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### **PRECAUTIONS**

**PRECAUTIONS** PFP:00001 Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT **BELT PRE-TENSIONER"** The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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. Wiring Diagrams and Trouble Diagnosis FKS00385 When you read wiring diagrams, refer to the following: GI-13, "How to Read Wiring Diagrams" PG-2, "POWER SUPPLY ROUTING" for power distribution circuit When you perform trouble diagnosis, refer to the following: GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES" GI-26, "How to Perform Efficient Diagnosis for an Electrical Incident" Check for any Service bulletins before servicing the vehicle.

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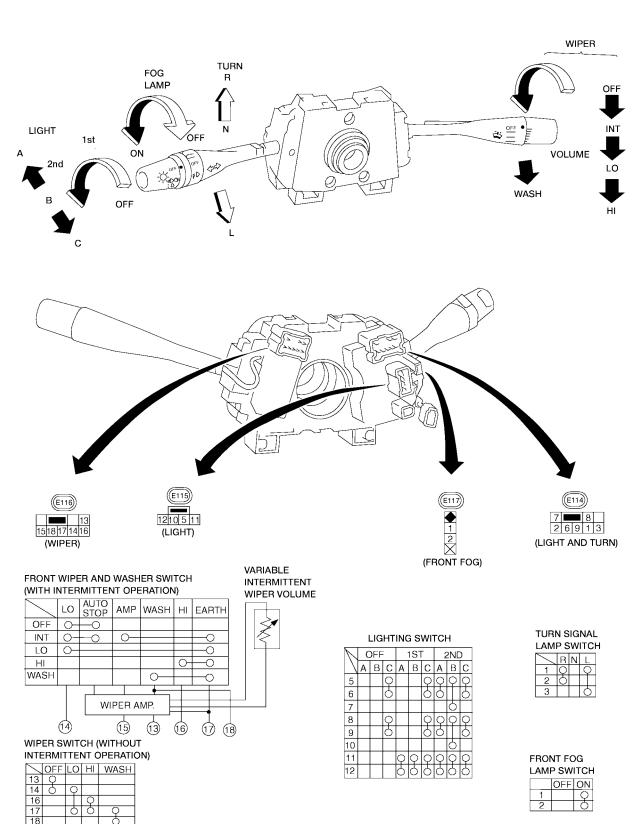
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### **COMBINATION SWITCH**

COMBINATION SWITCH

Check

PFP:25567

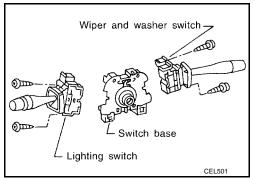


### **COMBINATION SWITCH**

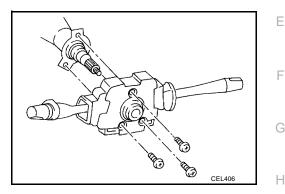
Replacement

For removal and installation of spiral cable, refer to <u>SRS-42</u>, <u>"Removal and Installation"</u>.

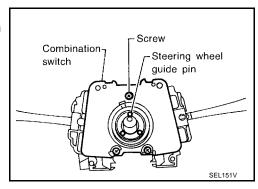
Each switch can be replaced without removing switch base.



To remove switch base, remove switch base attaching screws.



• Before installing the steering wheel, align the steering wheel guide pins with the screws which secure the combination switch as shown in the figure.



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### **HEADLAMP (FOR USA)**

PFP:26010

## **System Description**

EKS00388

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

- to lighting switch terminal 5
- through 15A fuse (No. 39, located in the fuse and fusible link box), and
- to lighting switch terminal 8
- through 15A fuse (No. 40, located in the fuse and fusible link box).

#### LOW BEAM OPERATION

When the lighting switch is turned to headlamp "ON" (2ND) position, "LOW BEAM" (B), power is supplied:

- from lighting switch terminal 10
- to terminal LO of the LH headlamp, and
- from lighting switch terminal 7
- to terminal LO of the RH headlamp.

Ground is supplied:

- to RH and LH headlamp terminal E
- through body grounds E7 and E37.

With power and ground supplied, the headlamps will illuminate.

#### HIGH BEAM OPERATION/FLASH-TO-PASS OPERATION

When the lighting switch is turned to headlamp "ON" (2ND) position, "HIGH BEAM" (A) or "FLASH TO PASS" (C) position, power is supplied:

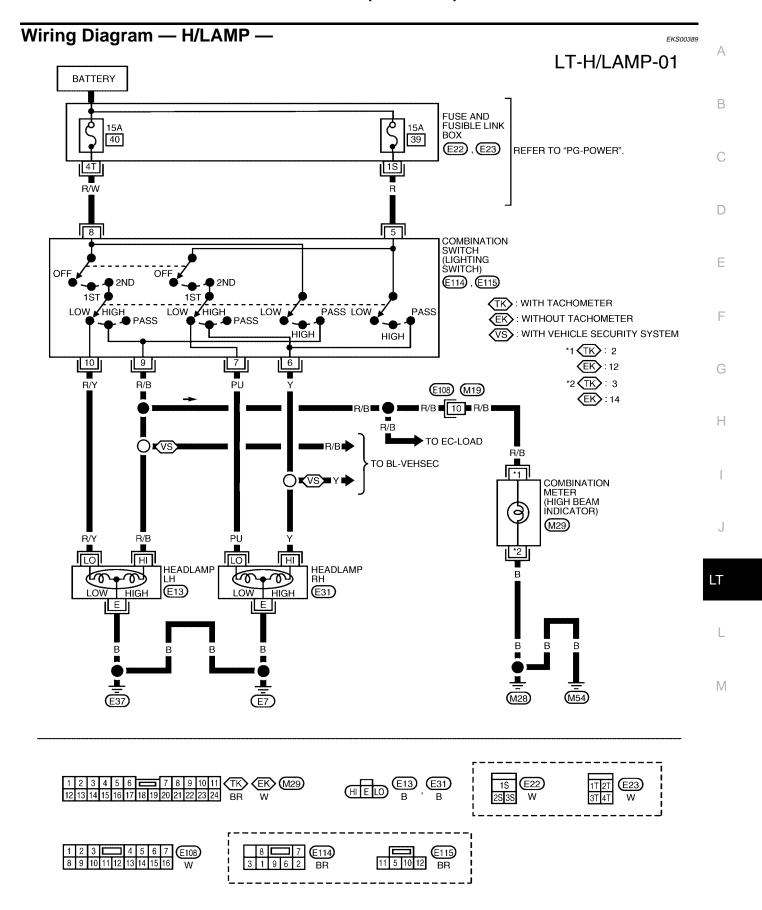
- from lighting switch terminal 9
- to terminal HI of the LH headlamp, and
- from lighting switch terminal 6
- to terminal HI of the RH headlamp, and
- to combination meter terminal 2 (with tachometer), 12 (without tachometer) for the high beam indicator.

Ground is supplied to terminal 3 (with tachometer), 14 (without tachometer) of the combination meter through body grounds M28 and M54.

With power and ground supplied, the high beams and the high beam indicator illuminate.

#### **VEHICLE SECURITY SYSTEM**

The vehicle security system will flash the high beams if the system is triggered. Refer to <u>BL-64, "VEHICLE SECURITY (THEFT WARNING) SYSTEM"</u>.



WKWA0525E

Symptom	Possible cause	Repair order			
LH headlamp does not operate.	1. Bulb	1. Check bulb.			
	2. Grounds E7 and E37	2. Check grounds E7 and E37.			
	15A fuse     Lighting switch	3. Check 15A fuse (No. 40, located in fuse and fusible link box.) Verify battery positive voltage is present at terminal 8 of lighting switch.			
		4. Check lighting switch.			
RH headlamp does not operate.	1. Bulb	1. Check bulb.			
	2. Grounds E7 and E37	2. Check grounds E7 and E37.			
	15A fuse     Lighting switch	3. Check 15A fuse (No. 39, located in fuse and fusible link box). Verify battery positive voltage is present at terminal 5 of lighting switch.			
		4. Check lighting switch.			
LH high beam does not operate, but	1. Bulb	1. Check bulb.			
LH low beam operates.	Open in LH high beam circuit     Lighting switch	2. Check R/B wire between lighting switch and LH head-lamp for an open circuit.			
	3 3	3. Check lighting switch.			
LH low beam does not operate, but	1. Bulb	1. Check bulb.			
LH high beam operates.	Open in LH low beam circuit     Lighting switch	2. Check R/Y wire between lighting switch and LH head-lamp for an open circuit.			
		3. Check lighting switch.			
RH high beam does not operate,	1. Bulb	1. Check bulb.			
but RH low beam operates.	Open in RH high beam circuit     Lighting switch	Check Y wire between lighting switch and RH head- lamp for an open circuit.			
	3 3	3. Check lighting switch.			
RH low beam does not operate, but	1. Bulb	1. Check bulb.			
RH high beam operates.	Open in RH low beam circuit     Lighting switch	Check PU wire between lighting switch and RH head- lamp for an open circuit.			
		3. Check lighting switch.			
High beam indicator does not work.	1. Bulb	1. Check bulb in combination meter.			
	2. Grounds M28 and M54	2. Check grounds M28 and M54.			
	3. Open in high beam circuit	Check R/B wire between lighting switch and combination meter for an open circuit.			

# **Bulb Replacement**

Trouble Disancese

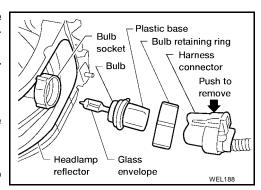
EKS006AP

The headlamp is a semi-sealed beam type which uses a replaceable halogen bulb. The bulb can be replaced from the engine compartment side without removing the headlamp body.

- Grasp only the plastic base when handling the bulb. Never touch the glass envelope.
- 1. Disconnect the battery cable.
- 2. Disconnect the harness connector from the back side of the headlamp bulb.
- 3. Turn the bulb retaining ring counterclockwise and remove.
- 4. Remove the bulb by pulling it straight out of the headlamp assembly. Do not shake the bulb when removing it.
- 5. Install in the reverse order of removal.

#### **CAUTION:**

Do not leave headlamp reflector without bulb for a long period of time. Dust, moisture, smoke, etc. entering headlamp body may affect the performance of the headlamp. Remove headlamp bulb from the headlamp reflector just before a replacement bulb is installed.



**Aiming Adjustment** 

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For details, refer to the regulations in your own country.

#### NOTE:

By regulation, no means for horizontal adjustment is provided from the factory on a finished vehicle. Horizontal aim will only be serviced in the case of headlamp replacement. After initial aim is set on the replacement headlamp, access to the horizontal adjusting screw must be prevented by installation of the headlamp aim locking cap that is provided with the replacement headlamp assembly.

Before performing aiming adjustment, check the following.

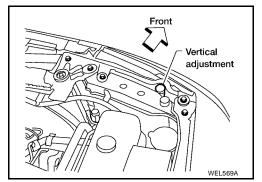
- 1. Inflate all tires to correct pressures.
- 2. Place vehicle on flat surface.
- See that the vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in the driver's seat.

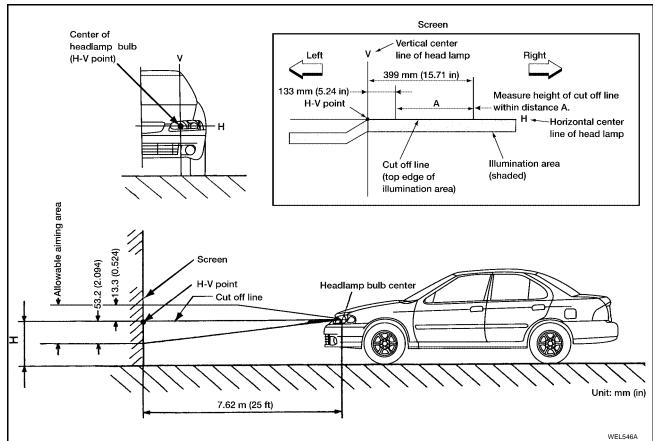
#### **LOW BEAM**

- 1. Turn headlamp low beam on.
- 2. Use adjusting screw to perform aiming adjustment.

#### CAUTION:

Do not tighten adjusting screw beyond a torque of 1.67 N-m (17 kg-cm, 14.8 in-lb) or damage may occur.





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 illuminating area for adjustment should be within the range shown on the aiming chart.
 Adjust headlamps accordingly.

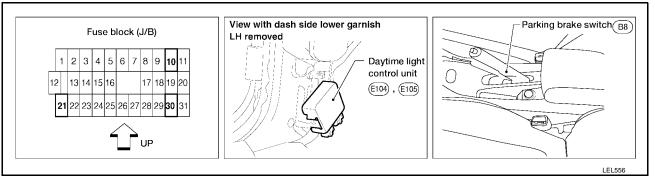
LT-9

### HEADLAMP (FOR CANADA) — DAYTIME LIGHT SYSTEM —

PFP:26010

## **Component Parts and Harness Connector Location**

EKS0038D



### **System Description**

EKS0038E

The headlamp system for Canada vehicles contains a daytime light control unit. This unit activates the high beam headlamps at approximately half illumination whenever the engine is running. If the parking brake is applied before the engine is started, daytime lights will not be illuminated. The daytime lights will illuminate once the parking brake is released. Thereafter, the daytime lights will continue to operate when the parking brake is applied. If the daytime light control unit receives a ground signal from the generator, the daytime lights will not be illuminated. The daytime lights will illuminate once a battery positive voltage signal is sent to the daytime light control unit from the generator.

Power is supplied at all times:

- through 15A fuse (No. 39, located in the fuse and fusible link box)
- to daytime light control unit terminal 2 and
- to lighting switch terminal 5.

Power is also supplied at all times:

- through 15A fuse (No. 40, located in the fuse and fusible link box)
- to daytime light control unit terminal 3 and
- to lighting switch terminal 8.

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

- through 10A fuse (No. 10, located in the fuse block [J/B])
- to daytime light control unit terminal 12.

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

- through 10A fuse (No. 21, located in the fuse block [J/B])
- to daytime light control unit terminal 1.

Ground is supplied to daytime light control unit terminal 9 through body grounds E7 and E37.

#### **HEADLAMP OPERATION**

#### **Low Beam Operation**

When the lighting switch is turned to headlamp "ON" (2ND) position, "LOW BEAM" (B) position, power is supplied:

- from lighting switch terminal 7
- to RH headlamp terminal LO.

Ground is supplied:

- to RH headlamp terminal E
- through body grounds E7 and E37.

Also, when the lighting switch is moved to headlamp "ON" (2ND) position, "LOW BEAM" (B) position, power is supplied:

- from lighting switch terminal 10
- to LH headlamp terminal LO.

Ground is supplied:

to LH headlamp terminal E

from daytime light control unit terminal 7 Α through daytime light control unit terminal 9 through body grounds E7 and E37. With power and ground supplied, the low beam headlamps illuminate. В High Beam Operation/Flash-to-pass Operation When the lighting switch is moved to headlamp "ON" (2ND) position, "HIGH BEAM" (A) or "FLASH TO PASS" (C) position, power is supplied: from lighting switch terminal 6 to RH headlamp terminal HI, and from lighting switch terminal 9 D to daytime light control unit terminal 5, and to combination meter terminal 2 (with tachometer), 12 (without tachometer) for the high beam indicator Е through daytime light control unit terminal 6 to LH headlamp terminal HI. Ground is supplied in the same manner as low beam operation. Ground is supplied to terminal 3 (with tachometer), 14 (without tachometer) of the combination meter through body grounds M28 and M54. With power and ground supplied, the high beam headlamps and high beam indicator illuminate. DAYTIME LIGHT OPERATION With the engine running and the lighting switch in the "OFF" or parking lamp (1ST) position and parking brake released, power is supplied: Н to daytime light control unit terminal 3 through daytime light control unit terminal 6 to LH headlamp terminal HI through LH headlamp terminal E to daytime light control unit terminal 7 through daytime light control unit terminal 8 to RH headlamp terminal HI. Ground is supplied: to RH headlamp terminal E through body grounds E7 and E37. Because the high beam headlamps are wired in series during daytime light operation, they operate at half illumination. M

LT-11

### **OPERATION (FOR CANADA)**

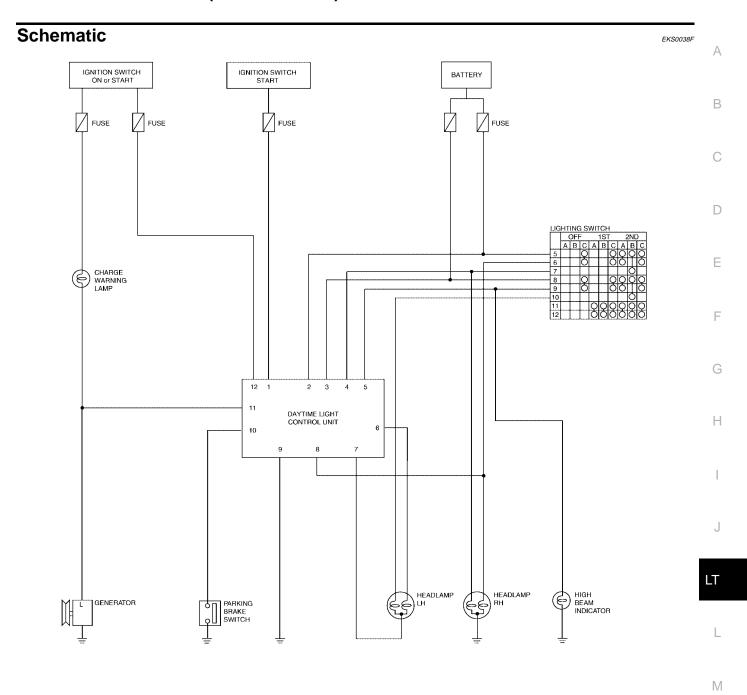
The headlamps' high beams automatically turn on after starting the engine with the lighting switch in the "OFF" or parking lamp (1st) position. All other lighting switch functions operate the same as conventional light systems.

Engine		With engine stopped						With engine running											
Lighting switch		OFF			1ST		2ND		OFF		1ST		2ND						
		Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С	Α	В	С
Headlamp	High beam	Х	Χ	0	Х	Χ	0	0	Χ	0	*	*	0	*	*	0	0	Х	0
Headiamp	Low beam	Х	Χ	Х	Χ	Χ	Χ	Χ	0	Χ	Χ	Χ	Χ	Χ	Χ	Χ	Χ	0	Х
Front parking and tail lamp		Х	Χ	Х	0	0	0	0	0	0	Х	Х	Χ	0	0	0	0	0	0
License and instrument illumination lamp		Х	Х	Х	0	0	0	0	0	0	Х	Х	Х	0	0	0	0	0	0

- A: "HIGH BEAM" position
- B: "LOW BEAM" position
- C: "FLASH TO PASS" position
- O: Lamp ON
- X: Lamp OFF
- : Lamp on at half brightness
- \*: When starting the engine with the parking brake released, the daytime light will come ON.
  When starting the engine with the parking brake applied, the daytime light will not come ON. Once the parking brake is released, the daytime light will come ON. Thereafter, the daytime light will continue to operate when the parking brake is applied. If the daytime light control unit receives a ground signal from the generator, the daytime light will not come ON. The daytime light will come ON when battery voltage is sent to the daytime light control unit from the generator (engine is running).

#### **VEHICLE SECURITY SYSTEM**

The vehicle security system will flash the high beams if the system is triggered. Refer to <u>BL-64, "VEHICLE SECURITY (THEFT WARNING) SYSTEM"</u>.

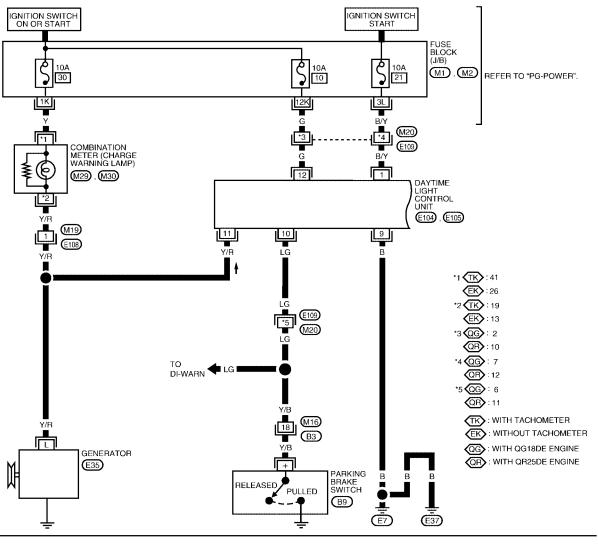


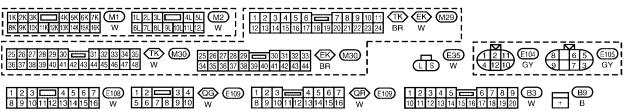
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# Wiring Diagram — DTRL —

FKS00380

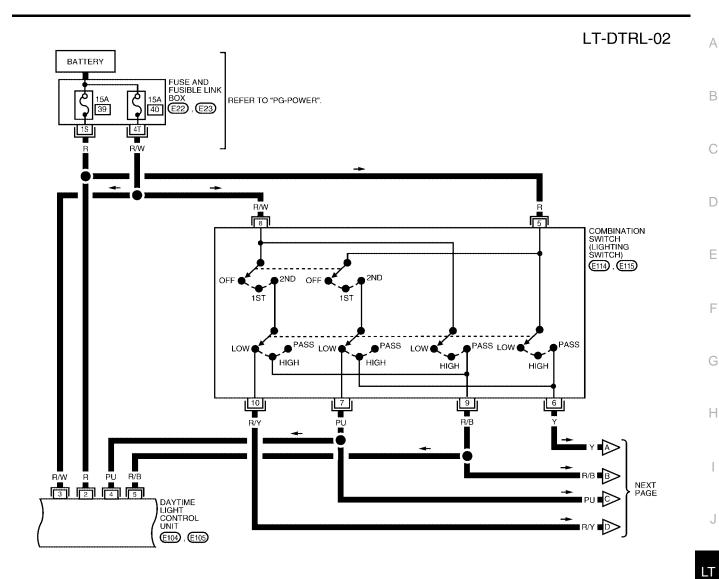


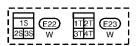


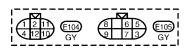


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DAYTIME L	DAYTIME LIGHT CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND									
TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)						
1	B/Y	IGNITION SWITCH (START)	WHEN TURNING IGNITION SWITCH TO START POSITION	BATTERY VOLTAGE						
9	В	DAYTIME LIGHT CONTROL UNIT GROUND	_							
				BATTERY						
10	LG	LG PARKING BRAKE SWITCH	WHEN PARKING BRAKE IS RELEASED	VOLTAGE						
				1.5V OR LESS						
			WHEN TURNING IGNITION SWITCH TO ON POSITION	4.6V OR LESS						
11	Y/R	GENERATOR	WHEN ENGINE IS RUNNING	B+ VOLTAGE						
			WHEN TURNING IGNITION SWITCH TO OFF POSITION	1V OR LESS						
12	G	IGNITION SWITCH (ON OR START)	WHEN TURNING IGNITION SWITCH TO ON POSITION	BATTERY VOLTAGE						
12	G	Idition Switch (on on Stant)	WHEN TURNING IGNITION SWITCH TO START POSITION	BATTERY VOLTAGE						







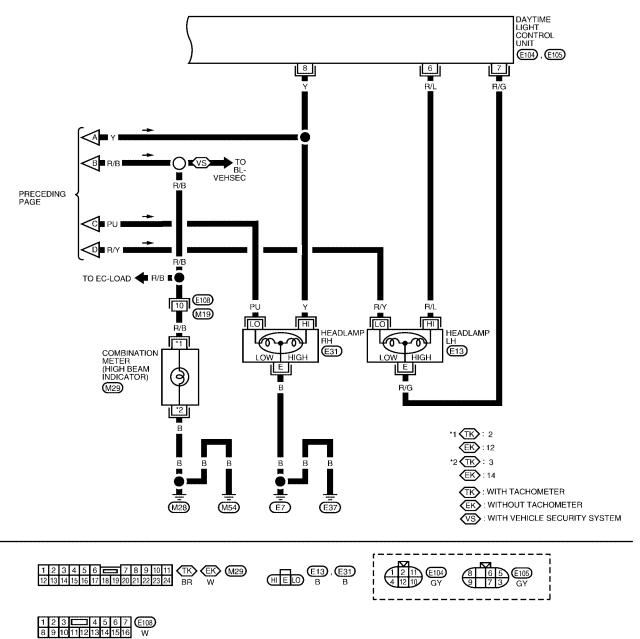


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DAYTIME L	DAYTIME LIGHT CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND									
TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)						
2	R	POWER SOURCE	WHEN TURNING IGNITION SWITCH TO ON POSITION	BATTERY VOLTAGE						
	11	1 0 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WHEN TURNING IGNITION SWITCH TO OFF POSITION	BATTERY VOLTAGE						
3	R/W	POWER SOURCE	WHEN TURNING IGNITION SWITCH TO ON POSITION	BATTERY VOLTAGE						
	1000	1 0 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	WHEN TURNING IGNITION SWITCH TO OFF POSITION	BATTERY VOLTAGE						
4	PU	LIGHTING SWITCH (LOW BEAM)	WHEN TURNING LIGHTING SWITCH TO HEADLAMP ON (2ND) POSITION, LOW BEAM	BATTERY VOLTAGE						
5	R/B	LIGHTING SWITCH (HIGH BEAM)	WHEN TURNING LIGHTING SWITCH TO HIGH (A)	BATTERY VOLTAGE						
			WHEN TURNING LIGHTING SWITCH TO FLASH TO PASS	BATTERY VOLTAGE						

LT-DTRL-03



WKWA0528E

DAYTIME LIGHT CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND								
TERMINAL	WIRE COLOR	ITEM CONDITION						
6	R/L	LH HIGH BEAM	WHEN TURNING LIGHTING SWITCH TO HIGH (A) WHEN BELEASING PARKING BRAKE WITH ENGINE BUNNING AND TURNING	BATTERY VOLTAGE				
			WHEELS AND ENSURE SELECTOR LEVER IS IN N OR P POSITION	BATTERY VOLTAGE				
7	R/G	LH HEADLAMP CONTROL (GROUND)	WHEN LIGHTING SWITCH IS TURNED TO HEADLAMP ON (2ND) POSITION, LOW BEAM WHEN RELEASING PARKING BRAKE WITH ENGINE RUNNING AND TURNING LIGHTING SWITCH TO OFF (DAYTIME LIGHT OPERATION) CAUTION: BLOCK WHEELS AND ENSURE SELECTOR LEVER IS IN N OR P POSITION.	1V OR LESS APPROX. HALF OF BATTERY VOLTAGE				
8	Y	RH HIGH BEAM	WHEN TURNING LIGHTING SWITCH TO HIGH (A) WHEN RELEASING PARKING BRAKE WITH ENGINE RUNNING AND TURNING LIGHTING SWITCH TO OFF (DAYTIME LIGHT OPERATION) CAUTION: BLOCK WHEELS AND ENSURE SELECTOR LEVER IS IN N OR P POSITION.	BATTERY VOLTAGE APPROX. HALF OF BATTERY VOLTAGE				

Terminal No.	Wire color	Item		Voltage (Approx. values)		
1	В/Ү	Start signal	When turning	ignition switch to ST	Battery voltage	
			When turning	ignition switch to ON from ST	Less than 1V	
			When turning	ignition switch to OFF	Less than 1V	
2	R	Power source	When turning	ignition switch to ON	Battery voltage	
			When turning	ignition switch to OFF	Battery voltage	
3	R/W	Power source	When turning	ignition switch to ON	Battery voltage	
				When turning	ignition switch to OFF	Battery voltage
4	PU	Lighting switch (Low beam)	When turning tion, LOW BE	lighting switch to headlamp ON (2ND) posi-	Battery voltage	
		Lighting switch	When turning	lighting switch to HIGH (A)	Battery voltage	
	(High beam)		When turning	lighting switch to FLASH TO PASS	Battery voltage	
6	6 R/L LH high b		When turning	lighting switch to HIGH (A)	Battery voltage	
			ing lighting sv	ng parking brake with engine running and turn- vitch to OFF (daytime light operation)  s and ensure selector lever is in N or P	Battery voltage	
7	R/G	LH headlamp control (ground)	When lighting tion, LOW BE	switch is turned to headlamp ON (2ND) posi-	1V or less	
			ing lighting sv	ng parking brake with engine running and turnwitch OFF (daytime light operation) s and ensure selector lever is in N or P	Half battery voltage	
8	Υ	RH high beam	When turning	lighting switch to HIGH (A)	Battery positive voltage	
			ing lighting sv	ng parking brake with engine running and turnwitch OFF (daytime light operation) s and ensure selector level is in N or P	Half battery voltage	
9	В	Ground	_		_	
10	LG	Parking brake	When parking	g brake is released	Battery voltage	
		switch	When parking	g brake is applied	1.5V or less	

Terminal No.	Wire color	Item		Voltage (Approx. values	
11	Y/R	/R Generator	Con	When turning ignition switch ON	4.6V or less
				When engine is running	Battery voltage
			Coff	When turning ignition switch OFF	1V or less
12	G	Power source	CON	When turning ignition switch ON	Battery voltage
			(ST)	When turning ignition switch to ST	Battery voltage
			COFF	When turning ignition switch OFF	1V or less

# **Bulb Replacement**

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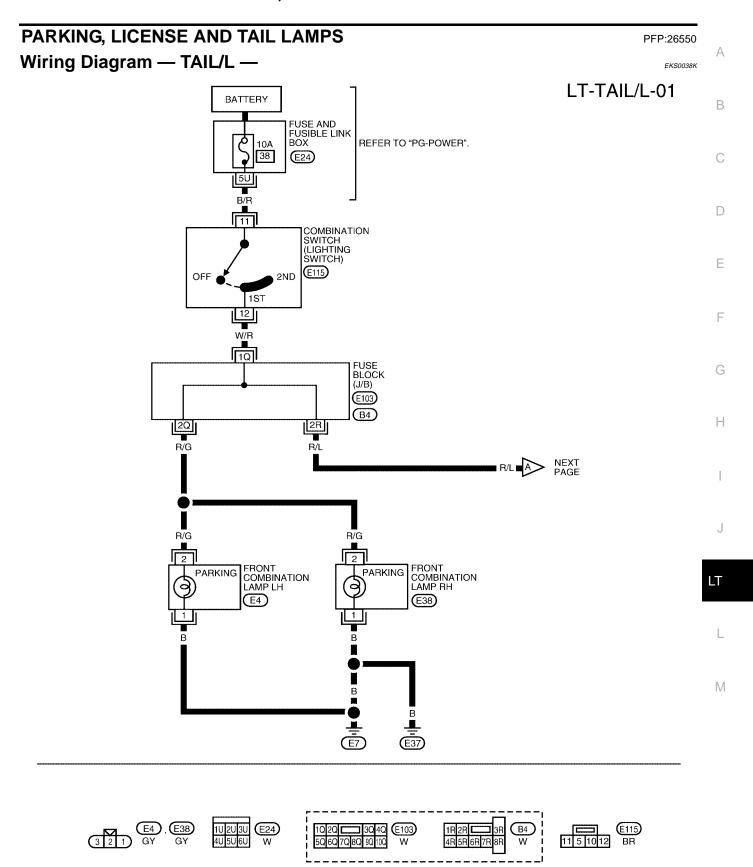
Refer to LT-18, "Bulb Replacement".

# **Aiming Adjustment**

EKS0038J

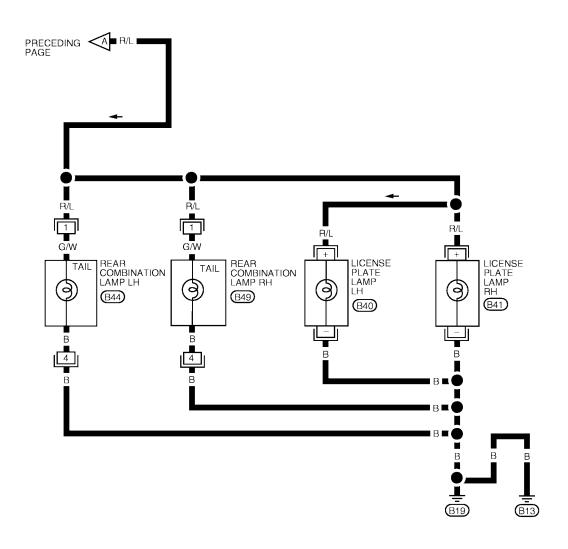
Refer to LT-18, "Aiming Adjustment".

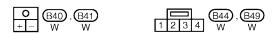
# PARKING, LICENSE AND TAIL LAMPS



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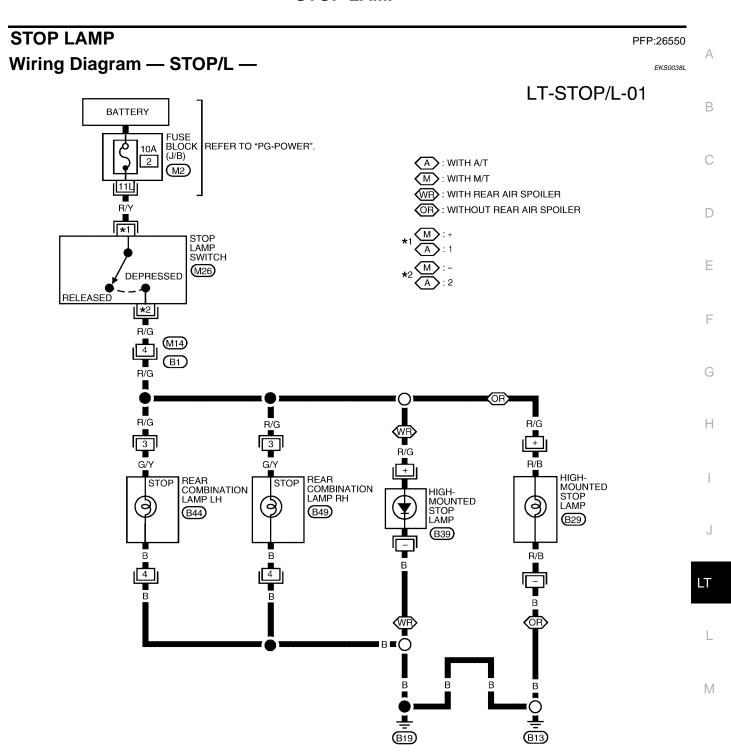
LT-TAIL/L-02

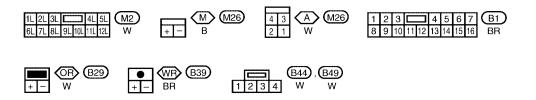




WKWA0021E

### **STOP LAMP**





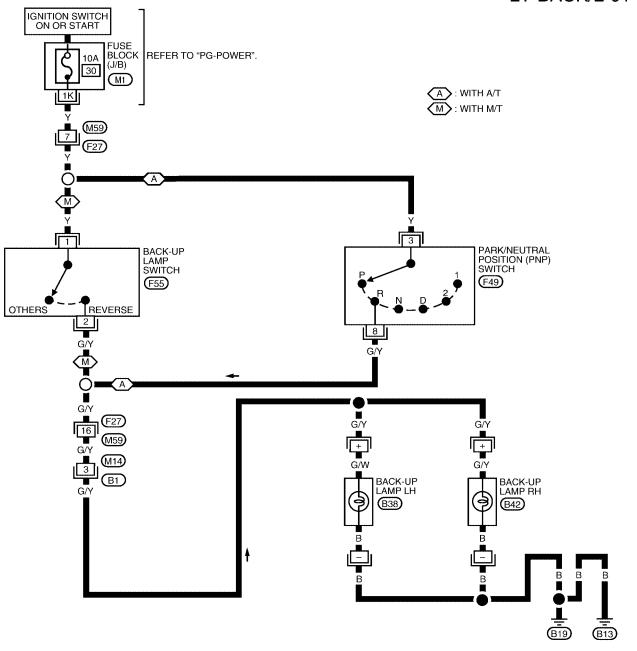
WKWA0218E

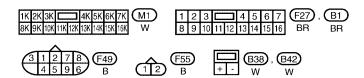
BACK-UP LAMP PFP:26550

# Wiring Diagram — BACK/L — QG18DE

EKS0038M

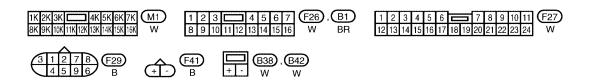
LT-BACK/L-01





### **BACK-UP LAMP**

# **QR25DE** Α LT-BACK/L-02 IGNITION SWITCH ON OR START В FUSE BLOCK (J/B) REFER TO "PG-POWER". 10A 30 (M1) C A: WITH A/T : WITH M/T D Е PARK/NEUTRAL POSITION (PNP) SWITCH BACK-UP LAMP SWITCH (F41) (F29) REVERSE OTHERS G/Y G/Y G/Y F26 G/Y M14 G/Y G/Y G/Y G/Y Н $\langle A \rangle$ G/Y + G/W BACK-UP LAMP LH BACK-UP LAMP RH **B38 B42** LT M (B<sub>19</sub>) **B13**



WKWA0516E

### FRONT FOG LAMP

FRONT FOG LAMP

# **System Description**

EKS006AJ

Power is supplied at all times to front fog lamp relay terminal 5 through:

15A fuse (No. 43, located in the fuse and fusible link box.)

With the lighting switch in headlamp "ON" (2ND) position, "LOW BEAM" (B) position, power is supplied:

- through 15A fuse (No. 39, located in the fuse and fusible link box)
- to lighting switch terminal 5
- through terminal 7 of the lighting switch
- to front fog lamp relay terminal 1.

#### FOG LAMP OPERATION

The front fog lamp switch is built into the combination switch. The lighting switch must be in headlamp "ON" (2ND) position and "LOW BEAM" (B) position for fog lamp operation.

With the front fog lamp switch in the ON position ground is supplied:

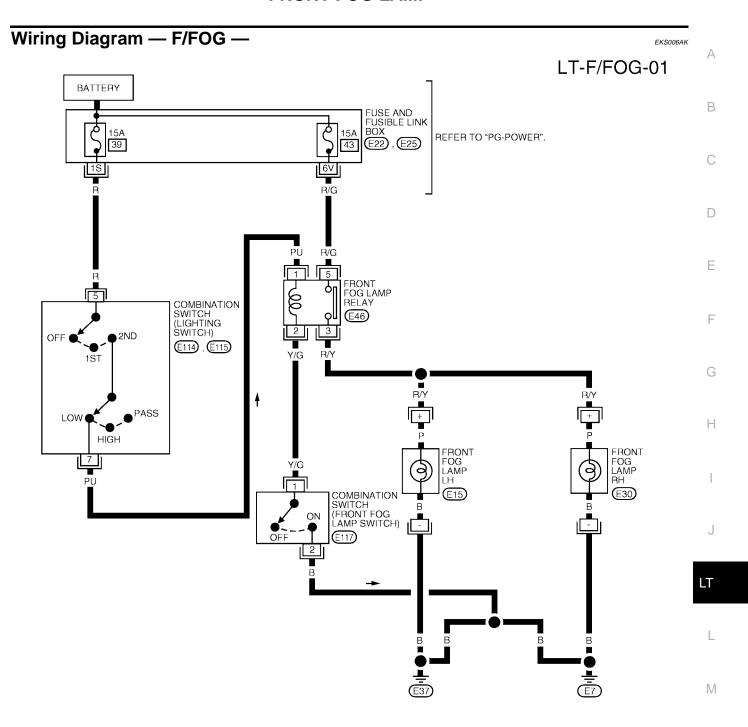
- to front fog lamp relay terminal 2
- through the front fog lamp switch
- to body grounds E7 and E37.

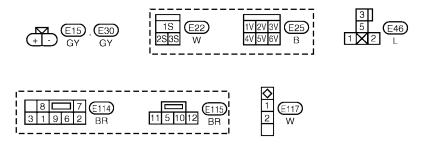
The front fog lamp relay is energized and power is supplied:

- from front fog lamp relay terminal 3
- to terminal + of each front fog lamp.

Ground is supplied to terminal - of each front fog lamp through body grounds E7 and E37. With power and ground supplied, the front fog lamps illuminate.

### **FRONT FOG LAMP**



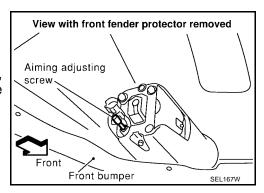


WKWA0024E

# **Aiming Adjustment**

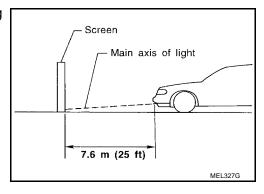
Before performing aiming adjustment, make sure of the following.

- Inflate all tires to correct pressure.
- 2. Place vehicle on level ground.
- 3. See that vehicle is unloaded (except for full levels of coolant, engine oil and fuel, and spare tire, jack, and tools). Have the driver or equivalent weight placed in driver's seat.

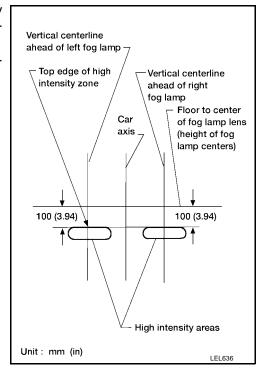


Adjust aiming in the vertical direction by turning the adjusting screw.

1. Set the distance between the screen and the center of the fog lamp lens as shown.



- 2. Turn front fog lamps ON.
- 3. 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.
  - When performing adjustment, if necessary, cover the headlamps and opposite fog lamp.



### TURN SIGNAL AND HAZARD WARNING LAMPS PFP:26120 Α System Description EKS0038Q TÚRN 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. 26, located in the fuse block (J/B)] to hazard switch terminal 2 through terminal 1 of the hazard switch to combination flasher unit terminal B through terminal L of the combination flasher unit D to turn signal switch terminal 1. Ground is supplied to combination flasher unit terminal E through body grounds M28 and M54. Е **LH Turn** When the turn signal switch is moved to the LH position, power is supplied from turn signal switch terminal 3 front combination lamp LH terminal 3 combination meter terminal 35 (with tachometer) or 40 (without tachometer) rear combination lamp LH terminal 2. Ground is supplied to the front combination lamp LH terminal 1 through body grounds E7 and E37. Ground is supplied to the rear combination lamp LH terminal 4 through body grounds B13 and B19. Ground is supplied to combination meter terminal 12 (with tachometer) or 39 (without tachometer) through body grounds M28 and M54. With power and ground supplied, the combination flasher unit controls the flashing of the LH turn signal lamps. RH Turn When the turn signal switch is moved to the RH position, power is supplied from turn signal switch terminal 2 front combination lamp RH terminal 3 J combination meter terminal 4 (with tachometer) or 41 (without tachometer) rear combination lamp RH terminal 2. LT Ground is supplied to the front combination lamp RH terminal 1 through body grounds E7 and E37. Ground is supplied to the rear combination lamp RH terminal 4 through body grounds B13 and B19. Ground is supplied to combination meter terminal 12 (with tachometer) or 39 (without tachometer) through body grounds M28 and M54. With power and ground supplied, the combination flasher unit controls the flashing of the RH turn signal lamps. HAZARD LAMP OPERATION M Power is supplied at all times to hazard switch terminal 3 through: 15A fuse [No. 5, located in the fuse block (J/B)]. With the hazard switch in the ON position, power is supplied: through terminal 1 of the hazard switch to combination flasher unit terminal B through terminal L of the combination flasher unit to hazard switch terminal 4. Ground is supplied to combination flasher unit terminal E through body grounds M28 and M54. Power is supplied through terminal 5 of the hazard switch to:

front combination lamp LH terminal 3

- combination meter terminal 35 (with tachometer) or 40 (without tachometer)
- rear combination lamp LH terminal 2.

Power is supplied through terminal 6 of the hazard switch to:

front combination lamp RH terminal 3

- combination meter terminal 4 (with tachometer) or 41 (without tachometer)
- rear combination lamp RH terminal 2.

Ground is supplied to terminal 1 of each front combination lamp through body grounds E7 and E37.

Ground is supplied to terminal 4 of each rear combination lamp through body grounds B13 and B19.

Ground is supplied to combination meter terminal 12 (with tachometer) or 39 (without tachometer) through body grounds M28 and M54.

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

#### REMOTE KEYLESS ENTRY SYSTEM OPERATION

Power is supplied at all times:

- through 15A fuse [No. 5, located in the fuse block (J/B)]
- to remote keyless entry relay terminals 1, 6 and 3.

Ground is supplied to remote keyless entry relay terminal 2, when the remote keyless entry system is triggered through the smart entrance control unit.

Refer to BL-34, "REMOTE KEYLESS ENTRY SYSTEM".

The remote keyless entry relay is energized.

Power is supplied through terminal 5 of the remote keyless entry relay:

- to front combination lamp LH terminal 3
- to combination meter terminal 35 (with tachometer) or 40 (without tachometer)
- to rear combination lamp LH terminal 2.

Power is supplied through terminal 7 of the remote keyless entry relay:

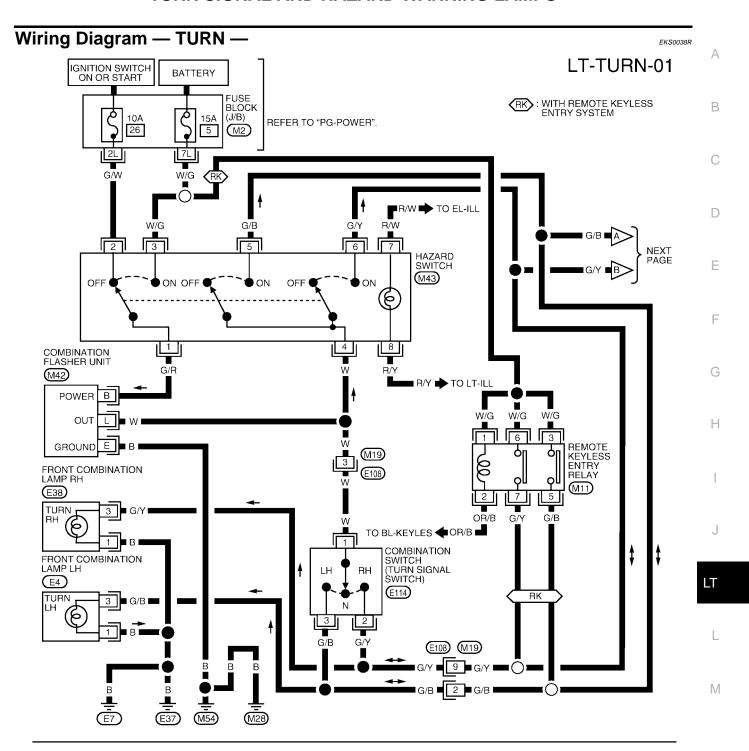
- to front combination lamp RH terminal 3
- to combination meter terminal 4 (with tachometer) or 41 (without tachometer)
- to rear combination lamp RH terminal 2.

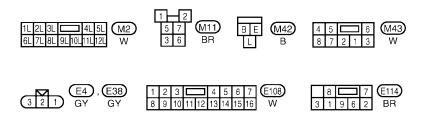
Ground is supplied to terminal 1 of each front combination lamp through body grounds E7 and E37.

Ground is supplied to terminal 4 of each rear combination lamp through body grounds B13 and B19.

Ground is supplied to combination meter terminal 12 (with tachometer) or 39 (without tachometer) through body grounds M28 and M54.

With power and ground supplied, the smart entrance control unit controls the flashing of the hazard warning lamps.

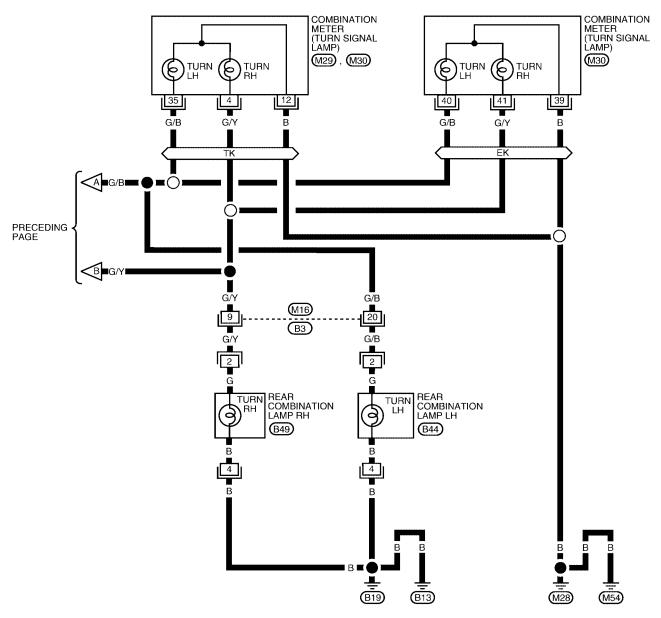


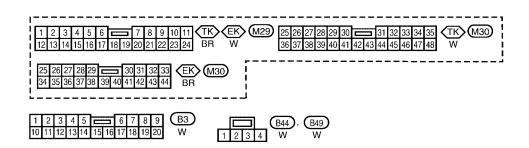


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LT-TURN-02





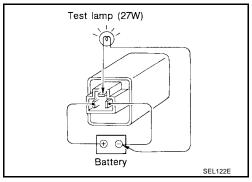
WKWA0222E

Symptom	Possible cause	Repair order			
Turn signal and hazard warning	1. Hazard switch	1. Check hazard switch.			
lamps do not operate.	2. Combination flasher unit	2. Refer to combination flasher unit check.			
	3. Open in combination flasher unit circuit	3. Check wiring to combination flasher unit for open circuit			
Turn signal lamps do not operate	1.10A fuse	1. Check 10A fuse [No. 26, located in fuse block (J/B)].			
out hazard warning lamps operate	2. Hazard switch	Turn ignition switch ON and verify battery positive voltage is present at terminal 2 of hazard switch.			
	3. Turn signal switch	2. Check hazard switch.			
	4. Open in turn signal switch circuit	3. Check turn signal switch.			
		Check the wire between combination flasher unit terminal L and turn signal switch terminal 1 for open circuit.			
Hazard warning lamps do not oper-	1.15A fuse	1. Check 15A fuse [No. 5, located in fuse block (J/B)]			
ate but turn signal lamps operate.	2. Hazard switch	ify battery positive voltage is present at terminal 3 of hazard switch.			
	3. Open in hazard switch circuit	2. Check hazard switch.			
		Check the wire between combination flasher unit termi-			
		nal L and hazard switch terminal 4 for open circuit.			
Front turn signal lamp LH or RH	1. Bulb	1. Check bulb.			
does not operate.	2. Grounds E7 and E37	2. Check grounds E7 and E37.			
	Open in front combination lamp circuit	Check the wire between combination switch terminal 3 (LH) or terminal 2 (RH) and front combination lamp terminal 3.			
Rear turn signal lamp LH or RH	1. Bulb	1. Check bulb.			
does not operate.	2. Grounds B13 and B19	2. Check grounds B13 and B19.			
	Open in rear combination lamp circuit	Check the wire between combination switch terminal 3 (LH) or terminal 2 (RH) and rear combination lamp terminal 2.			
LH and RH turn indicators do not operate.	1. Ground	1. Check grounds M28 and M54.			
LH or RH turn indicator does not	1. Bulb	Check bulb in combination meter.			
operate.	2. Turn indicator circuit	Check the wire between combination switch and combination meter.			

# **Electrical Components Inspection COMBINATION FLASHER UNIT CHECK**

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.



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### **ILLUMINATION**

ILLUMINATION PFP:27545

# **System Description**

EKS0038U

Power is supplied at all times:

- through 10A fuse (No. 38, located in the fuse and fusible link box)
- to lighting switch terminal 11.

The lighting switch must be in parking lamp (1ST) or headlamp "ON" (2ND) position for illumination. The illumination control switch controls the amount of current to the illumination system. As the amount of current increases, the illumination becomes brighter.

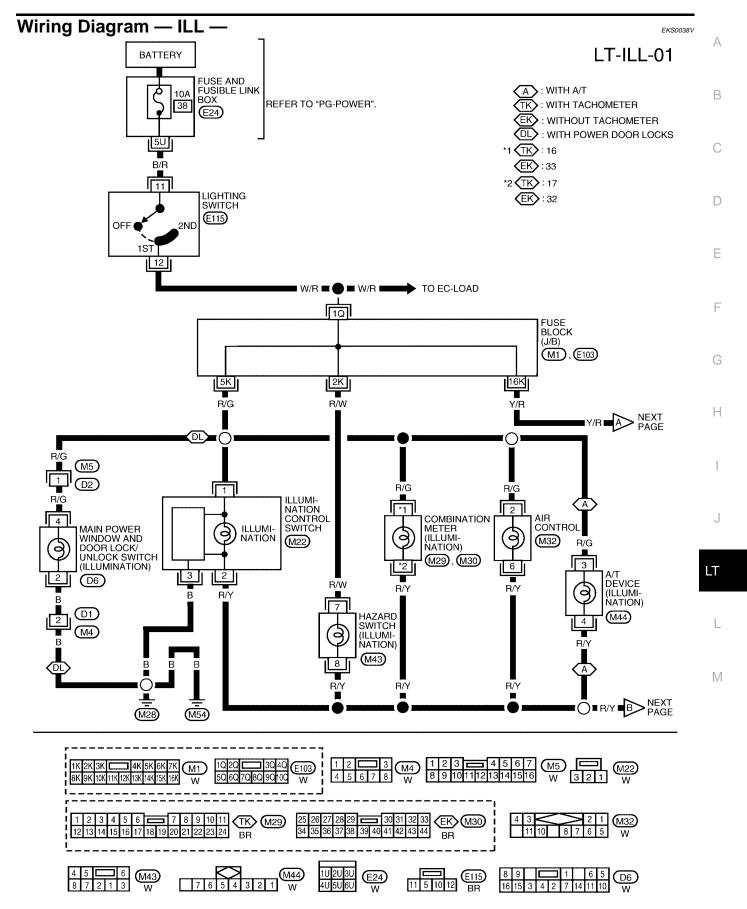
The following chart shows the power and ground connector terminals for the components included in the illumination system.

Component	Connector No.	Power terminal	Ground terminal
Illumination control switch	M22	1	3
Combination meter	M29 or M30	16 or 33	17 or 32
Hazard switch	M43	7	8
Air control	M32	2	6
A/T device indicator*	M44	3	4
Main power window and door lock/unlock switch*	D6	4	2
Audio unit	M45	8	7
CD changer*	M47, M48	23	25

<sup>\*</sup> If equipped.

The ground for all of the components is controlled through terminals 2 and 3 of the illumination control switch to body grounds M28 and M54.

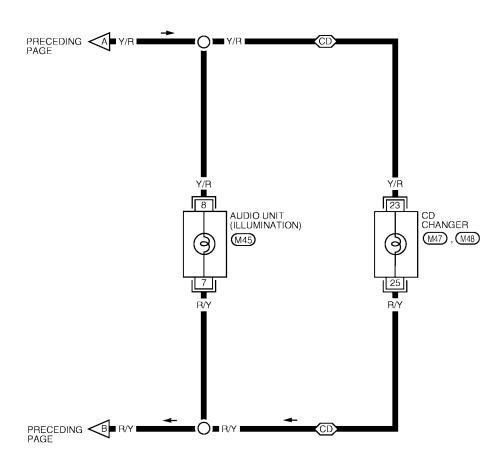
### **ILLUMINATION**

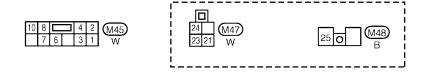


WKWA0343E

LT-ILL-02

CD: WITH CD CHANGER





WKWA0028E

### INTERIOR, MAP, VANITY AND TRUNK ROOM LAMPS

### INTERIOR, MAP, VANITY AND TRUNK ROOM LAMPS PFP:26410 Α **System Description** EKS0038W WITHOUT POWER DOOR LOCKS **Power Supply and Ground** Power is supplied at all times: through 10A fuse [No. 13, located in the fuse block (J/B)] to interior lamp terminal +. Switch Operation When interior lamp switch is in the DOOR position and any door is opened, ground is supplied to interior lamp D through the door switches. When interior lamp switch is in the ON position, ground is supplied: through case ground of interior lamp Е to interior lamp. WITH POWER DOOR LOCKS **Power Supply and Ground** Power is supplied at all times: through 10A fuse (No. 37, located in the fuse and fusible link box) to smart entrance control unit terminal 10. Power is supplied at all times: through 10A fuse [No. 12, located in the fuse block (J/B)] Н to key switch terminal 2 and through 10A fuse [No. 13, located in the fuse block (J/B)] to trunk room lamp terminal 1. When the key is removed from ignition key cylinder, power is interrupted: through key switch terminal 1 to smart entrance control unit terminal 32. With the ignition key switch in the ON or START position, power is supplied: through 10A fuse [No. 10, located in the fuse block (J/B)] to smart entrance control unit terminal 33. Ground is supplied: to smart entrance control unit terminal 16 through body grounds M28 and M54. Switch Operation When map lamp (LH and/or RH) is ON, ground is supplied: M through body grounds M28 and M54 to map lamp terminal -. Power is supplied: to map lamp terminal + from smart entrance control unit terminal 17. When vanity lamp (LH and/or RH) is ON, ground is supplied: through body grounds M28 and M54 to vanity lamps (LH and RH) terminal 2. Power is supplied: to vanity lamps (LH and RH) terminal 1 from smart entrance control unit terminal 17. When trunk room lamp switch is ON (trunk lid is opened), ground is supplied:

through body grounds B13 and B19 to trunk room lamp switch terminal –

## INTERIOR, MAP, VANITY AND TRUNK ROOM LAMPS

- from trunk room lamp switch terminal +
- to trunk room lamp terminal 2

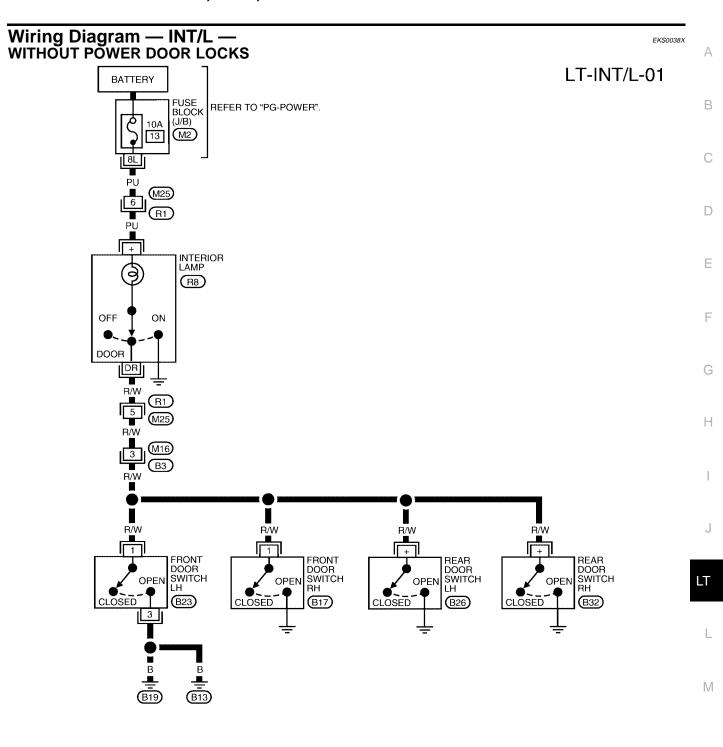
With power and ground supplied, interior lamps turn ON.

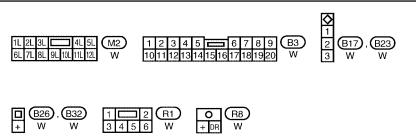
### **Battery Saver**

The lamps turn off automatically when interior lamp, map lamp and/or vanity lamps are illuminated with the ignition key in OFF position, if the lamp remains lit by the door switch open signal or if the lamp switch is in ON position for approximately 10 minutes.

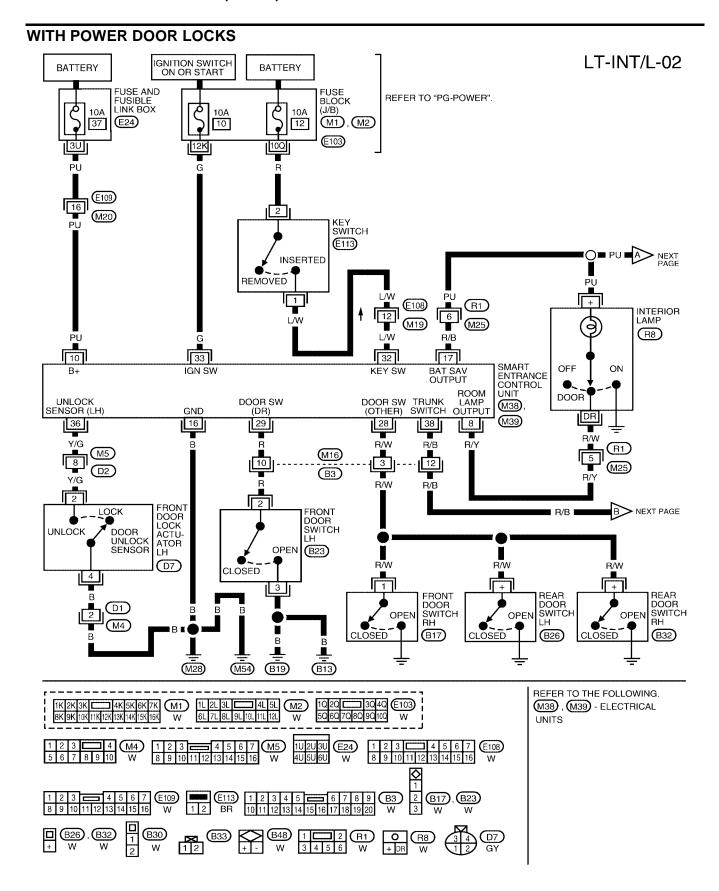
After lamps turn OFF by the battery saver system, the lamps illuminate again when:

- driver door is locked or unlocked,
- door is opened or closed,
- key is inserted in or removed from ignition key cylinder.

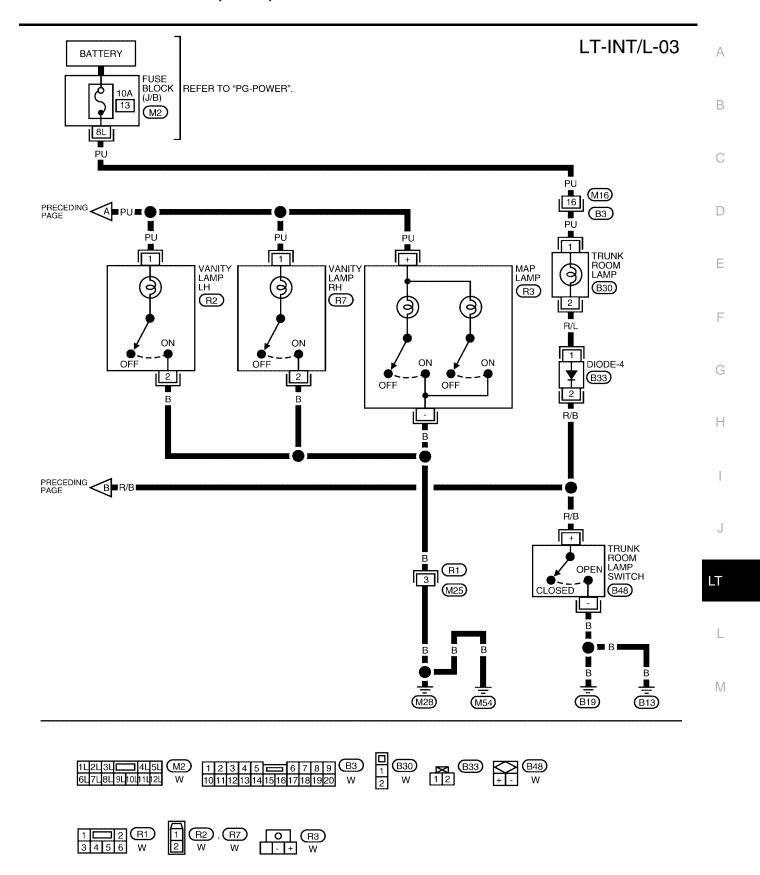




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WKWA0530E



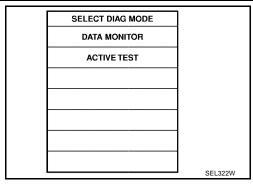
SMART ENTRANCE CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND

TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)
8	R/Y	INTERIOR LAMP	LAMP SWITCH IN DOOR POSITION	12V
10	PU	POWER SOURCE (FUSE)	_	12V
16	В	GROUND	_	_
17	R/B	BATTERY SAVER (INTERIOR LAMP)	BATTERY SAVER DOES NOT OPERATE	12V
			BATTERY SAVER OPERATES	0V
28	R/W	OTHER DOOR SWITCHES	OFF (CLOSED)	5V
			ON (OPEN)	OV
29 R		EDON'T DOOD OW/TOULU	OFF (CLOSED)	5V
	K	FRONT DOOR SWITCH LH	ON (OPEN)	0V
32	1.00/	L/W IGNITION KEY SWITCH	IGNITION KEY IS INSERTED	12V
32 L/W	(INSERT)	IGNITION KEY IS REMOVED	0V	
33	G	IGNITION SWITCH (ON)	IGNITION KEY IS IN ON POSITION	12V
		IGNITION SWITCH (START)	IGNITION KEY IS IN START POSITION	12V
36	Y/G	Y/G DOOR UNLOCK SENSOR LH	DRIVER DOOR: LOCKED	5V
			DRIVER DOOR: UNLOCKED	0V
20	R/B	TRUNK ROOM LAMP SWITCH	ON (OPEN)	0V
38			OFF (CLOSED)	12V

# **CONSULT-II Inspection Procedure (With Power Door Locks)** EKS0038Y "INT LAMP"/"BATTERY SAVER" Α 1. Turn ignition switch "OFF". Data link connector 2. Connect "CONSULT-II" to the data link connector. Brake pedal В $\mathsf{D}$ Е 3. Turn ignition switch "ON". NISSAN Touch "START". CONSULT-II START Н **SUB MODE** PBR455D 5. Touch "SMART ENTRANCE". SELECT SYSTEM **ENGINE** A/T AIR BAG ABS SMART ENTRANCE LEL642 Touch "INT LAMP" or "BATTERY SAVER". SELECT TEST ITEM M INT LAMP **BATTERY SAVER** THEFT WAR ALM MULTI REMOTE ENT

LEL643

 Select diagnosis mode.
 "DATA MONITOR" and "ACTIVE TEST" are available for "INT LAMP" and "BATTERY SAVER".



# **CONSULT-II Application Items (With Power Door Locks)** "INT LAMP"

EKS0038Z

#### **Data Monitor**

Monitored Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
DOOR SW DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-ALL	Indicates [ON/OFF] condition of door switch (All).
LOCK SIG DR	Indicates [ON/OFF] condition of front door unlock sensor LH.
UN BUTTON/SIG	Indicates [ON/OFF] condition of unlock signal from remote controller.

#### **Active Test**

Test Item	Description	
INT LAMP	This test enables to check interior lamp, map lamp, and vanity lamps operations.  When touch "ON" on CONSULT-II screen.	
	<ul> <li>Interior lamp turns on when the switch is in DOOR or ON.</li> <li>(Smart entrance control unit supplies power and ground to interior lamp.)</li> </ul>	
	<ul> <li>Map lamp and vanity lamps turn on when the switch is in ON.</li> <li>(Smart entrance control unit supplies power to map lamp and vanity lamps.)</li> </ul>	

#### "BATTERY SAVER"

#### **Data Monitor**

Monitored Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
KEY ON SW	Indicates [ON/OFF] condition of key switch.
DOOR SW DR	Indicates [ON/OFF] condition of front door switch LH.
DOOR SW-ALL	Indicates [ON/OFF] condition of door switch (ALL).
LOCK SIG DR	Indicates [ON/OFF] condition of front door unlock sensor LH.
TRUNK SW	Indicates [ON/OFF] condition of trunk room lamp switch.

#### **Active Test**

Test Item	Description
BATTERY SAVER	This test enables to check interior lamp, map lamp, and vanity lamp operations.  When touch "ON" on CONSULT-II screen.
	<ul> <li>Interior lamp turns on when the switch is in ON.</li> <li>(Smart entrance control unit supplies power to interior lamp.)</li> <li>Map lamp and vanity lamps turn on when the switch is in ON.</li> </ul>
	(Smart entrance control unit supplies power to map lamps and vanity lamps.)

Trouble Diagnoses for Interior Lamp Timer (With Power Door Locks)
DIAGNOSTIC PROCEDURE 1 (SYMPTOM: INTERIOR LAMP TIMER DOES NOT OPERATE PROPERLY)

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# 1. CHECK IGNITION ON SIGNAL

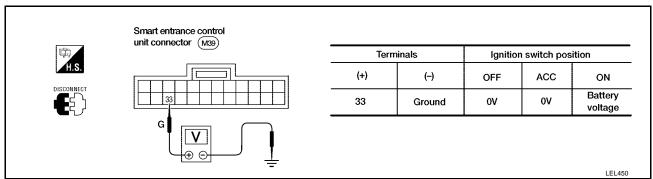
## With CONSULT-II

Check ignition switch ON signal ("IGN ON SW") in "DATA MONITOR" mode with CONSULT-II.

DATA MONI MONITOR	TOR		
IGN ON SW	ON	When ignition switch is ON:  IGN ON SW ON  When ignition switch is OFF:  IGN ON SW OFF	
			SEL318W

## Without CONSULT-II

Check voltage between smart entrance control unit harness connector terminal 33 and ground.



#### OK or NG

OK >> GO TO 2.

NG >> Check the following.

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

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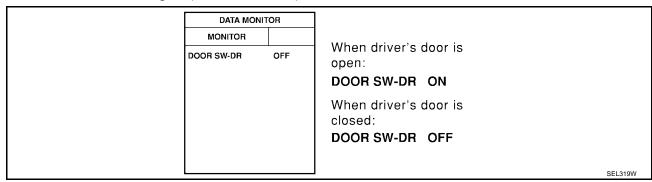
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# 2. check door switch input signal

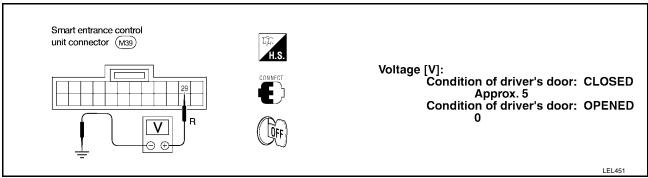
## With CONSULT-II

Check driver door switch signal ("DOOR SW-DR") in "DATA MONITOR" mode with CONSULT-II.



#### **Without CONSULT-II**

Check voltage between smart entrance control unit harness connector terminal 29 and ground.

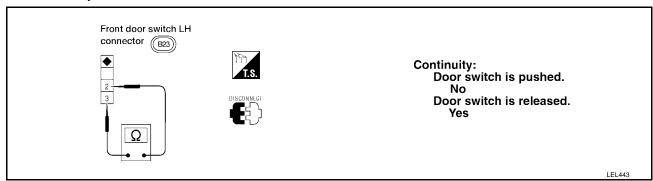


#### OK or NG

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

# 3. CHECK FRONT DOOR SWITCH LH

Check continuity between front door switch LH terminals 2 and 3.



#### OK or NG

OK >> Check the following.

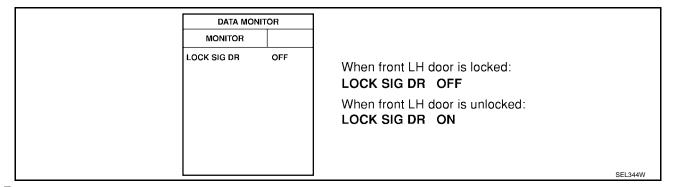
- Front door switch LH ground circuit and condition
- Harness for open or short between smart entrance control unit and front door switch LH

NG >> Replace front door switch LH.

# 4. CHECK DOOR UNLOCK SENSOR LH INPUT SIGNAL

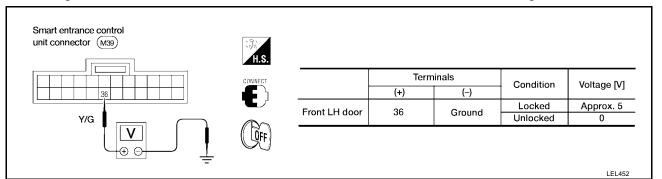
# (III) With CONSULT-II

Perform "LOCK SIG DR" in "DATA MONITOR" mode with CONSULT-II.



#### Without CONSULT-II

Check voltage between smart entrance control unit harness connector terminal 36 and ground.



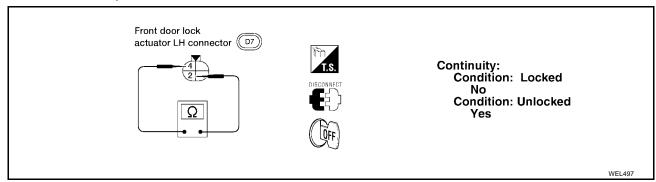
#### OK or NG

OK >> GO TO 6.

NG >> GO TO 5.

# 5. CHECK DOOR UNLOCK SENSOR LH

- 1. Disconnect door unlock sensor LH harness connector.
- 2. Check continuity between door unlock sensor LH terminals.



#### OK or NG

OK >> Check the following.

- Door unlock sensor LH ground circuit
- Harness for open or short between smart entrance control unit and door unlock sensor LH

NG >> Replace door unlock sensor LH.

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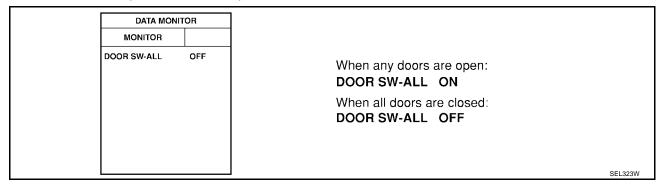
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## 6. CHECK DOOR SWITCHES INPUT SIGNAL

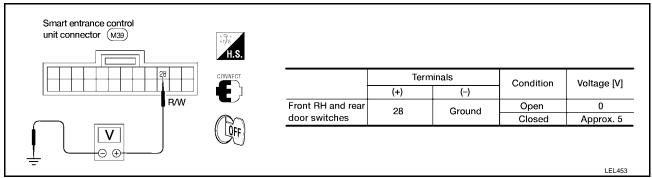
## With CONSULT-II

Check door switches ("DOOR SW-ALL") in "DATA MONITOR" mode with CONSULT-II.



#### **Without CONSULT-II**

Check voltage between smart entrance control unit harness connector terminal 28 and ground.

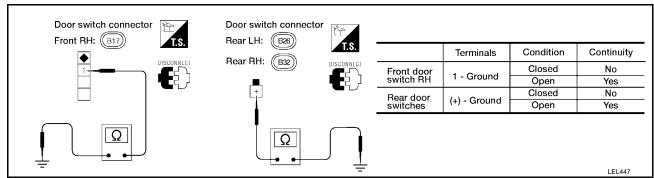


#### OK or NG

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

# 7. CHECK DOOR SWITCHES

- 1. Disconnect door switch harness connector.
- Check continuity between door switch terminals 1, + and ground.



#### OK or NG

OK >> Check the following.

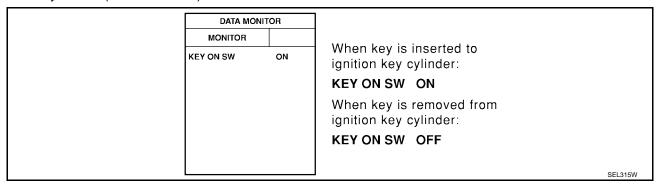
- Door switch ground circuit or door switch ground condition
- Harness for open or short between smart entrance control unit and door switch

NG >> Replace door switch.

# 8. CHECK KEY SWITCH INPUT SIGNAL

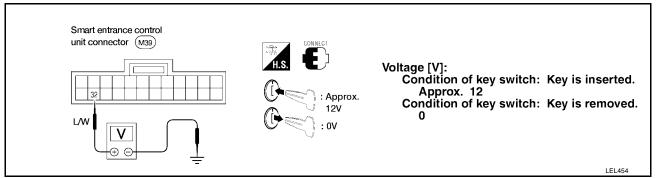
## (II) With CONSULT-II

Check key switch ("KEY ON SW") in "DATA MONITOR" mode with CONSULT-II.



#### **Without CONSULT-II**

Check voltage between smart entrance control unit harness connector terminal 32 and ground.



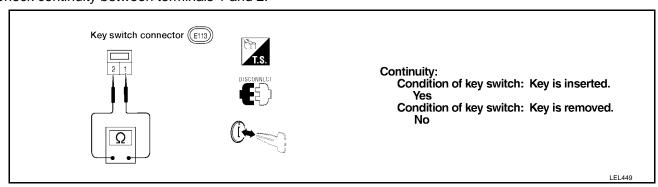
#### OK or NG

OK >> Replace smart entrance control unit.

NG >> GO TO 9.

# 9. CHECK KEY SWITCH

Check continuity between terminals 1 and 2.



#### OK or NG

OK >> Check the following.

- 10A fuse [No. 12, located in fuse block (J/B)]
- Harness for open or short between key switch and fuse
- Harness for open or short between smart entrance control unit and key switch

NG >> Replace key switch.

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LT-47

## **BULB SPECIFICATIONS**

# **BULB SPECIFICATIONS**

PFP:26297

EKS006AM

# **Bulb Specifications HEADLAMP**

Item	Wattage (W)	Bulb No.*
High/Low	65/55	9007 (HB5)

<sup>\*</sup>Always check with the Parts Department for the latest parts information.

#### **EXTERIOR LAMP**

Item		Wattage (W)	Bulb No.*
Front parking and turn signal lamp		8/27	3157AK
Fog light		55	H3
Rear combination lamp	Turn signal	27	1156A
	Stop/Tail	27/8	1157
Back-up		18	921
License plate lamp		5	194
High-mounted stop lamp (parcel shelf mount)		18	921
High-mounted stop lamp (rear air spoiler mount)		*	*

<sup>\*</sup>Always check with the Parts Department for the latest parts information.

#### **INTERIOR LAMP**

Item	Wattage (W)	Bulb No.*
Interior lamp	8	*
Map lamp	8	*
Trunk lamp	3.4	158

<sup>\*</sup>Always check with the Parts Department for the latest parts information.