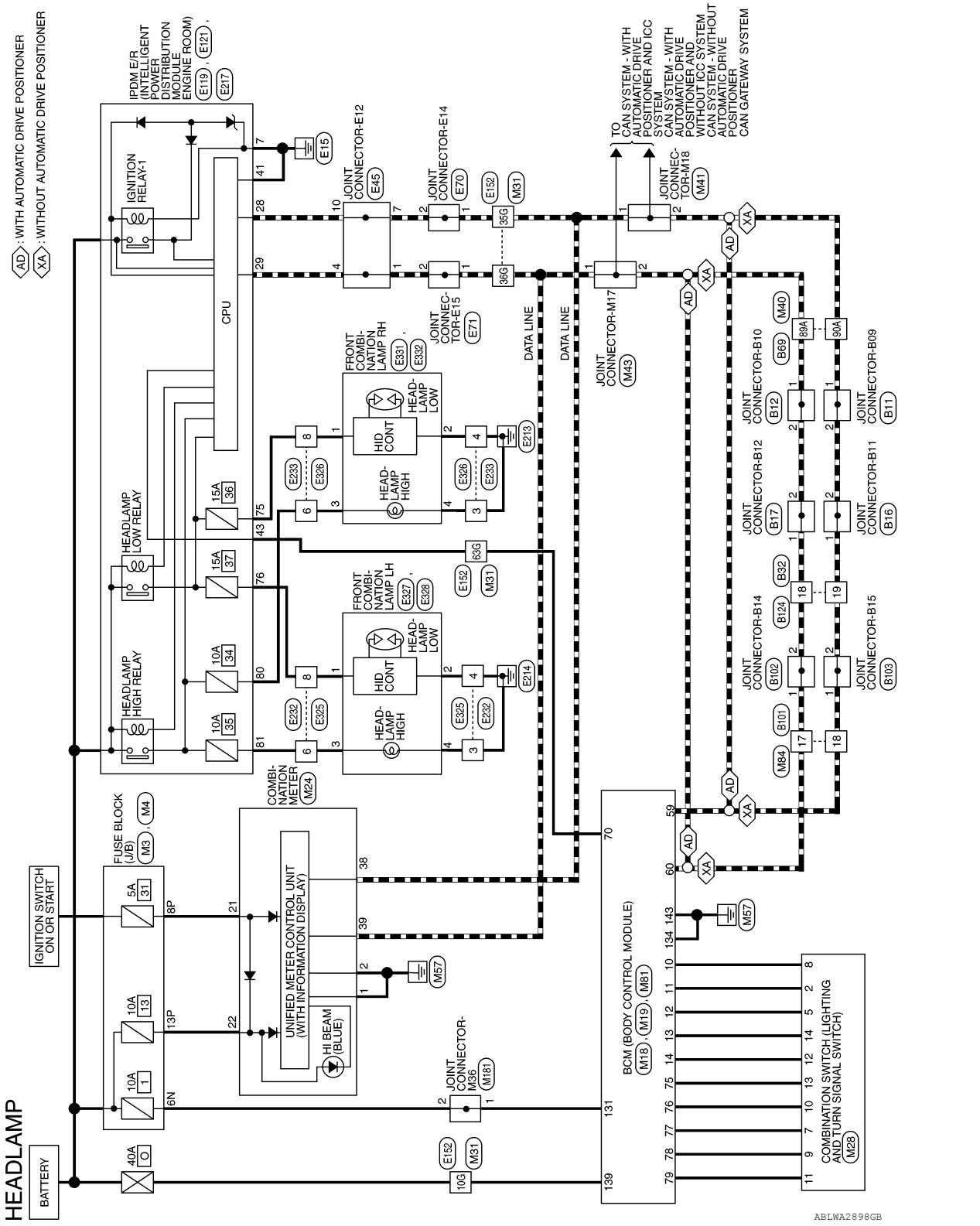
ECU	Reference
BCM	BCS-29, "Reference Value"
	BCS-49, "Fail Safe"
	BCS-49, "DTC Inspection Priority Chart"
	BCS-51, "DTC Index"
IPDM E/R	PCS-12, "Reference Value"
	PCS-19, "Fail Safe"
	PCS-20, "DTC Index"

WIRING DIAGRAM

HEADLAMP

Wiring Diagram

INFOID:0000000011134643



HEADLAMP CONNECTORS

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

H.S.

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

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

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
8P	BG	–
13P	W	–

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

H.S.

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	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

H.S.

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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

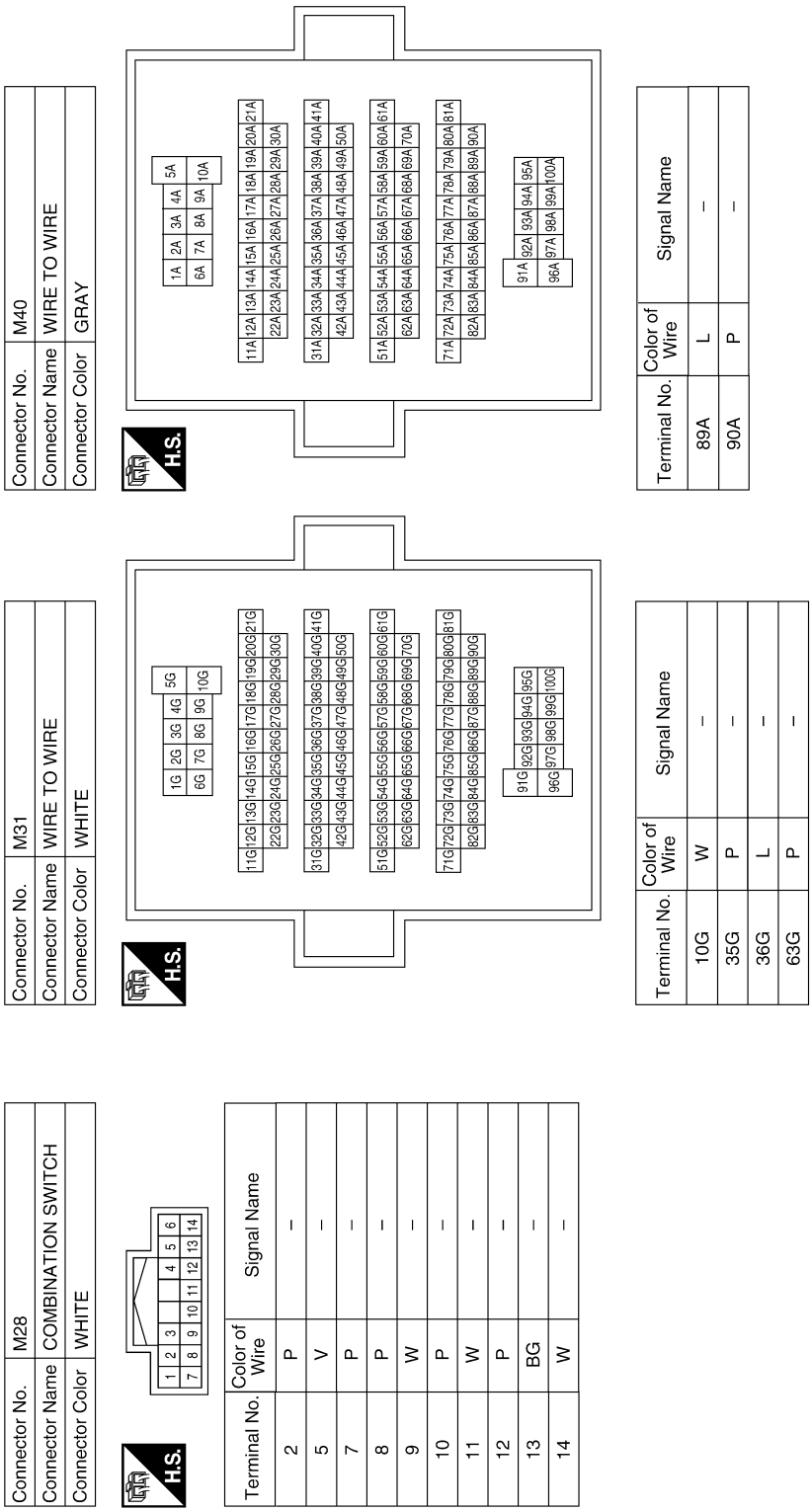
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

H.S.

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
1	B	GND1
2	B	GND2
21	BG	IGN
22	W	BAT
38	P	CAN-L
39	L	CAN-H

ABLIA4638GB



ABLIA4969GB

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	B	GND2
139	W	BAT POWER F/L
143	B	GND1

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

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

Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE

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.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

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

H.S.

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

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

H.S.

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
35G	P	–
36G	L	–
63G	L	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
75	R	HEADLAMP LO RH
76	L	HEADLAMP LO LH
80	W	HEADLAMP HI RH
81	G	HEADLAMP HI LH

Connector No.	E232
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	G	–
8	L	–

Connector No.	E233
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	W	–
8	R	–

Connector No.	E325
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	G	–
8	L	–

Connector No.	E326
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	W	–
8	R	–

Connector No.	E327
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	G	–
4	B	–

ABLIA4970GB

Connector No.	E328
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY

H.S.

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

Connector No.	E331
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	W	–
4	B	–

Connector No.	E332
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.

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

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

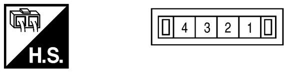
Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

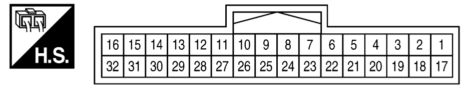
ABLIA3545GB

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE



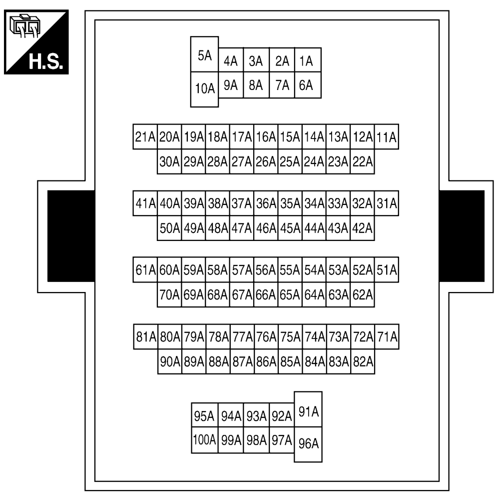
Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



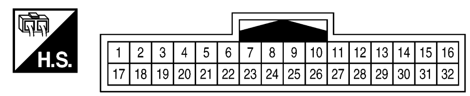
Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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



Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

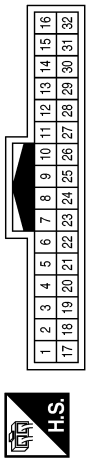
Connector No.	B101
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

ABLIA4971GB

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

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

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE

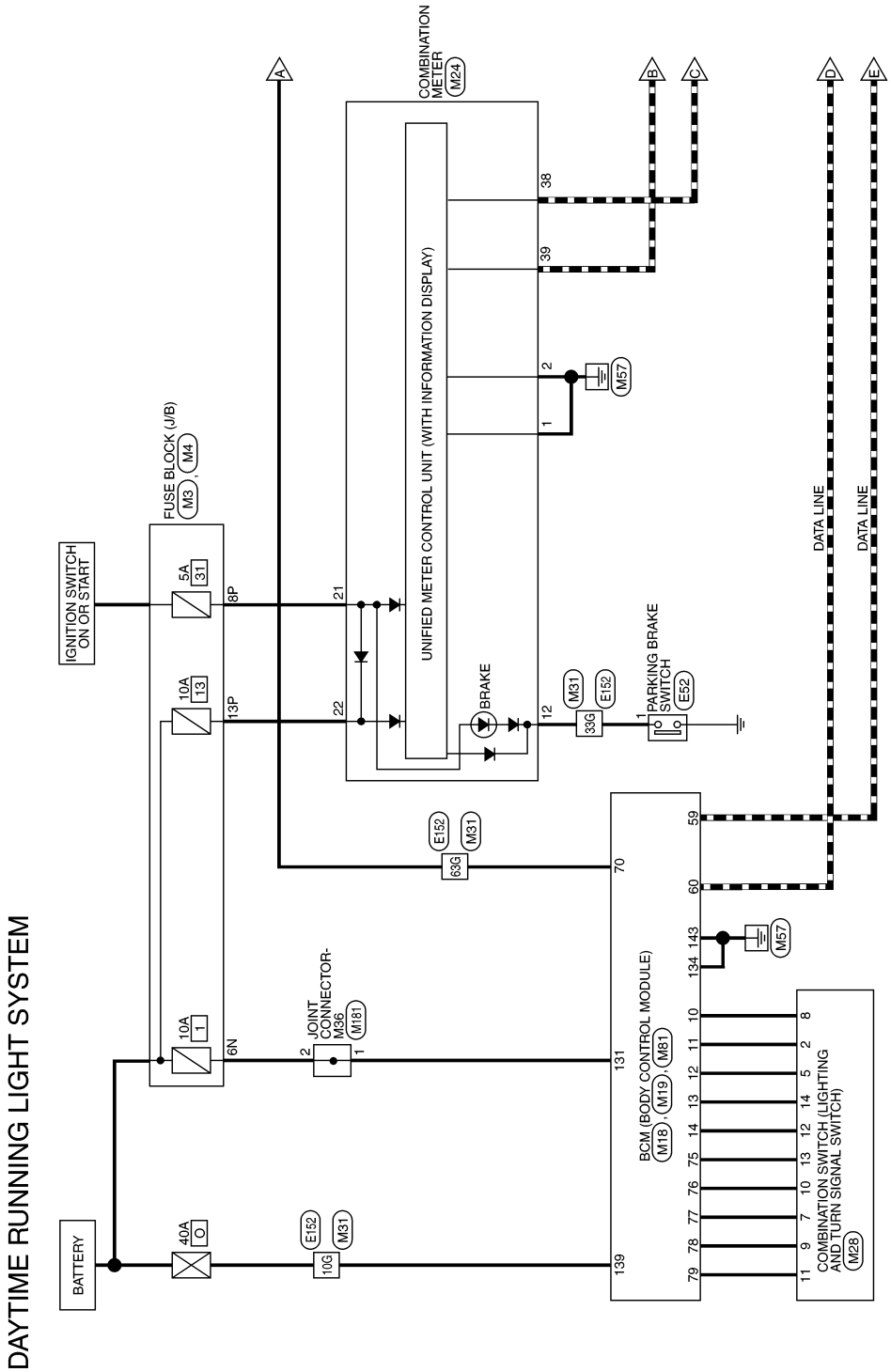
Terminal No.	Color of Wire	Signal Name
1	L	–
2	L	–

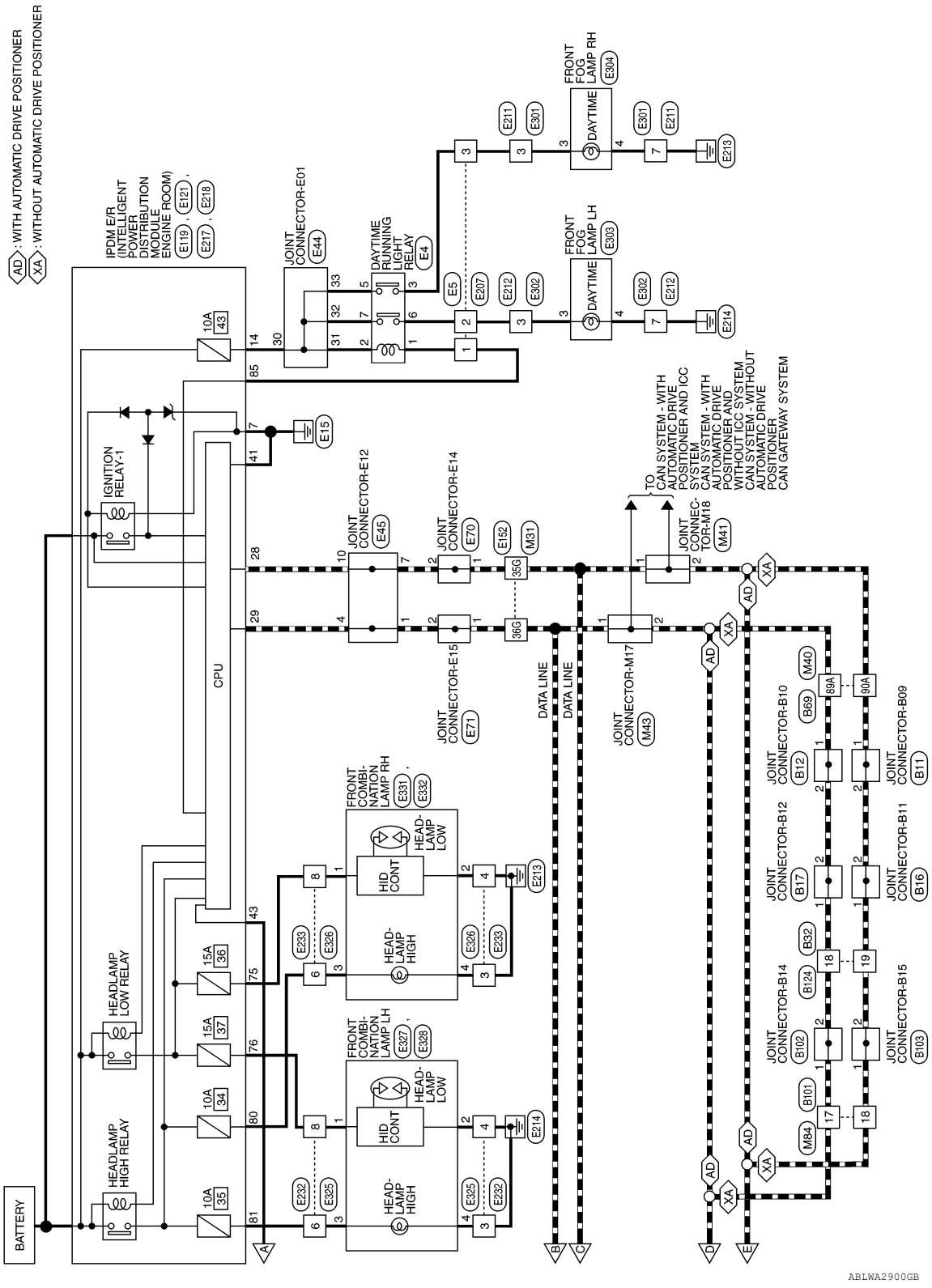
AALIA0626GB

DAYTIME RUNNING LIGHT SYSTEM

Wiring Diagram

INFOID:0000000011134644




AD : WITH AUTOMATIC DRIVE POSITIONER
XA : WITHOUT AUTOMATIC DRIVE POSITIONER
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E19, E121, E217, E218
JOINT CONNECTOR-E01 E44
DAYTIME RUNNING LIGHT RELAY E4
FRONT FOG LAMP RH E304
FRONT FOG LAMP LH E303
DAYTIME
IGNITION RELAY-1
CPU
JOINT CONNECTOR-E12 E45
JOINT CONNECTOR-E14 E70
JOINT CONNECTOR-E15 E71
JOINT CONNECTOR-M17 M43
JOINT CONNEC-TOR-M18 M41
TO CAN SYSTEM - WITH AUTOMATIC DRIVE POSITIONER AND ICC SYSTEM
CAN SYSTEM - WITH AUTOMATIC DRIVE POSITIONER AND WITHOUT ICC SYSTEM
CAN SYSTEM - WITHOUT AUTOMATIC DRIVE POSITIONER
CAN GATEWAY SYSTEM
DATA LINE
DATA LINE
HEADLAMP LOW RELAY
HEADLAMP HIGH RELAY
BATTERY
10A 43
15A 36
15A 37
10A 34
10A 35
FRONT COMBI-NATION LAMP RH E331, E332
FRONT COMBI-NATION LAMP LH E327, E328
HID CONT
HEAD-LAMP LOW
HEAD-LAMP HIGH
JOINT CONNECTOR-B10 B69 M40
JOINT CONNECTOR-B12 B12 B17
JOINT CONNECTOR-B14 B102 B124
JOINT CONNECTOR-B15 B103 M84 B101
JOINT CONNECTOR-B11 B11 B16 B32
JOINT CONNECTOR-B09 B11
ABLWA2900GB

DAYTIME RUNNING LIGHT SYSTEM CONNECTORS

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

H.S.

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

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

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
8P	BG	–
13P	W	–

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

H.S.

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	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

H.S.

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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

H.S.

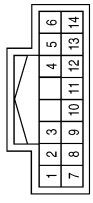
20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21

Terminal No.	Color of Wire	Signal Name
1	B	GND1
2	B	GND2
12	G	PKB
21	BG	IGN
22	W	BAT
38	P	CAN-L
39	L	CAN-H

ABLIA7049GB

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

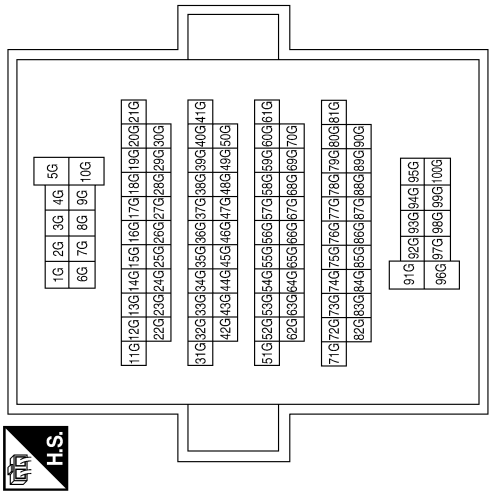
H.S.



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

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

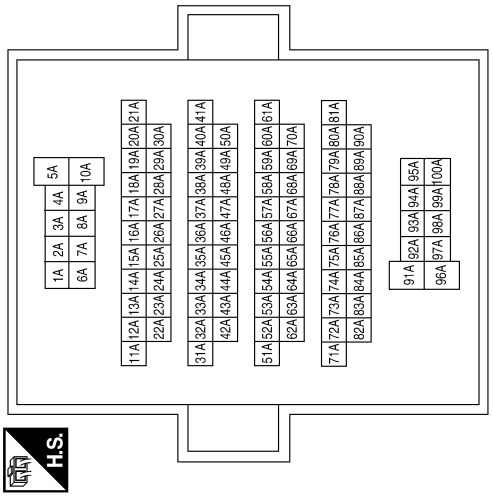
H.S.



Terminal No.	Color of Wire	Signal Name
10G	W	–
33G	G	–
35G	P	–
36G	L	–
63G	P	–

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

H.S.



Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

ABLIA4972GB

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

H.S.

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	B	GND2
139	W	BAT POWER F/L
143	B	GND1

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

4	3	2	1

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

Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE

H.S.

4	3	2	1

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

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

H.S.

2	1
7	5
6	3

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

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

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
17	L	–
18	P	–

ABLIA7050GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	SB	–
3	BR	–

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

H.S.

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

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

H.S.

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	LG	–

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

H.S.

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

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

H.S.

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

ABLIA4974GB

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

H.S.

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	GND (SIGNAL)
43	L	IGN SIGNAL

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
14	V	DTRL

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
33G	LG	–
35G	P	–
36G	L	–
63G	L	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
1	P	–
2	P	–
3	R	–

ABLIA4670GB

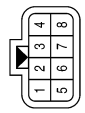
Connector No.	E211
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	R	–
7	B	–

Connector No.	E212
Connector Name	WIRE TO WIRE
Connector Color	GRAY

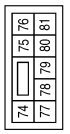
H.S.



Terminal No.	Color of Wire	Signal Name
3	P	–
7	B	–

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

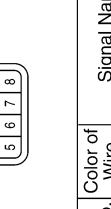
H.S.



Terminal No.	Color of Wire	Signal Name
75	R	HEADLAMP LO RH
76	L	HEADLAMP LO LH
80	W	HEADLAMP HI RH
81	G	HEADLAMP HI LH

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

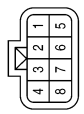
H.S.



Terminal No.	Color of Wire	Signal Name
85	P	DTRL RLY

Connector No.	E232
Connector Name	WIRE TO WIRE
Connector Color	BLACK

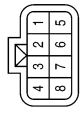
H.S.



Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	G	–
8	L	–

Connector No.	E233
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	W	–
8	R	–

ABLIA4975GB

Connector No.	E301
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	LG	–
7	B	–

Connector No.	E302
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	LG	–
7	B	–

Connector No.	E303
Connector Name	FRONT FOG LAMP LH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	LG	–
4	B	–

Connector No.	E304
Connector Name	FRONT FOG LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	LG	–
4	B	–

Connector No.	E325
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	G	–
8	L	–

Connector No.	E326
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
3	B	–
4	B	–
6	W	–
8	R	–

ABLIA4976GB

Connector No.	E327
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	G	–
4	B	–

Connector No.	E328
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY

H.S.

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

Connector No.	E331
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
3	W	–
4	B	–

Connector No.	E332
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	R	–
2	B	–

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.

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

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

ABLIA3555GB

Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

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

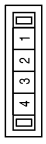
H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

ABLIA4977GB

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE

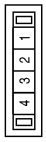
H.S.



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

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

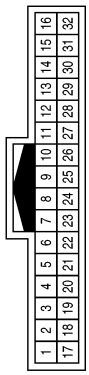
H.S.



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

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



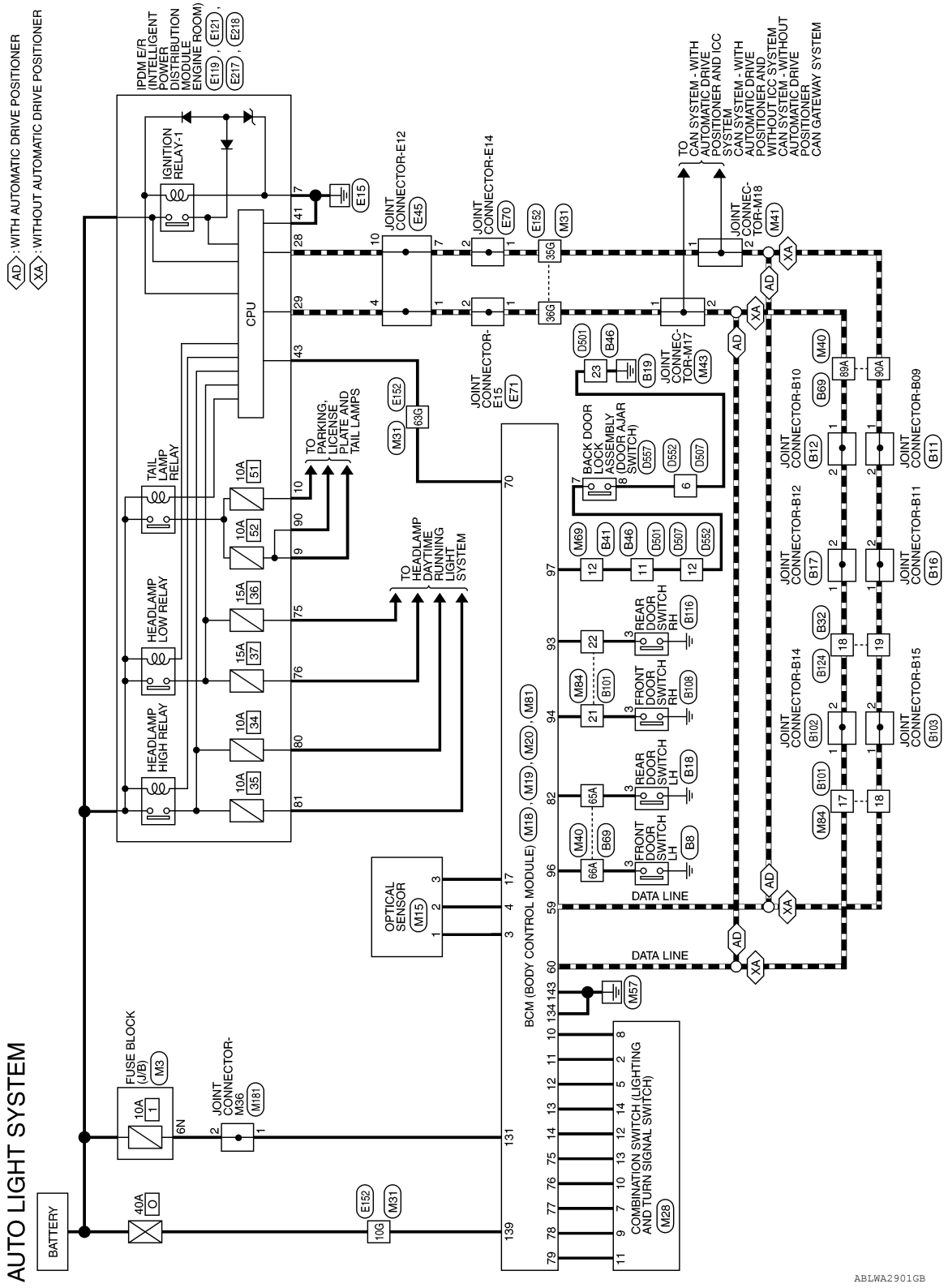
Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

AALIA0627GB

AUTO LIGHT SYSTEM

Wiring Diagram

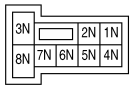
INFOID:0000000011134645



AUTO LIGHT SYSTEM CONNECTORS

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

H.S.



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

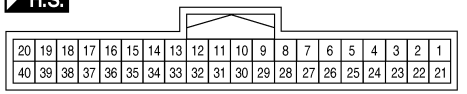
Connector No.	M15
Connector Name	OPTICAL SENSOR
Connector Color	WHITE

H.S.

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

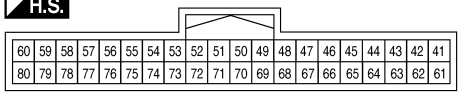
H.S.



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

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

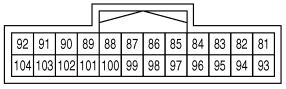
H.S.



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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

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

H.S.



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
97	W	BACK DOOR SW

ABLIA7150GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
65A	W	–
66A	BG	–
89A	L	–
90A	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	W	–
35G	P	–
36G	L	–
63G	P	–

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.

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

ABLIA4979GB

Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE

H.S.

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

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

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

Connector No.	M69
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
12	W	–

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–
21	G	–
22	R	–

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

ABLIA7151GB

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

H.S.

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

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

H.S.

6	5	4	3	2	1

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

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

H.S.

6	5	4	3	2	1

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

H.S.

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	GND (SIGNAL)
43	L	IGN SIGNAL

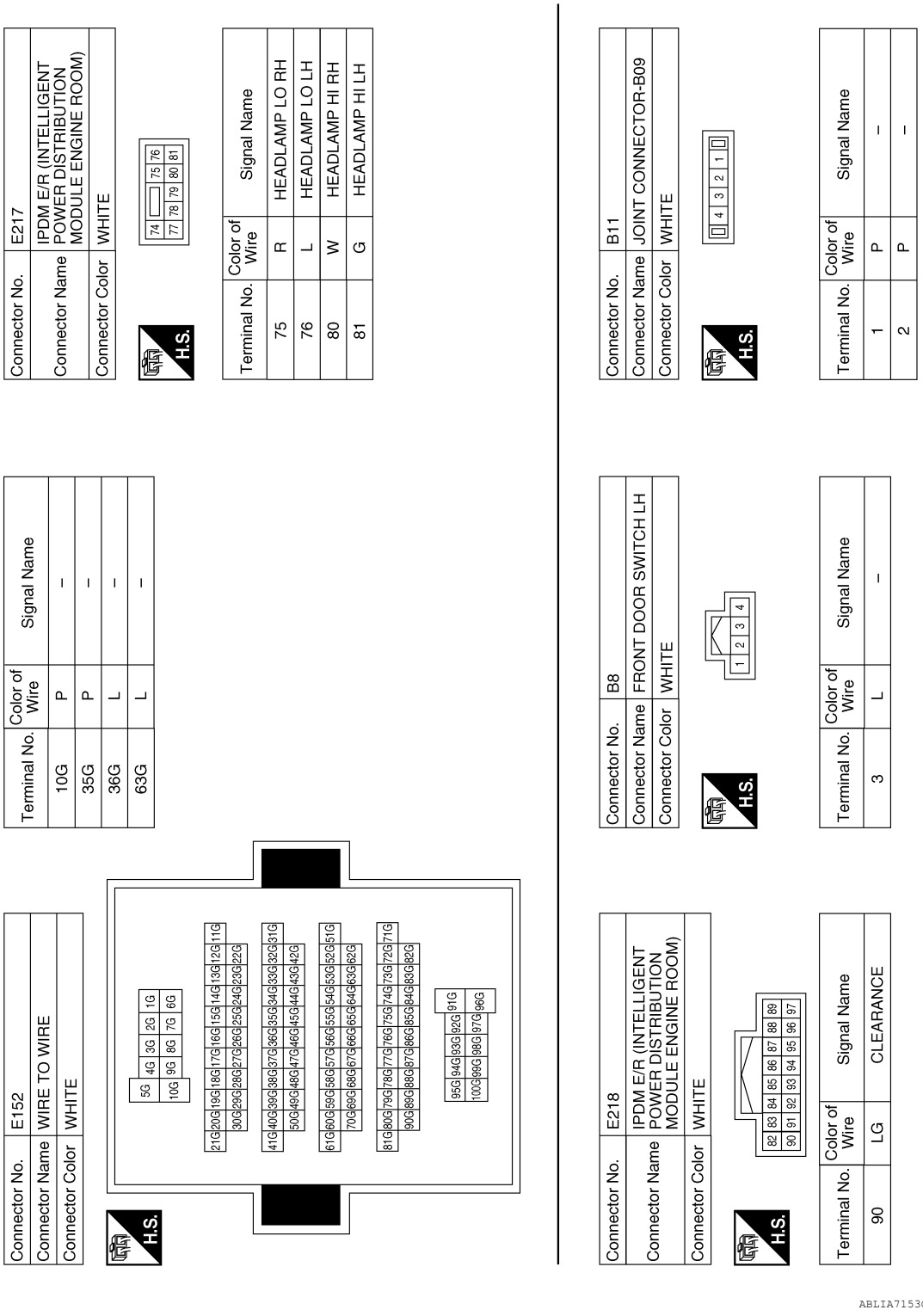
Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
9	G	TAIL RH
10	L	TAIL LH

ABLIA7152GB



ABLIA7153GB

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

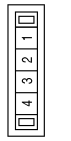
Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

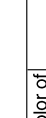
H.S.



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

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

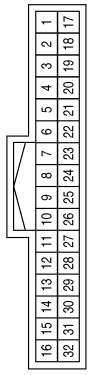
H.S.



Terminal No.	Color of Wire	Signal Name
3	SB	–

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

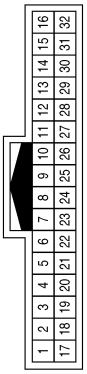
H.S.



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

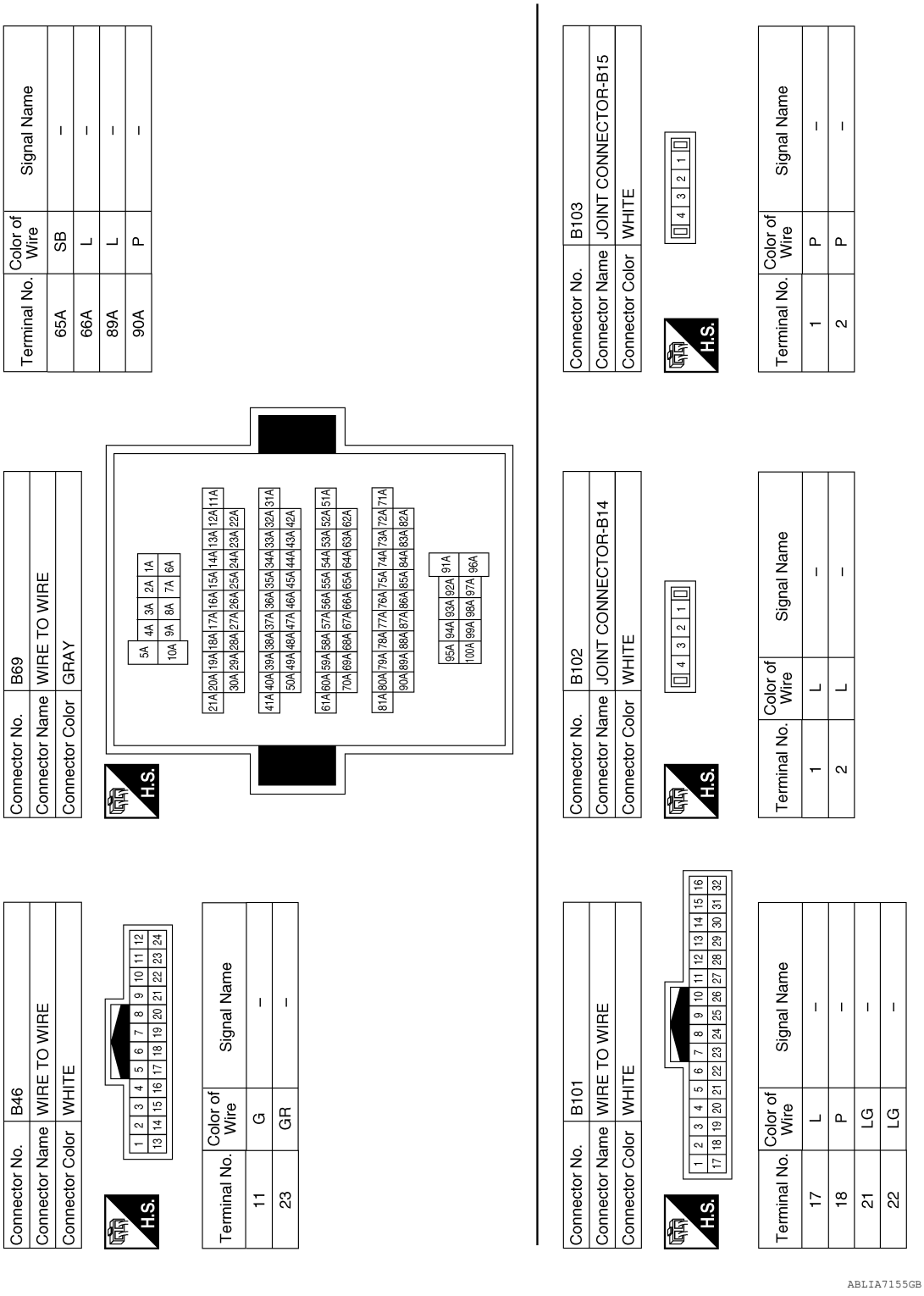
Connector No.	B41
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



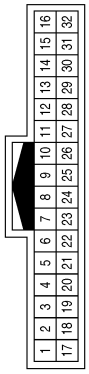
Terminal No.	Color of Wire	Signal Name
12	G	–

ABLIA7154GB


Connector No. B46
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
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
11 G –
23 GR –
Connector No. B69
Connector Name WIRE TO WIRE
Connector Color GRAY
H.S.
5A 4A 3A 2A 1A
10A 9A 8A 7A 6A
21A 20A 19A 18A 17A 16A 15A 14A 13A 12A 11A
30A 29A 28A 27A 26A 25A 24A 23A 22A
41A 40A 39A 38A 37A 36A 35A 34A 33A 32A 31A
50A 49A 48A 47A 46A 45A 44A 43A 42A
61A 60A 59A 58A 57A 56A 55A 54A 53A 52A 51A
70A 69A 68A 67A 66A 65A 64A 63A 62A
81A 80A 79A 78A 77A 76A 75A 74A 73A 72A 71A
90A 89A 88A 87A 86A 85A 84A 83A 82A
95A 94A 93A 92A 91A
100A 99A 98A 97A 96A
Terminal No. Color of Wire Signal Name
65A SB –
66A L –
89A L –
90A P –
Connector No. B101
Connector Name WIRE TO WIRE
Connector Color WHITE
H.S.
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
17 L –
18 P –
21 LG –
22 LG –
Connector No. B102
Connector Name JOINT CONNECTOR-B14
Connector Color WHITE
H.S.
4 3 2 1
Terminal No. Color of Wire Signal Name
1 L –
2 L –
Connector No. B103
Connector Name JOINT CONNECTOR-B15
Connector Color WHITE
H.S.
4 3 2 1
Terminal No. Color of Wire Signal Name
1 P –
2 P –
ABLIA7155GB

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

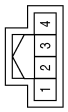
H.S.



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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

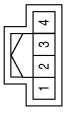
H.S.



Terminal No.	Color of Wire	Signal Name
3	LG	–

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

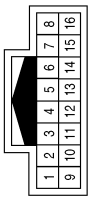
H.S.



Terminal No.	Color of Wire	Signal Name
3	LG	–

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

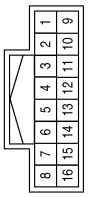
H.S.



Terminal No.	Color of Wire	Signal Name
6	B	–
12	G	–

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

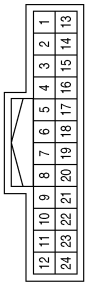
H.S.



Terminal No.	Color of Wire	Signal Name
6	Y	–
12	P	–

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

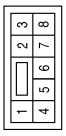
H.S.



Terminal No.	Color of Wire	Signal Name
11	P	–
23	Y	–

ABLIA7156GB

Connector No.	D557
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Color	WHITE



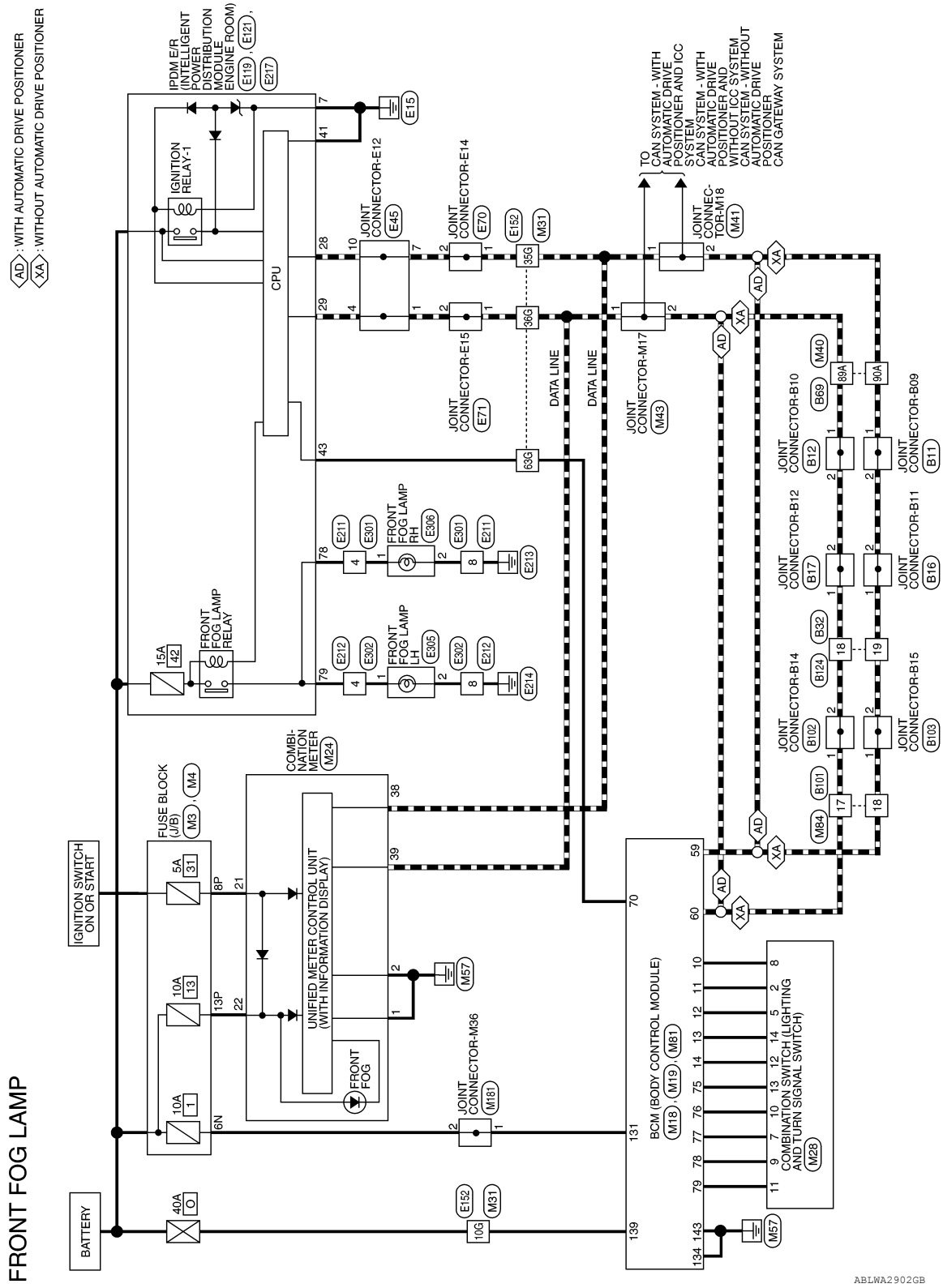
Terminal No.	Color of Wire	Signal Name
7	G	–
8	B	–

ABLIA7157GB

FRONT FOG LAMP SYSTEM

Wiring Diagram

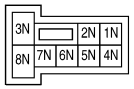
INFOID:0000000011134646



FRONT FOG LAMP CONNECTORS

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

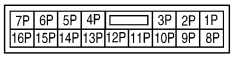
H.S.



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

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

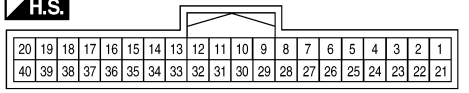
H.S.



Terminal No.	Color of Wire	Signal Name
8P	BG	–
13P	W	–

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

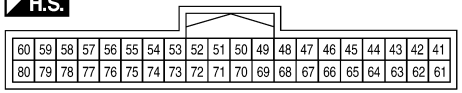
H.S.



Terminal No.	Color of Wire	Signal Name
10	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

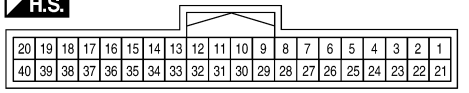
H.S.



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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

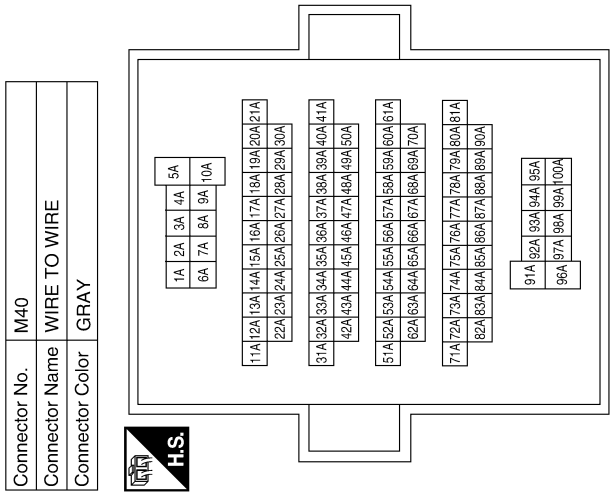
Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE

H.S.

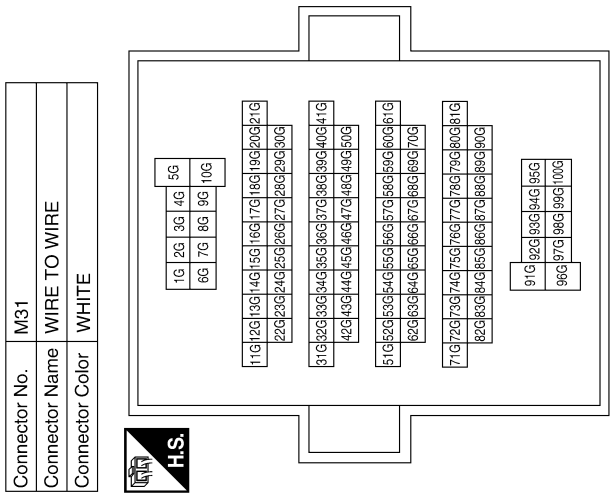


Terminal No.	Color of Wire	Signal Name
1	B	GND1
2	B	GND2
21	BG	IGN
22	W	BAT
38	P	CAN-L
39	L	CAN-H

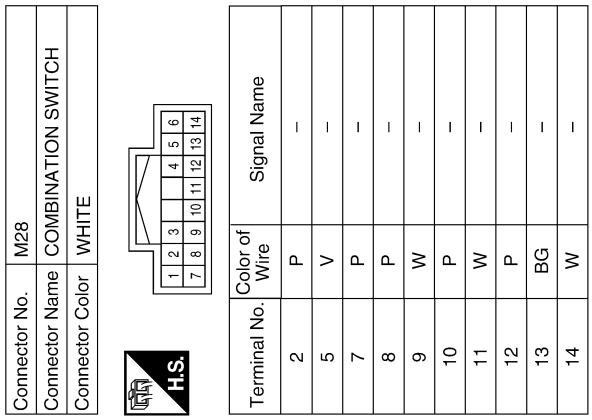
ABLIA4635GB



Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–



Terminal No.	Color of Wire	Signal Name
10G	W	–
35G	P	–
36G	L	–
63G	P	–



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

ABLIA4981GB

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

H.S.

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	B	GND2
139	W	BAT POWER F/L
143	B	GND1

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

4	3	2	1

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

Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE

H.S.

4	3	2	1

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

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

H.S.

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

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

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

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
17	L	–
18	P	–

ABLIA3568GB

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

H.S.

6	5	4	3	2	1

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

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

H.S.

6	5	4	3	2	1

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

H.S.

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	GND (SIGNAL)
43	L	IGN SIGNAL

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
35G	P	–
36G	L	–
63G	L	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)

ABLIA4637GB

Connector No.	E211
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	W	–
8	B	–

Connector No.	E212
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	L	–
8	B	–

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

H.S.

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

Connector No.	E301
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	W	–
8	B	–

Connector No.	E302
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	W	–
8	B	–

Connector No.	E305
Connector Name	FRONT FOG LAMP LH
Connector Color	BLACK

H.S.

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

ABLIA3570GB

Connector No.	E306
Connector Name	FRONT FOG LAMP RH
Connector Color	BLACK

H.S.

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

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.

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

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

ABLIA3571GB

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

H.S.

5A	4A	3A	2A	1A
10A	9A	8A	7A	6A

21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A
30A	29A	28A	27A	26A	25A	24A	23A	22A		

41A	40A	39A	38A	37A	36A	35A	34A	33A	32A	31A
50A	49A	48A	47A	46A	45A	44A	43A	42A		

61A	60A	59A	58A	57A	56A	55A	54A	53A	52A	51A
70A	69A	68A	67A	66A	65A	64A	63A	62A		

81A	80A	79A	78A	77A	76A	75A	74A	73A	72A	71A
90A	89A	88A	87A	86A	85A	84A	83A	82A		

95A	94A	93A	92A	91A
100A	99A	98A	97A	96A

Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

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

H.S.

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
17	L	–
18	P	–

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE

H.S.

4	3	2	1

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

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

H.S.

4	3	2	1

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

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

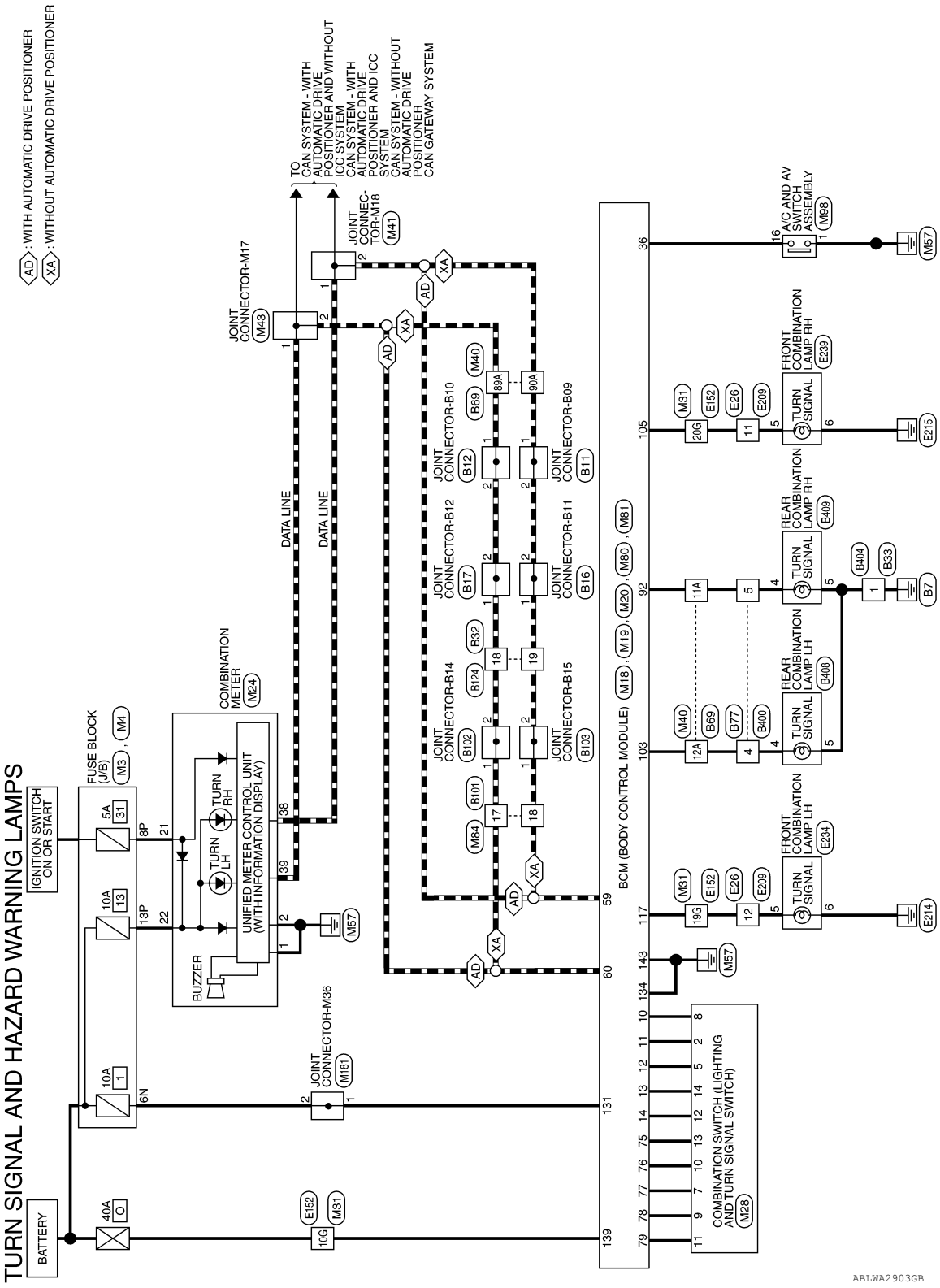
Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

ABLIA4982GB

TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

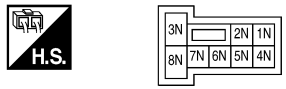
Wiring Diagram

INFOID:0000000011134647



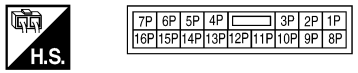
TURN SIGNAL AND HAZARD WARNING LAMPS CONNECTORS

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



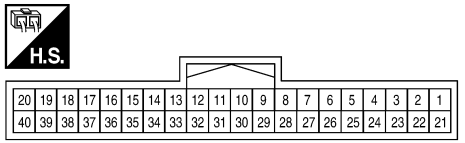
Terminal No.	Color of Wire	Signal Name
6N	W	–

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



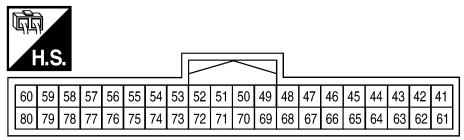
Terminal No.	Color of Wire	Signal Name
8P	BG	–
13P	W	–

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



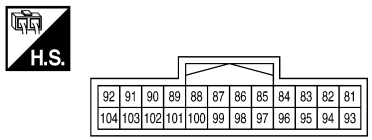
Terminal No.	Color of Wire	Signal Name
10	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1
36	LG	HAZARD SW

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



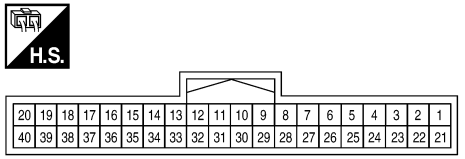
Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

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



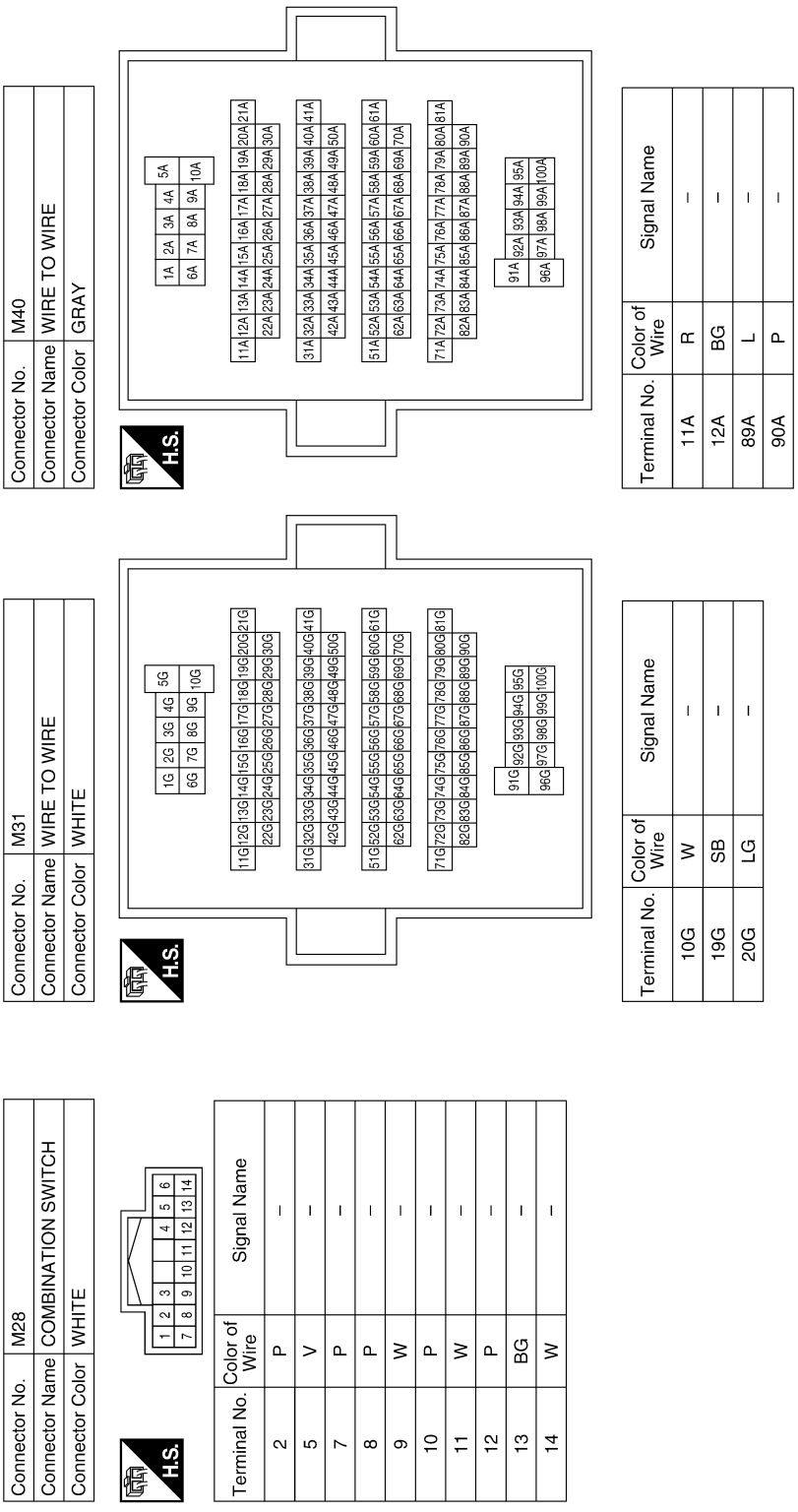
Terminal No.	Color of Wire	Signal Name
92	R	RR FLASHER
103	BG	RL FLASHER

Connector No.	M24
Connector Name	COMBINATION METER
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	B	GND1
2	B	GND2
21	BG	IGN
22	W	BAT
38	P	CAN-L
39	L	CAN-H

ABLIA3574GB



ABLIA4983GB

Connector No.	M41
Connector Name	JOINT CONNECTOR-M18
Connector Color	WHITE

H.S.

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

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

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

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

H.S.

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

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	M98
Connector Name	A/C AND AV SWITCH ASSEMBLY
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	GR	–
16	LG	–

ABLIA4984GB

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
11	G	–
12	W	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
19G	W	–
20G	G	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
11	SB	–
12	Y	–

ABLIA3577GB

Connector No.	E234
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
5	Y	–
6	B	–

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

Connector No.	E239
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
5	SB	–
6	B	–

Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.

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

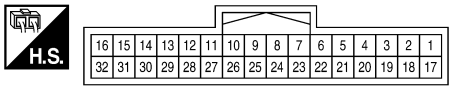
Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

ABLIA3578GB

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

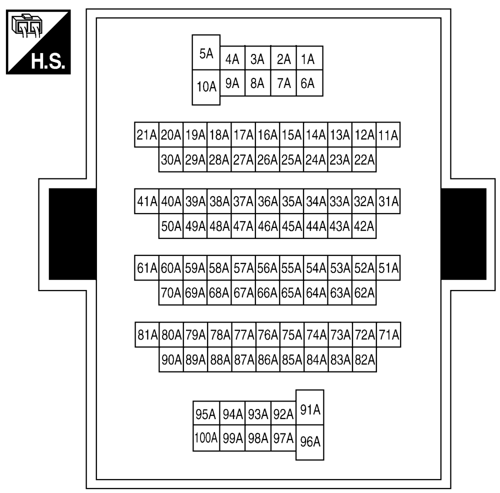


Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B33
Connector Name	WIRE TO WIRE
Connector Color	BLACK

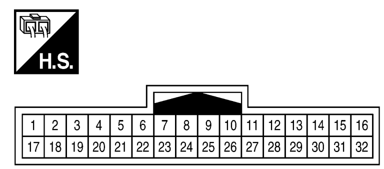
Terminal No.	Color of Wire	Signal Name
1	B	–

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



Terminal No.	Color of Wire	Signal Name
11A	W	–
12A	G	–
89A	L	–
90A	P	–

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Color	WHITE

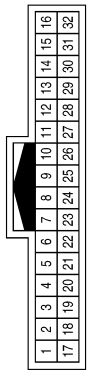


Terminal No.	Color of Wire	Signal Name
4	G	–
5	W	–

ABLIA4985GB

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

H.S.



Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE

H.S.

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

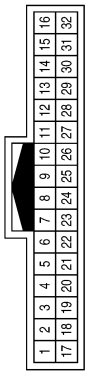
Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

H.S.

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

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

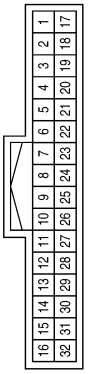
H.S.



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B400
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
4	G	–
5	W	–

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–

ABLIA3580GB

Connector No.	B409
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

Terminal No.	Color of Wire	Signal Name
4	W	–
5	GR	–

Connector No.	B408
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

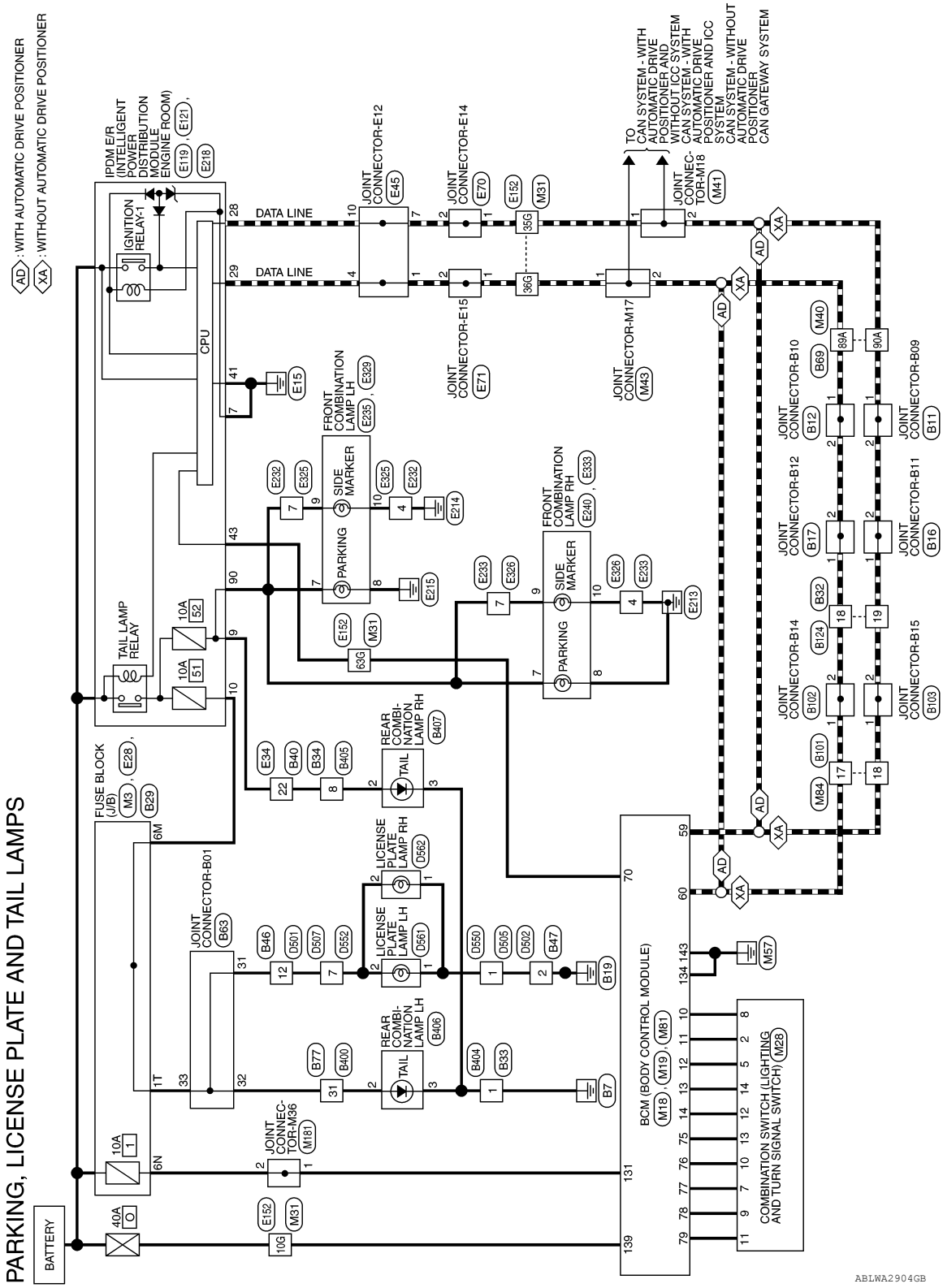
Terminal No.	Color of Wire	Signal Name
4	G	–
5	B	–

ABLIA3644GB

PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram

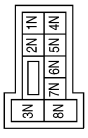
INFOID:0000000011134648



PARKING, LICENSE PLATE AND TAIL LAMPS CONNECTORS

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

H.S.



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

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

H.S.

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	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

H.S.

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

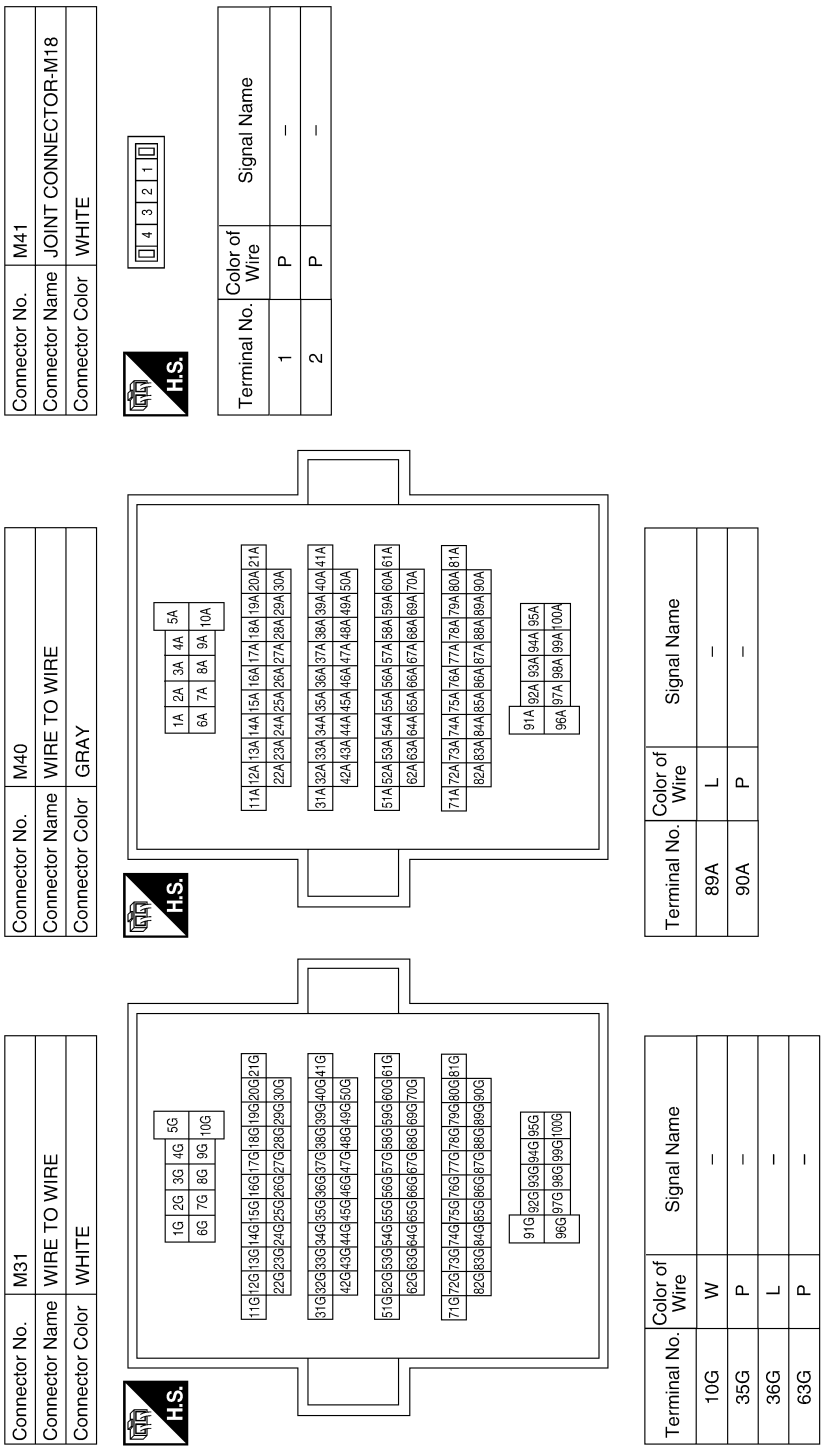
Terminal No.	Color of Wire	Signal Name
59	P	CAN-L
60	L	CAN-H
70	P	IGN USM OUT 1
75	BG	COMBI SW OUT 5
76	P	COMBI SW OUT 4
77	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.

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

ABLIA4986GB



ABLIA4987GB

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

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

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
6M	L	–

Connector No.	E34
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
22	G	–

ABLIA3584GB

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

H.S.

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

H.S.

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

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

H.S.

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
9	G	TAIL RH
10	L	TAIL LH

ABLIA4649GB

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

H.S.

82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97

Terminal No.	Color of Wire	Signal Name
90	LG	CLEARANCE

Connector No.	E235
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY

H.S.

7	8

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	B	–

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

H.S.

5G	4G	3G	2G	1G
10G	9G	8G	7G	6G

21G	20G	19G	18G	17G	16G	15G	14G	13G	12G	11G
30G	29G	28G	27G	26G	25G	24G	23G	22G		

41G	40G	39G	38G	37G	36G	35G	34G	33G	32G	31G
50G	49G	48G	47G	46G	45G	44G	43G	42G		

61G	60G	59G	58G	57G	56G	55G	54G	53G	52G	51G
70G	69G	68G	67G	66G	65G	64G	63G	62G		

81G	80G	79G	78G	77G	76G	75G	74G	73G	72G	71G
90G	89G	88G	87G	86G	85G	84G	83G	82G		

95G	94G	93G	92G	91G
100G	99G	98G	97G	96G

Terminal No.	Color of Wire	Signal Name
10G	P	–
35G	P	–
36G	L	–
63G	L	–

Connector No.	E233
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name
4	B	–
7	LG	–

Connector No.	E232
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

4	3	2	1
8	7	6	5

Terminal No.	Color of Wire	Signal Name
4	B	–
7	LG	–

ABLIA4988GB

Connector No.	E240
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
7	LG	–
8	B	–

Connector No.	E325
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
4	B	–
7	LG	–

Connector No.	E326
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
4	B	–
7	LG	–

Connector No.	E329
Connector Name	FRONT COMBINATION LAMP LH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
9	LG	–
10	B	–

Connector No.	E333
Connector Name	FRONT COMBINATION LAMP RH
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
9	LG	–
10	B	–

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

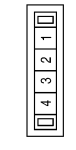
H.S.

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

ABLIA4989GB

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

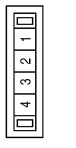
H.S.



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

Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

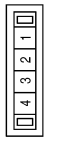
H.S.



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

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

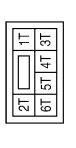
H.S.



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

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

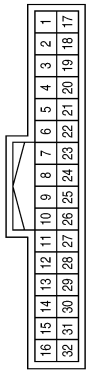
H.S.



Terminal No.	Color of Wire	Signal Name
1T	W	–

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

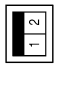
H.S.



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B33
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

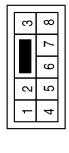


Terminal No.	Color of Wire	Signal Name
1	B	–

ABLIA3588GB

Connector No.	B34
Connector Name	WIRE TO WIRE
Connector Color	WHITE

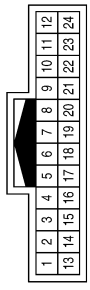
H.S.



Terminal No.	Color of Wire	Signal Name
8	W	–

Connector No.	B40
Connector Name	WIRE TO WIRE
Connector Color	WHITE

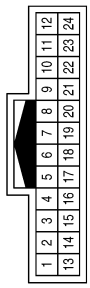
H.S.



Terminal No.	Color of Wire	Signal Name
22	W	–

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

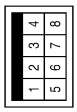
H.S.



Terminal No.	Color of Wire	Signal Name
12	W	–

Connector No.	B47
Connector Name	WIRE TO WIRE
Connector Color	GRAY

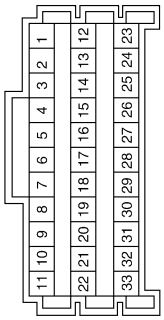
H.S.



Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	B63
Connector Name	JOINT CONNECTOR-B01
Connector Color	WHITE

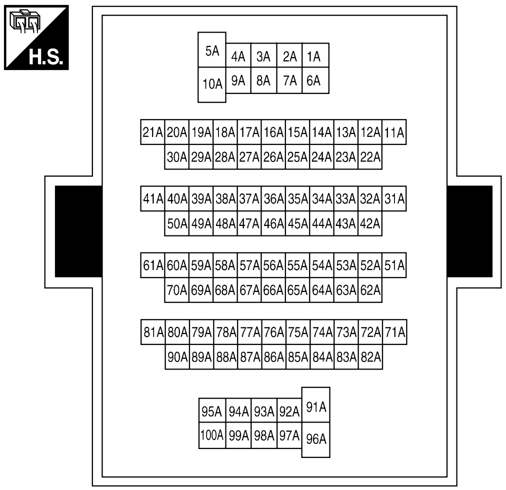
H.S.



Terminal No.	Color of Wire	Signal Name
31	W	–
32	W	–
33	W	–

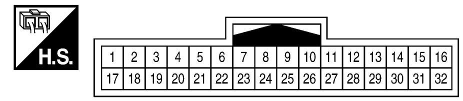
ABLIA4990GB

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



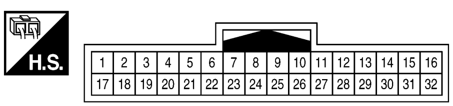
Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Color	WHITE



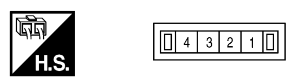
Terminal No.	Color of Wire	Signal Name
31	W	–

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



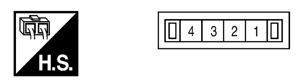
Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE



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

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

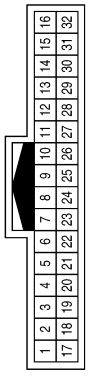


Terminal No.	Color of Wire	Signal Name
1	P	–
2	P	–

ABLIA4991GB

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

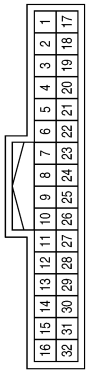
H.S.



Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B400
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
31	W	–

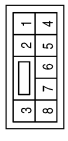
Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Color	WHITE

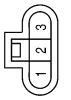
H.S.



Terminal No.	Color of Wire	Signal Name
8	W	–

Connector No.	B406
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

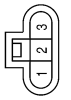
H.S.



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

Connector No.	B407
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

H.S.



Terminal No.	Color of Wire	Signal Name
2	W	–
3	GR	–

ABLIA3591GB

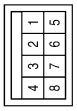
Connector No.	D505
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–

Connector No.	D502
Connector Name	WIRE TO WIRE
Connector Color	GRAY

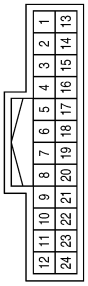
H.S.



Terminal No.	Color of Wire	Signal Name
2	B	–

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

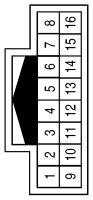
H.S.



Terminal No.	Color of Wire	Signal Name
12	Y	–

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

H.S.



Terminal No.	Color of Wire	Signal Name
7	BR	–

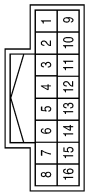
Connector No.	D550
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–

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

H.S.



Terminal No.	Color of Wire	Signal Name
7	Y	–

ABLIA4992GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–
2	BR	–

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

H.S.

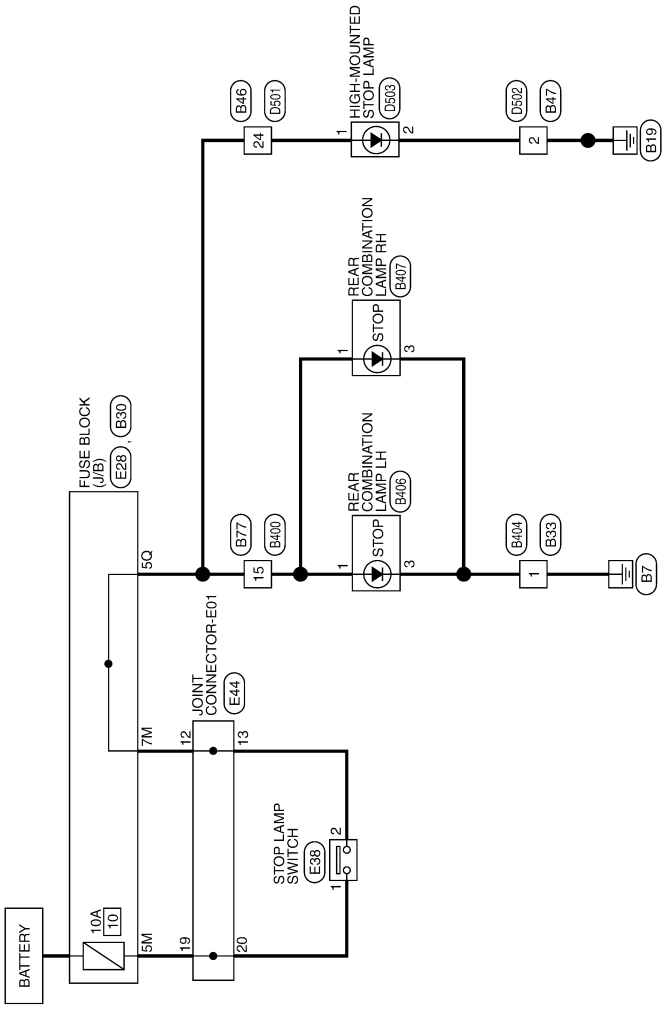
Terminal No.	Color of Wire	Signal Name
1	B	–
2	BR	–

ABLIA4993GB

STOP LAMP

Wiring Diagram

INFOID:0000000011134649



STOP LAMP

ABLWA2200GB

STOP LAMP CONNECTORS

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

H.S.

4M	3M		2M	1M
10M	9M	8M	7M	6M	5M

Terminal No.	Color of Wire	Signal Name
5M	Y	–
7M	P	–

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

H.S.

3	4
1	2

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	P	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
12	P	–
13	P	–
19	Y	–
20	Y	–

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

H.S.

30		20	10
80	70	60	50	40

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

Connector No.	B33
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

1	2

Terminal No.	Color of Wire	Signal Name
1	B	–

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

H.S.

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
24	G	–

ABLIA7053GB

Connector No.	B47
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

1	2	3	4
5	6	7	8

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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
15	G	–

Connector No.	B400
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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
15	G	–

Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

2	1

Terminal No.	Color of Wire	Signal Name
1	B	–

Connector No.	B406
Connector Name	REAR COMBINATION LAMP LH
Connector Color	GRAY

H.S.

1	2	3

Terminal No.	Color of Wire	Signal Name
1	G	–
3	B	–

Connector No.	B407
Connector Name	REAR COMBINATION LAMP RH
Connector Color	GRAY

H.S.

1	2	3

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

ABLIA4995GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	B	–

Connector No.	D502
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

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

H.S.

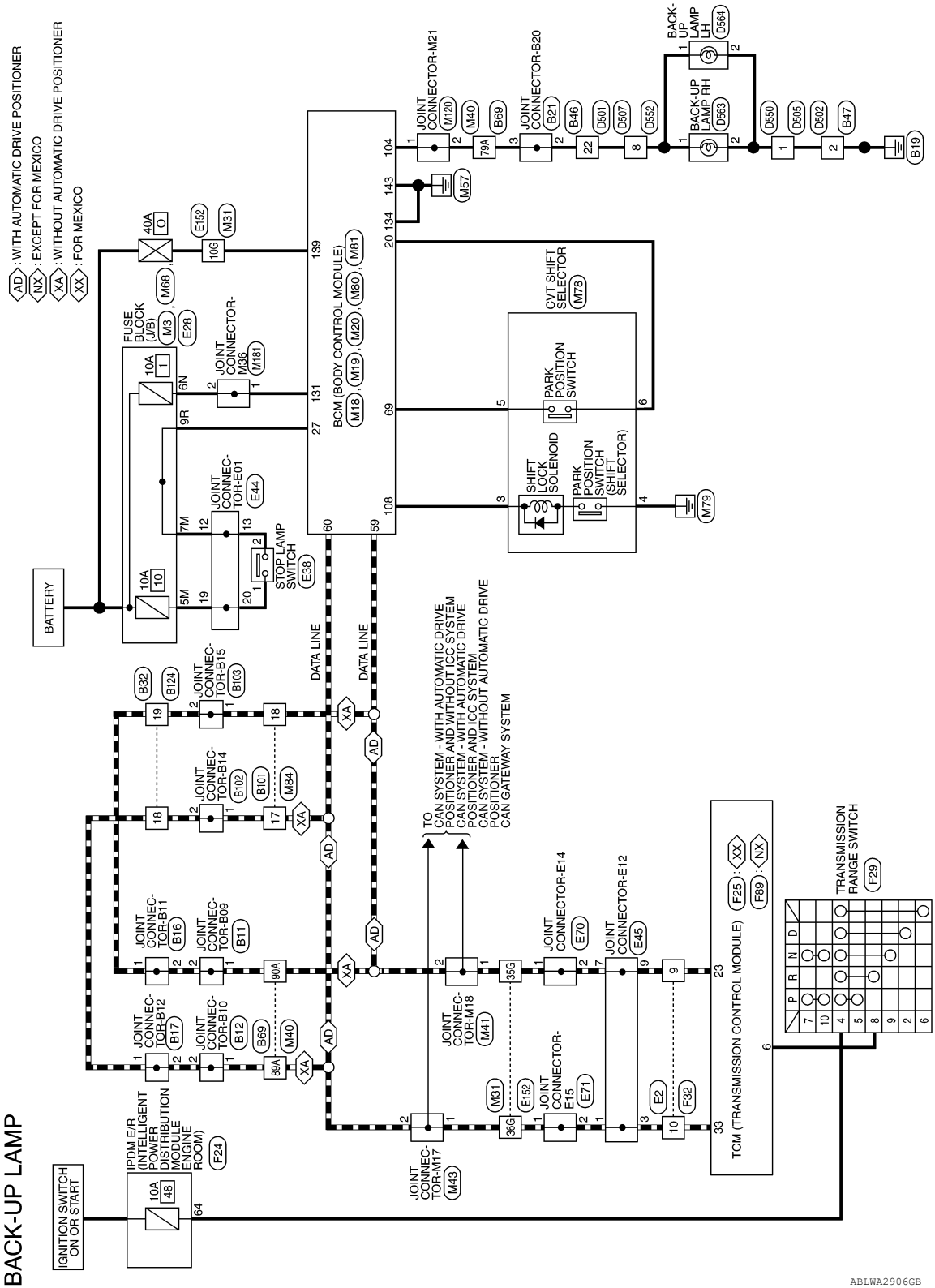
Terminal No.	Color of Wire	Signal Name
24	LG	–

ABLIA4996GB

BACK-UP LAMP

Wiring Diagram

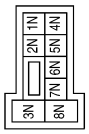
INFOID:0000000011134650



BACK-UP LAMP CONNECTORS

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

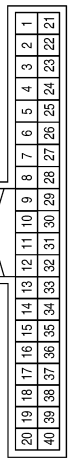
H.S.



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

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

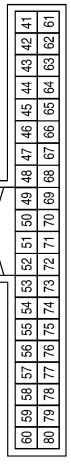
H.S.



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

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

H.S.



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

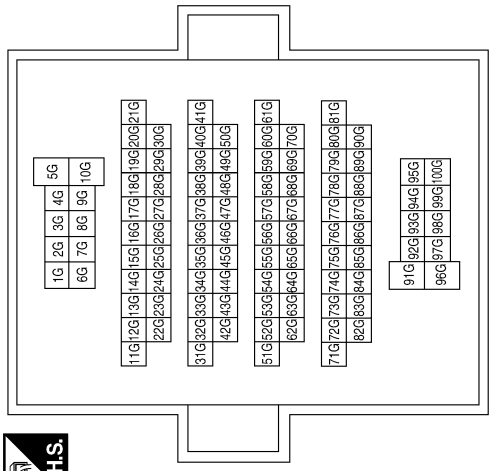
Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

H.S.

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

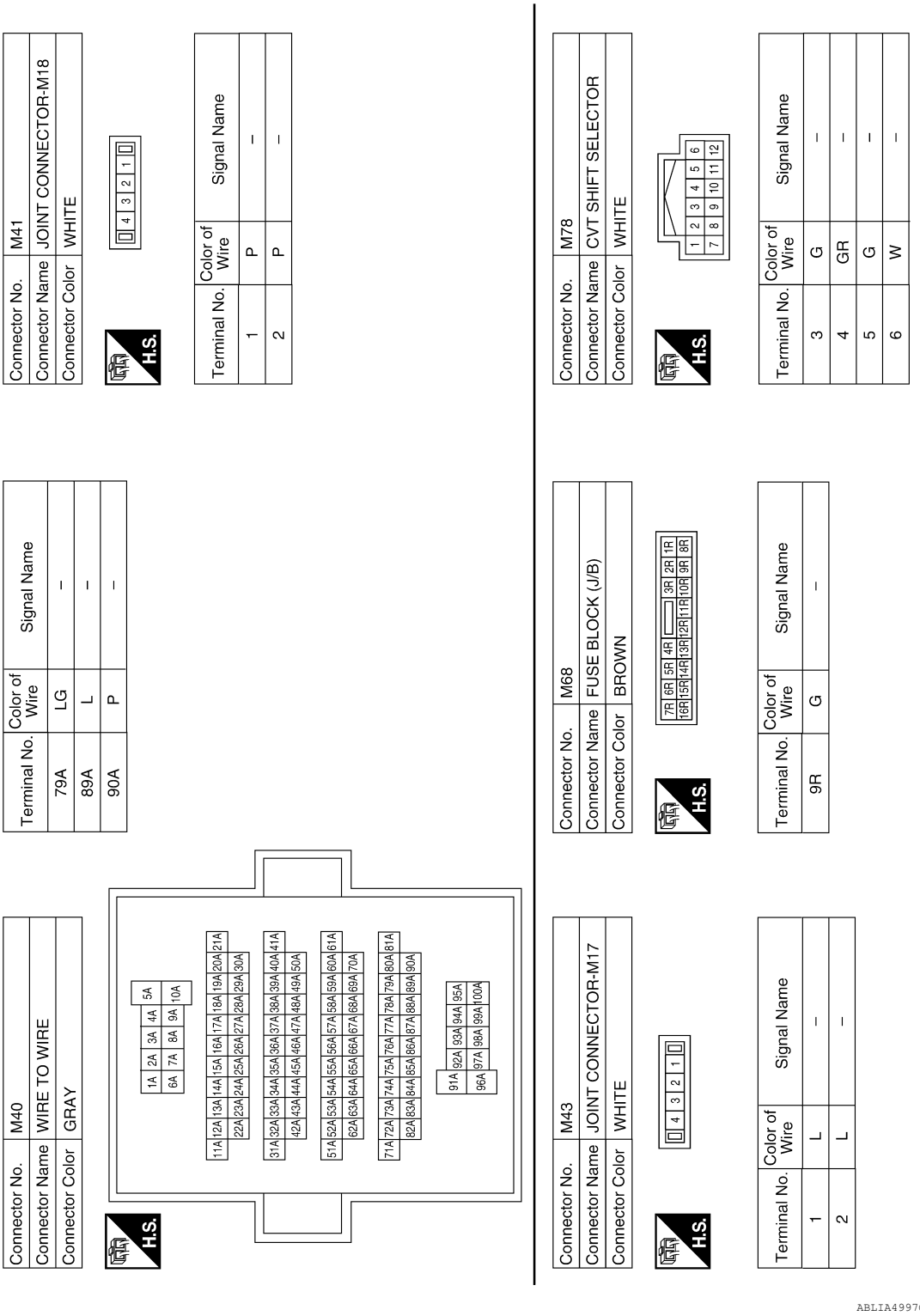
Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.



Terminal No.	Color of Wire	Signal Name
10G	W	–
35G	P	–
36G	L	–

ABLIA3597GB


Connector No. M40
Connector Name WIRE TO WIRE
Connector Color GRAY
H.S.
1A 2A 3A 4A 5A
6A 7A 8A 9A 10A
11A 12A 13A 14A 15A 16A 17A 18A 19A 20A 21A
22A 23A 24A 25A 26A 27A 28A 29A 30A
31A 32A 33A 34A 35A 36A 37A 38A 39A 40A 41A
42A 43A 44A 45A 46A 47A 48A 49A 50A
51A 52A 53A 54A 55A 56A 57A 58A 59A 60A 61A
62A 63A 64A 65A 66A 67A 68A 69A 70A
71A 72A 73A 74A 75A 76A 77A 78A 79A 80A 81A
82A 83A 84A 85A 86A 87A 88A 89A 90A
91A 92A 93A 94A 95A
96A 97A 98A 99A 100A
Terminal No. Color of Wire Signal Name
79A LG –
89A L –
90A P –
Connector No. M41
Connector Name JOINT CONNECTOR-M18
Connector Color WHITE
H.S.
D 4 3 2 1 D
Terminal No. Color of Wire Signal Name
1 P –
2 P –
Connector No. M43
Connector Name JOINT CONNECTOR-M17
Connector Color WHITE
H.S.
D 4 3 2 1 D
Terminal No. Color of Wire Signal Name
1 L –
2 L –
Connector No. M68
Connector Name FUSE BLOCK (J/B)
Connector Color BROWN
H.S.
7R 6R 5R 4R 3R 2R 1R
16R 15R 14R 13R 12R 11R 10R 9R 8R
Terminal No. Color of Wire Signal Name
9R G –
Connector No. M78
Connector Name CVT SHIFT SELECTOR
Connector Color WHITE
H.S.
1 2 3 4 5 6
7 8 9 10 11 12
Terminal No. Color of Wire Signal Name
3 G –
4 GR –
5 G –
6 W –
ABLIA4997GB

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

H.S.

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
17	L	–
18	P	–

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

H.S.

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	B	GND2
139	W	BAT POWER F/L
143	B	GND1

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

H.S.

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.	E2
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

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

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

Connector No.	M120
Connector Name	JOINT CONNECTOR-M21
Connector Color	WHITE

H.S.

4	3	2	1

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	LG	–

ABLIA3599GB

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

H.S.

4M	3M		2M	1M
10M	9M	8M	7M	6M	5M

Terminal No.	Color of Wire	Signal Name
5M	Y	–
7M	P	–

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

H.S.

3	4
1	2

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	P	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
12	P	–
13	P	–
19	Y	–
20	Y	–

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

H.S.

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

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

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

H.S.

6	5	4	3	2	1

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

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

H.S.

6	5	4	3	2	1

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

ABLIA4998GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
35G	P	–
36G	L	–

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

H.S.

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

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

H.S.

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

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

H.S.

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

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

H.S.

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

ABLIA7059GB

Connector No.	F89
Connector Name	TCM (TRANSMISSION CONTROL MODULE) (EXCEPT FOR MEXICO)
Connector Color	BLACK

H.S.

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

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.

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

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

Connector No.	B16
Connector Name	JONIT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

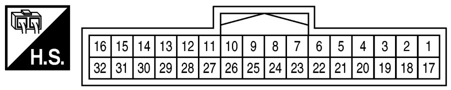
Connector No.	B21
Connector Name	JOINT CONNECTOR-B20
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	BR	–
3	BR	–

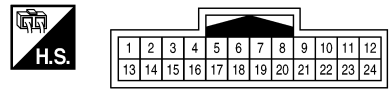
ABLIA7060GB

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



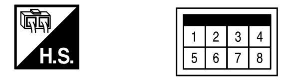
Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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



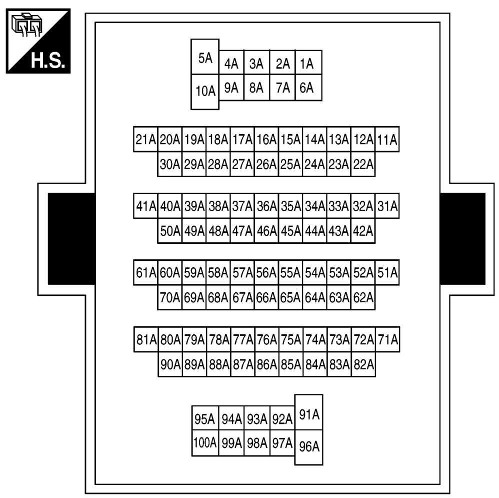
Terminal No.	Color of Wire	Signal Name
22	BR	–

Connector No.	B47
Connector Name	WIRE TO WIRE
Connector Color	GRAY



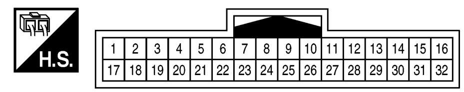
Terminal No.	Color of Wire	Signal Name
2	B	–

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



Terminal No.	Color of Wire	Signal Name
79A	BR	–
89A	L	–
90A	P	–

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



Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

ABLIA7061GB

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE

H.S.

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

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE

H.S.

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

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
22	LG	–

Connector No.	D502
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
2	B	–

Connector No.	D505
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–

ABLIA5002GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
8	LG	–

Connector No.	D550
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

1	2	3
4	5	6

Terminal No.	Color of Wire	Signal Name
1	B	–

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
8	LG	–

Connector No.	D564
Connector Name	BACK-UP LAMP LH
Connector Color	WHITE

H.S.

1	2

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	B	–

Connector No.	D563
Connector Name	BACK-UP LAMP RH
Connector Color	WHITE

H.S.

1	2

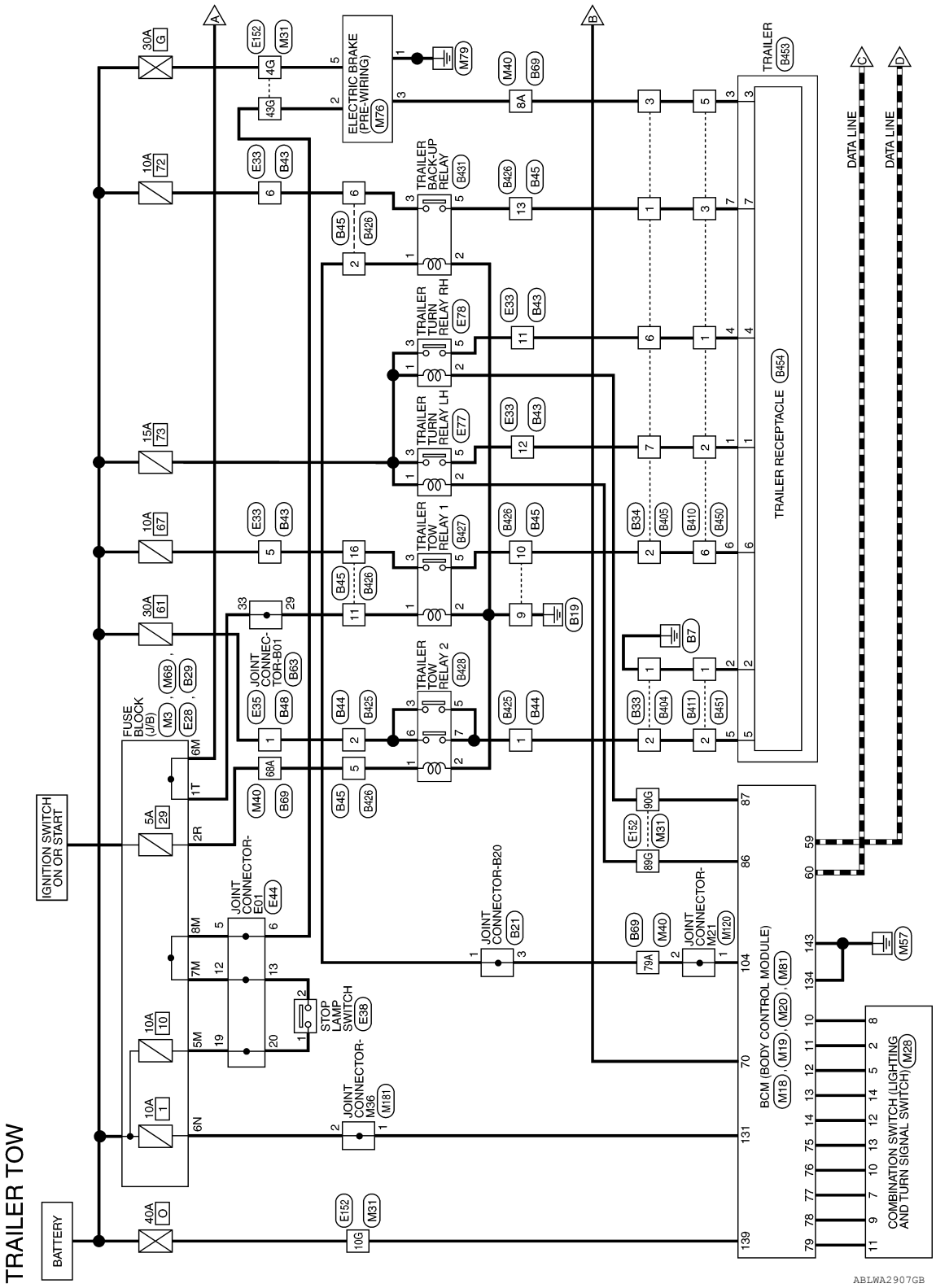
Terminal No.	Color of Wire	Signal Name
1	LG	–
2	B	–

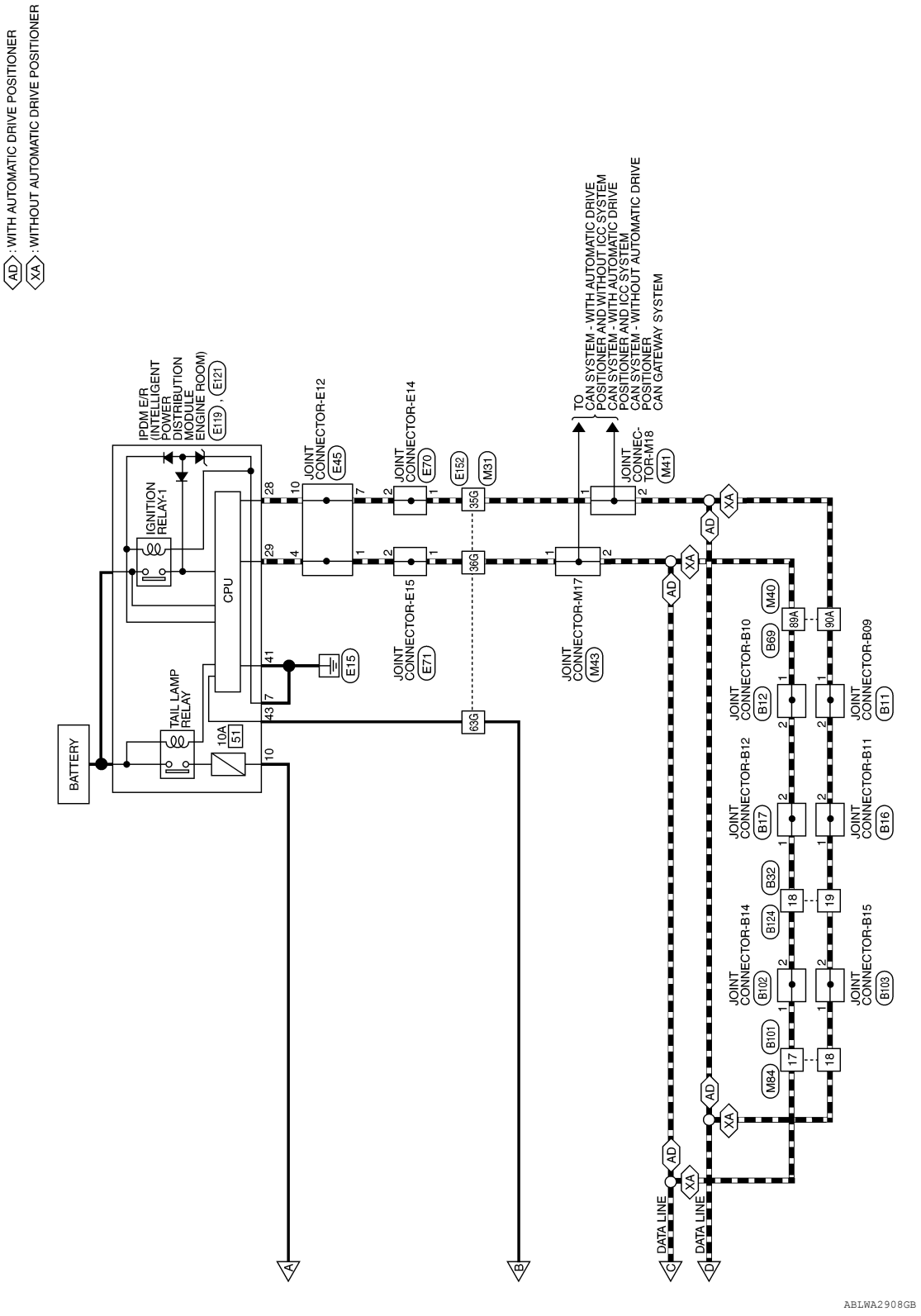
ABLIA5003GB

TRAILER TOW

Wiring Diagram

INFOID:0000000011134651




AD : WITH AUTOMATIC DRIVE POSITIONER
XA : WITHOUT AUTOMATIC DRIVE POSITIONER
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E119
E121
IGNITION RELAY-1
CPU
TAIL LAMP RELAY
10A 51
BATTERY
JOINT CONNECTOR-E12
E45
JOINT CONNECTOR-E14
E70
E152
35G
36G
63G
JOINT CONNECTOR-E15
E71
JOINT CONNECTOR-M17
M43
JOINT CONNEC-TOR-M18
M41
TO CAN SYSTEM - WITH AUTOMATIC DRIVE POSITIONER AND WITHOUT ICC SYSTEM
CAN SYSTEM - WITH AUTOMATIC DRIVE POSITIONER AND ICC SYSTEM
CAN SYSTEM - WITHOUT AUTOMATIC DRIVE POSITIONER
CAN GATEWAY SYSTEM
E15
JOINT CONNECTOR-B10
B69
M40
89A
90A
JOINT CONNECTOR-B12
B12
JOINT CONNECTOR-B09
B11
JOINT CONNECTOR-B11
B16
JOINT CONNECTOR-B14
B124
B32
JOINT CONNECTOR-B15
B103
JOINT CONNECTOR-B17
B102
B101
M84
DATA LINE
DATA LINE
A
B
C
D
ABLWA2908GB

TRAILER TOW CONNECTORS

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

H.S.

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

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

H.S.

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	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

H.S.

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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.

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

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

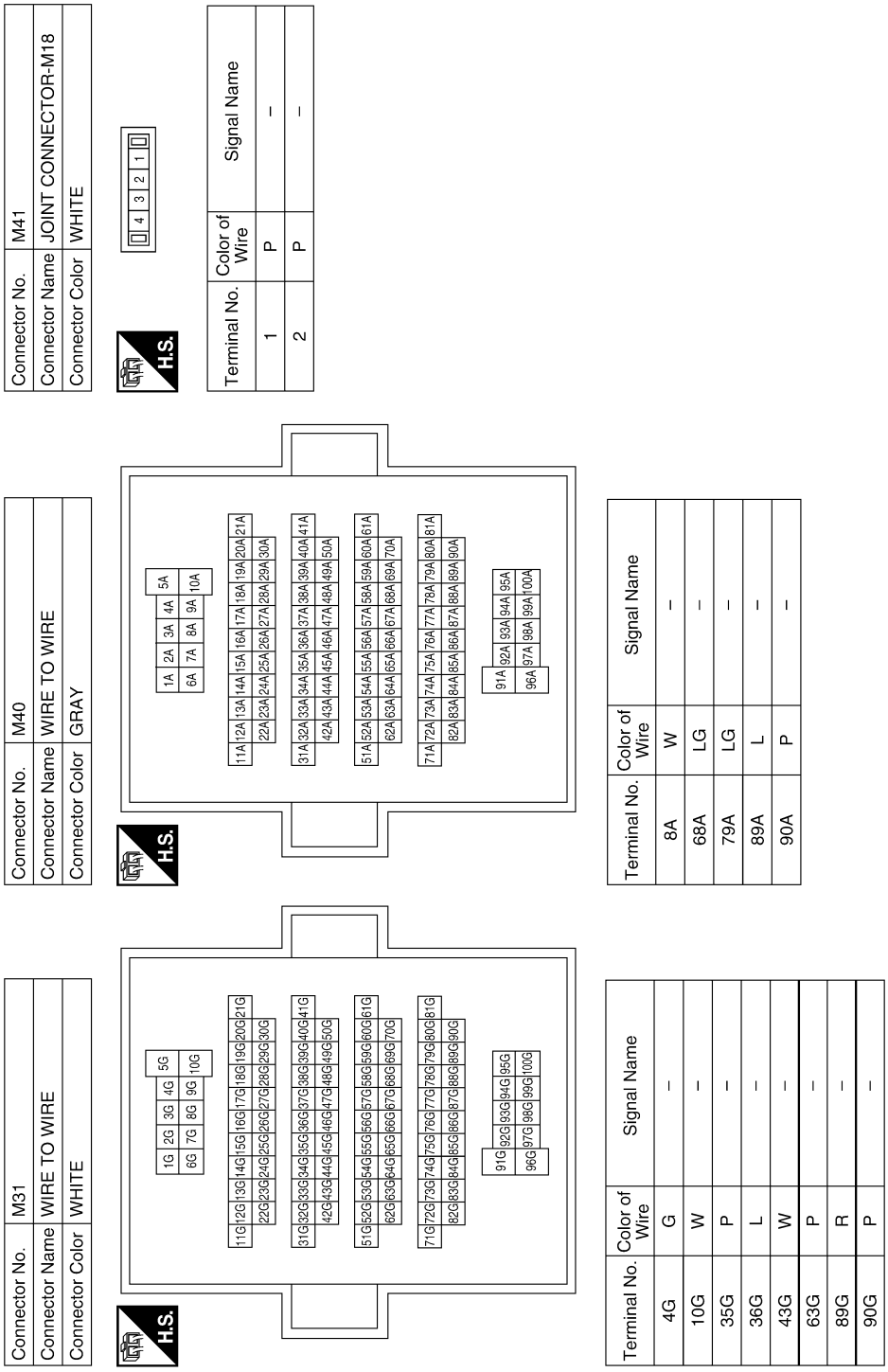
Connector No.	M20
Connector Name	BCM (BODY CONTROL MODULE)
Connector Color	GRAY

H.S.

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
86	R	TRAILER FLASHER RL
87	P	TRAILER FLASHER RR
104	LG	REVERSE LAMP OUT

ABLIA4652GB



ABLIA5004GB

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
2R	LG	–

Connector No.	M76
Connector Name	ELECTRIC BRAKE (PRE-WIRING)
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	B	–
2	W	–
3	W	–
5	G	–

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	M120
Connector Name	JOINT CONNECTOR-M21
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	LG	–
2	LG	–

ABLIA7062GB

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
5M	Y	–
6M	L	–
7M	P	–
8M	R	–

Connector No.	E33
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
5	R	–
6	L	–
11	G	–
12	W	–

Connector No.	E35
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	P	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
5	R	–
6	R	–
12	P	–
13	P	–
19	Y	–
20	Y	–

ABLIA5006GB

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

H.S.

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

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

H.S.

6	5	4	3	2	1

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

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

H.S.

6	5	4	3	2	1

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

Connector No.	E77
Connector Name	TRAILER TURN RELAY LH
Connector Color	BLUE

H.S.

3		
2	5	1

Terminal No.	Color of Wire	Signal Name
1	P	–
2	R	–
3	P	–
5	W	–

Connector No.	E78
Connector Name	TRAILER TURN RELAY RH
Connector Color	BLUE

H.S.

3		
2	5	1

Terminal No.	Color of Wire	Signal Name
1	P	–
2	L	–
3	P	–
5	G	–

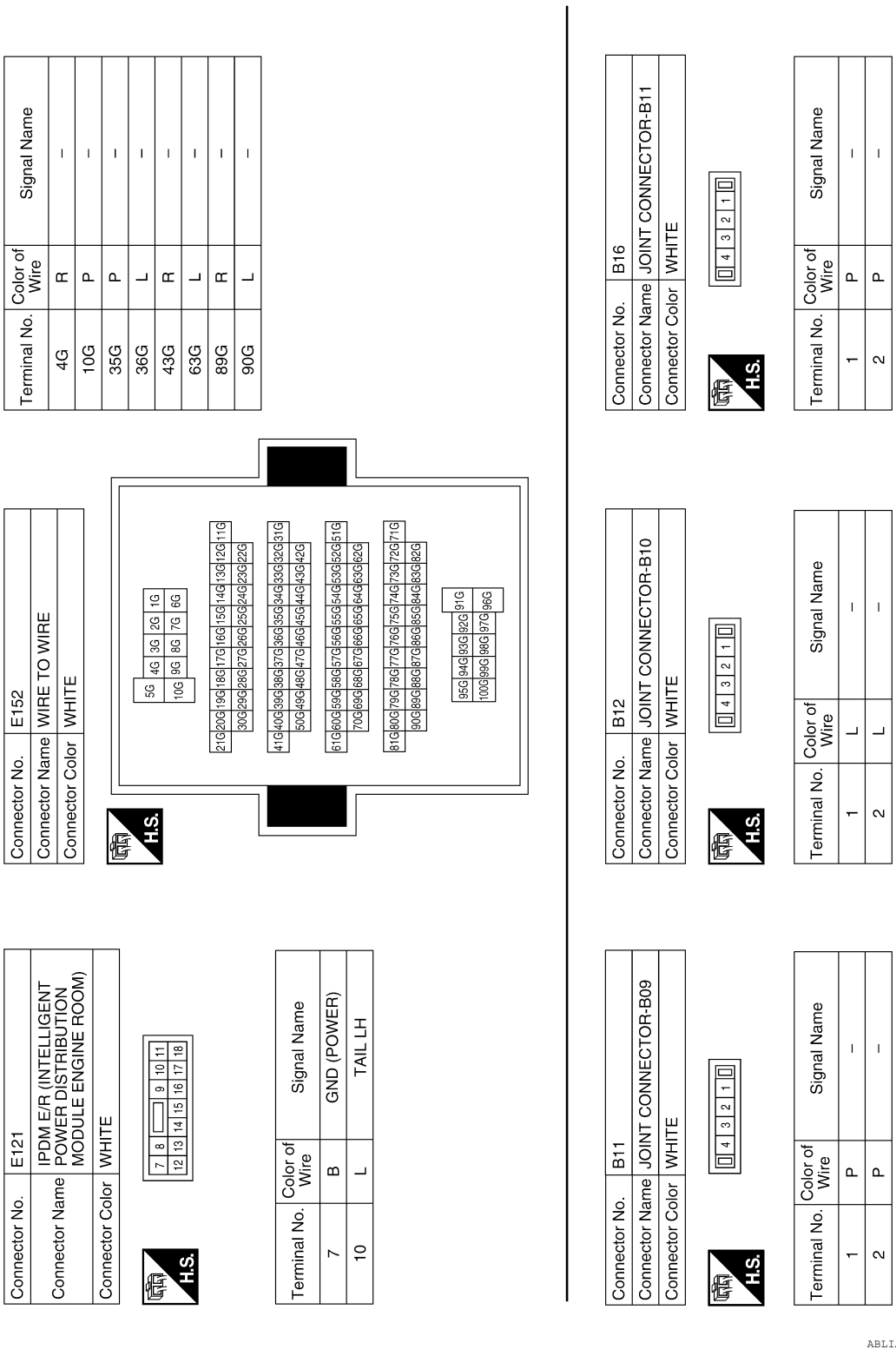
Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

H.S.

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	GND (SIGNAL)
43	L	IGN SIGNAL

ABLIA5007GB



ABLIA5008GB

Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

Connector No.	B21
Connector Name	JOINT CONNECTOR-B20
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	BR	–
3	BR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
1T	W	–

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

Connector No.	B33
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

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

Connector No.	B34
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	W	–
3	G	–
6	G	–
7	W	–

ABLIA7063GB

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
5	R	–
6	L	–
11	G	–
12	W	–

Connector No.	B44
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

1	2

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

Connector No.	B45
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
2	BR	–
5	P	–
6	L	–
9	GR	–
10	W	–
11	W	–
13	Y	–
16	R	–

Connector No.	B48
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

1

Terminal No.	Color of Wire	Signal Name
1	W	–

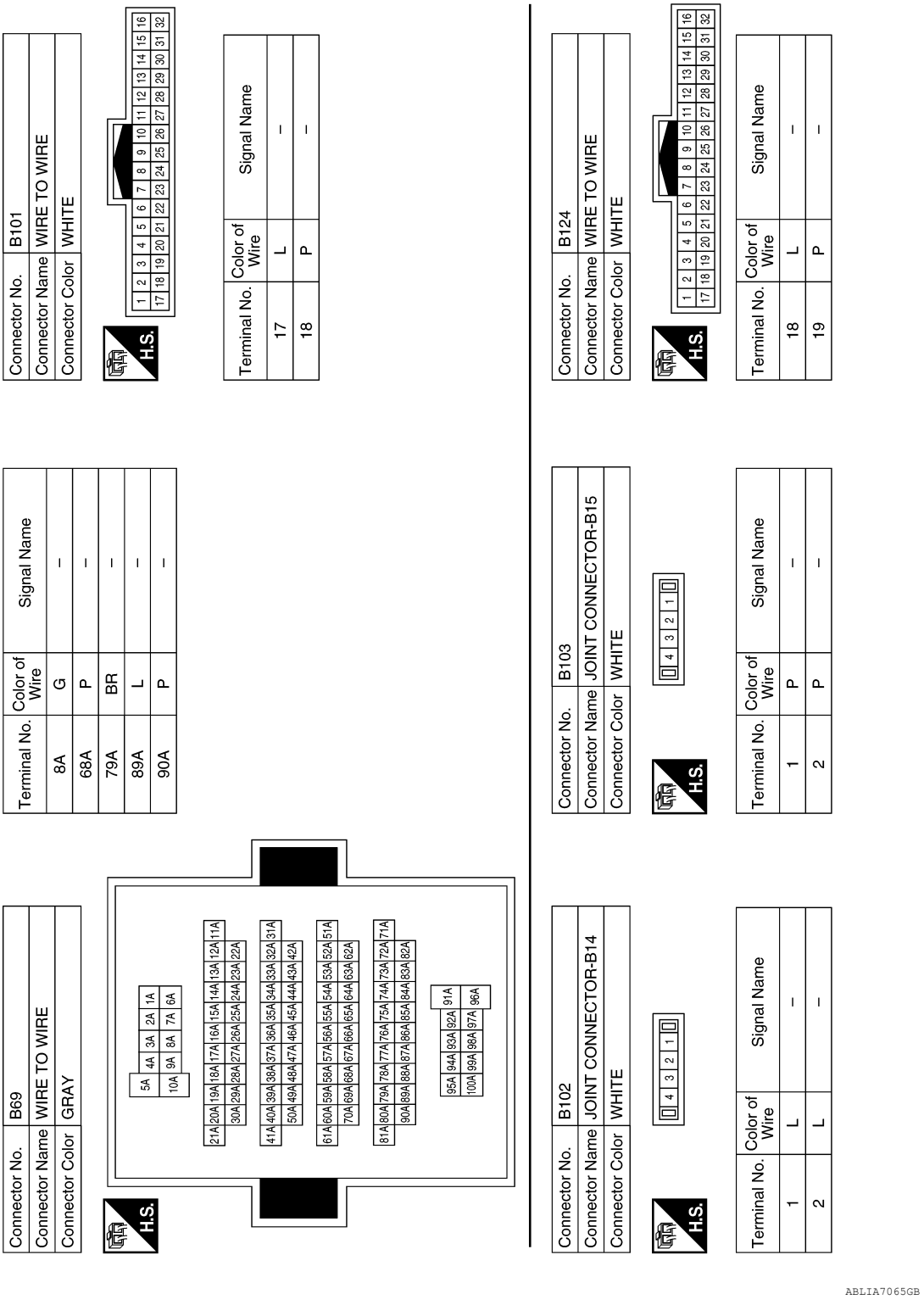
Connector No.	B63
Connector Name	JOINT CONNECTOR-B01
Connector Color	WHITE

H.S.

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

Terminal No.	Color of Wire	Signal Name
29	W	–
33	W	–

ABLIA7064GB



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Connector No.	B404
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

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

Connector No.	B405
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	Y	–
2	W	–
3	G	–
6	G	–
7	W	–

Connector No.	B410
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–
2	W	–
3	Y	–
5	G	–
6	W	–

Connector No.	B411
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

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

Connector No.	B425
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	L	–

ABLIA7066GB

Connector No.	B426
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
2	G	–
5	W	–
6	Y	–
9	B	–
10	W	–
11	G	–
13	LG	–
16	R	–

Connector No.	B427
Connector Name	TRAILER TOW RELAY 1
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–
2	B	–
3	R	–
5	W	–

Connector No.	B428
Connector Name	TRAILER TOW RELAY 2
Connector Color	BROWN

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	B	–
3	L	–
5	V	–
6	L	–
7	V	–

Connector No.	B431
Connector Name	TRAILER BACK-UP RELAY
Connector Color	BLUE

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–
2	B	–
3	Y	–
5	LG	–

Connector No.	B450
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	G	–
2	W	–
3	Y	–
5	G	–
6	W	–

Connector No.	B451
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

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

ABLIA5013GB

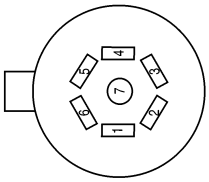
Connector No.	B453
Connector Name	TRAILER
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	B	–
3	G	–
4	G	–
5	W	–
6	W	–
7	Y	–

Connector No.	B454
Connector Name	TRAILER RECEPTACLE
Connector Color	BLACK

T.S.



Terminal No.	Color of Wire	Signal Name
1	–	STOP/TURN LH
2	–	GROUND
3	–	ELECTRIC BRAKE
4	–	STOP/TURN RH
5	–	BATTERY
6	–	RUNNING LAMPS
7	–	BACK-UP LAMPS

ABLIA7067GB

HEADLAMP AIMING SYSTEM (MANUAL)

Wiring Diagram

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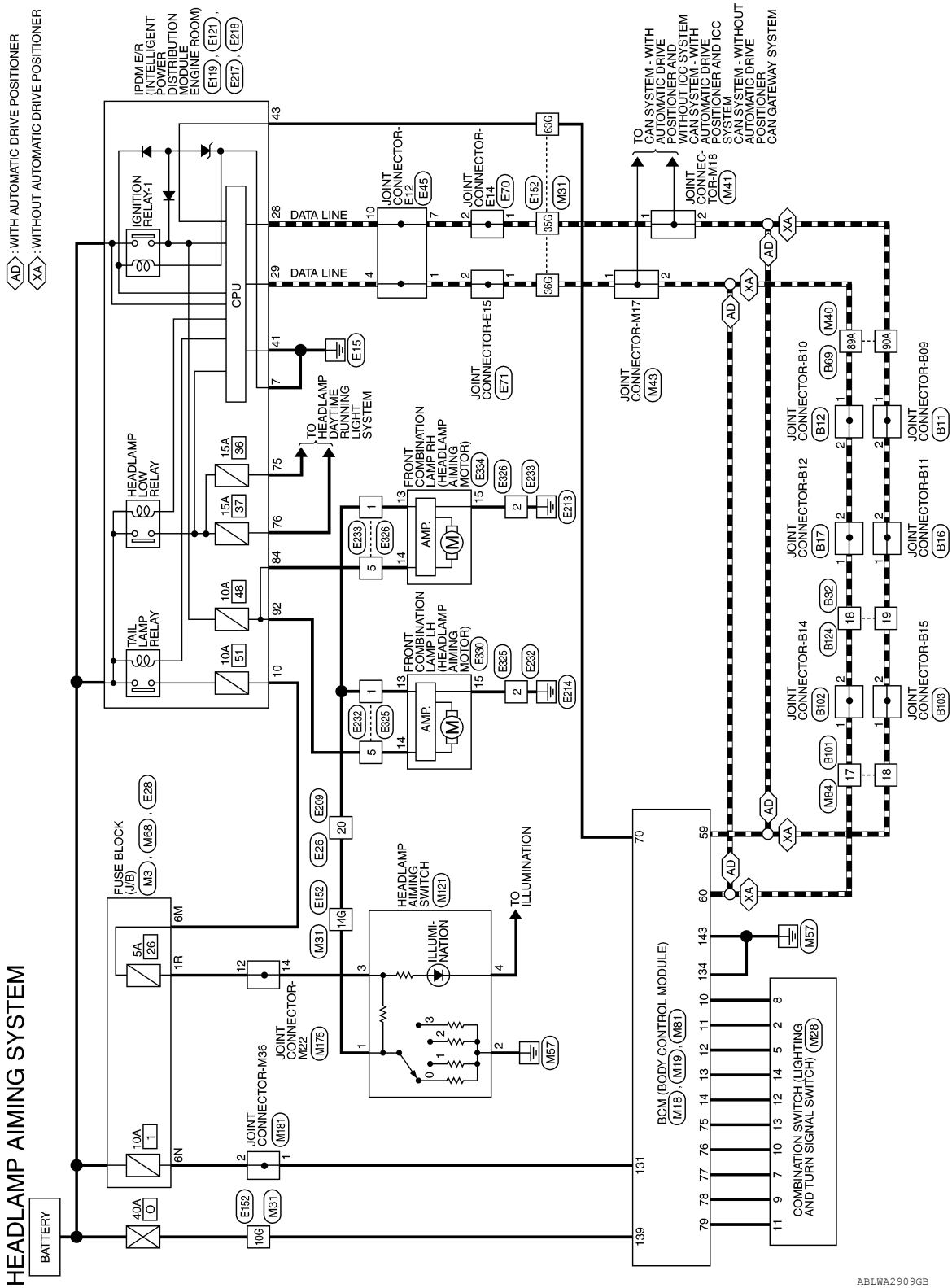
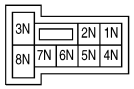


HEADLAMP AIMING SYSTEM CONNECTORS

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

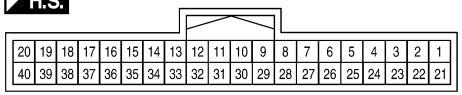
H.S.



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

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

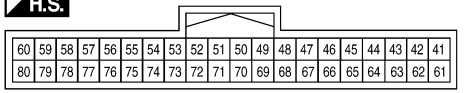
H.S.



Terminal No.	Color of Wire	Signal Name
10	P	COMBI SW IN 5
11	P	COMBI SW IN 4
12	V	COMBI SW IN 3
13	W	COMBI SW IN 2
14	P	COMBI SW IN 1

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

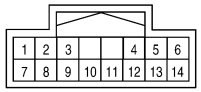
H.S.



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	P	COMBI SW OUT 3
78	W	COMBI SW OUT 2
79	W	COMBI SW OUT 1

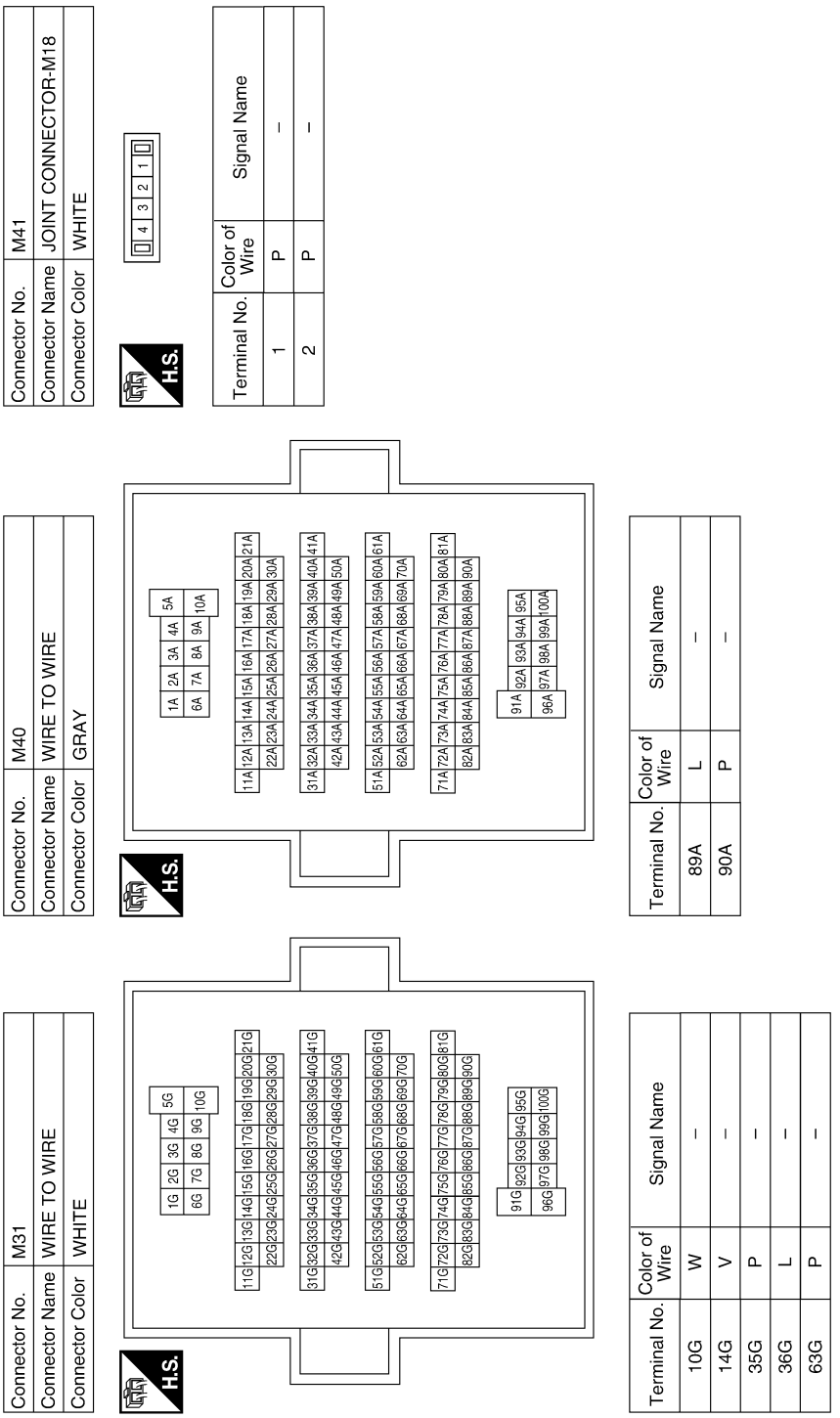
Connector No.	M28
Connector Name	COMBINATION SWITCH
Connector Color	WHITE

H.S.



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

ABLIA5015GB



ABLIA5016GB

Connector No.	M43
Connector Name	JOINT CONNECTOR-M17
Connector Color	WHITE

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
1R	R	–

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

H.S.

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

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

H.S.

Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	M121
Connector Name	HEADLAMP AIMING SWITCH
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	B	–
3	R	–
4	B	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
12	R	–
14	R	–

ABLIA5017GB

Connector No.	M181
Connector Name	JOINT CONNECTOR-M36
Connector Color	WHITE

H.S.

Terminal No.	Color of Wire	Signal Name
1	W	–
2	W	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
20	BG	–

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

H.S.

Terminal No.	Color of Wire	Signal Name
6M	L	–

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

H.S.

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

H.S.

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

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

H.S.

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

ABLIA3605GB

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

H.S.

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	GND (SIGNAL)
43	L	IGN SIGNAL

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

H.S.

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

Terminal No.	Color of Wire	Signal Name
7	B	GND (POWER)
10	L	TAIL LH

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

H.S.

Terminal No.	Color of Wire	Signal Name
10G	P	–
14G	BG	–
35G	P	–
36G	L	–
63G	L	–

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

H.S.

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	V	–

ABLIA4643GB

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

H.S.

Terminal No.	Color of Wire	Signal Name
75	R	HEADLAMP LO RH
76	L	HEADLAMP LO LH

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

H.S.

Terminal No.	Color of Wire	Signal Name
84	SB	H/L LEVELIZER RH
92	L	H/L LEVELIZER LH

Connector No.	E232
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	B	–
5	L	–

Connector No.	E233
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	B	–
5	SB	–

Connector No.	E325
Connector Name	WIRE TO WIRE
Connector Color	BLACK

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	B	–
5	L	–

Connector No.	E326
Connector Name	WIRE TO WIRE
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
1	V	–
2	B	–
5	SB	–

ABLIA5018GB

Connector No.	E330
Connector Name	FRONT COMBINATION LAMP LH (HEADLAMP AIMING MOTOR)
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
13	V	–
14	L	–
15	B	–

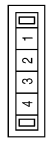
Connector No.	E334
Connector Name	FRONT COMBINATION LAMP RH (HEADLAMP AIMING MOTOR)
Connector Color	GRAY

H.S.

Terminal No.	Color of Wire	Signal Name
13	V	–
14	SB	–
15	B	–

Connector No.	B11
Connector Name	JOINT CONNECTOR-B09
Connector Color	WHITE

H.S.



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

Connector No.	B12
Connector Name	JOINT CONNECTOR-B10
Connector Color	WHITE

H.S.

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

Connector No.	B16
Connector Name	JOINT CONNECTOR-B11
Connector Color	WHITE

H.S.

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

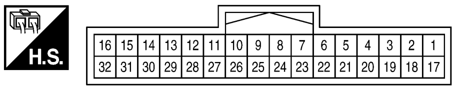
Connector No.	B17
Connector Name	JOINT CONNECTOR-B12
Connector Color	WHITE

H.S.

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

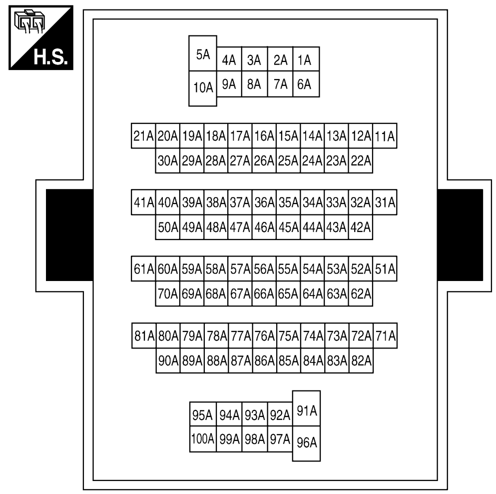
ABLIA5019GB

Connector No.	B32
Connector Name	WIRE TO WIRE
Connector Color	WHITE



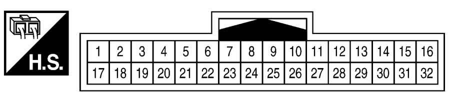
Terminal No.	Color of Wire	Signal Name
18	L	–
19	P	–

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



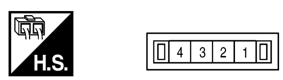
Terminal No.	Color of Wire	Signal Name
89A	L	–
90A	P	–

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



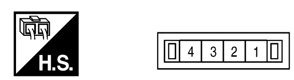
Terminal No.	Color of Wire	Signal Name
17	L	–
18	P	–

Connector No.	B102
Connector Name	JOINT CONNECTOR-B14
Connector Color	WHITE



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

Connector No.	B103
Connector Name	JOINT CONNECTOR-B15
Connector Color	WHITE



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

ABLIA5020GB

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

Connector No.	B124
Connector Name	WIRE TO WIRE
Connector Color	WHITE

H.S.

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
18	L	–
19	P	–

ABLIA5021GB

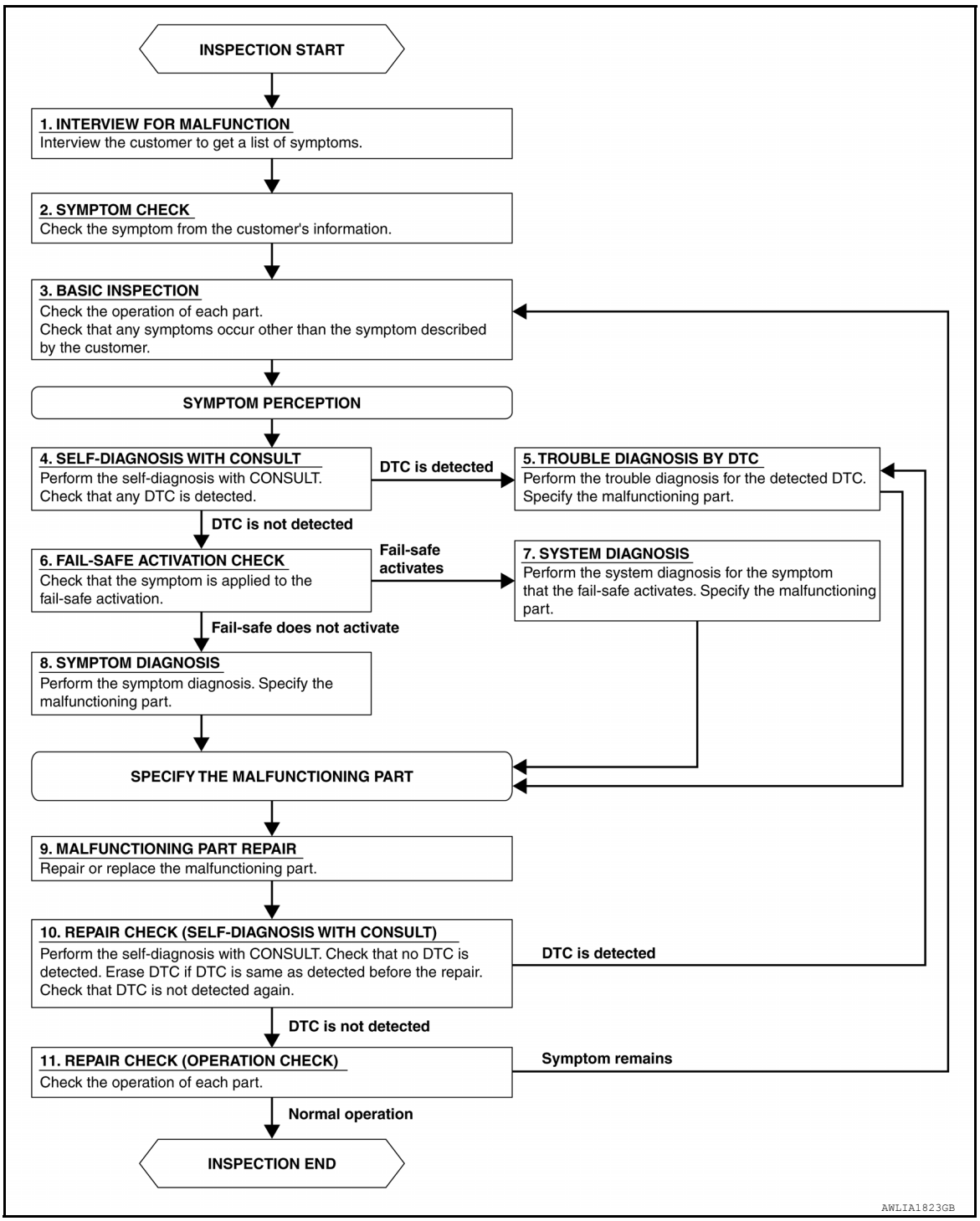
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:0000000011134653

OVERALL SEQUENCE



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-DIAGNOSIS WITH CONSULT

Perform the self-diagnosis with CONSULT. 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. Refer to EXL-148, "Symptom Table".

>> GO TO 9.

9.MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

10.REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT)

Perform the self-diagnosis with CONSULT. 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?

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

POWER SUPPLY AND GROUND CIRCUIT

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000011544367

Regarding Wiring Diagram information, refer to BCS-54, "Wiring Diagram".

1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
139	Fusible link battery power	O (40A)
131	BCM battery fuse	1 (10A)

Is the fuse or fusible link blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.
NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M81.
2. Check voltage between BCM connector M81 terminals 131, 139 and ground.

BCM		Ground	Voltage (Approx.)
Connector	Terminal		
M81	131	—	Battery voltage
	139		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector M81 terminals 134, 143 and ground.

BCM		Ground	Continuity
Connector	Terminal		
M81	134	—	Yes
	143		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

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

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

INFOID:0000000011544368

Regarding Wiring Diagram information, refer to PCS-21, "Wiring Diagram".

1. CHECK FUSIBLE LINKS

Check that the following fusible links are not blown.

Terminal No.	Signal name	Fusible link No.
1	Fusible link main	E (80A)
2	Fusible link IPDM E/R	A (250A), C (80A)
3	Fusible link ignition switch	A (250A), B (100A), K (40A)

Is the fusible link blown?

YES >> Replace the blown fusible link after repairing the affected circuit.
NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect IPDM E/R connectors E118 and E120.
2. Check voltage between IPDM E/R connectors and ground.

IPDM E/R		Ground	Voltage (Approx.)
Connector	Terminal		
E118	1	—	Battery voltage
	2		
E120	3		

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

1. Disconnect IPDM E/R connectors E119 and E121.
2. Check continuity between IPDM E/R connectors and ground.

IPDM E/R		Ground	Continuity
Connector	Terminal		
E121	7	—	Yes
E119	41		

Is the inspection result normal?

YES >> Inspection End.
NO >> Repair or replace harness or connectors.

HEADLAMP (HI) CIRCUIT

Description

INFOID:0000000011134656

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp high relay based on inputs from the BCM over the CAN communication lines. When the headlamp high relay is energized, power flows through fuses 34 and 35, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp high beam.

Component Function Check

INFOID:0000000011134657

1.CHECK HEADLAMP (HI) OPERATION

WITHOUT CONSULT
1. Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
2. Check that the headlamp switches to the high beam.

WITH CONSULT
1. Select EXTERNAL LAMP of IPDM E/R active test item.
2. While operating the test items, check that the headlamp switches to the high beam.

HI : Headlamp switches to the high beam.
OFF : Headlamp OFF

Does the headlamp switch to the high beam?

YES >> Headlamp (HI) circuit is normal.
NO >> Refer to EXL-126, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134658

Regarding Wiring Diagram - Refer to EXL-22, "Wiring Diagram".

1.CHECK HEADLAMP (HI) FUSES

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

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

Is the fuse open?

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

2.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

CONSULT ACTIVE TEST
1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp harness connector E331 or E327.
3. Turn the ignition switch ON.
4. Select EXTERNAL LAMP of IPDM E/R active test item.
5. With EXTERNAL LAMP ON, check the voltage between the combination lamp harness connector and ground.

(+)			(–)	Voltage
Connector		Terminal		
RH	E331	3	Ground	Battery voltage
LH	E327			

Is battery voltage present?

YES >> GO TO 4.
NO >> GO TO 3.

3. CHECK HEADLAMP (HI) CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R harness connector E217.
3. Check continuity between the IPDM E/R harness connector E217 and the front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
RH	E217	80	E331	3	Yes
LH		81	E327		

Does continuity exist?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair the harnesses or connectors.

4. CHECK FRONT COMBINATION LAMP (HI) GROUND CIRCUIT

Check continuity between the front combination lamp harness connector terminal 4 and ground.

Connector		Terminal	—	Continuity
RH	E331	4	Ground	Yes
LH	E327			

Does continuity exist?

YES >> Replace the headlamp bulb.
NO >> Repair or replace the harness or connector.

HEADLAMP (LO) CIRCUIT

Description

INFOID:0000000011134659

The IPDM E/R (intelligent power distribution module engine room) controls the headlamp low relay based on inputs from the BCM over the CAN communication lines. When the headlamp low relay is energized, power flows through fuses 36 and 37, located in the IPDM E/R. Power then flows to the front combination lamps to the headlamp low beam.

Component Function Check

INFOID:0000000011134660

1.CHECK HEADLAMP (LO) OPERATION

WITHOUT CONSULT
1. Start IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
2. Check that the headlamp is turned ON.
   NOTE:
   HI/LO is repeated 1 second each when using the IPDM E/R auto active test.

CONSULT
1. Select EXTERNAL LAMP of IPDM E/R active test item.
2. While operating the test item, check that the headlamp is turned ON.

LO : Headlamp ON
OFF : Headlamp OFF

Is the headlamp turned ON?

YES >> Headlamp (LO) is normal.
NO >> Refer to EXL-128, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134661

Regarding Wiring Diagram information - Refer to EXL-22, "Wiring Diagram".

1.CHECK HEADLAMP (LO) FUSES

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

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

Is the fuse open?

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

2.CHECK HEADLAMP (LO) OUTPUT VOLTAGE

CONSULT
1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp harness connector E332 or E328.
3. Turn the ignition switch ON.
4. Select EXTERNAL LAMP of IPDM E/R active test item.
5. With EXTERNAL LAMP ON, check the voltage between the front combination lamp harness connector E332 or E328 terminal 1 and ground.

(+)		(−)	Voltage
Connector	Terminal		

RH	E332	1	Ground	Battery voltage
LH	E328			

Is battery voltage present?

YES >> GO TO 4.
NO >> GO TO 3.

3. CHECK HEADLAMP (LO) CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector E217.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector E332 or E328.

IPDM E/R			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
RH	E217	75	E332	1	Yes
LH		76	E328		

Does continuity exist?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair the harness or connector.

4. CHECK FRONT COMBINATION LAMP (LO) GROUND CIRCUIT

Check continuity between the front combination lamp harness connector E332 or E328 terminal 2 and ground.

Connector		Terminal	—	Continuity
RH	E332	2	Ground	Yes
LH	E328			

Does continuity exist?

YES >> Perform xenon headlamp diagnosis. Refer to EXL-130, "Diagnosis Procedure".
NO >> Repair the harness or connector.

XENON HEADLAMP

Description

INFOID:0000000011134662

OPERATION

Refer to EXL-130, "Description".

PRECAUTIONS FOR TROUBLE DIAGNOSIS

- Installation or removal of the connector must be done with the lighting switch OFF.
- When the lamp is illuminated (when the lighting switch is ON), do not touch the harness, HID control unit, inside of the lamp or the lamp metal parts.
- To check illumination, temporarily install lamp in the vehicle. Be sure to connect power at the vehicle-side connector.
- If the malfunction can be traced directly to the electrical system, first check for items such as blown fuses and fusible links, broken wires or loose connectors, pulled-out terminals and improper connections.
- Do not work with wet hands.
- Using a tester for HID control unit circuit trouble diagnosis is prohibited.
- Disassembling the HID control unit or harnesses (bulb socket harness, ballast harness) is prohibited.
- Immediately after illumination, the light intensity and color will fluctuate this is normal.
- When the bulb has reached the end of its lifetime, the brightness may drop significantly, it may flash repeatedly or the light may turn a reddish color.

Diagnosis Procedure

INFOID:0000000011134663

1.CHECK XENON BULB

Install a known good bulb to the applicable headlamp. Check that the headlamp operates.

Is the inspection result normal?

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

2.CHECK HID CONTROL UNIT

Install a known good HID control unit to the applicable headlamp. Check that the headlamp operates.

Is the inspection result normal?

YES >> Replace HID control unit.
NO >> Inspection End.

DAYTIME RUNNING LIGHT RELAY CIRCUIT

Description

INFOID:0000000011134664

The BCM sends a daytime running light request to the IPDM E/R via the CAN communication lines. The power flows through fuse 43 located in IPDM E/R to the daytime running light relay coil. When the IPDM E/R operates the daytime running light relay, power is sent to the daytime running lamps.

Diagnosis Procedure

INFOID:0000000011134665

Regarding Wiring Diagram information, refer to EXL-31, "Wiring Diagram".

1.CHECK DAYTIME RUNNING LIGHT RELAY VOLTAGE SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect the daytime running light relay harness connector E4.
3. Turn the ignition switch ON.
4. Check the voltage between the following daytime running light relay harness connector E4 terminals and ground.

(+)		(−)	Voltage
Connector	Terminal		
E4	2	Ground	Battery voltage
	5		
	7		

Is the inspection results normal?

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

2.CHECK DAYTIME RUNNING LIGHT RELAY CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R harness connector E121.
3. Check continuity between the IPDM E/R harness connector E121 and the daytime running light relay harness connector E4.

Daytime running light relay		IPDM E/R		Continuity
Connector	Terminal	Connector	Terminal	
E4	2	E121	14	Yes
	5			
	7			

4. Check continuity between the IPDM E/R harness connector E121 and ground.

Connector	Terminal	(—)	Continuity
E121	14	Ground	No

Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the harnesses or connectors.

3.CHECK DAYTIME RUNNING LAMP RELAY COIL CIRCUIT

1. Check continuity between the IPDM E/R harness connector E218 and daytime running light relay harness connector E4.

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

2. Check continuity between the IPDM E/R harness connector E218 and ground.

Connector	Terminal	Ground	Continuity
E218	85		No

Does continuity exist?

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

4. CHECK DAYTIME RUNNING LIGHT RELAY

Check the daytime running light relay. Refer to EXL-132, "Component Inspection".

Is the inspection results normal?

YES >> GO TO 5.
NO >> Replace relay.

5. CHECK DAYTIME RUNNING LAMP CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect the front fog lamp harness connector E303 or E304 in question.
3. Check continuity between the daytime running light relay harness connector E4 and the front fog lamp harness connector E303 or E304.

Front fog lamp		Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	
LH E303	3	E4	6	Yes
RH E304			3	

Is the inspection results normal?

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

6. CHECK DAYTIME RUNNING LAMP GOUND CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect front fog lamp harness connector E303 or E304 in question.
3. Check continuity between the front fog lamp harness connector E303 or E304 terminal 4 and ground.

Connector	Terminal	(-)	Continuity
LH E303	4	Ground	Yes
RH E304			

Does continuity exist?

YES >> Inspection End.
NO >> Repair or replace the harnesses or connectors.

Component Inspection

INFOID:0000000011134666

1. CHECK DAYTIME RUNNING LIGHT RELAY

1. Turn ignition switch OFF.
2. Remove daytime running light relay.
3. Check the continuity between daytime running light relay terminals 3 and 5 and 6 and 7 when voltage is supplied between terminals 1 and 2.

Terminals	Voltage	Continuity
3 and 5	ON	Yes
	OFF	No
6 and 7	ON	Yes
	OFF	No

Is the inspection result normal?

YES >> Inspection End.
NO >> Replace daytime running light relay.

HEADLAMP AIMING SYSTEM (MANUAL)

Description

INFOID:0000000011134667

The manual headlamp aiming system uses a headlamp aiming switch to adjust the axis of the headlamp aiming motor. The headlamp aiming switch has four settings, each with a different resistance value. The headlamp aiming motor adjusts to the proper axis based off the position of the headlamp aiming switch.

Component Inspection

INFOID:0000000011134668

1.CHECK HEADLAMP AIMING SWITCH

1. Disconnect headlamp aiming switch.
2. Check resistance between terminal 1 and terminal 2.

Headlamp aiming switch		Condition	Resistance (Approx.)
Terminal		Switch position	
1	2	0	160 Ω
		1	402 Ω
		2	620 Ω
		3	1100 Ω

Is the inspection result normal?

YES >> Headlamp aiming switch is normal.
NO >> Replace the headlamp aiming switch. Refer to EXL-170, "Removal and Installation".

Diagnosis Procedure

INFOID:0000000011134669

Regarding Wiring Diagram information, refer to EXL-111, "Wiring Diagram".

1.CHECK HEADLAMP AIMING MOTOR FUSES

1. Turn the ignition switch OFF.
2. Check that the fuse is not open.

Unit	Location	Fuse No.	Capacity
Headlamp aiming motor	IPDM E/R	48	10A

Is the inspection result normal?

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

2.CHECK HEADLAMP AIMING MOTOR POWER SUPPLY CIRCUIT FOR OPEN OR SHORT

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R harness connector E218, headlamp aiming motor LH harness connector E330 or headlamp aiming motor RH harness connector E334.
3. Check continuity between IPDM E/R harness connector E218 and headlamp aiming motor LH harness connector E330 or headlamp aiming motor RH harness connector E334.

IPDM E/R		Headlamp aiming motor			Continuity
Connector	Terminal	Connector		Terminal	
E218	92	LH	E330	14	Yes
	84	RH	E334		

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

IPDM E/R		—	Continuity
Connector	Terminal		
E218	92	Ground	No
	84		

Is the inspection result normal?

YES >> GO TO 3
NO >> Repair or replace the harness or connector.

3. CHECK HEADLAMP AIMING SWITCH SIGNAL FOR OPEN OR SHORT CIRCUIT

1. Disconnect headlamp aiming switch harness connector M121.
2. Check continuity between the headlamp aiming switch harness connector M121 and headlamp aiming motor LH harness connector E330 or headlamp aiming motor RH harness connector E334.

Headlamp aiming switch		Headlamp aiming motor			Continuity
Connector	Terminal	Connector		Terminal	
M121	1	LH	E330	13	Yes
		RH	E334		

3. Check continuity between the headlamp aiming switch harness connector M121 and ground.

Headlamp aiming switch		(-)	Continuity
Connector	Terminal		
M121	1	Ground	No

Is the inspection result normal?

YES >> GO TO 4
NO >> Repair or replace the harness or connector.

4. CHECK HEADLAMP AIMING MOTOR GROUND CIRCUIT

Check continuity between headlamp aiming motor LH harness connector E330 or headlamp aiming motor RH harness connector E334 and ground.

Headlamp aiming motor			(-)	Continuity
Connector		Terminal		
LH	E330	15	Ground	Yes
RH	E334			

Is the inspection result normal?

YES >> Inspect the headlamp aiming motors.
NO >> Repair or replace the harness or connector.

FRONT FOG LAMP CIRCUIT

Description

INFOID:0000000011134670

The IPDM E/R (intelligent power distribution module engine room) controls the front fog lamp relay based on inputs from the BCM via the CAN communication lines. When the front fog lamp relay is energized, power flows from the front fog lamp relay in the IPDM E/R to the front fog lamps.

Component Function Check

INFOID:0000000011134671

1.CHECK FRONT FOG LAMP OPERATION

WITHOUT CONSULT
1. Activate IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
2. Check that the front fog lamp is turned ON.

WITH CONSULT
1. Select EXTERNAL LAMPS of IPDM E/R active test item.
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 front fog lamp turned ON?

YES >> Front fog lamp circuit is normal.
NO >> Refer to EXL-136, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134672

Regarding Wiring Diagram information, refer to EXL-53, "Wiring Diagram".

1.CHECK FRONT FOG LAMP FUSE

1. Turn the ignition switch OFF.
2. Check if the following fuse is blown.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	42	15A

Is the fuse open?

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

2.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the front fog lamp harness connector E305 or E306.
3. Turn the ignition switch ON.
4. Turn the front fog lamps ON.
5. Check the voltage between the fog lamp harness connector E305 or E306 terminal 1 and ground.

(+)			(–)	Voltage (Approx.)
Connector		Terminal		
LH	E305	1	Ground	Battery voltage
RH	E306			

Is battery voltage present?

YES >> GO TO 4
NO >> GO TO 3

3.CHECK FRONT FOG LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R harness connector E217.
3. Check continuity between the IPDM E/R harness connector E217 and the front fog lamp harness connector E305 or E306.

IPDM E/R			Front fog lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	E217	79	E305	1	Yes
RH		78	E306		

Does continuity exist?

YES >> Replace IDPM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the harnesses or connectors.

4.CHECK FRONT FOG LAMP GROUND CIRCUIT

1. Disconnect the front fog lamp connector.
2. Check continuity between the front fog lamp harness connector E305 or E306 terminal 2 and ground.

Connector		Terminal	—	Continuity
LH	E305	2	Ground	Yes
RH	E306			

Does continuity exist?

YES >> Inspect the fog lamp bulb.
NO >> Repair or replace the harnesses or connectors.

PARKING LAMP CIRCUIT

Description

INFOID:0000000011134673

The IPDM E/R (intelligent power distribution module engine room) controls the tail lamp relay based on inputs from the BCM via the CAN communication lines. When the tail lamp relay is energized, power flows through fuse 51 and 52, located in the IPDM E/R. Power then flows to the front and rear combination lamps, license plate lamps.

Component Function Check

INFOID:0000000011134674

1.CHECK PARKING LAMP OPERATION

WITHOUT CONSULT
1. Activate IPDM E/R auto active test. Refer to PCS-8, "Diagnosis Description".
2. Check that the parking lamp is turned ON.

WITH CONSULT
1. Select EXTERNAL LAMPS of IPDM E/R active test item.
2. While operating the test items, check that the parking lamp is turned ON.

TAIL : Parking lamp ON
Off : Parking lamp OFF

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.
NO >> Refer to EXL-141, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134675

Regarding Wiring Diagram information, refer to EXL-70, "Wiring Diagram".

1.CHECK PARKING LAMP FUSES

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

Unit	Location	Fuse No.	Capacity
Parking lamps	IPDM E/R	51	10A
		52	10A

Is the fuse blown?

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

2.CHECK TAIL LAMP RELAY OUTPUT (VOLTAGE)

1. Disconnect the front combination lamp connectors, front side marker lamp connectors, rear combination lamp connectors and license plate lamp connectors.
2. Turn the ignition switch ON.
3. Turn the parking lamps ON.
4. With the parking lamps ON, check voltage between the front combination lamp connector and ground.

(+)			(−)	Voltage (Approx.)
Connector		Terminal		
LH	E235	7	Ground	Battery voltage
RH	E240			

5. With the parking lamps ON, check voltage between the front side marker lamp connector and ground.

(+)			(–)	Voltage (Approx.)
Connector		Terminal		
LH	E329	9	Ground	Battery voltage
RH	E333			

6. With the parking lamps ON, check voltage between the rear combination lamp connector and ground.

(+)			(–)	Voltage (Approx.)
Connector		Terminal		
LH	B406	2	Ground	Battery voltage
RH	B407			

7. With the parking lamps ON, check voltage between the license plate lamp connector and ground

(+)			(–)	Voltage (Approx.)
Connector		Terminal		
LH	D561	2	Ground	Battery voltage
RH	D562			

Are the inspection results normal?

YES >> GO TO 4
NO >> GO TO 3

3. CHECK PARKING LAMP CIRCUIT (OPEN)

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

IPDM E/R			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	E218	90	E235	7	Yes
RH			E240		

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

IPDM E/R			Front side marker lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	E218	90	E329	9	Yes
RH			E333		

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

IPDM E/R			Rear combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	E121	10	B406	2	Yes
RH		9	B407		

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

IPDM E/R			License plate lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	E121	10	D561	2	Yes
RH			D562		

Are the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the harness or connector.

4. CHECK PARKING LAMP GROUND CIRCUITS

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

(+)			(–)	Continuity
Connector		Terminal		
LH	E235	8	Ground	Yes
RH	E240			

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

(+)			(–)	Continuity
Connector		Terminal		
LH	E329	10	Ground	Yes
RH	E333			

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

(+)			(–)	Continuity
Connector		Terminal		
LH	B406	3	Ground	Yes
RH	B407			

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

(+)			(–)	Continuity
Connector		Terminal		
LH	D561	1	Ground	Yes
RH	D562			

Are the inspection results normal?

YES >> Inspect the parking lamp bulb.
NO >> Repair or replace the harness or connector.

TURN SIGNAL LAMP CIRCUIT

Description

INFOID:0000000011134676

The BCM monitors inputs from the combination switch (lighting and turn signal switch) to determine when to activate the turn signals. The BCM outputs voltage direction to the left and right turn signals during turn signal operation or both during hazard warning operation. The BCM sends a turn signal indicator request to the combination meter via the CAN communication lines.
The BCM performs the fast flasher operation (fail-safe) if any bulb or harness of the turn signal lamp circuit is open.
NOTE:
Turn signal lamp blinks at normal speed when using the hazard warning lamp.

Component Function Check

INFOID:0000000011134677

1.CHECK TURN SIGNAL LAMP

CONSULT
1. Select FLASHER of BCM (FLASHER) active test item.
2. While operating the test items, check that the turn signal lamp blinks.

LH : Turn signal lamps (LH) ON
RH : Turn signal lamps (RH) ON
Off : Turn signal lamps OFF

Is the inspection result normal?

YES >> Turn signal lamp circuit is normal.
NO >> Refer to EXL-141, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134678

Regarding Wiring Diagram information, refer to EXL-61, "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.

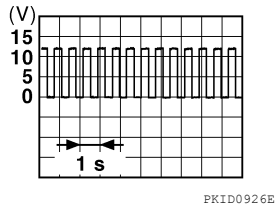
Is the bulb OK?

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

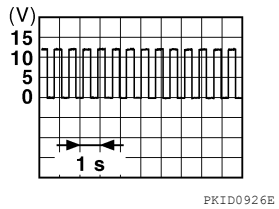
2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp harness connector or the rear combination lamp harness connector in question.
3. Turn the ignition switch ON.
4. Operate the turn signal switch.
5. While the turn signal is operating, check the voltage between the front combination lamp harness connector and ground.

(+)		(–)	Voltage (Approx.)
Connector	Terminal		

RH	E239	5	Ground	
LH	E234			

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

(+)			(−)	Voltage (Approx.)
Connector		Terminal		
RH	B409	4	Ground	
LH	B408			

Is voltage reading as specified?

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

3. CHECK TURN SIGNAL LAMP CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Disconnect BCM harness connector M20 or M80.
3. Check continuity between the BCM harness connector M80 and the front combination lamp harness connector.

BCM			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	M80	117	E234	5	Yes
RH		105	E239		

4. Check continuity between the BCM harness connector M20 and the rear combination lamp harness connector.

BCM			Rear combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
LH	M20	103	B408	4	Yes
RH		92	B409		

Is the inspection results normal?

YES >> GO TO 4.
NO >> Repair or replace the harness or connectors.

4. CHECK TURN SIGNAL LAMP SHORT CIRCUIT

1. Check continuity between the BCM harness connector M80 and ground.

BCM			Ground	Continuity
Connector		Terminal		
LH	M80	117		No
RH		105		

2. Check continuity between the BCM harness connector M20 and ground.

BCM			Ground	Continuity
Connector		Terminal		
LH	M20	103		No
RH		92		

Are the inspection results normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace the harness or connectors.

5. CHECK TURN SIGNAL LAMP GROUND CIRCUIT

1. Check continuity between the front combination lamp harness connector or the rear combination lamp harness connector in question and ground.

Front combination lamp			(–)	Continuity
Connector		Terminal		
LH	E234	6	Ground	Yes
RH	E239			

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

Rear combination lamp			(–)	Continuity
Connector		Terminal		
LH	B408	5	Ground	Yes
RH	B409			

Are continuity results as specified?

YES >> Replace the malfunctioning lamp.
NO >> Repair or replace the harness or connectors.

OPTICAL SENSOR

Description

INFOID:0000000011134679

The optical sensor measures ambient light and transmits the optical sensor signal to the BCM.

Component Function Check

INFOID:0000000011134680

1.CHECK OPTICAL SENSOR SIGNAL TO BCM

CONSULT
1. Turn the ignition switch ON.
2. Select OPTI SEN (DTCT) of BCM (HEAD LAMP) DATA MONITOR item.
3. Turn the lighting switch to AUTO.

Monitor item	Condition	Voltage (Approx.)
OPTI SEN (DTCT)	When outside of vehicle is bright	3.1 V or more * *
	When outside of vehicle is dark	0.6 V or less

*:Outside light varies. 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-144, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011134681

Regarding Wiring Diagram information, refer to EXL-43, "Wiring Diagram".

1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

1. Turn the ignition switch OFF.
2. Disconnect the optical sensor harness connector M15.
3. Turn the ignition switch ON.
4. Turn the lighting switch to AUTO.
5. Check the voltage between the optical sensor harness connector M15 and ground.

(+)		(−)	Voltage (Approx.)
Connector	Terminal		
M15	1	Ground	5 V

Is the inspection result normal?

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

2.CHECK OPTICAL SENSOR GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between the optical sensor harness connector M15 and ground.

(+)		(−)	Continuity
Connector	Terminal		
M15	3	Ground	Yes

Is the inspection result normal?

YES >> GO TO 6
NO >> GO TO 5

3.CHECK OPTICAL SENSOR POWER SUPPLY CIRCUIT

1. Turn the ignition switch OFF.

2. Disconnect the BCM harness connector M18.
3. Check continuity between optical sensor harness connector M15 and BCM harness connector M18.

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

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the harness or connectors.

4. CHECK OPTICAL SENSOR POWER SUPPLY FOR SHORT CIRCUIT

Check continuity between optical sensor harness connector M15 terminal 1 and ground.

(+)		(–)	Continuity
Connector	Terminal		
M15	1	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness or connector.

5. CHECK OPTICAL SENSOR GROUND FOR OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect the BCM harness connector M18.
3. Check continuity between optical sensor harness connector M15 terminal 3 and BCM harness connector M18 terminal 17.

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

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness or connector.

6. 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		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M15	2	M18	4	Yes

4. Check continuity between optical sensor harness connector and ground.

Connector	Terminal	(–)	Continuity
M15	2	Ground	No

Is the inspection result normal?

YES >> Replace the optical sensor. Refer to EXL-167, "Removal and Installation".
NO >> Repair or replace harness or connectors.

HAZARD SWITCH

Component Function Check

INFOID:0000000011134682

1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

CONSULT DATA MONITOR
1. Turn ignition switch ON.
2. Select HAZARD SW of BCM (FLASHER) DATA MONITOR item.
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-146, "Diagnosis Procedure".

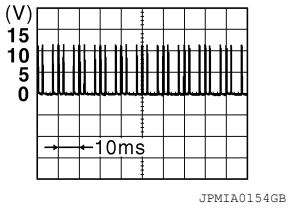
Diagnosis Procedure

INFOID:0000000011134683

Regarding Wiring Diagram information, refer to EXL-61, "Wiring Diagram".

1.CHECK HAZARD SWITCH SIGNAL INPUT

1. Turn ignition switch OFF.
2. Disconnect A/C and AV switch assembly harness connector M98.
3. Turn ignition switch ON.
4. Check voltage between A/C and AV switch assembly harness connector M98 and ground.

(+)		(−)	Voltage (Approx.)
A/C and AV switch assembly (hazard switch)			
Connector	Terminal		
M98	16	Ground	

JPMIA0154GB

Is the inspection result normal?

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

2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM harness connector M18.
3. Check continuity between A/C and AV switch assembly harness connector and BCM harness connector.

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M98	16	M18	36	Yes

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the harness or connectors.

3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

Check continuity between A/C and AV switch assembly harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M98	16		No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace the harness or connectors.

4.CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

Check continuity between A/C and AV switch assembly harness connector and ground.

Hazard switch		Ground	Continuity
Connector	Terminal		
M98	1		Yes

Is the inspection result normal?

YES >> Replace A/C and AV switch assembly. Refer to EXL-169, "Removal and Installation".
NO >> Repair or replace the harness or connectors.

SYMPTOM DIAGNOSIS

EXTERIOR LIGHTING SYSTEM SYMPTOMS

Symptom Table

INFOID:0000000011134684

CAUTION:
Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	• Fuse • Harness between IPDM E/R and the front combination lamp • Front combination lamp (High beam relay) • IPDM E/R • Harness between the front combination lamp and ground	Headlamp (HI) circuit Refer to EXL-126.
	Both sides	—	**Symptom diagnosis** BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM Refer to EXL-152.
High beam indicator lamp is not turned ON (Headlamp switched to the high beam).		• BCM • Combination meter	• Combination meter Data monitor HI-BEAM IND • BCM (HEAD LAMP) Active test “HEADLAMP”
Headlamp does not switch to the low beam.	One side	Front combination lamp (High beam relay)	—
	Both sides	• Combination switch (lighting and turn signal switch) • Harness between the combination switch and BCM • BCM	Combination switch (lighting and turn signal switch) Refer to BCS-78.
		High beam request signal • BCM • IPDM E/R	IPDM E/R Data monitorHL HI REQ
		IPDM E/R	—
Headlamp does not turn ON.	One side	• Fuse • Xenon bulb • Harness between IPDM E/R and the front combination lamp • Front combination lamp (xenon headlamp) • IPDM E/R • Harness between the front combination lamp and ground	Headlamp (LO) circuit Refer to EXL-128.
	Both sides	—	**Symptom diagnosis** BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON Refer to EXL-153.
Headlamp does not turn OFF.	When the ignition switch is turned ON	• BCM • Combination switch (lighting and turn signal switch)	Combination switch (lighting and turn signal switch) Refer to BCS-78.
	The ignition switch is turned OFF (After activating the battery saver).	IPDM E/R	—

Symptom		Possible cause	Inspection item
Headlamp is not turned ON/OFF with lighting switch AUTO.		• Combination switch (lighting and turn signal switch) • Harness between combination switch and BCM • BCM	Combination switch Refer to BCS-78.
		• Optical sensor • Harness between optical sensor and BCM • BCM	Optical sensor Refer to EXL-144.
Daytime running light system does not activate. (if equipped)		• Fuse • Harness between IPDM E/R and the daytime running light relay • Harness between daytime running light relay and the front fog lamp • Harness between the front fog lamp and ground • Daytime running light bulb • IPDM E/R • Daytime running light relay • BCM	**Symptom diagnosis** Daytime running light system inoperative. Refer to EXL-156.
Headlamp aiming motor does not operate.	One side	• Fuse • Harness between IPDM E/R and headlamp aiming motor • Headlamp aiming motor • IPDM E/R	Headlamp aiming switch Refer to EXL-134.
	Both sides	• Headlamp aiming switch • Harness between aiming switch and headlamp aiming motor • IPDM E/R	Front combination lamp (headlamp aiming motor) Refer to EXL-134.
Front fog lamp is not turned ON.	One side	• Front fog lamp bulb • Harness between IPDM E/R and front fog lamp • Front fog lamp • IPDM E/R	Front fog lamp circuit Refer to EXL-136.
	Both sides	—	**Symptom diagnosis** BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON Refer to EXL-136.
Parking lamp is not turned ON.	One side	• Parking lamp bulb • Harness between IPDM E/R and front/rear combination lamp • Harness between front/rear combination lamp and ground • Front/rear combination lamp • IPDM E/R	Parking lamp circuit Refer to EXL-138 .
	Both sides	—	**Symptom diagnosis** PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON Refer to EXL-154.
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation).	• Hazard BCM and each turn signal lamp • Turn signal lamp bulb	Turn signal lamp circuit Refer to EXL-141.

Symptom		Possible cause	Inspection item
Turn signal indicator lamp does not blink.	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 (Does blink when activating hazard warning lamp with the ignition switch OFF)	• Combination meter power supply and ground circuit • Combination meter	Combination meter Power supply and ground circuit Refer to MWI-76.
• Hazard warning lamp does not activate. • Hazard warning lamp continues activating (Turn signal is normal).		• Hazard switch • Harness between the hazard switch and BCM • BCM	Hazard switch Refer to EXL-146.

NORMAL OPERATING CONDITION

Description

INFOID:0000000011134685

XENON HEADLAMP

- Brightness and the color of light may change slightly immediately after turning the headlamp ON until the xenon bulb becomes stable. This is normal.
- Illumination time lag may occur between right and left. This is normal.

AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes for the control difference. This is normal.

BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

Description

INFOID:0000000011134686

The headlamps (both sides) do not switch to high beam when the lighting switch is in the HI or PASS setting.

Diagnosis Procedure

INFOID:0000000011134687

1.COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) INSPECTION

Check the combination switch (lighting and turn signal switch). Refer to BCS-7, "COMBINATION SWITCH READING SYSTEM : System Description".

Is the combination switch (lighting and turn signal switch) 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 of IPDM E/R DATA MONITOR item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2nd)	HI or PASS	ON
		Except for HI or PASS	OFF

Is the item status normal?

YES >> GO TO 3
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-126, "Diagnosis Procedure".

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

Description

INFOID:0000000011134688

The headlamps (both sides) do not turn ON in any lighting switch setting.

Diagnosis Procedure

INFOID:0000000011134689

1.CHECK COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH)

Check the combination switch (lighting and turn signal switch). Refer to BCS-7, "COMBINATION SWITCH READING SYSTEM : System Description".

Is the combination switch (lighting and turn signal switch) 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 of IPDM E/R DATA MONITOR item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL LO REQ	Lighting switch	2nd	ON
		OFF	OFF

Is the item status normal?

YES >> GO TO 3.
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to EXL-128, "Diagnosis Procedure".

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

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

Description

INFOID:0000000011134690

The parking, license plate, tail lamps and side marker lamps do not turn ON with the combination switch in any setting.

Diagnosis Procedure

INFOID:0000000011134691

1.COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) INSPECTION

Check the combination switch (lighting and turn signal switch). Refer to BCS-78, "Symptom Table".

Is the combination switch (lighting and turn signal 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 of IPDM E/R DATA MONITOR item.
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 item status normal?

YES >> GO TO 3
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

3.PARK LAMP CIRCUIT INSPECTION

Check the parking lamp circuit. Refer to EXL-138, "Diagnosis Procedure".

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

Description

INFOID:0000000011134692

The front fog lamps do not turn ON in any setting.

Diagnosis Procedure

INFOID:0000000011134693

1.COMBINATION SWITCH (LIGHTING AND TURN SIGNAL SWITCH) INSPECTION

Check the combination switch (lighting and turn signal switch). Refer to BCS-78, "Symptom Table".

Is the combination switch (lighting and turn signal switch) normal?

YES >> GO TO 2
NO >> Repair or replace the malfunctioning part.

2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

WITH CONSULT DATA MONITOR
1. Select FR FOG REQ of IPDM E/R DATA MONITOR item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition		Monitor status
FR FOG REQ	Front fog lamp switch (Lighting switch 2nd)	ON	ON
		OFF	OFF

Is the monitor item status normal?

YES >> GO TO 3
NO >> Replace BCM. Refer to BCS-79, "Removal and Installation".

3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-136, "Diagnosis Procedure".

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

DAYTIME LIGHT SYSTEM INOPERATIVE

Description

INFOID:0000000011134694

The daytime running light system is inoperative even though the combination switch (lighting and turn signal switch) and parking brake switch are in the normal setting, also whenever the engine is operating.

Diagnosis Procedure

INFOID:0000000011134695

1.CHECK DAYTIME RUNNING LIGHT OPERATION

1. Perform BCM(HEADLAMP) DAYTIME RUNNING LIGHT active test. Refer to BCS-17, "HEADLAMP : CONSULT Function (BCM - HEADLAMP)".
2. Check that the daytime running lights turn on.

Is the inspection results normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> GO TO 2.

2.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	43	10 A

Is the inspection result normal?

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

3.CHECK DAYTIME RUNNING LIGHT BULBS

Check the daytime running light bulbs are not open.

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace the bulbs.

4.PERFORM DAYTIME RUNNING LIGHT CIRCUIT INSPECTION

Check the daytime running light circuit. Refer to EXL-131, "Diagnosis Procedure".

Is the inspection results normal?

YES >> Replace IPDM E/R. Refer to PCS-32, "Removal and Installation".
NO >> Repair or replace the malfunctioning part.

PERIODIC MAINTENANCE

HEADLAMP AIMING ADJUSTMENT

Inspection

INFOID:0000000011134696

PREPARATION BEFORE ADJUSTING

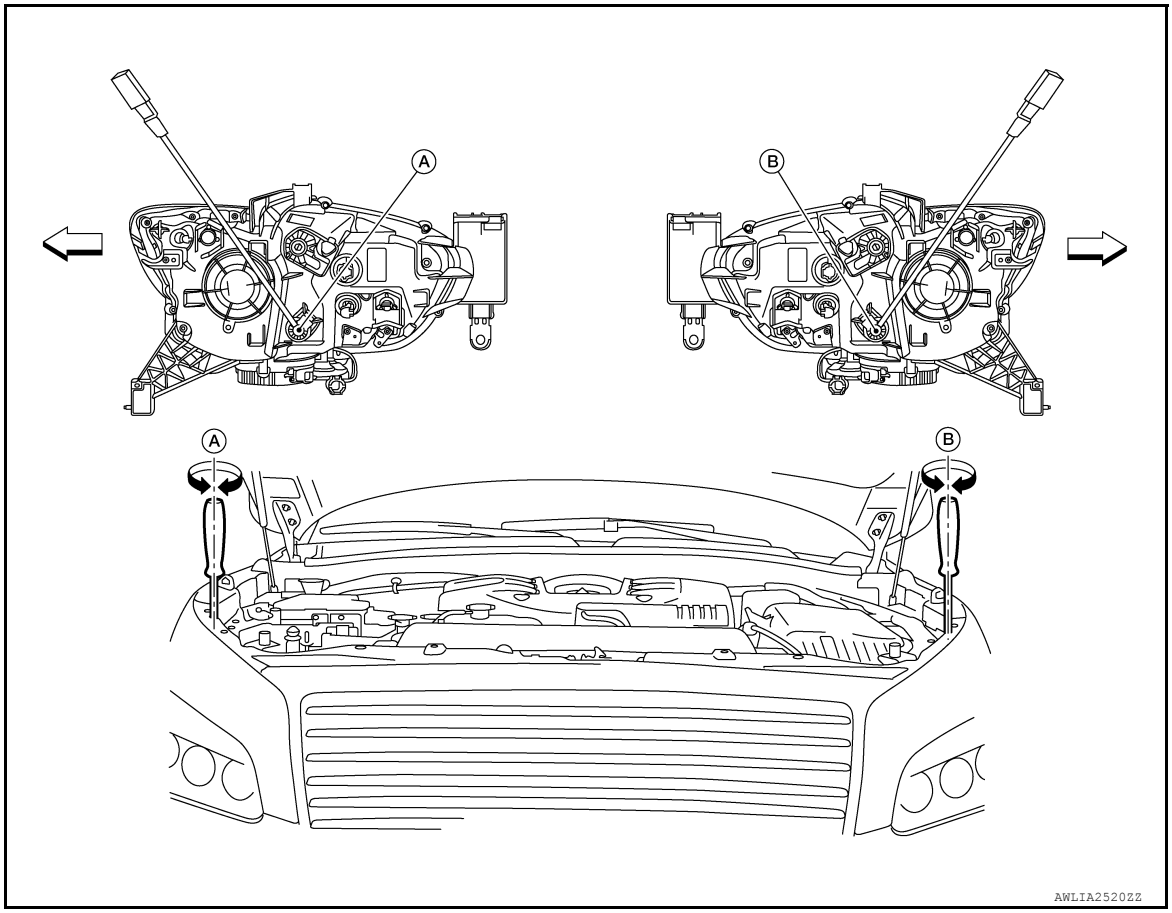
Before performing aiming adjustment, check the following:
- Ensure all tires are inflated to correct pressure.
- Place vehicle and screen on level surface.
- Ensure there is no load in vehicle other than the driver (or equivalent weight placed in driver's position).
- Coolant and engine oil filled to 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.
- Confirm headlamp aiming switch is set to "0" (zero) 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

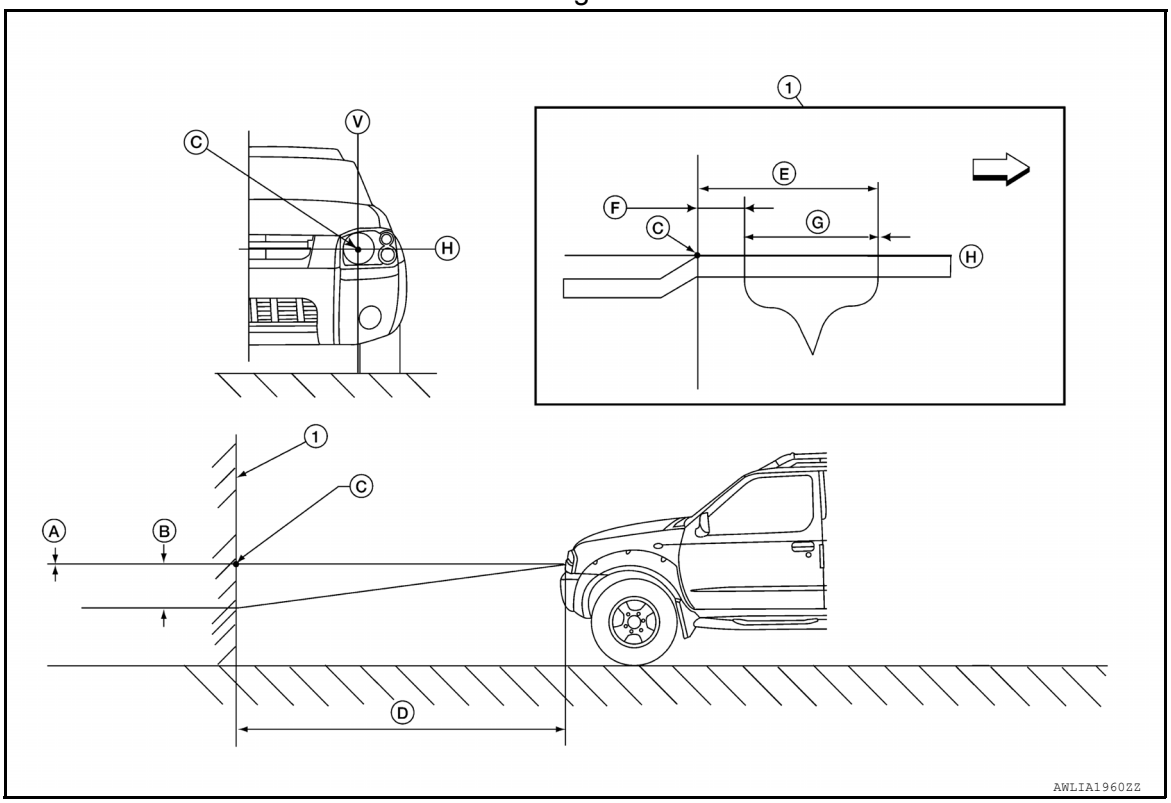


A. Headlamp RH HI/LO (UP/DOWN) adjustment screw
B. Headlamp LH HI/LO (UP/DOWN) adjustment screw
⇦ : Center

Aiming Adjustment Procedure

INFOID:0000000011134697

Aiming Chart



1.	Adjustment screen	A.	Highest cutoff line height	B.	Lowest cutoff line height
C.	Headlamp bulb center (H-V point)	D.	Distance of headlamp aiming screen from vehicle 7.62 m (25 ft)	E.	Maximum aim evaluation distance from vertical center on aiming screen 399 mm (3°R)
F.	Minimum aim evaluation distance from vertical center on aiming screen 133 mm (1°R)	G.	Aim evaluation area	H.	Horizontal aiming evaluation line
V.	Vertical aiming evaluation line	⇦	Right		

A (Highest cutoff line height)	**-13.3 mm (0.5 in)**	**0.1° up**
B (Lowest cutoff line height)	**53.2 mm (2.1 in)**	**0.4° 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 (if equipped) 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 a tape etc. The lens is made of resin.
3. Place the screen on the same level and flat surface as the vehicle.
   NOTE:
   - 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) : 7.62 m (25 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.

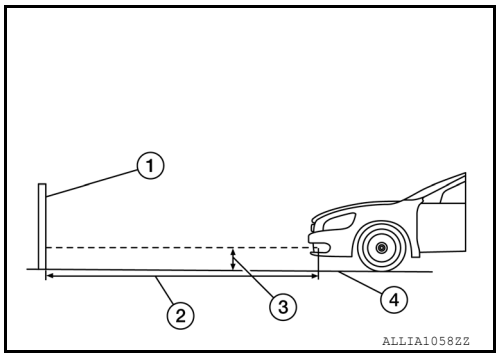
FRONT FOG LAMP AIMING ADJUSTMENT

Aiming Adjustment

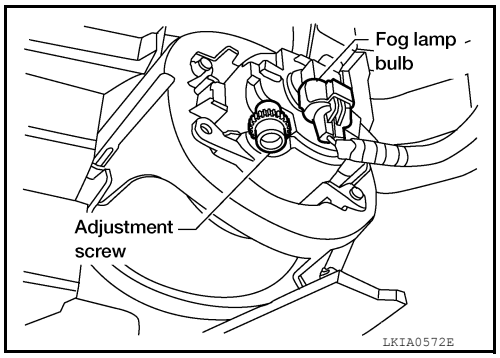
INFOID:0000000011134698

NOTE:
Check the following conditions before performing the aiming adjustment.
- Keep all tires inflated to correct pressure.
- Place vehicle on level ground.
- See that vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in driver seat.
- When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.

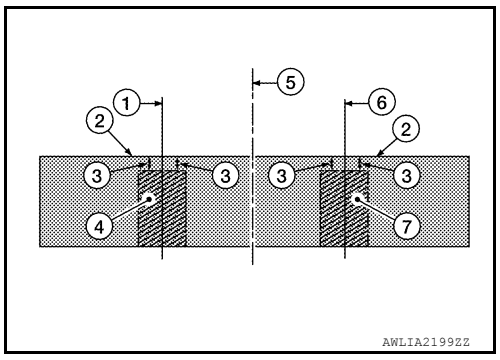
1. Set the distance between the screen and the center of the fog lamp lens as shown.
   (1) Aiming screen or a matte white surface
   (2) 7.62 m (25 ft)
   (3) Floor to center of fog lamp lens
   (4) Floor



2. Turn front fog lamps ON.
3. Access adjustment screw from underneath front bumper. Use a suitable tool to adjust. Turn screw clockwise to raise pattern and counterclockwise to lower pattern. Adjust front fog lamps using adjusting screw so that the top edge of the high intensity zone is 100 mm (4 in) below the height of the fog lamp centers as shown.



(1) Vertical center line of left fog lamp.
(2) Lamp center above ground.
(3) 100 mm (4 in) (0.76 deg) below lamp center above ground.
(4) Left fog lamp high intensity area.
(5) Vehicle center axis.
(6) Vertical center line of right fog lamp.
(7) Right fog lamp high intensity area.

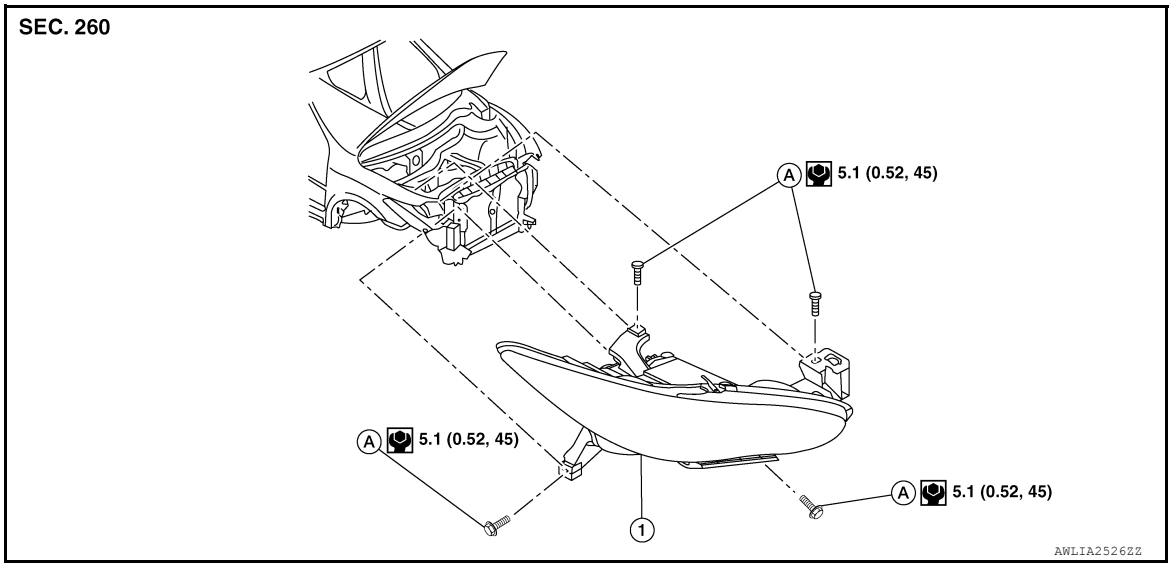


REMOVAL AND INSTALLATION

FRONT COMBINATION LAMP

Exploded View

INFOID:0000000011134699



1. Front combination lamp
A. Bolt

Removal and Installation

INFOID:0000000011134700

FRONT COMBINATION LAMP

Removal

CAUTION:

Disconnect the battery negative terminal or remove the fuse.

1. Remove front bumper fascia. Refer to EXT-17, "Removal and Installation".
2. Release the clips and pawls using a suitable tool and remove hood ledge finisher.
3. Remove front combination lamp bolts.
4. Pull front combination lamp forward.
5. Disconnect the harness connectors from the front combination lamp and remove.

Installation

Installation is in the reverse order of removal.

NOTE:

After installation, perform headlamp aiming adjustment. Refer to EXL-159, "Aiming Adjustment Procedure".

XENON BULB

Removal

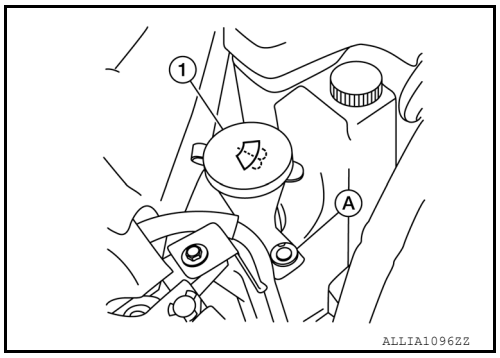
WARNING:

To prevent burns, never touch the glass surface of the bulb with bare hands because the surface is very hot just after the lamp is turned OFF.

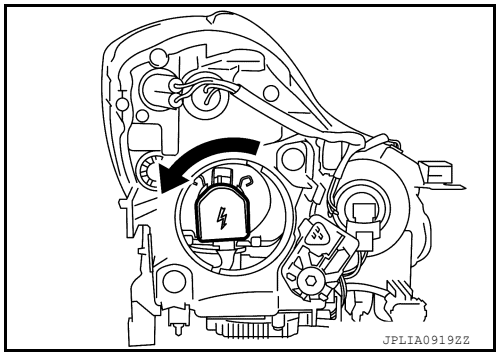
CAUTION:

- **After installing the bulb, install the plastic cover and the bulb socket securely for watertightness.**
- **Do not touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.**
- **Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**
- **Disconnect the battery negative terminal or remove the fuse.**

1. Release the clips and pawls using a suitable tool and remove hood ledge finisher.
2. Remove the washer tank inlet tube clip (A) from the coolant reservoir and pull the washer tank inlet tube (1) from the washer tank (RH only).



3. Rotate plastic cover counterclockwise and unlock from the front combination lamp.
4. Rotate xenon bulb socket counterclockwise and unlock from the front combination lamp.
5. Remove retaining spring and then remove xenon bulb from the front combination lamp.
   CAUTION:
   Do not break the xenon bulb ceramic tube when replacing the bulb.



Installation

Installation is in the reverse order of removal.

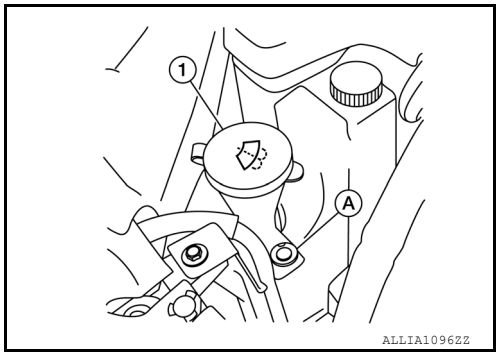
NOTE:

After installation, perform headlamp aiming adjustment. Refer to EXL-159, "Aiming Adjustment Procedure".

PARKING LAMP BULB

Removal

1. Release the clips and pawls using a suitable tool and remove hood ledge finisher.
2. Remove the washer tank inlet tube clip (A) from the coolant reservoir and pull the washer tank inlet tube (1) from the washer tank (RH only).



3. Rotate parking lamp socket counterclockwise and unlock from the front combination lamp.
4. Remove parking lamp bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

FRONT TURN SIGNAL LAMP BULB

Removal

1. Release the clips and pawls using a suitable tool and remove hood ledge finisher.
2. Rotate front turn signal lamp socket counterclockwise and unlock from the front combination lamp.
3. Remove front turn signal lamp bulb from bulb socket.

Installation

Installation is in the reverse order of removal.

FRONT SIDE MARKER LAMP BULB

Removal

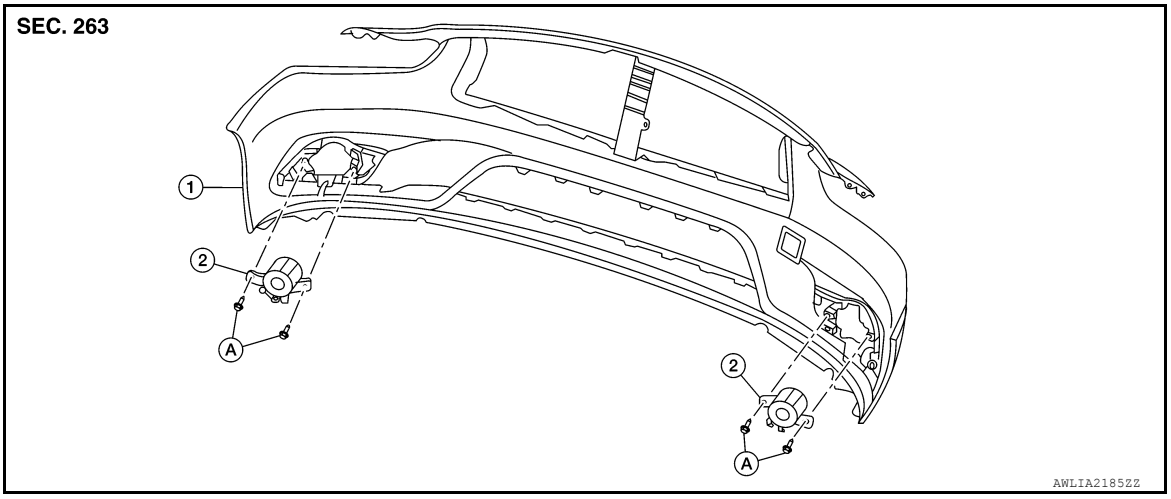
1. Release the clips and pawls using a suitable tool and remove hood ledge finisher.
2. Rotate the front side marker lamp socket counterclockwise and unlock from the front combination lamp.
3. Remove the front side marker lamp bulb from the bulb socket.

Installation
Installation is in the reverse order of removal.

FRONT FOG LAMP

Exploded View

INFOID:0000000011134701



1. Front bumper fascia
2. Front fog lamp
A. Bolt

Removal and Installation

INFOID:0000000011134702

FRONT FOG LAMP

Removal

1. Remove bumper fascia. Refer to EXT-17, "Removal and Installation".
2. Disconnect the harness connector from the front fog lamp and daytime running lamp (if equipped).
3. Remove front fog lamp bolts.
4. Remove front fog lamp.

Installation

Installation in the reverse order of removal.

NOTE:

After installation, perform fog lamp aiming adjustment. Refer to EXL-161, "Aiming Adjustment".

FRONT FOG LAMP BULB

Removal

WARNING:

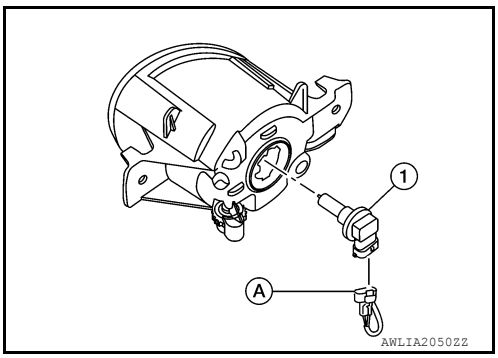
Do not touch bulb by hand while it is lit or right after being turned OFF. Burning may result.

CAUTION:

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

1. Partially remove front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation".

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



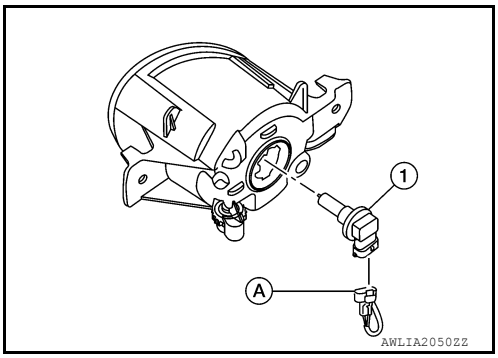
Installation
Installation is in the reverse order of removal.

DAYTIME LAMP BULB (CANADA ONLY)

Removal

WARNING:
Do not touch bulb by hand while it is lit or right after being turned OFF. Burning may result.
CAUTION:
- **Do not touch the glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to the bulb.**
- **Do not leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

1. Partially remove front fender protector. Refer to EXT-28, "FENDER PROTECTOR : Removal and Installation".
2. Disconnect the harness connector from the front fog lamp (A).
3. Rotate bulb (1) counterclockwise and remove.

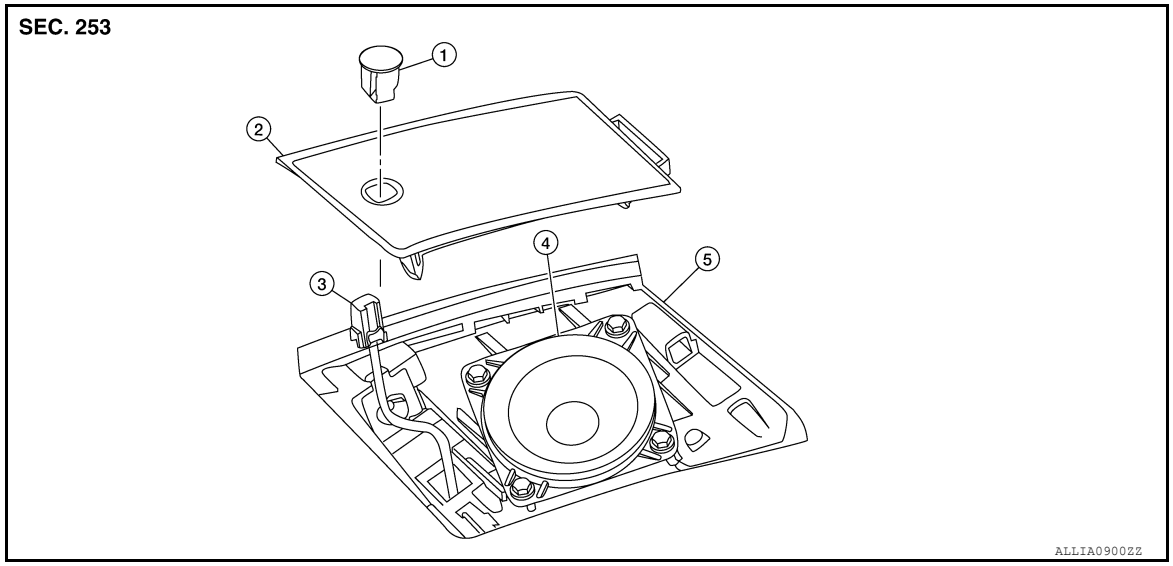


Installation
Installation is in the reverse order of removal.

OPTICAL SENSOR

Exploded View

INFOID:0000000011134703



1. Optical sensor
2. Instrument panel tweeter grille (RH)
3. Optical sensor harness connector
4. Instrument panel tweeter (RH)
5. Instrument panel

Removal and Installation

INFOID:0000000011134704

REMOVAL

1. Release the instrument panel tweeter grille (RH) using a suitable tool.
2. Insert a suitable tool between the optical sensor and the instrument panel tweeter grille (RH). Release the optical sensor and lift upward.
3. Disconnect the harness connector from the optical sensor and remove.

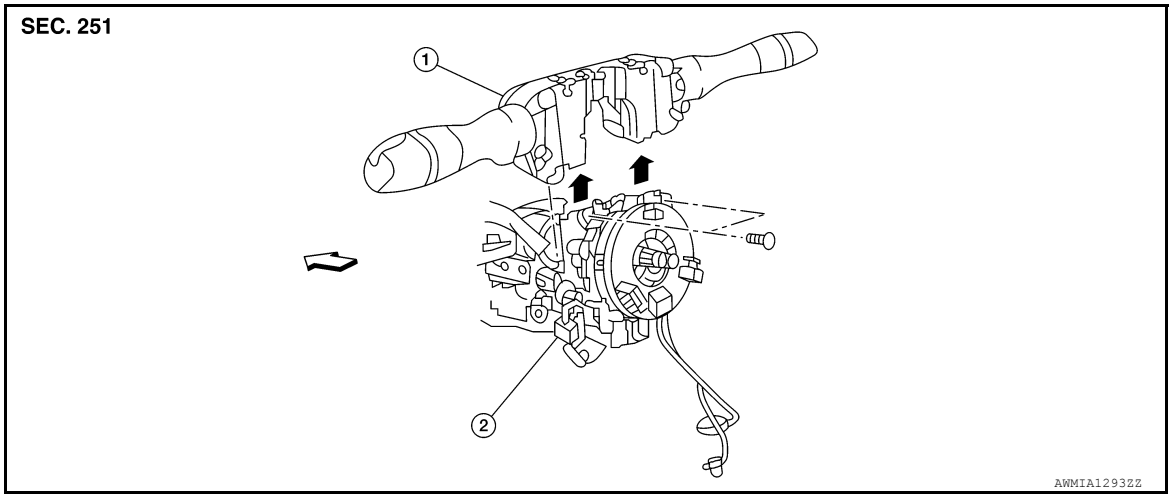
INSTALLATION

Installation is in the reverse order of removal.

LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:0000000011134705



1. Combination switch
2. Combination switch harness connector
⇦ Front

Removal and Installation

INFOID:0000000011134706

REMOVAL

1. Remove the steering wheel. Refer to ST-47, "Removal and Installation".
2. Remove the steering column covers. Refer to IP-17, "Removal and Installation".
3. Remove the combination switch screws.
4. Disconnect the harness connector from the combination switch.
5. Remove the combination switch.

INSTALLATION

Installation is in the reverse order of removal.

HAZARD SWITCH

Removal and Installation

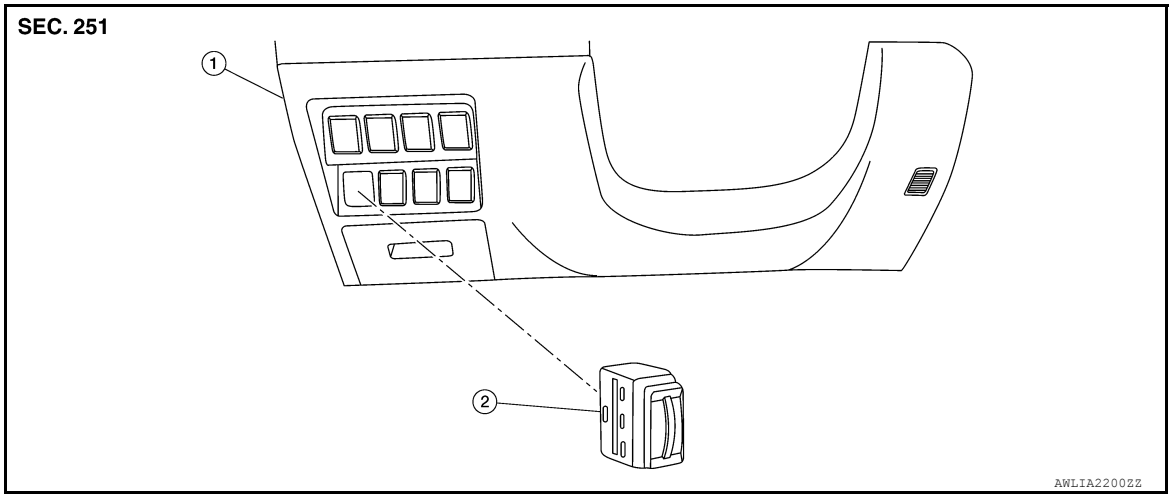
INFOID:0000000011134707

The hazard switch is integrated in the multifunction switch. Refer to AV-137, "Removal and Installation - A/C and AV Switch Assembly" (BASE AUDIO), AV-303, "Removal and Installation - A/C and AV Switch Assembly" (BOSE AUDIO W/O NAVIGATION), AV-586, "Removal and Installation - A/C and AV Switch Assembly" (BOSE AUDIO WITH NAVIGATION W/O SURROUND), AV-884, "Removal and Installation - A/C and AV Switch Assembly" (BOSE AUDIO WITH NAVIGATION WITH SURROUND) or AV-1057, "Removal and Installation - A/C and AV Switch Assembly" (TELEMATICS SYSTEM).

HEADLAMP AIMING SWITCH

Exploded View

INFOID:0000000011134708



1. Instrument lower panel LH
2. Headlamp aiming switch
Pawl

Removal and Installation

INFOID:0000000011134709

REMOVAL

1. Remove instrument lower panel LH. Refer to IP-25, "Removal and Installation".
2. While pressing pawls, push the headlamp aiming switch to remove.

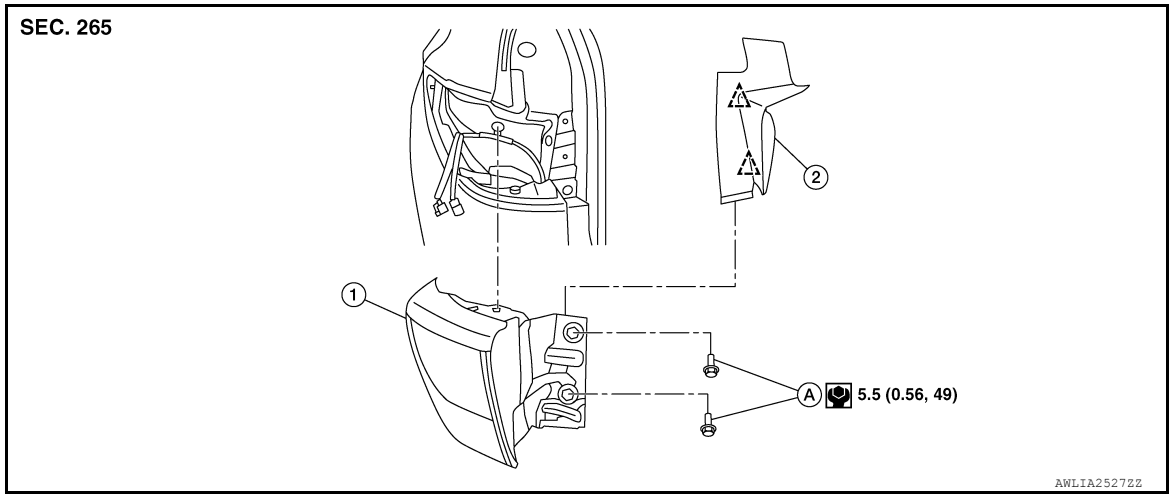
INSTALLATION

Installation is in the reverse order of removal.

REAR COMBINATION LAMP

Exploded View

INFOID:0000000011134710



1. Rear combination lamp
2. Rear combination lamp bolt cover
A. Bolt
Clip

Removal and Installation

INFOID:0000000011134711

REAR COMBINATION LAMP

Removal

1. Release metal clip and pawls using a suitable tool and remove rear combination lamp bolt cover.
2. Remove rear combination lamp bolts.
3. Pull rear combination lamp rearward.
4. Disconnect the harness connector from the rear combination lamp and remove rear combination lamp.

Installation

Installation is in the reverse order of removal.

REAR TURN SIGNAL LAMP BULB

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 the 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 the performance of lamp. When replacing bulb, be sure to replace it with new one.**

Removal

1. Remove rear combination lamp. Refer to EXL-171, "Removal and Installation"
2. Rotate the rear turn signal lamp socket counterclockwise and remove.
3. Remove the bulb from rear turn signal lamp socket.

Installation

Installation is in the reverse order of removal.

CAUTION:

After installing, be sure to install the bulb sockets securely to ensure watertightness.

HIGH-MOUNTED STOP LAMP

Removal and Installation

INFOID:0000000011134712

REMOVAL

1. Remove rear spoiler. Refer to EXT-42, "Removal and Installation".

INSTALLATION

Installation is in the reverse order of removal.

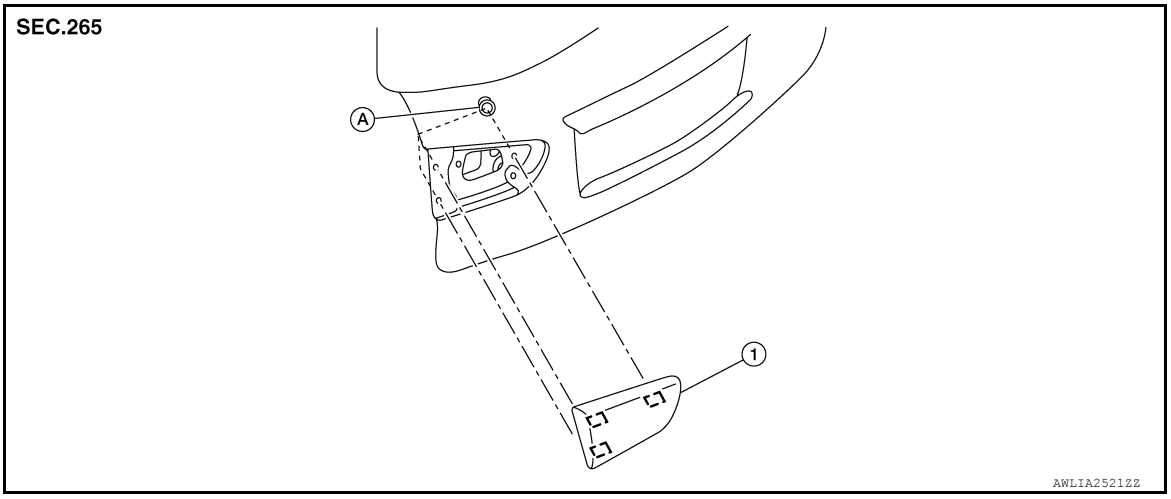
HIGH-MOUNTED STOP LAMP BULB

The high-mounted stop lamp bulb is LED and is serviced as part of the high-mounted stop lamp. Refer to EXL-172, "Removal and Installation"

BACK-UP LAMP

Exploded View

INFOID:0000000011134713



1. Back-up lamp
A. Nut
Stud

Removal and Installation

INFOID:0000000011134714

BACK-UP LAMP

Removal

1. Remove back door lower finisher. Refer to INT-35, "BACK DOOR LOWER FINISHER : Removal and Installation".
2. Disconnect the harness connector from the back-up lamp.
3. Remove back-up lamp nuts, and then remove back-up lamp.

Installation

Installation is in the reverse order of removal.

BACK-UP LAMP BULB

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 the 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 the performance of lamp.**

Removal

1. Release pawls using a suitable tool and remove back door trim access panel.
2. Rotate back-up lamp socket counterclockwise and remove.
3. Remove back-up lamp bulb from bulb socket.

Installation

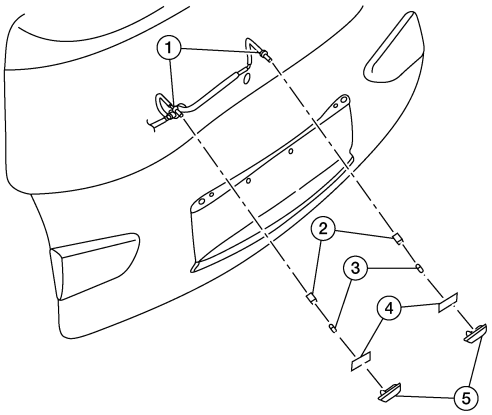
Installation is in the reverse order of removal.

LICENSE PLATE LAMP

Exploded View

INFOID:0000000011134715

SEC.266



1. License plate lamp harness
2. License plate lamp socket
3. License plate lamp bulb
4. License plate lamp gasket
5. License plate lamp

Removal and Installation

INFOID:0000000011134716

LICENSE PLATE LAMP

Removal

1. Remove back door outer finisher. Refer to EXT-44, "Removal and Installation".
2. Release pawls using a suitable tool and remove license plate lamp.

Installation

Installation is in the reverse order of removal.

LICENSE PLATE LAMP BULB

WARNING:

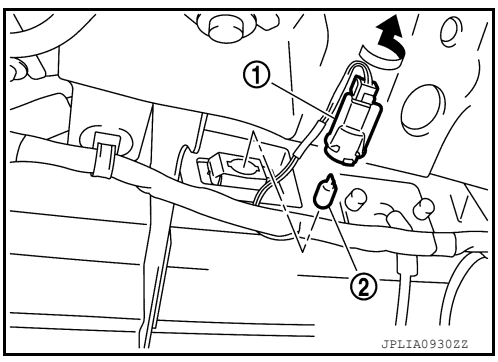
Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.

CAUTION:

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

Removal

1. Remove back door lower finisher. Refer to INT-35, "BACK DOOR LOWER FINISHER : Removal and Installation".
2. Rotate license plate lamp socket (1) counterclockwise and remove.
3. Remove license plate lamp bulb (2) from bulb socket.



Installation

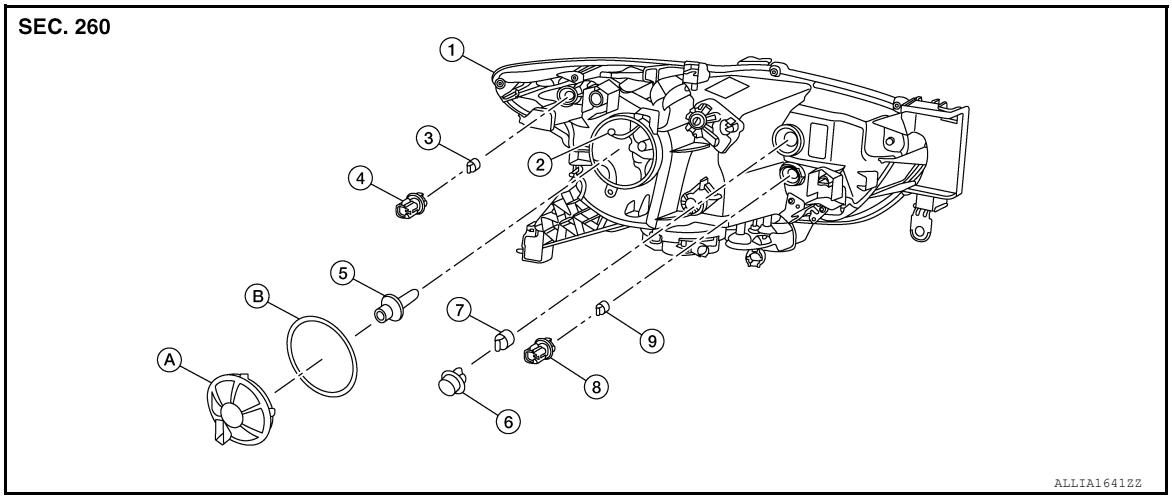
Installation is in the reverse order of removal.

UNIT DISASSEMBLY AND ASSEMBLY

FRONT COMBINATION LAMP

Exploded View

INFOID:0000000011134717



1. Front combination lamp
2. Retaining spring
3. Side marker lamp bulb
4. Side marker lamp socket
5. Xenon bulb
6. Front turn signal lamp socket
7. Front turn signal lamp bulb
8. Parking lamp socket
9. Parking lamp bulb
A. Seal packing
B. Plastic cover

Disassembly and Assembly

INFOID:0000000011134718

DISASSEMBLY

WARNING:
Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.
CAUTION:
- **Disconnect the negative battery terminal or remove the fuse.**
- **Do not touch glass surface of the bulb with bare hands or allow oil or grease to get on it to prevent damage to bulb.**
- **Do not leave the bulb out of the lamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of the lamp.**

CAUTION:
HID control unit and xenon bulb socket cannot be disassembled.

1. Remove front combination lamp. Refer to EXL-162, "Removal and Installation"
2. Rotate plastic cover counterclockwise and remove.
3. Rotate xenon bulb socket counterclockwise and remove.
4. Unlock retaining spring and remove xenon bulb.
5. Rotate parking lamp socket counterclockwise and remove.
6. Remove parking lamp bulb from parking lamp socket.
7. Rotate front turn signal lamp socket counterclockwise and remove.
8. Remove front turn signal lamp bulb from front turn signal lamp socket.
9. Rotate side marker lamp socket counterclockwise and remove.
10. Remove side marker lamp bulb from side marker lamp socket.

ASSEMBLY

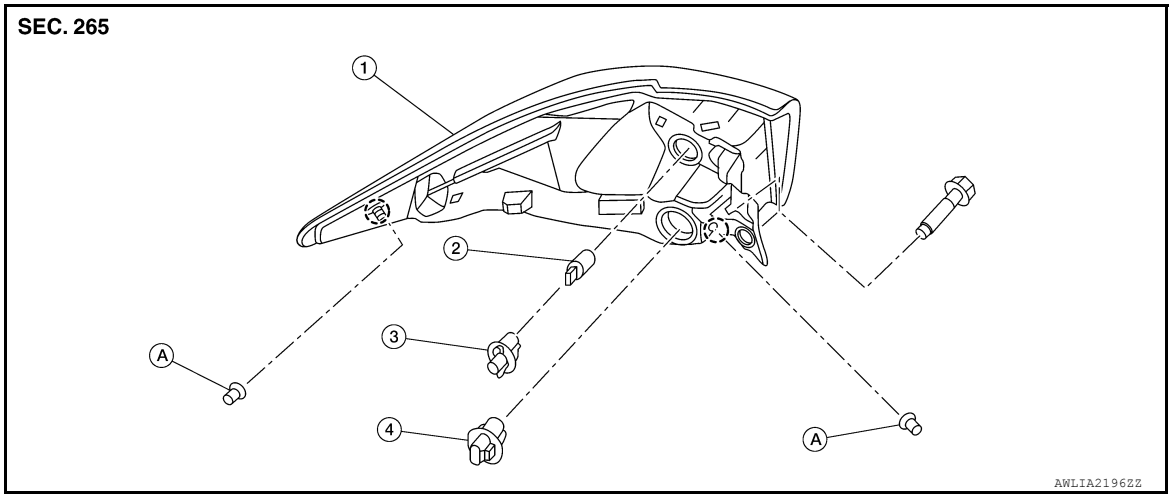
Assembly is in the reverse order of disassembly.
CAUTION:
After installing the bulb, install the plastic cover and the bulb socket securely for watertightness.
NOTE:

After installation, perform headlamp aiming adjustment. Refer to EXL-159, "Aiming Adjustment Procedure"

REAR COMBINATION LAMP

Exploded View

INFOID:0000000011134719



1. Rear combination lamp
2. Rear turn signal bulb
3. Rear turn bulb socket
4. Rear LED lamp harness connector
A. Grommet
Locating pin

Disassembly and Assembly

INFOID:0000000011134720

CAUTION:
Disconnect the battery negative terminal or remove the fuse.

DISASSEMBLY

1. Remove rear combination lamp. Refer to EXL-171, "Removal and Installation"
2. Rotate the rear turn signal lamp socket counterclockwise and remove.
3. Remove the bulb from rear turn signal lamp socket.

ASSEMBLY

Assembly is in the reverse order of disassembly.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Bulb Specifications

INFOID:0000000011134721

Item		Wattage (W)*
Front combination lamp	Headlamp (HI/LO)	35
	Front turn signal lamp	21
	Parking lamp	5
	Side marker lamp	5
Front fog lamp		55
Day time running lamp (Canada only)		19
Rear combination lamp	Stop lamp/Tail lamp	LED
	Rear turn signal lamp	21
	Side marker lamp	LED
Back-up lamp		18
License plate lamp		5
High-mounted stop lamp		LED

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