

LT

SECTION

LIGHTING SYSTEM

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PRECAUTION

PRECAUTION

PFP:00011

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

BKS000H2

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SRS 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 SRS 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.

Precaution

BKS000H3

- Do not touch the glass of bulb directly by hand. Keep grease and other oily matters away from it. Do not touch bulb by hand while it is lit or right after being turned off. Burning may result.
- Do not leave bulb out of headlamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of the headlamp. When replacing the bulb, be sure to replace it with a new one.
- Adjust aiming by tightening aiming screw. (To adjust it toward loosening side, first loosen adjusting screw, and then make adjustment by tightening.)
- To remove soil or sealant of bulbs, do not use organic solvent (thinner, gasoline, etc.)
- When replacing bulb, be sure to hold bulb socket and pull it out straight. If wiring harness of the bulb is pulled at an angle, the bulb may be caught in the lamp, making it difficult to take out.

HEADLAMP - XENON TYPE -

HEADLAMP - XENON TYPE -

PFP:26010

System Description DESCRIPTION

BKS000H5

The headlamps are controlled by the lighting switch which is built in the combination switch. Power is supplied at all times

- through 15A fuse (No. 40, located in fuse and fusible link box)
- to lighting switch terminal 8,
- through 15A fuse (No. 41, located in fuse and fusible link box)
- to lighting switch terminal 5,
- through 30A fusible link (letter M, located in fuse and fusible link box)
- through 20A fuse (No. 52, located in fuse block)
- to HID relay LH terminal 5, and
- through 20A fuse (No. 51, located in fuse block)
- to HID relay RH terminal 5,
- through 15A fuse (No. 38, located in fuse and fusible link box)
- to driving lamp relay-1 terminal 3.

LOW BEAM OPERATION

When the lighting switch is turned to the 2ND position, power is supplied

- through lighting switch terminal 10
- to HID relay LH terminal 1,
- through lighting switch terminal 7
- to HID relay RH terminal 1,
- through HID relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

- to HID relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 4
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps illuminate.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

When the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to HID relay LH terminal 1, and
- to combination meter terminal 20,
- through lighting switch terminal 6
- to headlamp RH terminal 1, and
- to HID relay RH terminal 1,
- through HID relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

- to HID relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 3, and
- to headlamp LH and RH terminals 4
- through grounds E24 and E50,

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HEADLAMP - XENON TYPE -

- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, low beam and high beam headlamps, and HIGH BEAM indicator illuminate.

DRIVING LAMP OPERATION

To illuminate the driving lamp, push the driving lamp switch when the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to HID relay LH terminal 1
- to combination meter terminal 20
- to driving lamp relay-1 terminal 1
- to driving lamp switch terminal 7, and
- to driving lamp relay-2 terminal 5,
- through driving lamp relay-2 terminal 3
- to driving lamp switch terminal 6,
- through driving lamp relay-1 terminal 5
- to driving lamp LH and RH terminals 2,
- through lighting switch terminal 6
- to headlamp RH terminal 1, and
- to HID relay RH terminal 1,
- through HID relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

- to driving lamp relay-1 terminal 2
- through driving lamp relay-2 terminal 7
- through driving lamp relay-2 terminal 6
- through grounds E24 and E50,
- to driving lamp switch terminal 4
- through driving lamp relay-2 terminal 1
- through driving lamp relay-2 terminal 2
- through grounds E24 and E50,
- to driving lamp LH terminal 1
- through ground R8,
- to driving lamp RH terminal 1
- through ground R8,
- to HID relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 3, and
- to headlamp LH and RH terminals 4
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, low beam and high beam headlamps, driving lamp and HIGH BEAM indicator illuminate.

HEADLAMP - XENON TYPE -

XENON HEADLAMP

Xenon type lamps are used for to the low beam headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

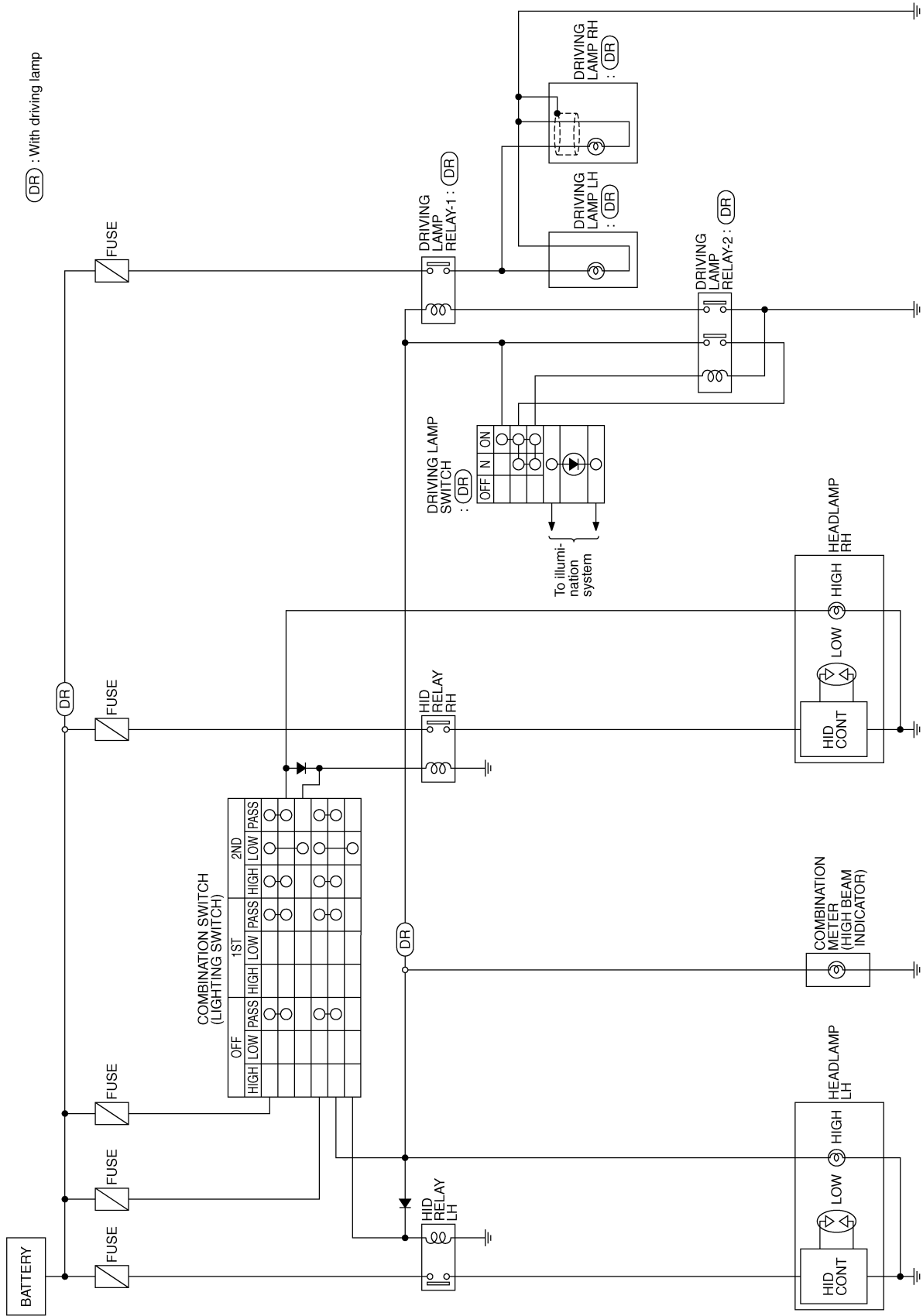
- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

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HEADLAMP - XENON TYPE -

Schematic

BKS000H6

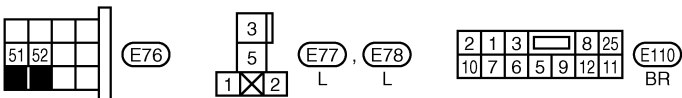
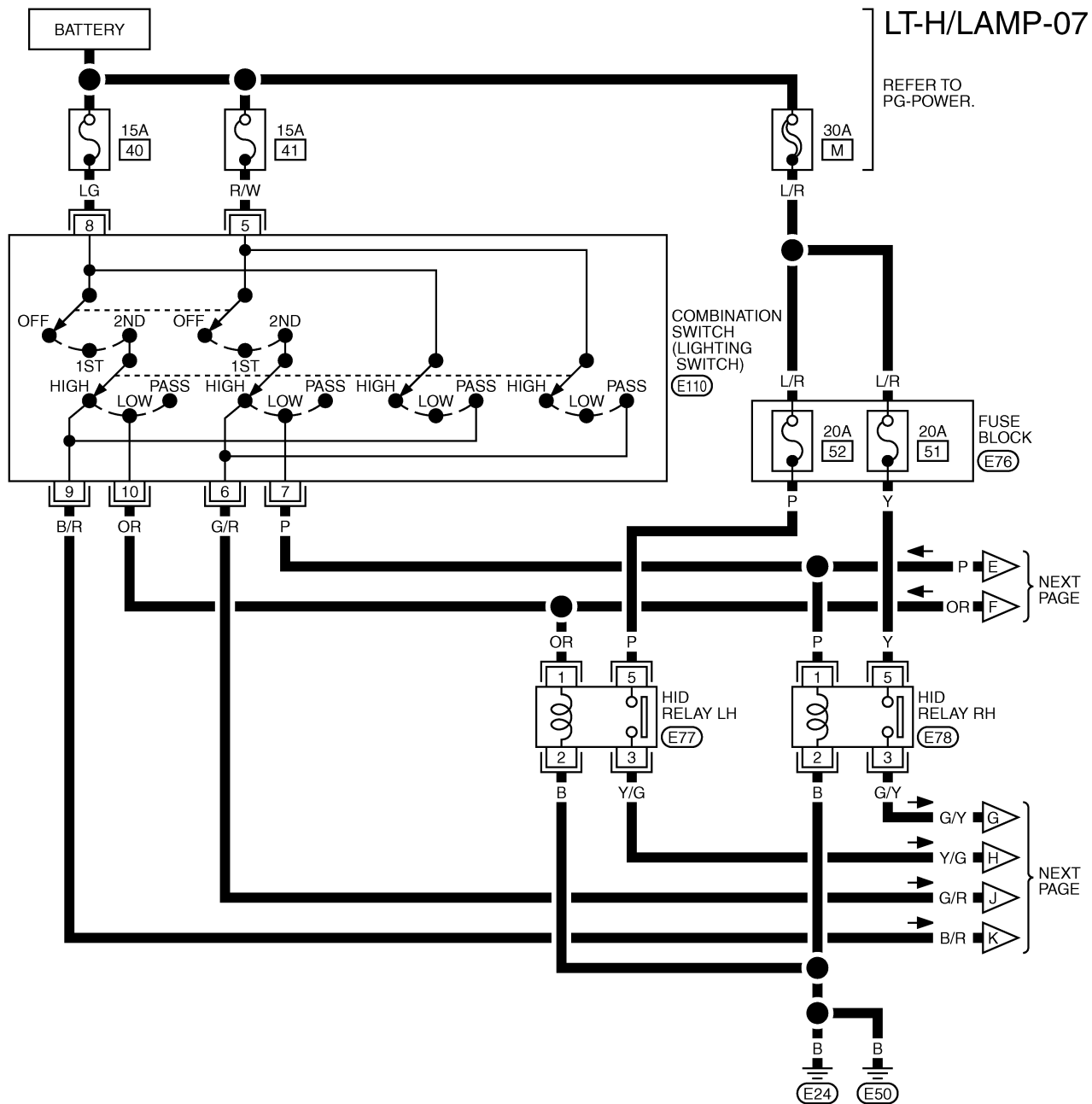


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HEADLAMP - XENON TYPE -

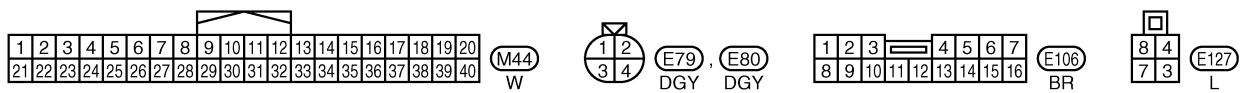
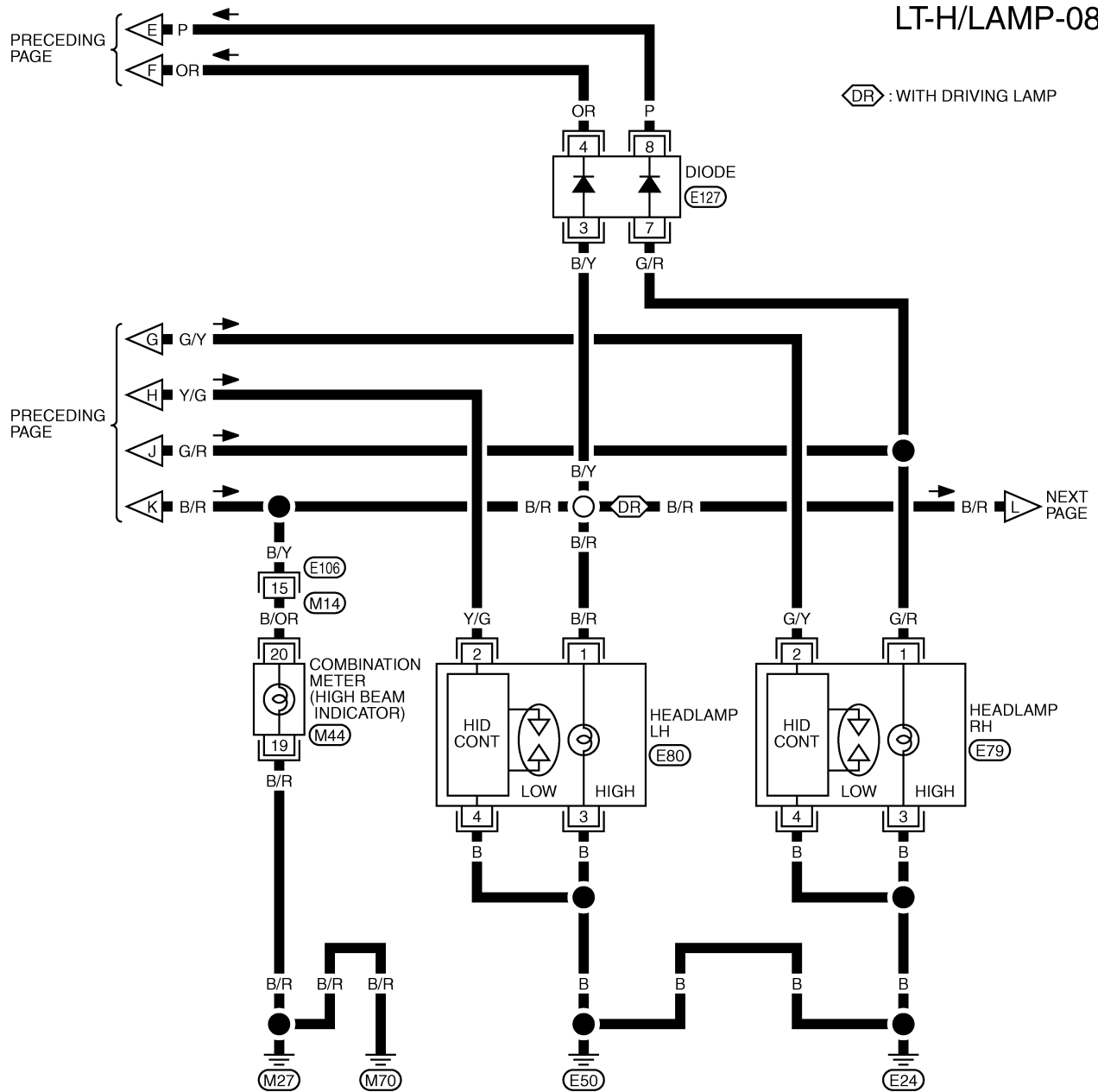
Wiring Diagram — H/LAMP — LHD MODELS

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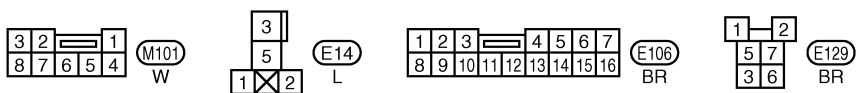
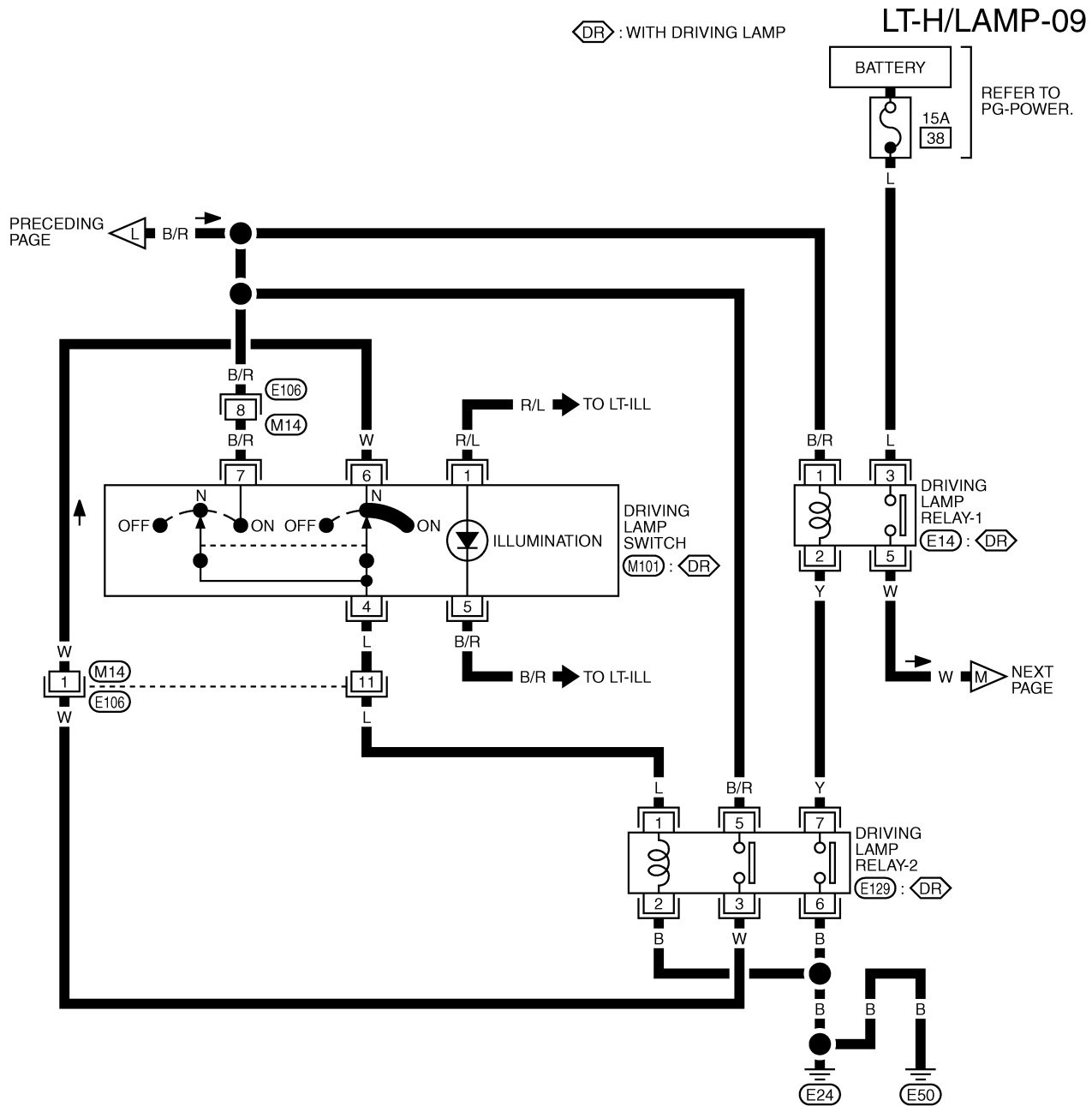


HEADLAMP - XENON TYPE -

LT-H/LAMP-08



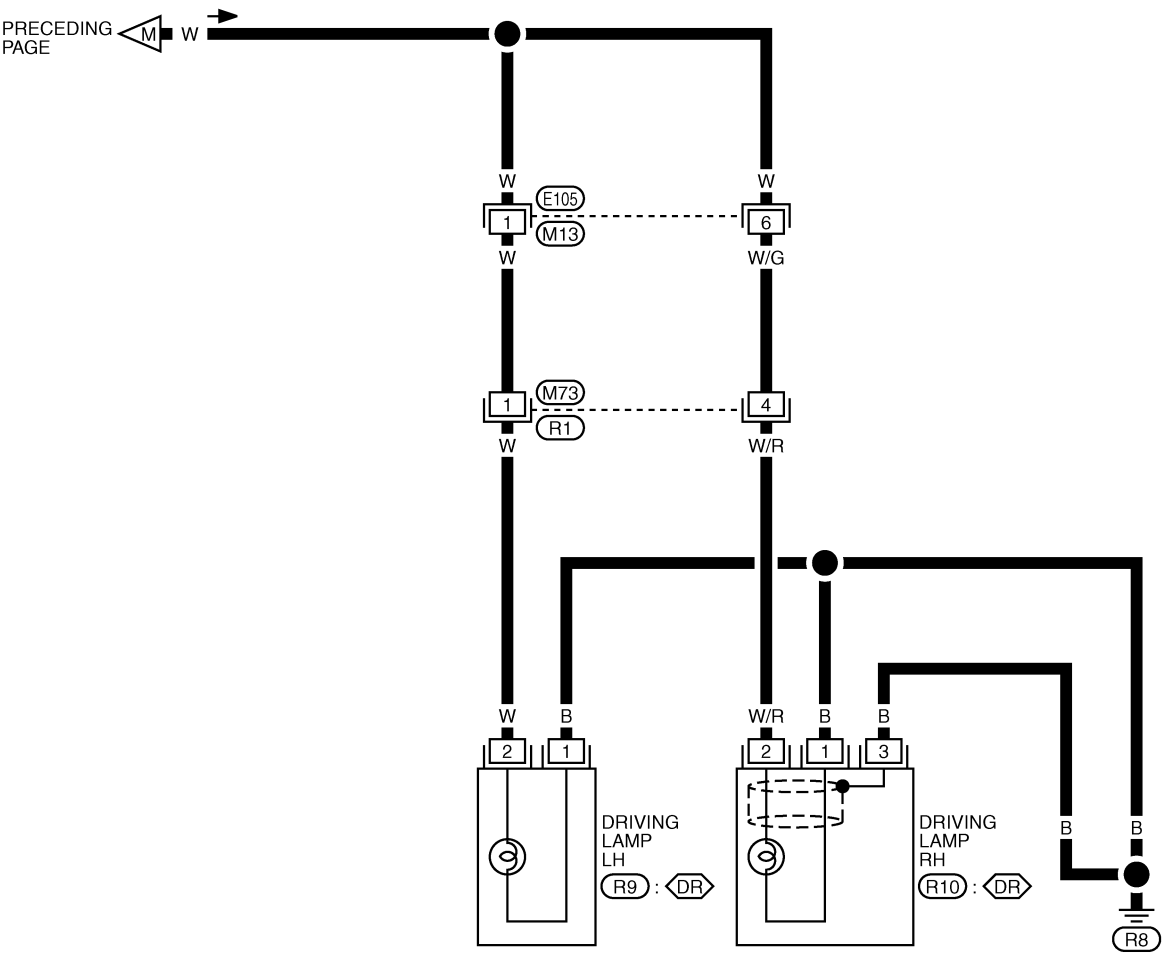
HEADLAMP - XENON TYPE -



HEADLAMP - XENON TYPE -

LT-H/LAMP-10

◊DR◊ : WITH DRIVING LAMP



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6	7	8	9	10

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1	2	3
4	5	6

◊R1◊
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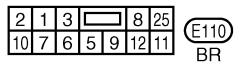
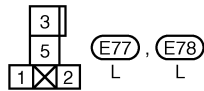
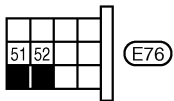
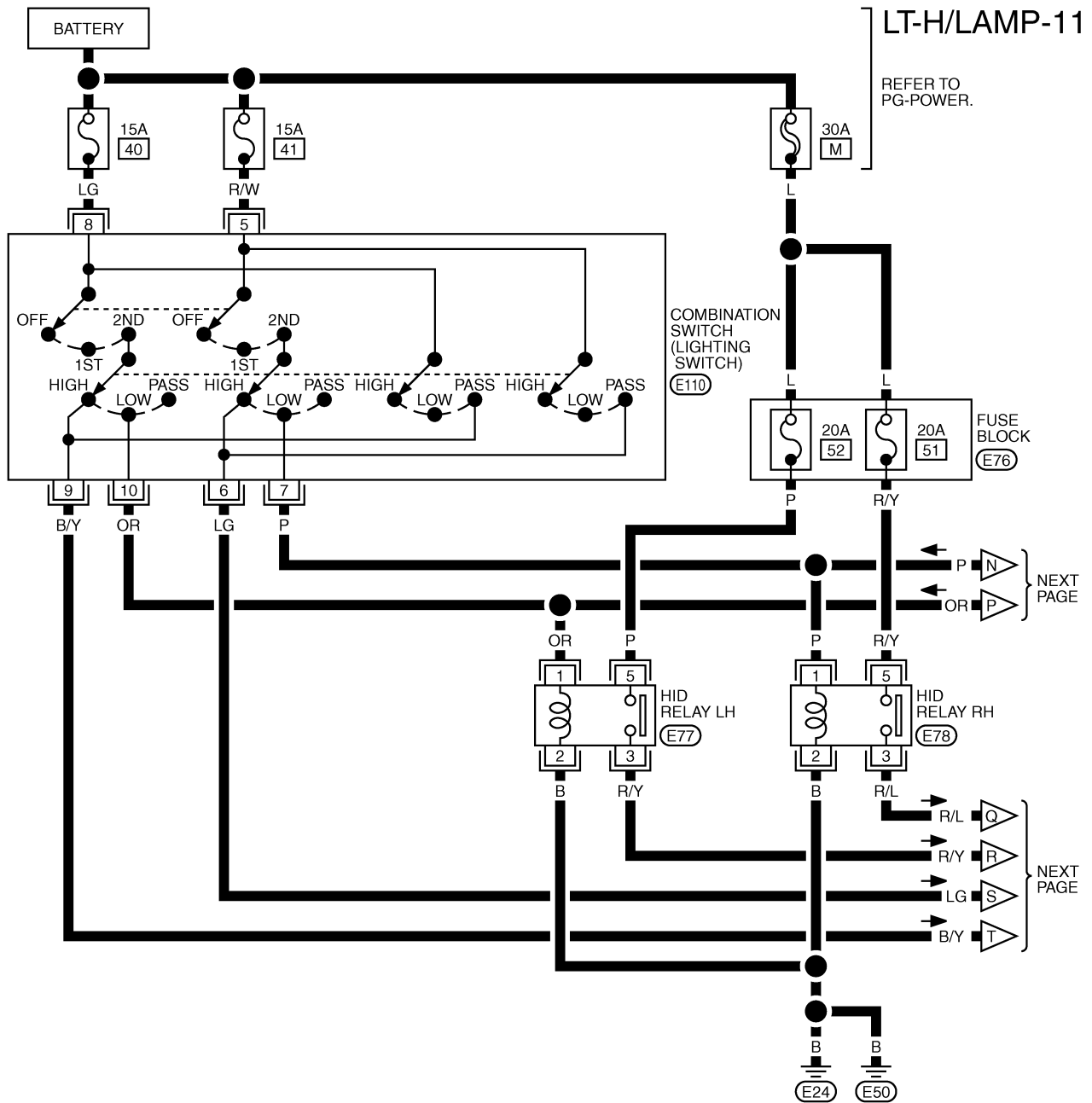
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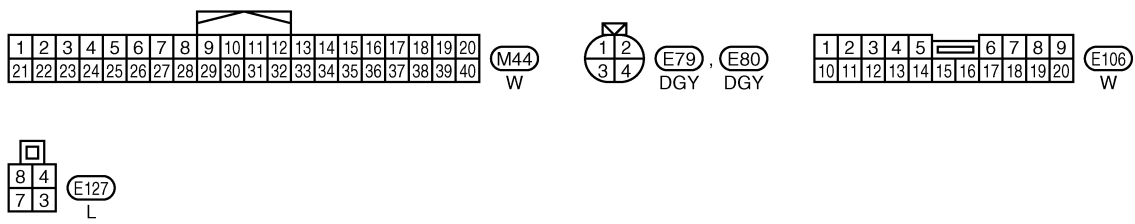
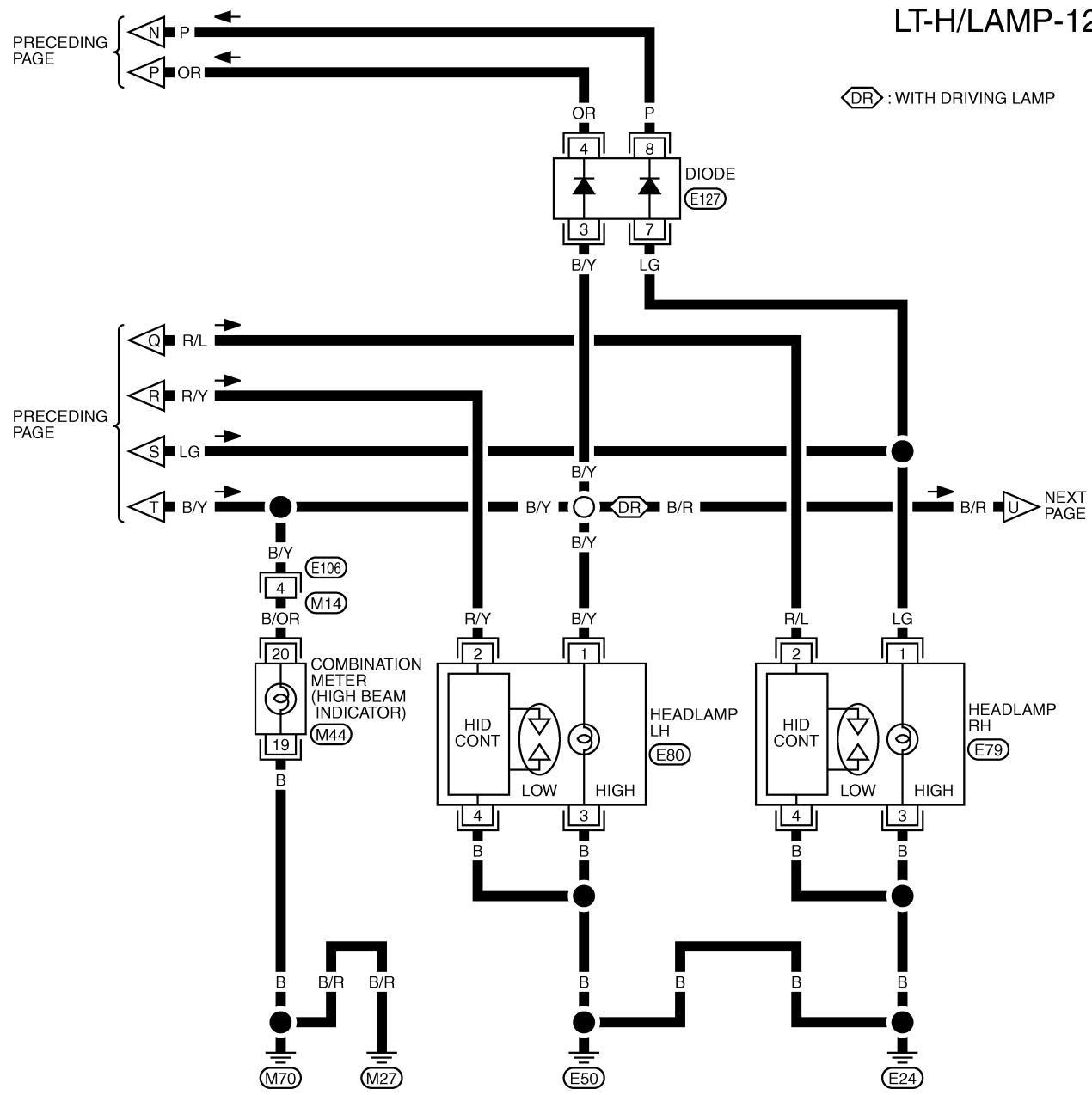
HEADLAMP - XENON TYPE -

RHD MODELS

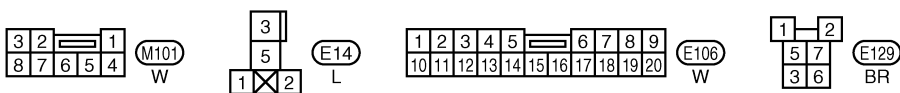
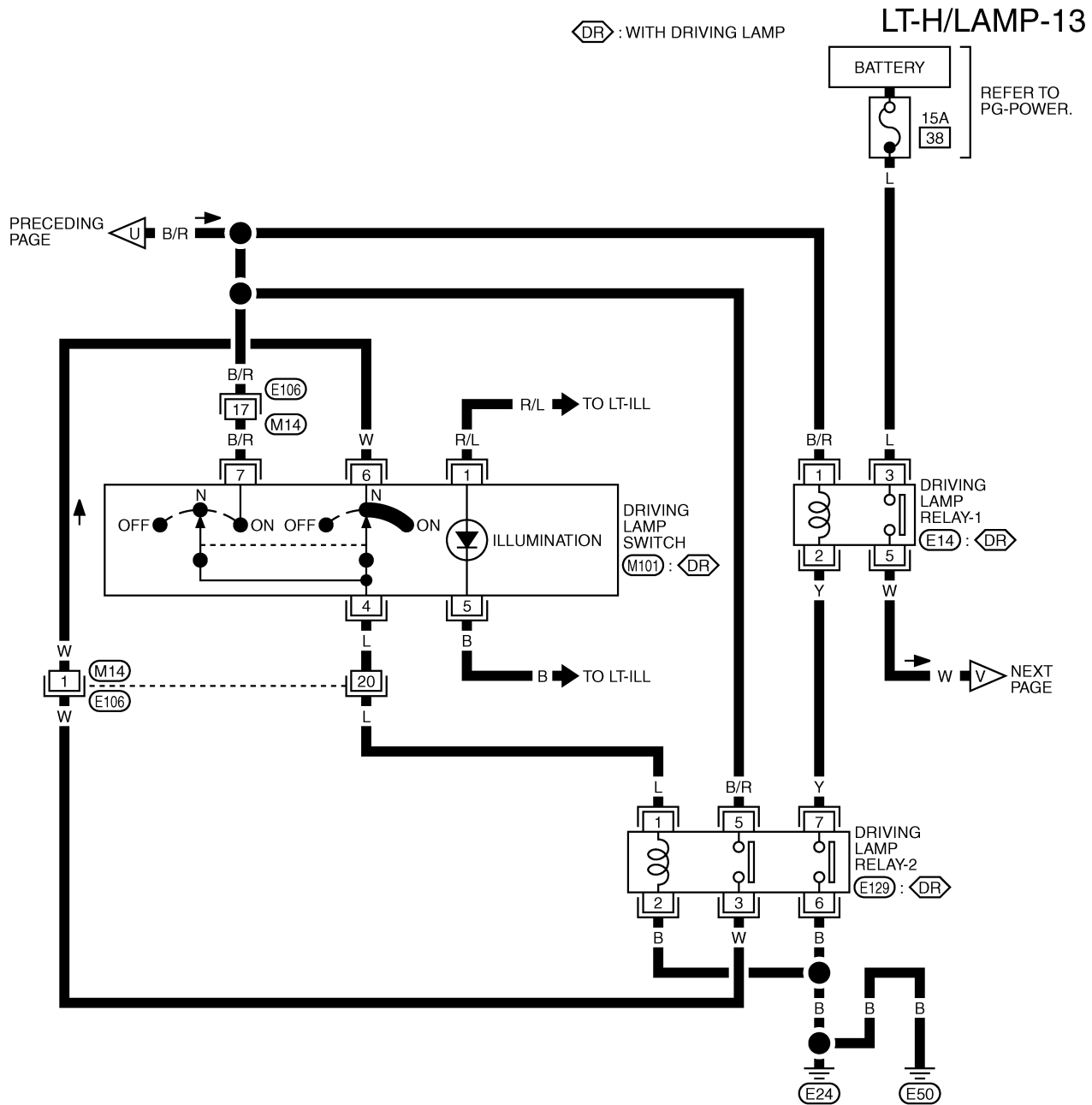


HEADLAMP - XENON TYPE -

LT-H/LAMP-12



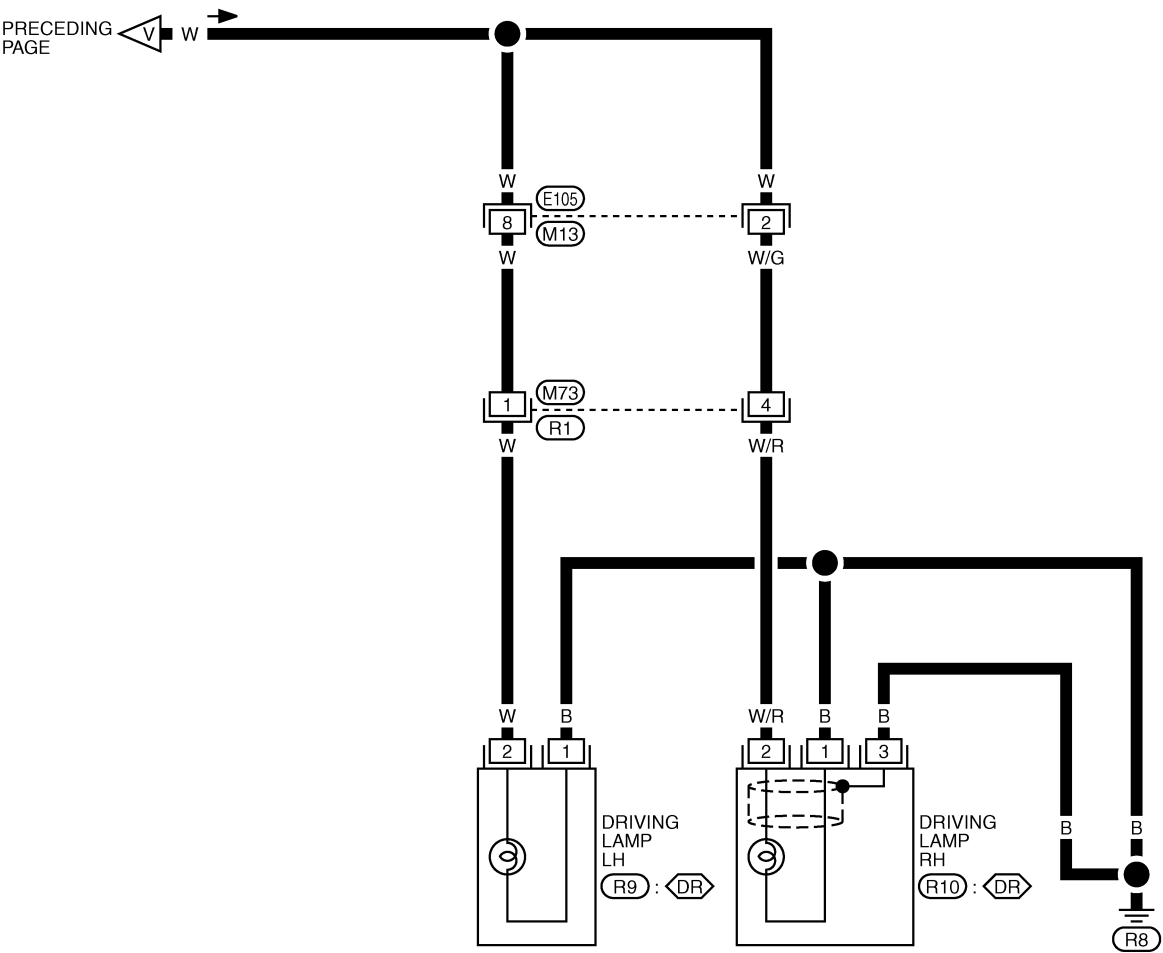
HEADLAMP - XENON TYPE -



HEADLAMP - XENON TYPE -

LT-H/LAMP-14

◊DR◊ : WITH DRIVING LAMP



HEADLAMP - XENON TYPE -

Trouble Diagnoses

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WARNING:

- Xenon headlamp has a high-tension current generating area. Be extremely careful when removing and installing. Be certain to disconnect battery negative cable prior to removing or installing.
- When xenon headlamp is lit, never touch harness (covered with red or amber insulation), bulb itself or bulb socket with your bare hands
- Never service a xenon headlamp with wet hands.
- When checking body side harness with a circuit tester, be certain to disconnect harness connector from xenon headlamp.
- When xenon headlamp is lit, xenon bulb must be installed in headlamp housing. (Never turn on xenon headlamp, if bulb is out of headlamp housing.)

CAUTION:

Make sure to install bulb securely; if xenon bulb is improperly installed in its socket, high-tension current leaks occur. This may lead to a melted bulb and/or bulb socket.

Symptom	Possible cause	Repair order
Headlamp does not operate.	Lighting switch	Check lighting switch.
Headlamp high beam (both side) does not operate.	Lighting switch	Check lighting switch.
Headlamp low beam (both side) does not operate.	1. 30A fusible link 2. Lighting switch	1. Check 30A fusible link (letter M, located in fuse and fusible link box). 2. Check lighting switch.
Headlamp LH does not operate, but headlamp RH operates.	1. 15A fuse 2. Battery voltage supply circuit 3. Headlamp LH ground circuit 4. Lighting switch	1. Check 15A fuse (No. 40, located in fuse and fusible link box). 2. Check battery voltage at lighting switch harness connector E110 terminal 8. 3. Check harness between headlamp LH harness connector E80 terminal 3 and ground. 4. Check lighting switch.
Headlamp RH does not operate, but headlamp LH operates.	1. 15A fuse 2. Battery voltage supply circuit 3. Headlamp RH ground circuit 4. Lighting switch	1. Check 15A fuse (No. 41, located in fuse and fusible link box). 2. Check battery voltage at lighting switch harness connector E110 terminal 5. 3. Check harness between headlamp RH harness connector E79 terminal 3 and ground. 4. Check lighting switch.
Headlamp LH high beam does not operate, but low beam operates.	1. Bulb 2. Headlamp LH high beam power supply circuit 3. Headlamp LH ground circuit 4. Lighting switch	1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 9 and headlamp LH harness connector E80 terminal 1. 3. Check harness between headlamp LH harness connector E80 terminal 3 and ground. 4. Check lighting switch.
Headlamp RH high beam does not operate, but low beam operates.	1. Bulb 2. Headlamp RH high beam power supply circuit 3. Headlamp RH ground circuit 4. Lighting switch	1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 6 and headlamp RH harness connector E79 terminal 1. 3. Check harness between headlamp RH harness connector E79 terminal 3 and ground. 4. Check lighting switch.

HEADLAMP - XENON TYPE -

Symptom	Possible cause	Repair order
Headlamp LH low beam does not operate, but high beam operates.	<ol style="list-style-type: none"> 20A fuse HID relay LH HID relay LH battery voltage supply circuit HID relay LH ground circuit Headlamp LH low beam power supply circuit Headlamp LH ground circuit HID relay LH power supply circuit -1 HID relay LH power supply circuit -2 Lighting switch Xenon bulb HID control unit 	<ol style="list-style-type: none"> Check 20A fuse (No. 52, located in fuse and fusible link box). Check HID relay LH. Check battery voltage to HID relay LH harness connector E77 terminal 5. Check harness between HID relay LH harness connector E77 terminal 2 and ground. Check harness between HID relay LH harness connector E77 terminal 3 and headlamp LH harness connector E80 terminal 2. Check harness between headlamp LH harness connector E80 terminal 4 and ground. Check harness between lighting switch harness connector E110 terminal 10 and HID relay LH harness connector E77 terminal 1. Check harness between lighting switch harness connector E110 terminal 9 and HID relay LH harness connector E77 terminal 1. Check lighting switch. Replace xenon bulb with other side bulb or new one. (If headlamps illuminate correctly, replace bulb.) Replace HID control unit with other side control unit or new one. (If headlamps illuminate correctly, replace control unit.)
Headlamp RH low beam does not operate, but high beam operates.	<ol style="list-style-type: none"> 20A fuse HID relay RH HID relay RH battery voltage supply circuit HID relay RH ground circuit Headlamp RH low beam power supply circuit Headlamp RH ground circuit HID relay RH power supply circuit -1 HID relay RH power supply circuit -2 Lighting switch Xenon bulb HID control unit 	<ol style="list-style-type: none"> Check 20A fuse (No. 51, located in fuse and fusible link box). Check HID relay RH. Check battery voltage to HID relay RH harness connector E78 terminal 5. Check harness between HID relay RH harness connector E78 terminal 2 and ground. Check harness between HID relay RH harness connector E78 terminal 3 and headlamp RH harness connector E79 terminal 2. Check harness between headlamp RH harness connector E79 terminal 4 and ground. Check harness between lighting switch harness connector E110 terminal 7 and HID relay RH harness connector E78 terminal 1. Check harness between lighting switch harness connector E110 terminal 6 and HID relay RH harness connector E78 terminal 1. Check lighting switch. Replace xenon bulb with other side bulb or new one. (If headlamps illuminate correctly, replace bulb.) Replace HID control unit with other side control unit or new one. (If headlamps illuminate correctly, replace control unit.)
High beam indicator does not illuminate.	<ol style="list-style-type: none"> Bulb High beam indicator power supply circuit Combination meter (high beam indicator) ground circuit 	<ol style="list-style-type: none"> Check bulb. Check harness between lighting switch harness connector E110 terminal 9 and combination meter harness connector M44 terminal 20. Check harness between combination meter harness connector M44 terminal 19 and ground.

HEADLAMP - XENON TYPE -

Symptom	Possible cause	Repair order	
Driving lamp (both side) does not operate, but headlamp LH high beam operates.	<ol style="list-style-type: none"> 1. 15A fuse 2. Battery voltage supply circuit 3. Driving lamp switch circuit 4. Driving lamp switch 5. Driving lamp relay-2 6. Driving lamp relay-2 circuit 7. Driving lamp relay-2 ground circuit 8. Driving lamp relay-1 9. Driving lamp relay-1 circuit 10. Driving lamp circuit 11. Driving lamp ground circuit 12. Bulb 	<ol style="list-style-type: none"> 1. Check 15A fuse (No. 38, located in fuse and fusible link box). 2. Check battery voltage at driving lamp relay-1 harness connector E14 terminal 3. 3. Check harness between lighting switch harness connector terminal 9 and driving lamp switch harness connector M101 terminal 7. 4. Check driving lamp switch. 5. Check driving lamp relay-2. 6. Check the following. <ul style="list-style-type: none"> – Check harness between driving switch harness connector M101 terminal 4 and driving lamp relay-2 harness connector E129 terminal 1. – Check harness between driving switch harness connector M101 terminal 6 and driving lamp relay-2 harness connector E129 terminal 3. – Check harness between lighting switch harness connector E110 terminal 9 and driving lamp relay-2 harness connector E129 terminal 5. – Check harness between driving lamp relay-1 harness connector E14 terminal 2 and driving lamp relay-2 harness connector E129 terminal 7. 7. Check harness between driving lamp relay-2 harness connector E129 terminal (2 and 6) and ground. 8. Check driving lamp relay-1. 9. Check harness between lighting switch harness connector E110 terminal 9 and driving lamp relay-1 harness connector E14 terminal 1. 10. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp harness connector (R9 and R10) terminal 2. 11. Check the following. <ul style="list-style-type: none"> – Check harness between driving lamp LH harness connector R9 terminal 1 and ground. – Check harness between driving lamp RH harness connector R10 terminal 1 and ground. 12. Check bulbs. 	A B C D E F G H I J LT L M
Driving lamp LH does not operate, but driving lamp RH operates.	<ol style="list-style-type: none"> 1. Bulb 2. Driving lamp LH ground circuit 3. Driving lamp LH circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between driving lamp LH harness connector R9 terminal 1 and ground. 3. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp LH harness connector R9 terminal 2. 	M
Driving lamp RH does not operate, but driving lamp LH operates.	<ol style="list-style-type: none"> 1. Bulb 2. Driving lamp RH ground circuit 3. Driving lamp RH circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between driving lamp RH harness connector R10 terminal 1 and ground. 3. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp RH harness connector R10 terminal 2. 	

HEADLAMP - XENON TYPE -

BKS000H9

Aiming Adjustment of Headlamp PREPARATION BEFORE ADJUSTING

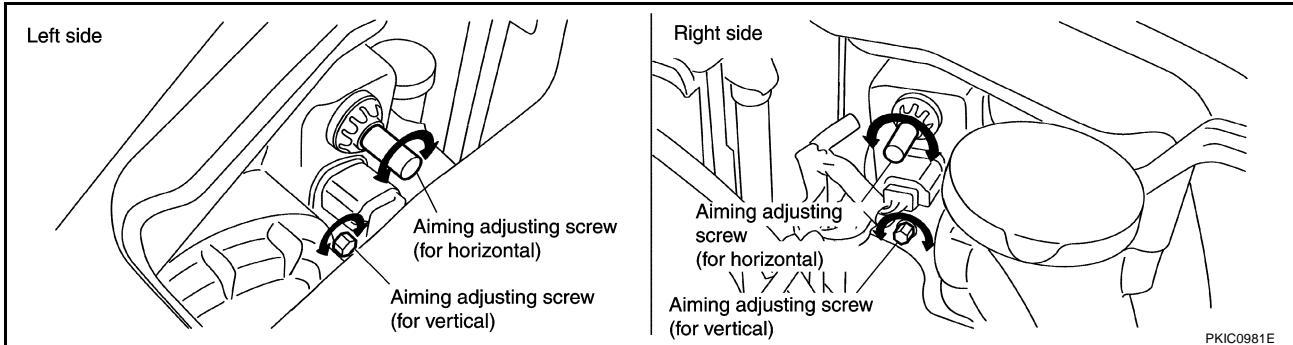
For Details, Refer To The Regulations In Your Own Country.

Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on flat surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

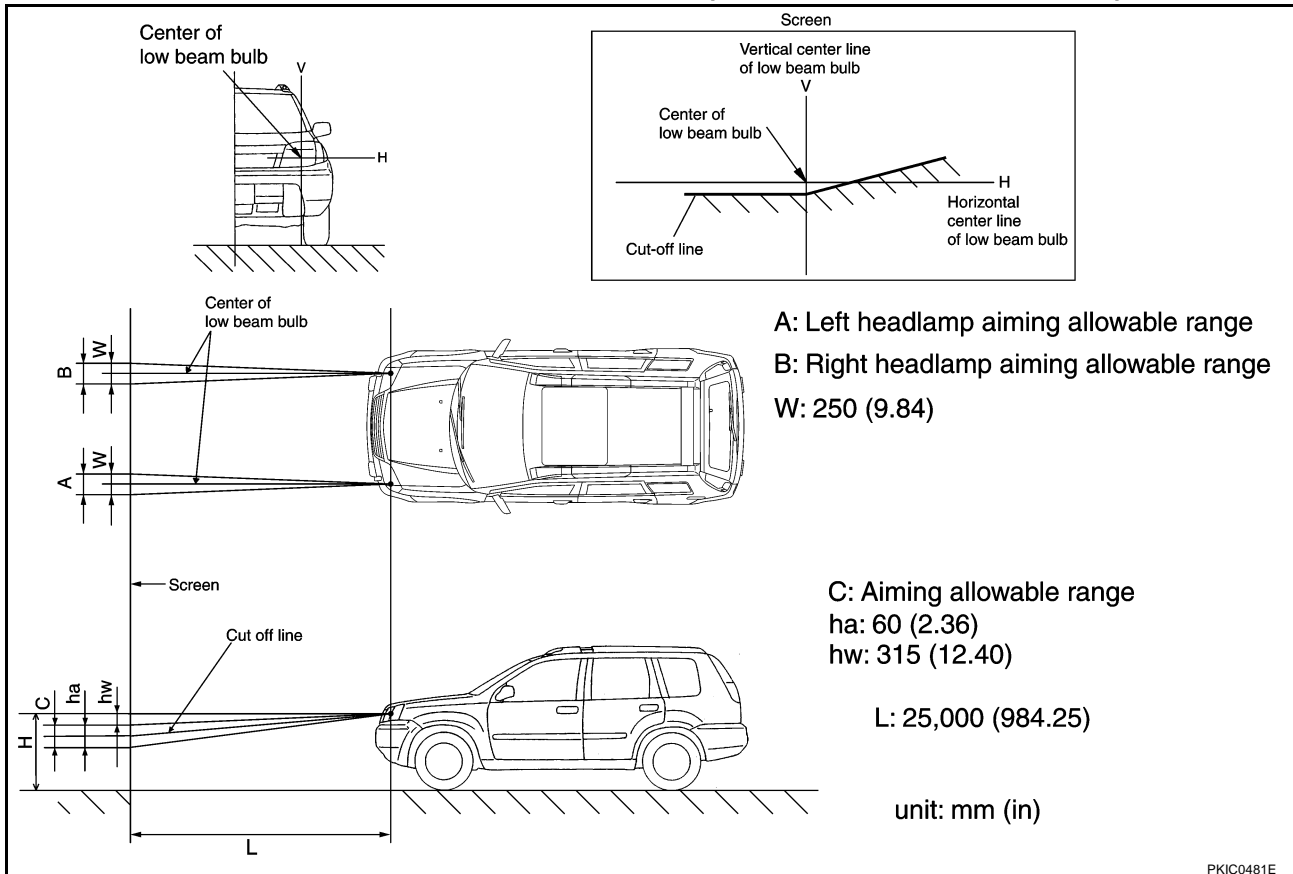
LOW BEAM

1. Turn headlamp low beam ON.



2. Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

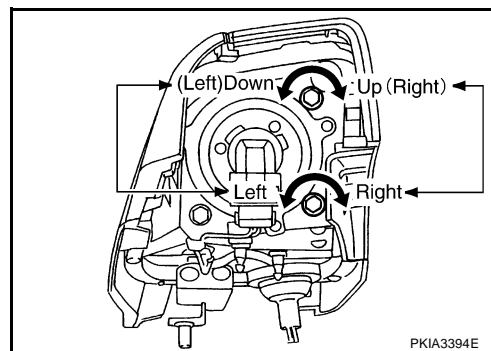
- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

HEADLAMP - XENON TYPE -

Aiming Adjustment of Driving Lamp

BKS000HA

- Turn aiming adjusting screw to adjust.
- For positions of adjusting screws and direction to turn, refer to the figures.
- When adjusting horizontal direction (right and left), turn two adjusting screws to the same direction.



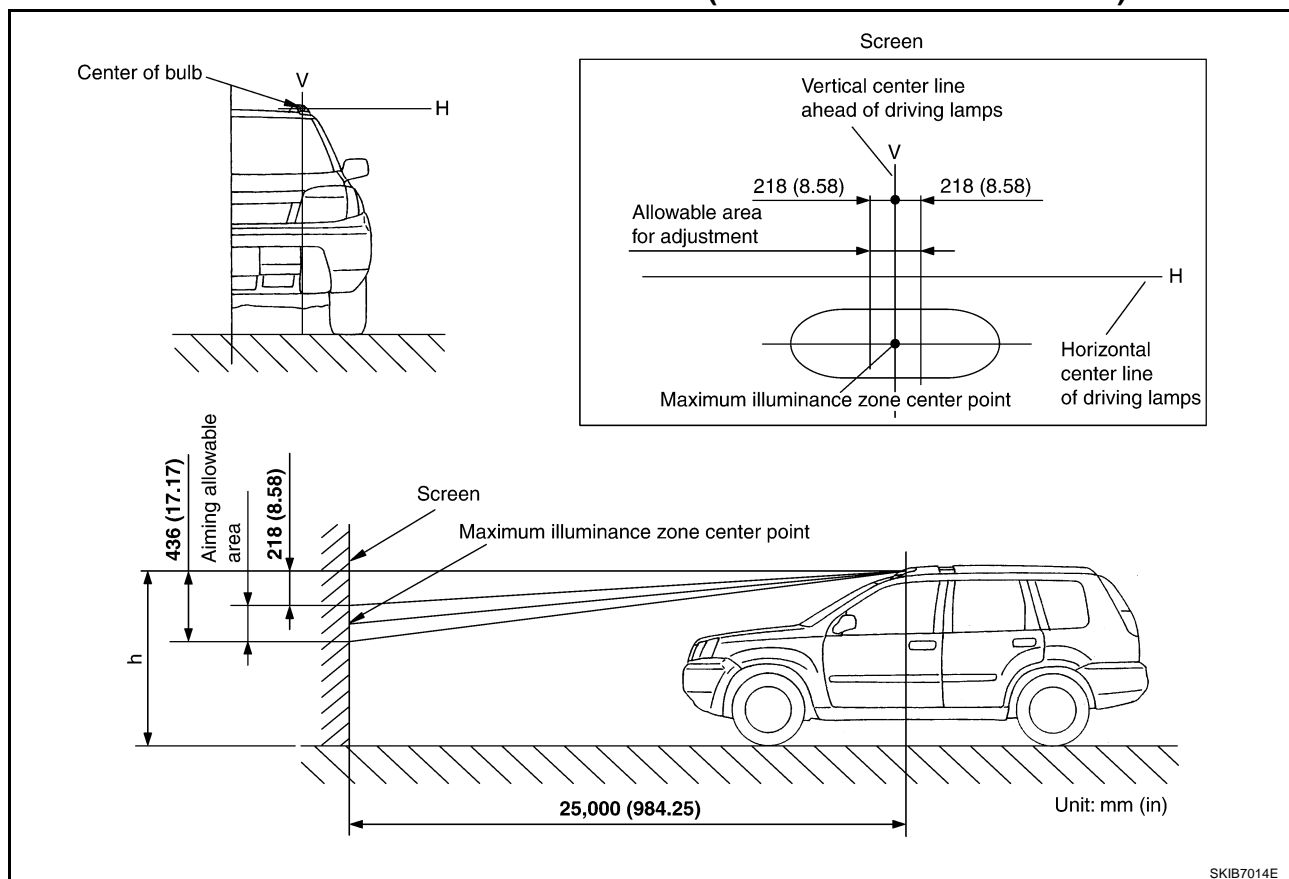
PREPARATION BEFORE ADJUSTING

For Details, Refer To The Regulations In Your Own Country.

Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on flat surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



ADJUSTING

1. Set the distance between the screen and the center of driving lamp lens as shown in the figure.
2. Turn headlamp switch high and driving lamp switch ON so that front driving lamps turn ON.
3. Adjust driving lamps using adjusting screws make sure of the following.
 - When performing this adjustment, cover headlamps and the opposite driving lamp, if necessary.
 - Vertical deflection of maximum illuminance point to be adjusted to stand at 218 mm (8.58 in) below driving lamp height (h).

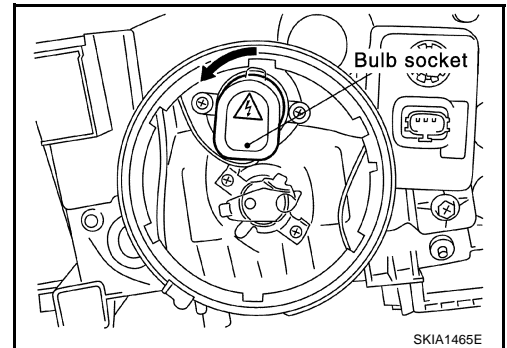
HEADLAMP - XENON TYPE -

- Horizontal deflection of maximum illuminance point to be adjusted to stand within 0 ± 218 mm (0 ± 8.58 in) against line (V) on screen where a line passing through driving lamp center, parallel to vehicle center line, cross screen.

Bulb Replacement of Headlamp and Clearance Lamp HEADLAMP (UPPER SIDE), FOR LOW BEAM

BKS000HB

1. Turn lighting switch OFF.
2. Disconnect the battery cable from the negative terminal or remove power fuse.
3. Disconnect headlamp connector.
4. Remove air cleaner duct (when replacing LH bulb). Refer to [EM-16, "AIR CLEANER AND AIR DUCT"](#) (QR) or [EM-141, "AIR CLEANER AND AIR DUCT"](#) (YD22).
5. Turn plastic cap counterclockwise and unlock it.
6. Turn bulb socket counterclockwise and unlock it.
7. Unlock retaining spring and remove bulb from headlamp.



Headlamp (Upper side), For Low Beam : 12V - 35W (D2R)

8. Installation is the reverse order of removal.

HEADLAMP (LOWER SIDE), FOR HIGH BEAM

1. Turn lighting switch OFF.
2. Disconnect the battery cable from the negative terminal or remove power fuse.
3. Disconnect headlamp connector.
4. Remove air cleaner duct (when replacing LH bulb). Refer to [EM-16, "AIR CLEANER AND AIR DUCT"](#) (QR) or [EM-141, "AIR CLEANER AND AIR DUCT"](#) (YD22).
5. Turn plastic cap counterclockwise and unlock it.
6. Disconnect terminal connected to bulb.
7. Unlock retaining spring and remove bulb from headlamp.

Headlamp (Lower side), For High Beam : 12V - 55W (H1)

8. Installation is the reverse order of removal.

CLEARANCE LAMP

1. Turn lighting switch OFF.
2. Disconnect headlamp connector.
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb from headlamp.

Clearance lamp : 12V - 5W

5. Installation is the reverse order of removal.

CAUTION:

- Never touch glass of bulb directly by hand. Keep grease and other oily matters away from it.
- Never touch bulb by hand while it is lit or right after being turned off. Burning may result.
- Never leave bulb out of headlamp reflector for a long time because dust, moisture, smoke, etc. may affect the performance of headlamp. When replacing bulb, be sure to replace it with new one.
- When bulb is installed, be sure to install plastic cap and bulb socket securely to ensure watertightness.

HEADLAMP - XENON TYPE -

Bulb Replacement of Driving Lamp

BKS000HC

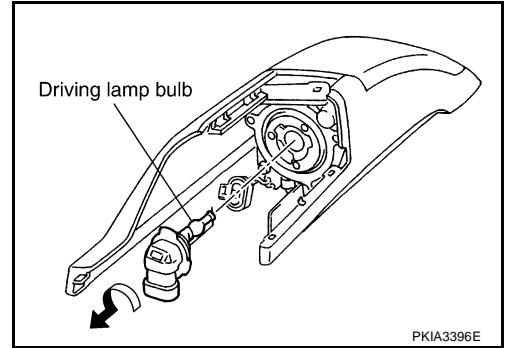
1. Remove driving lamp. Refer to [LT-25, "Removal and Installation of Driving Lamp"](#).
2. Disconnect driving lamp connector.
3. Turn bulb socket counterclockwise and unlock it.

Driving lamp : 12 V - 65 W (HIR1)

4. Installation is the reverse order of removal.

CAUTION:

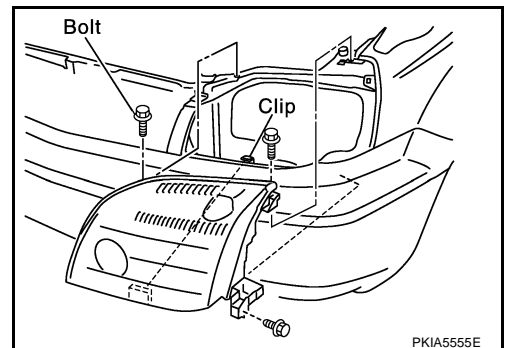
- Never touch glass of bulb directly by hand. Keep grease and other oily matters away from it. Never touch bulb by hand while it is lit or right after being turned off. Burning may result.
- When replacing bulb, prepare new bulb first of all. Never leave bulb out of driving lamp housing for a long period, because dust, moisture or smoke will cause performance lowering (fouling, cloud, etc.) of driving lamp reflector and lens.



Removal and Installation of Headlamp REMOVAL

BKS000HD

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal or remove power fuse.
3. Remove front turn signal lamps. Refer to [LT-96, "Removal and Installation of Front Turn Signal Lamp"](#).
4. Disconnect connector of headlamp and clearance lamp.
5. Remove front grille. Refer to [EI-19, "FRONT GRILLE"](#).
6. Remove headlamp mounting bolts.
7. Pull headlamp forward the vehicle.



INSTALLATION

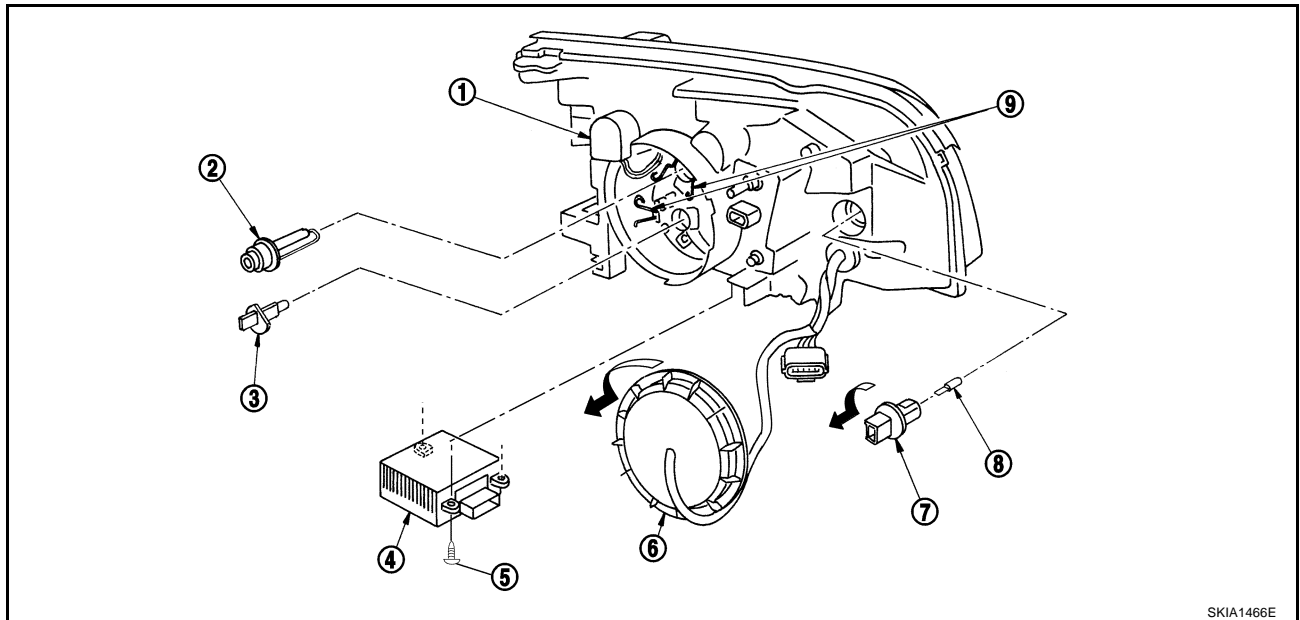
Installation is the reverse order of removal.

Headlamp mounting bolts  : 5.5 N·m (0.56 kg-m, 49 in-lb)

HEADLAMP - XENON TYPE -

Disassembly and Assembly DISASSEMBLY

BKS000HE



SKIA1466E

- | | | |
|-------------------------------|------------------------|----------------------|
| 1. Xenon bulb socket | 2. Xenon bulb | 3. Halogen bulb |
| 4. HID control unit | 5. Screws | 6. Plastic cap |
| 7. Clearance lamp bulb socket | 8. Clearance lamp bulb | 9. Retaining springs |

1. Turn plastic cap counterclockwise and unlock it.
2. Disconnect terminal connected to halogen bulb.
3. Turn xenon bulb socket counterclockwise and unlock it.
4. Unlock retaining spring, and then remove xenon bulb and halogen bulb.
5. Turn clearance bulb socket counterclockwise and unlock it.
6. Remove clearance bulb from clearance bulb socket.
7. Remove HID control unit mounting screws and remove HID control unit.

ASSEMBLY

Assembly is the reverse order of disassembly.

HID control unit mounting screws  : 3.2 N·m (0.33 kg-m, 28 in-lb)

CAUTION:

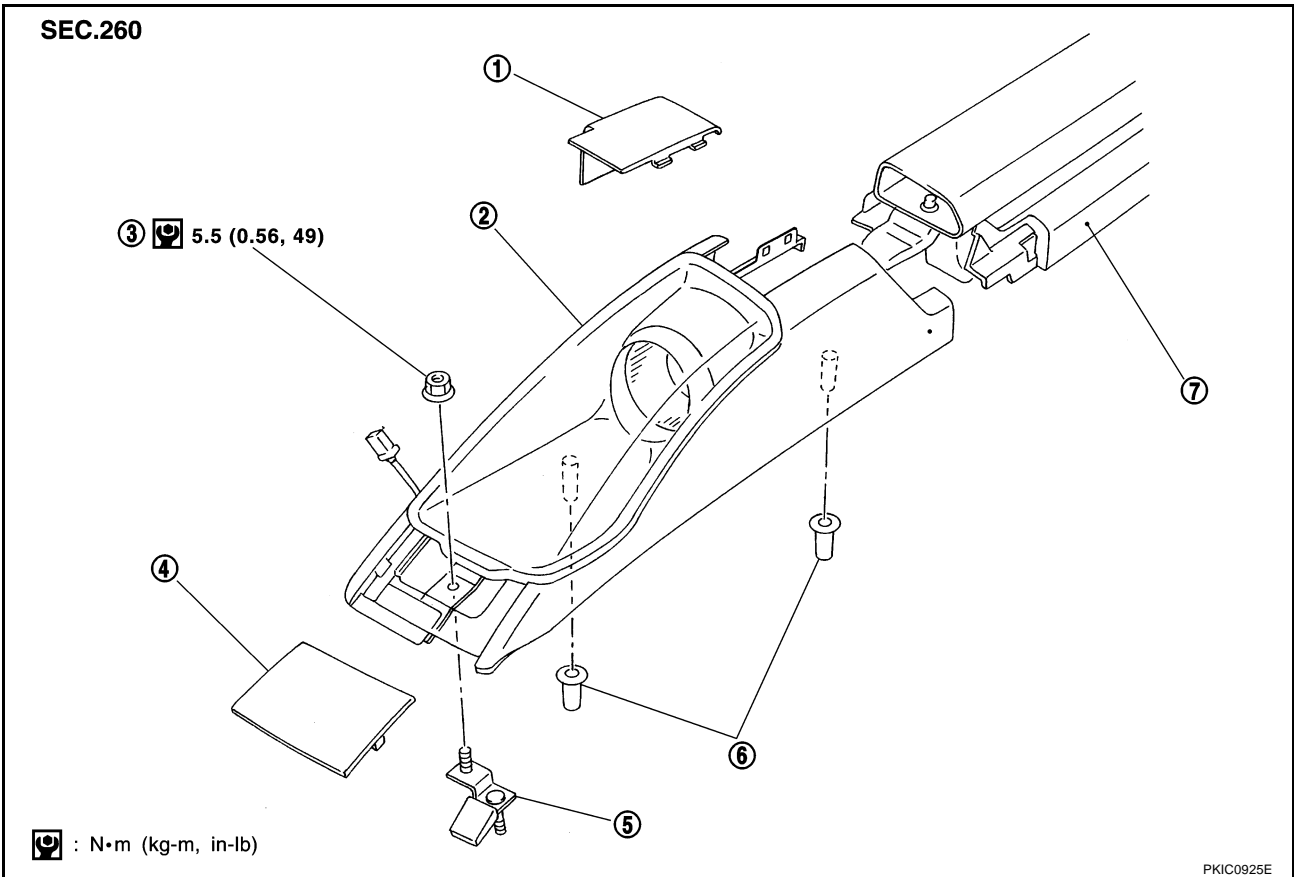
- When HID control unit is removed, reinstall it securely and avoid any looseness.
- After installing bulb, be sure to install plastic cap and bulb socket securely to ensure watertightness.

HEADLAMP - XENON TYPE -

Removal and Installation of Driving Lamp

BKS000HF

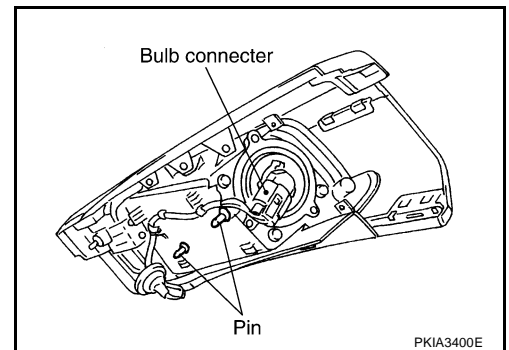
A
B
C
D
E
F
G
H
I
J



- | | | |
|----------------|--------------------------|------------|
| 1. Cap (rear) | 2. Driving lamp assembly | 3. Nut |
| 4. Cap (front) | 5. Driving lamp bracket | 6. Grommet |
| 7. Roof rail | | |

REMOVAL

1. Remove cap (front) and cap (rear).
2. Remove driving lamp mounting nut.
3. Pull the front of driving lamp toward upper side so that undo the pin from roof panel.
4. Remove rear end of driving lamp from roof rail.
5. Pull out driving lamp from vehicle and disconnect connector.



LT

L
M

HEADLAMP - XENON TYPE -

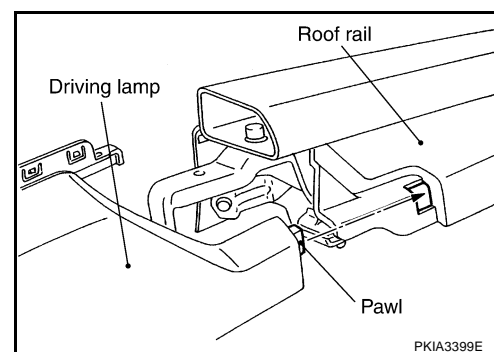
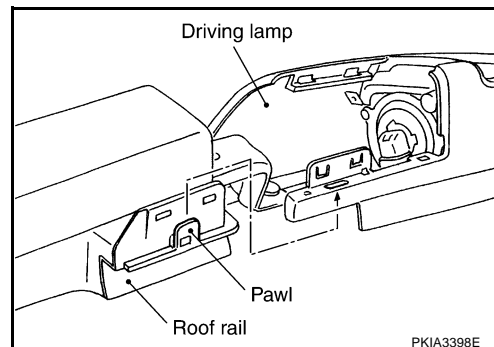
INSTALLATION

Installation is the reverse order of removal.

Driving lamp mounting nut  : 5.5 N·m (0.56 kg-m, 49 in-lb)

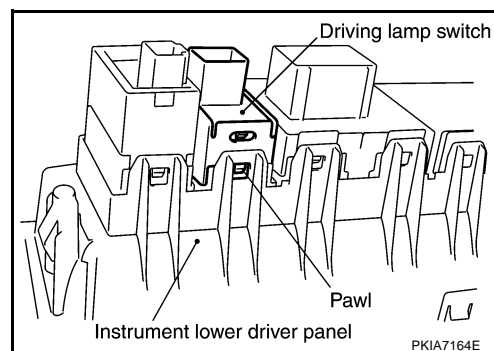
CAUTION:

Make sure pawl shown in figure be connected correctly.



Removal and Installation of Driving Lamp Switch

1. Remove instrument lower driver panel. Refer to [IP-11, "Removal and Installation"](#).
2. Press driving lamp switch fixing pawls and remove it from Instrument lower driver panel.



HEADLAMP - CONVENTIONAL TYPE -

HEADLAMP - CONVENTIONAL TYPE -

PFP:26010

A

System Description DESCRIPTION

BKS000HH

The headlamps are controlled by the lighting switch which is built in the combination switch. Power is supplied at all times

B

- through 15A fuse (No. 40, located in fuse and fusible link box)
- to lighting switch terminal 8,
- through 15A fuse (No. 41, located in fuse and fusible link box)
- to lighting switch terminal 5,
- through 15A fuse (No. 38, located in fuse and fusible link box)
- to driving lamp relay-1 terminal 3.

C

D

LOW BEAM OPERATION

When the lighting switch is turned to the 2ND position, power is supplied

E

- through lighting switch terminal 10
- to headlamp LH terminal 3,
- through lighting switch terminal 7
- to headlamp RH terminal 3.

F

Ground is supplied

G

- to headlamp LH and RH terminals 2
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps illuminate.

H

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

When the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

I

- through lighting switch terminal 9
- to headlamp LH terminal 1, and
- to combination meter terminal 20,
- through lighting switch terminal 6
- to headlamp RH terminal 1.

J

Ground is supplied

- to headlamp LH and RH terminals 2
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, high beam headlamps and HIGH BEAM indicator illuminate.

M

DRIVING LAMP OPERATION

To illuminate the driving lamp, push the driving lamp switch when the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to combination meter terminal 20
- to driving lamp relay-1 terminal 1
- to driving lamp switch terminal 7, and
- to driving lamp relay-2 terminal 5,
- through driving lamp relay-2 terminal 3
- to driving lamp switch terminal 6,
- through driving lamp relay-1 terminal 5
- to driving lamp LH and RH terminals 2,

LT

L

HEADLAMP - CONVENTIONAL TYPE -

- through lighting switch terminal 6
- to headlamp RH terminal 1.

Ground is supplied

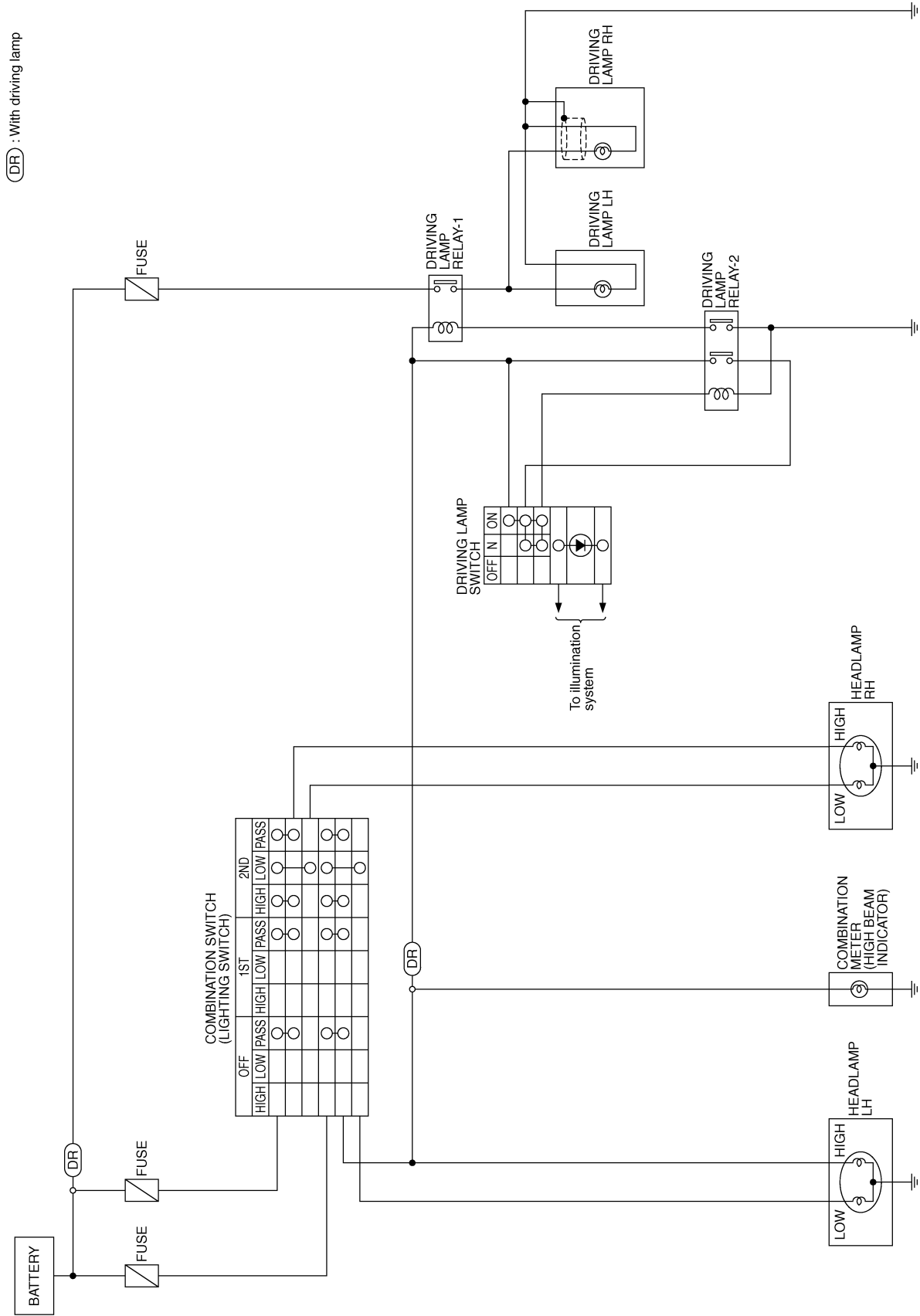
- to driving lamp relay-1 terminal 2
- through driving lamp relay-2 terminal 7
- through driving lamp relay-2 terminal 6
- through grounds E24 and E50,
- to driving lamp switch terminal 4
- through driving lamp relay-2 terminal 1
- through driving lamp relay-2 terminal 2
- through grounds E24 and E50,
- to driving lamp LH terminal 1
- through ground R8,
- to driving lamp RH terminal 1
- through ground R8,
- to headlamp LH and RH terminals 2
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, high beams headlamp, driving lamp and the HIGH BEAM indicator illuminate.

HEADLAMP - CONVENTIONAL TYPE -

Schematic

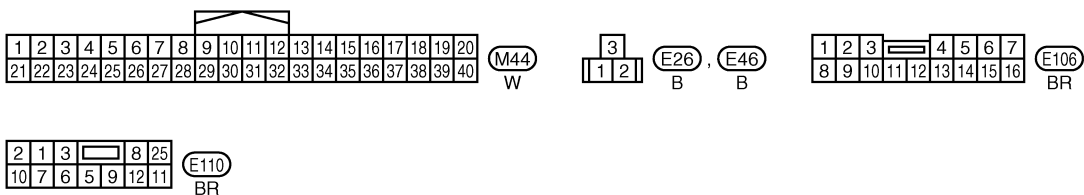
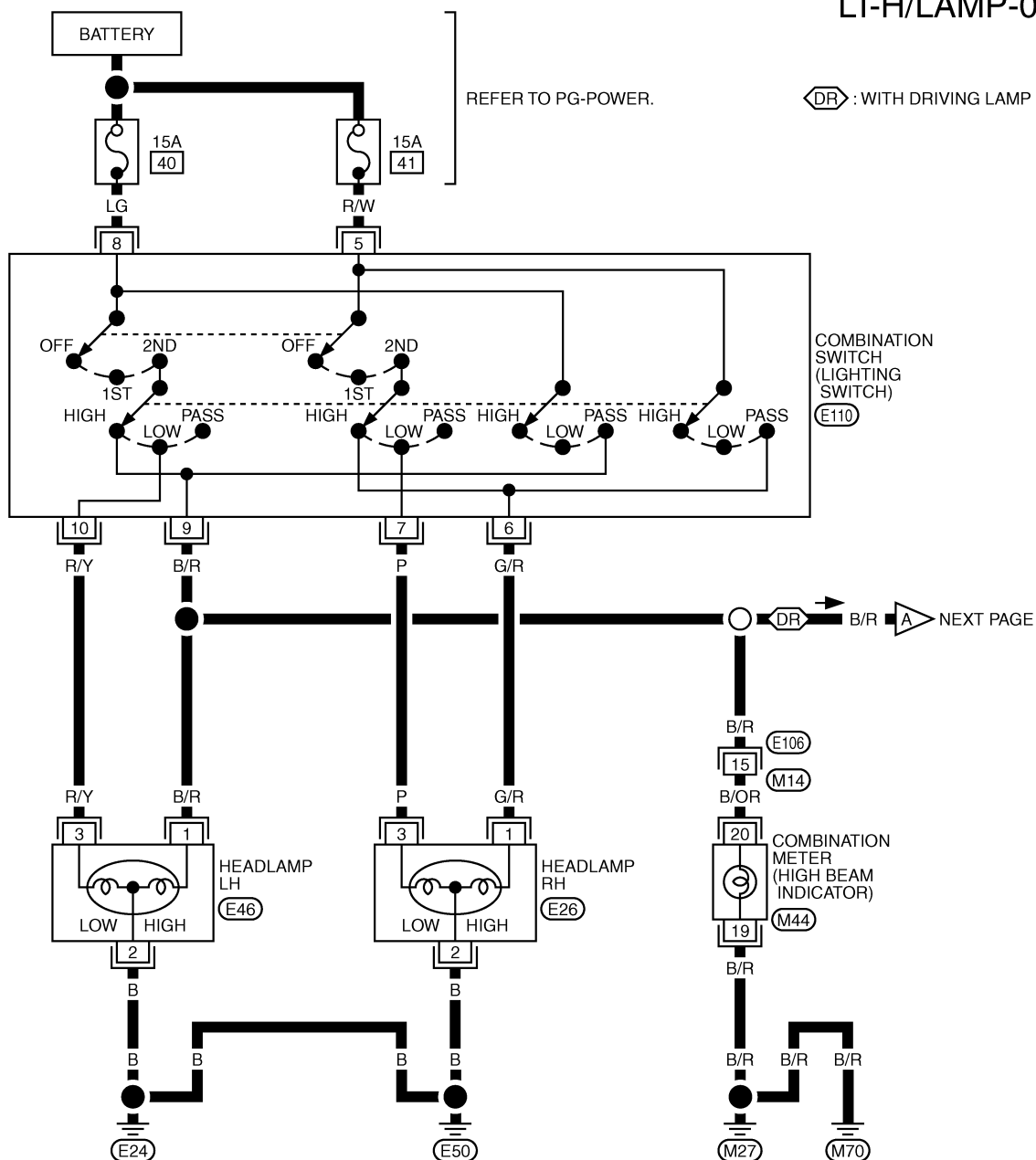
BKS000HI



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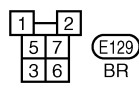
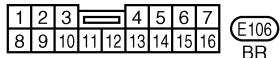
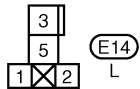
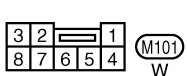
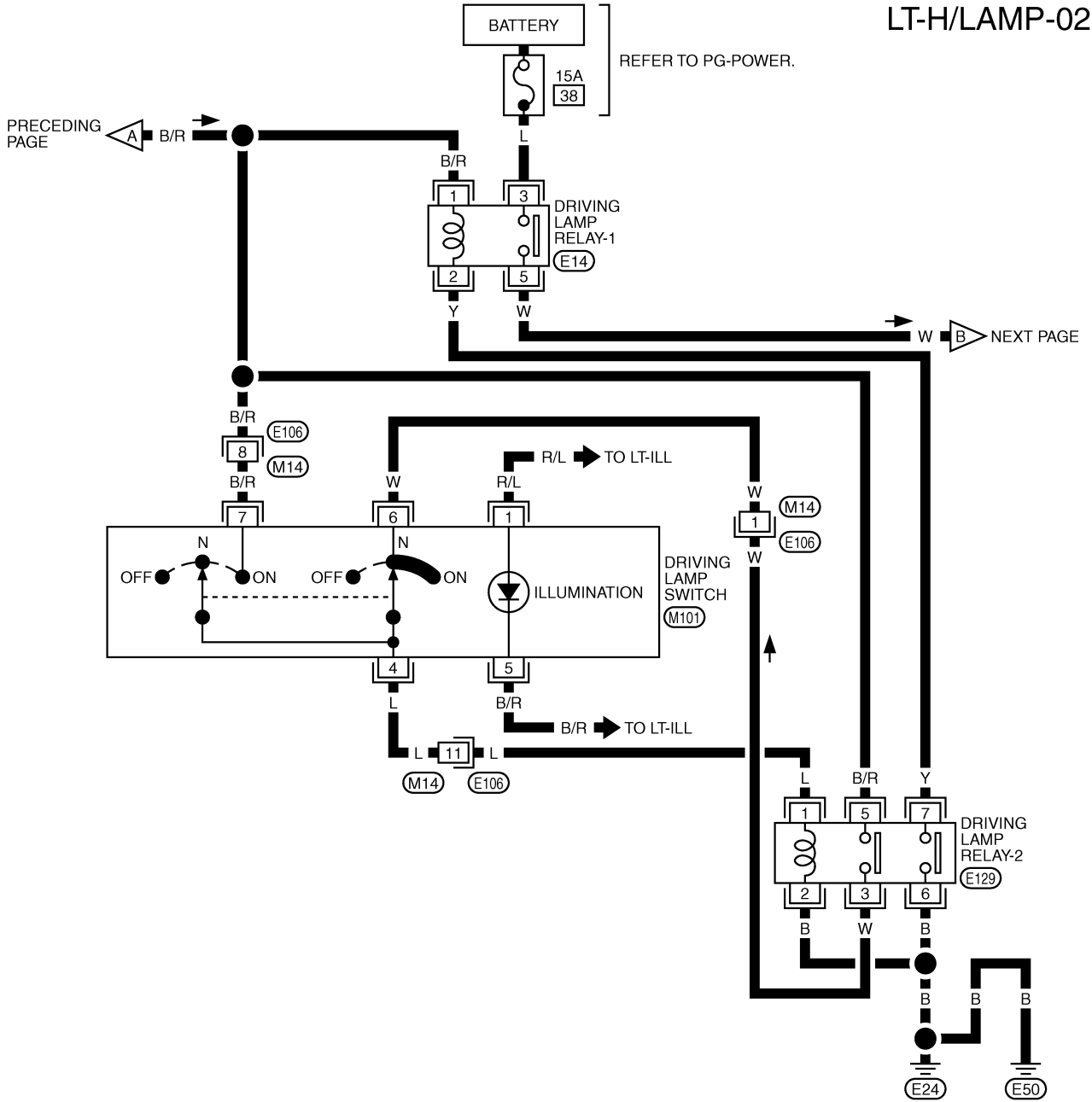
Wiring Diagram — H/LAMP — LHD MODELS

LT-H/LAMP-01



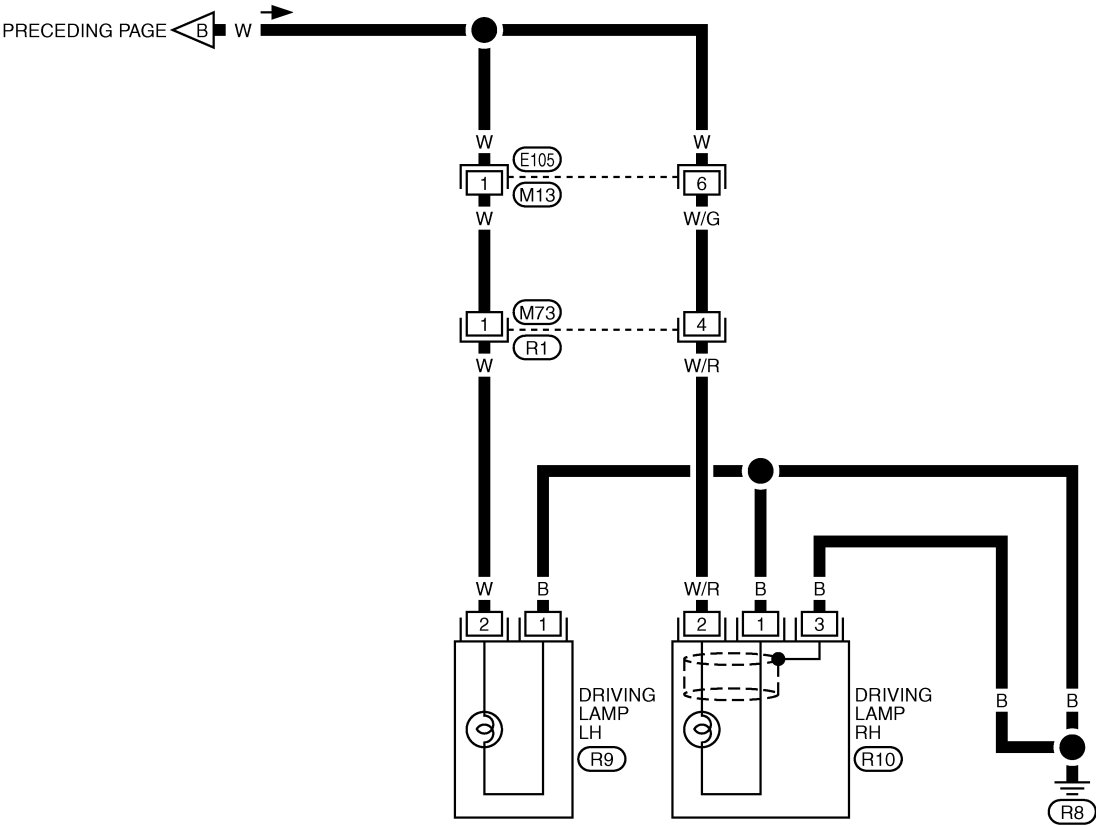
HEADLAMP - CONVENTIONAL TYPE -

LT-H/LAMP-02



HEADLAMP - CONVENTIONAL TYPE -

LT-H/LAMP-03



1	2	3	4	5
6	7	8	9	10

E105
W

1	2	3
4	5	6

R1
W

2	1
---	---

R9
GY

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

R10
W

A
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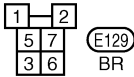
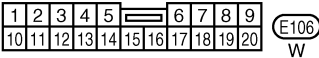
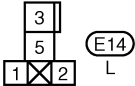
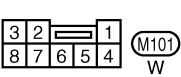
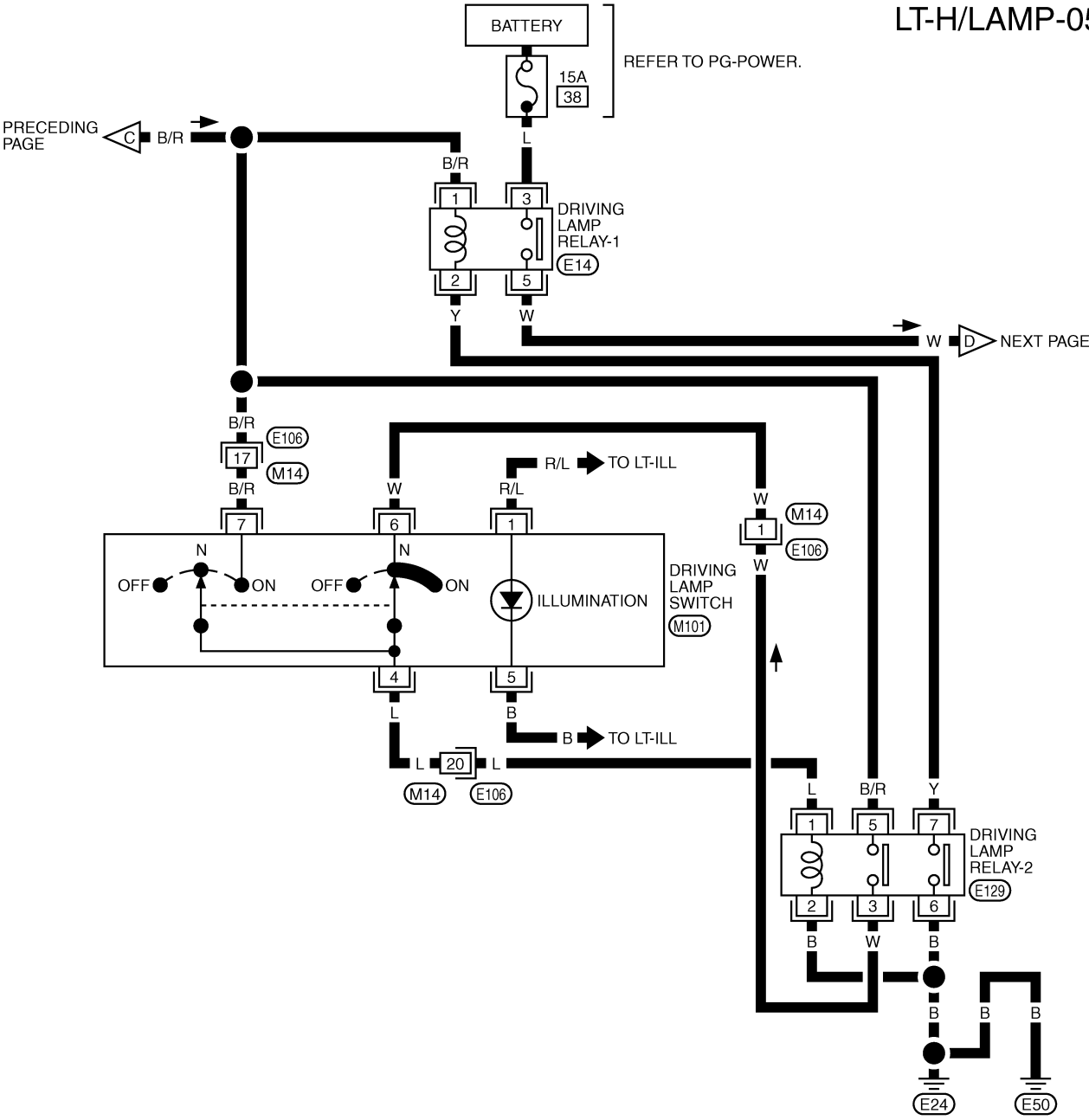
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L

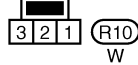
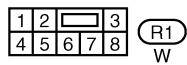
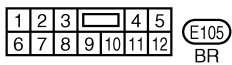
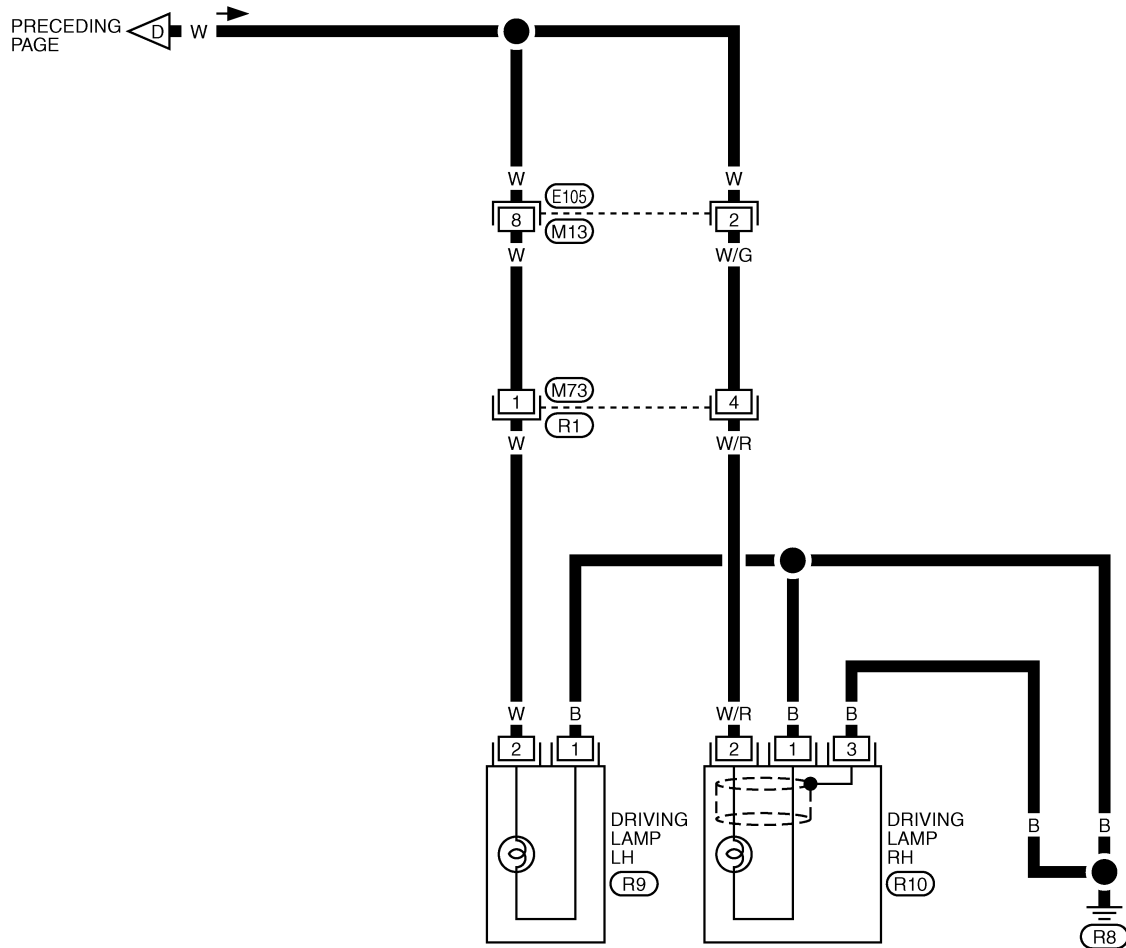


HEADLAMP - CONVENTIONAL TYPE -

LT-H/LAMP-05



LT-H/LAMP-06



HEADLAMP - CONVENTIONAL TYPE -

Trouble Diagnoses

BKS000HK

Symptom	Possible cause	Repair order
Headlamp does not operate.	Lighting switch	Check lighting switch.
Headlamp LH does not operate, but headlamp RH operates.	<ol style="list-style-type: none"> 1. 15A fuse 2. Battery voltage supply circuit 3. Headlamp LH ground circuit 4. Lighting switch 	<ol style="list-style-type: none"> 1. Check 15A fuse (No. 40, located in fuse and fusible link box). 2. Check battery voltage at lighting switch harness connector E110 terminal 8. 3. Check harness between headlamp LH harness connector E46 terminal 2 and ground. 4. Check lighting switch.
Headlamp RH does not operate, but headlamp LH operates.	<ol style="list-style-type: none"> 1. 15A fuse 2. Battery voltage supply circuit 3. Headlamp RH ground circuit 4. Lighting switch 	<ol style="list-style-type: none"> 1. Check 15A fuse (No. 41, located in fuse and fusible link box). 2. Check battery voltage at lighting switch harness connector E110 terminal 5. 3. Check harness between headlamp RH harness connector E26 terminal 2 and ground. 4. Check lighting switch.
Headlamp LH high beam does not operate, but low beam operates.	<ol style="list-style-type: none"> 1. Bulb 2. Headlamp LH high beam power supply circuit 3. Lighting switch 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 9 and headlamp LH harness connector E46 terminal 1. 3. Check lighting switch.
Headlamp RH high beam does not operate, but low beam operates.	<ol style="list-style-type: none"> 1. Bulb 2. Headlamp RH high beam power supply circuit 3. Lighting switch 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 6 and headlamp RH harness connector E26 terminal 1. 3. Check lighting switch.
Headlamp LH low beam does not operate, but high beam operates.	<ol style="list-style-type: none"> 1. Bulb 2. Headlamp LH low beam power supply circuit 3. Lighting switch 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 10 and headlamp LH harness connector E46 terminal 3. 3. Check lighting switch.
Headlamp RH low beam does not operate, but high beam operates.	<ol style="list-style-type: none"> 1. Bulb 2. Headlamp RH low beam power supply circuit 3. Lighting switch 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 7 and headlamp RH harness connector E26 terminal 3. 3. Check lighting switch.
High beam indicator does not illuminate.	<ol style="list-style-type: none"> 1. Bulb 2. High beam indicator power supply circuit 3. Combination meter (high beam indicator) ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between lighting switch harness connector E110 terminal 9 and combination meter harness connector E44 terminal 20. 3. Check harness between combination master harness connector E44 terminal 19 and ground.

HEADLAMP - CONVENTIONAL TYPE -

Symptom	Possible cause	Repair order	
Driving lamp (both side) does not operate, but headlamp LH high beam operates.	<ol style="list-style-type: none"> 1. 15A fuse 2. Battery voltage supply circuit 3. Driving lamp switch circuit 4. Driving lamp switch 5. Driving lamp relay-2 6. Driving lamp relay-2 circuit 7. Driving lamp relay-2 ground circuit 8. Driving lamp relay-1 9. Driving lamp relay-1 circuit 10. Driving lamp circuit 11. Driving lamp ground circuit 12. Bulb 	<ol style="list-style-type: none"> 1. Check 15A fuse (No. 38, located in fuse and fusible link box). 2. Check battery voltage at driving lamp relay-1 harness connector E14 terminal 3. 3. Check harness between lighting switch harness connector terminal 9 and driving lamp switch harness connector M101 terminal 7. 4. Check driving lamp switch. 5. Check driving lamp relay-2. 6. Check the following. <ul style="list-style-type: none"> – Check harness between driving switch harness connector M101 terminal 4 and driving lamp relay-2 harness connector E129 terminal 1. – Check harness between driving switch harness connector M101 terminal 6 and driving lamp relay-2 harness connector E129 terminal 3. – Check harness between lighting switch harness connector E110 terminal 9 and driving lamp relay-2 harness connector E129 terminal 5. – Check harness between driving lamp relay-1 harness connector E14 terminal 2 and driving lamp relay-2 harness connector E129 terminal 7. 7. Check harness between driving lamp relay-2 harness connector E129 terminal (2 and 6) and ground. 8. Check driving lamp relay-1. 9. Check harness between lighting switch harness connector E110 terminal 9 and driving lamp relay-1 harness connector E14 terminal 1. 10. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp harness connector (R9 and R10) terminal 2. 11. Check the following. <ul style="list-style-type: none"> – Check harness between driving lamp LH harness connector R9 terminal 1 and ground. – Check harness between driving lamp RH harness connector R10 terminal 1 and ground. 12. Check bulbs. 	A B C D E F G H I J LT L M
Driving lamp LH does not operate, but driving lamp RH operates.	<ol style="list-style-type: none"> 1. Bulb 2. Driving lamp LH ground circuit 3. Driving lamp LH circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between driving lamp LH harness connector R9 terminal 1 and ground. 3. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp LH harness connector R9 terminal 2. 	M
Driving lamp RH does not operate, but driving lamp LH operates.	<ol style="list-style-type: none"> 1. Bulb 2. Driving lamp RH ground circuit 3. Driving lamp RH circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between driving lamp RH harness connector R10 terminal 1 and ground. 3. Check harness between driving lamp relay-1 harness connector E14 terminal 5 and driving lamp RH harness connector R10 terminal 2. 	

HEADLAMP - CONVENTIONAL TYPE -

BKS000HL

Aiming Adjustment of Headlamp PREPARATION BEFORE ADJUSTING

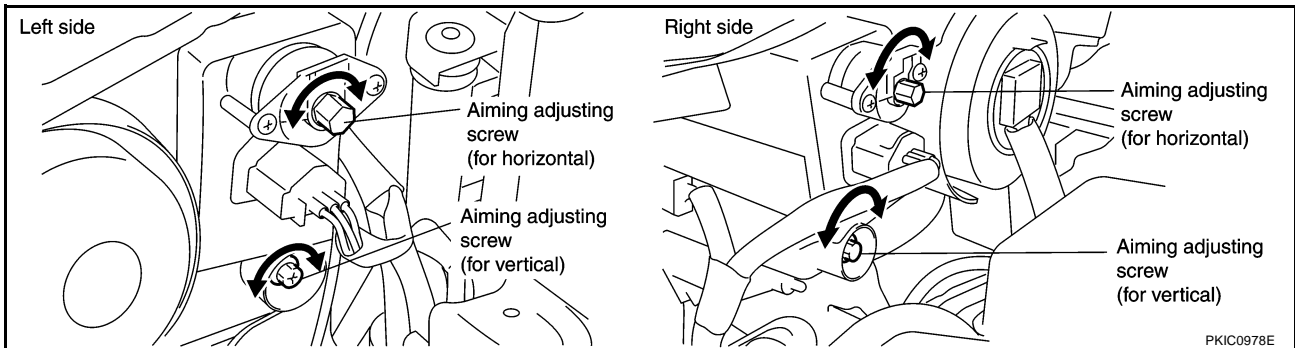
For Details, Refer To The Regulations In Your Own Country.

Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on flat surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

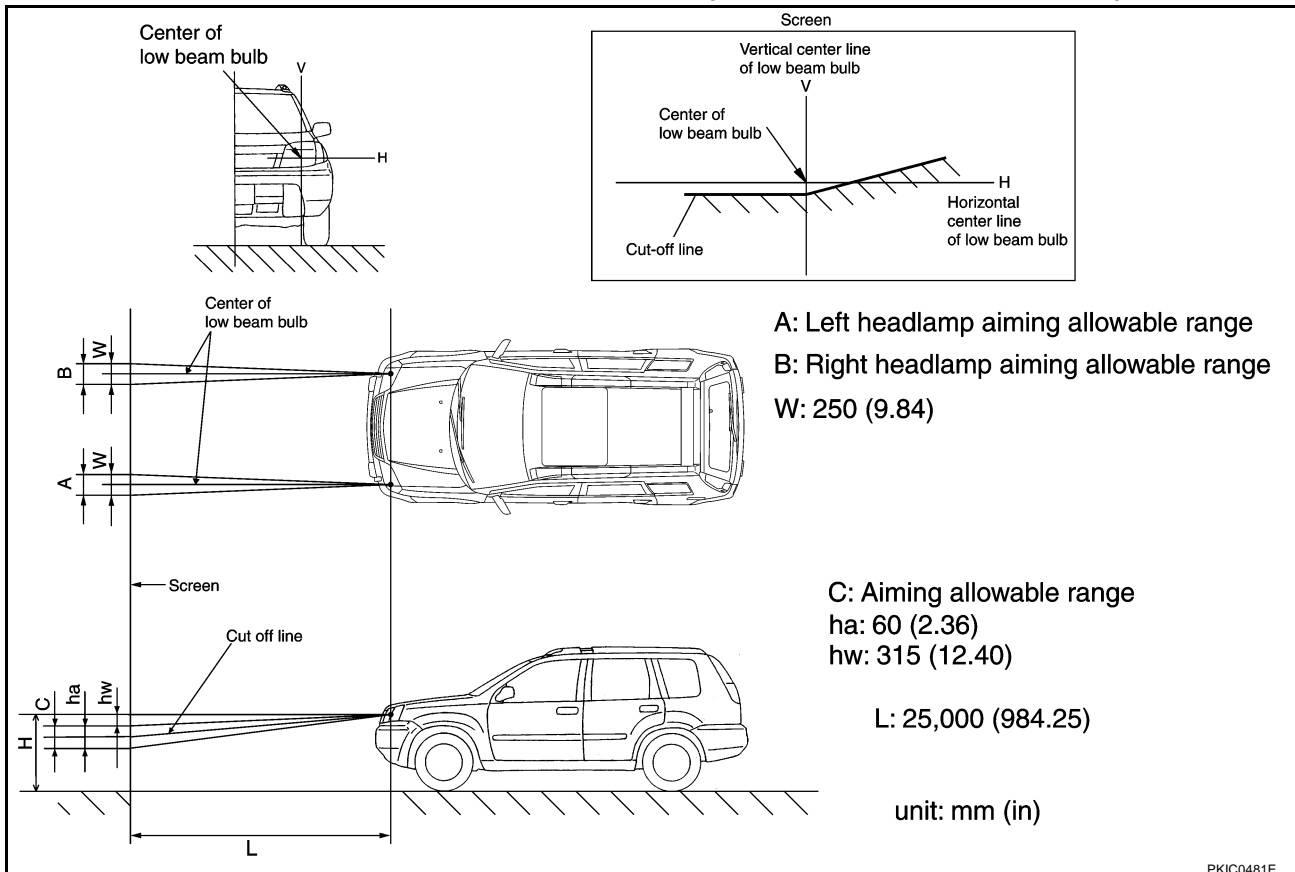
LOW BEAM AND HIGH BEAM

1. Turn headlamp low beam ON.



2. Use adjusting screws to perform aiming adjustment.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



If the vehicle front body has been repaired and/or the headlamp assembly has been replaced, check aiming. Use the aiming chart shown in the figure.

- Basic illumination area for adjustment should be within the range shown on the aiming chart. Adjust headlamp accordingly.

CAUTION:

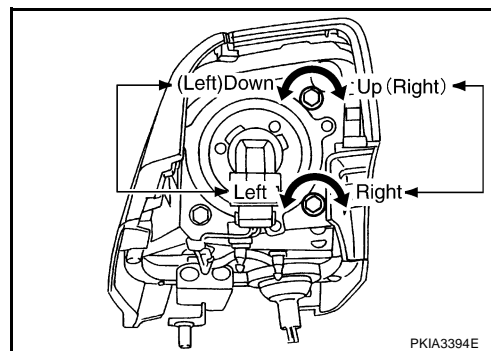
Be sure aiming switch is set to "0" when performing aiming adjustment.

HEADLAMP - CONVENTIONAL TYPE -

Aiming Adjustment of Driving Lamp

BKS000HM

- Turn aiming adjusting screw to adjust.
- For positions of adjusting screws and direction to turn, refer to the figures.
- When adjusting horizontal direction (right and left), turn two adjusting screws to the same direction.



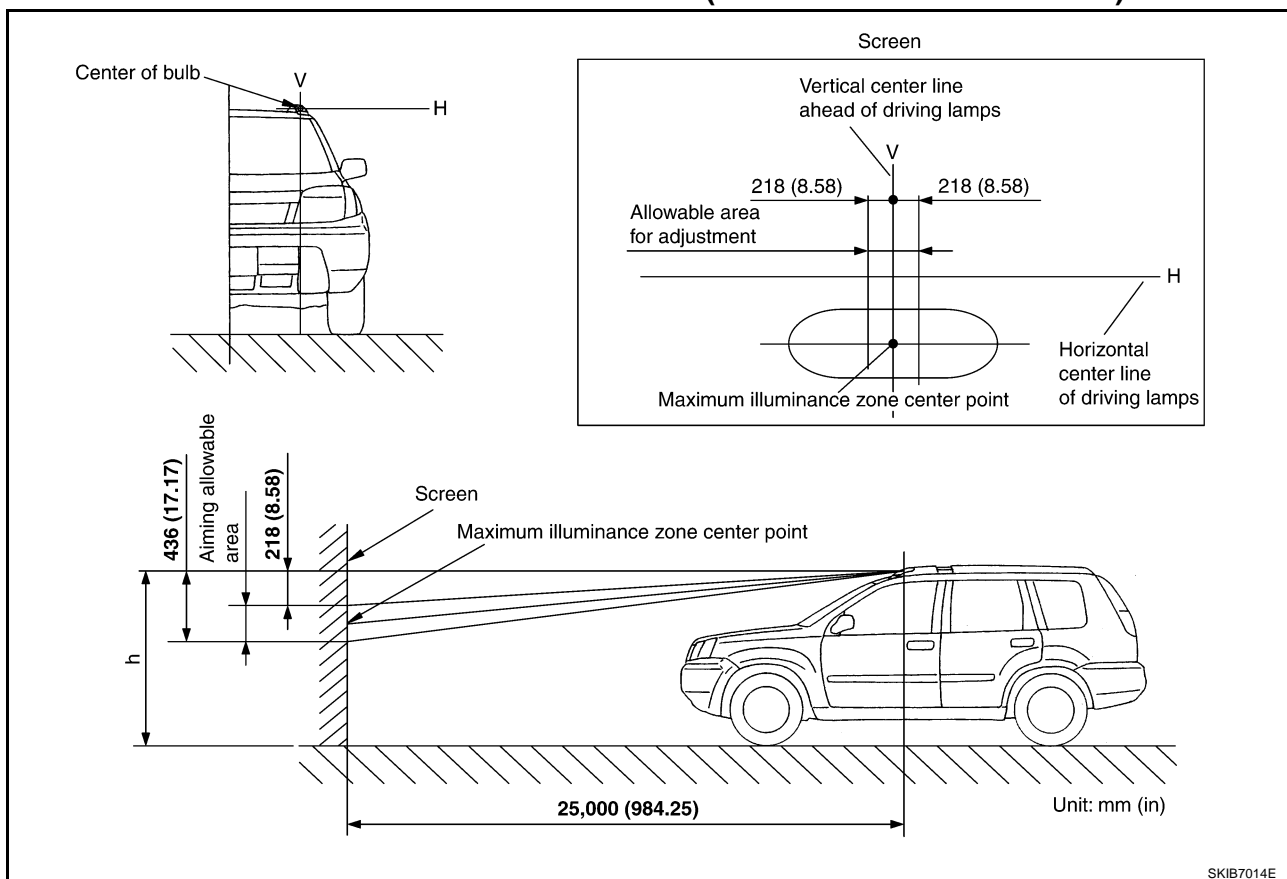
PREPARATION BEFORE ADJUSTING

For Details, Refer To The Regulations In Your Own Country.

Before performing aiming adjustment, check the following.

1. Keep all tires inflated to correct pressures.
2. Place vehicle on flat surface.
3. Set that there is no-load in vehicle other than the driver (or equivalent weight placed in driver's position). Coolant, engine oil filled up to correct level and full fuel tank.

ADJUSTMENT USING AN ADJUSTMENT SCREEN (LIGHT/DARK BORDERLINE)



HEADLAMP - CONVENTIONAL TYPE -

ADJUSTING

1. Set the distance between the screen and the center of the driving lamp lens as shown in the figure.
2. Turn head lamp switch high and driving lamp switch ON so that front driving lamps turn ON.
3. Adjust driving lamps using adjusting screws make sure of the following.
 - When performing this adjustment, cover the headlamps and the opposite driving lamp, if necessary.
 - Vertical deflection of maximum illuminance point to be adjusted to stand at 218mm (8.58in) below driving lamp height (h).
 - Horizontal deflection of maximum illuminance point to be adjusted to stand within $0 \pm 218\text{mm}$ ($0 \pm 8.58\text{in}$) against line (V) on screen where a line passing through driving lamp center, parallel to vehicle center line, cross screen.

Bulb Replacement of Headlamp and Clearance lamp

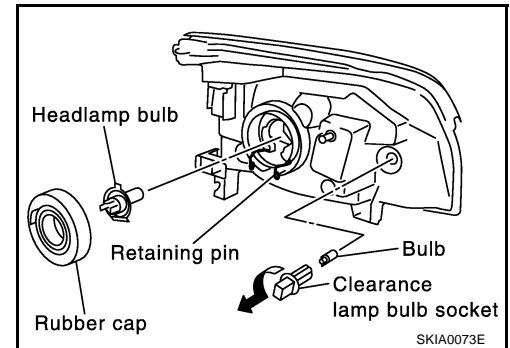
BKS000HN

HEAD LAMP

1. Disconnect headlamp connector.
2. Remove rubber cap.
3. Unlock retaining spring, then remove bulb.

Headlamp (High/Low) : 12V - 60/55 W(H4)

4. Installation is the reverse order of removal.



CLEARANCE LAMP

1. Turn bulb socket counterclockwise and unlock them.
2. Remove bulb from its socket.

Clearance lamp : 12V - 5W

3. Installation is the reverse of order removal.

CAUTION:

- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it. Never touch bulb by hand while it is lit or right after being turned off. Burning may result.
- When replacing bulb, prepare new bulb first of all. Never leave bulb out of headlamp housing for a long period, because dust, moisture or smoke will cause performance lowering (fouling, cloud, etc.) of headlamp reflector and lens.
- When bulb is installed, be sure to lock rubber cap to ensure watertightness.

Bulb Replacement of Driving Lamp

BKS000HO

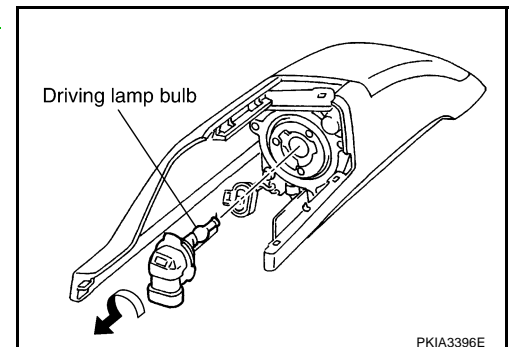
1. Remove driving lamp. Refer to [LT-41, "Removal and Installation of Driving Lamp"](#).
2. Disconnect driving lamp connector.
3. Turn bulb socket counterclockwise and unlock it.

Driving lamp : 12 V - 65 W (HIR1)

4. Installation is the reverse order of removal.

CAUTION:

- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it. Never touch bulb by hand while it is lit or right after being turned off. Burning may result.
- When replacing bulb, prepare new bulb first of all. Never leave bulb out of driving lamp housing for a long period, because dust, moisture or smoke will cause performance lowering (fouling, cloud, etc.) of driving lamp reflector and lens.

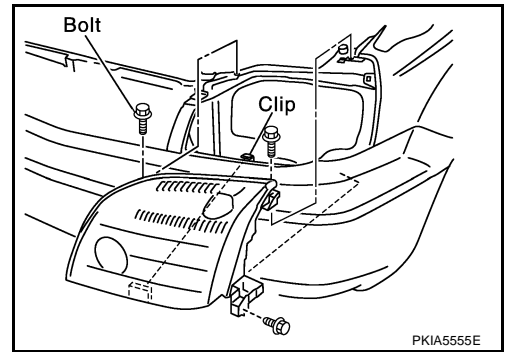


HEADLAMP - CONVENTIONAL TYPE -

Removal and Installation of Headlamp REMOVAL

BKS000HP

1. Remove front turn signal lamps. Refer to [LT-96, "Removal and Installation of Front Turn Signal Lamp"](#).
2. Disconnect headlamp and clearance lamp connector.
3. Remove front grille. Refer to [EI-19, "FRONT GRILLE"](#).
4. Remove headlamp mounting bolts.
5. Pull headlamp forward the vehicle.



PKIA5555E

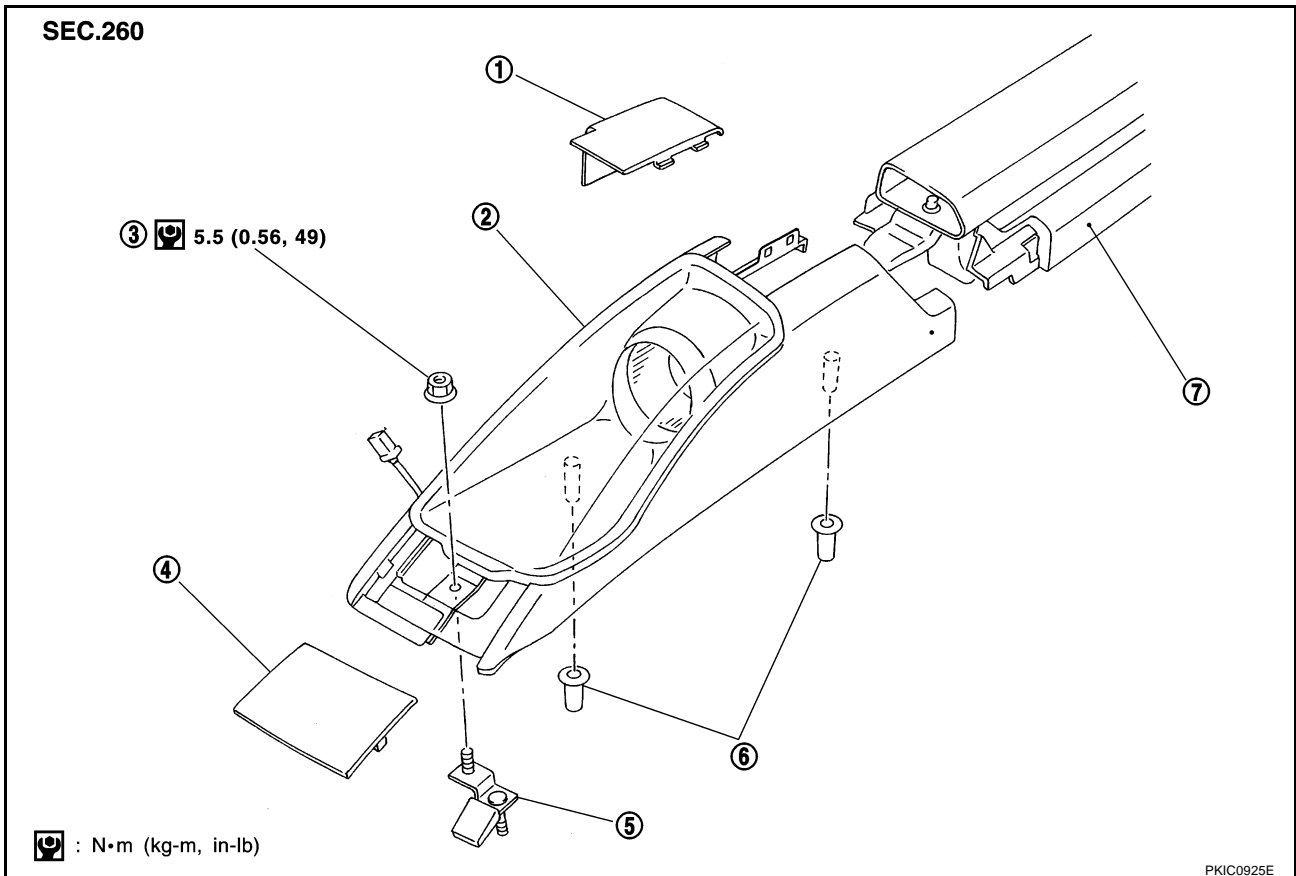
INSTALLATION

Installation is the reverse order of removal.

Headlamp mounting bolts : 5.5 N·m (0.56 kg-m, 49 in-lb)

Removal and Installation of Driving Lamp

BKS000HQ



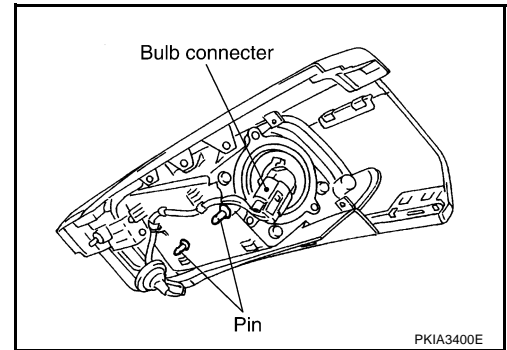
: N·m (kg-m, in-lb)

- | | | |
|----------------|--------------------------|------------|
| 1. Cap (rear) | 2. Driving lamp assembly | 3. Nut |
| 4. Cap (front) | 5. Driving lamp bracket | 6. Grommet |
| 7. Roof rail | | |

HEADLAMP - CONVENTIONAL TYPE -

REMOVAL

1. Remove cap (front) and cap (rear).
2. Remove driving lamp mounting nut.
3. Pull the front of driving lamp toward upper side so that undo the pin from roof panel.
4. Remove rear end of driving lamp from roof rail.
5. Pull out driving lamp from vehicle and disconnect connector.



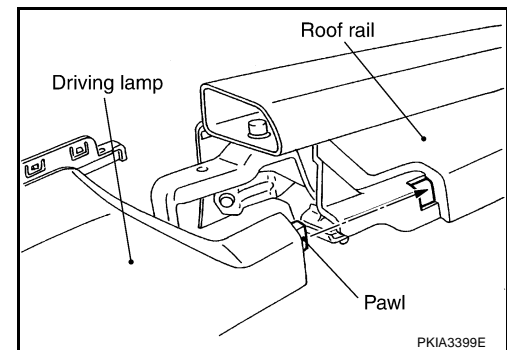
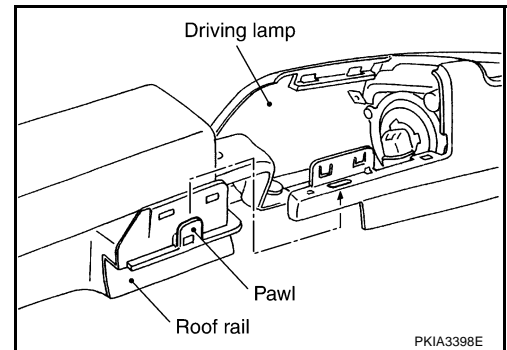
INSTALLATION

Installation is the reverse order of removal.

Driving lamp mounting nut  : 5.5 N·m (0.56 kg-m, 49 in-lb)

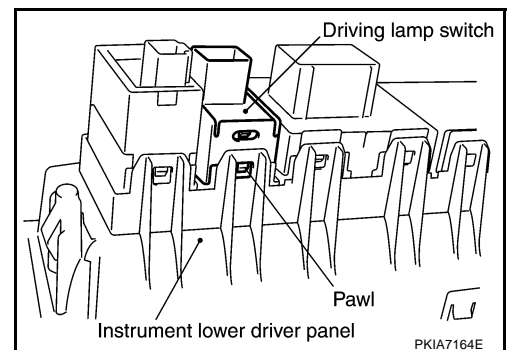
CAUTION:

- Make sure the pawl shown in figure be connected correctly.



Removal and Installation for Driving Lamp Switch

1. Remove Instrument lower driver panel. Refer to [IP-11, "Removal and Installation"](#).
2. Press driving lamp switch fixing pawls and remove it from Instrument lower driver panel.



HEADLAMP (WITH DAYTIME) - XENON TYPE -

HEADLAMP (WITH DAYTIME) - XENON TYPE -

PFP:26010

System Description DESCRIPTION

BKS000HS

The headlamp system on vehicles for North Europe contains a daytime light control unit. The unit activates the following whenever the engine is running with the lighting switch in the OFF position:

- Low beam headlamps
- Parking, license plate and tail lamps, and illumination.

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to daytime light control unit terminal 1, and
- to lighting switch terminal 11,
- through 15A fuse (No. 41, located in fuse and fusible link box)
- to daytime light control unit terminal 3, and
- to lighting switch terminal 5,
- through 15A fuse (No. 40, located in fuse and fusible link box)
- to daytime light control unit terminal 2, and
- to lighting switch terminal 8,
- through 30A fusible link (letter M, located in fuse and fusible link box)
- through 20A fuse (No. 52, located in fuse block)
- to daytime light relay LH terminal 5, and
- through 20A fuse (No. 51, located in fuse block)
- to daytime light relay RH terminal 5,
- through 15A fuse (No. 38, located in fuse and fusible link box)
- to driving lamp relay-1 terminal 3.

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 13, located in fuse block (J/B)]
- to daytime light control unit terminal 7,
- through 10A fuse [No. 11, located in fuse block (J/B)]
- through combination meter terminal 2
- through combination meter terminal 5
- to daytime light control unit terminal 8.

With the ignition switch in the START position, power is supplied

- through 10A fuse [No. 7, located in the fuse block (J/B)]
- to daytime light control unit terminal 6.

Ground is supplied

- to daytime light control unit terminal 9
- through grounds E24 and E50.

LOW BEAM OPERATION (DAYTIME LIGHT SYSTEM CANCEL OPERATION)

When the lighting switch is turned to the 1ST or 2ND position, power is supplied

- through lighting switch terminal 12
- to daytime light control unit terminal 11,
- through lighting switch terminal 10
- to daytime light relay LH terminal 1,
- through lighting switch terminal 7
- to daytime light relay RH terminal 1,
- through daytime light relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

A

B

C

D

E

F

G

H

I

J

LT

L

M

HEADLAMP (WITH DAYTIME) - XENON TYPE -

- to daytime light relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 4
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps illuminate.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

When the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to combination meter terminal 20, and
- to daytime light relay LH terminal 1,
- through lighting switch terminal 6
- to headlamp RH terminal 1, and
- to daytime light relay RH terminal 1,
- through daytime light relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

- to daytime light relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 3, and
- to headlamp LH and RH terminals 4
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, low beam and high beam headlamps, and HIGH BEAM indicator illuminate.

DAYTIME LIGHT SYSTEM OPERATION

With the engine running and the lighting switch in the OFF position, power is supplied

- from alternator terminal 3
- to daytime light control unit terminal 8,
- through daytime light control unit terminal 5
- to daytime light relay LH terminal 1,
- through daytime light control unit terminal 4
- to daytime light relay RH terminal 1,
- through daytime light relay LH and RH terminals 3
- to headlamp LH and RH terminals 2,
- through daytime light control unit terminal 10
- to parking, license plate and tail lamps, and illumination.

Ground is supplied

- to daytime light relay LH and RH terminals 2
- through grounds E24 and E50,
- to headlamp LH and RH terminals 4
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps, parking, license plate and tail lamps, and illumination illuminate.

HEADLAMP (WITH DAYTIME) - XENON TYPE -

DRIVING LAMP OPERATION

To illuminate the driving lamp, push the driving lamp switch when the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to combination meter terminal 20
- to daytime light relay LH terminal 1
- to driving lamp relay-1 terminal 1
- to driving lamp switch terminal 7, and
- to driving lamp relay-2 terminal 5,
- through lighting switch terminal 6
- to headlamp RH terminal 1, and
- to daytime light relay RH terminal 1,
- through driving lamp relay-2 terminal 3
- to driving lamp switch terminal 6,
- through driving lamp relay-1 terminal 5
- to driving lamp LH and RH terminals 2,
- through daytime light relay LH and RH terminals 3
- to headlamp LH and RH terminals 2.

Ground is supplied

- to driving lamp relay-1 terminal 2
- through driving lamp relay-2 terminal 7
- through driving lamp relay-2 terminal 6
- through grounds E24 and E50,
- to driving lamp switch terminal 4
- through driving lamp relay-2 terminal 1
- through driving lamp relay-2 terminal 2
- through grounds E24 and E50,
- to driving lamp LH terminal 1
- through ground R8,
- to driving lamp RH terminal 1
- through ground R8,
- to headlamp LH and RH terminals 3, and
- to headlamp LH and RH terminals 4
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, low beam and high beam headlamps, driving lamp and the HIGH BEAM indicator illuminate.

XENON HEADLAMP

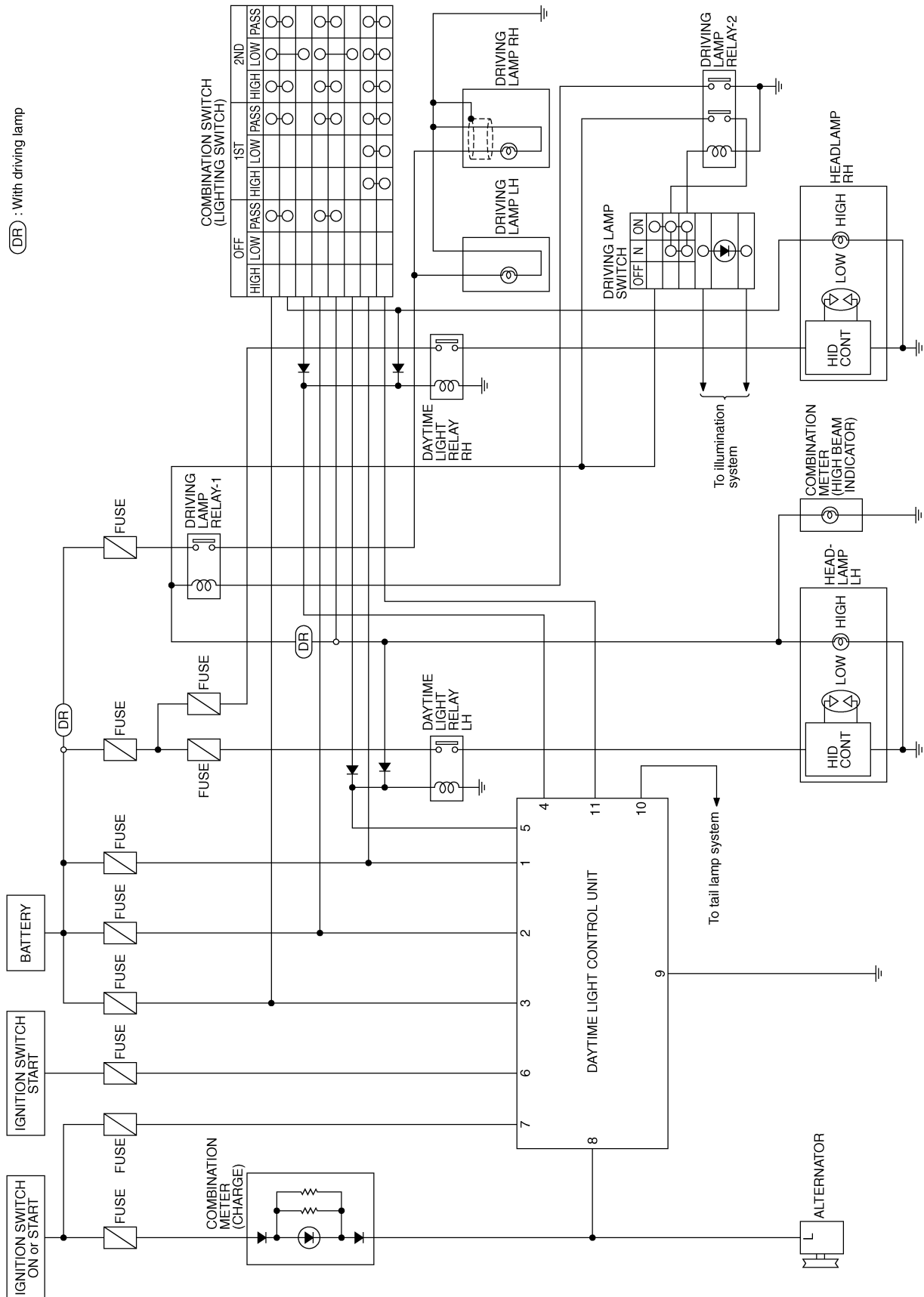
Xenon type lamps are used for to the low beam headlamps. Xenon bulbs do not use a filament. Instead, they produce light when a high voltage current is passed between two tungsten electrodes through a mixture of xenon (an inert gas) and certain other metal halides. In addition to strong lighting power, electronic control of the power supply gives the headlamps stable quality and tone color.

Followings are some advantages of the xenon type headlamp.

- The light produced by the headlamps is white color similar to sunlight that is easy to the eyes.
- Light output is nearly double that of halogen headlamps, affording increased area of illumination.
- Counter-reflected luminance increases and the contrast enhances on the wet road in the rain. That makes visibility go up more than the increase of the light volume.
- Power consumption is approximately 25 percent less than halogen headlamps, reducing battery load.

Schematic

BKS000HT



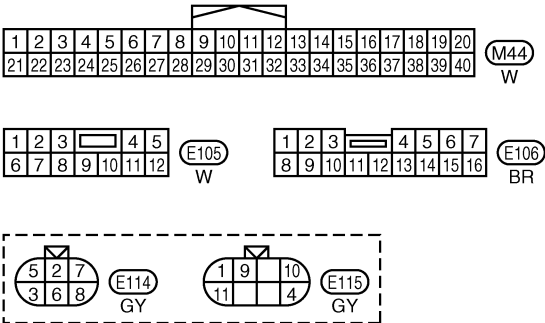
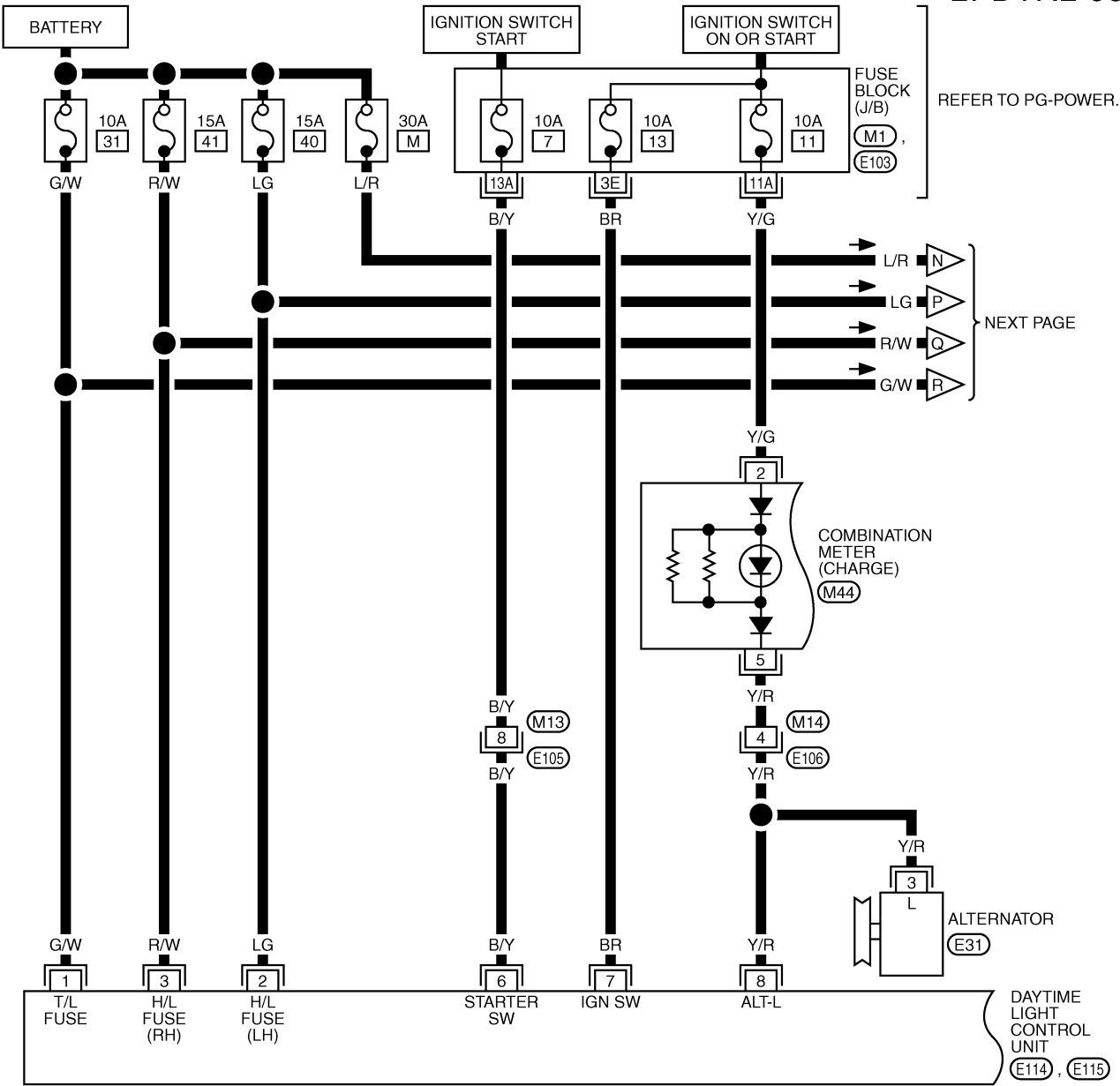
TKWB1124E

HEADLAMP (WITH DAYTIME) - XENON TYPE -

Wiring Diagram —DTRL—

BKS000HU

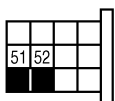
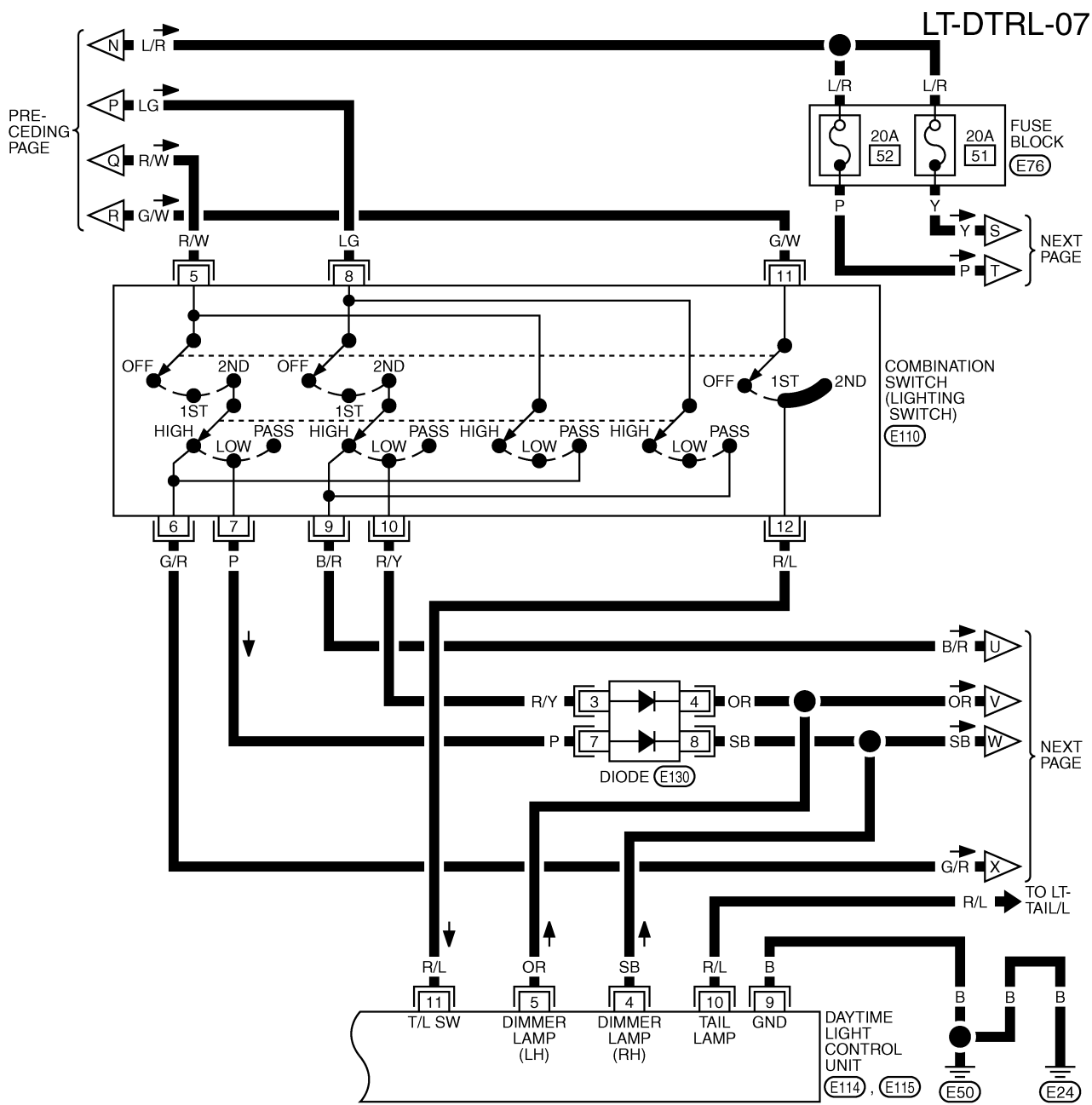
LT-DTRL-06



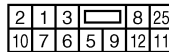
REFER TO THE FOLLOWING.
(M1), (E103) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWB1125E

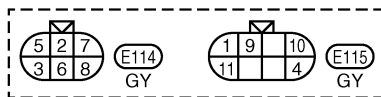
HEADLAMP (WITH DAYTIME) - XENON TYPE -



(E76)

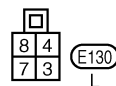


(E110)
BR



(E114)
GY

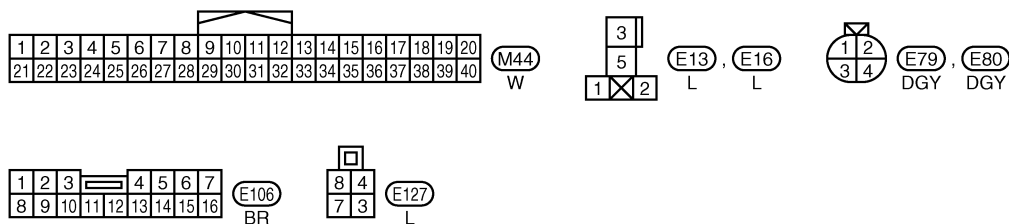
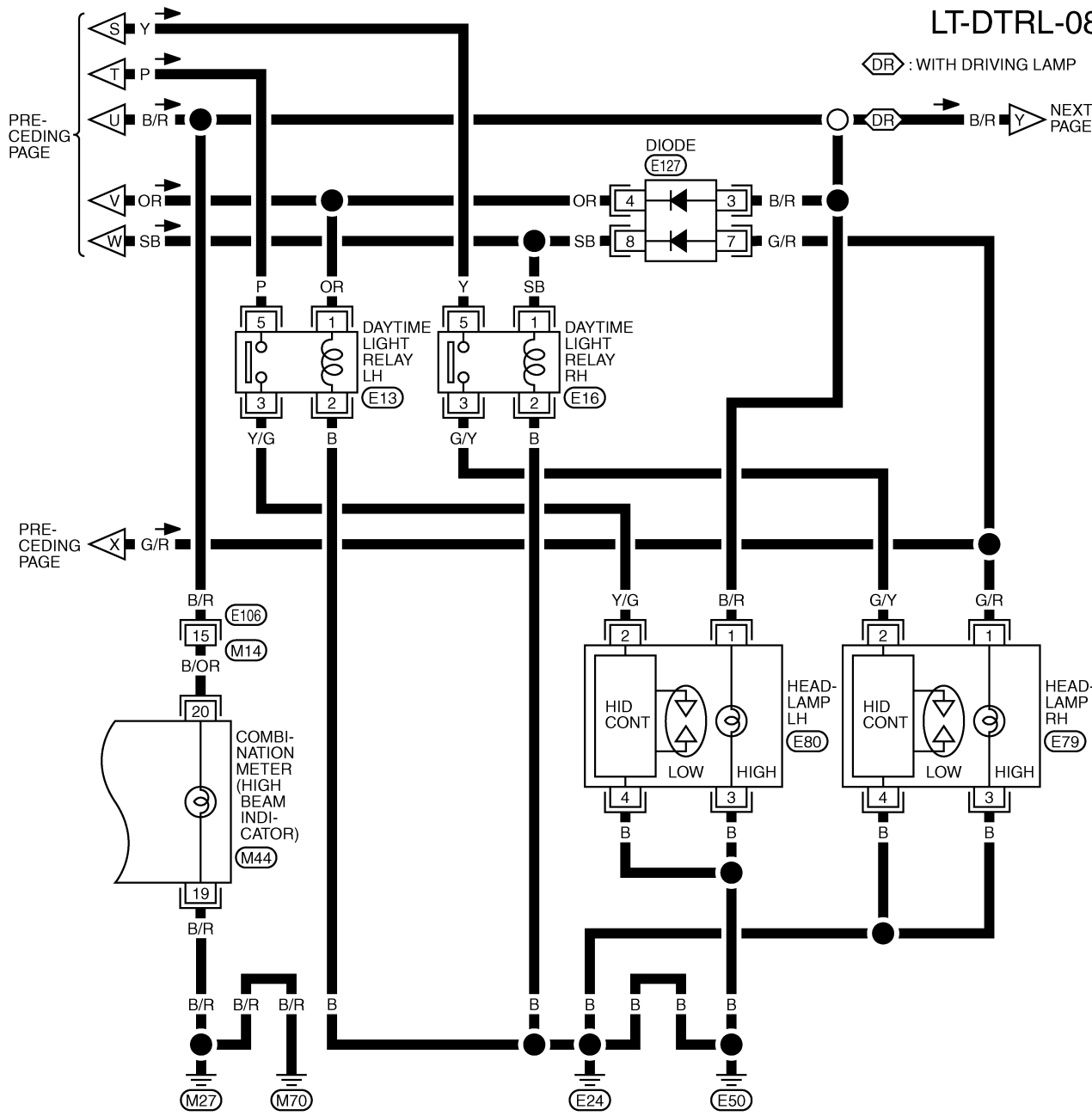
(E115)
GY



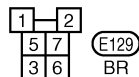
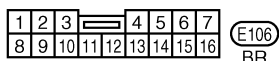
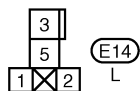
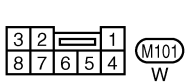
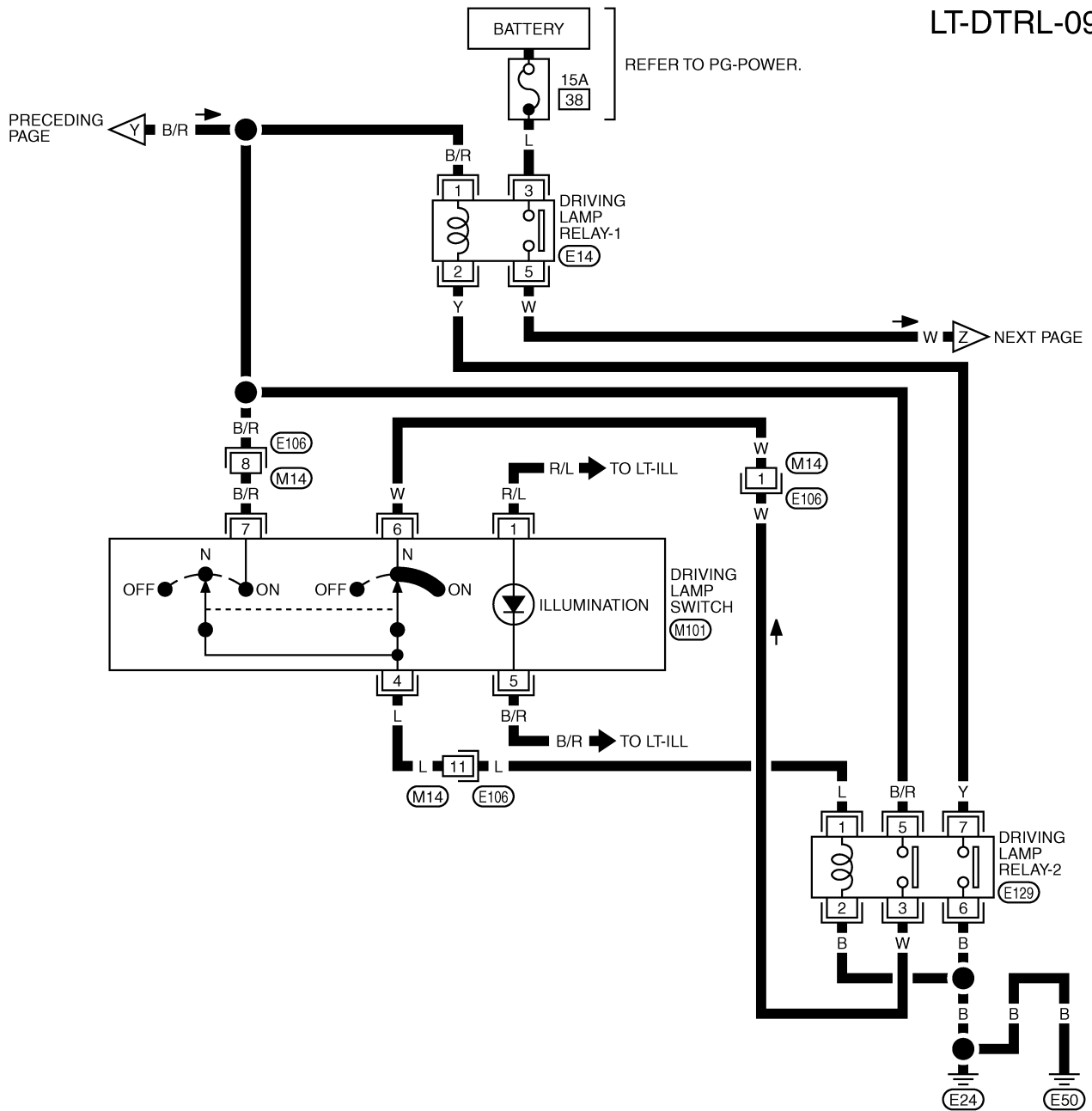
(E130)
L

HEADLAMP (WITH DAYTIME) - XENON TYPE -

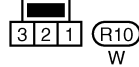
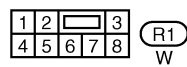
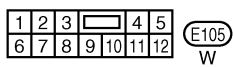
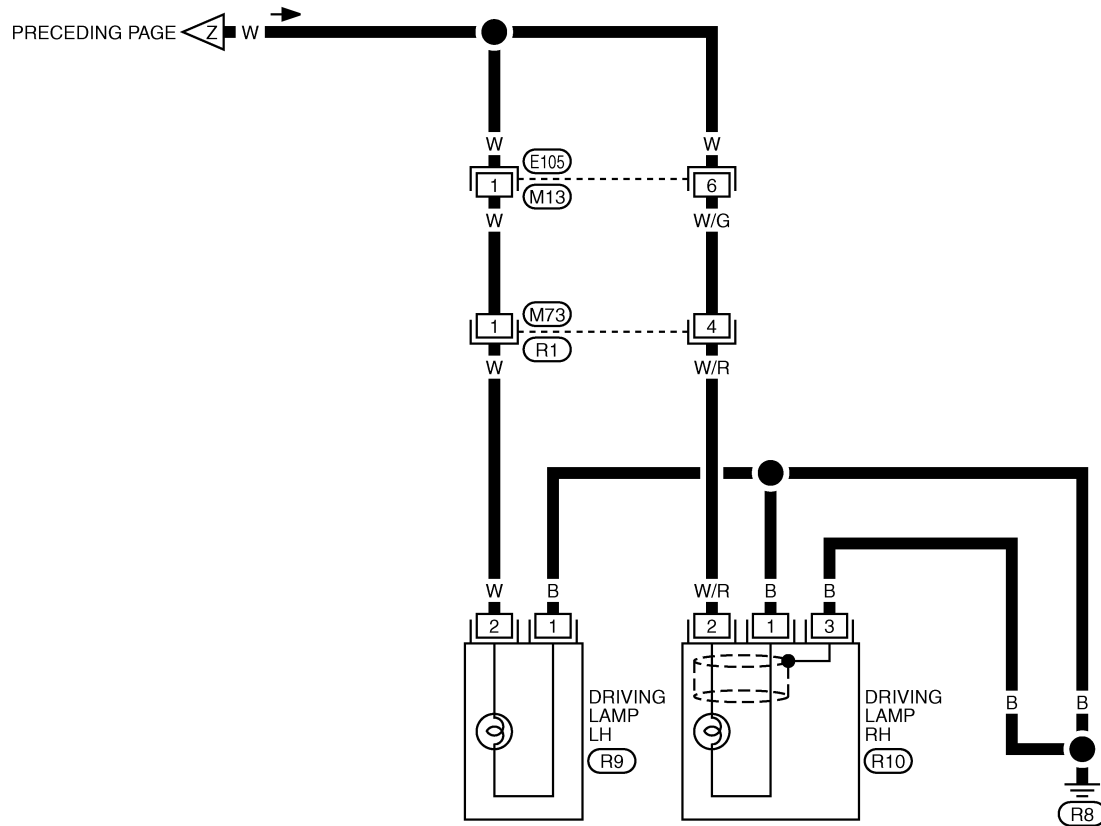
LT-DTRL-08



LT-DTRL-09



LT-DTRL-10



HEADLAMP (WITH DAYTIME) - XENON TYPE -

Trouble Diagnoses

BKS000HV

DAYTIME LIGHT CONTROL UNIT INSPECTION TABLE

Terminal No.	Wire color	Connections	INPUT (I)/ OUTPUT (O)	Operated condition		Voltage
1	G/W	Power source for illumination & tail lamp	—	—		Battery voltage
2	LG	Power source for headlamp LH	—	—		Battery voltage
3	R/W	Power source for headlamp RH	—	—		Battery voltage
4	SB	Headlamp RH	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
5	OR	Headlamp LH	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
6	B/Y	Start signal	I	Ignition switch	START	Battery voltage
					ON, ACC or OFF	Approx. 0V
7	BR	IGN power supply	—	Ignition switch	ON or START	Battery voltage
					ACC or OFF	Approx. 0V
8	Y/R	Alternator "L" terminal	I	Engine	Running	Battery voltage
					Stopped	Approx. 0V
9	B	Ground	—	—		—
10	R/L	Illumination & tail lamp	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
11	R/L	Lighting switch	I	1ST or 2ND position		Battery voltage
				OFF		Approx. 0V

*: Daytime light operating: Lighting switch in OFF position with engine running.

Bulb Replacement

HEADLAMP AND CLEARANCE LAMP

BKS000HW

Refer to [LT-22, "Bulb Replacement of Headlamp and Clearance Lamp"](#) .

DRIVING LAMP

Refer to [LT-23, "Bulb Replacement of Driving Lamp"](#) .

Aiming Adjustment

HEADLAMP

BKS000HX

Refer to [LT-20, "Aiming Adjustment of Headlamp"](#) .

DRIVING LAMP

Refer to [LT-21, "Aiming Adjustment of Driving Lamp"](#) .

Removal and Installation

HEADLAMP

BKS000HY

Refer to [LT-23, "Removal and Installation of Headlamp"](#) .

DRIVING LAMP

Refer to [LT-25, "Removal and Installation of Driving Lamp"](#) .

HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

PFP:26010

System Description DESCRIPTION

BKS000HZ

The headlamp system on vehicles for North Europe contains a daytime light control unit. The unit activates the following whenever the engine is running with the lighting switch in the OFF position:

- Low beam headlamps
- Parking, license plate and tail lamps, and illumination.

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to daytime light control unit terminal 1, and
- to lighting switch terminal 11,
- through 15A fuse (No. 41, located in fuse and fusible link box)
- to daytime light control unit terminal 3, and
- to lighting switch terminal 5,
- through 15A fuse (No. 40, located in fuse and fusible link box)
- to daytime light control unit terminal 2, and
- to lighting switch terminal 8,
- through 15A fuse (No. 38, located in fuse and fusible link box)
- to driving lamp relay-1 terminal 3.

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to daytime light control unit terminal 7,
- through 10A fuse [No. 11, located in the fuse block (J/B)]
- through combination meter terminal 2
- through combination meter terminal 5
- to daytime light control unit terminal 8.

With the ignition switch in the START position, power is supplied

- through 10A fuse [No. 7, located in the fuse block (J/B)]
- to daytime light control unit terminal 6.

Ground is supplied

- to daytime light control unit terminal 9
- through grounds E24 and E50.

LOW BEAM OPERATION (DAYTIME LIGHT SYSTEM CANCEL OPERATION)

When the lighting switch is turned to the 1ST or 2ND position, power is supplied

- through lighting switch terminal 12
- to daytime light control unit terminal 11
- to daytime light relay LH terminal 1, and
- to daytime light relay RH terminal 1,
- through lighting switch terminal 10
- through daytime light relay LH terminal 5
- through daytime light relay LH terminal 3
- to headlamp LH terminal 3,
- through lighting switch terminal 7
- through daytime light relay RH terminal 5
- through daytime light relay RH terminal 3
- to headlamp RH terminal 3.

Ground is supplied

- to daytime light relay LH and RH terminals 2

A

B

C

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HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

- through grounds E24 and E50,
- to headlamp LH and RH terminals 2
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps illuminate.

HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

When the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1, and
- to combination meter terminal 20,
- through lighting switch terminal 6
- to headlamp RH terminal 1.

Ground is supplied

- to headlamp LH and RH terminals 2
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, high beam headlamps and HIGH BEAM indicator illuminate.

DAYTIME LIGHT SYSTEM OPERATION

With the engine running and the lighting switch in the OFF position, power is supplied

- from alternator terminal 3
- to daytime light control unit terminal 8,
- through daytime light control unit terminal 5
- to headlamp LH terminal 3,
- through daytime light control unit terminal 4
- to headlamp RH terminal 3,
- through daytime light control unit terminal 10
- to parking, license plate and tail lamps, and illumination.

Ground is supplied

- to headlamp LH and RH terminals 2
- through grounds E24 and E50.

With power and ground supplied, low beam headlamps, parking, license plate and tail lamps, and illumination illuminate.

DRIVING LAMP OPERATION

To illuminate the driving lamp, push the driving lamp switch when the lighting switch is turned to the 2ND position and placed in HIGH BEAM position or PASSING position, power is supplied

- through lighting switch terminal 9
- to headlamp LH terminal 1
- to combination meter terminal 20
- to driving lamp relay-1 terminal 1
- to driving lamp switch terminal 7, and
- to driving lamp relay-2 terminal 5,
- through lighting switch terminal 6
- to headlamp RH terminal 1,
- through driving lamp relay-2 terminal 3
- to driving lamp switch terminal 6,
- through driving lamp relay-1 terminal 5
- to driving lamp LH and RH terminals 2.

HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

Ground is supplied

- to driving lamp relay-1 terminal 2
- through driving lamp relay-2 terminal 7
- through driving lamp relay-2 terminal 6
- through grounds E24 and E50,
- to driving lamp switch terminal 4
- through driving lamp relay-2 terminal 1
- through driving lamp relay-2 terminal 2
- through grounds E24 and E50,
- to driving lamp LH terminal 1
- through ground R8,
- to driving lamp RH terminal 1
- through ground R8,
- to headlamp LH and RH terminals 2
- through grounds E24 and E50,
- to combination meter terminal 19
- through grounds M27 and M70.

With power and ground supplied, high beam headlamps, driving lamp and the HIGH BEAM indicator illuminate.

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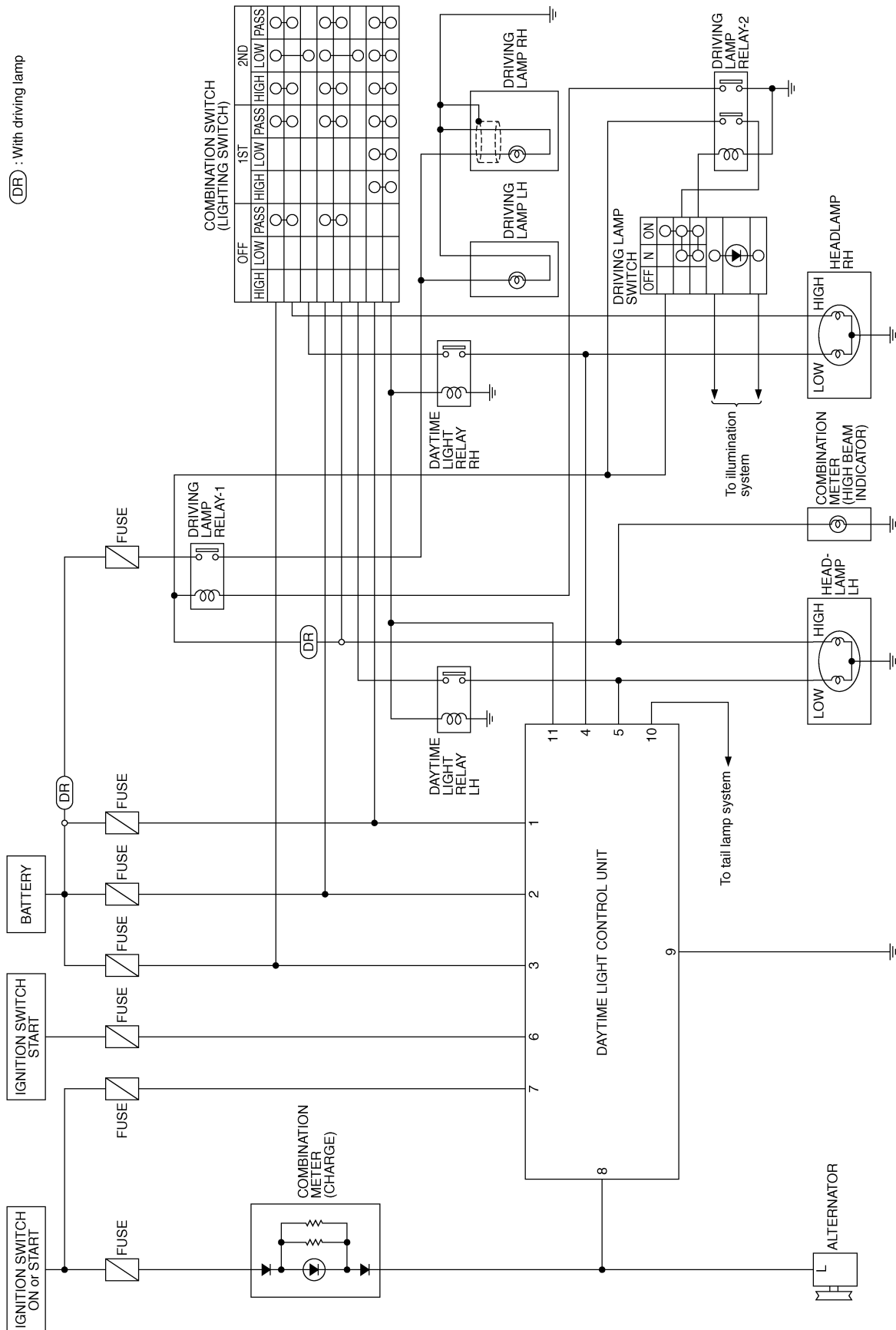
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Schematic

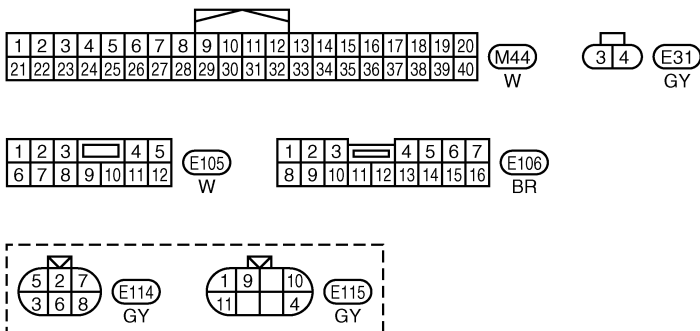
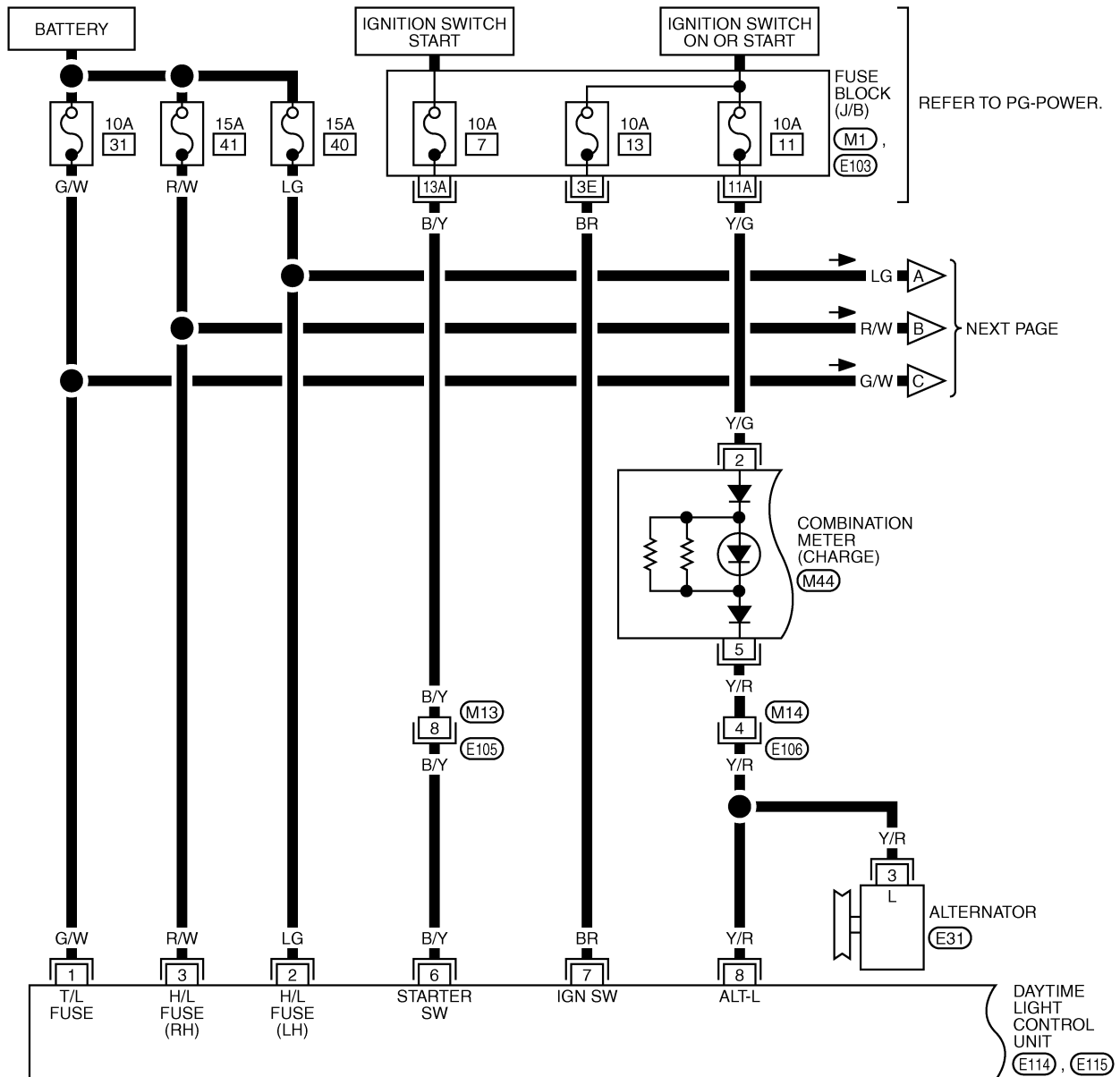


HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

Wiring Diagram —DTRL—

BKS00011

LT-DTRL-01



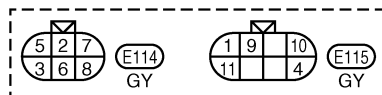
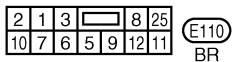
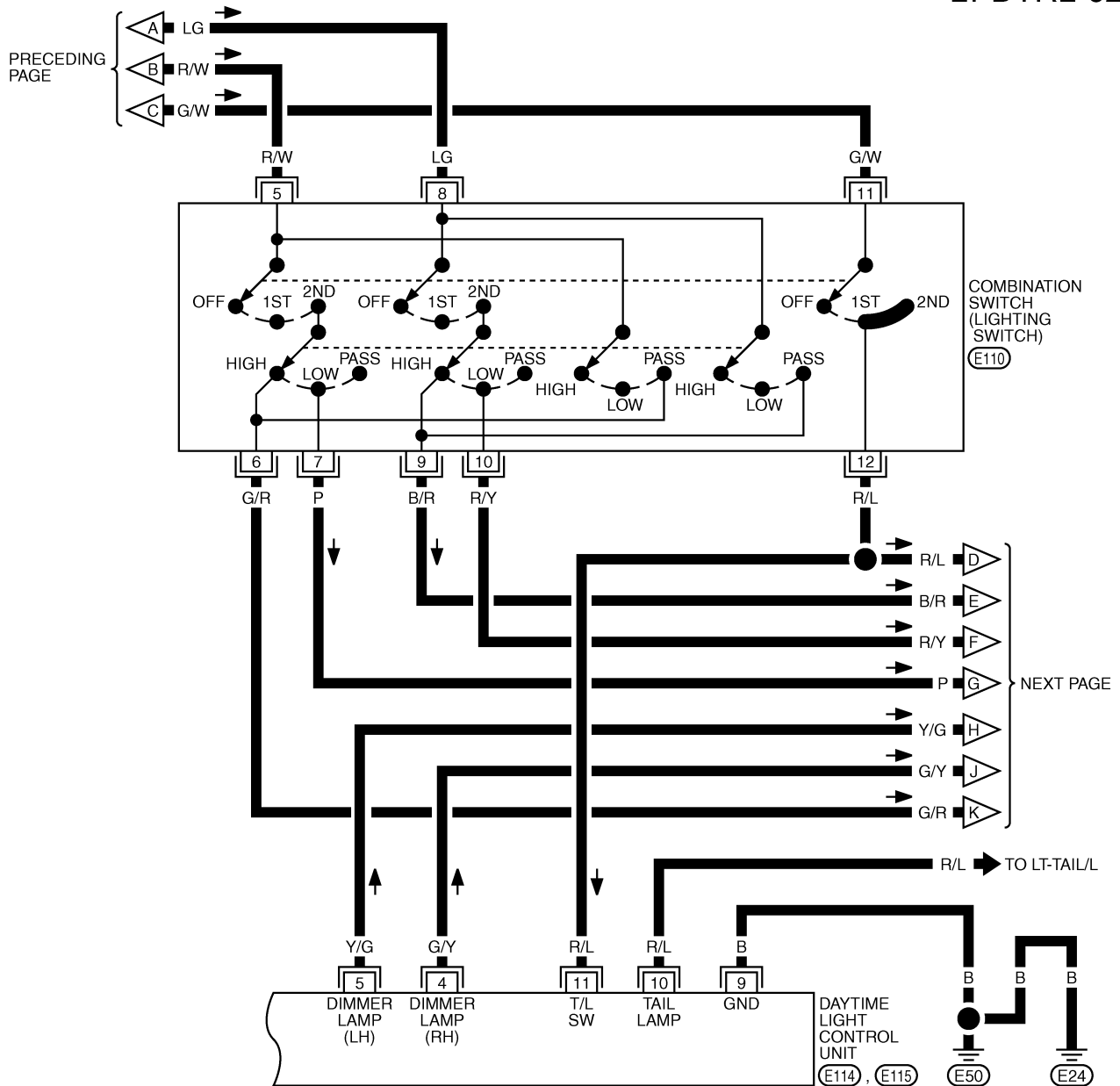
REFER TO THE FOLLOWING.

M1, E103 -FUSE BLOCK-JUNCTION BOX (J/B)

TKWB1769E

HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

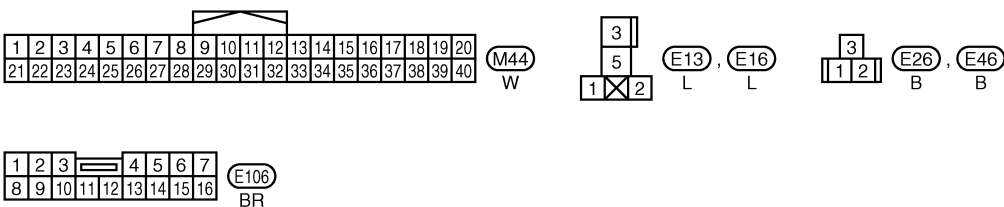
LT-DTRL-02



TKWB1770E

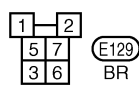
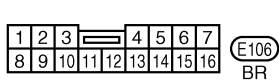
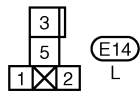
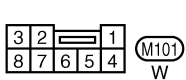
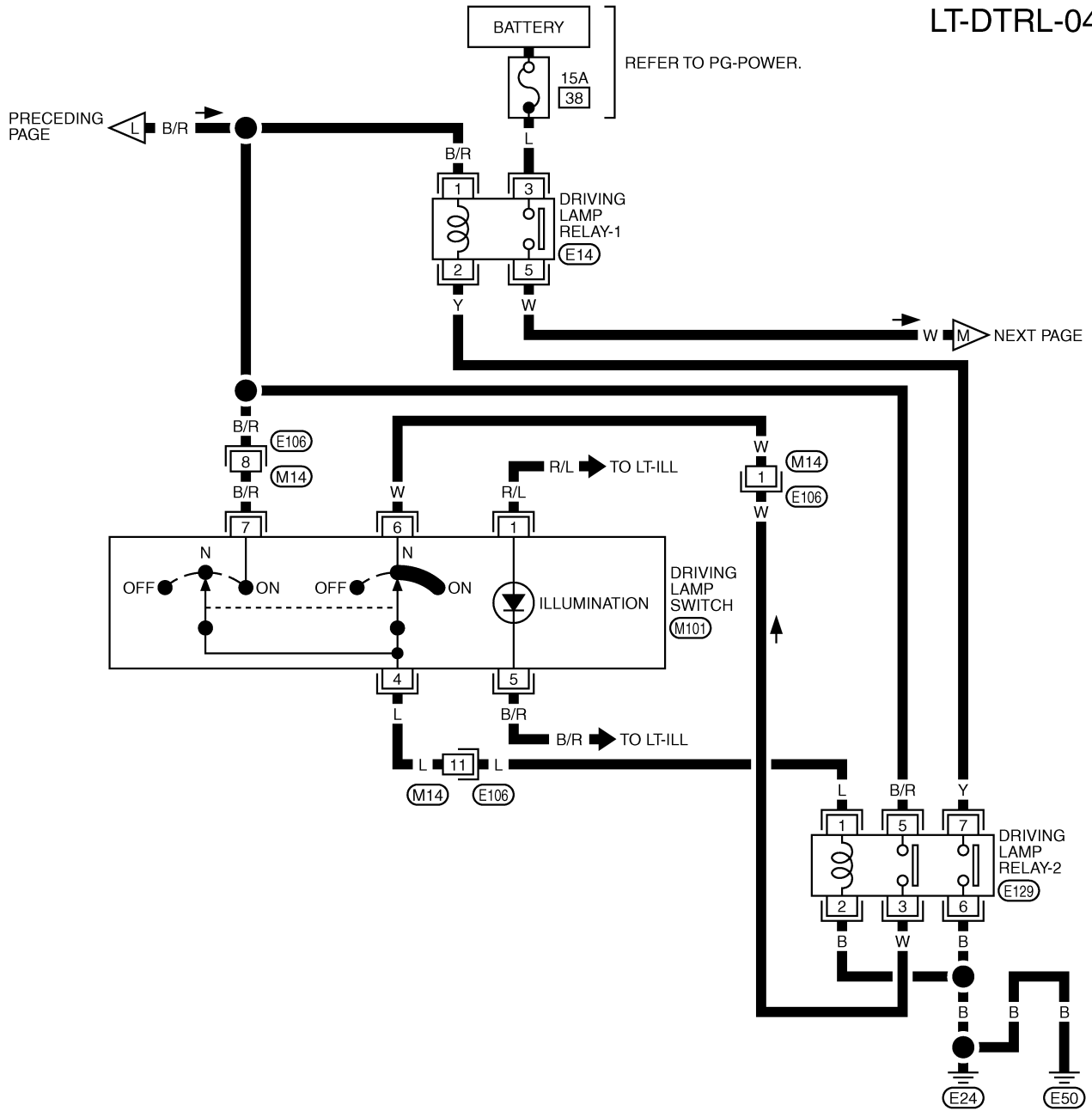
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LT



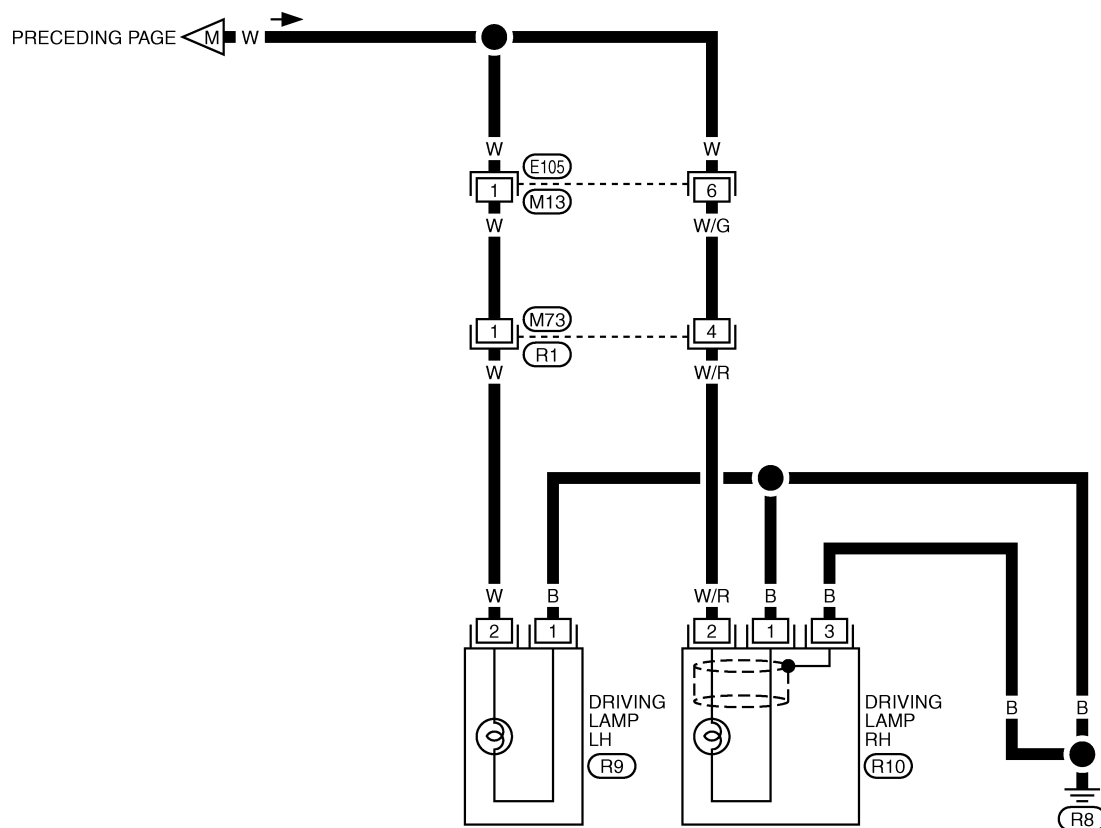
HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

LT-DTRL-04



HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

LT-DTRL-05



1	2	3	4	5
6	7	8	9	10

E105
W

1	2	3
4	5	6

R1
W

2	1
---	---

R9
GY

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

R10
W

TKWB0081E

HEADLAMP (WITH DAYTIME) - CONVENTIONAL TYPE -

Trouble Diagnoses

BKS00012

DAYTIME LIGHT CONTROL UNIT INSPECTION TABLE

Terminal No.	Wire color	Connections	INPUT (I)/ OUTPUT (O)	Operated condition		Voltage
1	G/W	Power source for illumination & tail lamp	—	—		Battery voltage
2	LG	Power source for headlamp LH	—	—		Battery voltage
3	R/W	Power source for headlamp RH	—	—		Battery voltage
4	G/Y	Headlamp RH	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
5	Y/G	Headlamp LH	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
6	B/Y	Start signal	I	Ignition switch	START	Battery voltage
					ON, ACC or OFF	Approx. 0V
7	BR	IGN power supply	—	Ignition switch	ON or START	Battery voltage
					ACC or OFF	Approx. 0V
8	Y/R	Alternator "L" terminal	I	Engine	Running	Battery voltage
					Stopped	Approx. 0V
9	B	Ground	—	—		—
10	R/L	Illumination & tail lamp	O	ON (daytime light operating*)		Battery voltage
				OFF		Approx. 0V
11	R/L	Lighting switch	I	1ST or 2ND position		Battery voltage
				OFF		Approx. 0V

*: Daytime light operating: Lighting switch in OFF position with engine running.

Bulb Replacement

BKS00013

HEADLAMP AND CLEARANCE LAMP

Refer to [LT-40, "Bulb Replacement of Headlamp and Clearance lamp"](#) .

DRIVING LAMP

Refer to [LT-40, "Bulb Replacement of Driving Lamp"](#) .

Aiming Adjustment

BKS00014

HEADLAMP

Refer to [LT-38, "Aiming Adjustment of Headlamp"](#) .

DRIVING LAMP

Refer to [LT-39, "Aiming Adjustment of Driving Lamp"](#) .

Removal and Installation

BKS00015

HEADLAMP

Refer to [LT-41, "Removal and Installation of Headlamp"](#) .

DRIVING LAMP

Refer to [LT-41, "Removal and Installation of Driving Lamp"](#) .

HEADLAMP AIMING CONTROL (MANUAL)

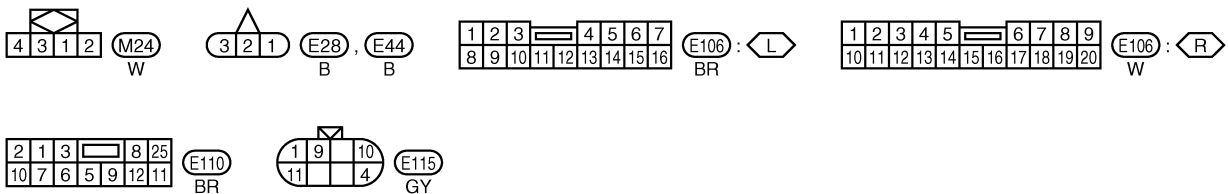
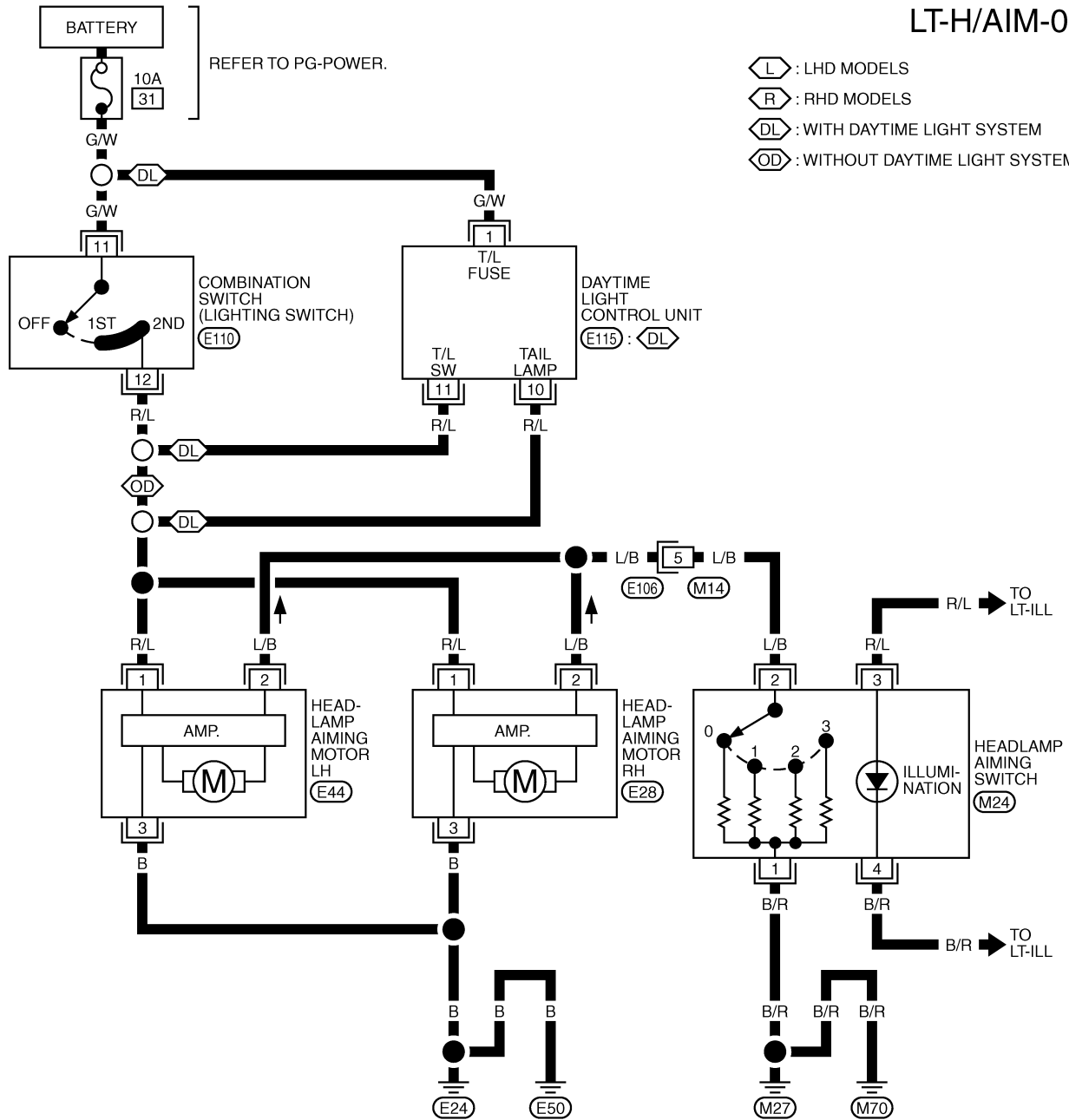
HEADLAMP AIMING CONTROL (MANUAL)

PFP:25190

Wiring Diagram — H/AIM —

BKS00016

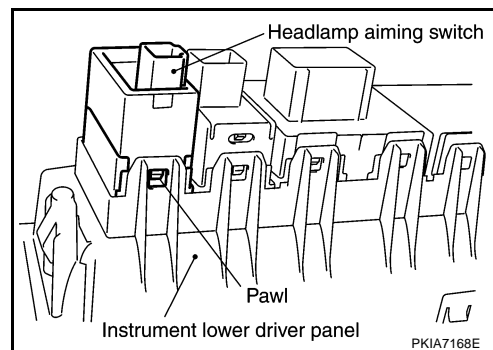
LT-H/AIM-01



HEADLAMP AIMING CONTROL (MANUAL)

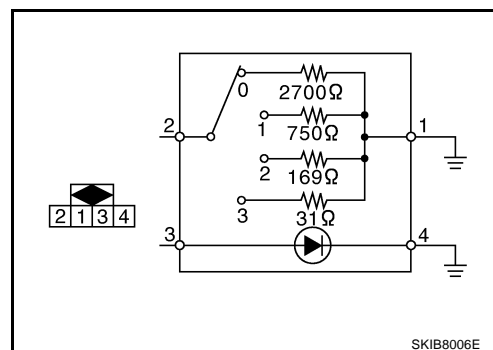
Removal and Installation

1. Remove Instrument lower driver panel. Refer to [IP-11, "Removal and Installation"](#).
2. Press headlamp aiming switch fixing pawls and remove it from Instrument lower driver panel.



Switch Circuit Inspection

Using a circuit tester, check continuity between the headlamp aiming switch connector terminals in each operation status of the aiming switch.



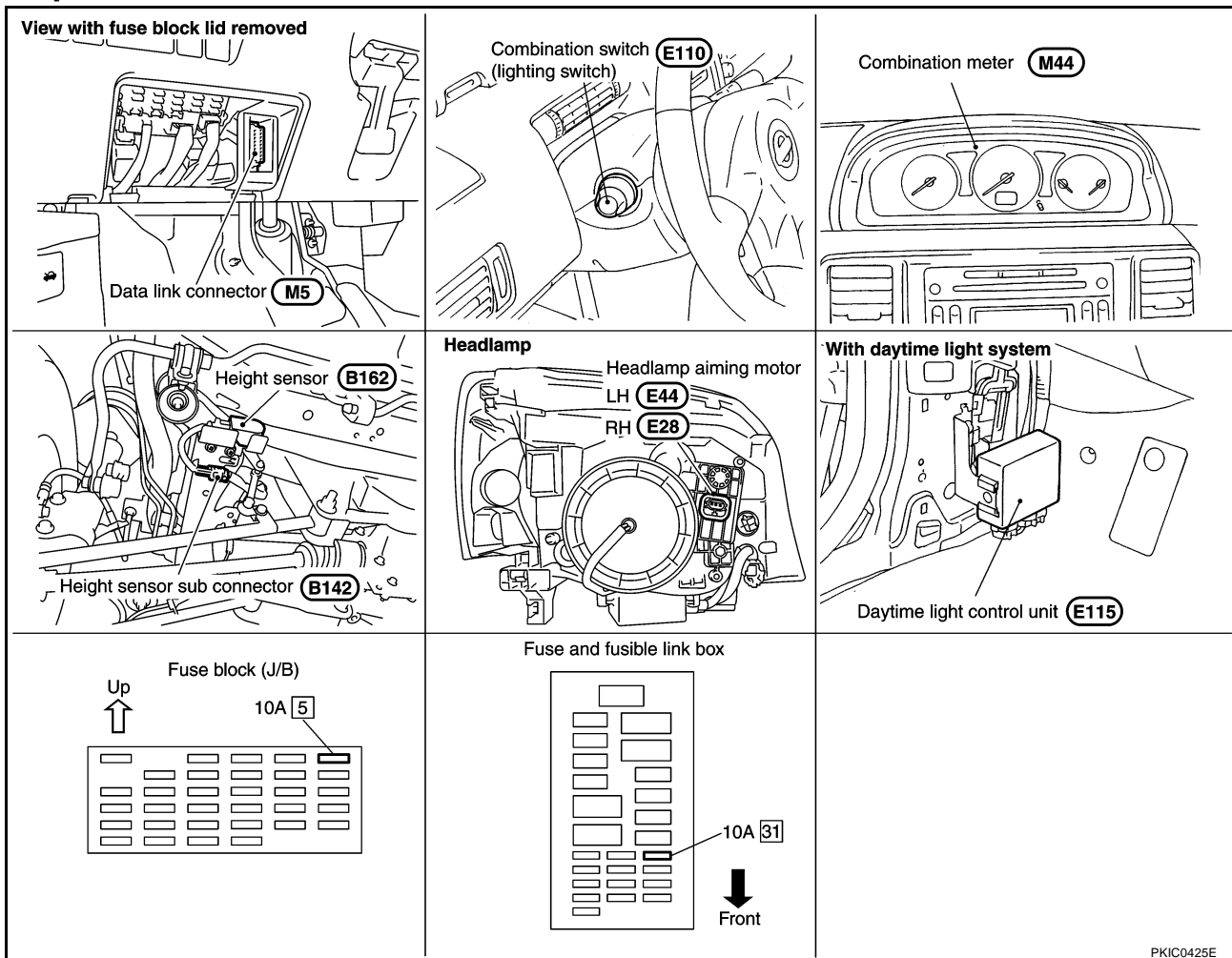
HEADLAMP AIMING CONTROL (AUTO)

HEADLAMP AIMING CONTROL (AUTO)

PFP:53821

Component Parts and Harness Connector Location

BKS00019



PKIC0425E

System Description

BKS0001A

With the lighting switch in the 1ST or 2ND position, the height sensor detects change in the vehicle height and transmits a corresponding signal to the headlamp aiming motors. The signal drives the headlamp aiming motors, which adjusts the low beam reflector of each headlamp to an angle appropriate for the vehicle height. When the vehicle is stationary, the motors move the reflectors if the vehicle height changes to a certain height and the height is maintained for a predetermined period. When the vehicle is running (excluded when accelerating/decelerating), the reflector angle is adjusted at predetermined intervals.

OUTLINE

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to lighting switch terminal 11, and
- to daytime light control unit terminal 1 (with daytime light system).

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 5, located in fuse block (J/B)]
- to height sensor terminal 1, and
- to headlamp aiming motor RH and LH terminals 1.

Ground is supplied

- to height sensor terminal 5
- through grounds B107 and B119,
- to headlamp aiming motor RH and LH terminals 3

HEADLAMP AIMING CONTROL (AUTO)

- through grounds E24 and E50.

HEADLAMP AIMING CONTROL OPERATION

The height sensor is located on the right side of the rear suspension member and detects vehicle height change by sensing the displacement of the suspension arm.

When the ignition switch is turned to the ON position, power is supplied

- through 10A fuse [No. 5 located in fuse block (J/B)]
- to height sensor terminal 1, and
- to headlamp aiming motor RH and LH terminals 1.

At the same time, the vehicle height signal (voltage signal that corresponds to the vehicle height) is applied

- through height sensor terminal 3
- to headlamp aiming motor RH and LH terminals 2.

Ground is supplied

- to headlamp aiming motor RH and LH terminals 3
- through grounds E24 and E50,
- to height sensor terminal 5
- through grounds B107 and B119.

And the voltage level of this signal is maintained.

When the lighting switch is placed in the 1ST or 2ND position, power is supplied (without daytime light system)

- through lighting switch terminal 12
- to height sensor terminal 8.

When the lighting switch is placed in the 1ST or 2ND position, power is supplied (with daytime light system)

- through lighting switch terminal 12
- to daytime light control unit terminal 11
- through daytime light control unit terminal 10
- to height sensor terminal 8.

Ground is supplied

- to height sensor terminal 5
- through grounds B107 and B119.

The height sensor starts the aiming control.

When the stopped vehicle changes the height and keeps it for more than 10 seconds, the height sensor outputs a headlamp aiming motor drive signal. And height sensor keeps signal voltage to headlamp aiming motor. (Voltage depends on the vehicle height.)

Upon reception of the headlamp aiming motor drive signal, both headlamp aiming motors cause the low beam reflectors to move to the position commanded by the signal.

When the vehicle is running (excluded when accelerating/decelerating), the height sensor transmits headlamp aiming motor drive signal to headlamp aiming motors at the predetermined intervals. The voltage level of every signal input is maintained unchanged until the next signal is input.

Upon reception of the headlamp aiming motor drive signal, both headlamp aiming motors cause the low beam reflectors to move to the position commanded by the signal.

When the vehicle is accelerating or decelerating, the height sensor keeps the same headlamp aiming motor drive signal voltage level rather than changing it, so that the low beam reflectors of both headlamps do not operate.

When the lighting switch is turned OFF, the height sensor retains the headlamp aiming motor drive signal level at that moment and stops transmitting the signal.

Height Sensor Control Operation

height sensor operating control interval	Vehicle is stopped *1	Headlamp aiming motor starts after vehicle is stopped for approx. 10 seconds.					
	Vehicle is running *2	Up to 31 seconds, and every 10 seconds after starting running with a constant speed	About 41 seconds	About 82 seconds	About 161 seconds	About 323 seconds	After 323 seconds or more, every 323 seconds

*1 Included when running at to 4 km/h (2.48 MPH) or less, but exclude when accelerating/decelerating.

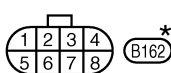
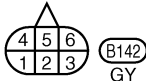
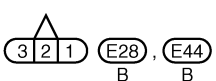
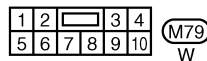
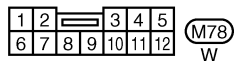
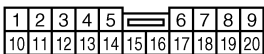
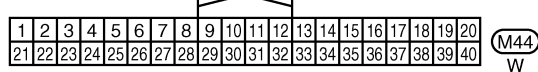
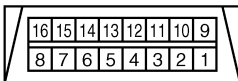
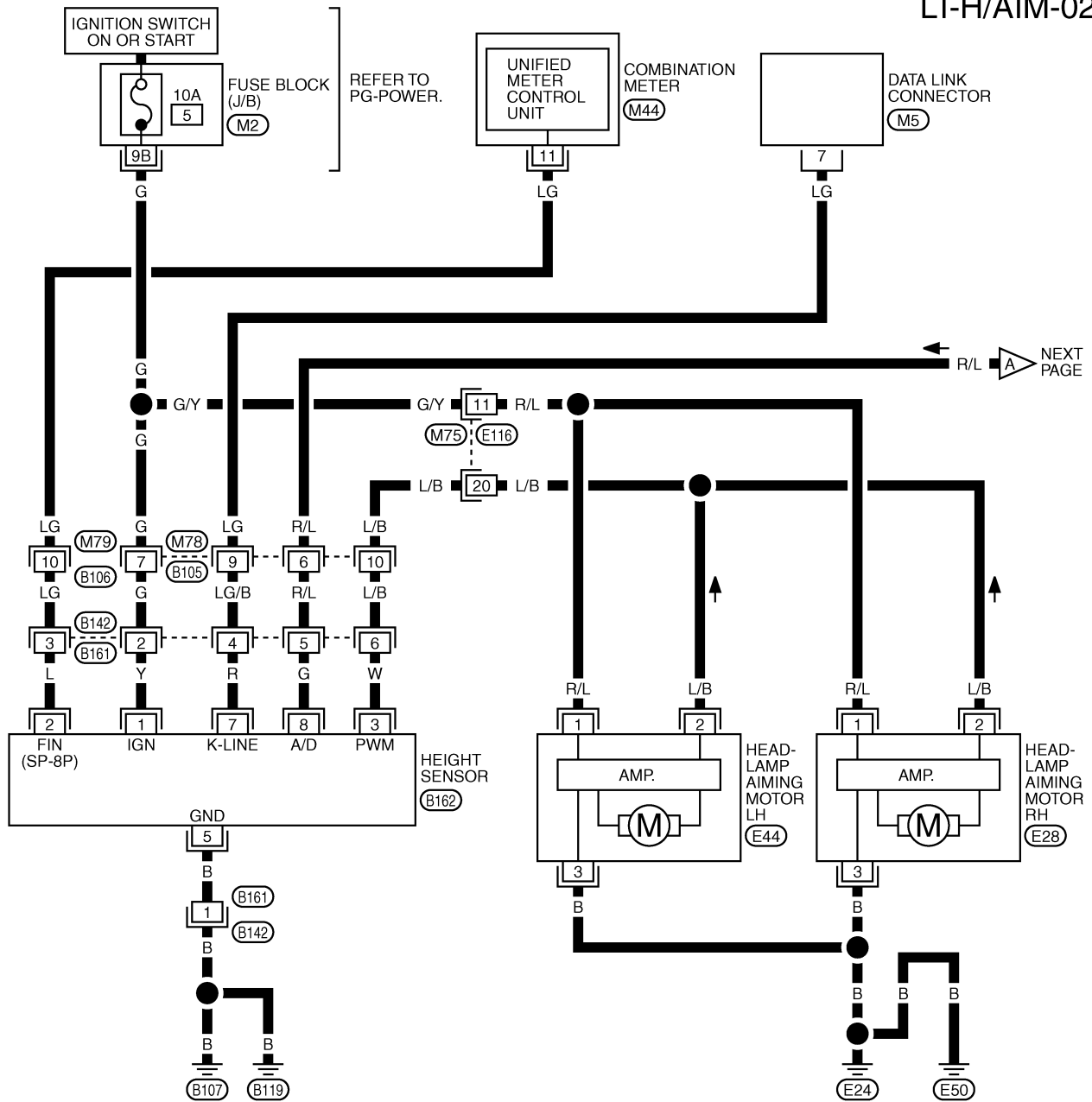
*2 Included when running at more than 4 km/h (2.48 MPH), but exclude when accelerating/decelerating.

HEADLAMP AIMING CONTROL (AUTO)

Wiring Diagram — H/AIM — LHD MODELS

BKS0001C

LT-H/AIM-02



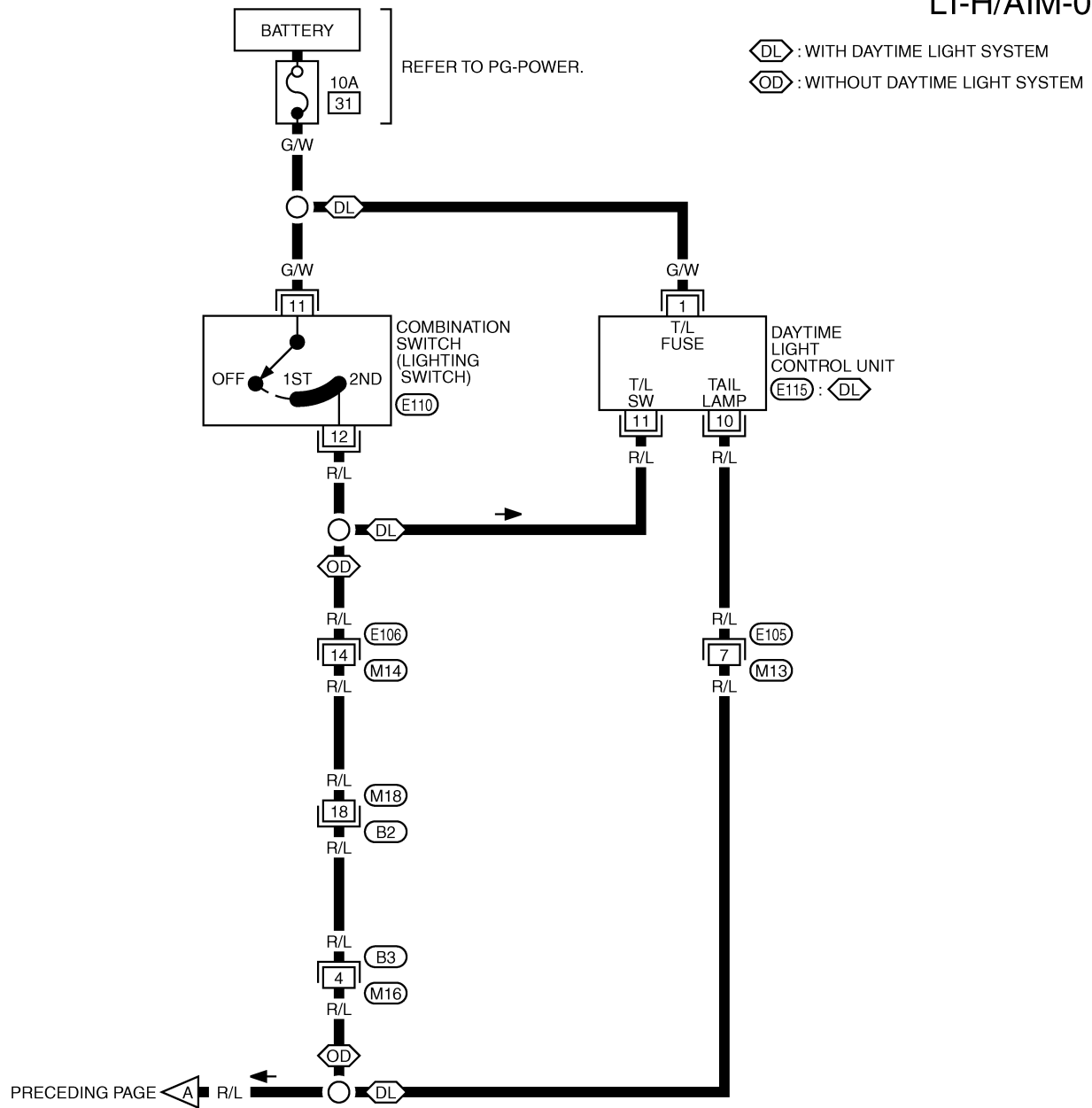
*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.
(M2) - FUSE BLOCK-JUNCTION BOX (J/B)

TKWB1130E

HEADLAMP AIMING CONTROL (AUTO)

LT-H/AIM-03



1	2	3	4	5
6	7	8	9	10

E105
W

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

E106
BR

2	1	3	8	25
10	7	6	5	9

E110
BR

1	9	10
11		4

E115
GY

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

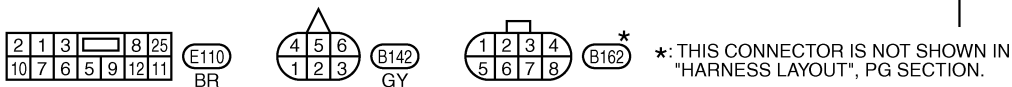
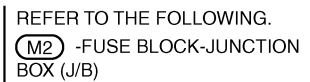
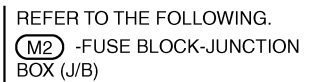
B2
BR

1	2
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B3
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LT-H/AIM-04



HEADLAMP AIMING CONTROL (AUTO)

Terminals and Reference Values of Daytime Light Control Unit

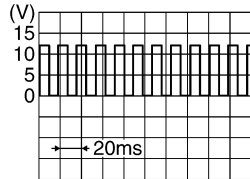
BKS0001D

Terminal No.	Wire color	Connections	Operated condition	Voltage
1	G/W	Power source for illumination & tail lamp	—	Battery Voltage
10	R/L	Illumination & tail lamp	ON (daytime light operating*)	Battery voltage
			OFF	Approx. 0V
11	R/L	Lighting switch	1ST or 2ND position	Battery voltage
			OFF	Approx. 0V

*: Daytime light operating: Lighting switch in OFF position with engine running.

Terminals and Reference Values for Height Sensor

BKS0001E

Terminal No.	Wire color	Signal name	Measuring condition		Reference value
			Ignition switch	Operation or condition	
1	Y	Ignition switch (ON)	ON	—	Battery voltage
2	L	Vehicle speed signal	ON	about 40 km/h (25 MPH)	 <p>PKIA1935E</p>
3	W	Output signal for aiming motor	ON	Lighting switch 1ST position and vehicle speed 0 km/h (0 MPH)	Approx. 4.4 - 9.2V
5	B	Ground	ON	—	—
7	R	K - LINE	—	—	—
8	G	Tail lamp signal	—	Lighting switch 1ST position	OFF
				ON	Battery voltage

How to Proceed With Trouble Diagnosis

BKS0001F

1. Confirm the symptom or customer complaint.
2. Understand operation description and function description. Refer to [LT-65, "System Description"](#).
3. Perform self-diagnosis by CONSULT-II. Refer to [LT-73, "SELF-DIAG RESULTS"](#).
4. Check symptom and repair or replace the cause of malfunction.
5. Does the headlamp aiming control operate normally? If YES, GO TO 6. If NO, GO TO 4.
6. INSPECTION END

HEADLAMP AIMING CONTROL (AUTO)

CONSULT-II Functions (HEADLAMP LEVELIZER)

BKS000/G

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

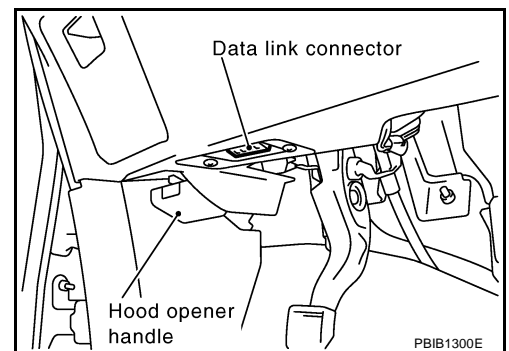
Diagnosis mode	Description
WORK SUPPORT	Height sensor can be initialized.
SELF-DIAG RESULTS	The result of self-diagnosis for height sensor can be displayed and erased.
DATA MONITOR	Displays height sensor inputs and outputs in real time.
ACTIVE TEST	Operation of headlamp aiming motor can be confirmed with "MAX", "MID" or "MIN" touched.
ECU PART NUMBER	Height sensor part number can be read.
CONFIGURATION	(Not be used.)

CONSULT-II BASIC OPERATION

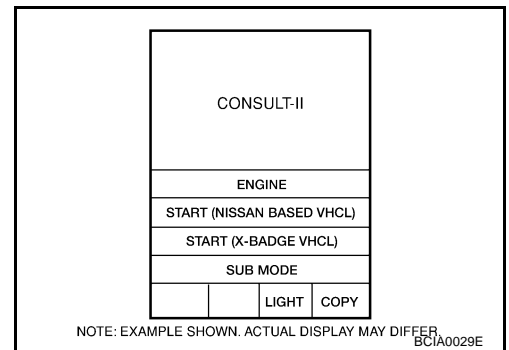
CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

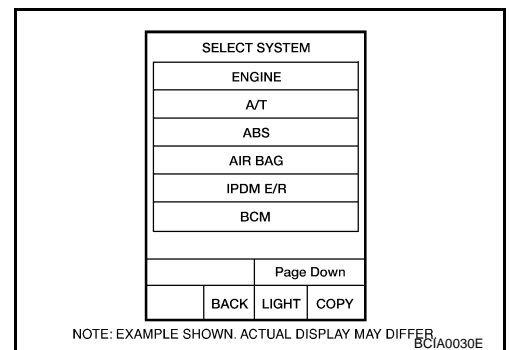
1. With the ignition switch OFF, connect CONSULT-II and CONSULT-II CONVERTER to the data link connector, and then turn the ignition switch ON.



2. Touch "START (NISSAN BASED VHCL)".



3. Touch "HEAD LAMP LEVELIZER" on "SELECT SYSTEM" screen. If "HEAD LAMP LEVELIZER" is not indicated, refer to [GI-35, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



HEADLAMP AIMING CONTROL (AUTO)

WORK SUPPORT

Display Item List

Item	Description
SENSOR INITIALISE	Make it memorize height sensor stroke of unloaded vehicle condition. Perform when replacing height sensor.

Operation Procedure

Height sensor initialize

1. Set the vehicle in unladen condition. (Removal all loads in driver, passenger and trunk rooms.)
2. Touch "HEAD LAMP LEVELIZER" on "SELECT SYSTEM" screen.
3. Touch "WORK SUPPORT" on "SELECT DIAG MODE" screen.
4. Touch "SENSOR INITIALISE".
5. Touch "WRITE".
6. "INITIALISE COMPLETE" will be displayed.
7. Touch "END".

Instruction of initialized results

Item	Description of indications
INITIALISE COMPLETE	Initialization completed.
INCORRECT CONDITION	Improper condition. (Wrong connection of height sensor connector or CONSULT-II connector.)
NO CAR TYPE SELECT	Program error of the height sensor.
INITIALISE NOT DONE	Initialization uncompleted.

DATA MONITOR

Operation Procedure

1. Touch "HEADLAMP LEVELIZER" on "SELECT SYSTEM" screen.
2. Touch "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Touch either "ALL SIGNALS" or "SELECTION FROM MENU" on "SELECT MONITOR ITEM" screen.

ALL SIGNALS	Monitors all the signals.
SELECTION FROM MENU	Selects items and monitors them.

4. When "SELECTION FROM MENU" is selected, touch items to be monitored. When "ALL SIGNALS" is selected, all the items will be monitored.
5. Touch "START".
6. Touch "RECORD" while monitoring, then the status of the monitored item can be recorded. To stop recording, touch "STOP".

Display Item List

Monitor item	Contents
INT SENSOR VALUE "%"	Displays the ratio between the maximum sensor lever angle which the height sensor can recognize and the current sensor angle.
ACT OUTPUT "%"	Displays the ratio between the headlamp aiming motor drive signal voltage calculated by the height sensor and the height sensor power supply voltage.
ACT MEASURED "%"	Displays the ratio between the headlamp aiming motor drive signal voltage and the height sensor power supply voltage.
SPEED SIG "km/h"	Displays vehicle speed calculated from the vehicle speed signal (8-pulse).
LIGHT SIGNAL "V"	Displays the condition either "tail lamps ON (power supply voltage)" or "tail lamps OFF (2 V or less)" judged from the tail lamp signal.
INT SEN VOLT "V"	Displays the condition of IGN power supply.
EXT SEN VOLT ^{NOTE} "V"	—
EXT SEN SIG ^{NOTE} "V"	—

HEADLAMP AIMING CONTROL (AUTO)

NOTE:

This item is displayed, but does not function.

ACTIVE TEST

Operation Procedure

1. Touch "HEAD LAMP LEVELIZER" on "SELECT SYSTEM" screen.
2. Touch "ACTIVE TEST" on "SELECT DIAG MODE" screen.
3. Touch "LAMP TEST", then "MAX", "MID" or "MIN" to change aiming line.
4. Touch "END" after the test.

Display Item List

Item (CONSULT-II screen terms)	Test item	Description
LAMP TEST	Aiming direction change	Operation of headlamp aiming motor can be confirmed with "MAX", "MID" or "MIN" touched.

SELF-DIAG RESULTS

Operation Procedure

1. Touch "SELF-DIAG RESULTS" on the "SELECT DIAG MODE" screen.
2. Check display content in self-diagnostic results.

Description of DTC and Solutions after Detection

CONSULT-II can detect DTC (Diagnosis trouble code). The descriptions and solutions of DTC are listed below.

Details of error indication detected by CONSULT-II	Conditions of error detection	Code storage	Fail-safe		Reference
			Within 5 seconds after ignition switch ON, or vehicle speed less than or equal to 4 km/h (2.48 MPH).	5 seconds and more after ignition switch ON, or vehicle speed more than to 4 km/h (2.48 MPH).	
[B2080] [ECU TROUBLE]	ECU error of the height sensor.	YES	<ul style="list-style-type: none">● Fix headlamp aiming motor drive signal around 0 V.● Maintain a current position of light axis.		Replace height sensor, and initialize it. Refer to LT-87, "Removal and Installation of Height Sensor" .
[B2081] [INITIAL NOT DONE]	Initialization has not completed.	NO	Set and maintain light axis downward.		Refer to LT-80, "DTC B2081 [INITIAL NOT DONE]" .
[B2082] [SENSOR OUT OF RANGE]	Vehicle height detected by height sensor is unusual.				Refer to LT-80, "DTC B2082 [SENSOR OUT OF RANGE]" .

HEADLAMP AIMING CONTROL (AUTO)

Details of error indication detected by CONSULT-II	Conditions of error detection	Code storage	Fail-safe		Reference
			Within 5 seconds after ignition switch ON, or vehicle speed less than or equal to 4 km/h (2.48 MPH).	5 seconds and more after ignition switch ON, or vehicle speed more than to 4 km/h (2.48 MPH).	
[B2083] [SEN SIG NOT PLAUSIBLE]	Vehicle height detected by height sensor while running does not change more than 5 minutes stretch.	YES	Maintain a current position of light axis.		Refer to LT-81, "DTC B2083 [SEN SIG NOT PLAUSIBLE]" .
[B2084] [VOLTAGE UNDER LIMIT]	Voltage of height sensor terminal 1 kept having less than or equal to 9 V for 1.5 seconds and over.				Refer to LT-81, "DTC B2084 [VOLTAGE UNDER LIMIT]" .
[B2085] [LOW BEAM SIG OPEN LINE]	Height sensor terminal 8 had less than 6 V at lighting switch 1ST, or had more than 2V for 1.5 seconds or more at lighting switch OFF.		Set and maintain light axis downward.	Maintain a current position of light axis.	Refer to LT-82, "DTC B2085 [LOW BEAM SIG OPEN LINE]" .
[B2086] [FRQ. OVER LIMIT]	Vehicle speed signal kept showing over 340 km/h (221.3 MPH) for more than 1.5 seconds.				Refer to LT-83, "DTC B2086 [FRQ. OVER LIMIT]" .
[B2087] [SHORT TO GROUND]	Height sensor terminal 3 had short-circuit with a ground more than 1.5 seconds.		Maintain a current position of light axis.		Refer to LT-83, "DTC B2087 [SHORT TO GROUND]" .
[B2088] [SHORT TO BATTERY]	Height sensor terminal 3 had short-circuit with a power supply line more than 1.5 seconds.				Refer to LT-85, "DTC B2088 [SHORT TO BATTERY]" .
[B208A] [PARA NOT PROG]	Program error of the height sensor.		<ul style="list-style-type: none"> ● Fix headlamp aiming motor drive signal around 0 V. ● Maintain a current position of light axis. 		Replace height sensor, and initialize it. Refer to LT-87, "Removal and Installation of Height Sensor" .

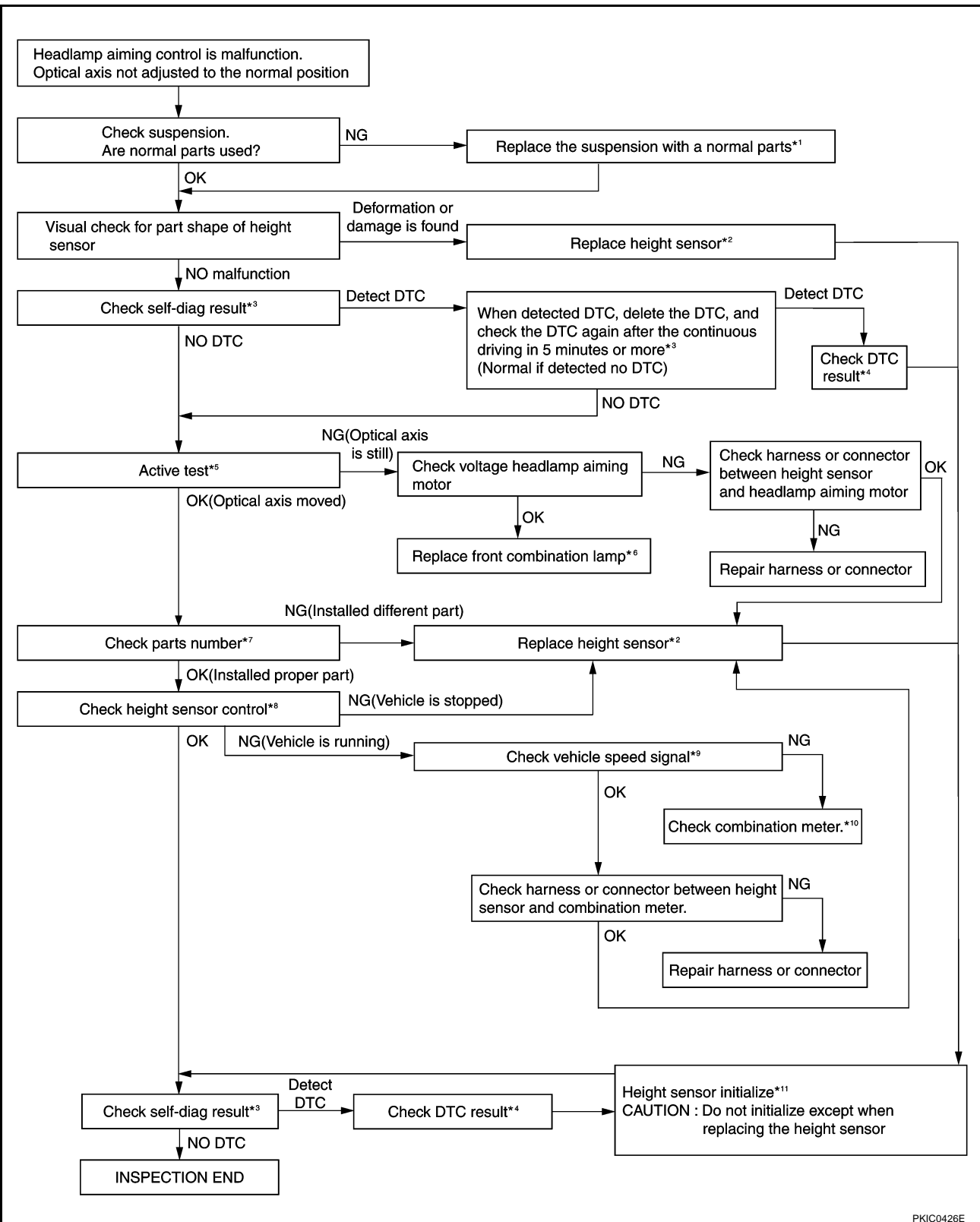
CAUTION:

- As for [B2084] to [B2086], fail-safe is performed in accordance with running condition when code is detected, and maintains the condition until ignition switch is turned OFF.
When ignition switch is turned ON, fail-safe is set to "within 5 seconds after starting vehicle" or "vehicle speed less than or equal to 4 km/h (2.48 MPH)". Perform fail-safe only when having a current abnormality.
- As for [B2084] to [B2088], perform fail-safe only when having a current abnormality.

HEADLAMP AIMING CONTROL (AUTO)

Check Aiming Control System

BKS0001H



PKIC0426E

*1 Refer to [FSU-5, "FRONT SUSPENSION ASSEMBLY"](#) and [RSU-5, "REAR SUSPENSION ASSEMBLY"](#).

*2 Refer to [LT-87, "Removal and Installation of Height Sensor"](#).

*3 Refer to [LT-73, "SELF-DIAG RESULTS"](#).

*4 Refer to [LT-73, "Description of DTC and Solutions after Detection"](#).

*5 Refer to [LT-73, "ACTIVE TEST"](#).

*6 Refer to [LT-23, "Removal and Installation of Headlamp"](#).

HEADLAMP AIMING CONTROL (AUTO)

*7 Refer to [LT-71, "CONSULT-II Functions \(HEADLAMP LEVELIZER\)"](#) .

*8 Refer to [LT-66, "Height Sensor Control Operation"](#) and [LT-72, "DATA MONITOR"](#) .

*9 Refer to [LT-72, "DATA MONITOR"](#) .

*10 Refer to [DI-28, "Vehicle Speed Signal Inspection \[With ESP\]"](#) or [DI-28, "Vehicle Speed Signal Inspection \[Without ESP\]"](#) .

*11 Refer to [LT-72, "WORK SUPPORT"](#) .

CAUTION:

If the vehicle height is outside the proper height, aiming control may not be performed normally even when the headlamp aiming control system is normal.

Symptom Chart

BKS000II

Symptom	Reference
Headlamp aiming motor does not operate (Both sides)	Refer to LT-76, "Headlamp Aiming Motor Does Not Operate (Both Sides)" .
Headlamp aiming motor does not operate (One side)	Refer to LT-79, "Headlamp Aiming Motor Does Not Operate (One Side)" .

Headlamp Aiming Motor Does Not Operate (Both Sides)

BKS000IJ

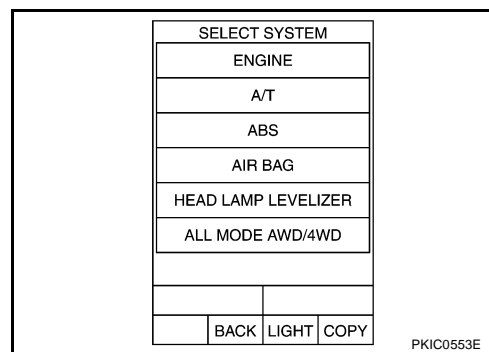
1. CHECK DIAGNOSIS RESULT-1

Select "HEAD LAMP LEVELIZER" on CONSULT-II.

Is "HEAD LAMP LEVELIZER" displayed?

YES >> GO TO 4.

NO >> GO TO 2.



2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect height sensor sub harness connector.
3. Turn ignition switch ON.
4. Check voltage between height sensor sub harness connector B142 terminal 2 and ground.

2 – Ground

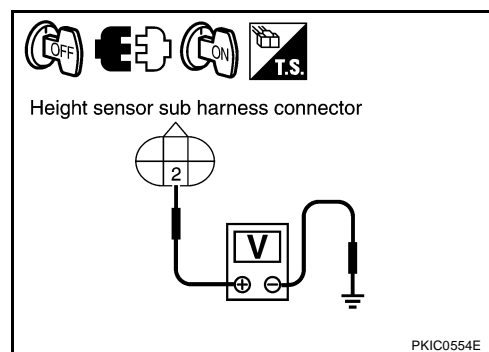
: Battery voltage.

OK or NG

OK >> GO TO 3.

NG >> Check the following.

- 10A fuse [No. 5, located in fuse block (J/B)]
- Harness for open or short between 10A fuse (No. 5) and height sensor
- Harness connector



HEADLAMP AIMING CONTROL (AUTO)

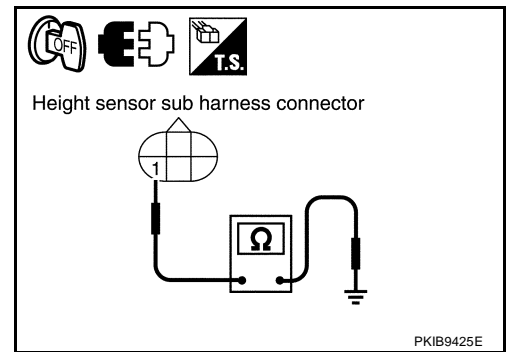
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between height sensor sub harness connector B142 terminal 1 and ground.

1 – Ground : Continuity should exist.

OK or NG

- OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NG >> Repair harness or connector.

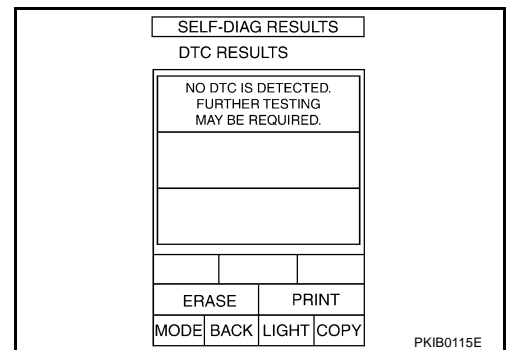


4. CHECK DIAGNOSIS RESULT - 2

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II, and select "SELF-DIAG RESULTS" on "SELECT DIAG MODE" screen.
2. Check display content in self-diagnostic results.

Is DTC detected?

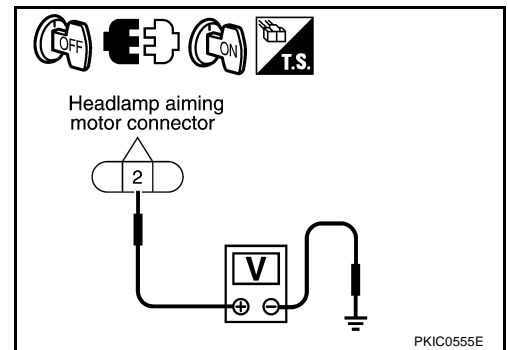
- YES >> Check with obeying indicated DTC. Refer to [LT-73, "Description of DTC and Solutions after Detection"](#).
- NO >> GO TO 5.



5. CHECK HEADLAMP AIMING MOTOR INPUT SIGNAL

1. Turn ignition switch OFF.
2. Disconnect headlamp aiming motor RH and LH connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 2ND position.
5. Check voltage between headlamp aiming motor RH harness connector E28 terminal 2 and ground.

2 – Ground : Voltage elevates after about 10 seconds when a load imposes on rear axle. Voltage drops after about 10 seconds when remove a load.



6. Check voltage between headlamp aiming motor LH harness connector E44 terminal 2 and ground.

2 – Ground : Voltage elevates after about 10 seconds when a load imposes on rear axle. Voltage drops after about 10 seconds when remove a load.

OK or NG

- OK >> GO TO 6.
- NG >> 1. There is no change even though voltage is from about 5V through 10V.
: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
2. Voltage is 0V.
: GO TO 8.

HEADLAMP AIMING CONTROL (AUTO)

6. CHECK POWER SUPPLY CIRCUIT

1. Check voltage between headlamp aiming motor RH harness connector E28 terminal 1 and ground.

1 – Ground : Battery voltage.

2. Check voltage between headlamp aiming motor LH harness connector E44 terminal 1 and ground.

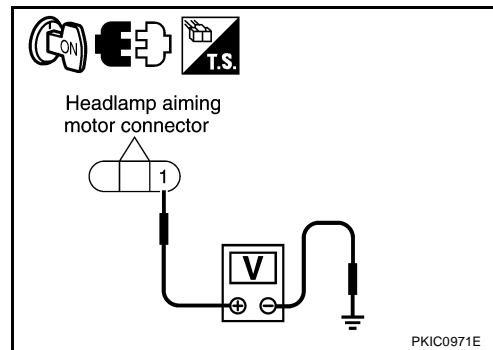
1 – Ground : Battery voltage.

OK or NG

OK >> GO TO 7.

NG >> Check the following.

- Harness for open or short between 10A fuse [No. 5, located in fuse block (J/B)] and front combination lamp
- Harness connector



7. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between headlamp aiming motor RH harness connector E28 terminal 3 and ground.

3 – Ground : Continuity should exist.

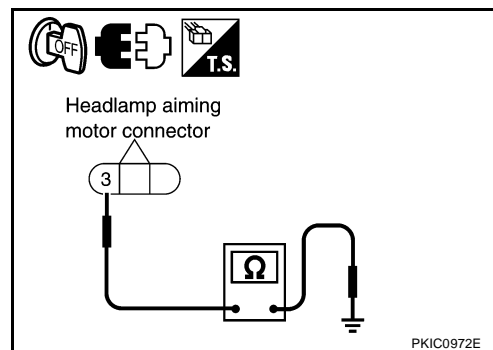
3. Check continuity between headlamp aiming motor LH harness connector E44 terminal 3 and ground.

3 – Ground : Continuity should exist.

OK or NG

OK >> Replace headlamp. Refer to [LT-23, "Removal and Installation of Headlamp"](#).

NG >> Repair harness or connector.



8. CHECK HEADLAMP AIMING MOTOR INPUT SIGNAL CIRCUIT

1. Turn ignition switch OFF, and lighting switch OFF.
2. Disconnect height sensor sub harness connector.
3. Check continuity between headlamp aiming motor RH harness connector E28 terminal 2 and height sensor sub harness connector B142 terminal 6.

2 – 6 : Continuity should exist.

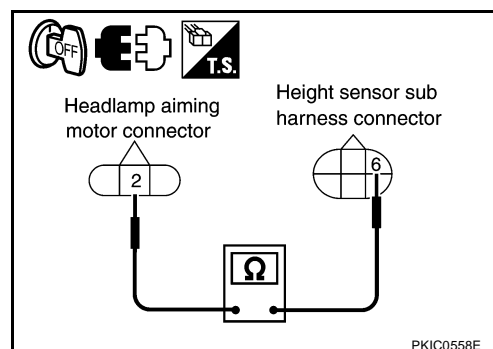
4. Check continuity between headlamp aiming motor LH harness connector E44 terminal 2 and height sensor sub harness connector B142 terminal 6.

2 – 6 : Continuity should exist.

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

NG >> Repair harness or connector.



HEADLAMP AIMING CONTROL (AUTO)

Headlamp Aiming Motor Does Not Operate (One Side)

BKS000IK

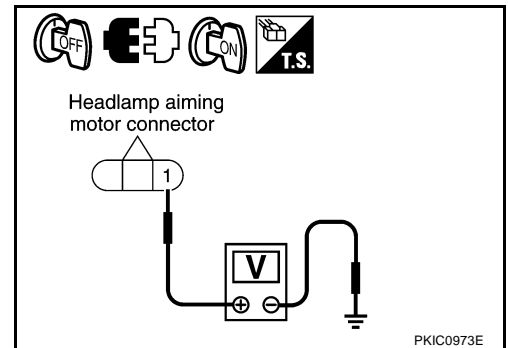
1. CHECK POWER SUPPLY CIRCUIT

1. Disconnect headlamp aiming motor connector which does not operate.
2. Turn ignition switch ON.
3. Check voltage between headlamp aiming motor RH or LH harness connector E28 or E44 terminal 1 and ground.

1 – Ground : **Battery voltage.**

OK or NG

- OK >> GO TO 2.
NG >> Repair harness or connector.



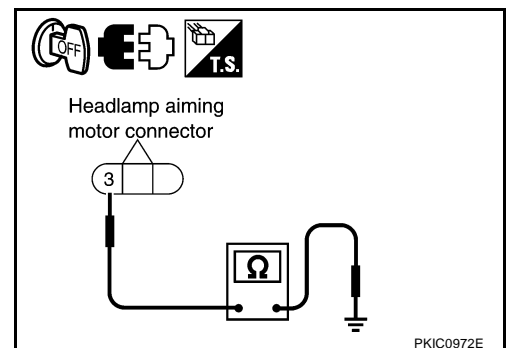
2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between headlamp aiming motor RH or LH harness connector E28 or E44 terminal 3 and ground.

3 – Ground : **Continuity should exist.**

OK or NG

- OK >> GO TO 3.
NG >> Repair harness or connector.



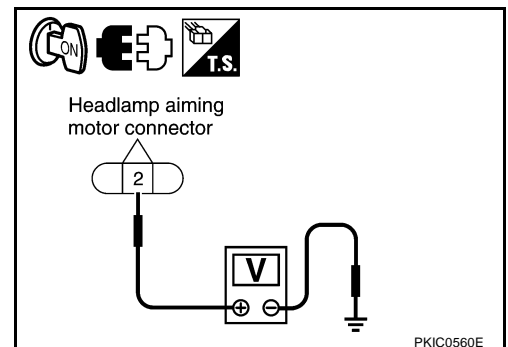
3. CHECK HEADLAMP AIMING MOTOR INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between headlamp aiming motor RH or LH harness connector E28 or E44 terminal 2 and ground.

2 – Ground : **Approx. 5 - 10 V**

OK or NG

- OK >> Replace headlamp. Refer to [LT-23, "Removal and Installation of Headlamp"](#) .
NG >> Repair harness or connector.



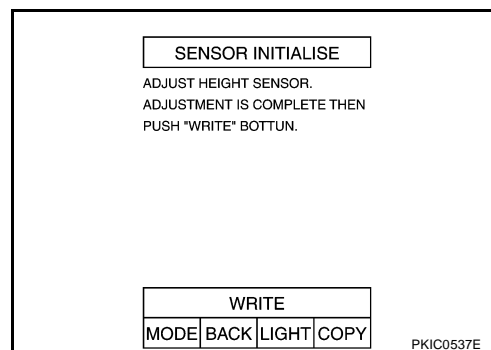
HEADLAMP AIMING CONTROL (AUTO)

DTC B2081 [INITIAL NOT DONE]

BKS000IL

1. INITIALIZE HEIGHT SENSOR

1. Turn ignition switch OFF.
2. Set the vehicle in unladen condition. (Removal all loads in passenger and trunk rooms.)
3. Turn ignition switch ON.
4. Select "HEAD LAMP LEVELIZER" on CONSULT-II, and select "WORK SUPPORT" on "SELECT DIAG MODE" screen.
5. Select "SENSOR INITIALISE" on "SELECT WORK ITEM" screen.
6. Touch "WRITE".
7. When "INITIALISE COMPLETE" is indicated, touch "END".



OK or NG

OK >> INSPECTION END

- NG >> ● When "INCORRECT CONDITION" is displayed, check connect CONSULT-II and height sensor connector, and then initialize again. Refer to [LT-72, "WORK SUPPORT"](#) .
- When "INITIALISE NOT DONE" is displayed, initialize again. If "INITIALISE NOT DONE" is displayed again, replace height sensor and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#) .

DTC B2082 [SENSOR OUT OF RANGE]

BKS000IM

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Lighting switch is turned 1ST position.
3. Check "INT SEN VALUE" in unloaded condition. (Remove all loads in the passenger and trunk room.)

INT SEN VALUE : Should not be approx. 0% or approx. 100%.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK LIGHT COPY

PKIB7209E

OK or NG

OK >> Erase the self-diagnosis result and perform the self-diagnosis again.

- [B2082] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#) .
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

2. CHECK INSTALLATION CONDITION OF HEIGHT SENSOR

Check height sensor and linkage for deformation or damage.

NOTE:

[B2082] may be displayed when the vehicle is lifted up.

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#) .

NG >> Adjust height sensor, or replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#) .

HEADLAMP AIMING CONTROL (AUTO)

DTC B2083 [SEN SIG NOT PLAUSIBLE]

BKS000IN

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Lighting switch is turned 1ST position.
3. Check if the "INT SEN VALUE" changes as the rear height of the vehicle changes.

INT SEN VALUE : Should vary as rear height of the vehicle changes.

OK or NG

OK >> Erase the self-diagnosis result and perform the self-diagnosis again.

- [B2083] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK LIGHT COPY

PKIB7209E

2. CHECK INSTALLATION CONDITION OF HEIGHT SENSOR

Check height sensor and linkage for deformation or damage.

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

NG >> Adjust height sensor, or replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

DTC B2084 [VOLTAGE UNDER LIMIT]

BKS000IO

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Check voltage on "INT SEN VOLT" screen.

INT SEN VOLT : Battery voltage.

OK or NG

OK >> Erase the self-diagnosis result and perform the self-diagnosis again.

- [B2084] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK LIGHT COPY

PKIB7209E

HEADLAMP AIMING CONTROL (AUTO)

2. CHECK HEIGHT SENSOR POWER SUPPLY

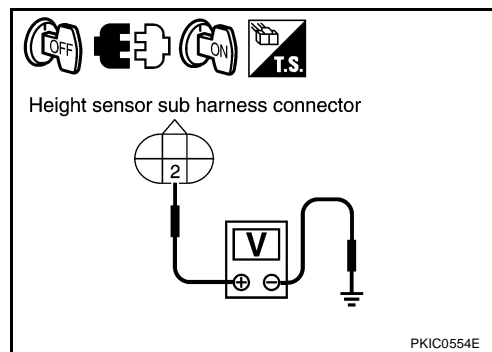
1. Turn ignition switch OFF.
2. Disconnect height sensor sub harness connector.
3. Turn ignition switch ON.
4. Check voltage between height sensor sub harness connector B142 terminal 2 and ground.

2 – Ground : **Battery voltage.**

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

NG >> Repair harness or connector.



DTC B2085 [LOW BEAM SIG OPEN LINE]

BKS000IP

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Check voltage on "LIGHT SIGNAL" screen when lighting switch OFF and 1ST position.

Item	Condition	Voltage
LIGHT SIGNAL	lighting switch OFF position	2V or less
	lighting switch 1ST position	6V or more

NOTE:

The height sensor performs the self-diagnosis to check the open-circuit of the low-beam circuit.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK
LIGHT	COPY

PKIB7209E

OK or NG

OK >> Erase the self-diagnosis result and perform the self-diagnosis again.

- [B2085] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

2. CHECK TAIL LAMP RELAY SIGNAL

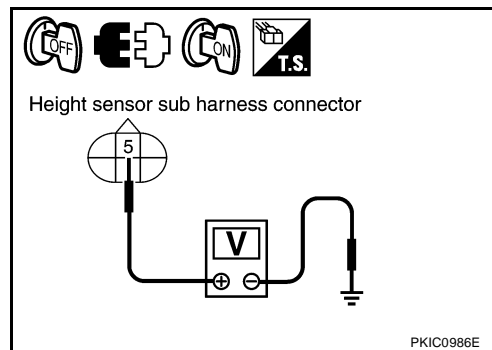
1. Turn ignition switch OFF.
2. Disconnect height sensor sub harness connector.
3. Turn ignition switch ON.
4. Lighting switch is turned 1ST position.
5. Check voltage between height sensor sub harness connector B142 terminal 5 and ground.

5 – Ground : **Battery voltage.**

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

NG >> Repair harness or connector.



HEADLAMP AIMING CONTROL (AUTO)

DTC B2086 [FRQ. OVER LIMIT]

BKS0001Q

1. CHECK HEIGHT SENSOR

1. Start engine and place vehicle in a driving condition.
2. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
3. Check the vehicle speed on "SPEED SIG" screen.

SPEED SIG : Correct vehicle speed should be displayed.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK LIGHT COPY

PKIB7209E

OK or NG

OK >> Erase the self-diagnosis. After drive the vehicle more than 5 minutes, perform the self-diagnosis again.

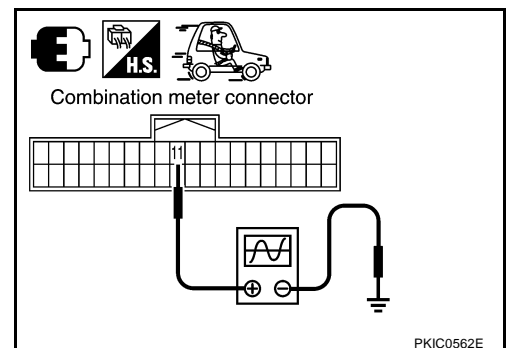
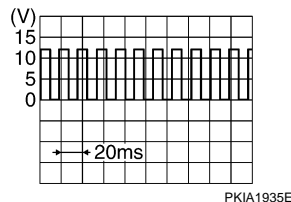
- [B2086] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

2. CHECK VEHICLE SPEED SIGNAL

Check the waveform of voltage between combination meter harness connector M44 terminal 11 and ground when the vehicle is in driving condition at a speed of about 40 km/h (25 MPH).

11 – Ground:



OK or NG

- OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NG >> Refer to [DI-28, "Vehicle Speed Signal Inspection \[With ESP\]"](#) or [DI-28, "Vehicle Speed Signal Inspection \[Without ESP\]"](#).

DTC B2087 [SHORT TO GROUND]

BKS0001R

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Lighting switch is turned 1ST position.
3. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

NOTE:

If shorted to ground, "ACT MEASURED" indicates approx. 0%.

OK or NG

OK >> Erase the self-diagnosis and perform the self-diagnosis again.

- [B2087] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK LIGHT COPY

PKIB7209E

HEADLAMP AIMING CONTROL (AUTO)

2. CHECK HEADLAMP LEVELIZER

1. Turn ignition switch OFF.
2. Disconnect headlamp aiming motor RH and LH connector.
3. Turn ignition switch ON.
4. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
5. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

OK or NG

- OK >> GO TO 4.
NG >> GO TO 3.

DATA MONITOR			
MONITOR			
INT SEN VALUE	49.4%		
ACT OUTPUT	10.2%		
ACT MEASURED	10.2%		
SPEED SIG	0 km/h		
LIGHT SIGNAL	12.500V		
INT SEN VOLT	12.5V		
EXT SEN VOLT	0.000V		
EXT SEN SIG	0.00V		
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB7209E

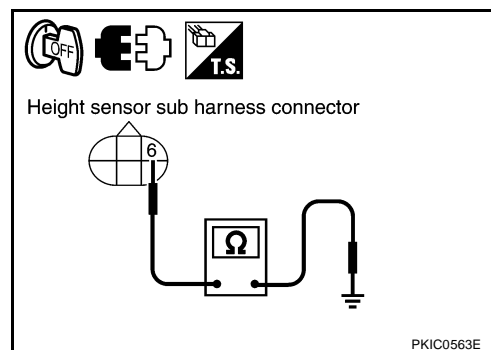
3. CHECK SHORT CIRCUIT BETWEEN HEIGHT SENSOR AND HEADLAMP LEVELIZER

1. Turn ignition switch OFF.
2. Disconnect height sensor sub harness connector.
3. Check continuity between height sensor sub harness connector B142 terminal 6 and ground.

6 – Ground : Continuity should not exist.

OK or NG

- OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NG >> Repair harness or connector.



4. CHECK HEADLAMP AIMING MOTOR RH

1. Connect headlamp aiming motor RH connector only.
2. Turn ignition switch ON.
3. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

OK or NG

- OK >> GO TO 5.
- NG >> Replace headlamp RH. Refer to [LT-23, "Removal and Installation of Headlamp"](#).

DATA MONITOR			
MONITOR			
INT SEN VALUE	49.4%		
ACT OUTPUT	10.2%		
ACT MEASURED	10.2%		
SPEED SIG	0 km/h		
LIGHT SIGNAL	12.500V		
INT SEN VOLT	12.5V		
EXT SEN VOLT	0.000V		
EXT SEN SIG	0.00V		
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB7209E

5. CHECK HEADLAMP AIMING MOTOR LH

1. Turn ignition switch OFF.
2. Disconnect headlamp aiming motor RH connector.
3. Connect headlamp aiming motor LH connector.
4. Turn ignition switch ON.
5. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

OK or NG

- OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NG >> Replace headlamp LH. Refer to [LT-23, "Removal and Installation of Headlamp"](#).

DATA MONITOR			
MONITOR			
INT SEN VALUE	49.4%		
ACT OUTPUT	10.2%		
ACT MEASURED	10.2%		
SPEED SIG	0 km/h		
LIGHT SIGNAL	12.500V		
INT SEN VOLT	12.5V		
EXT SEN VOLT	0.000V		
EXT SEN SIG	0.00V		
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB7209E

HEADLAMP AIMING CONTROL (AUTO)

DTC B2088 [SHORT TO BATTERY]

BKS000IS

1. CHECK HEIGHT SENSOR

1. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
2. Lighting switch is turned 1ST position.
3. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

NOTE:

If shorted to battery, "ACT MEASURED" indicates approx. 100%.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK
LIGHT	COPY

PKIB7209E

OK or NG

OK >> Erase the self-diagnosis and perform the self-diagnosis again.

- [B2088] is displayed again: Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).
- NO DTC is displayed: INSPECTION END

NG >> GO TO 2.

2. CHECK HEADLAMP LEVELIZER

1. Turn ignition switch OFF.
2. Lighting switch is turned OFF position.
3. Disconnect headlamp aiming motor RH and LH connector.
4. Select "HEAD LAMP LEVELIZER" on CONSULT-II and "DATA MONITOR" on "SELECT DIAG MODE" screen.
5. Lighting switch is turned 1ST position.
6. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

DATA MONITOR	
MONITOR	
INT SEN VALUE	49.4%
ACT OUTPUT	10.2%
ACT MEASURED	10.2%
SPEED SIG	0 km/h
LIGHT SIGNAL	12.500V
INT SEN VOLT	12.5V
EXT SEN VOLT	0.000V
EXT SEN SIG	0.00V
RECORD	
MODE	BACK
LIGHT	COPY

PKIB7209E

OK or NG

OK >> GO TO 4.

NG >> GO TO 3.

3. CHECK SHORT CIRCUIT BETWEEN HEIGHT SENSOR AND HEADLAMP LEVELIZER

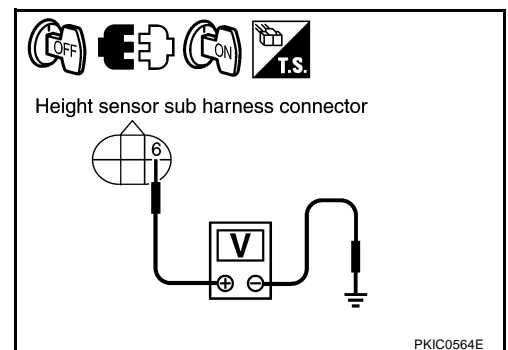
1. Turn ignition switch OFF.
2. Lighting switch is turned OFF position.
3. Disconnect height sensor sub harness connector.
4. Turn ignition switch ON.
5. Check voltage between height sensor sub harness connector B142 terminal 6 and ground.

6 – Ground : Approx. 0 V

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#).

NG >> Repair harness or connector.



HEADLAMP AIMING CONTROL (AUTO)

4. CHECK HEADLAMP AIMING MOTOR RH

1. Connect headlamp aiming motor RH connector only.
2. Turn ignition switch ON.
3. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

OK or NG

OK >> GO TO 5.

NG >> Replace headlamp RH. Refer to [LT-23, "Removal and Installation of Headlamp"](#) .

DATA MONITOR			
MONITOR			
INT SEN VALUE		49.4%	
ACT OUTPUT		10.2%	
ACT MEASURED		10.2%	
SPEED SIG		0 km/h	
LIGHT SIGNAL		12.500V	
INT SEN VOLT		12.5V	
EXT SEN VOLT		0.000V	
EXT SEN SIG		0.00V	
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB7209E

5. CHECK HEADLAMP AIMING MOTOR LH

1. Turn ignition switch OFF.
2. Disconnect headlamp aiming motor RH connector.
3. Connect headlamp aiming motor LH connector.
4. Turn ignition switch ON.
5. Check if "ACT OUTPUT" and "ACT MEASURED" indicated the same value.

OK or NG

OK >> Replace height sensor, and initialize it. Refer to [LT-87, "Removal and Installation of Height Sensor"](#) and [LT-72, "WORK SUPPORT"](#) .

NG >> Replace headlamp LH. Refer to [LT-23, "Removal and Installation of Headlamp"](#) .

DATA MONITOR			
MONITOR			
INT SEN VALUE		49.4%	
ACT OUTPUT		10.2%	
ACT MEASURED		10.2%	
SPEED SIG		0 km/h	
LIGHT SIGNAL		12.500V	
INT SEN VOLT		12.5V	
EXT SEN VOLT		0.000V	
EXT SEN SIG		0.00V	
		RECORD	
MODE	BACK	LIGHT	COPY

PKIB7209E

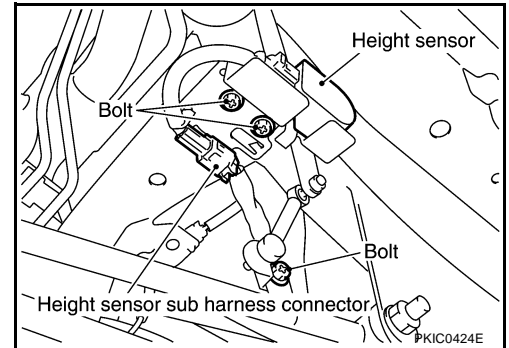
HEADLAMP AIMING CONTROL (AUTO)

Removal and Installation of Height Sensor

BKS000IT

REMOVAL

1. Turn ignition switch OFF.
2. Disconnect the battery cable from the negative terminal or remove power fuse.
3. Lift-up the vehicle.
4. Disconnect height sensor sub harness connector.
5. Remove linkage mounting bolt.
6. Remove height sensor mounting bolt and remove height sensor from vehicle.



INSTALLATION

Installation is the reverse order of removal.

Height sensor mounting bolt  : 5.5 N·m (0.56 kg-m, 49 in-lb)

Linkage mounting bolt  : 5.5 N·m (0.56 kg-m, 49 in-lb)

NOTE:

Initialize whenever replacing the height sensor. Refer to [LT-72, "WORK SUPPORT"](#) .

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TURN SIGNAL AND HAZARD WARNING LAMPS

PFP:26120

System Description

BKS000IU

TURN SIGNAL OPERATION

With the hazard switch in the OFF position and the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 2, located in fuse block (J/B)]
- through hazard switch terminal 2
- through hazard switch terminal 1
- to combination flasher unit terminal 1,
- through combination flasher unit terminal 3
- to turn signal switch terminal 1.

Ground is supplied

- to combination flasher unit terminal 2
- through grounds M27 and M70.

LH Turn Signal Lamp

When the turn signal switch is moved to the left position, power is supplied

- through turn signal switch terminal 3
- to front turn signal lamp LH terminal 1
- to side turn signal lamp LH terminal 1
- to combination meter terminal 52, and
- to rear combination lamp LH terminal 2.

Ground is supplied

- to front turn signal lamp LH terminal 2
- through grounds E24 and E50,
- to side turn signal lamp LH terminal 2
- through grounds E24 and E50,
- to rear combination lamp LH terminal 4
- through grounds B8 and B18,
- to combination meter terminal 64
- through grounds M27 and M70.

With power and ground supplied, the combination flasher unit controls the flashing of the LH turn signal lamps.

RH Turn Signal Lamp

When the turn signal switch is moved to the right position, power is supplied

- through turn signal switch terminal 2
- to front turn signal lamp RH terminal 1
- to side turn signal lamp RH terminal 1
- to combination meter terminal 18, and
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front turn signal lamp RH terminal 2
- through grounds E24 and E50,
- to side turn signal lamp RH terminal 2
- through grounds E24 and E50,
- to rear combination lamp RH terminal 4
- through grounds B8 and B18,
- to combination meter terminal 64
- through grounds M27 and M70.

TURN SIGNAL AND HAZARD WARNING LAMPS

With power and ground supplied, the combination flasher unit controls the flashing of the RH turn signal lamps.

HAZARD LAMP OPERATION

Power is supplied at all times

- through 10A fuse (No. 35, located in the fuse and fusible link box)
- to hazard switch terminal 3.

With the hazard switch in the ON position, power is supplied

- through hazard switch terminal 1
- to combination flasher unit terminal 1,
- through combination flasher unit terminal 3
- to hazard switch terminal 4.

Ground is supplied

- to combination flasher unit terminal 2
- through grounds M27 and M70.

Power is supplied

- through hazard switch terminal 5
- to front turn signal lamp LH terminal 1
- to side turn signal lamp LH terminal 1
- to combination meter terminal 52, and
- to rear combination lamp LH terminal 2,
- through hazard switch terminal 6
- to front turn signal lamp RH terminal 1
- to side turn signal lamp RH terminal 1
- to combination meter terminal 18, and
- to rear combination lamp RH terminal 2.

Ground is supplied

- to front turn signal lamp LH and RH terminals 2
- through grounds E24 and E50,
- to side turn signal lamp LH and RH terminals 2
- through grounds E24 and E50,
- to rear combination lamp LH and RH terminals 4
- through grounds B8 and B18,
- to combination meter terminal 64
- through grounds M27 and M70.

With power and ground supplied, the combination flasher unit controls the flashing of the hazard warning lamps.

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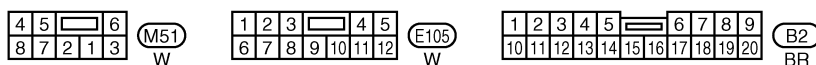
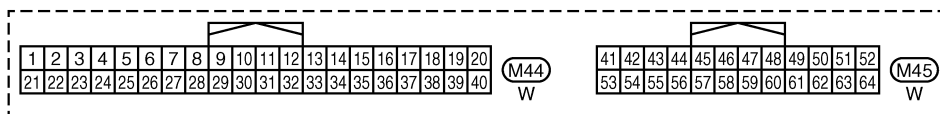
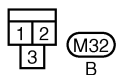
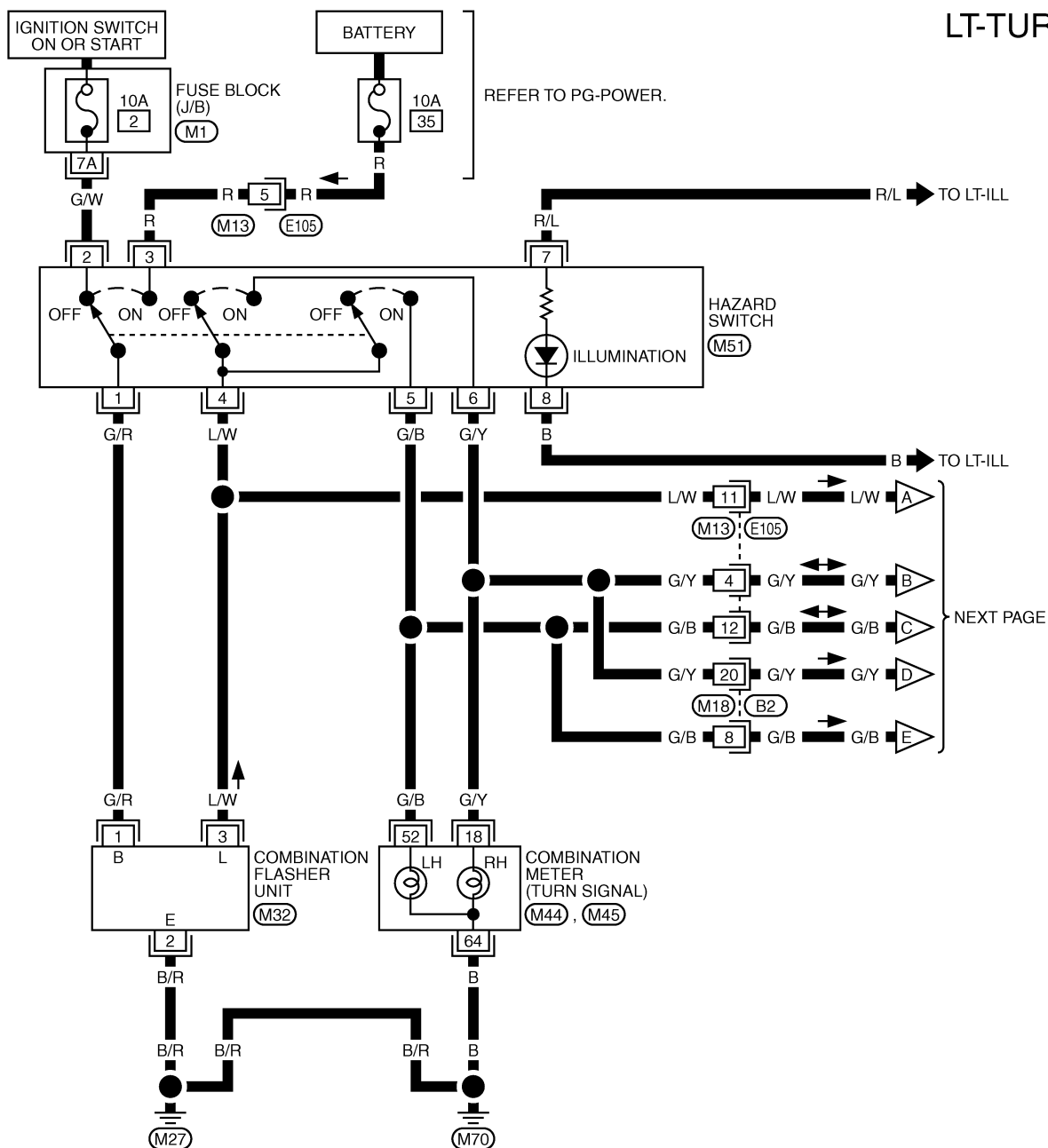
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Wiring Diagram — TURN — LHD MODELS

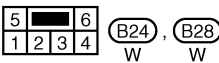
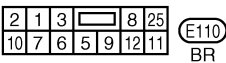
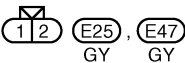
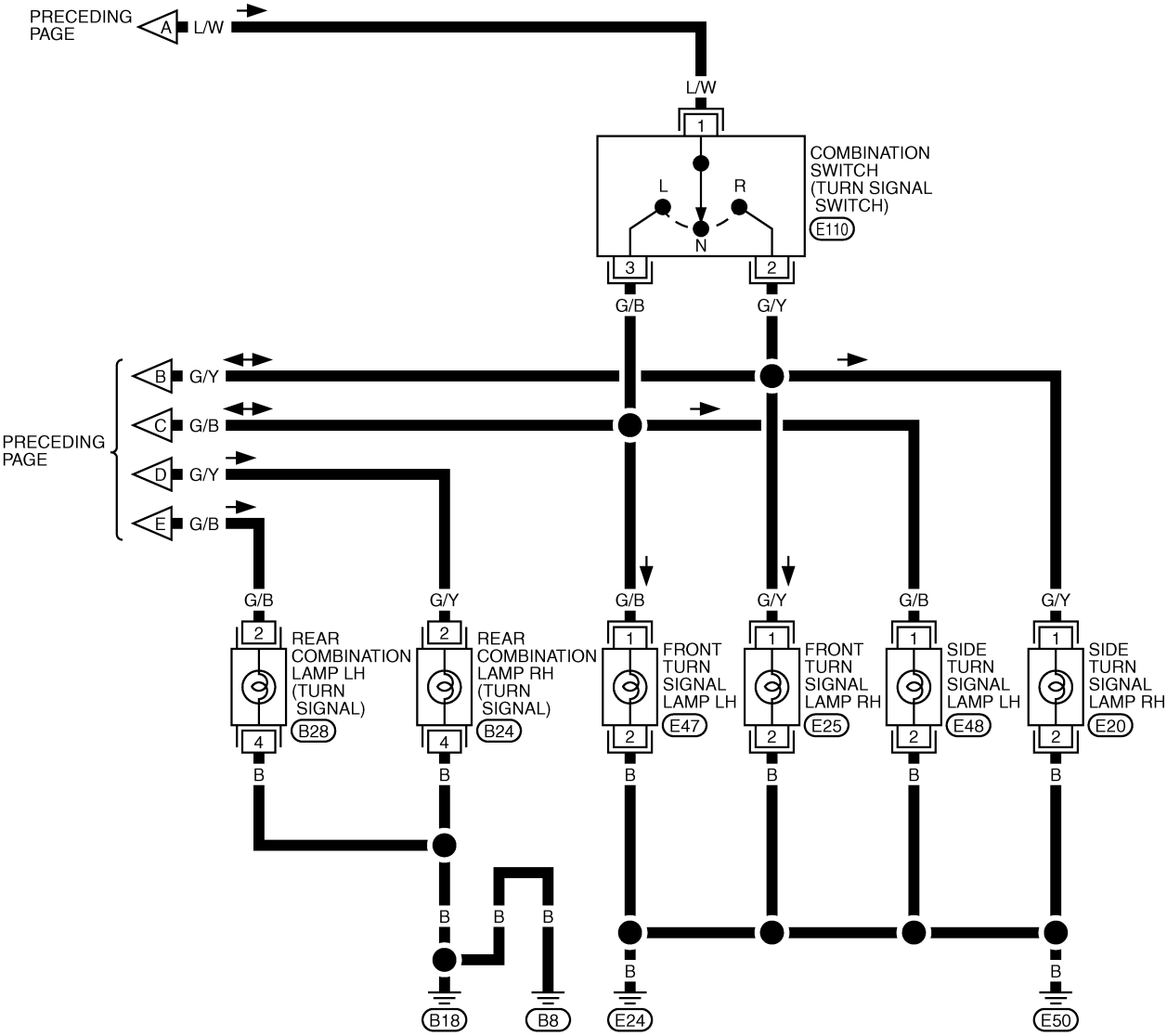
LT-TURN-01



(M1) -FUSE BLOCK-JUNCTION
BOX (J/B)

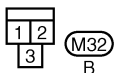
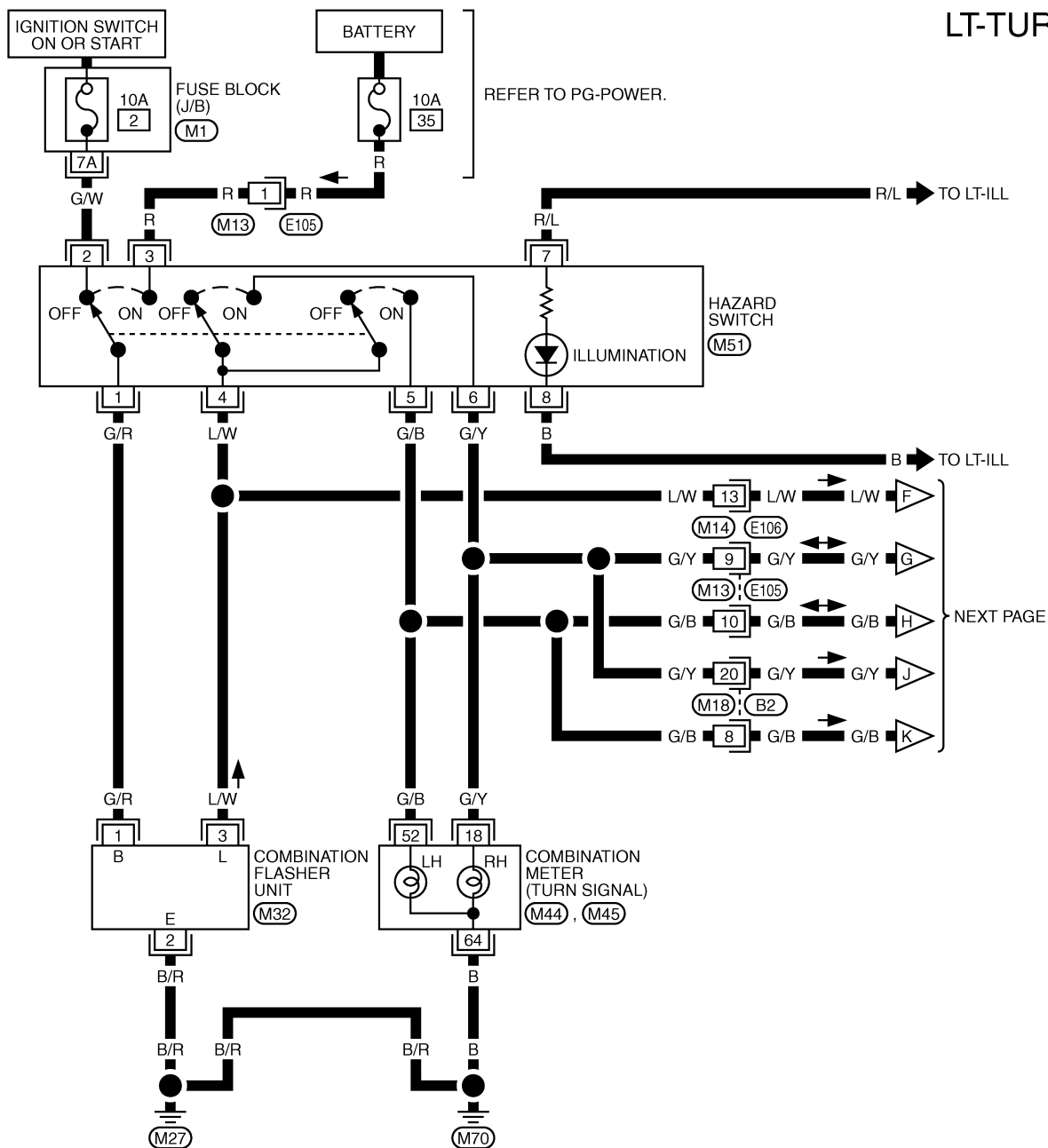
TURN SIGNAL AND HAZARD WARNING LAMPS

LT-TURN-02



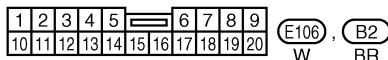
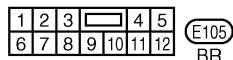
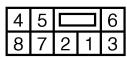
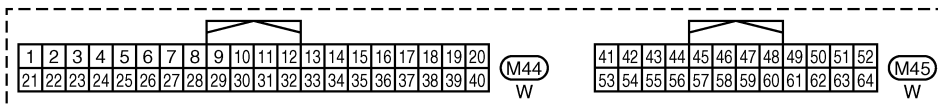
RHD MODELS

LT-TURN-03



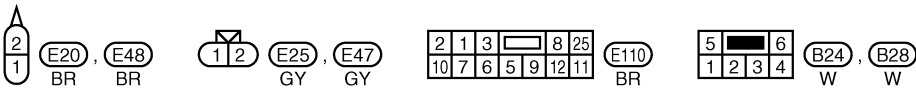
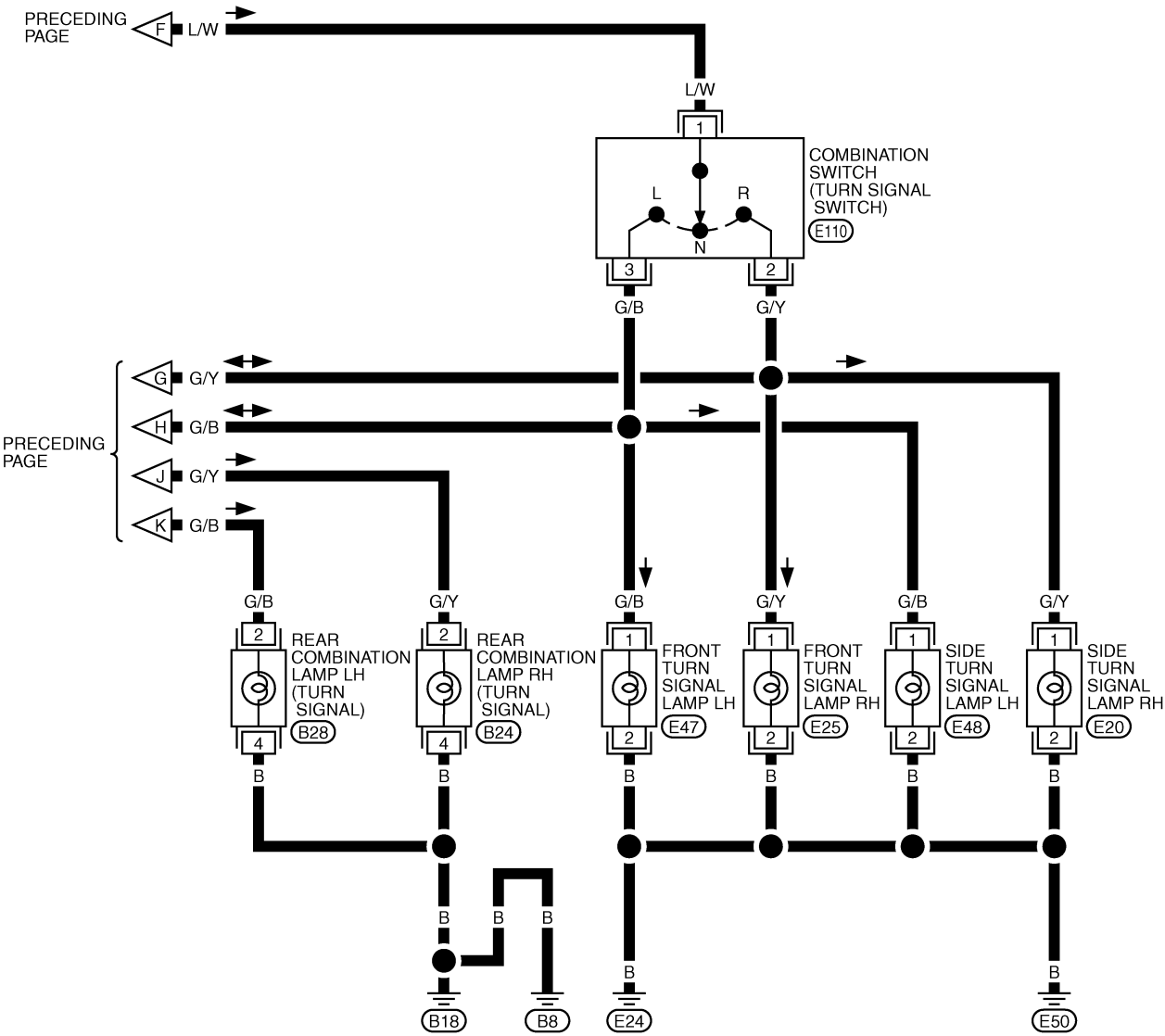
REFER TO THE FOLLOWING.

(M1) -FUSE BLOCK-JUNCTION
BOX (J/B)



TURN SIGNAL AND HAZARD WARNING LAMPS

LT-TURN-04



TURN SIGNAL AND HAZARD WARNING LAMPS

Trouble Diagnoses

BKS0001W

Symptom	Possible cause	Repair order
Turn signal and hazard warning lamps do not operate.	<ol style="list-style-type: none"> 1. Hazard switch 2. Combination flasher unit power supply circuit 3. Combination flasher unit ground circuit 4. Combination flasher unit 	<ol style="list-style-type: none"> 1. Check hazard switch. 2. Check harness between hazard switch harness connector M51 terminal 1 and combination flasher unit harness connector M32 terminal 1. 3. Check harness between combination flasher unit harness connector M32 terminal 2 and ground. 4. Check combination flasher unit.
Turn signal lamps do not operate, but hazard warning lamps operate.	<ol style="list-style-type: none"> 1. 10A fuse 2. Hazard switch battery voltage supply circuit 3. Hazard switch 4. Turn signal switch battery voltage supply circuit 5. Turn signal switch 	<ol style="list-style-type: none"> 1. Check 10A fuse [No. 2, located in fuse block (J/B)]. 2. Check battery voltage at hazard switch harness connector M51 terminal 2. 3. Check hazard switch. 4. Check harness between combination flasher unit harness connector M32 terminal 3 and turn signal switch harness connector E110 terminal 1. 5. Check turn signal switch.
Hazard warning lamps do not operate, but turn signal lamps operate.	<ol style="list-style-type: none"> 1. 10A fuse 2. Hazard switch battery voltage supply circuit - 1 3. Hazard switch 4. Hazard switch battery voltage supply circuit - 2 	<ol style="list-style-type: none"> 1. Check 10A fuse (No. 35, located in fuse and fusible link box). 2. Check battery voltage at hazard switch harness connector M51 terminal 3. 3. Check hazard switch. 4. Check harness between combination flasher unit harness connector M32 terminal 3 and hazard switch harness connector M51 terminal 4.
Front turn signal lamp LH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Front turn signal lamp LH power supply circuit 3. Front turn signal lamp LH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 3 and front turn signal lamp LH harness connector E47 terminal 1. 3. Check harness between front turn signal lamp LH harness connector E47 terminal 2 and ground.
Front turn signal lamp RH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Front turn signal lamp RH power supply circuit 3. Front turn signal lamp RH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 2 and front turn signal lamp RH harness connector E25 terminal 1. 3. Check harness between front turn signal lamp RH harness connector E25 terminal 2 and ground.
Side turn signal lamp LH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Side turn signal lamp LH power supply circuit 3. Side turn signal lamp LH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 3 and side turn signal lamp LH harness connector E48 terminal 1. 3. Check harness between side turn signal lamp LH harness connector E48 terminal 2 and ground.
Side turn signal lamp RH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Side turn signal lamp RH power supply circuit 3. Side turn signal lamp RH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 2 and side turn signal lamp RH harness connector E20 terminal 1. 3. Check harness between side turn signal lamp RH harness connector E20 terminal 2 and ground.
Rear combination lamp LH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Rear combination lamp LH power supply circuit 3. Rear combination lamp LH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 3 and rear combination lamp LH harness connector B28 terminal 2. 3. Check harness between rear combination lamp LH harness connector B28 terminal 4 and ground.

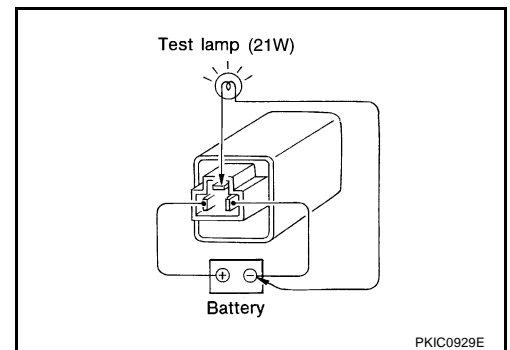
TURN SIGNAL AND HAZARD WARNING LAMPS

Symptom	Possible cause	Repair order
Rear combination lamp RH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Rear combination lamp RH power supply circuit 3. Rear combination lamp RH ground circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between turn signal switch harness connector E110 terminal 2 and rear combination lamp RH harness connector B24 terminal 2. 3. Check harness between rear combination lamp RH harness connector B24 terminal 4 and ground.
Combination meter turn signal indicator LH and RH do not operate.	Combination meter (turn signal) ground circuit	Check harness between Combination meter harness connector M45 terminal 64 and ground.
Combination meter turn signal indicator LH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Combination meter power supply circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between hazard switch harness connector M51 terminal 5 and combination meter harness connector M45 terminal 52.
Combination meter turn signal indicator RH does not operate.	<ol style="list-style-type: none"> 1. Bulb 2. Combination meter power supply circuit 	<ol style="list-style-type: none"> 1. Check bulb. 2. Check harness between hazard switch harness connector M51 terminal 6 and combination meter harness connector M44 terminal 18.

Electrical Components Inspection COMBINATION FLASHER UNIT CHECK

BKS0001X

- Before checking, ensure that bulbs meet specifications.
- Connect a battery and test lamp to the combination flasher unit, as shown. Combination flasher unit is properly functioning if it blinks when power is supplied to the circuit.



TURN SIGNAL AND HAZARD WARNING LAMPS

Bulb Replacement

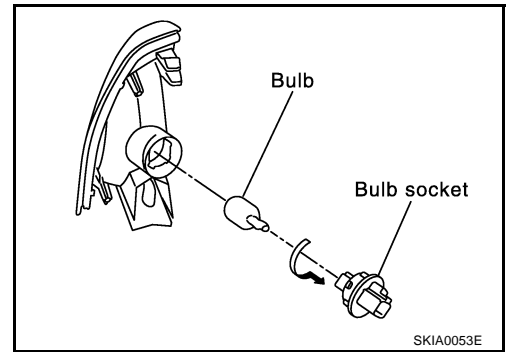
FRONT TURN SIGNAL LAMP

BKS0001Y

1. Remove front turn signal lamp. Refer to [LT-96, "Removal and Installation of Front Turn Signal Lamp"](#)
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.

Front turn signal lamp : 12V - 21W (amber)

4. Installation is the reverse order of removal.

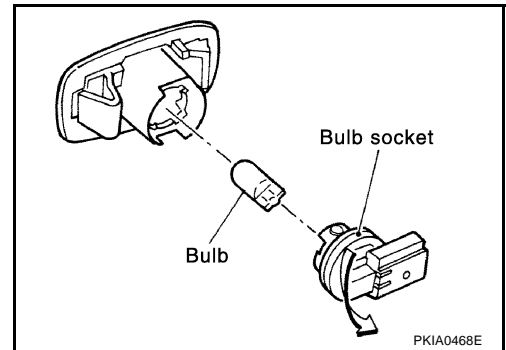


SIDE TURN SIGNAL LAMP

1. Remove side turn signal lamp. Refer to [LT-97, "Removal and Installation of Side Turn Signal Lamp"](#)
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.

Side turn signal lamp : 12V - 5W

4. Installation is the reverse order of removal.



REAR TURN SIGNAL LAMP

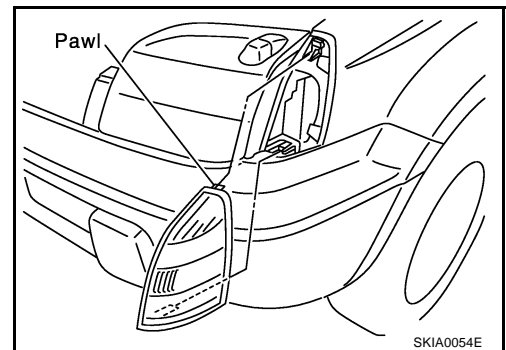
Refer to [LT-120, "Bulb Replacement"](#).

Removal and Installation of Front Turn Signal Lamp

BKS0001Z

REMOVAL

1. Press upper pawl to remove front turn signal lamp forward the front of the vehicle.
2. Disconnect front turn signal lamp connector.



INSTALLATION

1. Connect front turn signal lamp connector.
2. Insert pawl into head lamp hole, and install front turn signal lamp.

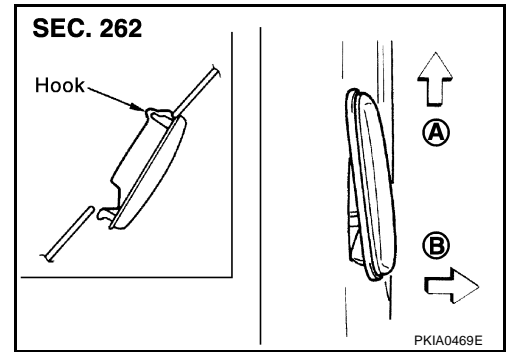
TURN SIGNAL AND HAZARD WARNING LAMPS

Removal and Installation of Side Turn Signal Lamp

BKS000J0

REMOVAL

1. Push side turn signal lamp toward A direction in the figure, and pull up B direction in the figure.
2. Disconnect side turn signal lamp connector.



INSTALLATION

Installation is the reverse order of removal.

Removal and Installation of Rear Turn Signal Lamp

BKS000J1

Refer to [LT-120, "Removal and Installation"](#).

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LIGHTING AND TURN SIGNAL SWITCH

LIGHTING AND TURN SIGNAL SWITCH

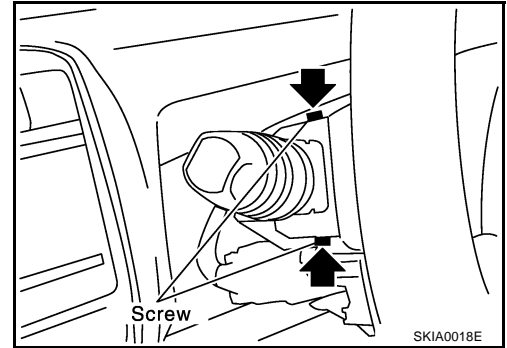
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Removal and Installation

BKS000J2

REMOVAL

1. Remove steering column cover. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Remove two screws, then remove lighting and turn signal switch from spiral cable.
3. Disconnect lighting and turn signal switch connector.



INSTALLATION

Installation is the reverse order of removal.

Switch Circuit Inspection

BKS000J3

Using circuit tester, check continuity between the lighting and turn signal switch connector terminals in each operation status of the switch.

Lighting switch is refers to [LT-30, "Wiring Diagram — H/LAMP —"](#) .

Turn signal lamp switch is refers to [LT-90, "Wiring Diagram — TURN —"](#) .

Front fog lamp switch is refers to [LT-111, "Wiring Diagram — F/FOG —"](#) .

Rear fog lamp switch is refers to [LT-115, "Wiring Diagram — R/FOG —"](#) .

HAZARD SWITCH

HAZARD SWITCH

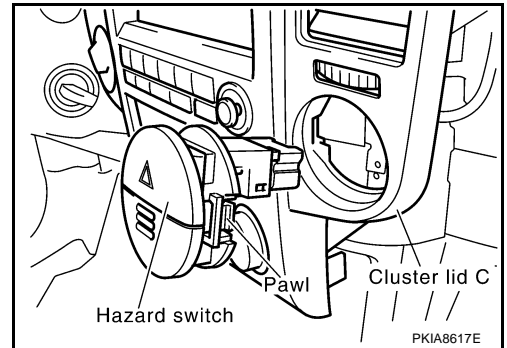
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Removal and Installation

BKS000J4

REMOVAL

1. Remove cluster lid C. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Press hazard switch fixing pawls and remove it from cluster lid C.



INSTALLATION

Installation is the reverse order of removal.

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STOP LAMP

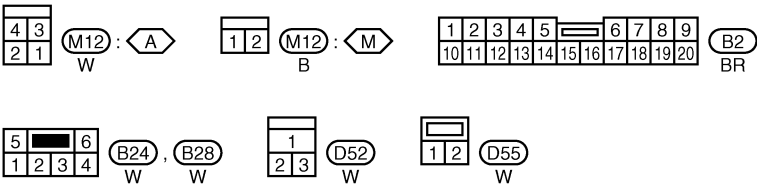
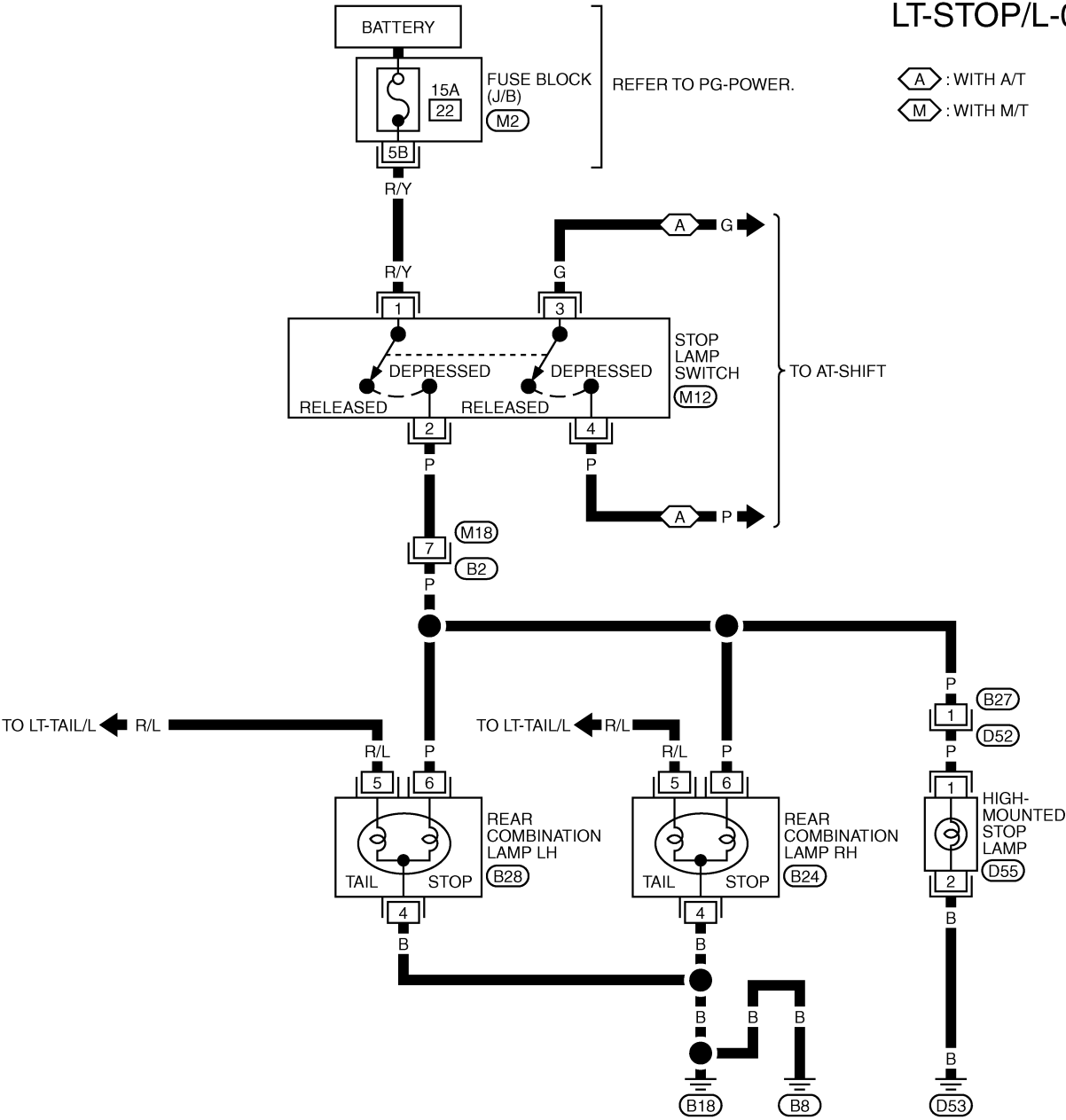
STOP LAMP

PFP:26550

Wiring Diagram — STOP/L —

BKS000J5

LT-STOP/L-01



REFER TO THE FOLLOWING.
M2 - FUSE BLOCK-JUNCTION BOX (J/B)

STOP LAMP

Bulb Replacement STOP LAMP

BKS000J6

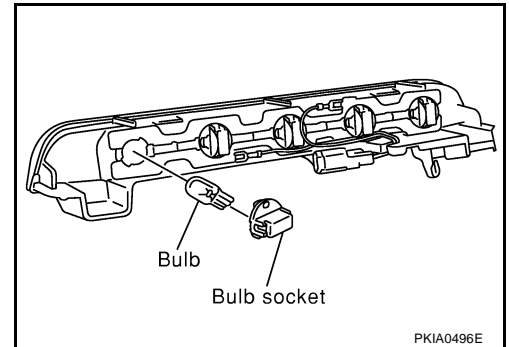
Refer to [LT-120, "Bulb Replacement"](#) .

HIGH-MOUNTED STOP LAMP

1. Remove high-mounted stop lamp cover. Refer to [LT-101, "HIGH-MOUNTED STOP LAMP"](#) .
2. Turn high-mounted stop lamp bulb socket counterclockwise and unlock it.
3. Remove bulb.

High-mounted Stop Lamp : 12V - 5W

4. Installation is the reverse order of removal.



Removal and Installation STOP LAMP

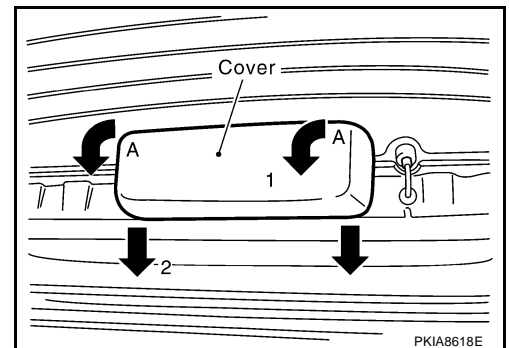
BKS000J7

Refer to [LT-120, "Removal and Installation"](#) .

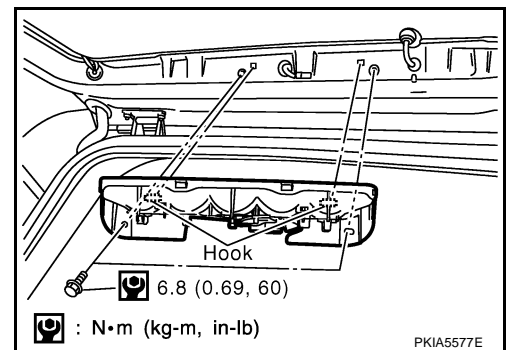
HIGH-MOUNTED STOP LAMP

Removal

1. Pull the edge of cover (A in the figure below) to each side in turn downward until the pawls inside cover are released.
2. Pull down cover.



3. Remove high-mounted stop lamp mounting bolts.
4. Disconnect high-mounted stop lamp connector and remove it from the vehicle.



Installation

Installation is the reverse order of removal.

High-mounted stop lamp mounting bolt  : 6.8 N·m (0.69 kg-m, 60 in-lb)

BACK-UP LAMP

PFP:26550

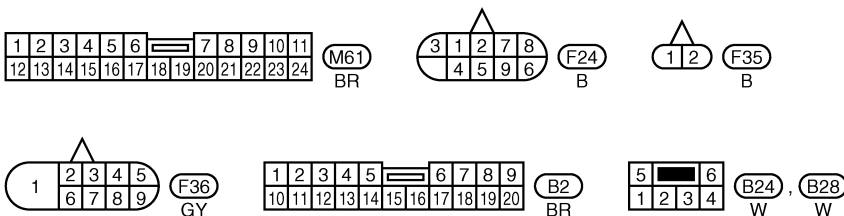
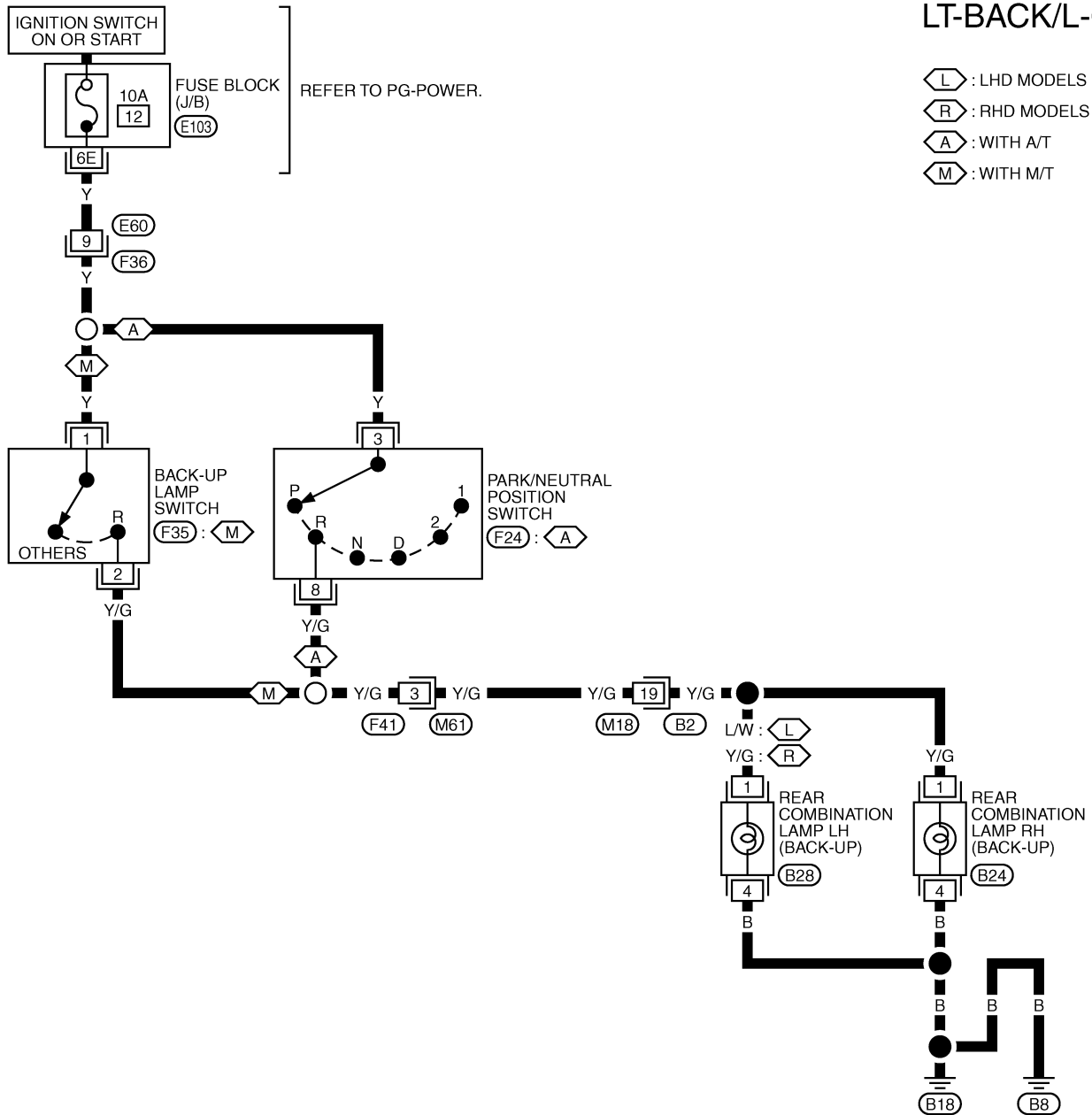
BKS000J8

BACK-UP LAMP

Wiring Diagram — BACK/L — GASOLINE ENGINE

LT-BACK/L-01

- L : LHD MODELS
- R : RHD MODELS
- A : WITH A/T
- M : WITH M/T



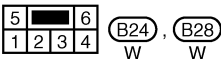
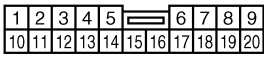
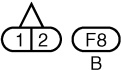
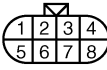
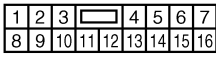
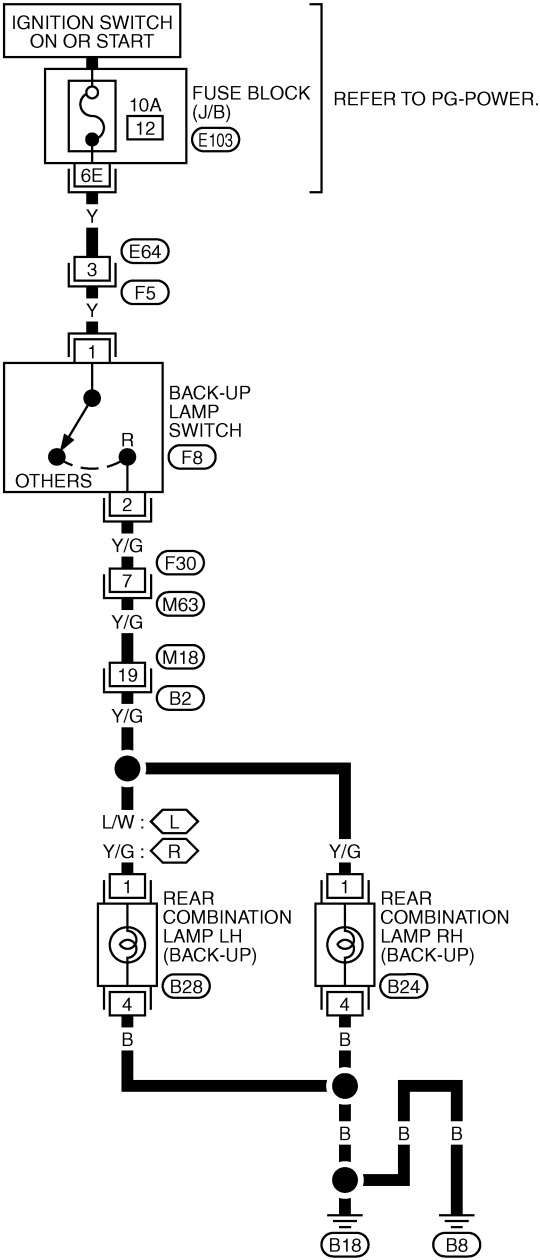
REFER TO THE FOLLOWING.
(E103) -FUSE BLOCK-JUNCTION BOX (J/B)

BACK-UP LAMP

DIESEL ENGINE

LT-BACK/L-02

L : LHD MODELS
R : RHD MODELS



REFER TO THE FOLLOWING.
E103 - FUSE BLOCK-JUNCTION BOX (J/B)

BACK-UP LAMP

Bulb Replacement

BKS000J9

Refer to [LT-120, "Bulb Replacement"](#) .

Removal and Installation

BKS000JA

Refer to [LT-120, "Removal and Installation"](#) .

PARKING, LICENSE PLATE AND TAIL LAMPS

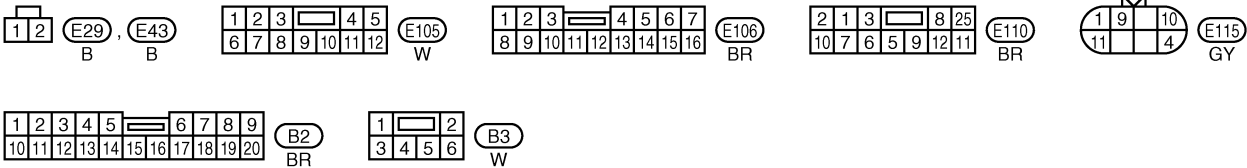
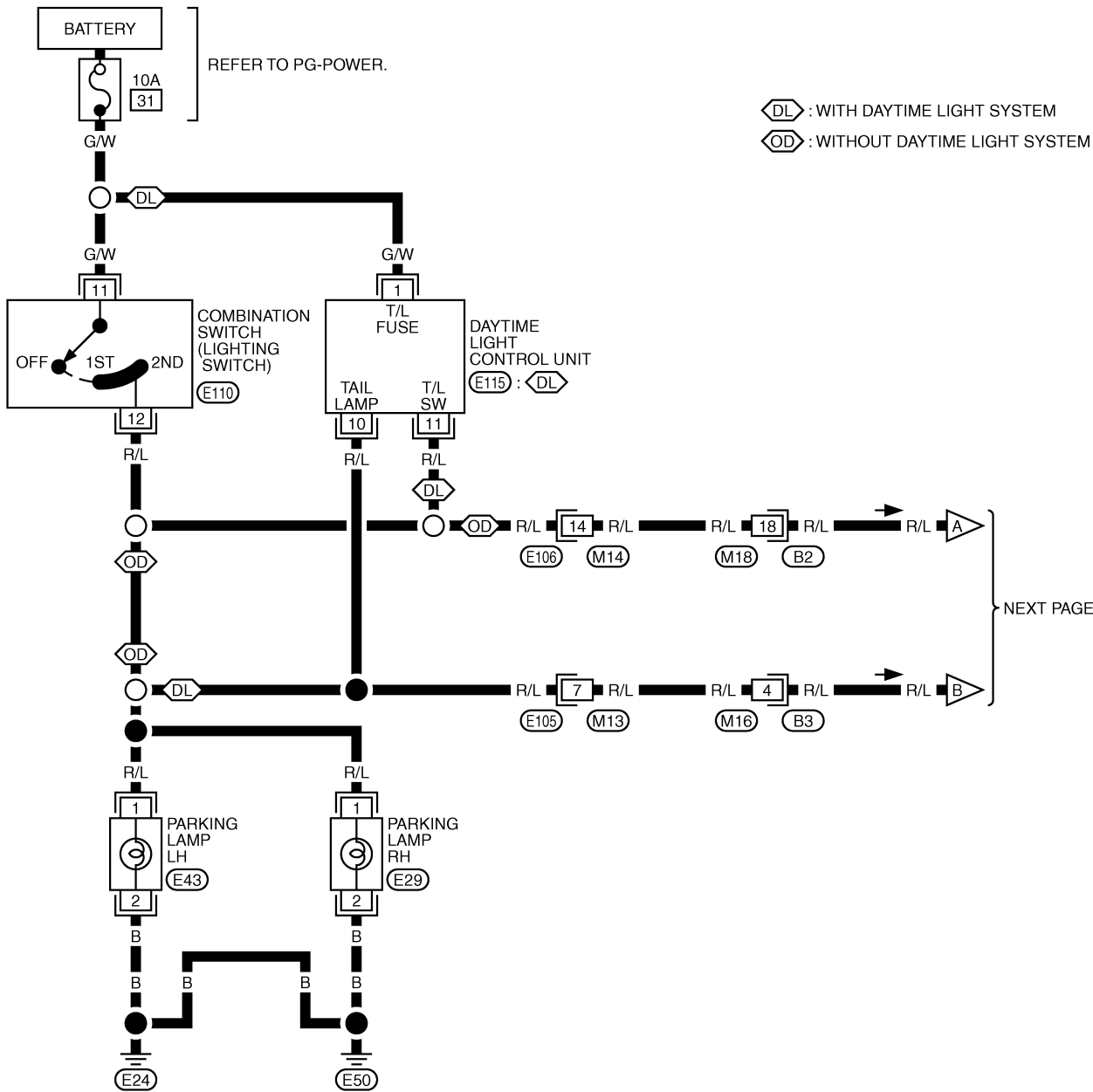
PARKING, LICENSE PLATE AND TAIL LAMPS



PFP:26550

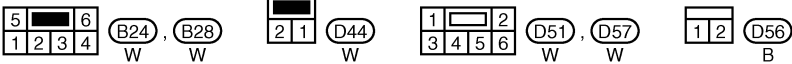
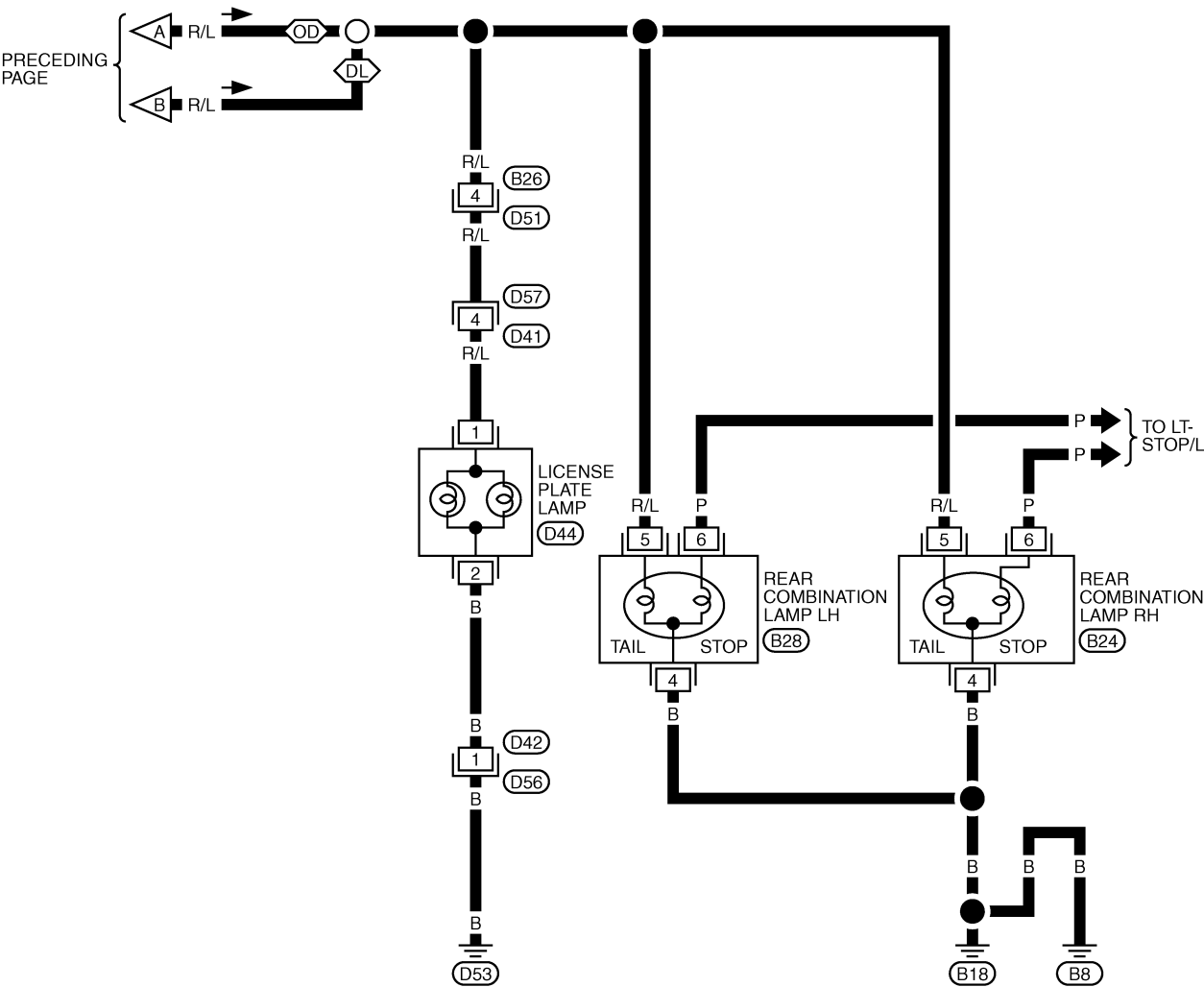
Wiring Diagram — TAIL/L —
LHD MODELS

BKS000JB

LT-TAIL/L-01



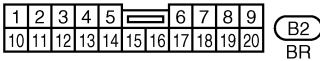
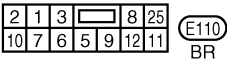
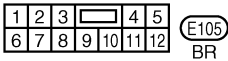
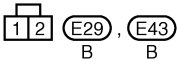
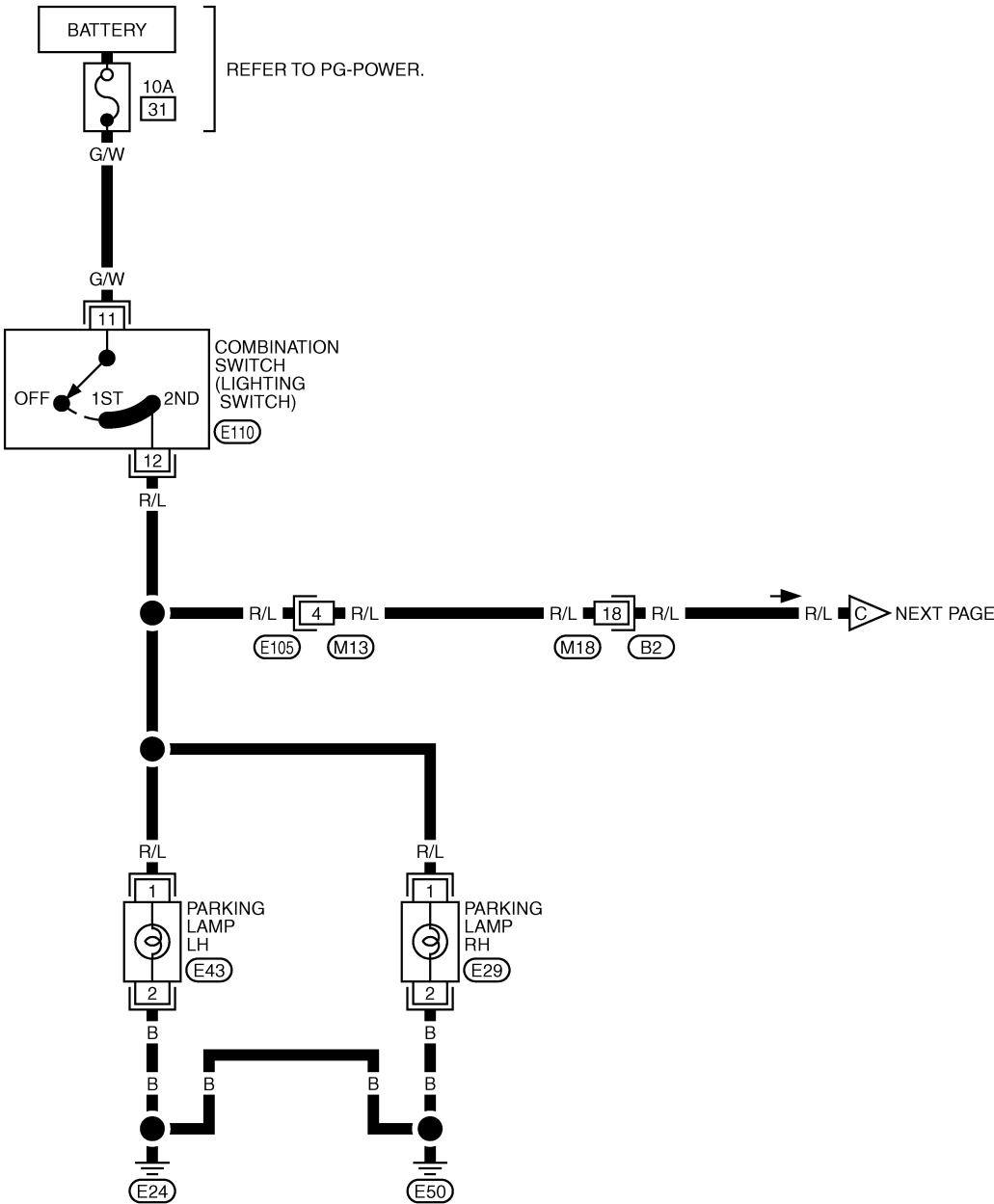
 : WITH DAYTIME LIGHT SYSTEM
 : WITHOUT DAYTIME LIGHT SYSTEM

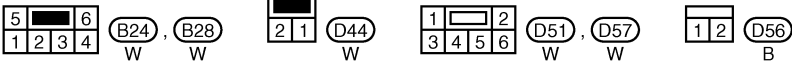
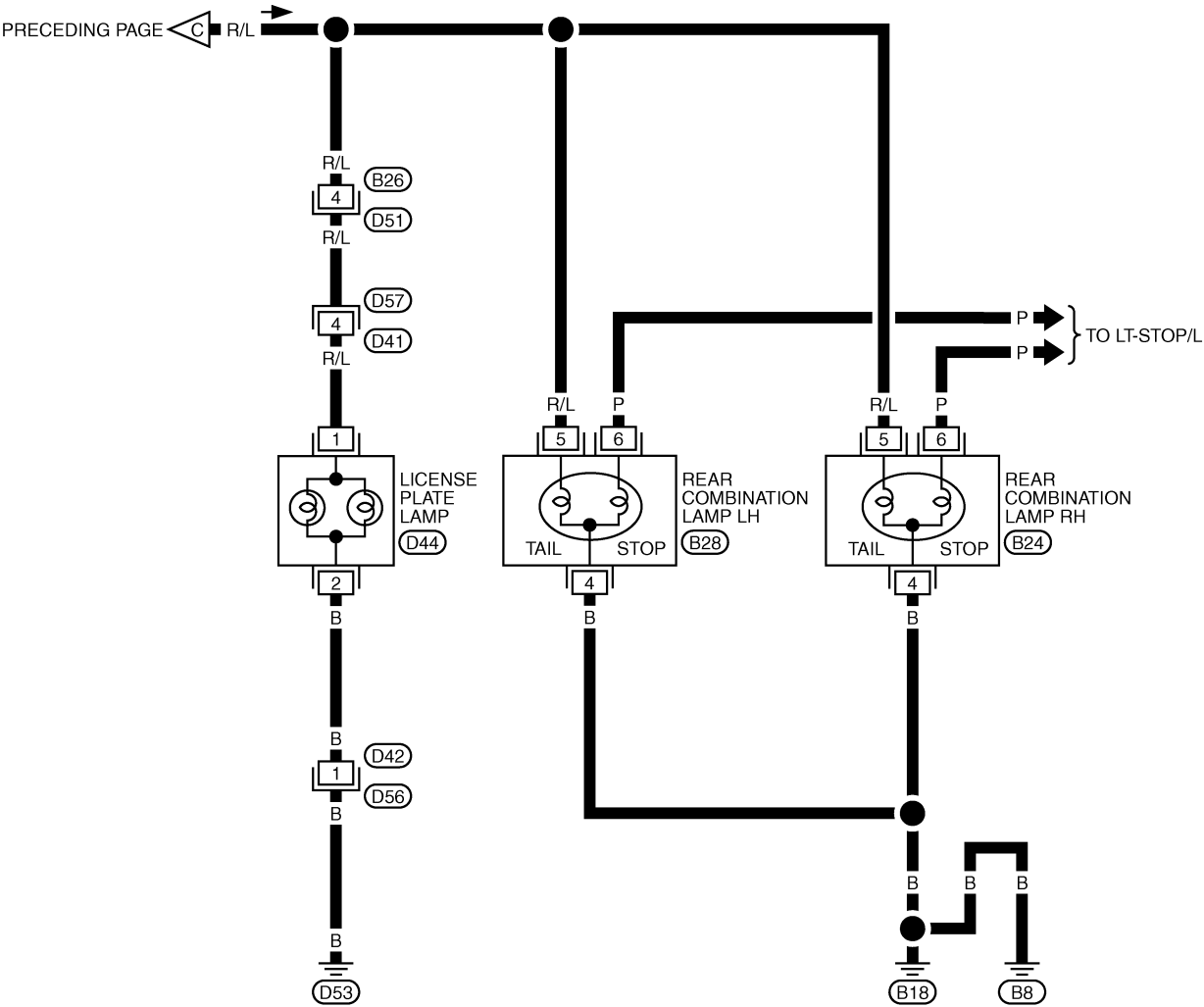


PARKING, LICENSE PLATE AND TAIL LAMPS

RHD MODELS

LT-TAIL/L-03





PARKING, LICENSE PLATE AND TAIL LAMPS

Bulb Replacement PARKING AND TAIL LAMPS

BKS000JC

Refer to [LT-22, "Bulb Replacement of Headlamp and Clearance Lamp"](#) in "HEADLAMP -XENON TYPE-".
Refer to [LT-40, "Bulb Replacement of Headlamp and Clearance lamp"](#) in "HEADLAMP -CONVENTIONAL TYPE-".

TAIL LAMP

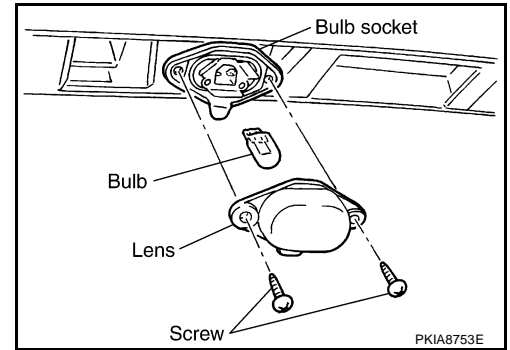
Refer to [LT-120, "Bulb Replacement"](#) .

LICENSE PLATE LAMP

1. Remove license plate lamp mounting screws.
2. Remove lens of license plate lamp.
3. Remove bulb from its socket.

License plate lamp : 12V - 5W

4. Installation is the reverse order of removal.



BKS000JD

Removal and Installation PARKING LAMP

Refer to [LT-23, "Removal and Installation of Headlamp"](#) in "HEADLAMP -XENON TYPE-".
Refer to [LT-41, "Removal and Installation of Headlamp"](#) in "HEADLAMP -CONVENTIONAL TYPE-".

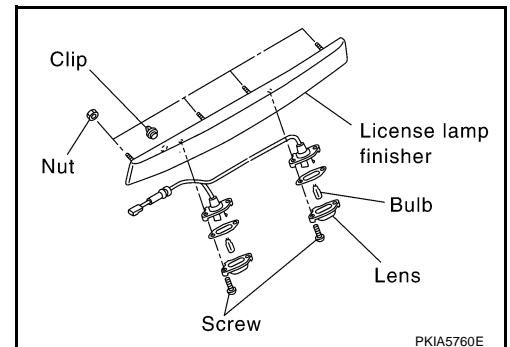
TAIL LAMP

Refer to [LT-120, "Removal and Installation"](#) .

LICENSE PLATE LAMP

Removal

1. Remove license lamp finisher. Refer to [EI-31, "LICENSE LAMP FINISHER"](#) .
2. Remove harness from installation pawl for harness.
3. Remove license plate lamp mounting screws (2 each, RH and LH).
4. Pull out license plate lamp from license lamp finisher.



Installation

Installation is the reverse order of removal.

License plate lamp mounting screws  : 1.4 N·m (0.15 kg-m, 13 in-lb)

FRONT FOG LAMP

FRONT FOG LAMP

PFP:00011

System Description DESCRIPTION

BKS000JE

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to lighting switch terminal 11,
- through 15A fuse (No. 42, located in fuse and fusible link box)
- to front fog lamp relay terminal 3.

With the lighting switch in the 2ND position, power is supplied

- through lighting switch terminal 12
- to fog lamp switch terminal 32.

FOG LAMP OPERATION

The fog lamp switch is built into the combination switch. The lighting switch must be in the 1ST or 2ND position for front fog lamp operation.

With the fog lamp switch in the FRONT FOG ON position or FRONT & REAR FOG ON position, power is supplied

- through fog lamp switch terminal 31
- to front fog lamp relay terminal 2.

Ground is supplied

- to front fog lamp relay terminal 1
- through grounds E24 and E50.

The front fog lamp relay is energized and power is supplied

- through front fog lamp relay terminal 5
- to front fog lamp LH and RH terminals 1, and
- to combination meter terminal 15.

Ground is supplied

- to front fog lamp LH and RH terminals 2
- through grounds E24 and E50,
- to combination meter terminal 64
- through grounds M27 and M70.

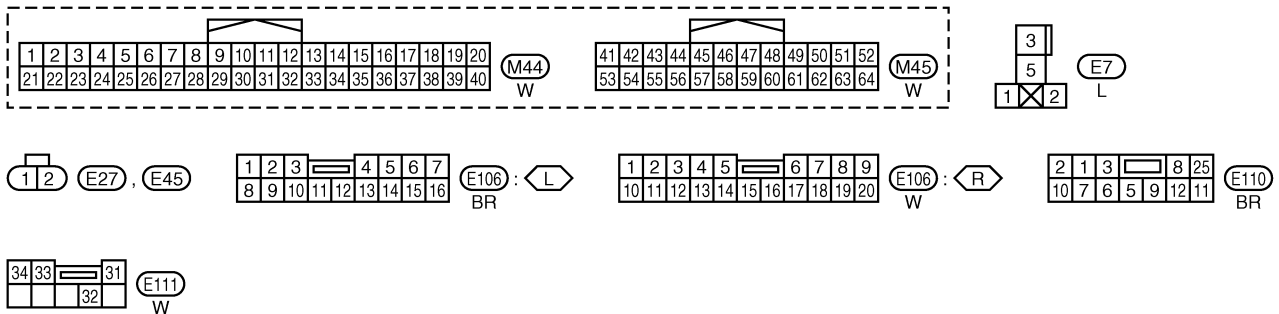
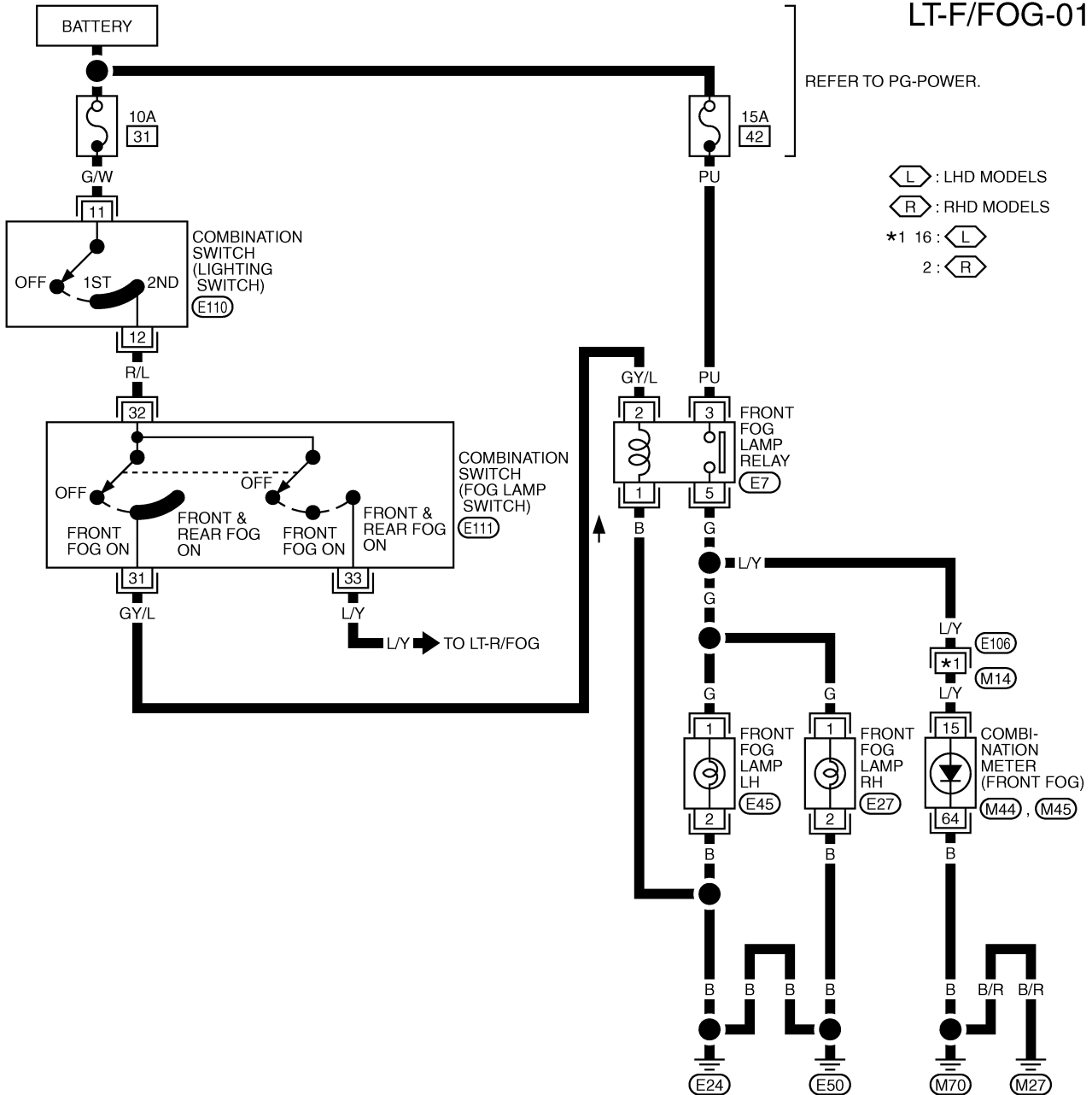
With power and ground supplied, the front fog lamps and FRONT FOG indicator illuminate.

FRONT FOG LAMP

Wiring Diagram — F/FOG —

BKS000JF

LT-F/FOG-01

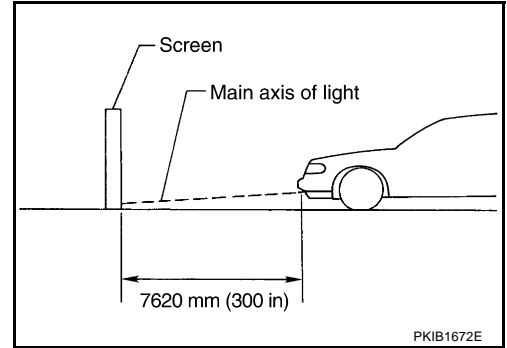


FRONT FOG LAMP

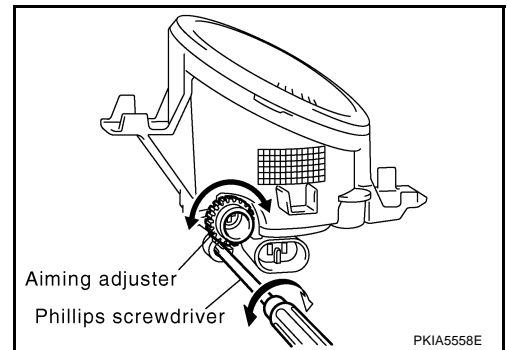
Aiming Adjustment

BKS000JG

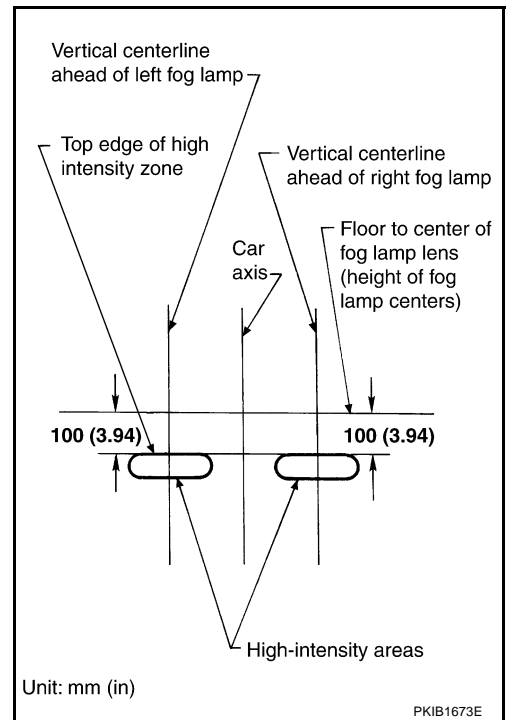
1. Set the distance between the screen and the center of the fog lamp lens as shown at left.
2. Turn fog lamp switch ON.



3. Insert a phillips screwdriver into the access hole and engage the tip of the screwdriver with the gear of the adjuster as shown at left. The aiming adjuster can now be turned by turning the screwdriver.



4. Adjust front fog lamps so that the top edge of the high intensity zone is 100 mm (3.94 in) below the height of the fog lamp centers as shown at left.
 - When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.



FRONT FOG LAMP

Bulb Replacement

BKS000JH

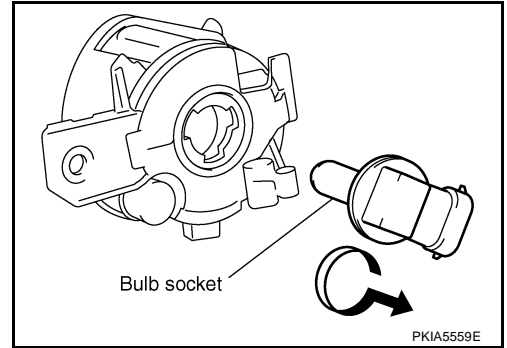
1. Remove fog lamp. Refer to [LT-113, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb from its socket.

Front fog lamp : 12V - 55W (H11)

4. Installation is the reverse order of removal.

CAUTION:

- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it. Never touch bulb by hand while it is lit or right after being turned off. Burning may result.
- Never leave bulb out of fog lamp housing for a long time because dust, moisture smoke, etc. May affect the performance of fog lamp. When replacing bulb, be sure to replace it with new one.

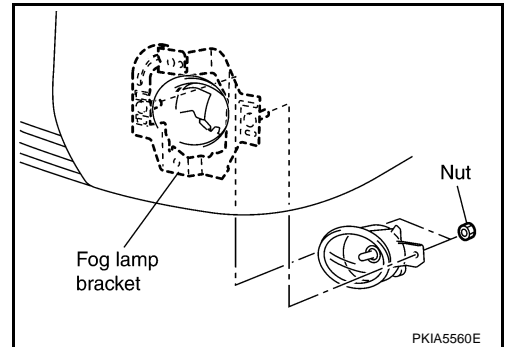


Removal and Installation

BKS000JI

REMOVAL

1. Remove fender protector. Refer to [EI-21, "FENDER PROTECTOR"](#).
2. Disconnect fog lamp connector.
3. Remove fog lamp mounting nuts from fog lamp bracket.
4. Pull out fog lamp from vehicle.



INSTALLATION

Installation is the reverse order of removal.

Fog lamp mounting bolt  : 5.5 N·m (0.56 kg-m, 49 in-lb)

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REAR FOG LAMP

PFP:26550

System Description DESCRIPTION

BKS000JJ

Power is supplied at all times (without front fog lamp)

- through 15A fuse (No. 41, located in fuse and fusible link box)
- to lighting switch terminal 5,
- through 10A fuse (No. 36, located in fuse and fusible link box)
- to rear fog lamp relay terminal 3.

Power is supplied at all times (with front fog lamp)

- through 10A fuse (No. 31, located in the fuse and fusible link box)
- to lighting switch terminal 11,
- through 10A fuse (No. 36, located in fuse and fusible link box)
- to rear fog lamp relay terminal 3.

With the lighting switch in the 2ND position, power is supplied (without front fog lamp)

- through lighting switch terminal 25
- to fog lamp switch terminal 34.

With the lighting switch in the 2ND position, power is supplied (with front fog lamp)

- through lighting switch terminal 12
- to fog lamp switch terminal 32.

FOG LAMP OPERATION

The front and rear fog lamp switch is built into the combination switch. The lighting switch must be in the 1ST or 2ND position for rear fog lamp operation.

With the fog lamp switch in the REAR FOG ON position, ground is supplied

- through fog lamp switch terminal 33
- to rear fog lamp relay terminal 2.

Ground is supplied

- to rear fog lamp relay terminal 1
- through grounds E24 and E50.

The rear fog lamp relay is energized and power is supplied

- through rear fog lamp relay terminal 5
- to rear fog lamp terminal 1, and
- to combination meter terminal 13.

Ground is supplied

- to rear fog lamp terminal 2
- through grounds B8 and B18,
- to combination meter terminal 64
- through grounds M27 and M70.

With power and ground supplied, the rear fog lamps and REAR FOG indicator illuminate.

REAR FOG LAMP

Wiring Diagram — R/FOG — WITHOUT FRONT FOG LAMP

BKS000JK

LT-R/FOG-01

L : LHD MODELS

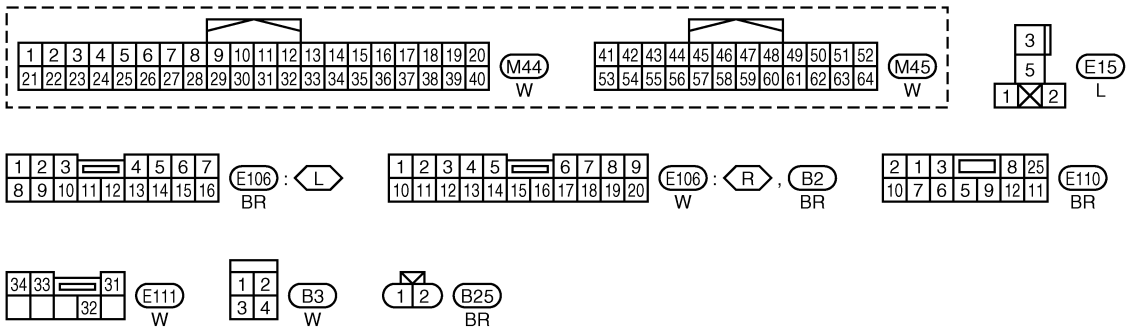
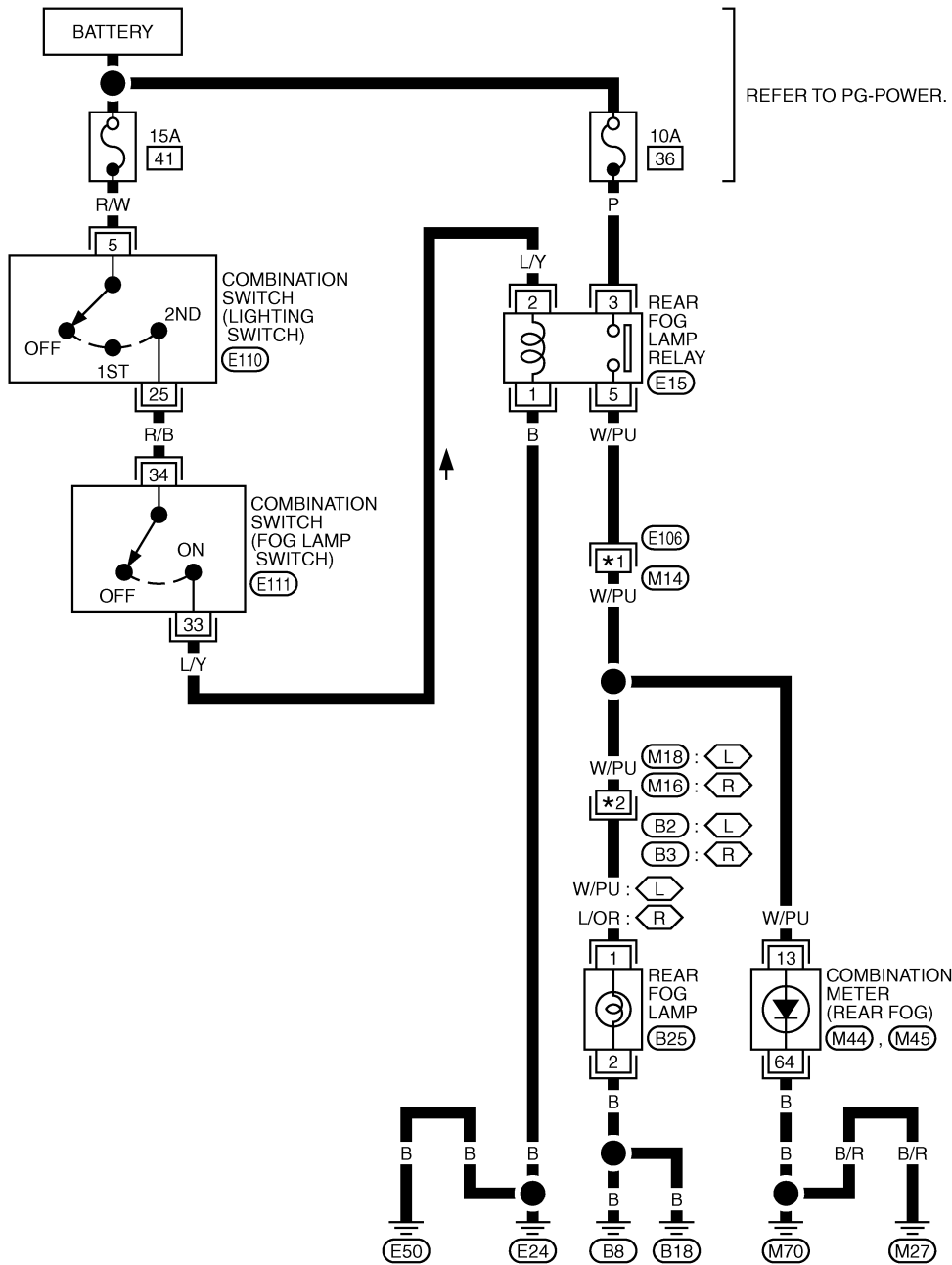
R : RHD MODELS

*1 9: **L**

19: **R**

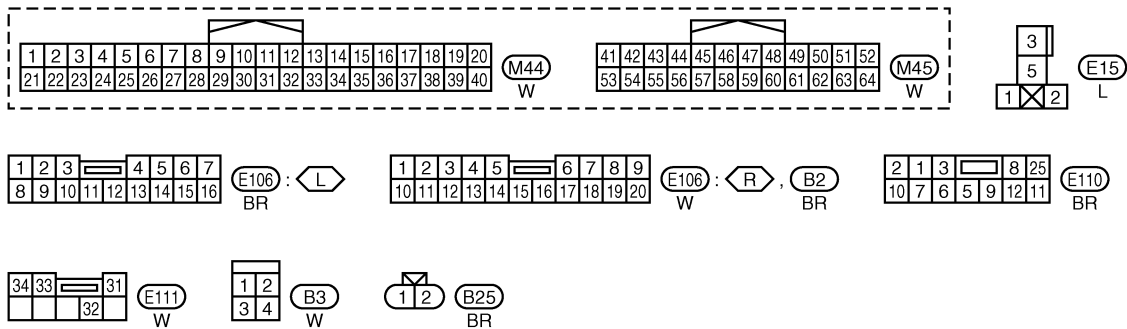
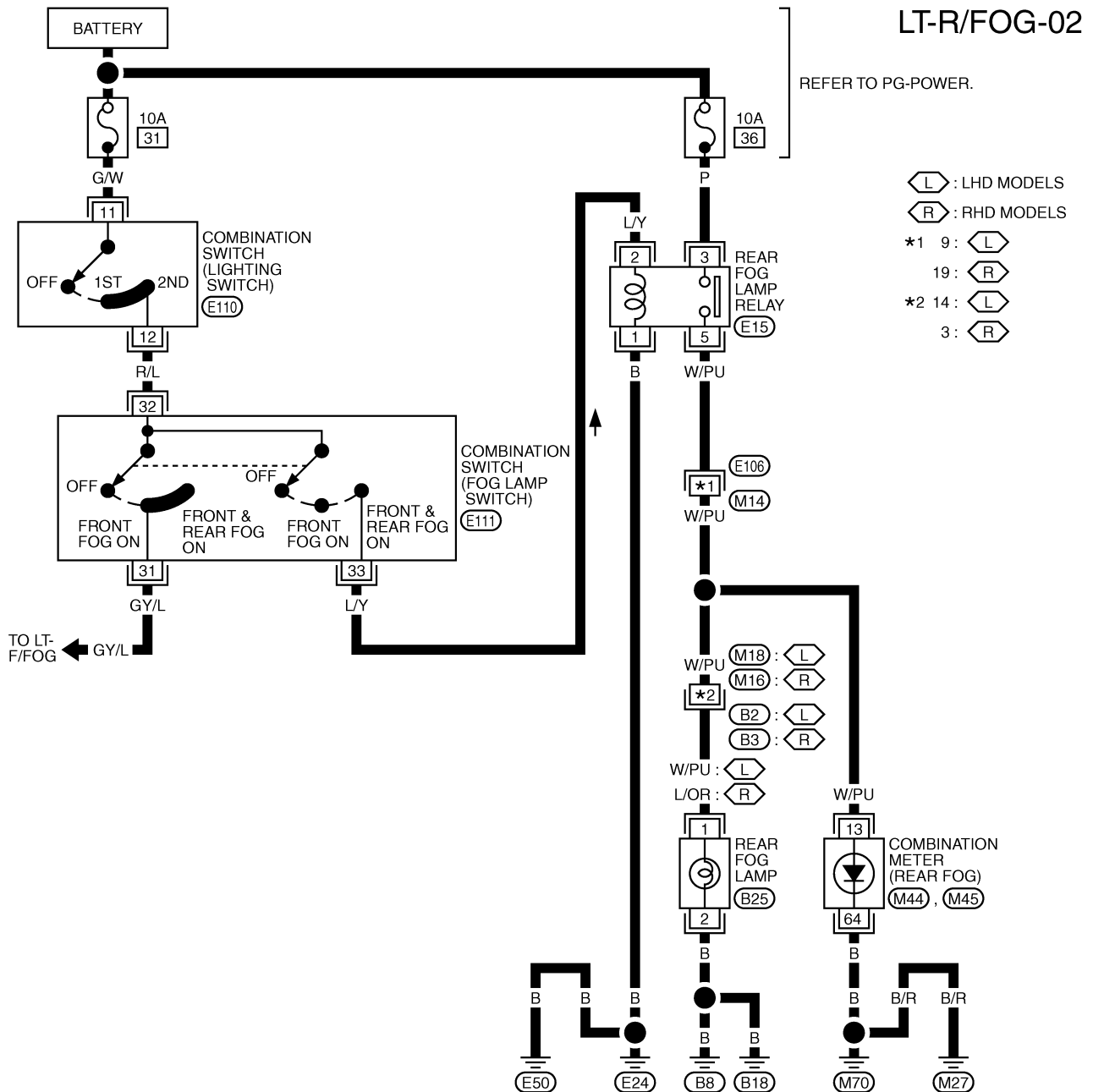
*2 14: **L**

3: **R**



REAR FOG LAMP

WITH FRONT FOG LAMP



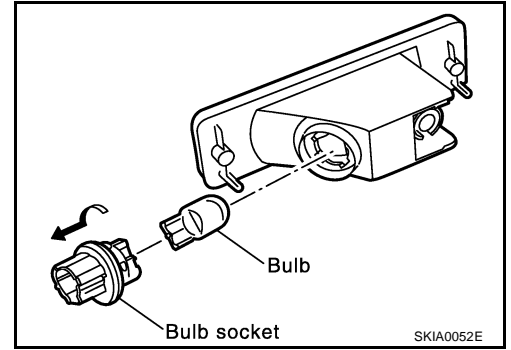
REAR FOG LAMP

Bulb Replacement

1. Remove rear fog lamp. Refer to [LT-117, "Removal and Installation"](#).
2. Turn bulb socket counterclockwise and unlock it.
3. Remove bulb.

Rear fog lamp : 12V - 21W

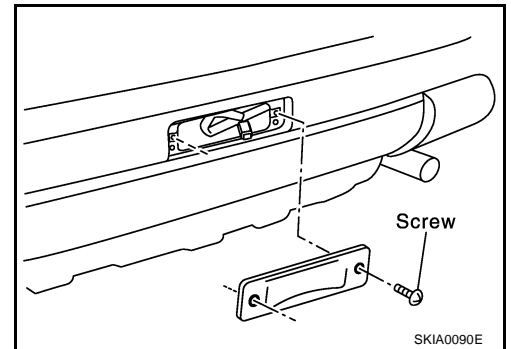
4. Installation is the reverse order of removal.



Removal and Installation

REMOVAL

1. Remove rear fog lamp mounting screws.
2. Take out rear fog lamp from bumper, then disconnect connector.



INSTALLATION

Installation is the reverse order of removal.

Rear fog lamp mounting screws  : 1.4 N·m (0.14 kg·m, 12 in·lb)

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CLEARANCE LAMP/TAIL LAMP

CLEARANCE LAMP/TAIL LAMP

PFP:26010

Bulb Replacement (Clearance Lamp)

BKS000JO

Refer to [LT-22, "Bulb Replacement of Headlamp and Clearance Lamp"](#) in "HEADLAMP-XENON TYPE-".
Refer to [LT-40, "Bulb Replacement of Headlamp and Clearance lamp"](#) in "HEADLAMP-CONVENTIONAL TYPE-".

Bulb Replacement (Tail lamp)

BKS000JP

Refer to [LT-120, "Bulb Replacement"](#) .

Removal and Installation of Clearance Lamp

BKS000JQ

Refer to [LT-23, "Removal and Installation of Headlamp"](#) in "HEADLAMP-XENON TYPE-".
Refer to [LT-41, "Removal and Installation of Headlamp"](#) in "HEADLAMP-CONVENTIONAL TYPE-".

Removal and Installation of Tail lamp

BKS000JR

Refer to [LT-120, "Removal and Installation"](#) .

HIGH-MOUNTED STOP LAMP

HIGH-MOUNTED STOP LAMP	PFP:26590
Bulb Replacement	BKS000JS
Refer to LT-101, "Bulb Replacement" .	
Removal and Installation	BKS000JT
Refer to LT-101, "Removal and Installation" .	

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REAR COMBINATION LAMP

REAR COMBINATION LAMP

PFP:26554

Bulb Replacement

BKS000JV

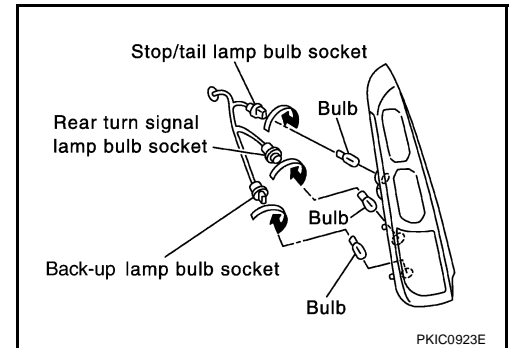
1. Remove rear combination lamp mounting bolts.
2. Pull rear combination lamp toward rear of vehicle. Disengage locating pins.
3. Turn bulb socket counterclockwise and unlock it.
4. Remove bulb.

Stop/tail lamp : 12V - 21/5W

Rear turn signal lamp : 12V - 21W

Back-up lamp : 12V - 21W

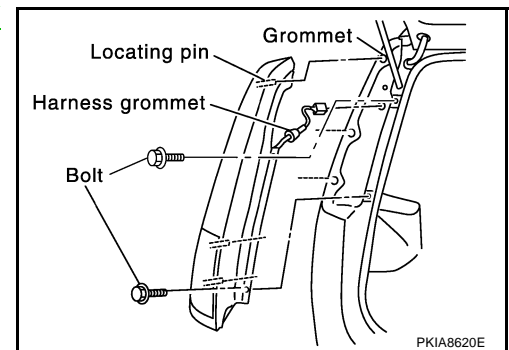
5. Installation is the reverse order of removal.



Removal and Installation

REMOVAL

1. Remove luggage-side lower finisher. Refer to [EI-35, "BODY SIDE TRIM"](#).
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting bolts.
4. Pull rear combination lamp rearward the vehicle. Disengage locating pins.
5. Pull harness grommet and remove harness.



INSTALLATION

Installation is the reverse order of removal.

Rear combination lamp mounting bolts  : 5.4 N·m (0.55 kg-m, 48 in-lb)

COMBINATION SWITCH

COMBINATION SWITCH	PFP:25567
Removal and Installation	BKS000JX
Refer to SRS-32, "SPIRAL CABLE" .	
Switch Circuit Inspection	BKS000JY
Refer to LT-98, "Switch Circuit Inspection" in "LIGHTING AND TURN SIGNAL SWITCH", and WW-8, "Terminal and Reference Values for Combination Switch" , WW-17, "Terminal and Reference Values for Combination Switch" in "Wiper, Washer&Horn (WW)" section.	

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ASHTRAY ILLUMINATION

ASHTRAY ILLUMINATION

PFP:25860

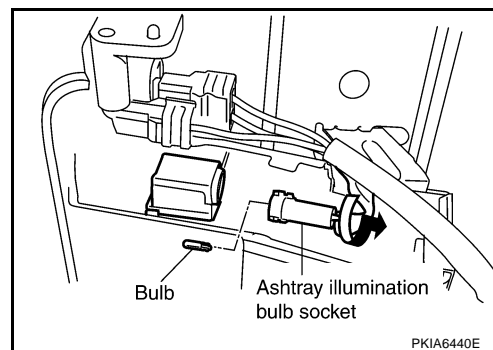
Bulb Replacement, Removal and Installation

BKS000JZ

1. Remove instrument center lower panel. Refer to [IP-10](#), ["INSTRUMENT PANEL ASSEMBLY"](#).
2. Turn bulb socket counterclockwise and unlock it.
3. Pull bulb from socket.

Ashtray illumination lamp : 12V - 1.4W

4. Installation is the reverse order of removal.



ILLUMINATION

ILLUMINATION

PFP:27545

System Description

BKS000K0

Power is supplied at all times

- through 10A fuse (No. 31, located in fuse and fusible link box)
- to lighting switch terminal 11.

The lighting switch must be in the 1ST or 2ND position for illumination.

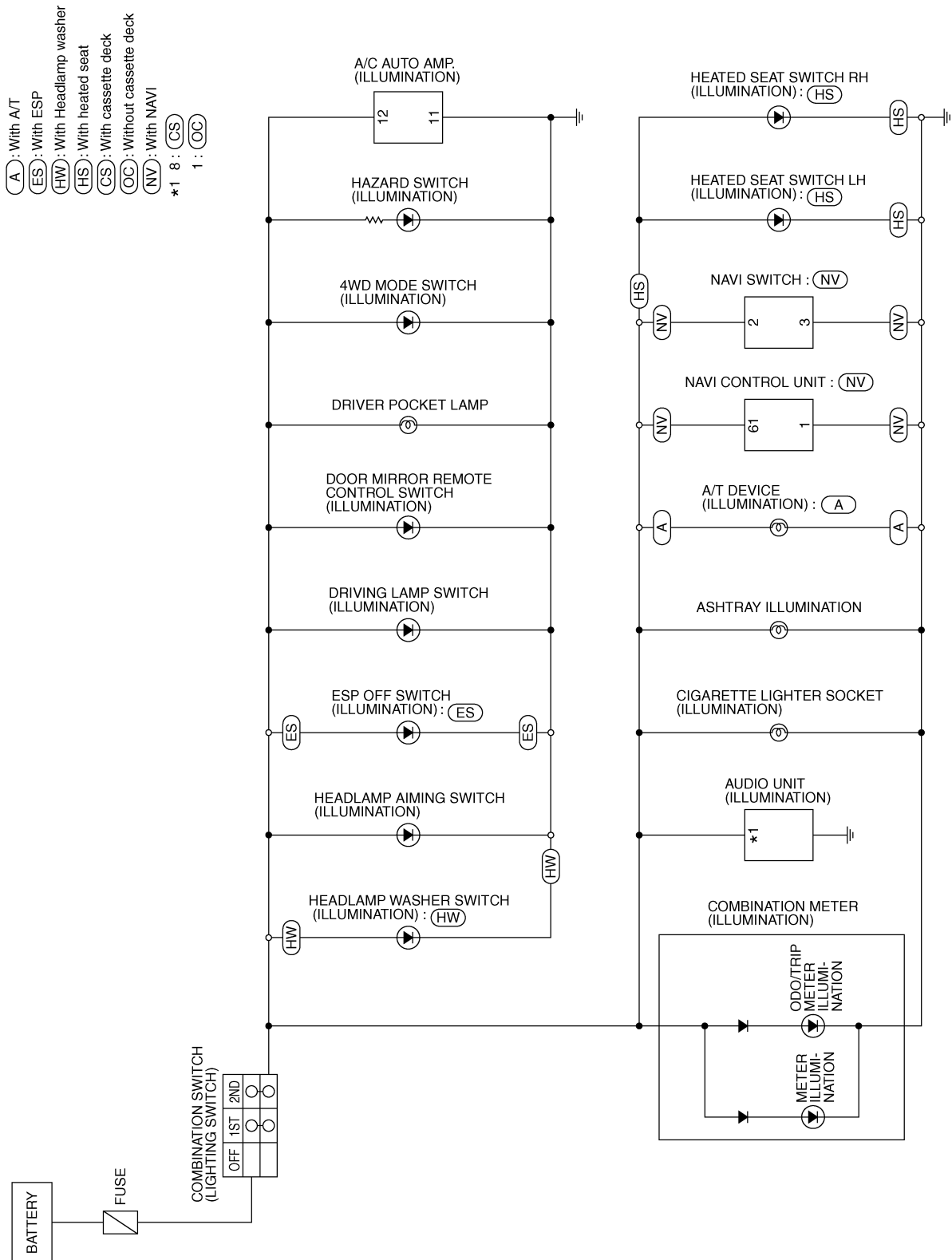
The following chart shows the power and ground connector terminals for the components included in the illumination system.

Component	Connector No.	Power terminal	Ground terminal
Headlamp washier switch (with headlamp washer)	M23	4	3
Headlamp aiming switch	M24	3	4
ESP off switch (with ESP)	M25	3	4
Driving lamp switch	M101	1	5
Door mirror remote control switch	M26	16	15
Driver pocket lamp	M119	1	2
4WD mode switch	M39	5	6
Hazard switch	M51	7	8
A/C auto amp.	M52	12	11
Combination meter	M45	60	63
Audio unit (with cassette deck)	M108	8	case ground
Audio unit (without cassette deck and with NAVI)	M42	1	case ground
Audio unit (without cassette deck and without NAVI)	M207	1	case ground
Cigarette lighter socket	M301, M302	3	2
Ashtray illumination	M303	5	6
A/T device (with A/T)	M58	3	4
NAVI control unit (with NAVI)	M116, M117	61	1
NAVI switch (with NAVI)	M113	2	3
Heated seat switch LH (with heated seat)	B212	5	6
Heated seat switch RH (with heated seat)	B213	5	6

ILLUMINATION

Schematic

BKS000K1



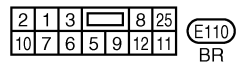
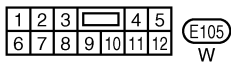
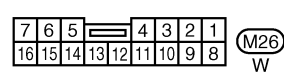
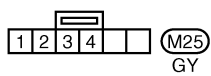
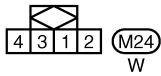
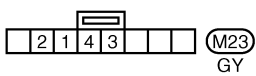
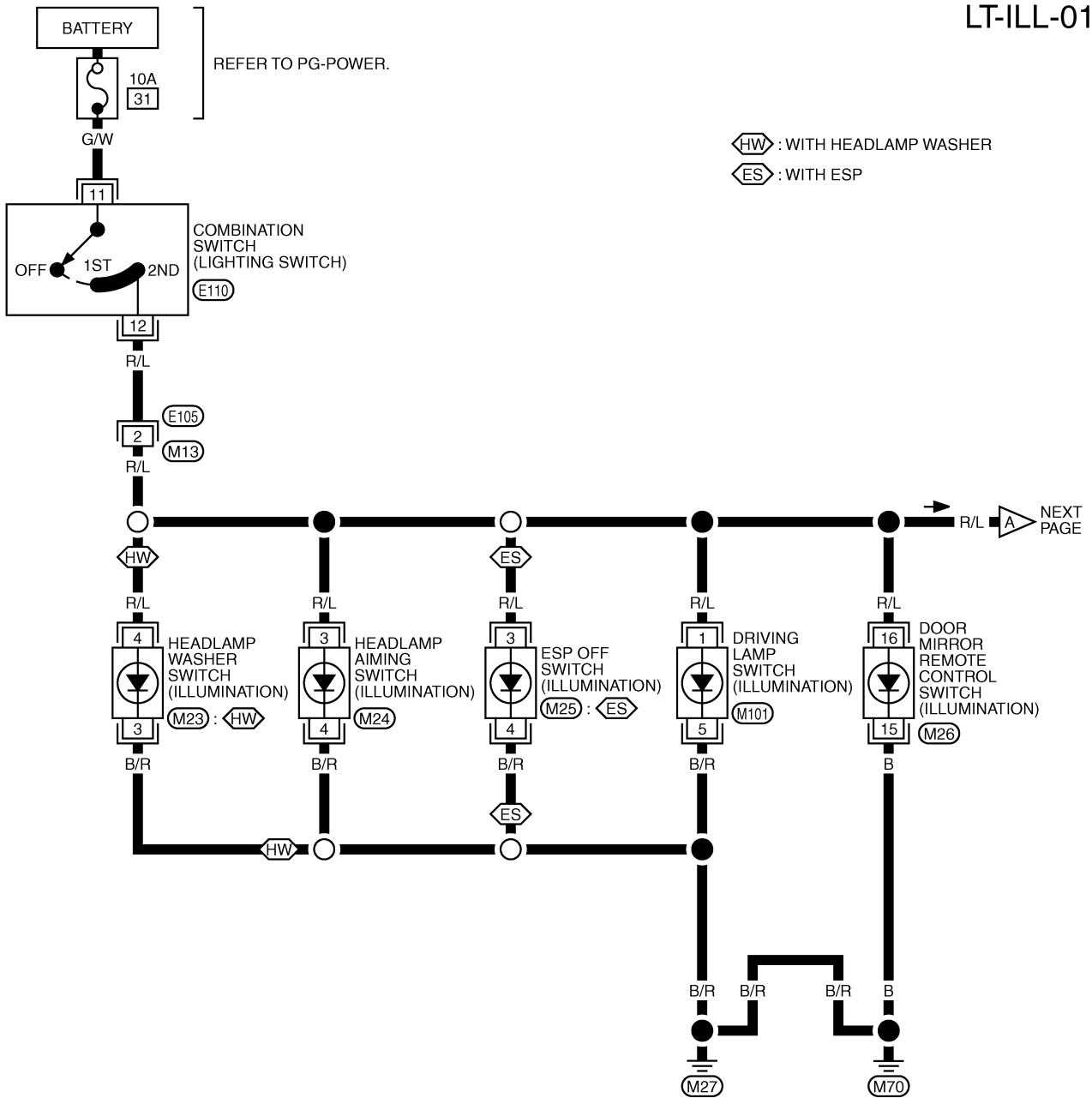
TKWB2758E

ILLUMINATION

Wiring Diagram —ILL— LHD MODELS

BKS000K2

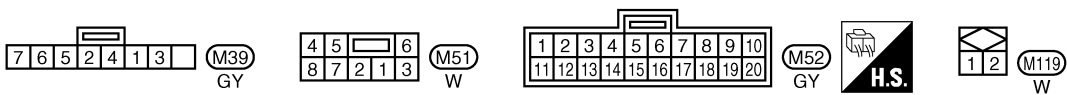
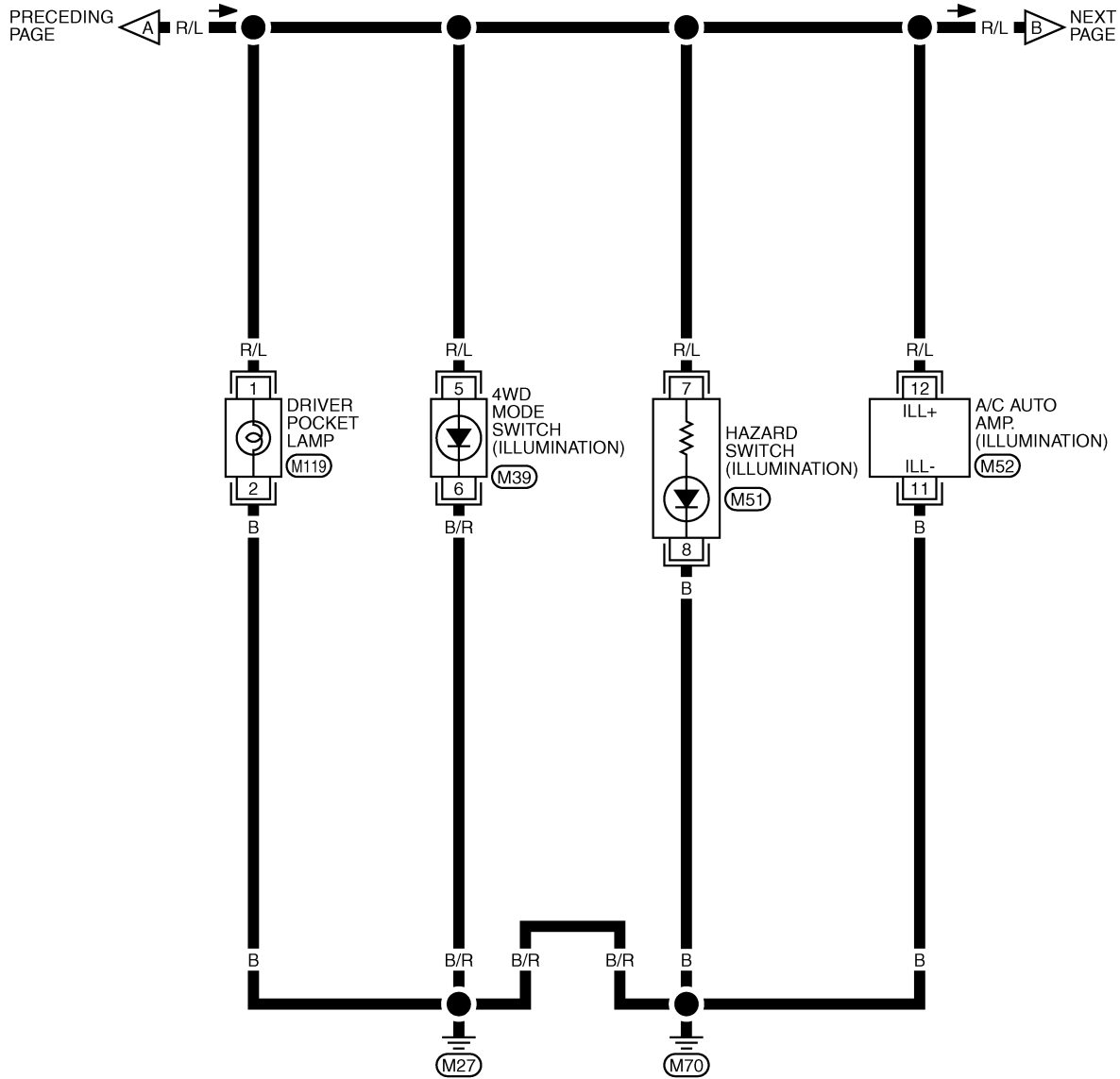
LT-ILL-01



TKWB2759E

ILLUMINATION

LT-ILL-02

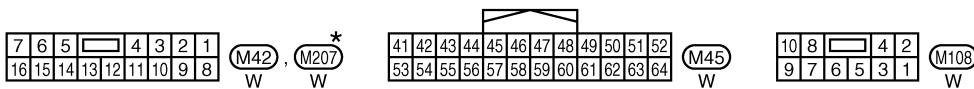
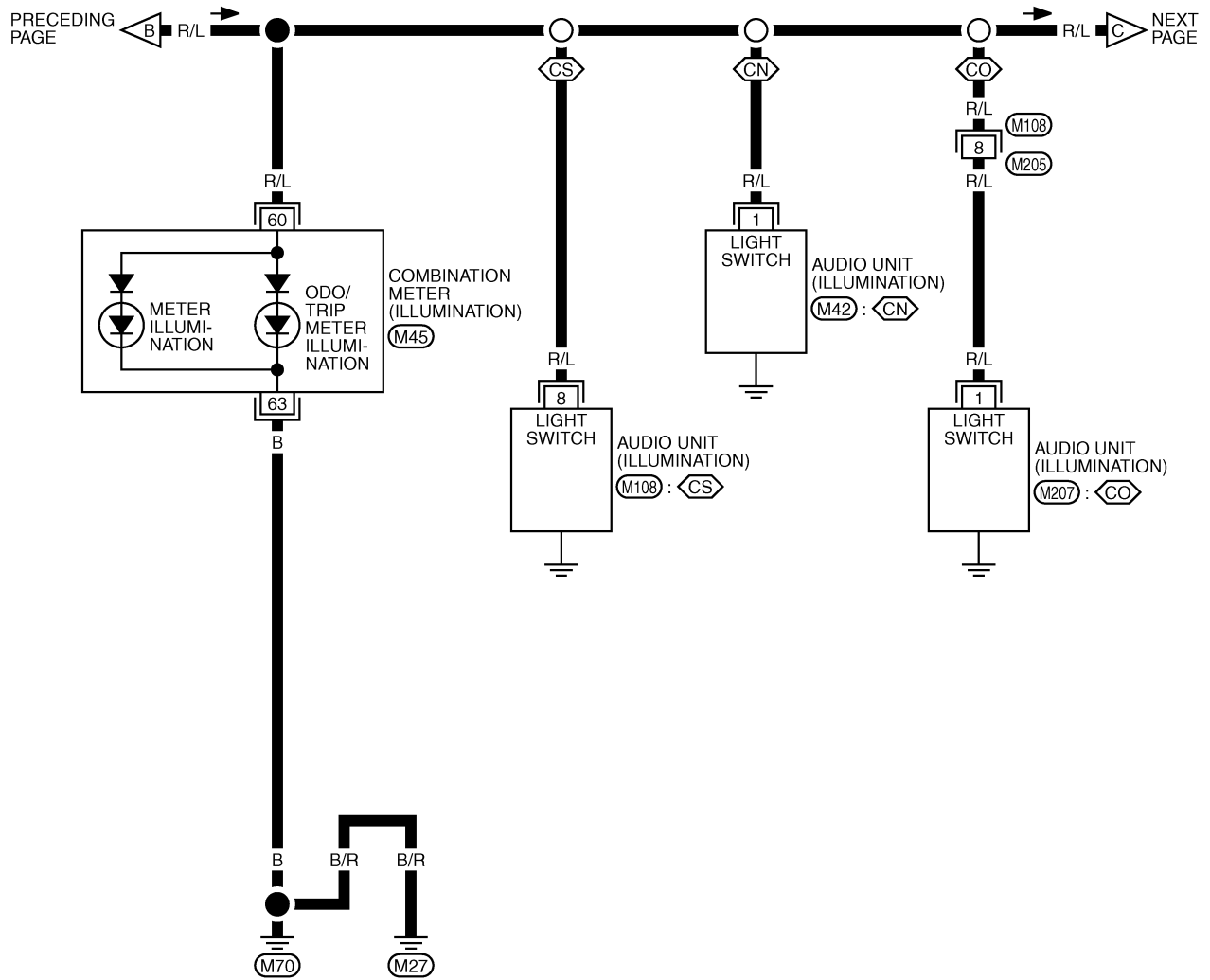


TKWB2760E

CS : WITH CASSETTE DECK

CN : WITHOUT CASSETTE DECK AND WITH NAVI

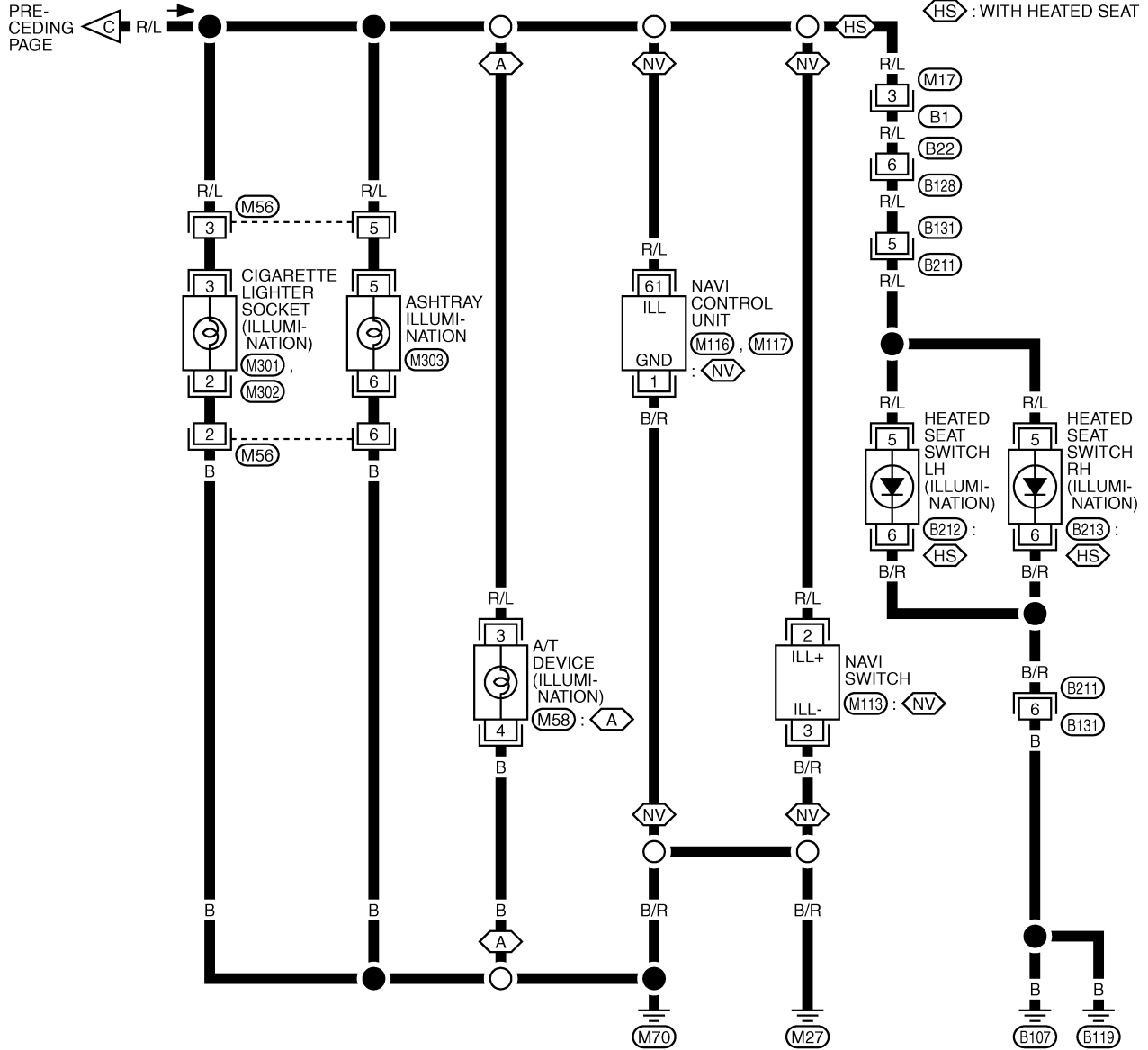
CO : WITHOUT CASSETTE DECK AND WITHOUT NAVI



★ : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

ILLUMINATION

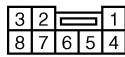
LT-ILL-04



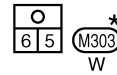
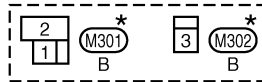
M56
GY



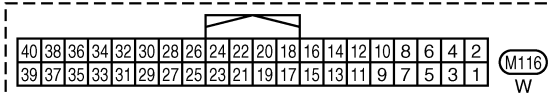
M58
W



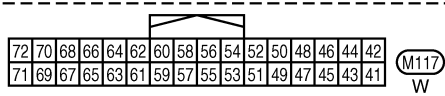
M113
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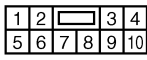
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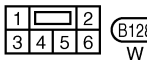
M116
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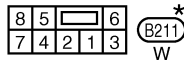
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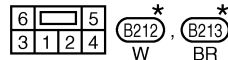
B1
W



B128
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B211*
W



B212*
W



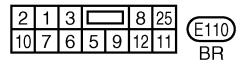
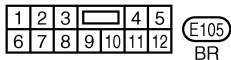
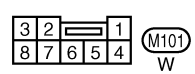
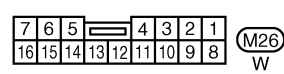
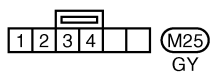
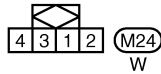
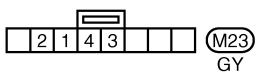
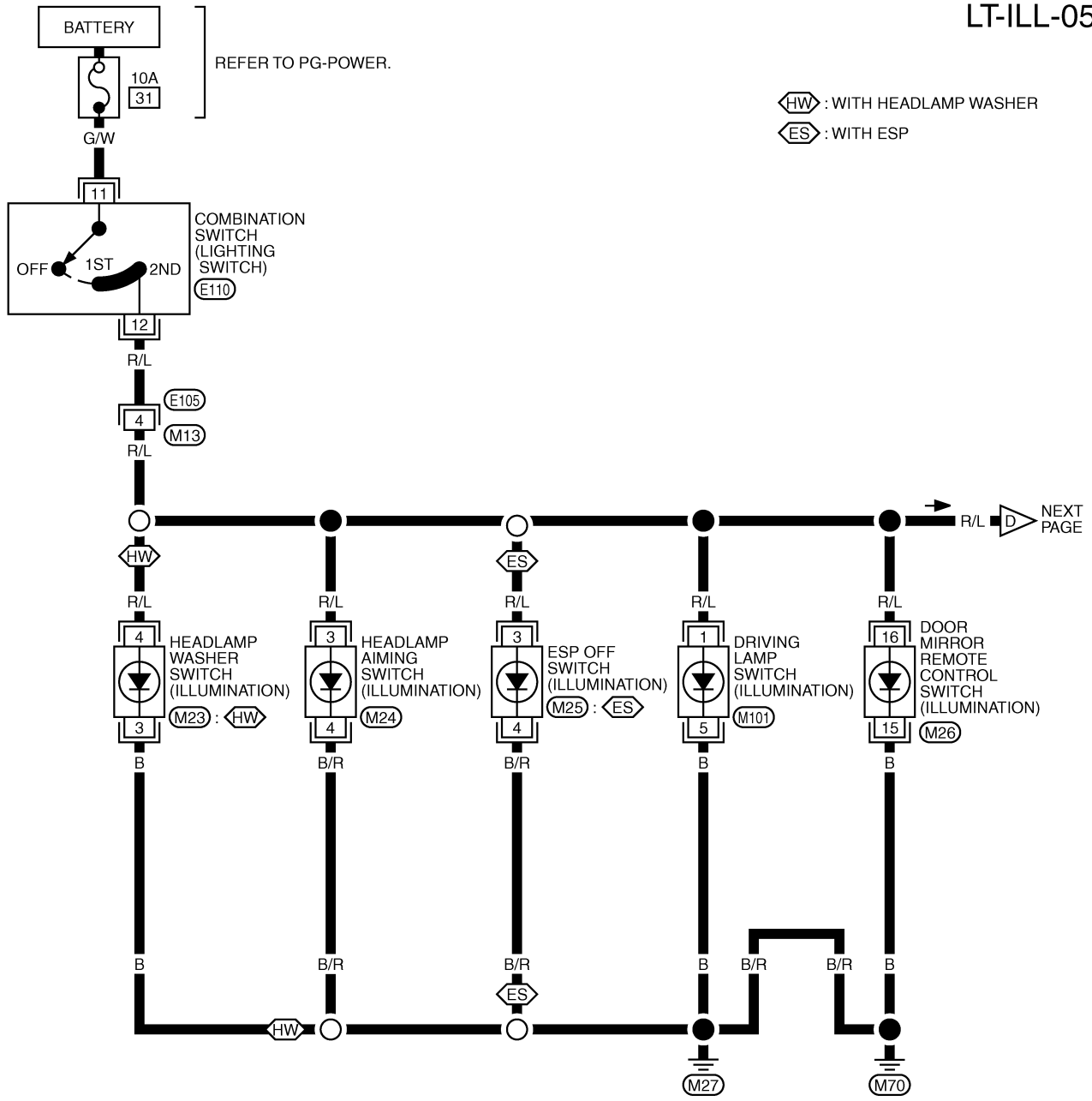
B213*
BR

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

ILLUMINATION

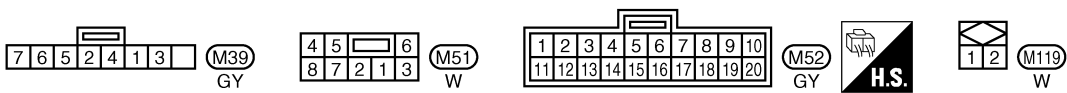
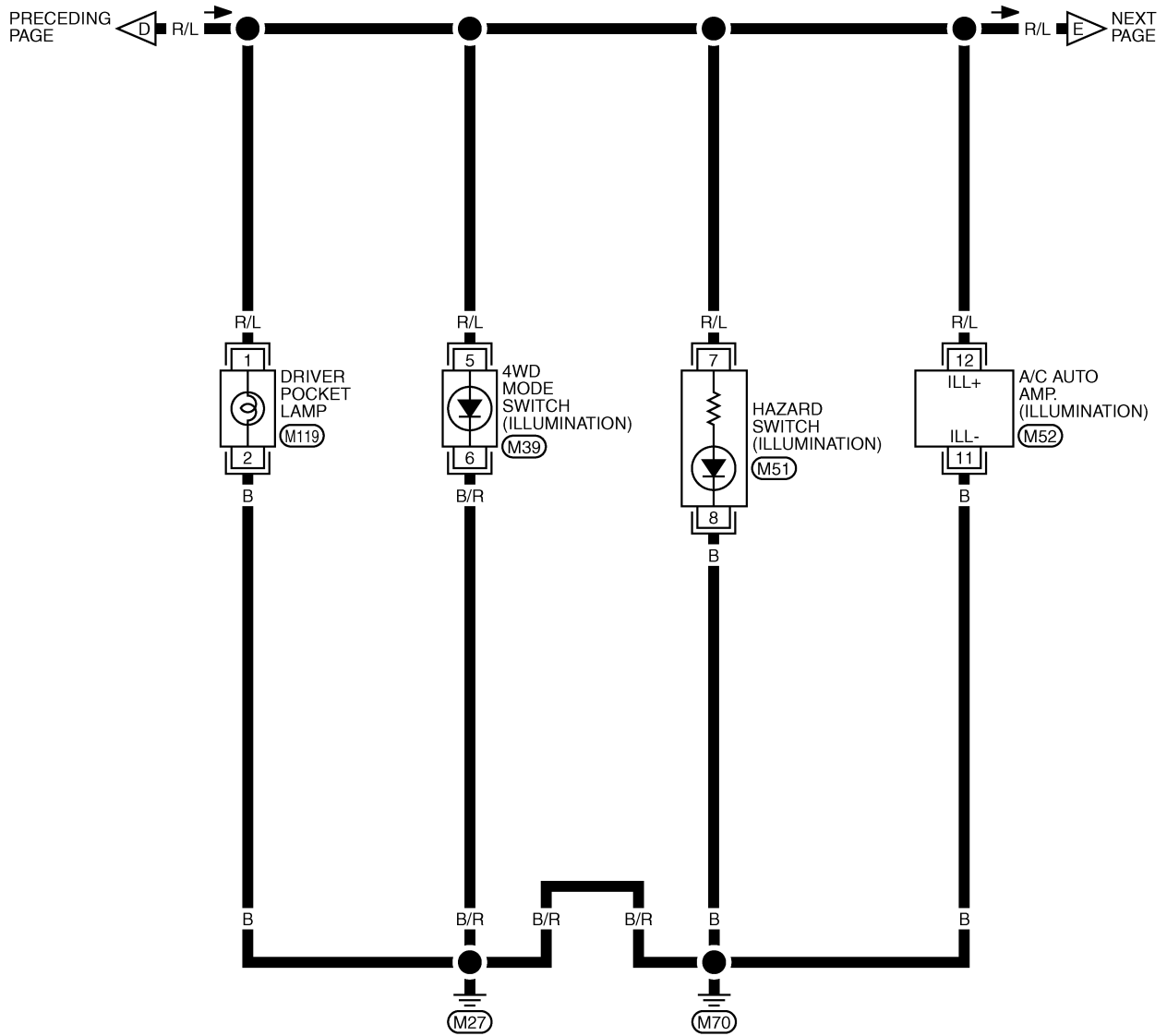
RHD MODELS

LT-ILL-05



ILLUMINATION

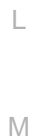
LT-ILL-06



TKWB2764E

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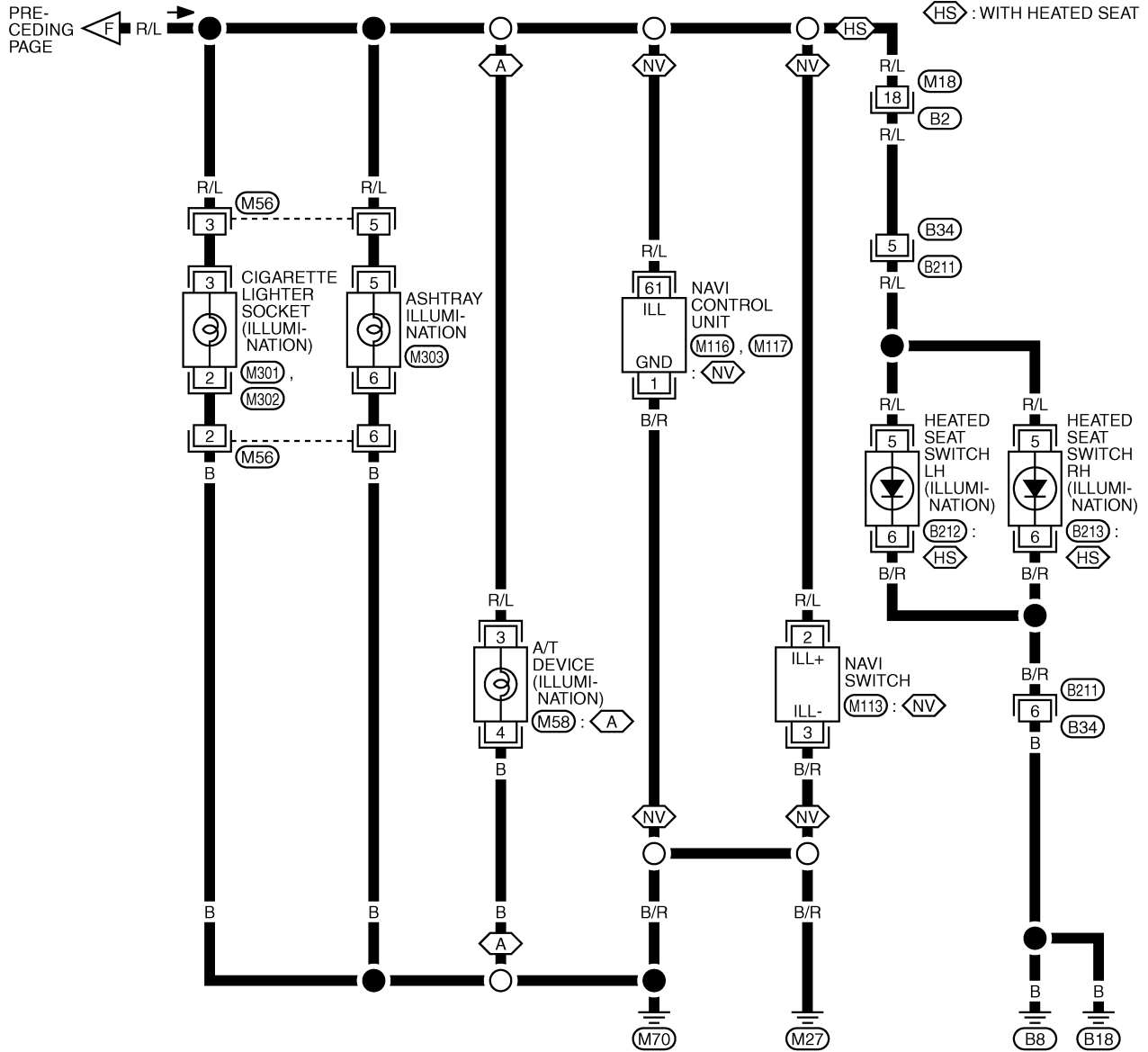
LT



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M

ILLUMINATION

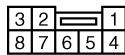
LT-ILL-08



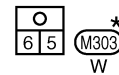
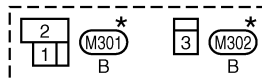
M56
GY



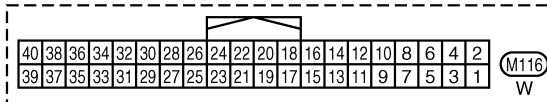
M58
W



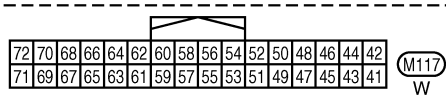
M113
W



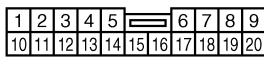
W



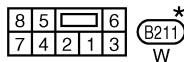
M116
W



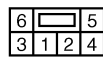
M117
W



B2
BR



B211
W



B212
W



B213
BR

*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

INTERIOR ROOM LAMP

PFP:26410

System Description

POWER SUPPLY AND GROUND

BKS000K3

Power is supplied at all times

- through 10A fuse [No. 28, located in fuse block (J/B)]
- to key switch terminal 1, and
- to time control unit terminal 1,
- through 10A fuse [No. 26, located in fuse block (J/B)]
- to interior room lamp terminal 1
- to luggage room lamp terminal 1, and
- to map lamp terminal 1 (with sunroof).

When the key is removed from ignition key cylinder, power is interrupted

- through key switch terminal 2
- to time control unit terminal 18.

With the ignition switch in the ON or START position, power is supplied

- through 10A fuse [No. 5, located in fuse block (J/B)]
- to time control unit terminal 17.

Ground is supplied

- to time control unit terminal 16
- through grounds M27 and M70.

When the driver's door is opened, ground is supplied

- to time control unit terminal 30
- through front door switch (driver side) terminal 2
- through front door switch (driver side) terminal 3
- through grounds B8 and B18.

When the door (except driver's door) is opened, ground is supplied

- to time control unit terminal 31
- through front door switch (passenger side) terminal 1
- through case ground of front door switch (passenger side),
- through rear door switch LH and RH terminals 1
- through case ground of rear door switch LH and RH, and
- through back door switch terminal 1
- through back door switch terminal 3
- through ground D53.

When the driver's door is unlocked, the time control unit receives a ground signal

- to time control unit terminal 28
- through front door lock actuator (driver side) terminal 5
- through front door lock actuator (driver side) terminal 2
- through grounds M27 and M70.

When a signal, or combination of signals is received by the time control unit, ground is supplied

- to interior room lamp terminal 2, and
- to map lamp terminal 3 (with sunroof)
- through time control unit terminal 26.

With power and ground supplied, the interior room lamp and map lamp (with sunroof) illuminates.

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INTERIOR ROOM LAMP

SWITCH OPERATION

When interior room lamp switch is ON, ground is supplied

- to interior room lamp
- through case grounds of interior room lamp.

When map lamp switch is ON, ground is supplied (with sunroof)

- to map lamp terminal 2
- through ground M27 and M70.

INTERIOR ROOM LAMP TIMER OPERATION

When interior room lamp and map lamp (with sunroof) switch is in the DOOR position, the time control unit keeps the interior room lamp and map lamp (with sunroof) illuminated for about 30 seconds when

- unlock signal is supplied from driver's door unlock sensor while all doors are closed and key is out of ignition key cylinder
- key is removed from ignition key cylinder while all doors are closed
- driver's door is opened and then closed while key is out of the ignition key cylinder. (However, if the driver's door is closed with the key inserted in the ignition key cylinder after the driver's door is opened with the key removed, the timer is operated.)

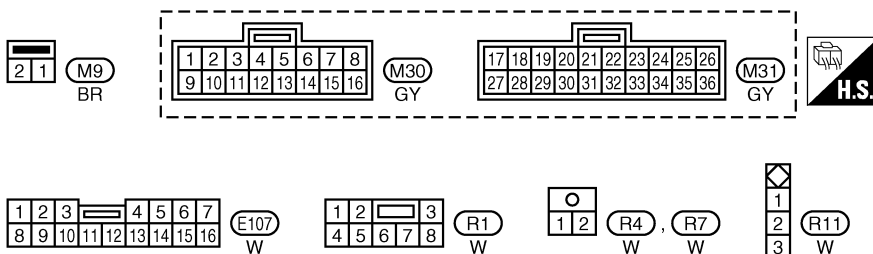
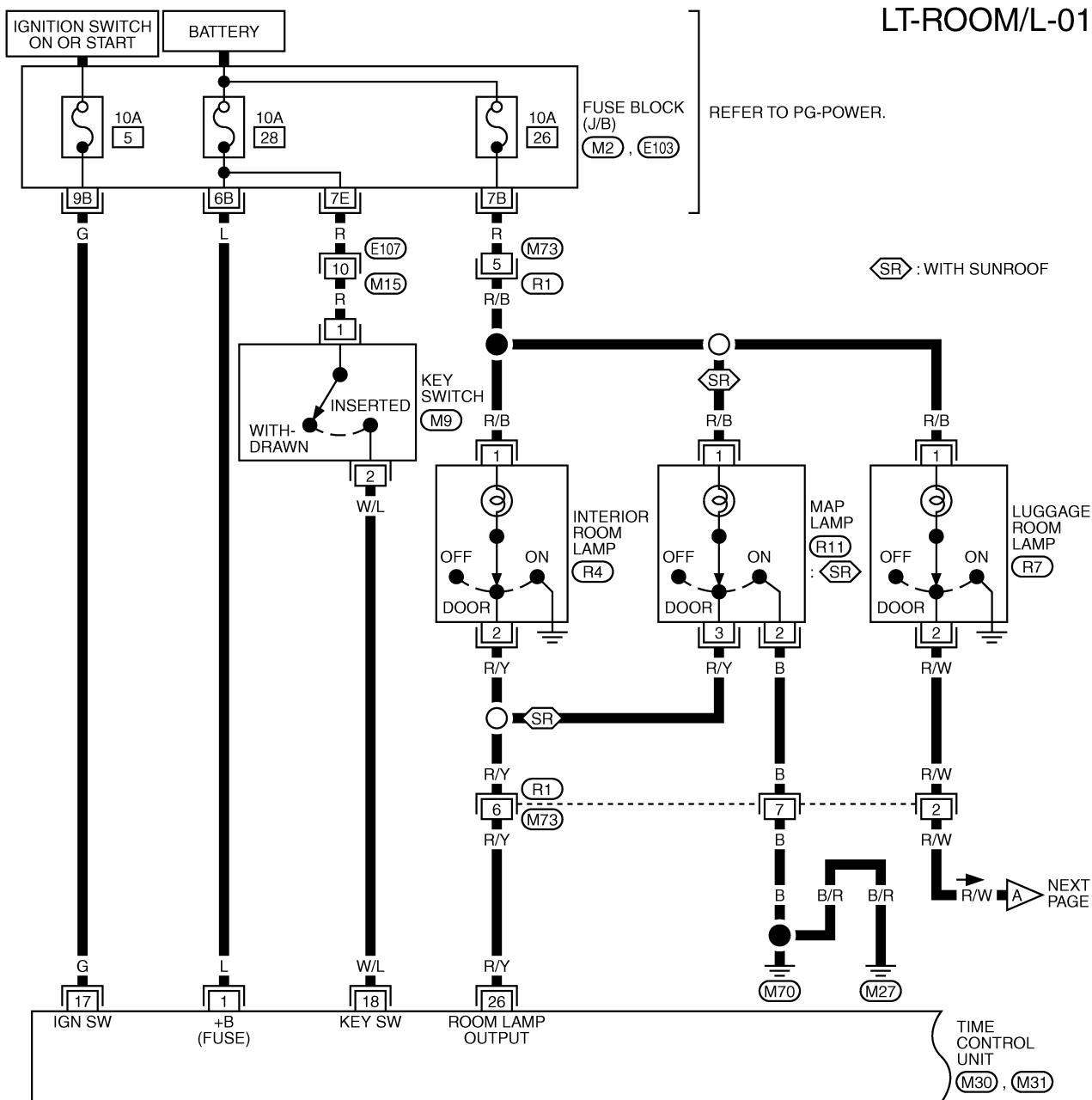
The timer is canceled when

- driver's door is locked,
- driver's door is opened, or
- ignition switch is turned ON.

ON-OFF CONTROL

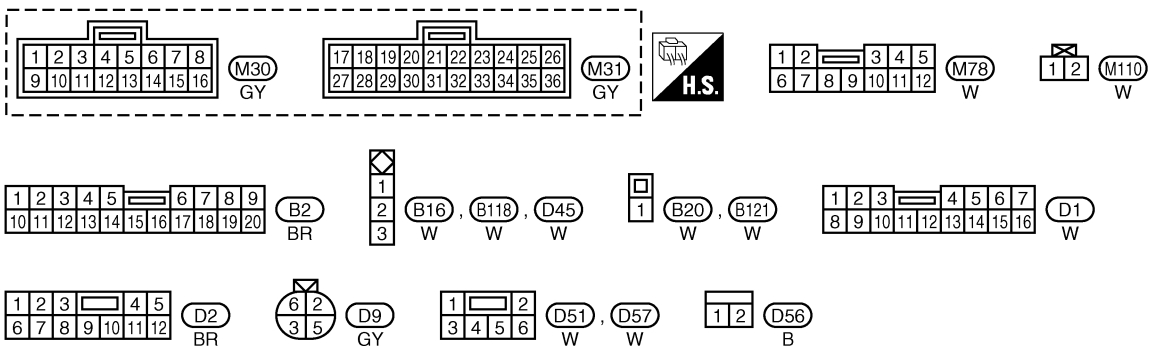
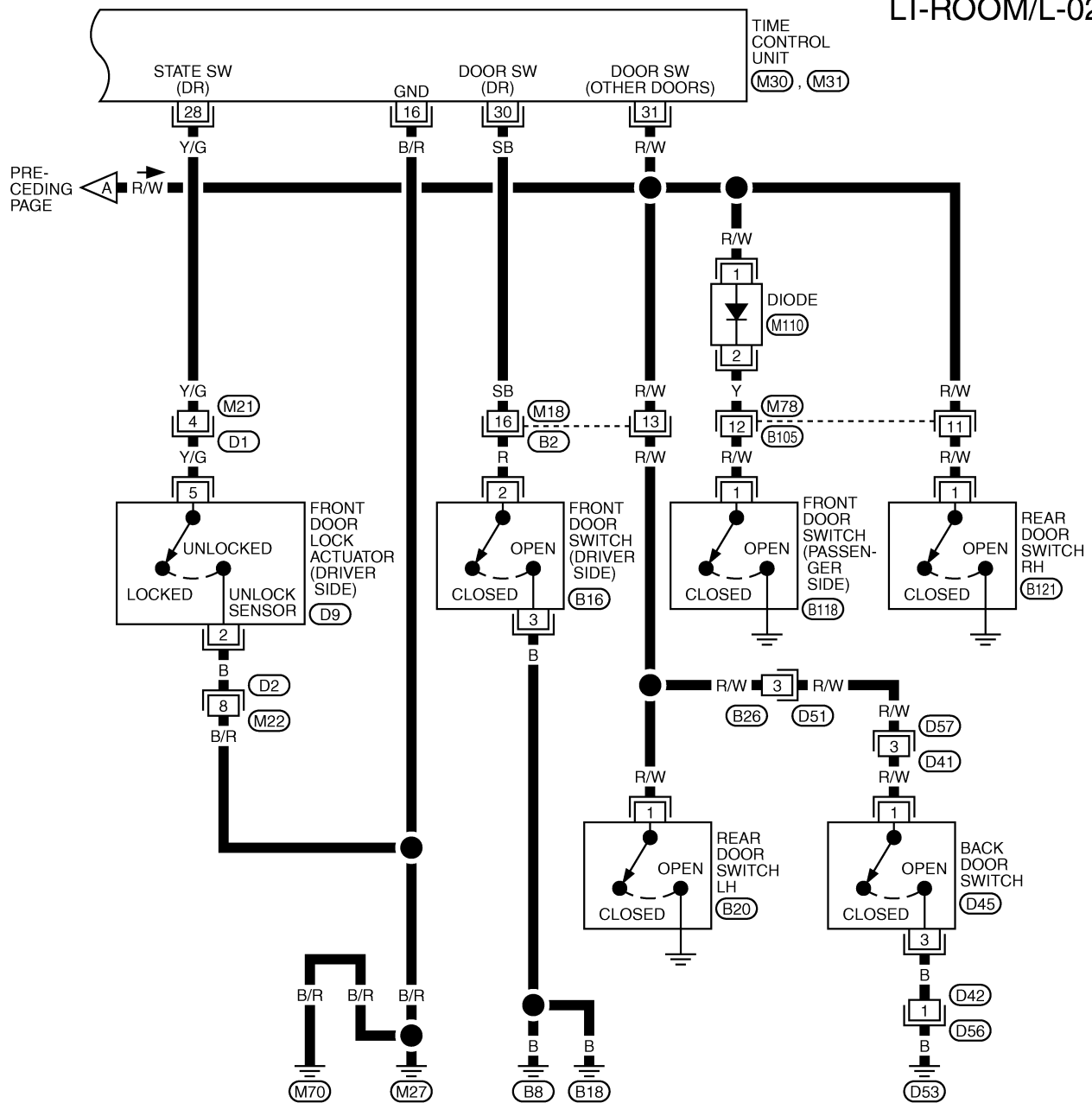
When the driver's door, passenger's door, rear LH door or rear RH door is opened, the interior room lamp and map lamp (with sunroof) turns on while the interior room lamp and map lamp (with sunroof) switch is in the DOOR position.

LT-ROOM/L-01



REFER TO THE FOLLOWING.
(M2), (E103) -FUSE BLOCK-
JUNCTION BOX (J/B)

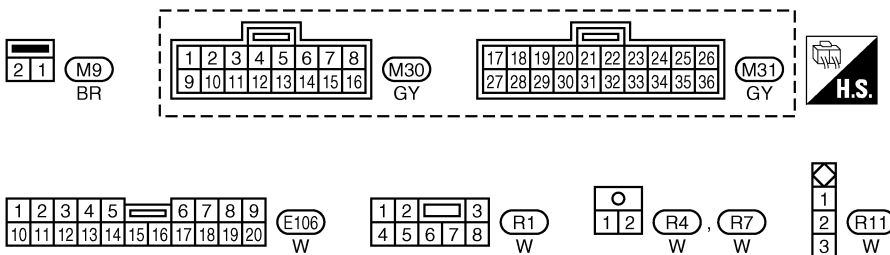
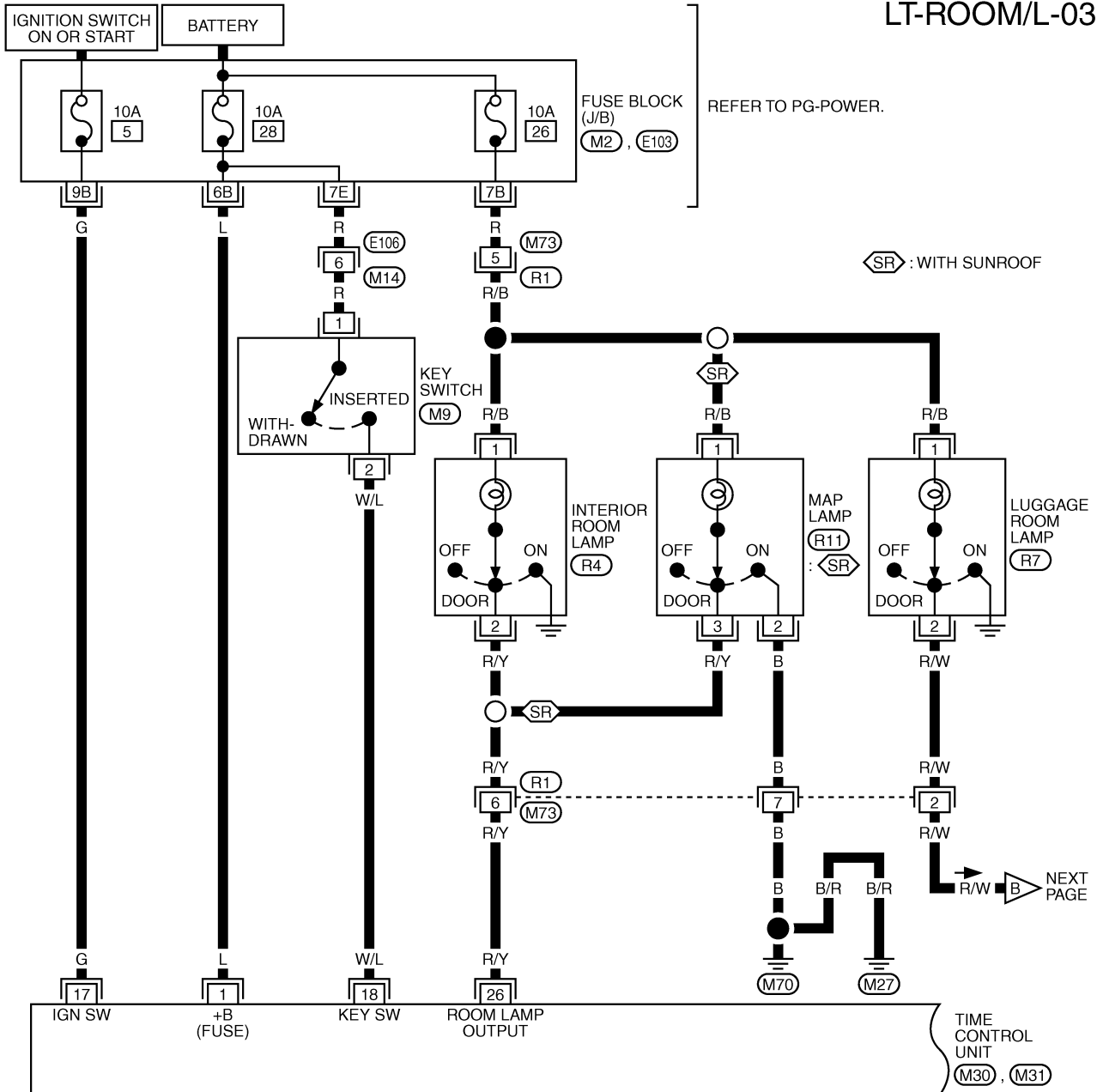
LT-ROOM/L-02



INTERIOR ROOM LAMP

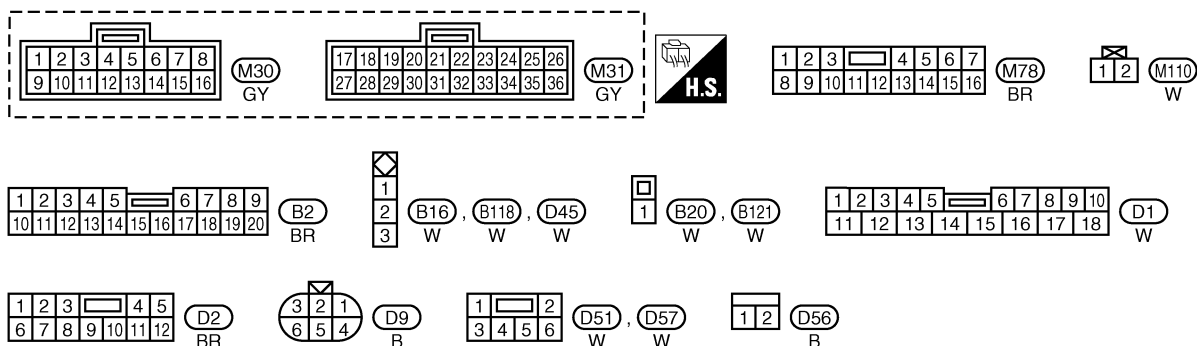
RHD MODELS

LT-ROOM/L-03



REFER TO THE FOLLOWING.
(M2, E103) -FUSE BLOCK-JUNCTION BOX (J/B)

LT-ROOM/L-04



INTERIOR ROOM LAMP

Interior Room Lamp Timer Does Not Operate

BKS000K5

1. CHECK POWER SUPPLY SIGNAL

1. Turn ignition switch OFF.
2. Disconnect time control unit connector.
3. Check voltage between time control unit harness connector and ground.

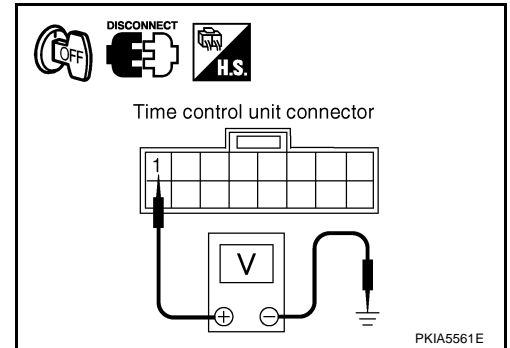
Terminal		Voltage
(+)	(-)	
Connector	Terminal	
M30	1	Battery voltage

OK or NG

OK >> GO TO 2.

NG >> Check the following.

- 10A fuse [No. 28, located in fuse block (J/B)]
- Harness for open or short between time control unit and 10A fuse (No. 28)



2. CHECK FRONT DOOR SWITCH (DRIVER SIDE) INPUT SIGNAL

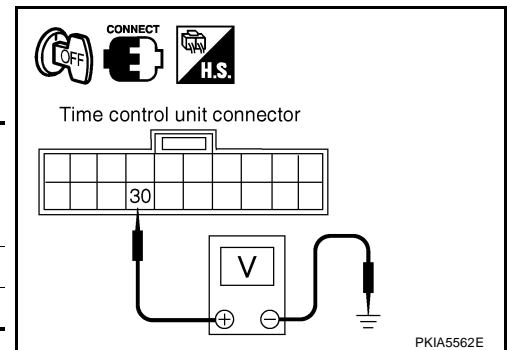
1. Connect time control unit connector.
2. Check voltage between time control unit harness connector and ground.

Terminal		Condition	Voltage
(+)	(-)		
Connector	Terminal		
M31	30	OFF (closed)	Approx. 5V
		ON (open)	Approx. 0V

OK or NG

OK >> GO TO 4.

NG >> GO TO 3.



3. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

1. Disconnect front door switch (driver side) connector.
2. Check continuity between front door switch (driver side) terminals.

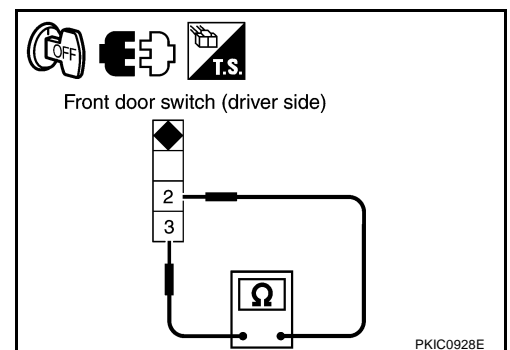
Connector	Terminal		Condition	Continuity
B16	2	3	Pushed (closed)	No
			Released (open)	Yes

OK or NG

OK >> Check the following.

- Front door switch (driver side) ground circuit condition
- Harness for open or short between time control unit and front door switch (driver side)

NG >> Replace front door switch (driver side).



INTERIOR ROOM LAMP

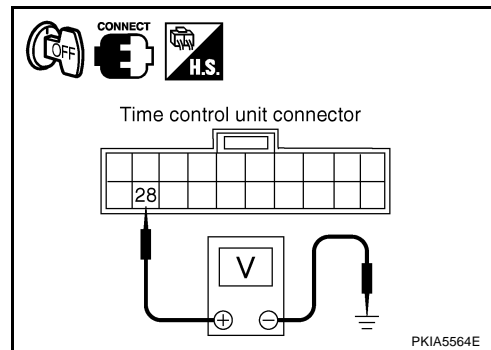
4. CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL (DRIVER SIDE)

Check voltage between time control unit harness connector and ground.

Terminal		Condition	Voltage
(+)	(-)		
Connector	Terminal		
M31	28	Locked	Approx. 5V
		Unlocked	Approx. 0V

OK or NG

- OK >> GO TO 6.
NG >> GO TO 5.



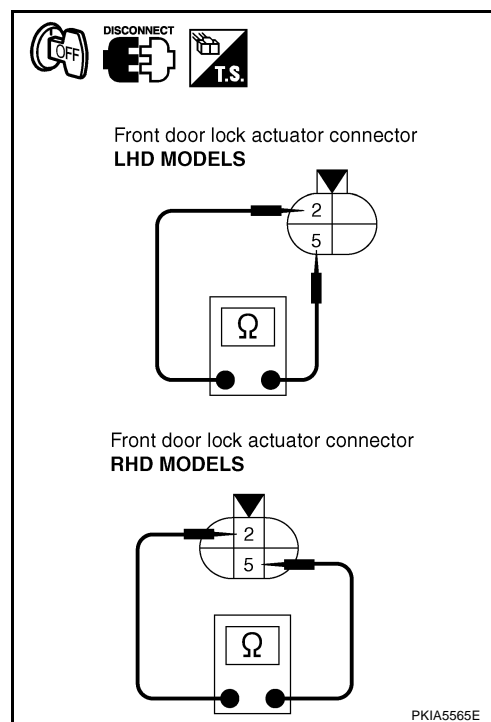
5. CHECK FRONT DOOR UNLOCK SENSOR (DRIVER SIDE)

1. Disconnect front door lock actuator (driver side) connector.
2. Check continuity between front door lock actuator (driver side) terminals.

Connector	Terminal		Condition	Continuity
D9	2	5	Locked	No
			Unlocked	Yes

OK or NG

- OK >> Check the following.
- Front door lock actuator (driver side) ground circuit
 - Harness for open or short between time control unit and front door lock actuator (driver side).
- NG >> Replace front door lock actuator (driver side).



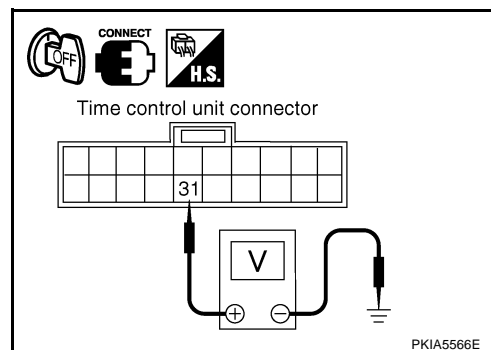
6. CHECK DOOR SWITCHES INPUT SIGNAL (EXCEPT DRIVER SIDE)

Check voltage between time control unit harness connector and ground.

Terminal		Condition (Except driver side door)	Voltage
(+)	(-)		
Connector	Terminal		
M31	31	ON (open)	Approx. 0V
		OFF (closed)	Approx. 5V

OK or NG

- OK >> GO TO 8.
NG >> GO TO 7.

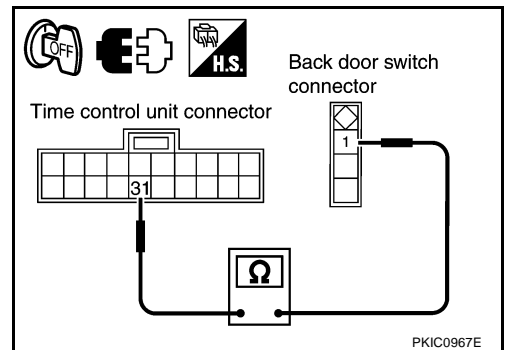
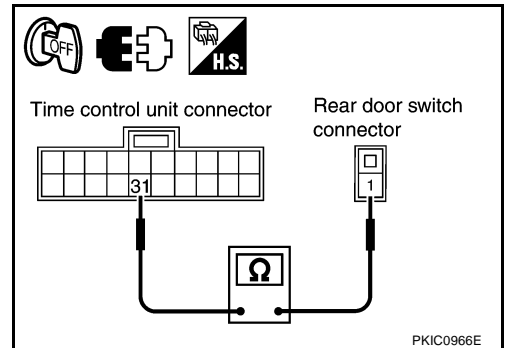
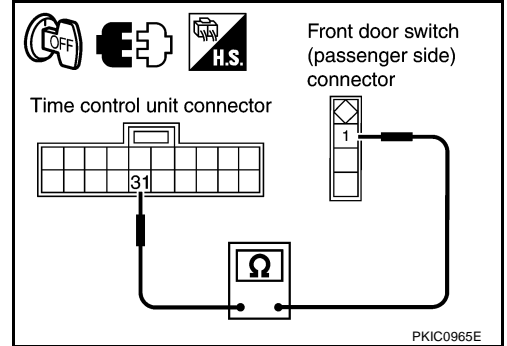


INTERIOR ROOM LAMP

7. CHECK DOOR SWITCHES (EXCEPT DRIVER SIDE)

1. Disconnect each door switch connector (except driver side) and time control unit connector.
2. Check continuity between time control unit harness connector and each door switch harness connector.

Terminal					Continuity
Time control unit		Door switch			
Connector	Terminal	Connector		Terminal	
M31	31	B121	Rear door switch RH	1	Yes
		B118	Front door switch (passenger side)		
		B20	Rear door switch LH		
		D45	Back door switch		



OK or NG

OK >> Check the following.

- Door switch ground condition.
- Replace door switch.

NG >> Harness for open or short between time control unit and each door switch (except driver side).

INTERIOR ROOM LAMP

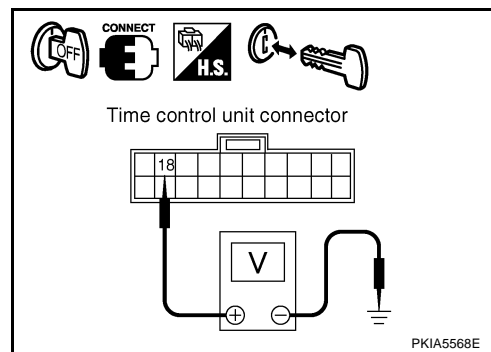
8. CHECK KEY SWITCH INPUT SIGNAL

Check voltage between time control unit harness connector and ground.

Terminal			Condition	Voltage
(+)		(-)		
Connector	Terminal			
M31	18	Ground	Inserted	Battery voltage
			Removed	Approx. 0V

OK or NG

- OK >> Replace time control unit.
NG >> GO TO 9.



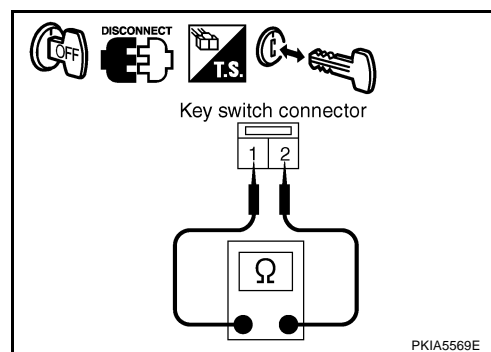
9. CHECK KEY SWITCH

1. Disconnect key switch connector.
2. Check continuity between key switch terminals.

Connector	Terminal		Condition	Continuity
M9	1	2	Inserted	Yes
			Removed	No

OK or NG

- OK >> Check the following.
- Harness for open or short between key switch and 10A fuse (No. 28)
 - Harness for open or short between time control unit and key switch
- NG >> Replace key switch.



Interior Room Lamp Timer Does Not Cancel

BKS000K6

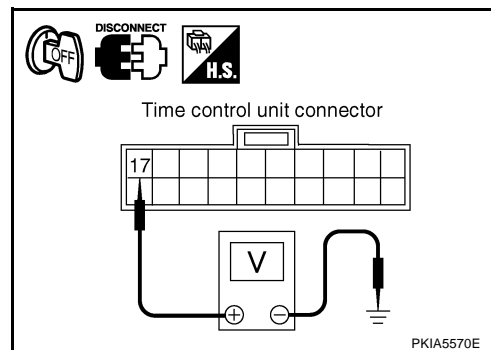
1. CHECK IGNITION ON SIGNAL

1. Turn ignition switch OFF.
2. Disconnect time control unit connector.
3. Check voltage between time control unit harness connector and ground.

Terminal		Ignition switch position		
(+)		(-)		
Connector	Terminal		OFF	ACC
M31	17	Ground	Approx. 0V	Approx. 0V
				Battery voltage

OK or NG

- OK >> GO TO 2.
NG >> Check the following.
- 10A fuse [No. 5, located in fuse block (J/B)]
 - Harness for open or short between time control unit and 10A fuse (No. 5)



INTERIOR ROOM LAMP

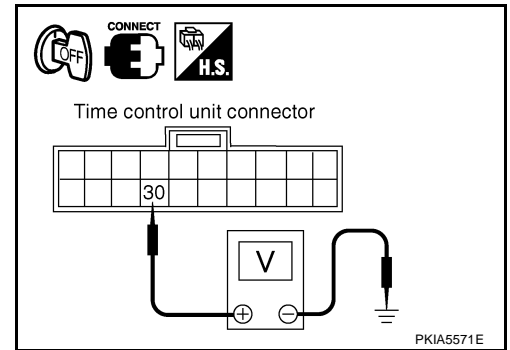
2. CHECK FRONT DOOR SWITCH (DRIVER SIDE) INPUT SIGNAL

1. Connect time control unit connector.
2. Check voltage between time control unit harness connector and ground.

Terminal			Condition	Voltage
(+)		(-)		
Connector	Terminal			
M31	30	Ground	OFF (closed)	Approx. 5V
			ON (open)	Approx. 0V

OK or NG

- OK >> GO TO 4.
NG >> GO TO 3.



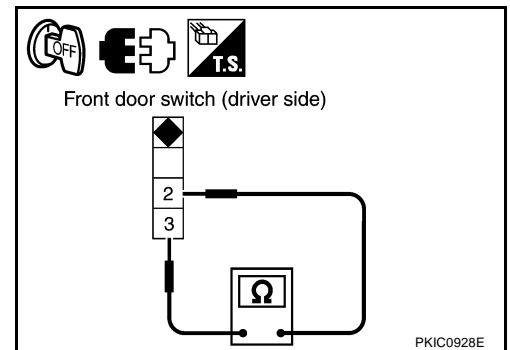
3. CHECK FRONT DOOR SWITCH (DRIVER SIDE)

1. Disconnect front door switch (driver side) connector.
2. Check continuity between front door switch (driver side) terminals.

Connector	Terminal		Condition	Continuity
B16	2	3	Pushed (closed)	No
			Released (opened)	Yes

OK or NG

- OK >> Check the following.
- Front door switch (driver side) ground circuit condition
 - Harness for open or short between time control unit and front door switch (driver side).
- NG >> Replace front door switch (driver side).



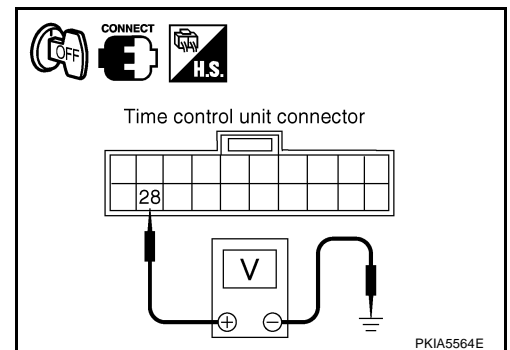
4. CHECK FRONT DOOR UNLOCK SENSOR INPUT SIGNAL (DRIVER SIDE)

Check voltage between time control unit harness connector and ground.

Terminal			Condition	Voltage
(+)		(-)		
Connector	Terminal			
M31	28	Ground	Locked	Approx. 5V
			Unlocked	Approx. 0V

OK or NG

- OK >> Replace time control unit.
NG >> GO TO 5.



INTERIOR ROOM LAMP

5. CHECK FRONT DOOR UNLOCK SENSOR (DRIVER SIDE)

1. Disconnect front door lock actuator (driver side) connector.
2. Check continuity between front door lock actuator (driver side) terminals.

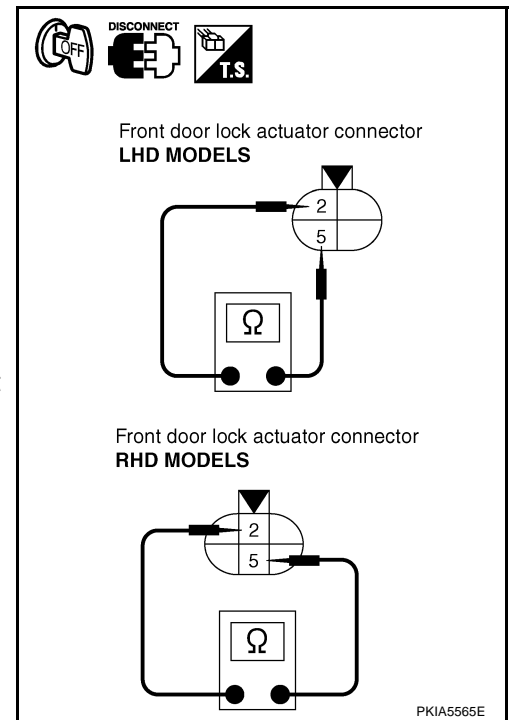
Connector	Terminal		Condition	Continuity
D9	2	5	Locked	No
			Unlocked	Yes

OK or NG

OK >> Check the following.

- Front door lock actuator (driver side) ground circuit
- Harness for open or short between time control unit and front door lock actuator (driver door).

NG >> Replace front door lock actuator (driver door).



INTERIOR ROOM LAMP

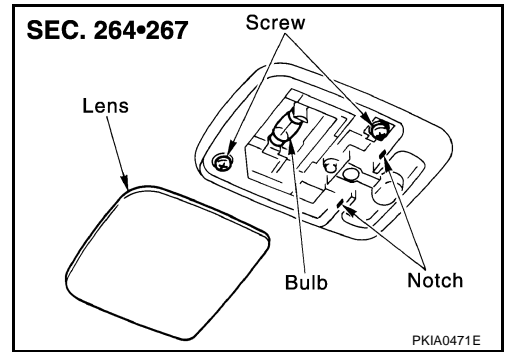
Bulb Replacement INTERIOR ROOM LAMP

BKS000K7

1. Insert a narrow slotted screwdriver in the cutout, and remove lens.
2. Remove bulb.

Interior room lamp : 12V - 10W

3. Installation is the reverse order of removal.



LUGGAGE ROOM LAMP

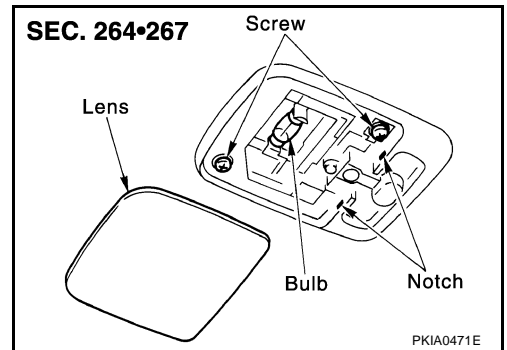
Refer to [LT-145, "Bulb Replacement"](#) .

Removal and Installation INTERIOR ROOM LAMP

BKS000K8

Removal

1. Insert a narrow slotted screwdriver in the cutout, and remove lens.
2. Remove room lamp mounting screws, and remove room lamp.
3. Disconnect interior room lamp connector.



Installation

Installation is the reverse order of removal.

LUGGAGE ROOM LAMP

Refer to [LT-145, "Removal and Installation"](#) .

A
B
C
D
E
F
G
H
I
J
LT
L
M

STEP LAMP

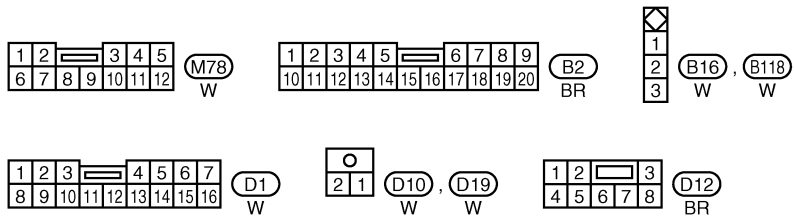
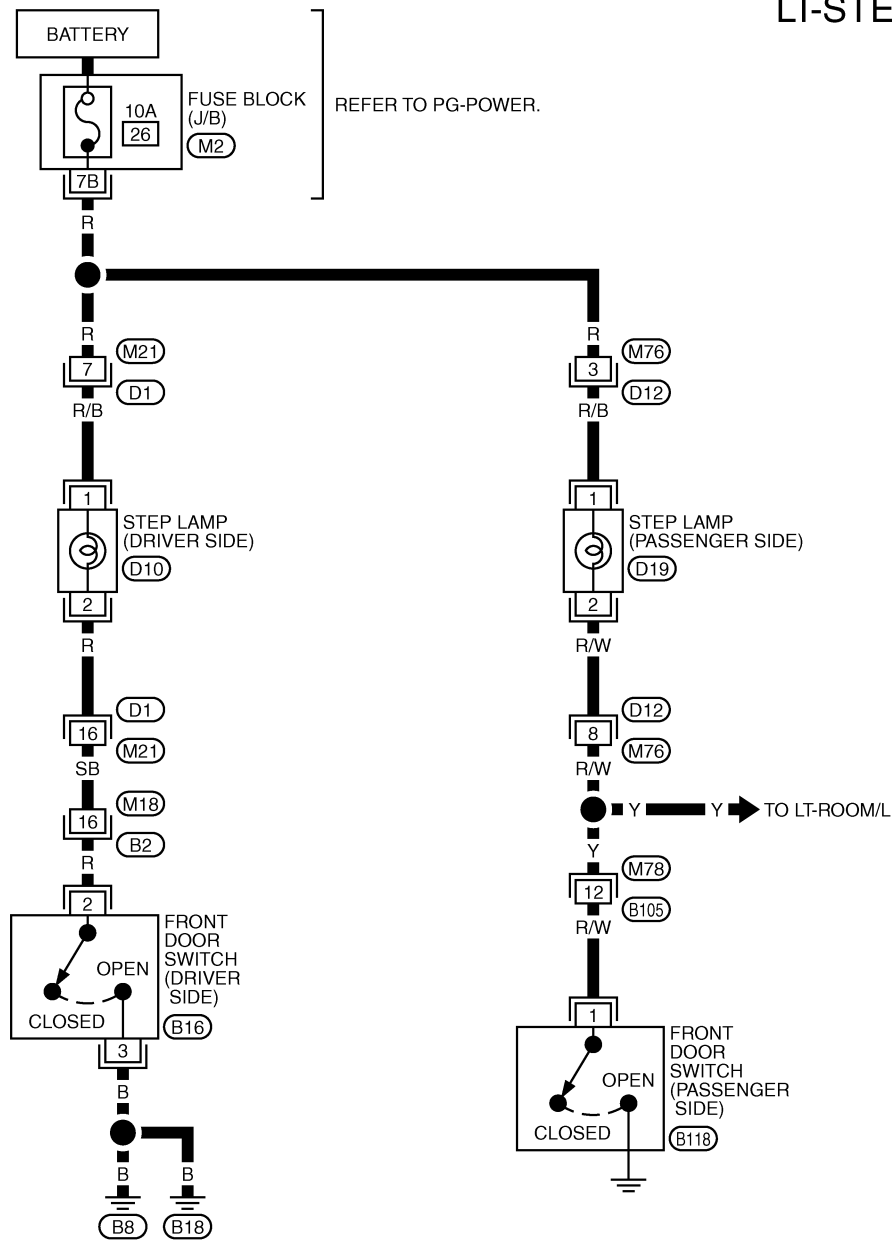
STEP LAMP

PFP:26420

Wiring Diagram — STEP/L —
LHD MODELS

BKS000K9

LT-STEP/L-01

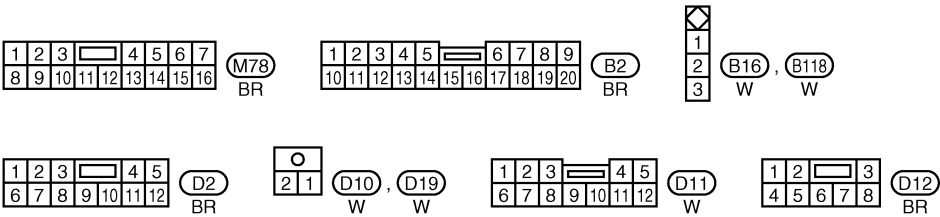
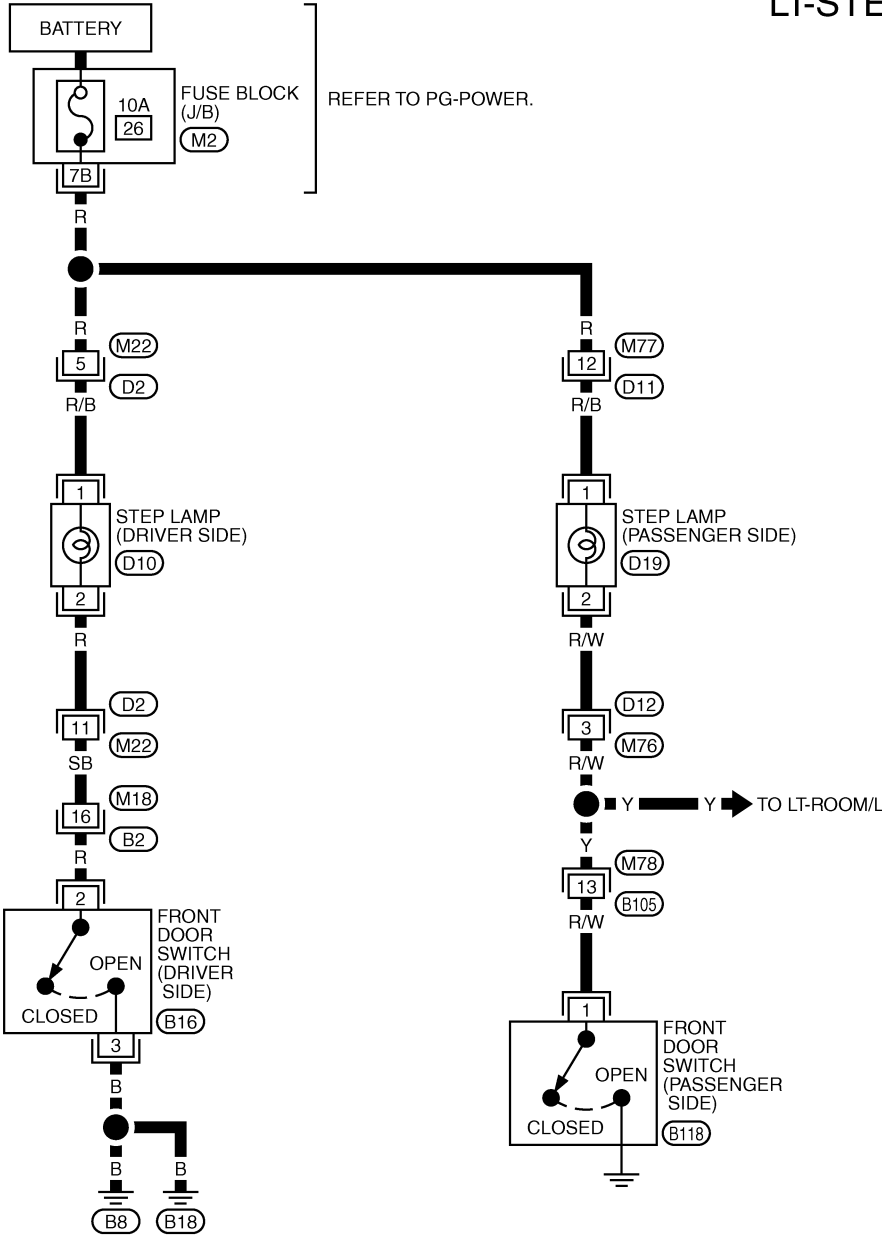


REFER TO THE FOLLOWING.
(M2) -FUSE BLOCK-JUNCTION
BOX (J/B)

STEP LAMP

RHD MODELS

LT-STEP/L-02



REFER TO THE FOLLOWING.

M2 -FUSE BLOCK-JUNCTION BOX (J/B)

STEP LAMP

Bulb Replacement

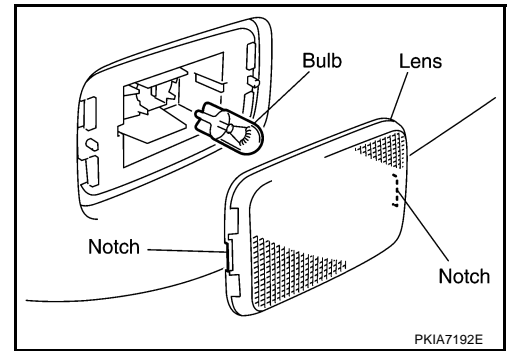
BKS000KA

1. Remove lens using a clip driver or a suitable tool.
2. Remove bulb.

Step lamp

: 12V - 2.7W

3. Installation is the reverse order of removal.

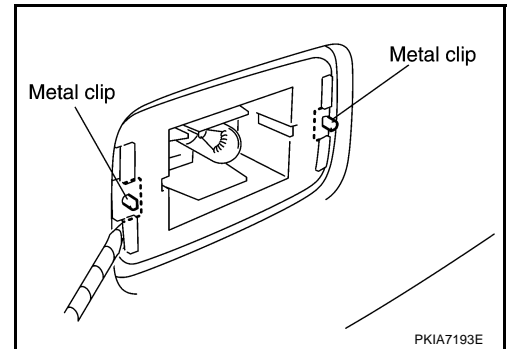


Removal and Installation

REMOVAL

BKS000KB

1. Remove lens.
2. Using a clip driver or a suitable tool, press and remove metal clip of step lamp.
3. Disconnect step lamp connector.



INSTALLATION

Installation is the reverse order of removal.

INTERIOR LAMP

INTERIOR LAMP

PFP:28491

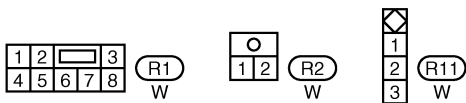
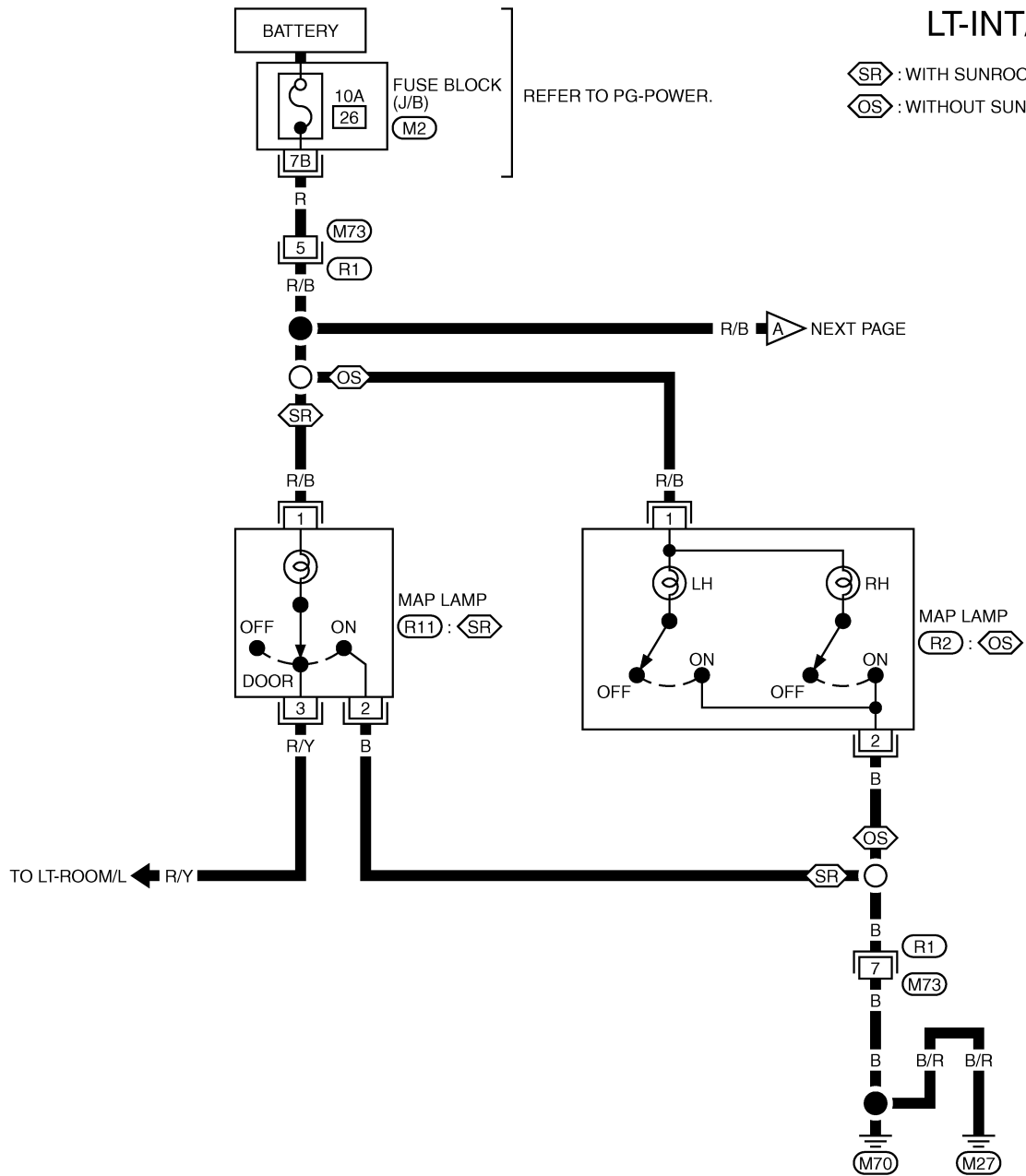
Wiring Diagram — INT/L —

BKS000KC

LT-INT/L-01

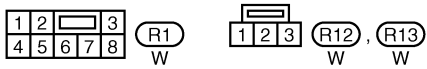
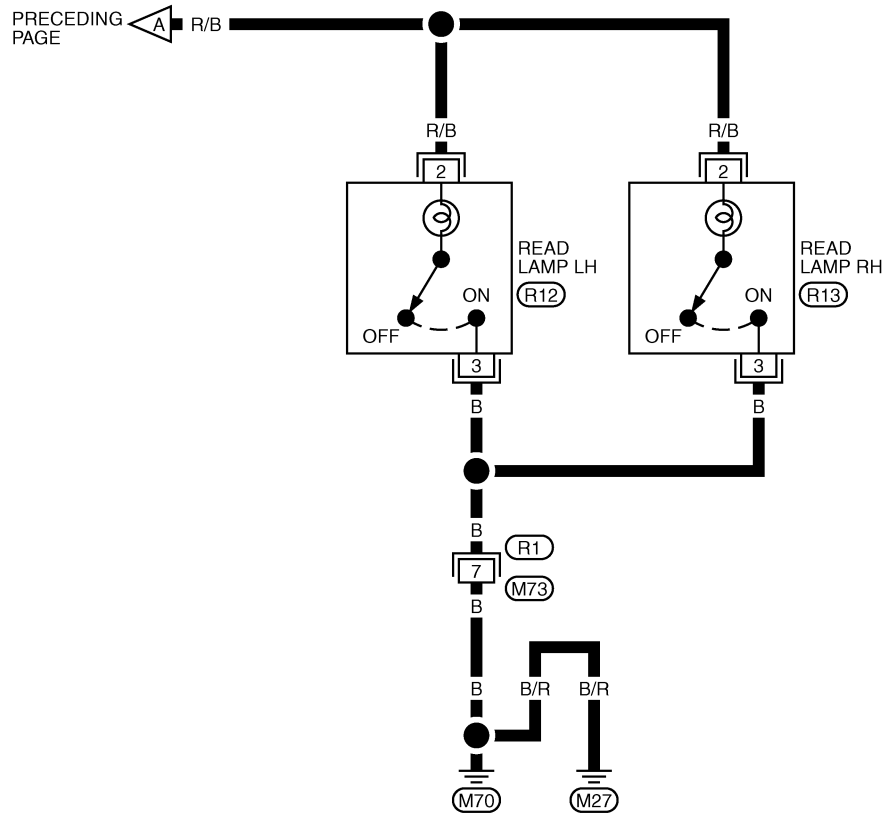
SR : WITH SUNROOF

OS : WITHOUT SUNROOF



INTERIOR LAMP

LT-INT/L-02



TKWB1773E

INTERIOR LAMP

Bulb Replacement

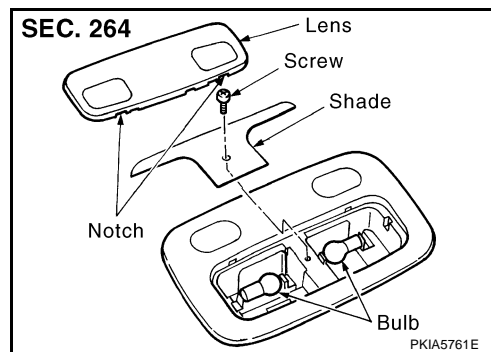
MAP LAMP (WITHOUT SUNROOF)

BKS000KD

1. Remove lens using a clip driver or a suitable tool.
2. Remove shade mounting screw and remove shade from map lamp.
3. Remove bulb.

Map lamp (Without sunroof) : 12V - 8W

4. Installation is the reverse order of removal.

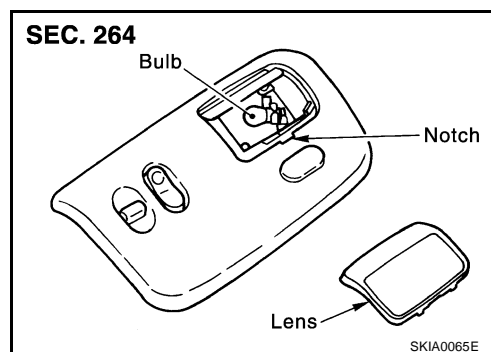


MAP LAMP (WITH SUNROOF)

1. Remove lens using a clip driver or a suitable tool.
2. Remove bulb.

Map lamp (Without sunroof) : 12V - 10W

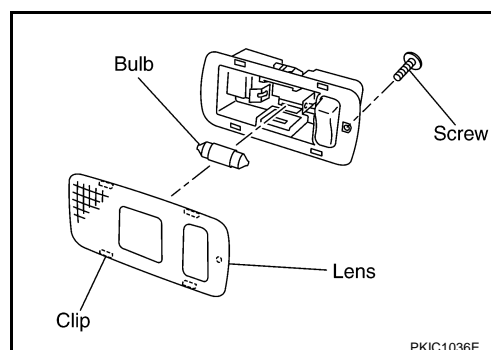
3. Installation is the reverse order of removal.



READ LAMP

1. Remove read lamp. Refer to [LT-151, "Removal and Installation"](#).
2. Remove lens mounting screw.
3. Release four clips and remove lens.
4. Remove bulb.

Read lamp : 12V - 8W

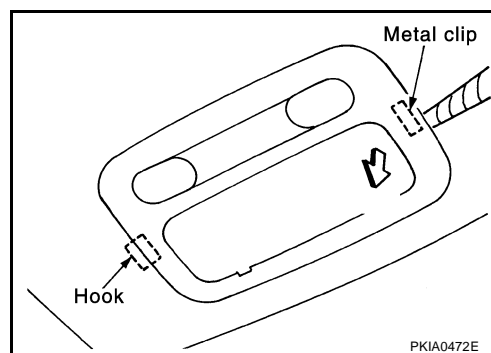


Removal and Installation REMOVAL

BKS000KE

Map Lamp (Without sunroof)

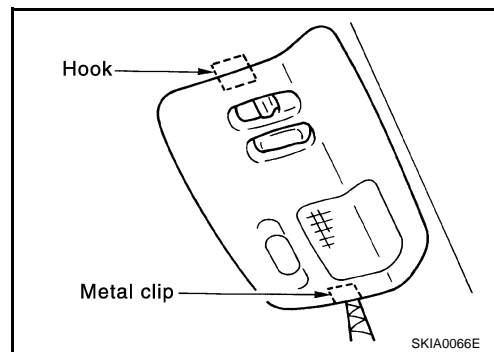
1. Using a clips driver or a suitable tool, press and remove metal clip of map lamp.
2. Disconnect map lamp connector.



INTERIOR LAMP

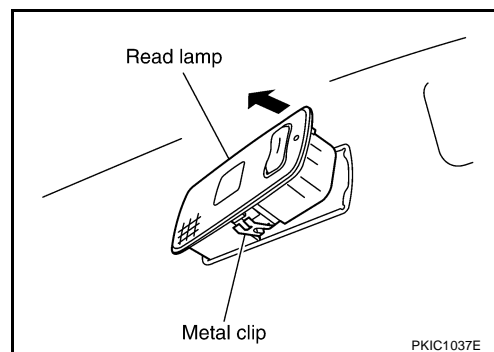
Map Lamp (With sunroof)

1. Using a clips driver or a suitable tool, press and remove metal clip of map lamp.
2. Disconnect map lamp connector.



Read Lamp

1. Take out read lamp while pushing metal clip using a clip remover.
2. Disconnect connector to release read lamp.



INSTALLATION

Installation is the reverse order of removal.

BULB SPECIFICATIONS

BULB SPECIFICATIONS

PFP:26297

Headlamp

BKS000KF

Item		Wattage (W)
Xenon type	Low	35 (D2R)
	High	55 (H1)
Conventional type	High/Low	60/55 (H4)
Driving lamp		65 (H1R1)

Exterior Lamp

BKS000KG

Item		Wattage (W)
Front combination lamp	Clearance lamp	5
Front turn signal lamp		21 (amber)
Side turn signal lamp		5
Fog lamp	Front fog lamp	55 (H11)
	Rear fog lamp	21
Rear combination lamp	Stop/Tail lamp	21/5
	Rear turn signal lamp	21
	Back-up lamp	21
License plate lamp		5
High-mounted stop lamp		5

Interior Lamp/Illumination

BKS000KH

Item		Wattage (W)
Interior room lamp		10
Map lamp	Without sunroof	8
	With sunroof	10
Luggage room lamp		10
Step lamp		2.7
Ashtray illumination lamp		1.4

BULB SPECIFICATIONS
