# SECTION EXL
# EXTERIOR LIGHTING SYSTEM

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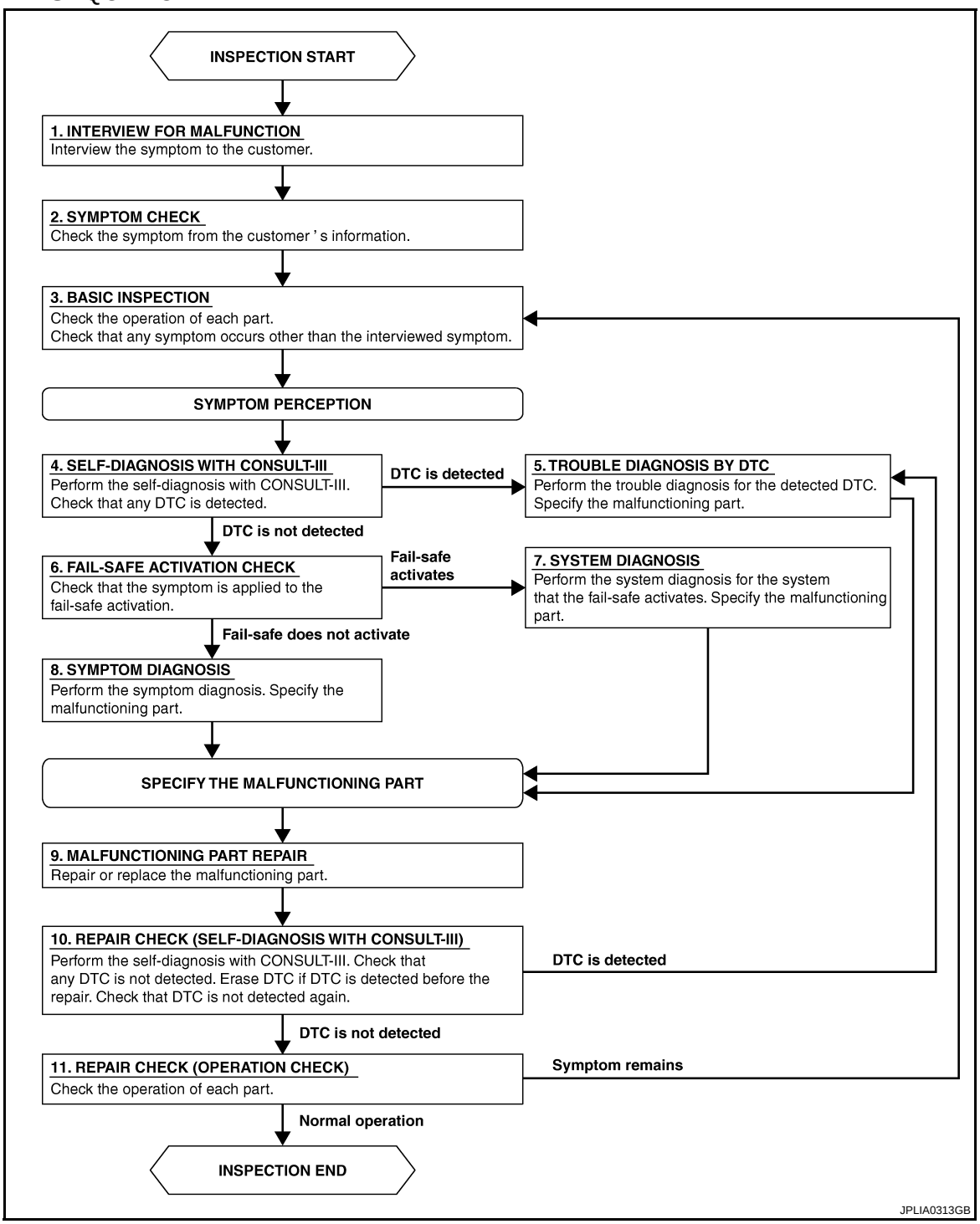
# BASIC INSPECTION

## DIAGNOSIS AND REPAIR WORKFLOW

### Work Flow

INFOID:0000000005491606

#### OVERALL SEQUENCE




#### DETAILED FLOW

### 1.INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

>> GO TO 2.

## 2.SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3.

## 3.BASIC INSPECTION

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

>> GO TO 4.

## 4.SELF-DIAGNOSIS WITH CONSULT-III

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

Is any DTC detected?

YES >> GO TO 5.
NO >> GO TO 6.

## 5.TROUBLE DIAGNOSIS BY DTC

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

>> GO TO 9.

## 6.FAIL-SAFE ACTIVATION CHECK

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

Does the fail-safe activate?

YES >> GO TO 7.
NO >> GO TO 8.

## 7.SYSTEM DIAGNOSIS

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

>> GO TO 9.

## 8.SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

## 9.MALFUNCTION PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10.

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

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

Is any DTC detected?

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

## 11.REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

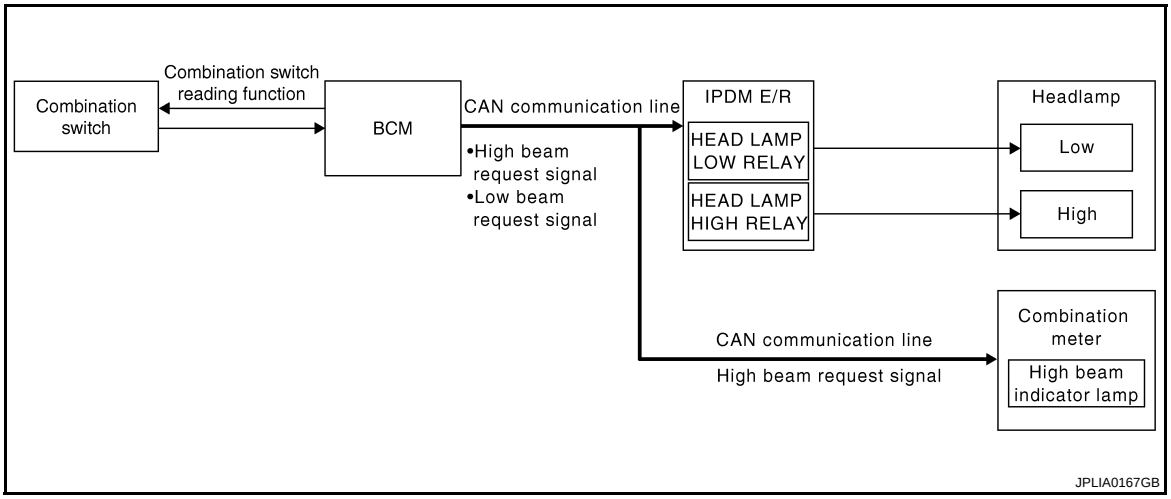
YES >> INSPECTION END
NO >> GO TO 3.

# SYSTEM DESCRIPTION

## HEADLAMP SYSTEM

### System Diagram

INFOID:0000000005491607




### System Description

INFOID:0000000005491608

#### OUTLINE

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

#### HEADLAMP (LO) OPERATION

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

Headlamp (LO) ON condition

- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)

- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

**NOTE:**

Daytime running light model goes through the daytime running light relay-2 in headlamp low (RH) circuit.
For details, refer to EXL-9, "System Description".

#### HEADLAMP (HI) OPERATION

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

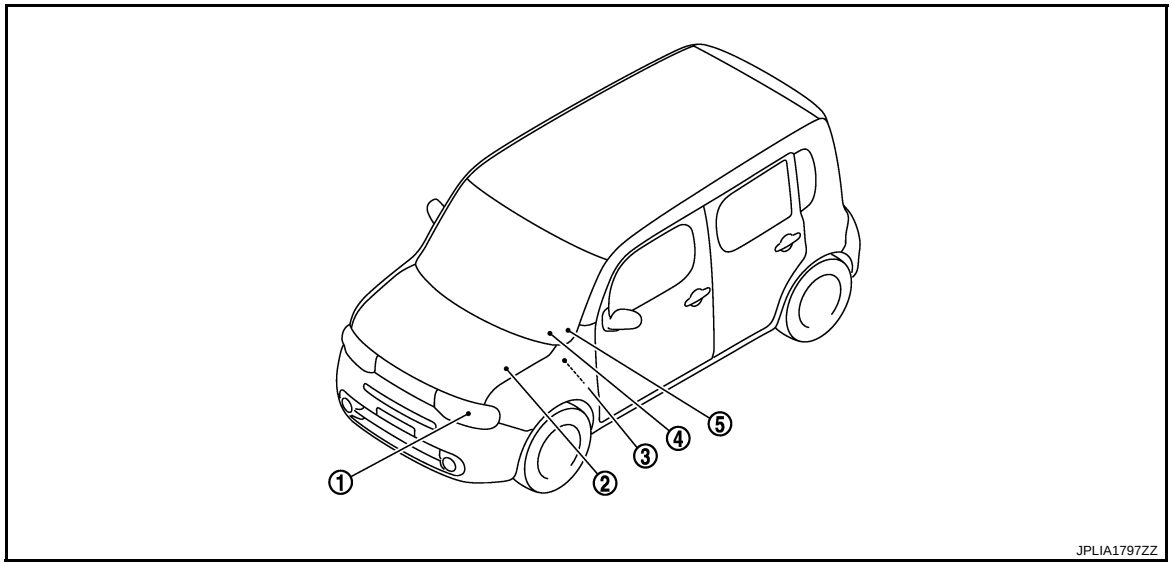
Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND or AUTO (auto light function ON judgment)
- Lighting switch PASS

- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

## Component Parts Location

INFOID:0000000005491609




1. Headlamp
2. IPDM E/R
   Refer to PCS-6, "Component Parts Location".
3. BCM
   Refer to BCS-9, "Component Parts Location".
4. Combination meter
   (High beam indicator lamp)
5. Combination switch

## Component Description

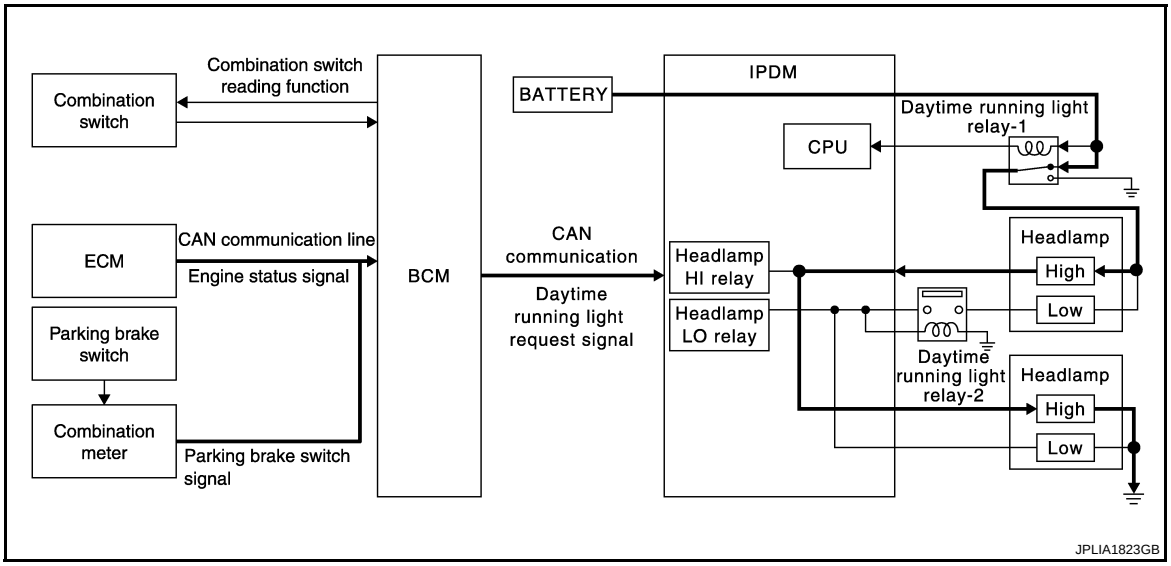
INFOID:0000000005491610

| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Judges that the headlamp is turned ON according to the vehicle condition.<br>- Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication).<br>- Requests the high beam indicator lamp ON to the combination meter (with CAN communication). |
| IPDM E/R | Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Combination switch<br>(Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |
| Combination meter<br>(High beam indicator lamp) | Turns the high beam indicator lamp ON according to the request from BCM (with CAN communication). |

# DAYTIME RUNNING LIGHT SYSTEM

## System Diagram

INFOID:0000000005491611




## System Description

INFOID:0000000005491612

### OUTLINE

- Turns the headlamp high ON (high beam at approximately half illumination) as the daytime running light.
- Daytime running light is controlled by daytime running light control function and combination switch reading function of BCM, and relay control function of IPDM E/R.

### DAYTIME RUNNING LIGHT OPERATION

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

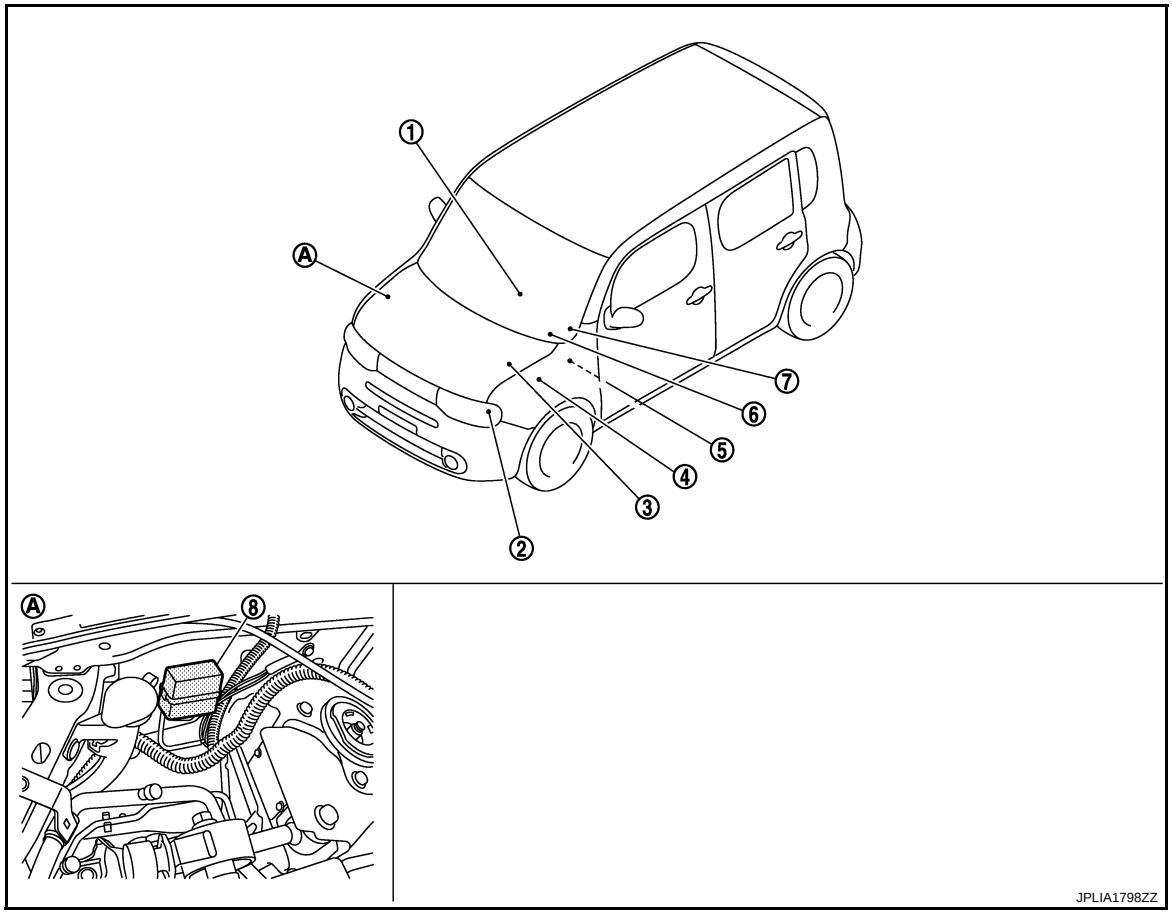
Daytime running light ON condition
- Engine running
- Lighting switch OFF or 1ST
- Parking brake switch OFF

- IPDM E/R controls the daytime running light relay-1 (ground-side) to turn ON according to the daytime running light request signal.
- Power is supplied from the daytime running light relay-1 through headlamp high (RH) and IPDM E/R to headlamp high (LH). And high beam headlamps are illuminated (approximately half illumination) as the daytime running light.

**NOTE:**
- Daytime running light relay-2 is turned ON when headlamp is low.
- Daytime running light relay-2 is OFF to cut voltage of headlamp low circuit when daytime running light is ON.

## Component Parts Location

INFOID:0000000005491613




1. Parking brake switch
2. Daytime running light (Headlamp HI)
3. IPDM E/R Refer to PCS-6, "Component Parts Location".
4. ECM Refer to EC-23, "Component Parts Location".
5. BCM Refer to BCS-9, "Component Parts Location".
6. Combination meter
7. Combination switch
8. • Daytime running light relay-1
   • Daytime running light relay-2

A. Engine room (RH)

## Component Description

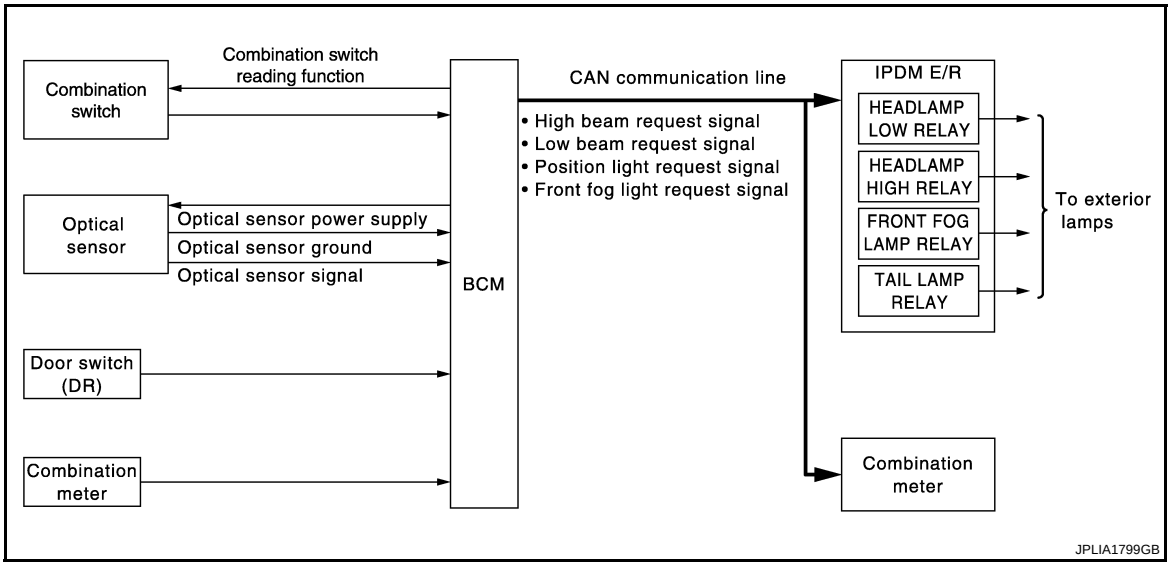
INFOID:0000000005491614

| Part | Description |
|---|---|
| BCM | • Detects each switch condition with the combination switch reading function.<br>• Judges each lamps ON/OFF condition according to the vehicle condition.<br>- Requests the each relay ON to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the relay and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Daytime running light relay-1 | Switches headlamp (HI) circuit to illuminate the daytime running light. |
| Daytime running light relay-2 | Cuts voltage of headlamp low circuit when daytime running light is ON. |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |
| ECM | Transmits the engine status signal to BCM (with CAN communication). |
| Combination meter | Transmits the parking brake switch signal to BCM (with CAN communication). |

# AUTO LIGHT SYSTEM

## System Diagram

INFOID:0000000005491615




## System Description

INFOID:0000000005491616

### OUTLINE

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

Control by BCM

- Combination switch reading function
- Headlamp control function
- Auto light function
- Delay timer function
- Wiper linked auto lighting function

Control by IPDM E/R

- Relay control function

- Auto light system has the auto light function (with twilight lighting function*1), wiper linked auto lighting function and delay timer function.
  *1:For USA only
- Auto light function automatically turns ON/OFF the exterior lamps*2 and each illumination automatically, depending on the outside brightness.
- Wiper linked auto lighting function automatically turns ON/OFF the exterior lamps* and each illumination when the light switch is in the AUTO position, according to a front wiper operation.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF, depending on the vehicle condition with the auto light function after a certain period of time.

*2: Headlamp (LO/HI), parking lamp (illuminated as front side marker lamps too), tail lamp, rear side marker lamp and front fog lamp (Headlamp HI and front fog lamp depend on the combination switch condition.)

**NOTE:**

The settings of the twilight lighting function and the wiper linked auto lighting function can be changed with CONSULT-III. Refer to EXL-23, "HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)".

### AUTO LIGHT FUNCTION (WITH TWILIGHT LIGHTING FUNCTION)

Description

- BCM detects the combination switch condition with the combination switch reading function.
- BCM supplies voltage to the optical sensor when the ignition switch is turned ON or ACC.
- Optical sensor converts outside brightness (lux) to voltage and transmits the optical sensor signal to BCM.
- BCM detects outside brightness from the optical sensor signal and judges ON/OFF condition of the exterior lamp and each illumination, depending on the outside brightness condition (standard or twilight).

- BCM transmits each request signal to IPDM E/R via CAN communication, according to ON/OFF condition by the auto light function.

**NOTE:**
As to ON/OFF timing, the sensitivity depends on setings. The settings can be changed with CONSULT-III. Refer to EXL-23, "HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)".

Auto Lighting Timing Table
When the light switch is in AUTO position and the ignition switch is ON, the exterior lamps turns ON/OFF in the following condition.

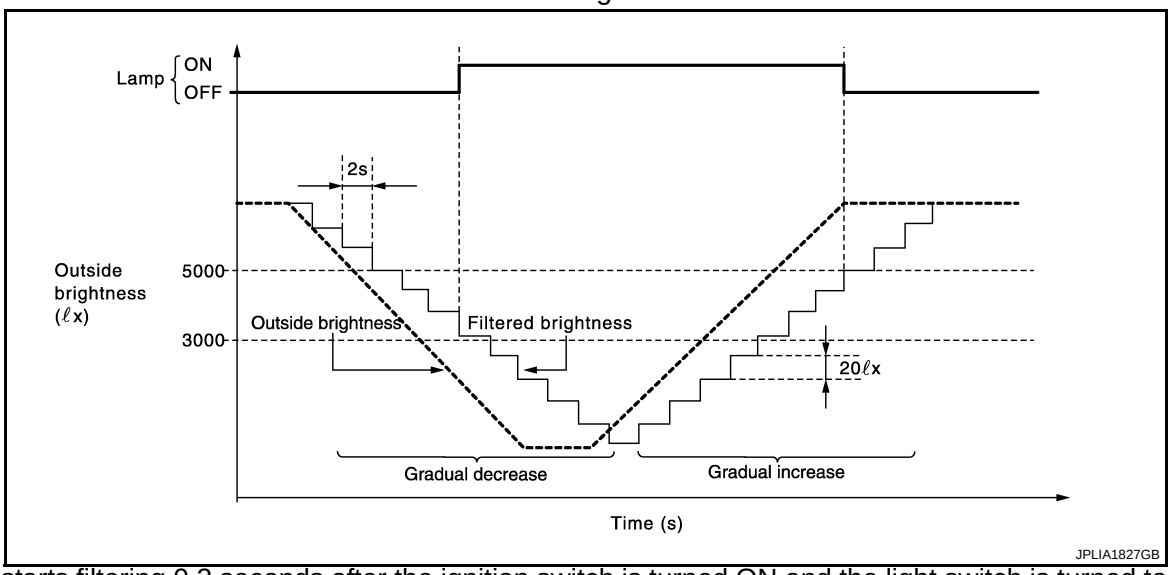
| Exterior lamps | Standard Light ON (Sudden increase/decrease in brightness) | Twilight Light ON (Gradual increase/decrease in brightness) |
|---|---|---|
| ON | Outside brightness is 1250 lx or less for 3 seconds or more. | Filtered brightness is 3000 lx or less |
| OFF | Outside brightness is 2500 lx or more for 5 seconds or more. | Filtered brightness is 5000 lx or more |

Standard Light ON
BCM turns exterior lamps ON when outside brightness obtained from the optical sensor signal is 1250 lx or less for 3 seconds or more. And BCM turns exterior lamp OFF when outside brightness from the optical sensor signal is 2500 lx or more for 5 seconds or more.

Twilight Light ON (Twilight Lighting Function)
BCM detects twilight by filtered brightness.

- BCM filters outside brightness to block the impact of the rapid change in brightness, based on the optical sensor signal, and judges outside brightness.
- BCM detects changes in outside brightness, based on outside brightness obtained from the optical sensor signal and filtered brightness and judges ON/OFF of the exterior lamps.

Filtering chart




- BCM starts filtering 0.3 seconds after the ignition switch is turned ON and the light switch is turned to AUTO.
- BCM filters signals from the optical sensor at intervals of 2 seconds.When the filtered brightness is higher than outside brightness (signal from the optical sensor), BCM decreases the filtered brightness by 20 lx*.When the filtered brightness is lower than outside brightness, BCM increases the filtered brightness by 20 lx*.
- BCM turns ON the exterior lamps when filtered brightness reaches 3000 lx and turnes OFF when reaching 5000 lx.

*:When vehicle speed is 5 km/h or less, BCM decreases/increases the filtered brightness by 5 lx.

## WIPER LINKED AUTO LIGHTING FUNCTION

BCM turns the exterior lamp ON when detecting 4 operations of the front wiper woth the light switch in AUTO position.

**NOTE:**
BCM turns OFF the headlamps 3 seconds after the front wiper switch is turned from HI⇒OFF.

## DELAY TIMER FUNCTION

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

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

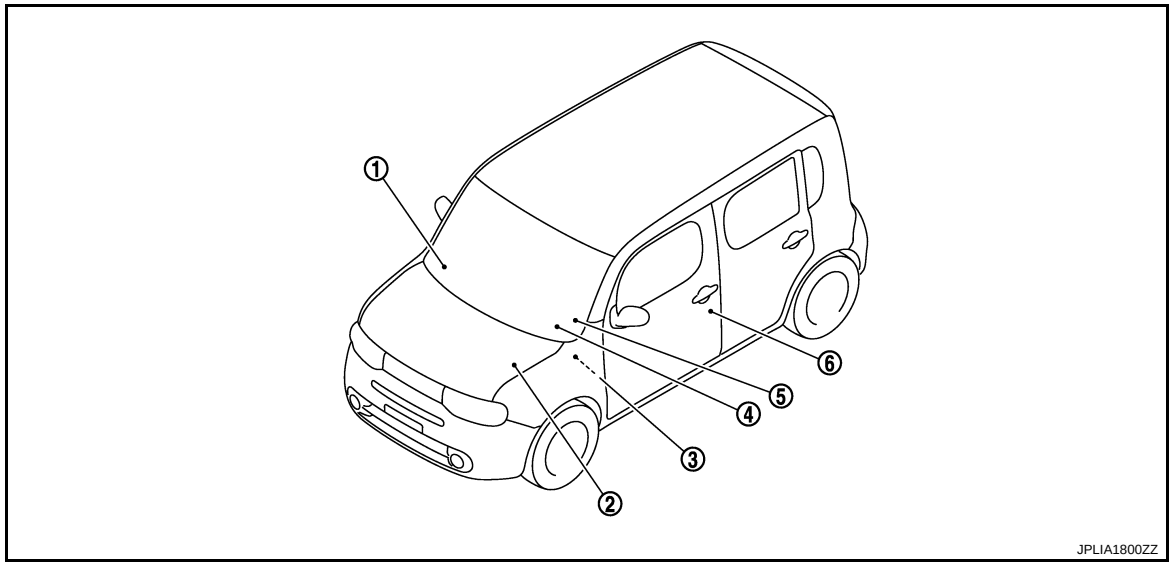
*: The preset time is 45 seconds. The timer operating time can be set by CONSULT-III. Refer to EXL-23, "HEADLAMP : CONSULT-III Function (BCM - HEAD LAMP)".

**NOTE:**

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

## Component Parts Location

INFOID:0000000005491617




1. Optical sensor
2. IPDM E/R
   Refer to PCS-6, "Component Parts Location".
3. BCM
   Refer to BCS-9, "Component Parts Location".
4. Combination meter
5. Combination switch
6. Door switch

## Component Description

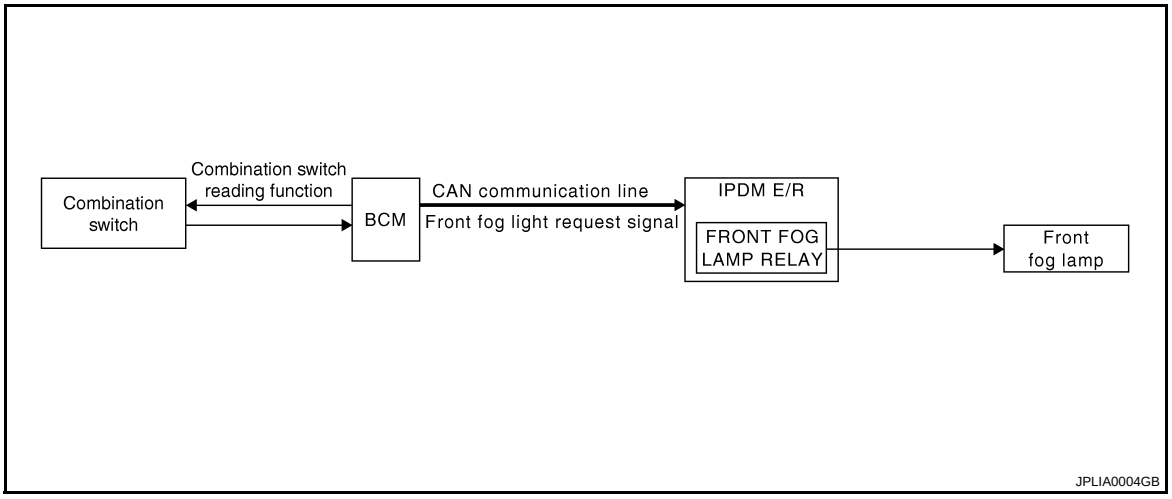
INFOID:0000000005491618

| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Judges the outside brightness from the optical sensor signal.<br>• Judges the OFF timing according to the vehicle condition.<br>• Judges the ON/OFF status of the exterior lamp and each illumination according to the outside brightness and the vehicle condition.<br>- Requests ON/OFF of each relay to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the integrated relay, and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Combination switch<br>(Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |
| Optical sensor | Refer to EXL-64, "Description". |

# FRONT FOG LAMP SYSTEM

## System Diagram

INFOID:0000000005491619




## System Description

INFOID:0000000005491620

### OUTLINE

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

### FRONT FOG LAMP OPERATION

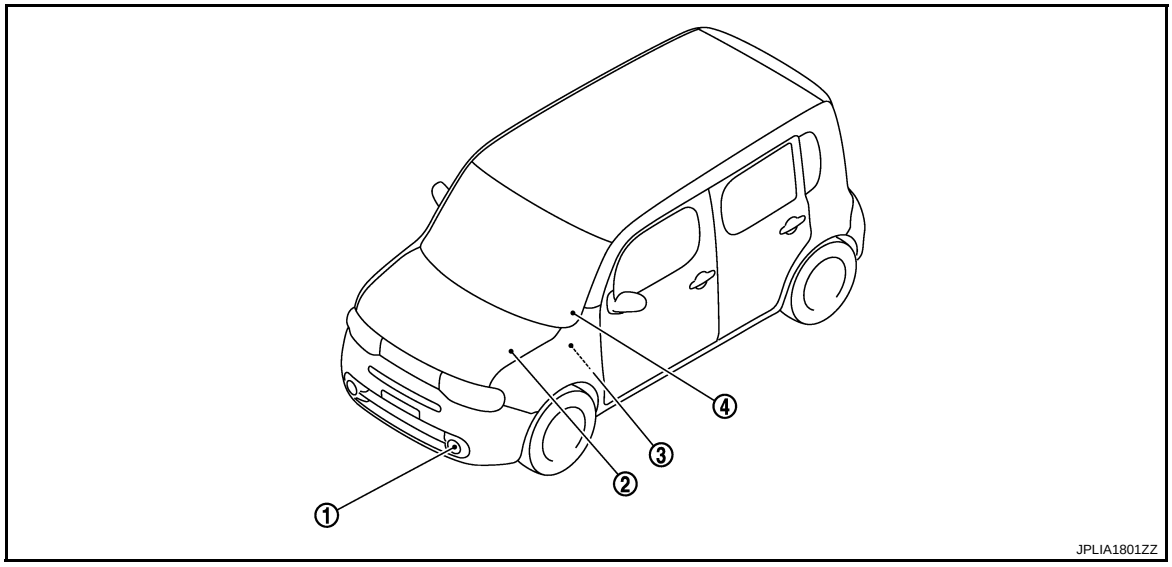
- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog lights request signal to IPDM E/R with CAN communication according to the front fog lamp ON condition.

Front fog lamp ON condition

- Front fog lamp switch ON with headlamp ON (except for the high beam ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog lights request signal.

## Component Parts Location

INFOID:0000000005491621



1. Front fog lamp
2. IPDM E/R
   Refer to PCS-6, "Component Parts Location".
3. BCM
   Refer to BCS-9, "Component Parts Location".
4. Combination switch

## Component Description

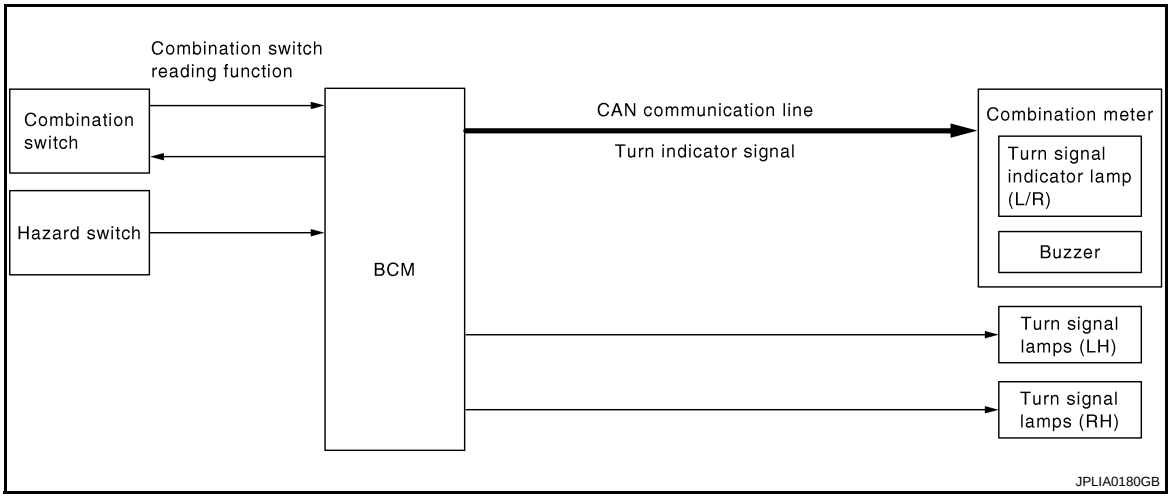
INFOID:0000000005491622

| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Judges the front fog lamp ON/OFF status according to the vehicle condition.<br>- Requests the front fog lamp relay ON to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Combination switch<br>(Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

## System Diagram

INFOID:0000000005491623




## System Description

INFOID:0000000005491624

### OUTLINE

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

### TURN SIGNAL LAMP OPERATION

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

### HAZARD WARNING LAMP OPERATION

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

### TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

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

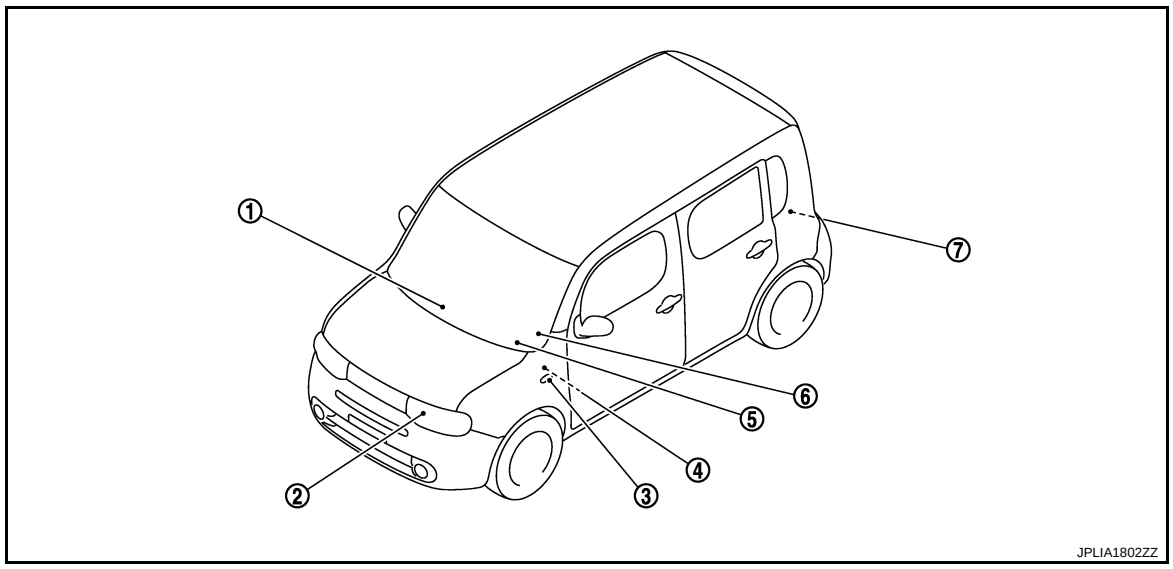
### HIGH FLASHER OPERATION

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

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

## Component Parts Location

INFOID:0000000005491625




1. Hazard switch
2. Front turn signal lamp
3. Side turn signal lamp
4. BCM
   Refer to BCS-9, "Component Parts Location".
5. Combination meter
   (Turn signal indicator lamp)
6. Combination switch
7. Rear turn signal lamp

## Component Description

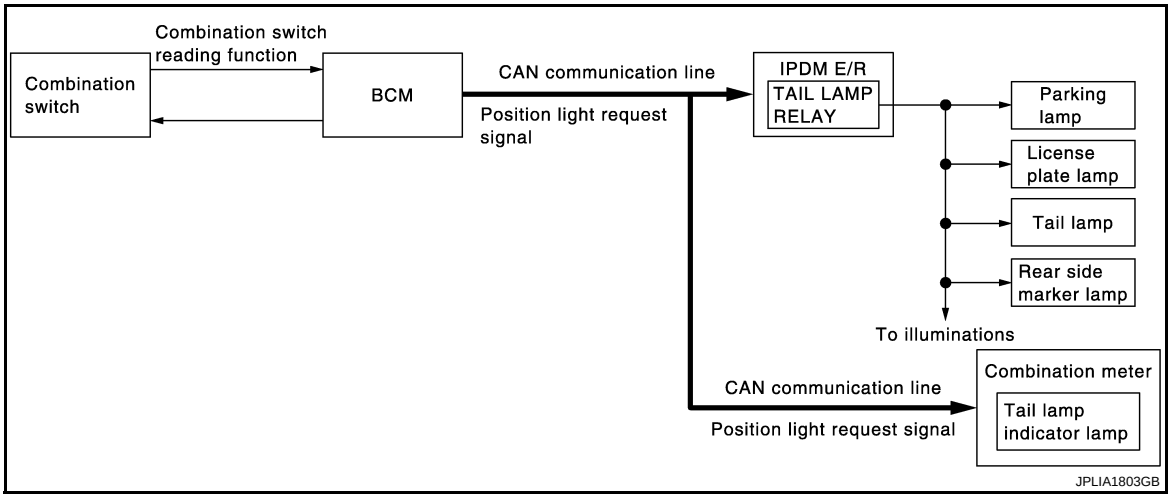
INFOID:0000000005491626

| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks.<br>• Requests the turn signal indicator lamp blink to the combination meter (with CAN communication). |
| Combination switch<br>(Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |
| Hazard switch | Inputs the hazard switch ON/OFF signal to BCM. |
| Combination meter<br>(Turn signal indicator lamp & buzzer) | Blinks the turn signal indicator lamp and outputs the turn signal operating sound with integrated buzzer according to the request from BCM (with CAN communication). |

# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM

## System Diagram

INFOID:0000000005491627




## System Description

INFOID:0000000005491628

### OUTLINE

Parking*, license plate, tail and rear side marker lamps are controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.
*: Illuminated as front side marker lamps too.

### PARKING, LICENSE PLATE, TAIL AND REAR SIDE MARKER LAMPS OPERATION

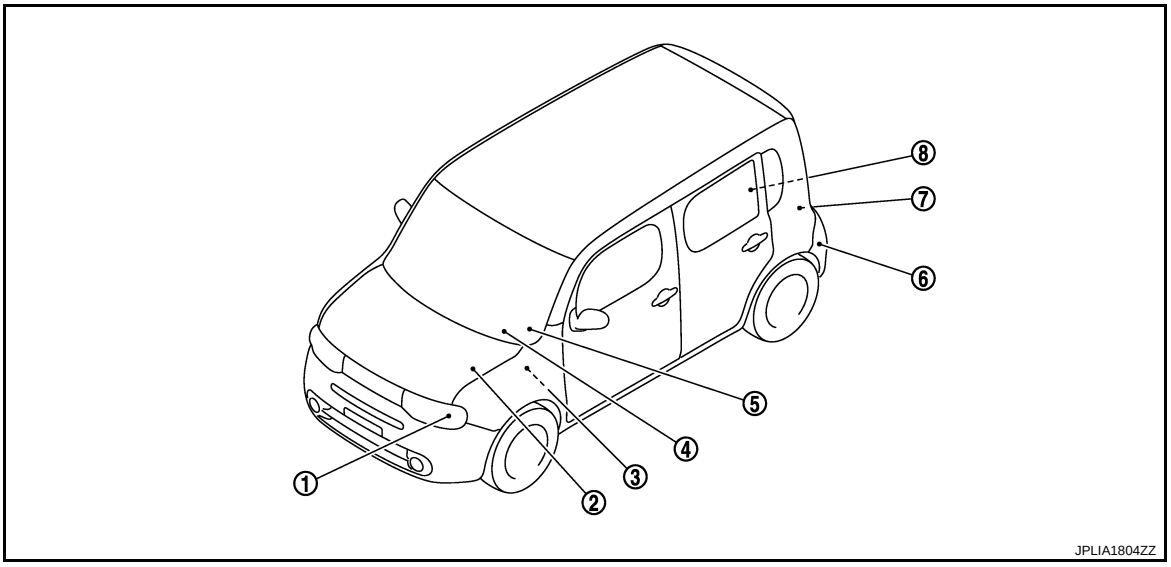
- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the position light request signal to IPDM E/R and the combination meter with CAN communication according to the ON/OFF condition of the parking, license plate, tail and rear side marker lamps.

Parking, license plate, tail and rear side marker lamps ON condition
- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (with auto light system)

- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate, tail and rear side marker lamps ON according to the position light request signal.
- Combination meter turns the tail lamp indicator lamp ON according to the position light request signal.

## Component Parts Location

INFOID:0000000005491629




1. Parking lamp (Front side marker lamp)
2. IPDM E/R Refer to PCS-6, "Component Parts Location".
3. BCM Refer to BCS-9, "Component Parts Location".
4. Combination meter (Tail lamp indicator lamp)
5. Combination switch
6. Rear side marker lamp
7. Tail lamp
8. License plate lamp

## Component Description

INFOID:0000000005491630

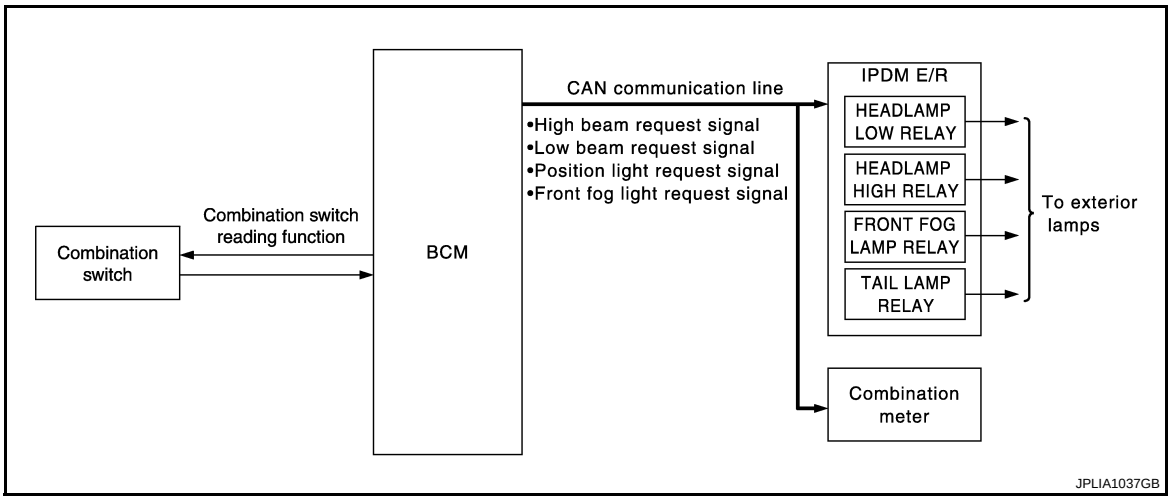
| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Judges the ON/OFF status of the parking, license plate, tail and rear side marker lamps according to the vehicle condition.<br>- Requests the tail lamp relay ON to IPDM E/R (with CAN communication).<br>- Requests the tail lamp indicator lamp ON to the combination meter (with CAN communication). |
| IPDM E/R | Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication). |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |
| Combination meter (Tail lamp indicator lamp) | Turns the tail lamp indicator lamp ON according to the request from BCM (with CAN communication). |

# EXTERIOR LAMP BATTERY SAVER SYSTEM

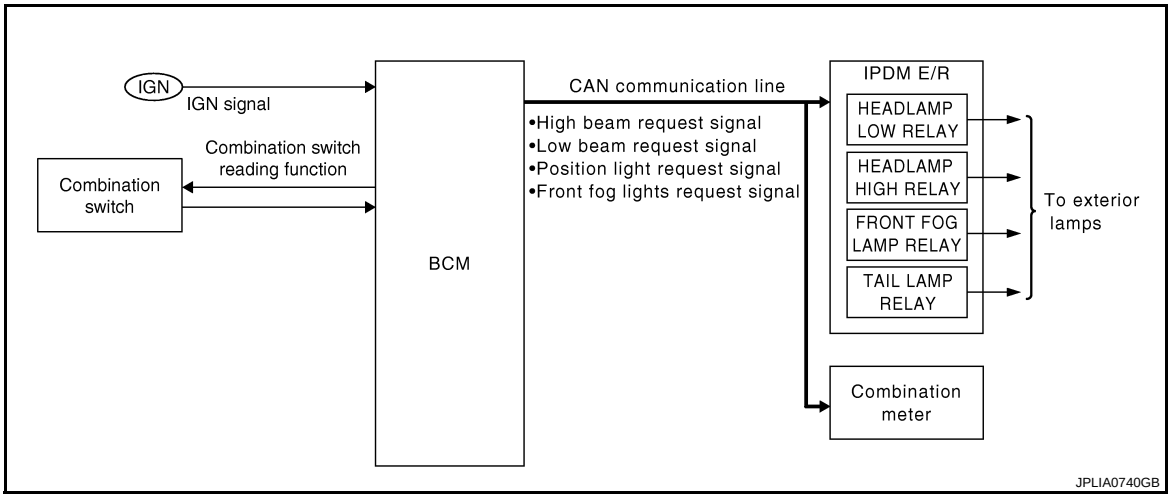
## System Diagram

INFOID:0000000005491631

WITH INTELLIGENT KEY




WITHOUT INTELLIGENT KEY




## System Description

INFOID:0000000005491632

### OUTLINE

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

Control by BCM

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

Control by IPDM E/R

- Relay control function
- BCM turns the exterior lamp* OFF after a period of time to prevent the battery from over-discharge when the ignition switch is turned OFF with the exterior lamp ON.

*: Headlamp (LO/HI), parking(front side marker) lamp, tail lamp, license plate lamp, rear side marker lamp and front fog lamp

### EXTERIOR LAMP BATTERY SAVER ACTIVATION

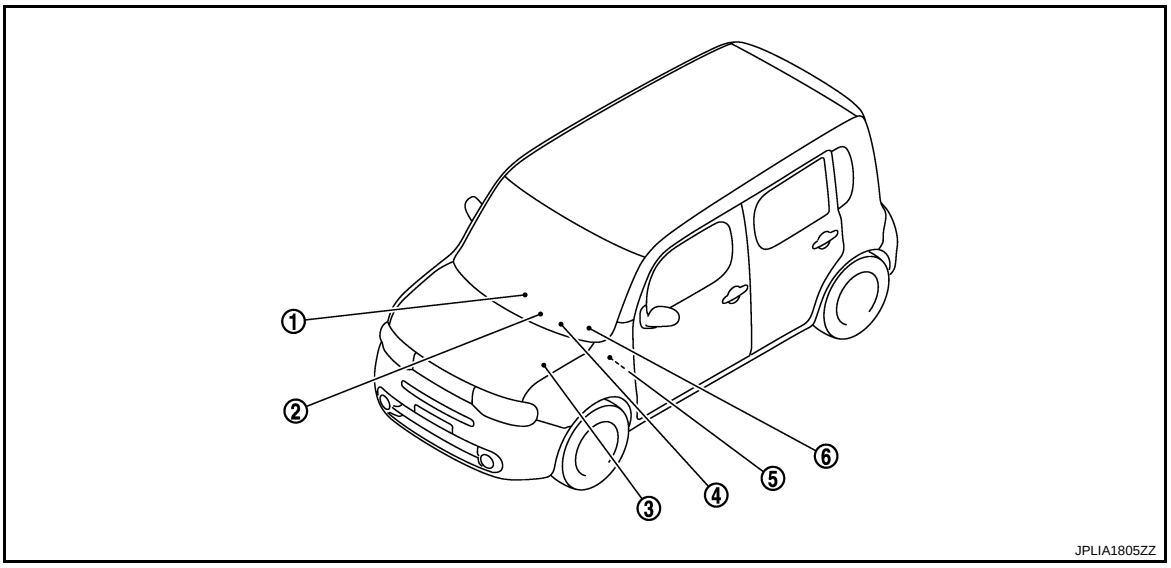
BCM activates the timer and turns the exterior lamp OFF 5 minutes after the ignition switch is turned from ON → OFF with the exterior lamps ON.

**NOTE:**

- Headlamp control function turns the exterior lamps ON normally when the ignition switch is turned ACC or the engine started (both before and after the exterior lamp battery saver is turned OFF).
- The timer starts at the time that the lighting switch is turned from OFF → 1ST or 2ND with the exterior lamp OFF.

## Component Parts Location

INFOID:0000000005491633




1. Push switch (With Intelligent Key)
2. Key switch (Without Intelligent Key)
3. IPDM E/R Refer to PCS-6, "Component Parts Location".
4. Combination meter
5. BCM Refer to BCS-9, "Component Parts Location".
6. Combination switch

## Component Description

INFOID:0000000005491634

| Part | Description |
|---|---|
| BCM | • Detects each switch condition by the combination switch reading function.<br>• Activates the battery saver to turn the exterior lamps OFF according to the vehicle condition.<br>- Requests each relay OFF to IPDM E/R (with CAN communication). |
| IPDM E/R | Controls the integrated relay according to the request from BCM (with CAN communication). |
| Combination switch (Lighting & turn signal switch) | Refer to BCS-10, "System Diagram". |

# DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)
# COMMON ITEM

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

INFOID:0000000005491635

### APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

| Diagnosis mode | Function Description |
|---|---|
| Work Support | Changes the setting for each system function. |
| Self Diagnostic Result | Displays the diagnosis results judged by BCM. |
| CAN Diag Support Monitor | Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual. |
| Data Monitor | The BCM input/output signals are displayed. |
| Active Test | The signals used to activate each device are forcibly supplied from BCM. |
| Ecu Identification | The BCM part number is displayed. |
| Configuration | • Read and save the vehicle specification.<br>• Write the vehicle specification when replacing BCM. |

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

**NOTE:**

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

×: Applicable item

| System | Sub system selection item | Diagnosis mode | | |
|---|---|---|---|---|
| | | Work Support | Data Monitor | Active Test |
| Door lock | DOOR LOCK | × | × | × |
| Rear window defogger | REAR DEFOGGER | | × | × |
| Warning chime | BUZZER | | × | × |
| Interior room lamp timer | INT LAMP | × | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | × | × | × |
| Automatic air conditioner | AIR CONDITONER | | × | × |
| • Intelligent Key system<br>• Engine start system | INTELLIGENT KEY | × | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| NVIS - NATS | IMMU | × | × | × |
| Interior room lamp battery saver | BATTERY SAVER | × | × | × |
| Back door | TRUNK | | × | |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | |
| Signal buffer system | SIGNAL BUFFER | | × | × |
| TPMS | TPMS (AIR PRESSURE MONITOR) | × | × | × |

### FREEZE FRAME DATA (FFD)

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

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

# HEADLAMP

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

INFOID:0000000005491636

### WORK SUPPORT

For USA

| Service item | Setting item | Setting | |
|---|---|---|---|
| AUTO LIGHT LOGIC SET | MODE 1* | With twilight ON custom & with wiper INT, LO and HI | |
| | MODE 2 | With twilight ON custom & with wiper LO and HI | |
| | MODE 3 | With twilight ON custom & without | |
| | MODE 4 | Without twilight ON custom & with wiper INT, LO and HI | |
| | MODE 5 | Without twilight ON custom & with wiper LO and HI | |
| | MODE 6 | Without twilight ON custom & without | |
| CUSTOM A/LIGHT SETTING | MODE 1* | Normal | |
| | MODE 2 | More sensitive setting than normal setting (Turns ON earlier than normal operation.) | |
| | MODE 3 | More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.) | |
| | MODE 4 | Without twilight ON custom & less sensitive setting than normal setting (Turns ON later than normal operation.) | |
| BATTERY SAVER SET | On* | With the exterior lamp battery saver function | |
| | Off | Without the exterior lamp battery saver function | |
| ILL DELAY SET | MODE 1* | 45 sec. | Sets delay timer function timer operation time. (All doors closed) |
| | MODE 2 | Without the function | |
| | MODE 3 | 30 sec. | |
| | MODE 4 | 60 sec. | |
| | MODE 5 | 90 sec. | |
| | MODE 6 | 120 sec. | |
| | MODE 7 | 150 sec. | |
| | MODE 8 | 180 sec. | |

*: Factory setting

For CANADA

| Service item | Setting item | Setting |
|---|---|---|
| AUTO LIGHT LOGIC SET | MODE 1 | **NOTE:** The item is indicated, but not operated. |
| | MODE 2 | |
| | MODE 3 | |
| | MODE 4 | |
| | MODE 5 | |
| | MODE 6 | |
| CUSTOM A/LIGHT SETTING | MODE 1* | Normal |
| | MODE 2 | More sensitive setting than normal setting (Turns ON earlier than normal operation.) |
| | MODE 3 | More sensitive setting than MODE 2 (Turns ON earlier than MODE 2.) |
| | MODE 4 | Less sensitive setting than normal setting (Turns ON later than normal operation.) |
| BATTERY SAVER SET | On* | With the exterior lamp battery saver function |
| | Off | Without the exterior lamp battery saver function |

| Service item | Setting item | Setting | |
|---|---|---|---|
| ILL DELAY SET | MODE 1* | 45 sec. | Sets delay timer function timer operation time. (All doors closed) |
| | MODE 2 | Without the function | |
| | MODE 3 | 30 sec. | |
| | MODE 4 | 60 sec. | |
| | MODE 5 | 90 sec. | |
| | MODE 6 | 120 sec. | |
| | MODE 7 | 150 sec. | |
| | MODE 8 | 180 sec. | |

*: Factory setting

## DATA MONITOR

| Monitor item [Unit] | Description |
|---|---|
| PUSH SW [On/Off] | The switch status input from push-button ignition switch |
| ENGINE STATE [Stop/Stall/Crank/Run] | The engine status received from ECM with CAN communication |
| VEH SPEED 1 [km/h] | The value of the vehicle speed received from combination meter with CAN communication |
| HI BEAM SW [On/Off] | Each switch status that BCM judges from the combination switch reading function |
| HEAD LAMP SW1 [On/Off] | |
| HEAD LAMP SW2 [On/Off] | |
| LIGHT SW 1ST [On/Off] | |
| PASSING SW [On/Off] | |
| FR FOG SW [On/Off] | |
| AUTO LIGHT SW [On/Off] | |
| DOOR SW-DR [On/Off] | The switch status input from front door switch (driver side) |
| DOOR SW-AS [On/Off] | The switch status input from front door switch (passenger side) |
| DOOR SW-RR [On/Off] | The switch status input from rear door switch RH |
| DOOR SW- RL [On/Off] | The switch status input from rear door switch LH |
| BACK DOOR SW [On/Off] | The switch status input from back door switch |
| TURN SIGNAL R [On/Off] | Each switch status that BCM judges from the combination switch reading function |
| TURN SIGNAL L [On/Off] | |
| TAIL LAMP SW [On/Off] | |

| Monitor item [Unit] | Description |
|---|---|
| OPTICAL SENSOR [On/Off] | The sensor status input from optical sensor |
| OPTI SEN (DTCT) [V] | The value of outside brightness voltage input from the optical sensor |
| OPTI SEN (FILT) [V] | The value of outside brightness voltage filtered by BCM |

## ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| TAIL LAMP | On | Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON. |
| | Off | Stops the tail lamp request signal transmission. |
| HEAD LAMP | Hi | Transmits the high beam request signal with CAN communication to turn the headlamp (HI). |
| | Lo | Transmits the low beam request signal with CAN communication to turn the headlamp (LO). |
| | Off | Stops the high & low beam request signal transmission. |
| FR FOG LAMP | On | Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON. |
| | Off | Stops the front fog lights request signal transmission. |
| ILL DIM SIGNAL | On | **NOTE:** The item is indicated, but cannot be tested. |
| | Off | |

# FLASHER

# FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:0000000005491637

## WORK SUPPORT

| Service item | Setting item | Setting | |
|---|---|---|---|
| HAZARD ANSWER BACK | Lock Only | With locking only | Sets the hazard warning lamp answer back function when the door is lock/unlock with the request switch or the key fob. |
| | Unlk Only | With unlocking only | |
| | Lock/Unlk* | With locking/unlocking | |
| | Off | Without the function | |

*: Factory setting

## DATA MONITOR

| Monitor item [Unit] | Description |
|---|---|
| REQ SW-DR [On/Off] | The switch status input from the request switch (driver side) |
| REQ SW-AS [On/Off] | The switch status input from the request switch (passenger side) |
| PUSH SW [On/Off] | The switch status input from the push-button ignition switch |
| TURN SIGNAL R [On/Off] | Each switch status that BCM detects from the combination switch reading function |
| TURN SIGNAL L [On/Off] | |

| Monitor item [Unit] | Description |
|---|---|
| HAZARD SW [On/Off] | The switch status input from the hazard switch |
| RKE-LOCK [On/Off] | Lock signal status received from the remote keyless entry receiver |
| RKE-UNLOCK [On/Off] | Unlock signal status received from the remote keyless entry receiver |
| RKE-PANIC [On/Off] | Panic alarm signal status received from the remote keyless entry receiver |

## ACTIVE TEST

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

# DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)
# COMMON ITEM

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

INFOID:0000000005491638

### APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

| Diagnosis mode | Function Description |
|---|---|
| Work Support | Changes the setting for each system function. |
| Self Diagnostic Result | Displays the diagnosis results judged by BCM. |
| CAN Diag Support Monitor | Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual. |
| Data Monitor | The BCM input/output signals are displayed. |
| Active Test | The signals used to activate each device are forcibly supplied from BCM. |
| Ecu Identification | The BCM part number is displayed. |
| Configuration | • Read and save the vehicle specification.<br>• Write the vehicle specification when replacing BCM. |

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

**NOTE:**

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

×: Applicable item

| System | Sub system selection item | Diagnosis mode | | |
|---|---|---|---|---|
| | | Work Support | Data Monitor | Active Test |
| Door lock | DOOR LOCK | × | × | × |
| Rear window defogger | REAR DEFOGGER | | × | × |
| Warning chime | BUZZER | | × | × |
| Interior room lamp control | INT LAMP | × | × | × |
| Remote keyless entry system | MULTI REMOTE ENT | × | × | × |
| Exterior lamp | HEAD LAMP | × | × | × |
| Wiper and washer | WIPER | × | × | × |
| Turn signal and hazard warning lamps | FLASHER | | × | × |
| • Automatic air conditioner<br>• Manual air conditioner | AIR CONDITONER | | × | × |
| Combination switch | COMB SW | | × | |
| Body control system | BCM | × | | |
| NVIS - NATS | IMMU | × | × | × |
| Interior room lamp battery saver | BATTERY SAVER | × | × | × |
| Back door | TRUNK | | × | |
| Vehicle security system | THEFT ALM | × | × | × |
| RAP system | RETAINED PWR | | × | × |
| Signal buffer system | SIGNAL BUFFER | | × | × |
| TPMS | TPMS (AIR PRESSURE MONITOR) | × | × | × |
| Panic alarm system | PANIC ALARM | | | × |

# HEADLAMP

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

INFOID:0000000005491639

### WORK SUPPORT

For USA

| Service item | Setting item | Setting | |
|---|---|---|---|
| AUTO LIGHT LOGIC SET | MODE 1* | With twilight ON custom & with wiper INT, LO and HI | |
| | MODE 2 | With twilight ON custom & with wiper LO and HI | |
| | MODE 3 | With twilight ON custom & without | |
| | MODE 4 | Without twilight ON custom & with wiper INT, LO and HI | |
| | MODE 5 | Without twilight ON custom & with wiper LO and HI | |
| | MODE 6 | Without twilight ON custom & without | |
| BATTERY SAVER SET | On* | With the exterior lamp battery saver function | |
| | Off | Without the exterior lamp battery saver function | |
| ILL DELAY SET | MODE 1* | 45 sec. | Sets delay timer function timer operation time. (All doors closed) |
| | MODE 2 | Without the function | |
| | MODE 3 | 30 sec. | |
| | MODE 4 | 60 sec. | |
| | MODE 5 | 90 sec. | |
| | MODE 6 | 120 sec. | |
| | MODE 7 | 150 sec. | |
| | MODE 8 | 180 sec. | |

*: Factory setting

For CANADA

| Service item | Setting item | Setting | |
|---|---|---|---|
| AUTO LIGHT LOGIC SET | MODE 1 | **NOTE:** The item is indicated, but not operated. | |
| | MODE 2 | | |
| | MODE 3 | | |
| | MODE 4 | | |
| | MODE 5 | | |
| | MODE 6 | | |
| BATTERY SAVER SET | On* | With the exterior lamp battery saver function | |
| | Off | Without the exterior lamp battery saver function | |
| ILL DELAY SET | MODE 1* | 45 sec. | Sets delay timer function timer operation time. (All doors closed) |
| | MODE 2 | Without the function | |
| | MODE 3 | 30 sec. | |
| | MODE 4 | 60 sec. | |
| | MODE 5 | 90 sec. | |
| | MODE 6 | 120 sec. | |
| | MODE 7 | 150 sec. | |
| | MODE 8 | 180 sec. | |

*: Factory setting

### DATA MONITOR

| Monitor item [Unit] | Description |
|---|---|
| IGN ON SW [On/Off] | Ignition switch (ON) status judged from IGN signal (ignition power supply) |
| ACC SW [On/Off] | Ignition switch (ACC) status judged from ACC signal (ACC power supply) |
| VEH SPEED [km/h] | The value of the vehicle speed received from combination meter with CAN communication |
| HI BEAM SW [On/Off] | Each switch status that BCM judges from the combination switch reading function |
| HEAD LAMP SW1 [On/Off] | |
| HEAD LAMP SW2 [On/Off] | |
| PASSING SW [On/Off] | |
| FR FOG SW [On/Off] | |
| AUTO LIGHT SW [On/Off] | |
| RR FOG SW [On/Off] | **NOTE:** The item is indicated, but not monitored |
| DOOR SW-DR [On/Off] | The switch status input from front door switch (driver side) |
| DOOR SW-AS [On/Off] | The switch status input from front door switch (passenger side) |
| DOOR SW-RR [On/Off] | The switch status input from rear door switch RH |
| DOOR SW- RL [On/Off] | The switch status input from rear door switch LH |
| BACK DOOR SW [On/Off] | The switch status input from back door switch |
| TURN SIGNAL R [On/Off] | Each switch status that BCM judges from the combination switch reading function |
| TURN SIGNAL L [On/Off] | |
| TAIL LAMP SW [On/Off] | |
| KEY ON SW [On/Off] | The switch status input from key on switch |
| KEYLESS LOCK [On/Off] | Lock signal status received from remote keyless entry receiver (integrated in the BCM) |
| PKB SW [On/Off] | The parking brake switch status received from combination meter with CAN communication |
| ENGINE RUN [On/Off] | The engine status received from ECM with CAN communication |
| LIG SEN COND [On/Off] | The sensor condition received from light sensor |
| OPTI SEN (DTCT) [V] | The value of outside brightness voltage input from the optical sensor |
| OPTI SEN (FILT) [V] | The value of outside brightness voltage filtered by BCM |

ACTIVE TEST

| Test item | Operation | Description |
|---|---|---|
| TAIL LAMP | On | Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON. |
| | Off | Stops the tail lamp request signal transmission. |
| HEAD LAMP | Hi | Transmits the high beam request signal with CAN communication to turn the headlamp (HI). |
| | Lo | Transmits the low beam request signal with CAN communication to turn the headlamp (LO). |
| | Off | Stops the high & low beam request signal transmission. |
| FR FOG LAMP | On | Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON. |
| | Off | Stops the front fog lights request signal transmission. |
| ILL DIM SIGNAL | On | **NOTE:**<br>The item is indicated, but cannot be tested. |
| | Off | |

# FLASHER

## FLASHER : CONSULT-III Function (BCM - FLASHER)

INFOID:0000000005491640

### DATA MONITOR

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

### ACTIVE TEST

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

# DIAGNOSIS SYSTEM (IPDM E/R) (WITH INTELLIGENT KEY SYSTEM)

## Diagnosis Description

INFOID:0000000005491641

### AUTO ACTIVE TEST

Description

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

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

Operation Procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
   **NOTE:**
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.
   **CAUTION:**
   **Close passenger door.**
4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
5. The oil pressure warning lamp starts blinking when the auto active test starts.
6. After a series of the following operations is repeated 3 times, auto active test is completed.

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

**CAUTION:**

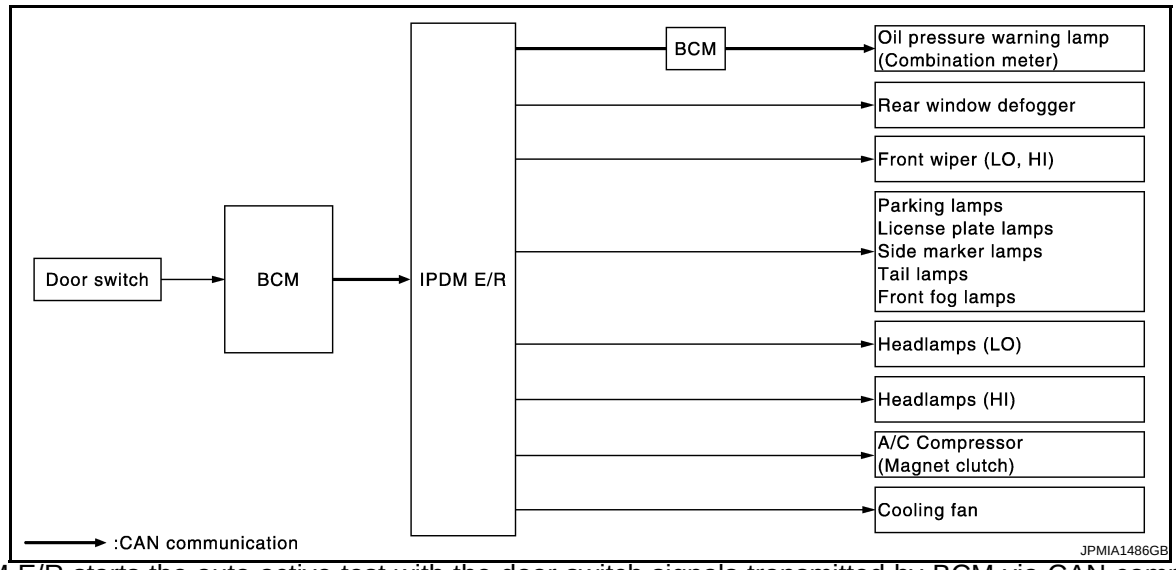
- **If auto active test mode cannot be actuated, check door switch system. Refer to DLK-55, "Component Function Check".**
- **Do not start the engine.**

Inspection in Auto Active Test Mode

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

| Operation sequence | Inspection location | Operation |
|---|---|---|
| A | Oil pressure warning lamp | Blinks continuously during operation of auto active test |
| 1 | Rear window defogger | 10 seconds |
| 2 | Front wiper | LO for 5 seconds → HI for 5 seconds |
| 3 | • Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Tail lamps<br>• Front fog lamps | 10 seconds |
| 4 | Headlamps | LO for 10 seconds →HI ON ⇔ OFF 5 times |
| 5 | A/C compressor (magnet clutch) | ON ⇔ OFF 5 times |
| 6 | Cooling fan | LO for 5 seconds → HI for 5 seconds |

Concept of auto active test




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

Diagnosis chart in auto active test mode

| Symptom | Inspection contents | | Possible cause |
|---|---|---|---|
| Rear window defogger does not operate | Perform auto active test. Does the rear window defogger operate? | YES | BCM signal input circuit |
| | | NO | • Rear window defogger<br>• Rear window defogger ground circuit<br>• Harness or connector between IPDM E/R and rear window defogger<br>• IPDM E/R |
| Any of the following components do not operate<br>• Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Tail lamps<br>• Front fog lamps<br>• Headlamps (HI, LO)<br>• Front wiper (HI, LO) | Perform auto active test. Does the applicable system operate? | YES | BCM signal input circuit |
| | | NO | • Lamp or motor<br>• Lamp or motor ground circuit<br>• Harness or connector between IPDM E/R and applicable system<br>• IPDM E/R |
| A/C compressor does not operate | Perform auto active test. Does the magnet clutch operate? | YES | • A/C amp. signal input circuit<br>• CAN communication signal between A/C amp. and ECM<br>• CAN communication signal between ECM and IPDM E/R |
| | | NO | • Magnet clutch<br>• Harness or connector between IPDM E/R and magnet clutch<br>• IPDM E/R |

| Symptom | Inspection contents | | Possible cause |
|---|---|---|---|
| Oil pressure warning lamp does not operate | Perform auto active test.<br>Does the oil pressure warning lamp blink? | YES | • Harness or connector between IPDM E/R and oil pressure switch<br>• Oil pressure switch<br>• IPDM E/R |
| | | NO | • CAN communication signal between IPDM E/R and BCM<br>• CAN communication signal between BCM and combination meter<br>• Combination meter |
| Cooling fan does not operate | Perform auto active test.<br>Does the cooling fan operate? | YES | • ECM signal input circuit<br>• CAN communication signal between ECM and IPDM E/R |
| | | NO | • Cooling fan motor<br>• Harness or connector between IPDM E/R and cooling fan motor<br>• IPDM E/R |

## CONSULT-III Function (IPDM E/R)

INFOID:0000000005491642

### APPLICATION ITEM

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

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

### SELF DIAGNOSTIC RESULT

Refer to PCS-32, "DTC Index".

### DATA MONITOR

Monitor item

| Monitor Item [Unit] | MAIN SIGNALS | Description |
|---|---|---|
| MOTOR FAN REQ [1/2/3/4] | × | Displays the value of the cooling fan speed request signal received from ECM via CAN communication. |
| AC COMP REQ [Off/On] | × | Displays the status of the A/C compressor request signal received from ECM via CAN communication. |
| TAIL&CLR REQ [Off/On] | × | Displays the status of the position light request signal received from BCM via CAN communication. |
| HL LO REQ [Off/On] | × | Displays the status of the low beam request signal received from BCM via CAN communication. |
| HL HI REQ [Off/On] | × | Displays the status of the high beam request signal received from BCM via CAN communication. |
| FR FOG REQ [Off/On] | × | Displays the status of the front fog light request signal received from BCM via CAN communication. |
| FR WIP REQ [Stop/1LOW/Low/Hi] | × | Displays the status of the front wiper request signal received from BCM via CAN communication. |

| Monitor Item [Unit] | MAIN SIGNALS | Description |
|---|---|---|
| WIP AUTO STOP [STOP P/ACT P] | × | Displays the status of the front wiper auto stop signal judged by IPDM E/R. |
| WIP PROT [Off/BLOCK] | × | Displays the status of the front wiper fail-safe operation judged by IPDM E/R. |
| IGN RLY1 -REQ [Off/On] | | Displays the status of the ignition switch ON signal received from BCM via CAN communication. |
| IGN RLY [Off/On] | × | Displays the status of the ignition relay judged by IPDM E/R. |
| PUSH SW [Off/On] | | Displays the status of the push-button ignition switch judged by IPDM E/R. |
| INTER/NP SW [Off/On] | | Displays the status of the clutch interlock switch (M/T models) or shift position (CVT models) judged by IPDM E/R. |
| ST RLY CONT [Off/On] | | Displays the status of the starter relay status signal received from BCM via CAN communication. |
| IHBT RLY -REQ [Off/On] | | Displays the status of the starter control relay signal received from BCM via CAN communication. |
| ST/INHI RLY [Off/ ST ON/INHI ON/UNKWN] | | Displays the status of the starter relay and starter control relay judged by IPDM E/R. |
| DETENT SW [Off/On] | | Displays the status of the CVT shift selector (detention switch) judged by IPDM E/R. |
| S/L RLY -REQ [Off/On] | | Displays the status of the steering lock relay signal received from BCM via CAN communication. |
| S/L STATE [LOCK/UNLOCK/UNKWN] | | Displays the status of the steering lock judged by IPDM E/R. |
| DTRL REQ [Off/On] | | Displays the status of the daytime running light request signal received from BCM via CAN communication.<br>**NOTE:**<br>This item is monitored only the vehicle with daytime running light system. |
| OIL P SW [Open/Close] | | Displays the status of the oil pressure switch judged by IPDM E/R. |
| HOOD SW [Off/On] | | **NOTE:**<br>The item is indicated, but not monitored. |
| THFT HRN REQ [Off/On] | | Displays the status of the theft warning horn request signal received from BCM via CAN communication. |
| HORN CHIRP [Off/On] | | Displays the status of the horn reminder signal received from BCM via CAN communication. |

## ACTIVE TEST

### Test item

| Test item | Operation | Description |
|---|---|---|
| HORN | On | Operates horn relay for 20 ms. |
| FRONT WIPER | Off | OFF |
| | Lo | Operates the front wiper relay. |
| | Hi | Operates the front wiper relay and front wiper high relay. |
| MOTOR FAN | 1 | OFF |
| | 2 | Operates the cooling fan relay (LO operation). |
| | 3 | Operates the cooling fan relay (HI operation). |
| | 4 | |

| Test item | Operation | Description |
|---|---|---|
| EXTERNAL LAMPS | Off | OFF |
| | TAIL | Operates the tail lamp relay. |
| | Lo | Operates the headlamp low relay. |
| | Hi | Operates the headlamp low relay and ON/OFF the headlamp high relay at 1 second intervals. |
| | Fog | Operates the front fog lamp relay. |

# DIAGNOSIS SYSTEM (IPDM E/R) (WITHOUT INTELLIGENT KEY SYSTEM)

## Diagnosis Description

INFOID:0000000005491643

### AUTO ACTIVE TEST

Description

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

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

Operation Procedure

1. Close the hood and lift the wiper arms from the windshield. (Prevent windshield damage due to wiper operation)
   **NOTE:**
   When auto active test is performed with hood opened, sprinkle water on windshield beforehand.
2. Turn the ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 10 times. Then turn the ignition switch OFF.
   **CAUTION:**
   **Close passenger door.**
4. Turn the ignition switch ON within 10 seconds. After that the horn sounds once and the auto active test starts.
5. The oil pressure warning lamp starts blinking when the auto active test starts.
6. After a series of the following operations is repeated 3 times, auto active test is completed.

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

**CAUTION:**

- **If auto active test mode cannot be actuated, check door switch system. Refer to DLK-55, "Component Function Check".**
- **Do not start the engine.**

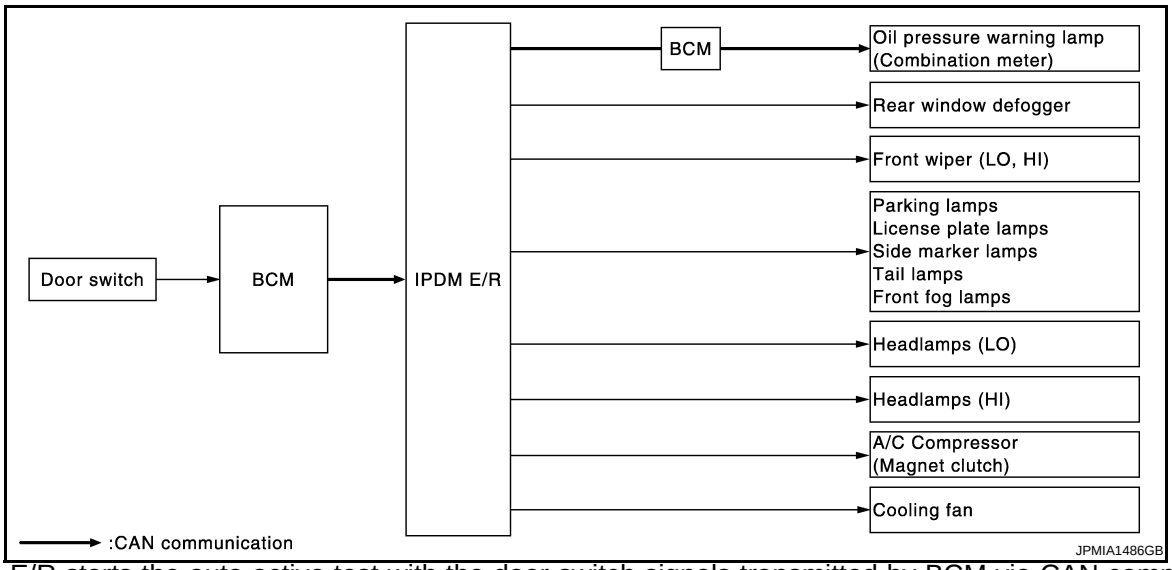
Inspection in Auto Active Test Mode

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

| Operation sequence | Inspection location | Operation |
|---|---|---|
| A | Oil pressure warning lamp | Blinks continuously during operation of auto active test |
| 1 | Rear window defogger | 10 seconds |
| 2 | Front wiper | LO for 5 seconds → HI for 5 seconds |
| 3 | • Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Tail lamps<br>• Front fog lamps | 10 seconds |
| 4 | Headlamps | LO for 10 seconds →HI ON ⇔ OFF 5 times |

| Operation sequence | Inspection location | Operation |
|---|---|---|
| 5 | A/C compressor (magnet clutch) | ON ⇔ OFF 5 times |
| 6 | Cooling fan | LO for 5 seconds → HI for 5 seconds |

Concept of auto active test




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

Diagnosis chart in auto active test mode

| Symptom | Inspection contents | | Possible cause |
|---|---|---|---|
| Rear window defogger does not operate | Perform auto active test. Does the rear window defogger operate? | YES | BCM signal input circuit |
| | | NO | • Rear window defogger<br>• Rear window defogger ground circuit<br>• Harness or connector between IPDM E/R and rear window defogger<br>• IPDM E/R |
| Any of the following components do not operate<br>• Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Tail lamps<br>• Front fog lamps<br>• Headlamps (HI, LO)<br>• Front wiper (HI, LO) | Perform auto active test. Does the applicable system operate? | YES | BCM signal input circuit |
| | | NO | • Lamp or motor<br>• Lamp or motor ground circuit<br>• Harness or connector between IPDM E/R and applicable system<br>• IPDM E/R |
| A/C compressor does not operate | Perform auto active test. Does the magnet clutch operate? | YES | • A/C amp. signal input circuit<br>• CAN communication signal between A/C amp. and ECM<br>• CAN communication signal between ECM and IPDM E/R |
| | | NO | • Magnet clutch<br>• Harness or connector between IPDM E/R and magnet clutch<br>• IPDM E/R |

| Symptom | Inspection contents | | Possible cause |
|---|---|---|---|
| Oil pressure warning lamp does not operate | Perform auto active test.<br>Does the oil pressure warning lamp blink? | YES | • Harness or connector between IPDM E/R and oil pressure switch<br>• Oil pressure switch<br>• IPDM E/R |
| | | NO | • CAN communication signal between IPDM E/R and BCM<br>• CAN communication signal between BCM and combination meter<br>• Combination meter |
| Cooling fan does not operate | Perform auto active test.<br>Does the cooling fan operate? | YES | • ECM signal input circuit<br>• CAN communication signal between ECM and IPDM E/R |
| | | NO | • Cooling fan motor<br>• Harness or connector between IPDM E/R and cooling fan motor<br>• IPDM E/R |

## CONSULT-III Function (IPDM E/R)

INFOID:0000000005491644

### APPLICATION ITEM

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

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

### SELF DIAGNOSTIC RESULT

Refer to PCS-62, "DTC Index".

### DATA MONITOR

Monitor item

| Monitor Item [Unit] | MAIN SIGNALS | Description |
|---|---|---|
| MOTOR FAN REQ [1/2/3/4] | × | Displays the value of the cooling fan speed request signal received from ECM via CAN communication. |
| AC COMP REQ [Off/On] | × | Displays the status of the A/C compressor request signal received from ECM via CAN communication. |
| TAIL&CLR REQ [Off/On] | × | Displays the status of the position light request signal received from BCM via CAN communication. |
| HL LO REQ [Off/On] | × | Displays the status of the low beam request signal received from BCM via CAN communication. |
| HL HI REQ [Off/On] | × | Displays the status of the high beam request signal received from BCM via CAN communication. |
| FR FOG REQ [Off/On] | × | Displays the status of the front fog light request signal received from BCM via CAN communication. |
| FR WIP REQ [Stop/1LOW/Low/Hi] | × | Displays the status of the front wiper request signal received from BCM via CAN communication. |

| Monitor Item [Unit] | MAIN SIGNALS | Description |
|---|---|---|
| WIP AUTO STOP [STOP P/ACT P] | × | Displays the status of the front wiper auto stop signal judged by IPDM E/R. |
| WIP PROT [Off/BLOCK] | × | Displays the status of the front wiper fail-safe operation judged by IPDM E/R. |
| IGN RLY [Off/On] | × | Displays the status of the ignition relay judged by IPDM E/R. |
| INTER/NP SW [Off/On] | | Displays the status of the shift position (CVT models) judged by IPDM E/R. |
| ST RLY-REQ [Off/On] | | Displays the status of the starter relay status signal received from BCM via CAN communication. |
| DTRL REQ [Off/On] | | Displays the status of the daytime running light request signal received from BCM via CAN communication.<br>**NOTE:**<br>This item is monitored only the vehicle with daytime running light system. |
| OIL P SW [Open/Close] | | Displays the status of the oil pressure switch judged by IPDM E/R. |
| HOOD SW [Off/On] | | **NOTE:**<br>The item is indicated, but not monitored. |
| THFT HRN REQ [Off/On] | | Displays the status of the theft warning horn request signal received from BCM via CAN communication. |
| HORN CHIRP [Off/On] | | Displays the status of the horn reminder signal received from BCM via CAN communication. |

## ACTIVE TEST

### Test item

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

# DTC/CIRCUIT DIAGNOSIS

## POWER SUPPLY AND GROUND CIRCUIT

### BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM)

### BCM (BODY CONTROL SYSTEM) (WITH INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:0000000005491645

#### 1.CHECK FUSE AND FUSIBLE LINK

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

| Signal name | Fuse and fusible link No. |
|---|---|
| Battery power supply | G |
| | 8 |

Is the fuse fusing?

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

#### 2.CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| BCM | | Ground | |
| Connector | Terminal | | |
| M70 | 70 | | Battery voltage |
| | 57 | | |

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

#### 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M70 | 67 | | Existed |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

### BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM)

### BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:0000000005491646

#### 1.CHECK FUSES AND FUSIBLE LINK

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

| Signal name | Fuses and fusible link No. |
|---|---|
| Battery power supply | 8 |
| | G |
| ACC power supply | 20 |
| Ignition power supply | 2 |

Is the fuse fusing?

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

## 2.CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | | Ignition switch position | | |
|---|---|---|---|---|---|
| (+) | | (–) | | | |
| BCM | | | OFF | ACC | ON |
| Connector | Terminal | | | | |
| M67 | 70 | Ground | Battery voltage | Battery voltage | Battery voltage |
| | 57 | | | | |
| M65 | 11 | | Approx. 0 V | Battery voltage | Battery voltage |
| | 38 | | Approx. 0 V | Approx. 0 V | Battery voltage |

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

## 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

| BCM | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M67 | 67 | | Existed |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

# IPDM E/R (WITH INTELLIGENT KEY SYSTEM)

## IPDM E/R (WITH INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:0000000005491647

## 1.CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible links are not blown.

| Signal name | Fuses and fusible link No. |
|---|---|
| Battery power supply | C |
| | D |
| | J |

Is the fuse fusing?

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

## 2.CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| IPDM E/R | | | |
| Connector | Terminal | Ground | |
| E9 | 1 | | Battery voltage |
| | 2 | | |
| E10 | 8 | | |

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair the harness or connector.

## 3.CHECK GROUND CIRCUIT

Check continuity between IPDM E/R harness connectors and the ground.

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E11 | 9 | | Existed |
| E12 | 19 | | |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair the harness or connector.

# IPDM E/R (WITHOUT INTELLIGENT KEY SYSTEM)

## IPDM E/R (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

INFOID:0000000005491648

## 1.CHECK FUSES AND FUSIBLE LINK

Check that the following IPDM E/R fuses or fusible links are not blown.

| Signal name | Fuses and fusible link No. |
|---|---|
| Battery power supply | C |
| | D |
| | J |

Is the fuse fusing?

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

## 2.CHECK POWER SUPPLY CIRCUIT

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| IPDM E/R | | | |
| Connector | Terminal | | |
| E9 | 1 | Ground | Battery voltage |
| | 2 | | |
| E10 | 8 | | |

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair the harness or connector.

## 3.CHECK IGNITION POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
2. Check voltage between IPDM E/R harness connector and the ground.

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| IPDM E/R | | Ground | |
| Connector | Terminal | | |
| E12 | 18 | | Battery voltage |

Is the measurement value normal?

YES >> GO TO 4.
NO >> Repair the harness or connector.

## 4.CHECK GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Check continuity between IPDM E/R harness connectors and the ground.

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E11 | 9 | | Existed |
| E12 | 19 | | |

Does continuity exist?

YES >> INSPECTION END
NO >> Repair the harness or connector.

# EXTERIOR LAMP FUSE

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:0000000005491649

Fuse list

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp HI (LH) | IPDM E/R | #52 | 10 A |
| Headlamp HI (RH) | IPDM E/R | #51 | 10 A |
| Headlamp LO (LH) | IPDM E/R | #53 | 15 A |
| Headlamp LO (RH) | IPDM E/R | #54 | 15 A |
| Front fog lamp | IPDM E/R | #50 | 15 A |
| • Parking lamp (also used as the front side marker lamp)<br>• Tail lamp<br>• Rear side marker lamp<br>• License plate lamp<br>• Each illumination | IPDM E/R | #47 | 10 A |
| Stop lamp | FUSE BLOCK (J/B) | #7 | 10 A |
| Back-up lamp | IPDM E/R | #55 | 10 A |

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:0000000005491650

#### 1.CHECK FUSE

Check that the following fuses are not fusing.

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp HI (LH) | IPDM E/R | #52 | 10 A |
| Headlamp HI (RH) | IPDM E/R | #51 | 10 A |
| Headlamp LO (LH) | IPDM E/R | #53 | 15 A |
| Headlamp LO (RH) | IPDM E/R | #54 | 15 A |
| Front fog lamp | IPDM E/R | #50 | 15 A |
| • Parking lamp (also used as the front side marker lamp)<br>• Tail lamp<br>• Rear side marker lamp<br>• License plate lamp<br>• Each illumination | IPDM E/R | #47 | 10 A |
| Stop lamp | FUSE BLOCK (J/B) | #7 | 10 A |
| Back-up lamp | IPDM E/R | #55 | 10 A |

Is the fuse fusing?

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:0000000005491651

Fuse list

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp HI (LH) | IPDM E/R | #52 | 10 A |
| Headlamp HI (RH) | IPDM E/R | #51 | 10 A |

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp LO (LH) | IPDM E/R | #53 | 15 A |
| Headlamp LO (RH) | IPDM E/R | #54 | 15 A |
| Front fog lamp | IPDM E/R | #50 | 15 A |
| • Parking lamp (also used as the front side marker lamp)<br>• Tail lamp<br>• Rear side marker lamp<br>• License plate lamp<br>• Each illumination | IPDM E/R | #47 | 10 A |
| Stop lamp | FUSE BLOCK (J/B) | #7 | 10 A |
| Back-up lamp | IPDM E/R | #55 | 10 A |

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:0000000005491652

### 1.CHECK FUSE

Check that the following fuses are not fusing.

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp HI (LH) | IPDM E/R | #52 | 10 A |
| Headlamp HI (RH) | IPDM E/R | #51 | 10 A |
| Headlamp LO (LH) | IPDM E/R | #53 | 15 A |
| Headlamp LO (RH) | IPDM E/R | #54 | 15 A |
| Front fog lamp | IPDM E/R | #50 | 15 A |
| • Parking lamp (also used as the front side marker lamp)<br>• Tail lamp<br>• Rear side marker lamp<br>• License plate lamp<br>• Each illumination | IPDM E/R | #47 | 10 A |
| Stop lamp | FUSE BLOCK (J/B) | #7 | 10 A |
| Back-up lamp | IPDM E/R | #55 | 10 A |

Is the fuse fusing?

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

# HEADLAMP (HI) CIRCUIT

## Component Function Check

INFOID:0000000005491653

### 1.CHECK HEADLAMP (HI) OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Start IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the headlamp switches to the high beam.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (HI) is turned ON.

**Hi : Headlamp (HI) ON**
**Off : Headlamp (HI) OFF**

**NOTE:**
ON/OFF is repeated 1 second each.

Is the headlamp (HI) turned ON?

YES >> Headlamp (HI) circuit is normal.
NO >> Refer to EXL-47, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491654

### 1.CHECK HEADLAMP (HI) OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Turn the ignition switch OFF.
2. Disconnect the headlamp connector.
3. Turn the ignition switch ON.
4. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|---|
| (+) | | | (–) | | |
| IPDM E/R | | | | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E15 | 49 | Ground | Hi | Battery voltage |
| | | | | Off | 0 V |
| LH | | 50 | | Hi | Battery voltage |
| | | | | Off | 0 V |

Is the measurement value normal?

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

### 2.CHECK HEADLAMP (HI) OPEN CIRCUIT

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

| IPDM E/R | | | Headlamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E15 | 49 | E45 | 1 | Existed |
| LH | | 50 | E26 | 1 | |

Does continuity exist?

YES (Without daytime running light system)>>GO TO 5.
YES (With daytime running light system)>>GO TO 6.
NO >> Repair the harnesses or connectors.

## 3.CHECK HEADLAMP (HI) FUSE

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

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp HI (RH) | IPDM E/R | #51 | 10 A |
| Headlamp HI (LH) | IPDM E/R | #52 | 10 A |

Is the fuse fusing?

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

## 4.CHECK HEADLAMP HIGH (HI) SHORT CIRCUIT

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

| IPDM E/R | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E15 | 49 | | Not existed |
| LH | | 50 | | |

Does continuity exist?

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

## 5.CHECK HEADLAMP (HI) GROUND OPEN CIRCUIT

Check continuity between the headlamp harness connector and the ground.

| Headlamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E45 | 2 | | Existed |
| LH | E26 | 2 | | |

Does continuity exist?

YES >> Replace the headlamp (HI) bulb.
NO >> Repair the harnesses or connectors.

## 6.CHECK HEADLAMP (HI) GROUND OPEN CIRCUIT (LH)

Check continuity between the headlamp LH harness connector and the ground.

| Headlamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| LH | E26 | 2 | | Existed |

Does continuity exist?

YES >> GO TO 7.
NO >> Repair the harnesses or connectors.

## 7. CHECK CONTINUITY BETWEEN HEADLAMP HIGH (RH) AND DAYTIME RUNNING LIGHT RELAY-1

1. Remove the daytime running light relay-1.
2. Check continuity between the headlamp RH harness connector and the daytime running light relay-1 harness connector.

| Headlamp | | | Daytime running light relay-1 | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | Existed |
| RH | E45 | 2 | E57 | 1 | |

Does continuity exist?

YES >> GO TO 8.
NO >> Repair the harness or connector.

## 8. CHECK THE DAYTIME RUNNING LIGHT RELAY-1 GROUND OPEN CIRCUIT

Check continuity between the daytime running light relay-1 harness connector and the ground.

| Daytime running light relay-1 | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | Existed |
| E57 | 4 | | |

Does continuity exist?

YES >> GO TO 9.
NO >> Repair the harness or connector.

## 9. CHECK THE DAYTIME RUNNING LIGHT RELAY-1

Check the daytime running light relay-1. Refer to EXL-58, "Component Inspection (Daytime Running Light Relay-1)".

Is the daytime running light relay-1 normal?

YES >> Replace the headlamp (HI) bulb.
NO >> Replace the daytime running light relay-1.

# HEADLAMP (LO) CIRCUIT

## Component Function Check

INFOID:0000000005491655

### 1.CHECK HEADLAMP (LO) OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Start IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the headlamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the test items, check that the headlamp (LO) is turned ON.

**Lo : Headlamp (LO) ON**
**Off : Headlamp (LO) OFF**

Is the headlamp (LO) turned ON?

YES >> Headlamp (LO) is normal.
NO (With daytime running light system)>>Refer to EXL-50, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure".
NO (Without daytime running light system)>>Refer to EXL-53, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure".

# WITH DAYTIME RUNNING LIGHT SYSTEM

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:0000000005491656

### 1.CHECK HEADLAMP LOW (LH) OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Turn the ignition switch OFF.
2. Disconnect the headlamp LH connector.
3. Turn the ignition switch ON.
4. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|
| (+) | | (–) | | |
| IPDM E/R | | Ground | EXTERNAL LAMPS | |
| Connector | Terminal | | | |
| E15 | 51 | | Lo | Battery voltage |
| | | | Off | 0 V |

Is the measurement value normal?

YES >> GO TO 2.
NO >> GO TO 8.

### 2.CHECK HEADLAMP LOW (RH) OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Turn the ignition switch OFF.
2. Remove the daytime running light relay-2.
3. Turn the ignition switch ON.
4. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|
| (+) | | (–) | | |
| IPDM E/R | | Ground | EXTERNAL LAMPS | |
| Connector | Terminal | | | |
| E15 | 52 | | Lo | Battery voltage |
| | | | Off | 0 V |

Is the measurement value normal?

YES >> GO TO 3.
NO >> GO TO 8.

## 3.CHECK HEADLAMP LOW (LH) OPEN CIRCUIT

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

| IPDM E/R | | Headlamp LH | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E15 | 51 | E26 | 3 | Existed |

Does continuity exist?

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

## 4.CHECK CONTINUITY BETWEEN IPDM E/R AND THE DAYTIME RUNNING LIGHT RELAY-2

1. Turn the ignition switch OFF.
2. Disconnect the IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the daytime running light relay-2 harness connector.

| IPDM E/R | | Daytime running light relay-2 | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E15 | 52 | E59 | 2 | Existed |
| | | | 5 | |

Does continuity exist?

YES >> GO TO 5.
NO >> Repair the harnesses or connectors.

## 5.CHECK THE DAYTIME RUNNING LIGHT RELAY-2 GROUND OPEN CIRCUIT

Check continuity between the daytime running light relay-2 harness connector and the ground.

| Daytime running light relay-2 | | Ground | Continuity |
|---|---|---|---|
| Connector | Termina | | |
| E59 | 1 | | Existed |

Does continuity exist?

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

## 6.CHECK CONTINUITY BETWEEN THE DAYTIME RUNNING LIGHT RELAY-2 AND HEADLAMP RH

1. Turn the ignition switch OFF.
2. Disconnect the headlamp RH connector.
3. Check continuity between the daytime running light relay-2 harness connector and the headlamp RH harness connector.

| Daytime running light relay-2 | | Headlamp RH | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E59 | 3 | E45 | 3 | Existed |

Does continuity exist?

YES >> GO TO 7.
NO >> Repair the harnesses or connectors.

## 7. CHECK THE DAYTIME RUNNING LIGHT RELAY-2

Check the daytime running light relay-2. Refer to EXL-59, "Component Inspection (Daytime Running Light Relay-2)".

Is the daytime running light relay-2 normal?

YES >> GO TO 10.
NO >> Replace the daytime running light relay-2.

## 8. CHECK HEADLAMP (LO) FUSE

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

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp LO (LH) | IPDM E/R | #53 | 10 A |
| Headlamp LO (RH) | IPDM E/R | #54 | 10 A |

Is the fuse fusing?

YES >> GO TO 9.
NO >> Replace IPDM E/R.

## 9. CHECK HEADLAMP (LO) SHORT CIRCUIT

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

| IPDM E/R | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| LH | E15 | 51 | | Not existed |
| RH | | 52 | | |

Does continuity exist?

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

## 10. CHECK HEADLAMP (LO) GROUND OPEN CIRCUIT (LH)

Check continuity between the headlamp LH harness connector and the ground.

| Headlamp RH | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | Existed |
| LH | E26 | 2 | | |

Does continuity exist?

YES >> GO TO 11.
NO >> Repair the harnesses or connectors.

## 11. CHECK CONTINUITY BETWEEN HEADLAMP LOW (RH) AND DAYTIME RUNNING LIGHT RELAY-1

1. Remove the daytime running light relay-1.
2. Check continuity between the headlamp RH harness connector and the daytime running light relay-1 harness connector.

| Headlamp RH | | | Daytime running light relay-1 | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | Existed |
| RH | E45 | 2 | E57 | 3 | |

Does continuity exist?

YES >> GO TO 12.
NO >> Repair the harness or connector.

## 12. CHECK THE DAYTIME RUNNING LIGHT RELAY-1 GROUND OPEN CIRCUIT

Check continuity between the daytime running light relay-1 harness connector and the ground.

| Daytime running light relay-1 | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | Existed |
| E57 | 4 | | |

Does continuity exist?

YES >> GO TO 13.
NO >> Repair the harness or connector.

## 13. CHECK THE DAYTIME RUNNING LIGHT RELAY-1

Check the daytime running light relay-1. Refer to EXL-58, "Component Inspection (Daytime Running Light Relay-1)".

Is the daytime running light relay-1 normal?

YES >> Replace the headlamp (LO) bulb. (Bulb socket is abnormally.)
NO >> Replace the daytime running light relay-1.

# WITHOUT DAYTIME RUNNING LIGHT SYSTEM

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:0000000005491657

## 1. CHECK HEADLAMP (LO) OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp connector.
3. Turn the ignition switch ON.
4. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
5. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|---|
| (+) | | | (–) | | |
| IPDM E/R | | | | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E15 | 52 | Ground | Lo | Battery voltage |
| | | | | Off | 0 V |
| LH | | 51 | | Lo | Battery voltage |
| | | | | Off | 0 V |

Is the measurement value normal?

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

## 2. CHECK HEADLAMP (LO) OPEN CIRCUIT

1. Turn the ignition switch OFF.

2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the headlamp harness connector.

| IPDM E/R | | | Headlamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E15 | 52 | E45 | 3 | Existed |
| LH | | 51 | E26 | 3 | |

Does continuity exist?

YES >> GO TO 5.
NO >> Repair the harnesses or connectors.

## 3.CHECK HEADLAMP (LO) FUSE

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

| Unit | Lotion | Fuse No. | Capacity |
|---|---|---|---|
| Headlamp LO (RH) | IPDM E/R | #54 | 15 A |
| Headlamp LO (LH) | IPDM E/R | #53 | 15 A |

Is the fuse fusing?

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

## 4.CHECK HEADLAMP (LO) SHORT CIRCUIT

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

| IPDM E/R | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E15 | 52 | | Not existed |
| LH | | 51 | | |

Does continuity exist?

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

## 5.CHECK HEADLAMP (LO) GROUND OPEN CIRCUIT

Check continuity between the headlamp harness connector and the ground.

| Headlamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E45 | 2 | | Existed |
| LH | E26 | 2 | | |

Does continuity exist?

YES >> Replace the headlamp (LO) bulb. (Bulb socket is abnormally.)
NO >> Repair the harnesses or connectors.

# FRONT FOG LAMP CIRCUIT

## Component Function Check

INFOID:0000000005491658

### 1.CHECK FRONT FOG LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Activate IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the front fog lamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the test items, check that the front fog lamp is turned ON.

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

Is the front fog lamp turned ON?

YES >> Front fog lamp circuit is normal.
NO >> Refer to EXL-55, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491659

### 1.CHECK FRONT FOG LAMP FUSE

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

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Front fog lamp | IPDM E/R | #50 | 15 A |

Is the fuse fusing?

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

### 2.CHECK FRONT FOG LAMP SHORT CIRCUIT

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

| IPDM E/R | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E12 | 21 | | Not existed |
| LH | | 22 | | |

Does continuity exist?

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

### 3.CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

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

### 4.CHECK FRONT FOG LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Disconnect the front fog lamp connector.
2. Turn the ignition switch ON.
3. Select “EXTERNAL LAMPS” of IPDM E/R active test item.

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

| Terminals | | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|---|
| (+) | | | (–) | | |
| IPDM E/R | | | Ground | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E12 | 21 | | Fog | Battery voltage |
| | | | | Off | 0 V |
| LH | | 22 | | Fog | Battery voltage |
| | | | | Off | 0 V |

Is the measurement value normal?

YES >> GO TO 5.
NO >> Replace IPDM E/R.

## 5.CHECK FRONT FOG LAMP OPEN CIRCUIT

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

| IPDM E/R | | | Front fog lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E12 | 21 | E48 | 1 | Existed |
| LH | | 22 | E30 | 1 | |

Does continuity exist?

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

## 6.CHECK FRONT FOG LAMP GROUND CIRCUIT OPEN CIRCUIT

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

| Front fog lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E48 | 2 | | Existed |
| LH | E30 | 2 | | |

Does continuity exist?

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

# DAYTIME RUNNING LIGHT RELAY CIRCUIT

## Component Function Check

INFOID:0000000005491660

**NOTE:**
Check the headlamp (HI) circuit if the headlamp (HI) is not turned ON. Refer to EXL-47, "Component Function Check".

**CAUTION:**
**Before performing the diagnosis, check that the headlamp (HI) bulb is normal.**

### 1.CHECK DAYTIME RUNNING LIGHT OPERATION

CONSULT-III ACTIVE TEST
1. Select “DAYTIME RUNNING LIGHT” of BCM (HEADLAMP) active test item.
2. With operating the test items, check that daytime running light operation.

**On : Daytime running light ON**
**Off : Daytime running light OFF**

Is the daytime running light turned ON/OFF?

YES >> Daytime running light relay-1 circuit is normal.
NO >> Refer to EXL-57, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491661

### 1.CHECK DAYTIME RUNNING LIGHT RELAY FUSE

Check that the following fuse is not fusing.

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Daytime running light relay-1 | Fuse and fusible link block | #32 | 10A |

Is the fuse fusing?

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

### 2.CHECK DAYTIME RUNNING LIGHT RELAY-1 POWER SUPPLY

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| Daytime running light relay-1 | | Ground | |
| Connector | Terminal | | |
| E57 | 2 | | Battery voltage |
| | 5 | | |

Is the measurement value normal?

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

### 3.CHECK DAYTIME RUNNING LIGHT RELAY-1

Check daytime running light relay-1. Refer to EXL-58, "Component Inspection (Daytime Running Light Relay-1)".

Is the daytime running light relay-1 normal?

YES >> GO TO 4.
NO >> Replace daytime running light relay-1.

### 4.CHECK DAYTIME RUNNING LIGHT RELAY-1 CONTROL SIGNAL OUTPUT

CONSULT-III ACTIVE TEST
1. Turn the ignition switch OFF.
2. Install daytime running light relay-1.
3. Turn the ignition switch ON.
4. Select “DAYTIME RUNNING LIGHT” of BCM (HEAD LAMP) active test item.
5. With operating the test item, check voltage between IPDM E/R harness connector and the ground.

| Terminals | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|
| (+) | | (–) | | |
| IPDM E/R | | Ground | DAYTIME RUNNING LIGHT | |
| Connector | Terminal | | | |
| E13 | 28 | | On | 0 V |
| | | | Off | Battery voltage |

Is the measurement value normal?

YES >> Check daytime running light relay-1 circuit. Refer to EXL-58, "Component Inspection (Daytime Running Light Relay-1)".
Fixed at 0 V >> GO TO 5.
Fixed at battery voltage >>Replace IPDM E/R.

## 5. CHECK DAYTIME RUNNING LIGHT RELAY-1 CONTROL SIGNAL OPEN CIRCUIT

1. Remove daytime running light relay-1.
2. Disconnect IPDM E/R harness connector.
3. Check continuity between IPDM E/R harness connector and daytime running light relay-1 harness connector.

| IPDM E/R | | Daytime running light relay-1 | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| E13 | 28 | E57 | 1 | Existed |

Does continuity exist?

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

## 6. CHECK DAYTIME RUNNING LIGHT RELAY- CONTROL SIGNAL SHORT CIRCUIT

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

| IPDM E/R | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| E13 | 28 | | Not existed |

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace IPDM E/R.

## Component Inspection (Daytime Running Light Relay-1)

INFOID:0000000005491662

## 1. CHECK DAYTIME RUNNING LIGHT RELAY-1

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

| Daytime running light relay-1 | | Condition | Continuity |
|---|---|---|---|
| Terminal | | Voltage | |
| 5 | 3 | Apply | Existed |
| | | Not Apply | Not existed |
| 4 | | Apply | Not existed |
| | | Not Apply | Existed |

Does continuity exist?

YES >> Daytime running light relay-1 is normal.
NO >> Replace daytime running light relay-1.

## Component Inspection (Daytime Running Light Relay-2)

INFOID:0000000005491663

### 1. CHECK DAYTIME RUNNING LIGHT RELAY-2

1. Turn the ignition switch OFF.
2. Disconnect daytime running light relay-2.
3. Apply battery voltage to daytime running light relay-2 between terminals 1 and 2.
4. Check continuity daytime running light of relay-2.

| Daytime running light relay-1 | | Condition | Continuity |
|---|---|---|---|
| Terminal | | Voltage | |
| 3 | 5 | Apply | Existed |
| | | Not Apply | Not existed |

Does continuity exist?

YES >> Daytime running light relay-2 is normal.
NO >> Replace Daytime running light relay-2.

# PARKING LAMP CIRCUIT

## Component Function Check

INFOID:0000000005491664

### 1.CHECK PARKING LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Activate IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the parking lamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

**TAIL : Parking lamp ON**
**Off : Parking lamp OFF**

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.
NO >> Refer to EXL-60, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491665

### 1.CHECK PARKING LAMP FUSE

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

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| • Parking lamp<br>• License plate lamp<br>• Side marker lamp<br>• Tail lamp | IPDM E/R | #47 | 10 A |

Is the fuse fusing?

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

### 2.CHECK PARKING LAMP SHORT CIRCUIT

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

| IPDM E/R | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E14 | 37 | | Not existed |
| LH | | 36 | | |

Does continuity exist?

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

### 3.CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

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

### 4.CHECK PARKING LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Disconnect the parking lamp connector.

2. Turn the ignition switch ON.
3. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|---|
| (+) | | | (–) | | |
| IPDM E/R | | | Ground | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E14 | 37 | | TAIL | Battery voltage |
| LH | | 36 | | OFF | 0 V |

Is the measurement value normal?

YES >> GO TO 5.
NO >> Replace IPDM E/R.

## 5.CHECK PARKING LAMP OPEN CIRCUIT

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

| IPDM E/R | | | Parking lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E14 | 37 | E43 | 1 | Existed |
| LH | | 36 | E24 | 1 | |

Does continuity exist?

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

## 6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

Check continuity between the parking lamp harness connector and the ground.

| Parking lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E43 | 2 | | Existed |
| LH | E24 | 2 | | |

Does continuity exist?

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

# TURN SIGNAL LAMP CIRCUIT

## Description

INFOID:0000000005491666

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

**NOTE:**

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

## Component Function Check

INFOID:0000000005491667

### 1.CHECK TURN SIGNAL LAMP

CONSULT-III ACTIVE TEST

1. Select “FLASHER” of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamps blink.

**LH : Turn signal lamps (LH) blink**

**RH : Turn signal lamps (RH) blink**

**Off : Turn signal lamps OFF**

Does the turn signal lamps blink?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to EXL-62, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491668

### 1.CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

### 2.CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

Front turn signal lamp

| BCM | | | Front turn signal lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | M67 | 61 | E46 | 1 | Existed |
| LH | | 60 | E27 | | |

Side turn signal lamp

| BCM | | | Side turn signal lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | M67 | 61 | E40 | 1 | Existed |
| LH | | 60 | E23 | | |

Rear turn signal lamp

| BCM | | | Rear combination lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | M67 | 61 | B59 | 4 | Existed |
| LH | | 60 | B80 | | |

Does continuity exist?

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

## 3.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

| BCM | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | M67 | 61 | | Not existed |
| LH | | 60 | | |

Does continuity exist?

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

## 4.CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front turn signal lamp

| Front turn signal lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | E46 | 2 | | Existed |
| LH | E27 | | | |

Side turn signal lamp

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

Rear turn signal lamp

| Rear combination lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | B59 | 3 | | Existed |
| LH | B80 | | | |

Does continuity exist?

YES >> Replace BCM.
NO >> Repair the harnesses or connectors.

# OPTICAL SENSOR

## Description

INFOID:0000000005491669

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

## Component Function Check

INFOID:0000000005491670

### 1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT-III

CONSULT-III DATA MONITOR
1. Turn the ignition switch ON.
2. Select “OPTISEN (DTCT)” of BCM (HEADLAMP) data monitor item.
3. Turn the lighting switch AUTO.
4. With the optical sensor illuminating, check the monitor status.

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

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

Is the item status normal?

YES >> Optical sensor is normal.
NO >> Refer to EXL-64, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491671

### 1.CHECK OPTICAL SENSOR POWER SUPPLY INPUT

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

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| Optical sensor | | Ground | |
| Connector | Terminal | | |
| M17 | 1 | | 5 V |

Is the measurement value normal?

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

### 2.CHECK OPTICAL SENSOR GROUND INPUT

Check the voltage between the optical sensor harness connector and the ground.

| Terminals | | | Voltage (Approx.) |
|---|---|---|---|
| (+) | | (–) | |
| Optical sensor | | Ground | |
| Connector | Terminal | | |
| M17 | 3 | | 0 V |

Is the measurement value normal?

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

### 3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

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

| Terminals | | | Condition | Voltage (Approx.) |
|---|---|---|---|---|
| (+) | | (–) | | |
| Optical sensor | | Ground | Optical sensor | |
| Connector | Terminal | | | |
| M17 | 2 | | When illuminating | 3.1 V or more * |
| | | | When shutting off light | 0.6 V or less |

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

Is the measurement value normal?

YES >> GO TO 7.
NO >> Replace the optical sensor.

## 4. CHECK OPTICAL SENSOR OPEN CIRCUIT

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

| Optical sensor | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M17 | 1 | M68 | 17 | Existed |

Does continuity exist?

YES >> GO TO 5.
NO >> Repair the harnesses or connectors.

## 5. CHECK OPTICAL SENSOR SHORT CIRCUIT

Check the continuity between the optical sensor harness connector and the ground.

| Optical sensor | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M17 | 1 | | Not existed |

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace BCM.

## 6. CHECK OPTICAL SENSOR GROUND OPEN CIRCUIT

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

| Optical sensor | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M17 | 3 | M68 | 18 | Existed |

Does continuity exist?

YES >> Replace BCM.
NO >> Repair the harnesses or connectors.

## 7. CHECK OPTICAL SENSOR SIGNAL OPEN CIRCUIT

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

| Optical sensor | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M17 | 2 | M68 | 14 | Existed |

Does continuity exist?

YES >> GO TO 8.
NO >> Repair the harnesses or connectors.

## 8.CHECK OPTICAL SENSOR SHORT CIRCUIT

Check the continuity between the optical sensor harness connector and the ground.

| Optical sensor | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M17 | 2 | | Not existed |

Does continuity exist?

YES >> Repair the harnesses or connectors.
NO >> Replace BCM.

# HAZARD SWITCH

## Component Function Check

INFOID:0000000005491672

### 1.CHECK HAZARD SWITCH SIGNAL BY CONSULT-III

CONSULT-III DATA MONITOR
1. Turn the ignition switch ON.
2. Select “HAZARD SW” of BCM (FLASHER) data monitor item.
3. With operating the hazard switch, check the monitor status.

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

Is the item status normal?

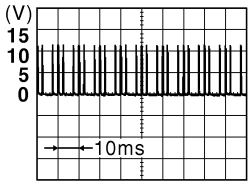
YES >> Hazard switch circuit is normal.
NO >> Refer to EXL-67, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491673

### 1.CHECK HAZARD SWITCH SIGNAL INPUT

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

| Terminals | | | Condition | Voltage (Approx.) |
|---|---|---|---|---|
| (+) | | (–) | | |
| BCM | | | Hazard switch | |
| Connector | Terminal | | | |
| M68 | 29 | Ground | ON | 0 V |
| | | | OFF |  |



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Is the measurement value normal?

YES >> Replace BCM. Refer to BCS-146, "Exploded View".
NO >> GO TO 2.

### 2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

| Hazard switch | | BCM | | Continuity |
|---|---|---|---|---|
| Connector | Terminal | Connector | Terminal | |
| M45 | 2 | M68 | 29 | Existed |

Does continuity exist?

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

### 3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

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

| Hazard switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M45 | 2 | | Not existed |

Does continuity exist?

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

## 4. CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

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

| Hazard switch | | Ground | Continuity |
|---|---|---|---|
| Connector | Terminal | | |
| M45 | 1 | | Existed |

Does continuity exist?

YES >> Replace the hazard switch.
NO >> Repair the harnesses or connectors.

# TAIL LAMP CIRCUIT

## Component Function Check

INFOID:0000000005491674

**NOTE:**
Check the parking lamp circuit if the parking lamp and the tail lamp are not turned ON.

### 1.CHECK TAIL LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Activate IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the tail lamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the test items, check that the tail lamp is turned ON.

**TAIL : Tail lamp ON**
**Off : Tail lamp OFF**

Is the tail lamp turned ON?

YES >> Tail lamp circuit is normal.
NO >> Refer to EXL-69, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491675

### 1.CHECK TAIL LAMP OUTPUT VOLTAGE

CONSULT-III ACTIVE TEST
1. Disconnect the rear combination lamp connector.
2. Turn the ignition switch ON.
3. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
4. With operating the test items, check the voltage between the IPDM E/R harness connector and the ground.

| Terminals | | | | Test item | Voltage (Approx.) |
|---|---|---|---|---|---|
| (+) | | | (–) | | |
| IPDM E/R | | | | EXTERNAL LAMPS | |
| Connector | | Terminal | | | |
| RH | E14 | 38 | Ground | TAIL | Battery voltage |
| | | | | Off | 0 V |
| LH | | 41 | | TAIL | Battery voltage |
| | | | | Off | 0 V |

Is the measurement value normal?

YES >> GO TO 2.
NO >> Replace IPDM E/R.

### 2.CHECK TAIL LAMP OPEN CIRCUIT

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

| IPDM E/R | | | Rear combination lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E14 | 38 | B59 | 6 | Existed |
| LH | | 41 | B80 | 6 | |

Does continuity exist?

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

## 3.CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

| Rear combination lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | B59 | 3 | | Existed |
| LH | B80 | 3 | | |

Does continuity exist?

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

# REAR SIDE MARKER LAMP CIRCUIT

## Component Function Check

INFOID:0000000005491676

**NOTE:**
Check the parking lamp circuit if the parking lamp and the rear side marker lamp are not turned ON.

### 1.CHECK REAR SIDE MARKER LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Activate IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the rear side marker lamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select "EXTERNAL LAMPS" of IPDM E/R active test item.
2. With operating the test items, check that the rear side marker lamp is turned ON.

**TAIL : Rear side marker lamp ON**
**Off : Rear side marker lamp OFF**

Is the rear side marker lamp turned ON/OFF?

YES >> Rear side marker lamp circuit is normal.
NO >> Refer to EXL-71, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491677

### 1.CHECK REAR SIDE MARKER LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

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

### 2.CHECK REAR SIDE MARKER LAMP OPEN CIRCUIT

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

| IPDM E/R | | | Rear side marker lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E14 | 41 | T5 | 1 | Existed |
| LH | | | T4 | 1 | |

Does continuity exist?

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

### 3.CHECK REAR SIDE MARKER LAMP GROUND OPEN CIRCUIT

Check continuity between the rear side marker lamp harness connector and the ground.

| Rear side marker lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | T5 | 1 | | Existed |
| LH | T4 | 1 | | |

Does continuity exist?

YES >> Replace the rear side marker lamp assembly.
NO >> Repair the harnesses or connectors.

# LICENSE PLATE LAMP CIRCUIT

## Component Function Check

INFOID:0000000005491678

**NOTE:**
Check the parking lamp circuit if the parking lamp and the license plate lamp are not turned ON.

### 1.CHECK LICENSE PLATE LAMP OPERATION

IPDM E/R AUTO ACTIVE TEST
1. Activate IPDM E/R auto active test. Refer to EXL-32, "Diagnosis Description".
2. Check that the license plate lamp is turned ON.

CONSULT-III ACTIVE TEST
1. Select “EXTERNAL LAMPS” of IPDM E/R active test item.
2. With operating the lighting switch, check that the license plate lamp is turned ON.

**TAIL : License plate lamp ON**
**Off : License plate lamp OFF**

Is the license plate lamp turned ON?

YES >> License plate lamp circuit is normal.
NO >> Refer to EXL-72, "Diagnosis Procedure".

## Diagnosis Procedure

INFOID:0000000005491679

### 1.CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

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

### 2.CHECK LICENSE PLATE LAMP OPEN CIRCUIT

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

| IPDM E/R | | | License plate lamp | | Continuity |
|---|---|---|---|---|---|
| Connector | | Terminal | Connector | Terminal | |
| RH | E14 | 41 | T3 | 1 | Existed |
| LH | | | T2 | 1 | |

Does continuity exist?

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

### 3.CHECK LICENSE PLATE LAMP GROUND OPEN CIRCUIT

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

| License plate lamp | | | Ground | Continuity |
|---|---|---|---|---|
| Connector | | Terminal | | |
| RH | T3 | 2 | | Existed |
| LH | T2 | 2 | | |

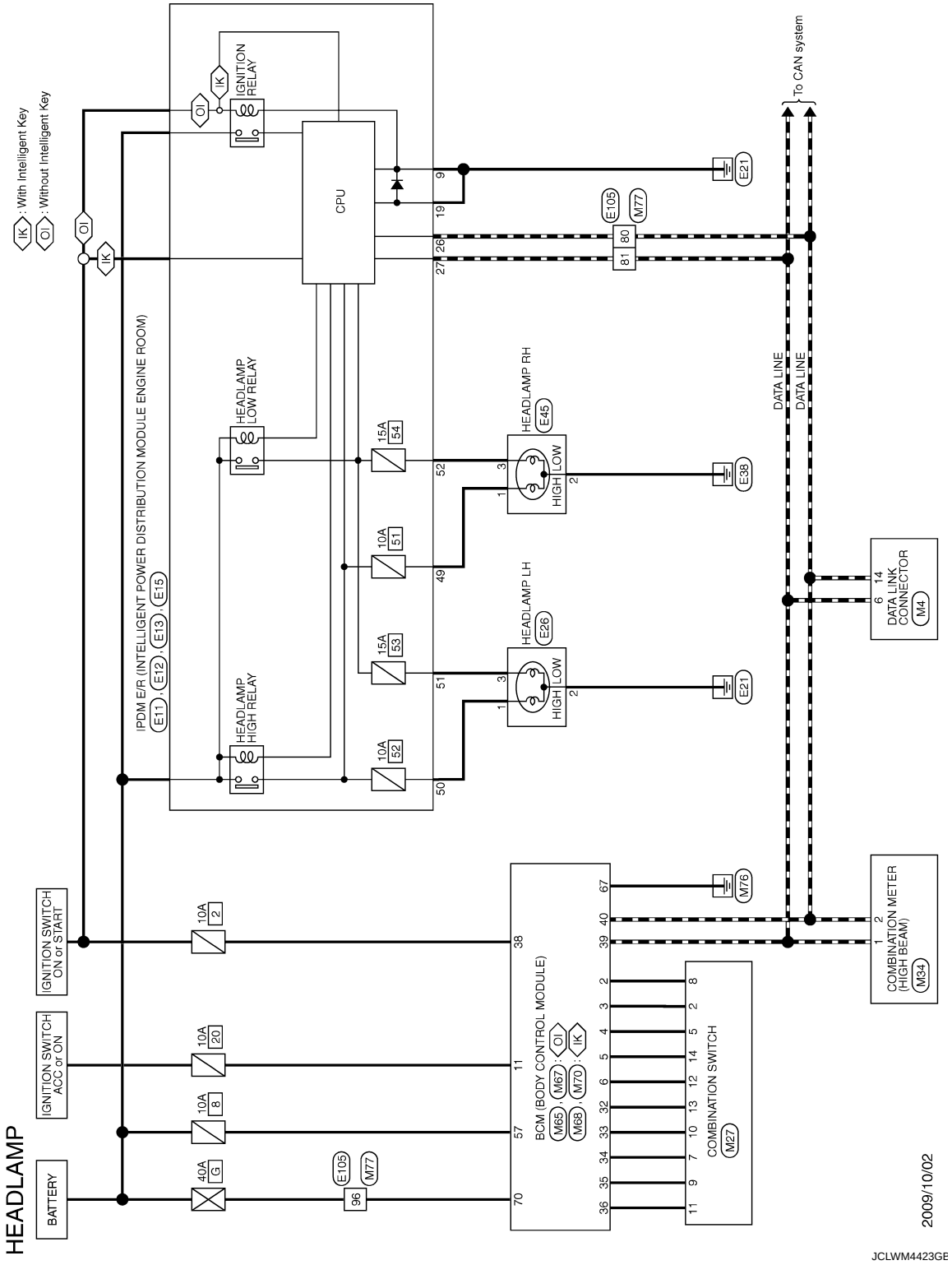
Does continuity exist?

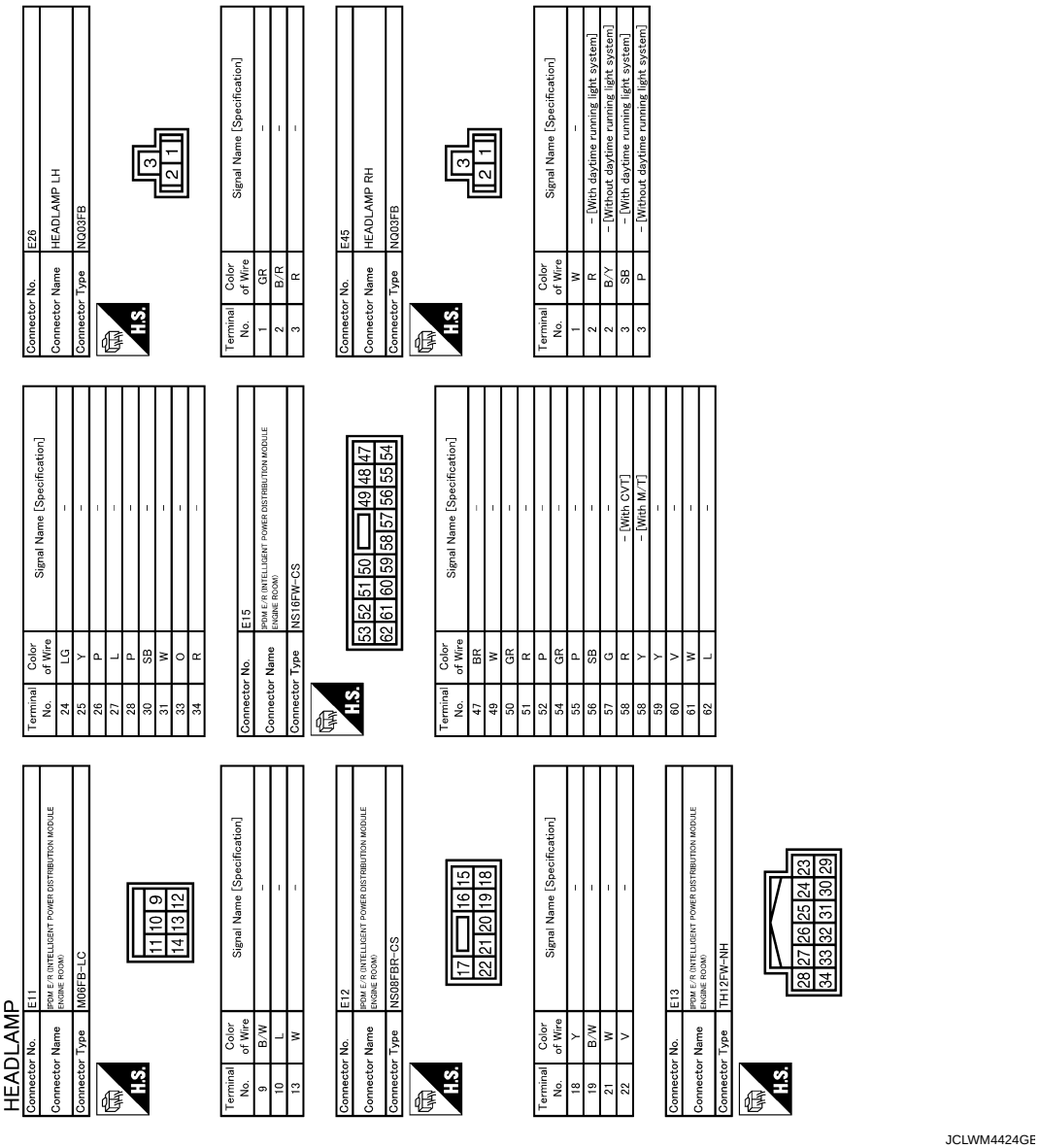
YES >> Replace the license plate lamp.
NO >> Repair the harnesses or connectors.

# HEADLAMP SYSTEM

## Wiring Diagram - HEADLAMP -

INFOID:0000000005491680






JCLWM4424GE

HEADLAMP

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

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



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |

JCLWM4425GE

HEADLAMP

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | BLOWER FAN SW |
| 27 | Y/G | HAZARD SW |
| 28 | G/W | DR DOOR UNLOCK SENSOR |
| 29 | L/W | COMBI SW OUTPUT 5 |
| 31 | G/Y | COMBI SW OUTPUT 4 |
| 32 | LG | COMBI SW OUTPUT 3 |
| 33 | Y/L | COMBI SW OUTPUT 2 |
| 34 | W | COMBI SW OUTPUT 1 |
| 35 | R/L | KEYLESS ENTRY RECEIVER COMM |
| 36 | L/O | KEYLESS ENTRY RECEIVER RSSI |
| 37 | G/O | SECURITY INDICATOR LAMP |
| 38 | O | DONGLE LINK |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

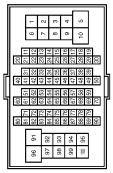
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

JCLWM4426GE

HEADLAMP

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

H.S.



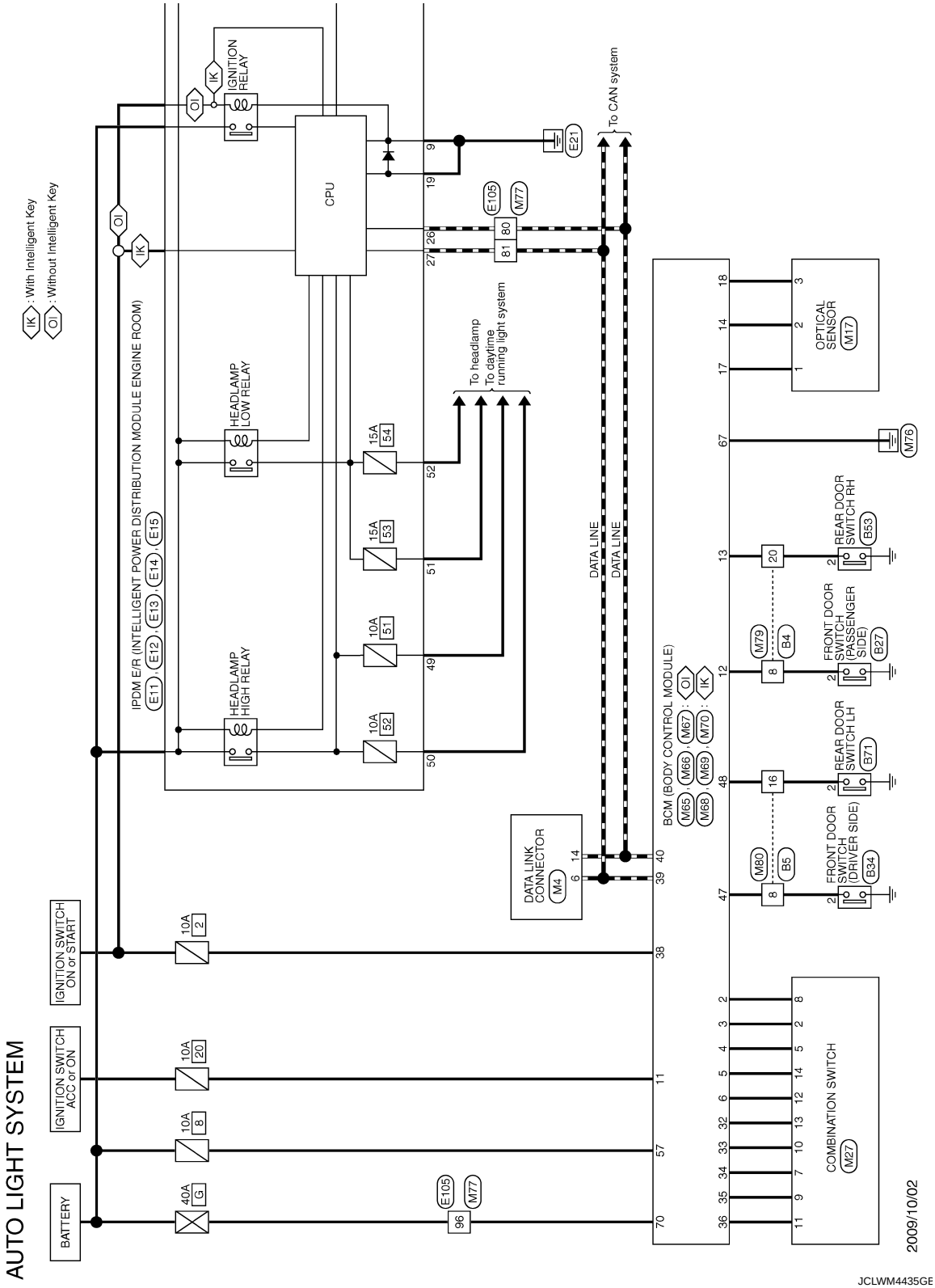
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

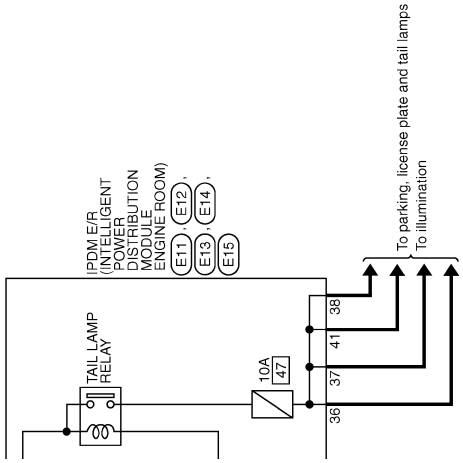
JCLWM4427GE

# AUTO LIGHT SYSTEM

## Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:0000000005491681



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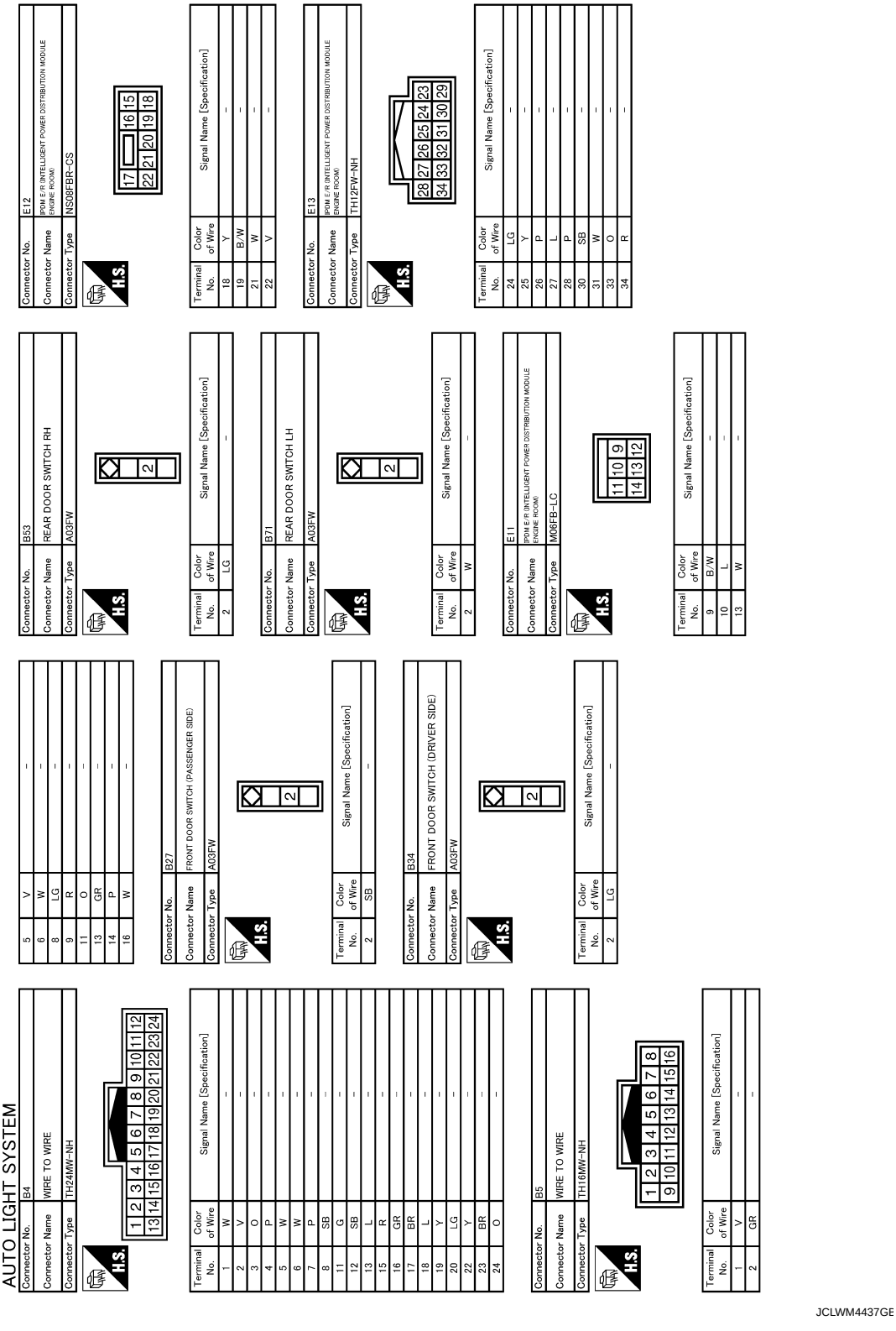


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AUTO LIGHT SYSTEM

| Connector No. | E14 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS12FBR-CS |





| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

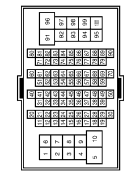
| Connector No. | E15 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS16FW-CS |





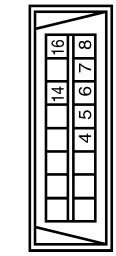
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 47 | BR | – |
| 48 | L | – |
| 49 | W | – |
| 50 | GR | – |
| 51 | R | – |
| 52 | P | – |
| 54 | GR | – |
| 55 | P | – |
| 56 | SB | – |
| 57 | G | – |
| 58 | R | – [With CVT] |
| 58 | Y | – [With M/T] |
| 59 | Y | – |
| 60 | V | – |
| 61 | W | – |
| 62 | L | – |

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

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

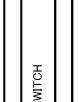


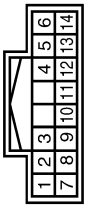
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Connector No. | M17 |
|---|---|
| Connector Name | OPTICAL SENSOR |
| Connector Type | TK03FW |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | R/G | POWER |
| 2 | L/B | OUTPUT |
| 3 | V | GND |

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |





| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

JCLWM4438GE

## AUTO LIGHT SYSTEM

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |



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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M66 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |



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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 50 | SB | A/C INDICATOR OUTPUT |
| 54 | L/W | REAR WIPER OUTPUT |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |



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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M69 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |



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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

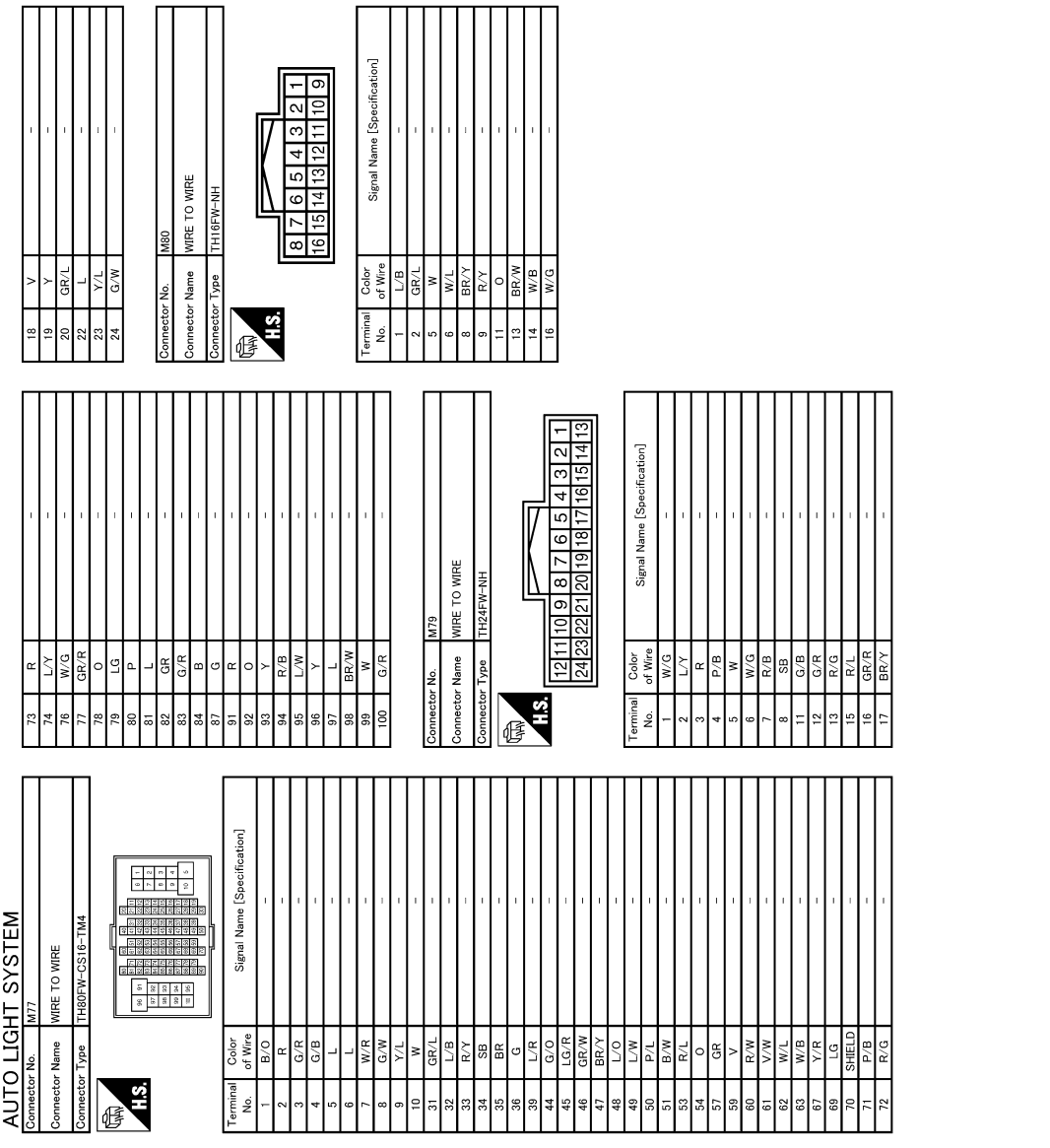
| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

JCLWM4439GE

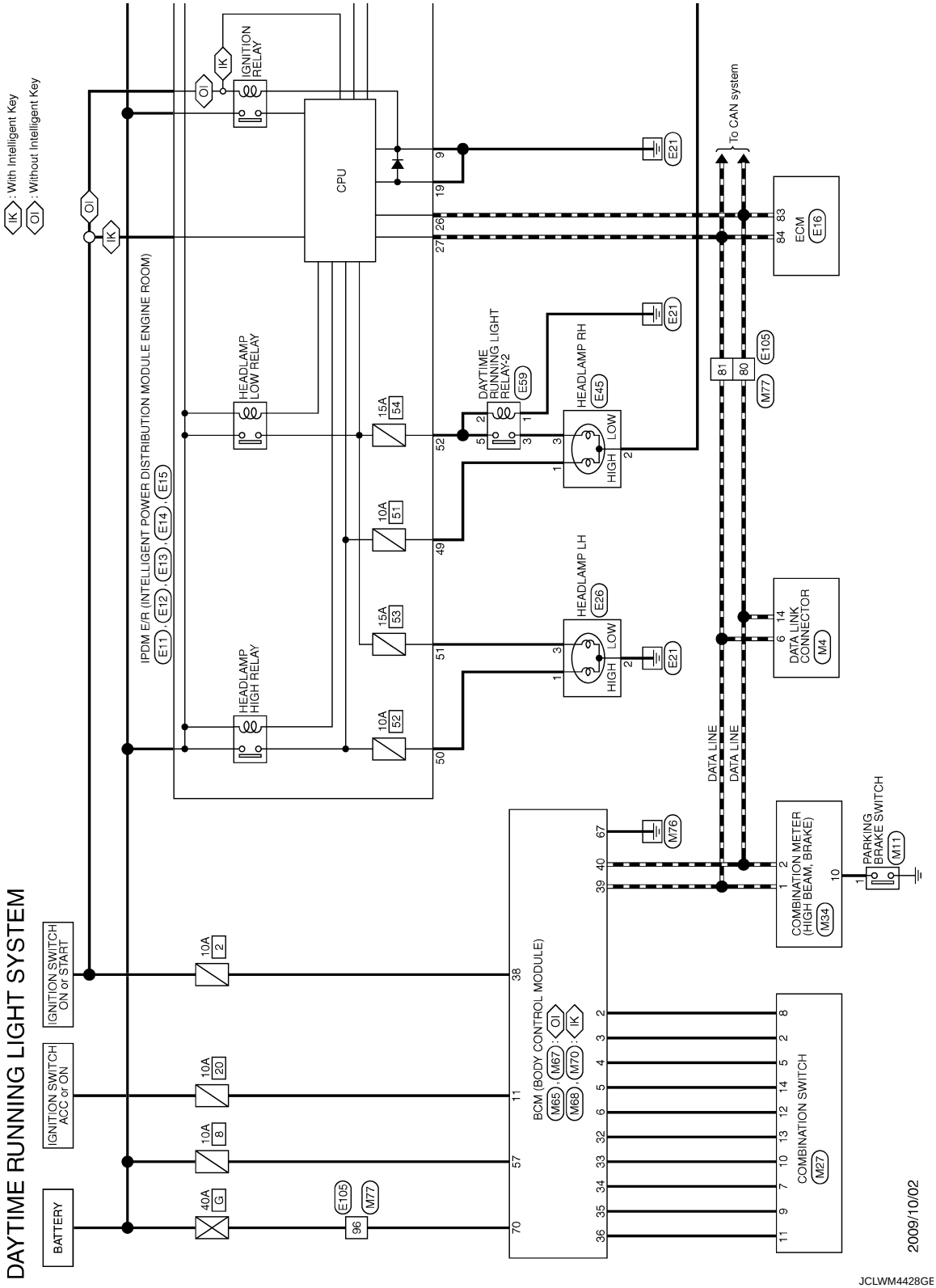


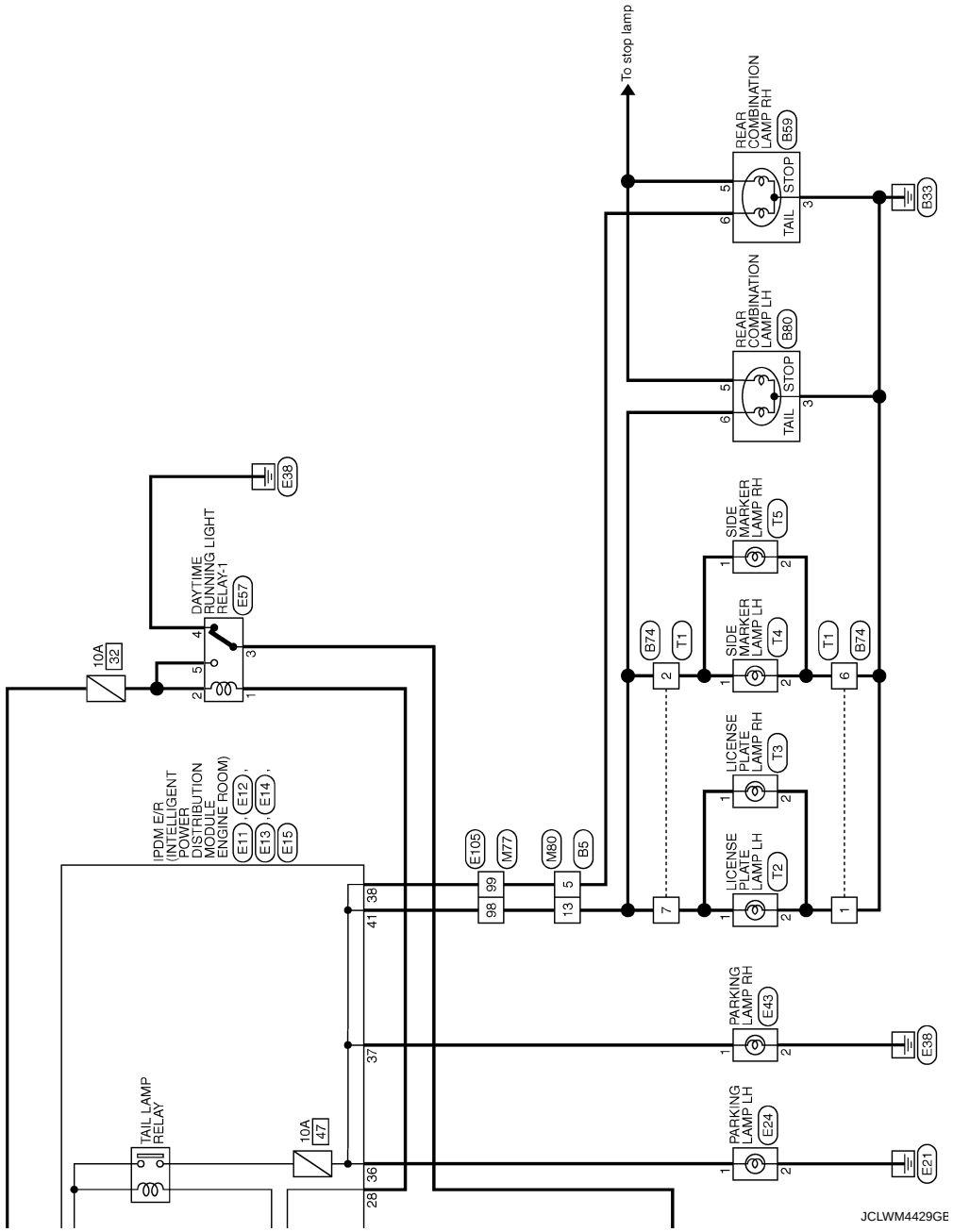

JCLWM4440GE

# DAYTIME RUNNING LIGHT SYSTEM

## Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM -

INFOID:0000000005491682




To stop lamp
REAR COMBINATION LAMP RH
B59
STOP
TAIL
B33
REAR COMBINATION LAMP LH
B80
SIDE MARKER LAMP RH
T5
SIDE MARKER LAMP LH
T4
B74
T1
LICENSE PLATE LAMP RH
T3
LICENSE PLATE LAMP LH
T2
E38
DAYTIME RUNNING LIGHT RELAY-1
E57
10A
32
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E11, E12, E13, E14, E15
E105
M77
M80
B5
PARKING LAMP RH
E43
PARKING LAMP LH
E24
E21
TAIL LAMP RELAY
10A
47
JCLWM4429GE

DAYTIME RUNNING LIGHT SYSTEM

| Connector No. | B5 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16MW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | GR | – |
| 5 | V | – |
| 6 | W | – |
| 8 | LG | – |
| 9 | R | – |
| 11 | O | – |
| 13 | GR | – |
| 14 | P | – |
| 16 | W | – |

| Connector No. | B59 |
|---|---|
| Connector Name | REAR COMBINATION LAMP RH |
| Connector Type | RS06FB-PR |

H.S.

| 3 | 1 |
|---|---|
| 6 | 5 | 4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 3 | B | – |
| 4 | W | – |
| 5 | R | – |
| 6 | V | – |

| Connector No. | B74 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | RH10FB |

H.S.

| 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|
| 10 | 9 | 8 | 7 | 6 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B | – |
| 2 | GR | – |
| 6 | B | – |
| 7 | GR | – |

| Connector No. | B80 |
|---|---|
| Connector Name | REAR COMBINATION LAMP LH |
| Connector Type | RS06FB-PR |

H.S.

| 3 | 1 |
|---|---|
| 6 | 5 | 4 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 3 | B | – |
| 4 | P | – |
| 5 | R | – |
| 6 | GR | – |

| Connector No. | E11 |
|---|---|
| Connector Name | [IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)] |
| Connector Type | M06FB-LC |

H.S.

| 11 | 10 | 9 |
|---|---|---|
| 14 | 13 | 12 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 9 | B/W | – |
| 10 | L | – |
| 13 | W | – |

| Connector No. | E12 |
|---|---|
| Connector Name | [IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)] |
| Connector Type | NS08FBR-CS |

H.S.

| 17 | | 16 | 15 |
|---|---|---|---|
| 22 | 21 | 20 | 19 | 18 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 18 | Y | – |
| 19 | B/W | – |
| 21 | W | – |
| 22 | V | – |

| Connector No. | E13 |
|---|---|
| Connector Name | [IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)] |
| Connector Type | TH12FW-NH |

H.S.

| 28 | 27 | 26 | 25 | 24 | 23 |
|---|---|---|---|---|---|
| 34 | 33 | 32 | 31 | 30 | 29 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 24 | LG | – |
| 25 | Y | – |
| 26 | P | – |
| 27 | L | – |
| 28 | P | – |
| 30 | SB | – |
| 31 | W | – |
| 33 | O | – |
| 34 | R | – |

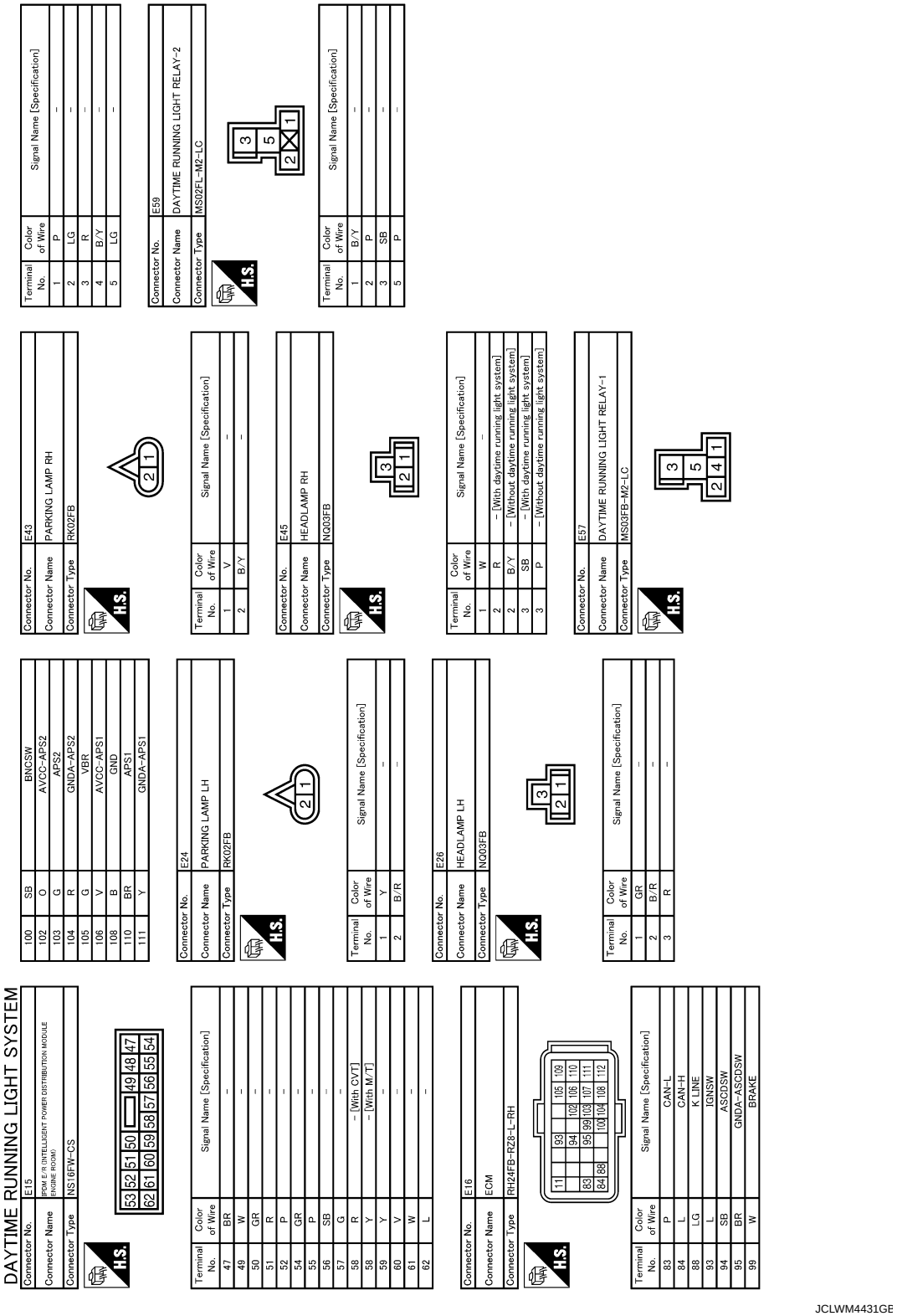
| Connector No. | E14 |
|---|---|
| Connector Name | [IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)] |
| Connector Type | NS12FBR-CS |

H.S.

| 39 | 38 | | 37 | 36 | 35 |
|---|---|---|---|---|---|
| 46 | 45 | 44 | 43 | 42 | 41 | 40 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

JCLWM4430GE




JCLWM4431GE

DAYTIME RUNNING LIGHT SYSTEM

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

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

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Connector No. | M11 |
|---|---|
| Connector Name | PARKING BRAKE SWITCH |
| Connector Type | P01FB-A |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

JCLWM4432GE

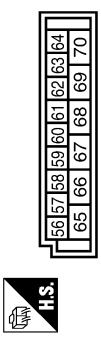
DAYTIME RUNNING LIGHT SYSTEM

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

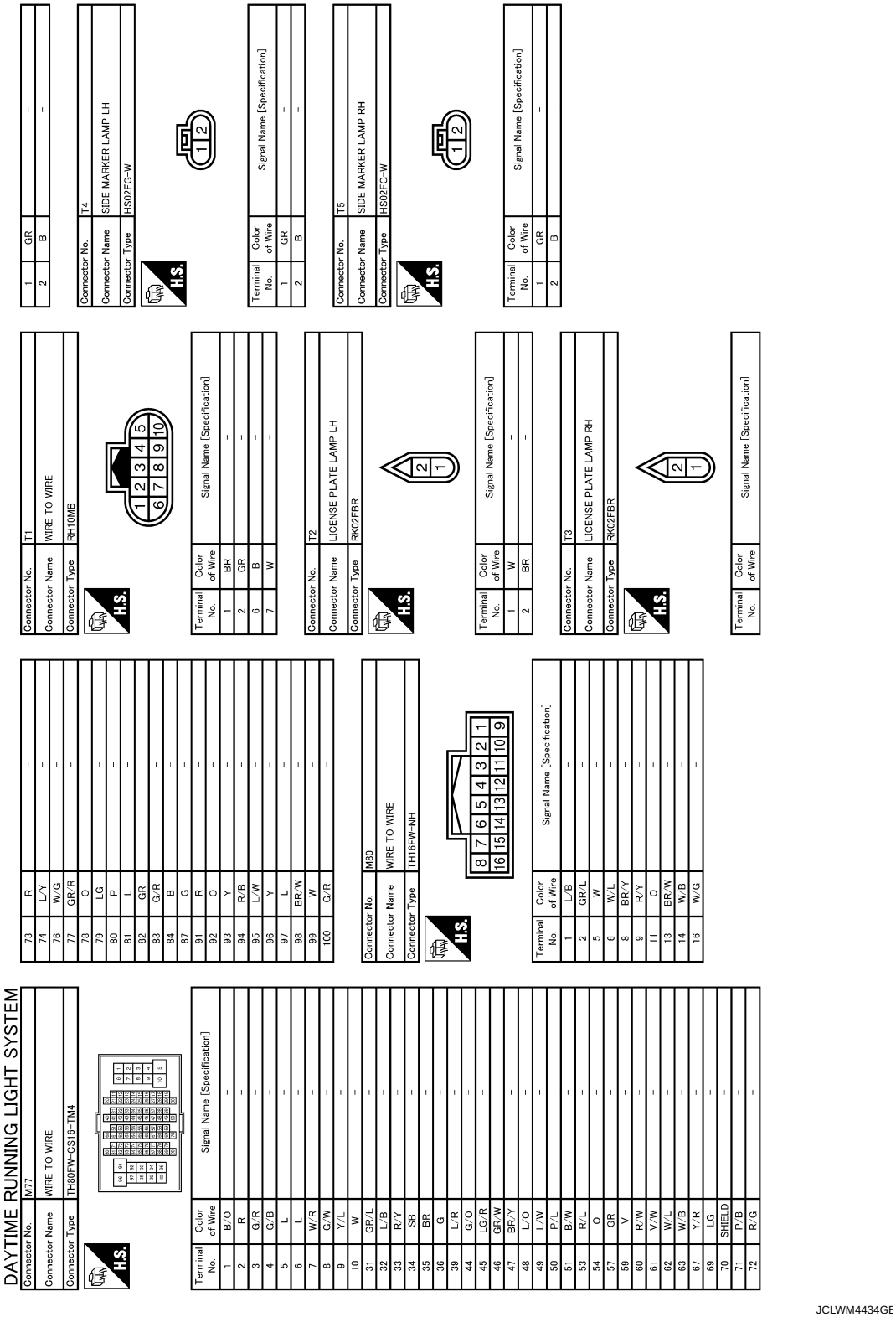
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | A/C SW |
| 27 | Y/R | BLOWER FAN SW |
| 28 | G/W | HAZARD SW |
| 29 | L/W | COMBI SW OUTPUT 3 |
| 31 | G/Y | COMBI SW OUTPUT 2 |
| 32 | LG | COMBI SW OUTPUT 1 |
| 33 | Y/L | KEY SWITCH |
| 34 | W | ACC |
| 35 | R/L | KEY CYL LOCK SW |
| 36 | L/O | KEY CYL UNLOCK SW |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

JCLWM4433GE

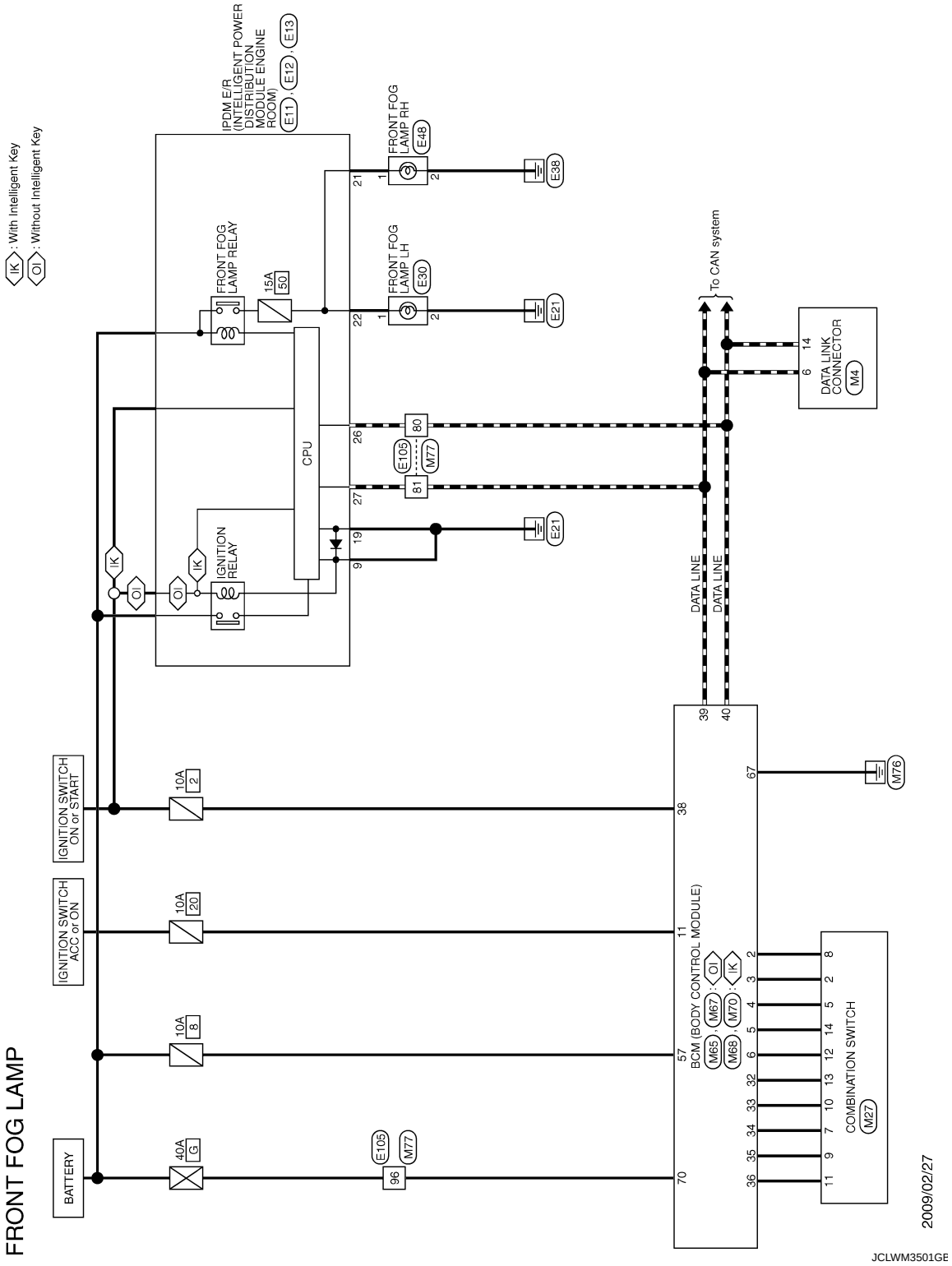


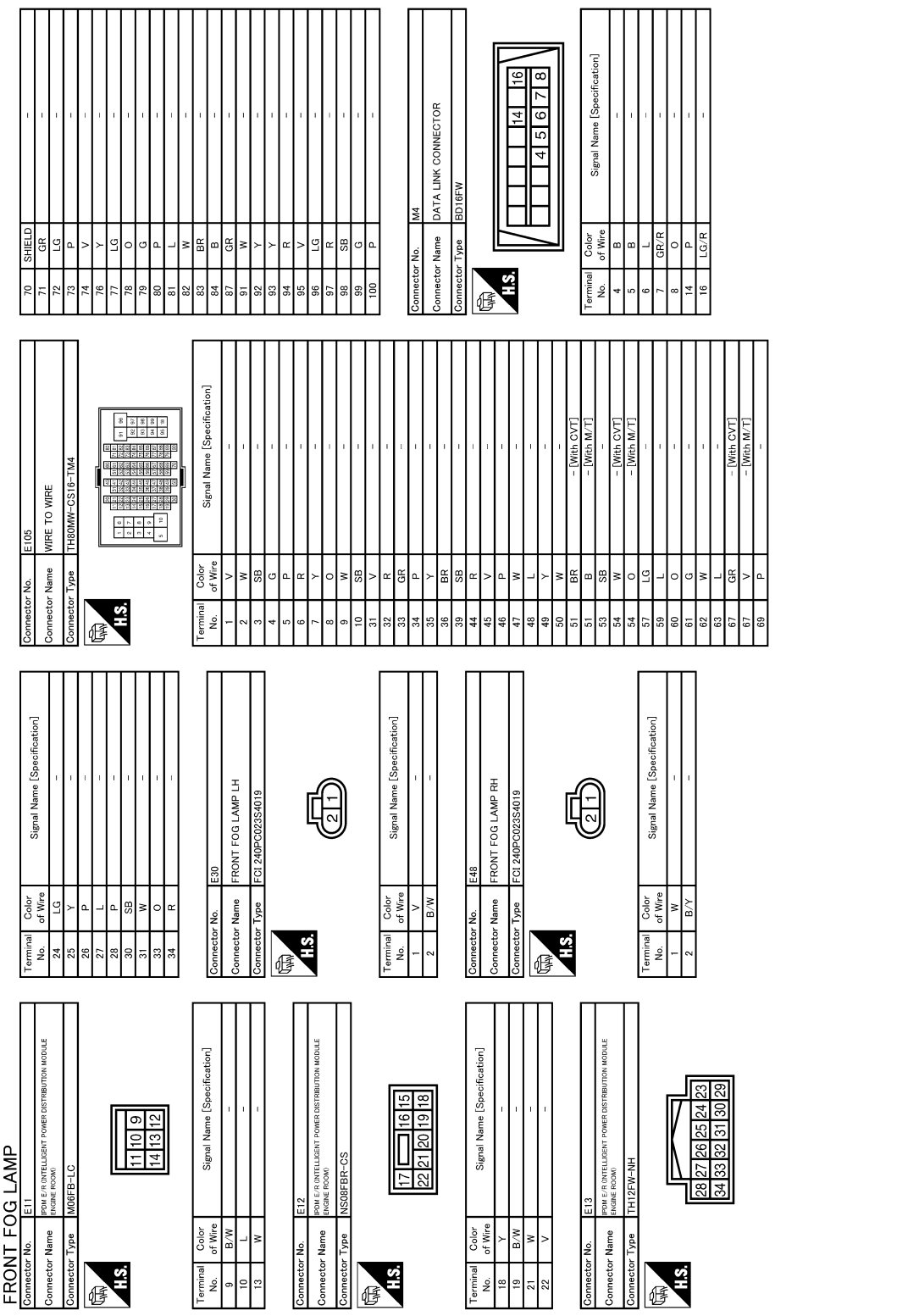

JCLWM4434GE

# FRONT FOG LAMP SYSTEM

## Wiring Diagram - FRONT FOG LAMP -

INFOID:0000000005491683






JCLWM4441GE

FRONT FOG LAMP

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW I |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

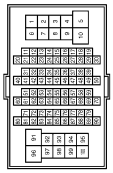
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

JCLWM4442GE

FRONT FOG LAMP

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

H.S.



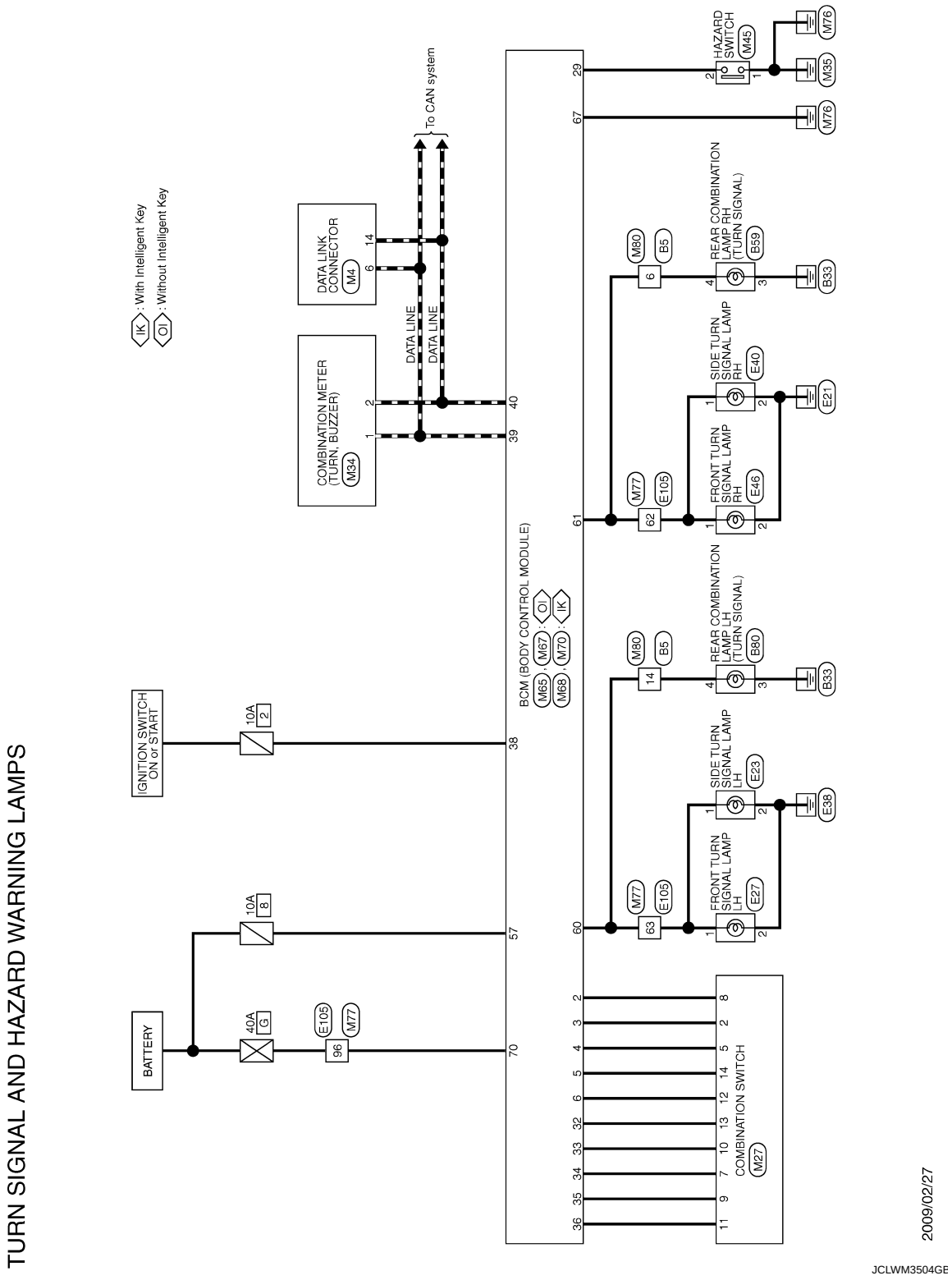
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

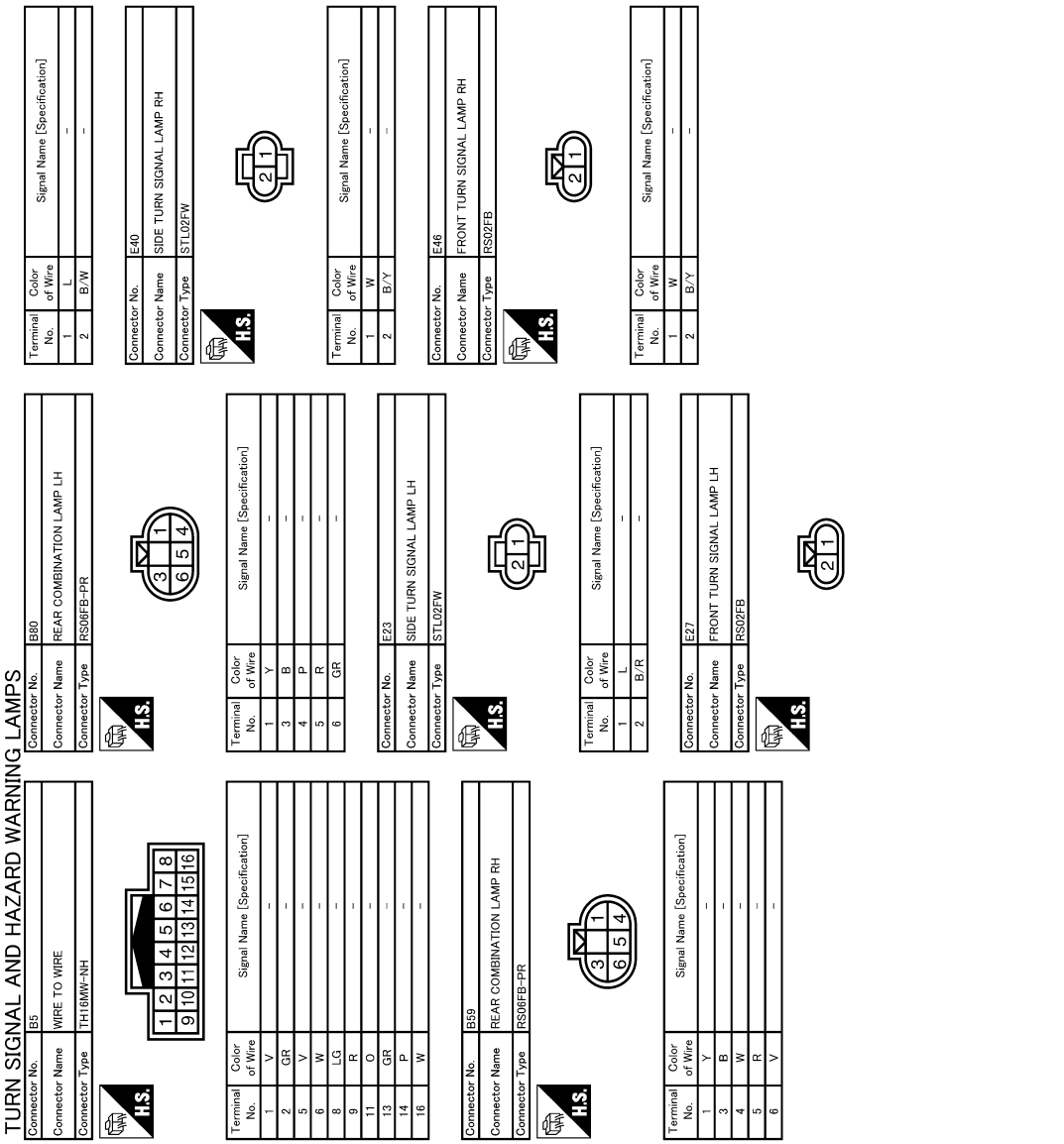
JCLWM4443GE

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

## Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

INFOID:0000000005491684




TURN SIGNAL AND HAZARD WARNING LAMPS
Connector No. B5
Connector Name WIRE TO WIRE
Connector Type TH16MW-NH
Terminal No. Color of Wire Signal Name [Specification]
1 V –
2 GR –
5 V –
6 W –
8 LG –
9 R –
11 O –
13 GR –
14 P –
16 W –
Connector No. B59
Connector Name REAR COMBINATION LAMP RH
Connector Type RS06FB-PR
Terminal No. Color of Wire Signal Name [Specification]
1 Y –
3 B –
4 P –
5 R –
6 GR –
Connector No. B80
Connector Name REAR COMBINATION LAMP LH
Connector Type RS06FB-PR
Terminal No. Color of Wire Signal Name [Specification]
1 Y –
3 B –
4 P –
5 R –
6 GR –
Connector No. E23
Connector Name SIDE TURN SIGNAL LAMP LH
Connector Type STL02FW
Terminal No. Color of Wire Signal Name [Specification]
1 L –
2 B/R –
Connector No. E27
Connector Name FRONT TURN SIGNAL LAMP LH
Connector Type RS02FB
Terminal No. Color of Wire Signal Name [Specification]
1 L –
2 B/W –
Connector No. E40
Connector Name SIDE TURN SIGNAL LAMP RH
Connector Type STL02FW
Terminal No. Color of Wire Signal Name [Specification]
1 W –
2 B/Y –
Connector No. E46
Connector Name FRONT TURN SIGNAL LAMP RH
Connector Type RS02FB
Terminal No. Color of Wire Signal Name [Specification]
1 W –
2 B/Y –
H.S.
JCLWM4444GE

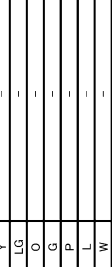
TURN SIGNAL AND HAZARD WARNING LAMPS

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



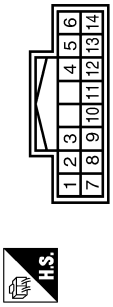
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

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



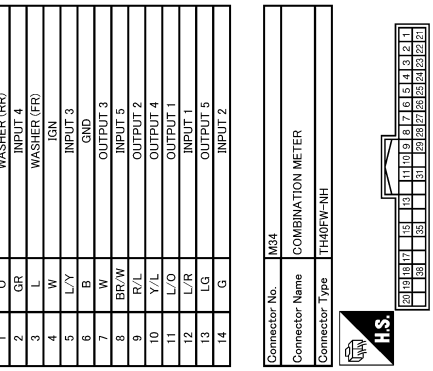
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M45 |
|---|---|
| Connector Name | HAZARD SWITCH |
| Connector Type | TK04FW |

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

JCLWM4445GE

TURN SIGNAL AND HAZARD WARNING LAMPS

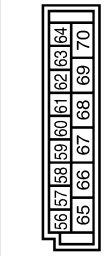
| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |



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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER/SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 27 | Y/R | A/C SW [With manual A/C] |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/Y | FR DEFROSTER SW |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | R/W | KEY SWITCH |
| 38 | O | IGN |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

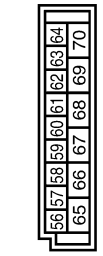
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |

| 12 | SB | PASSENGER DOOR SW |
|---|---|---|
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

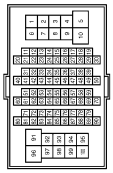
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
|---|---|---|
| 70 | Y | BAT (F/L) |

JCLWM4446GE

TURN SIGNAL AND HAZARD WARNING LAMPS

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

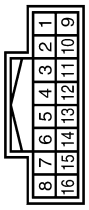
H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

| Connector No. | M80 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16FW-NH |

H.S.



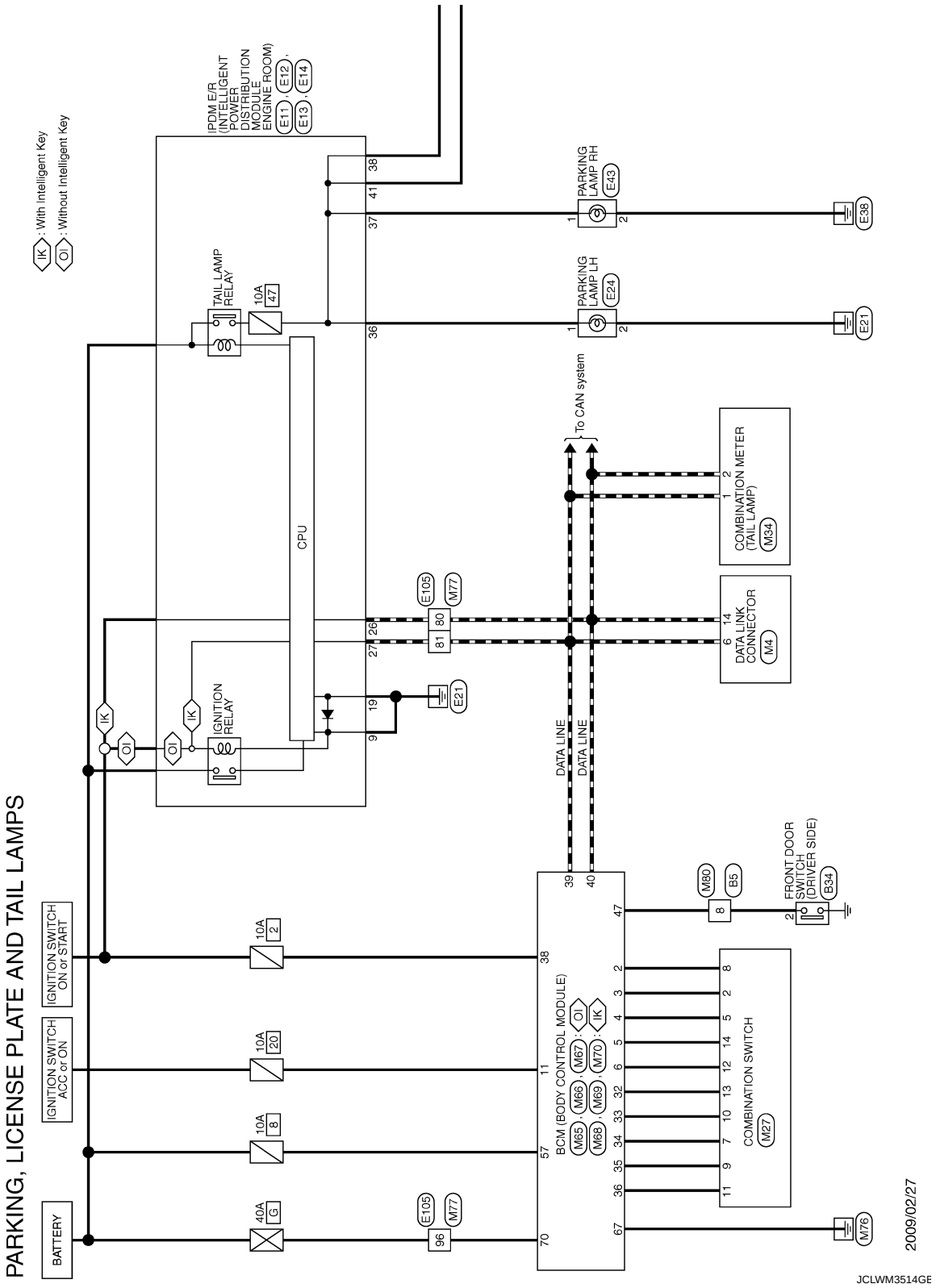

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/B | – |
| 2 | GR/L | – |
| 5 | W | – |
| 6 | W/L | – |
| 8 | BR/Y | – |
| 9 | R/Y | – |
| 11 | O | – |
| 13 | BR/W | – |
| 14 | W/B | – |
| 16 | W/G | – |

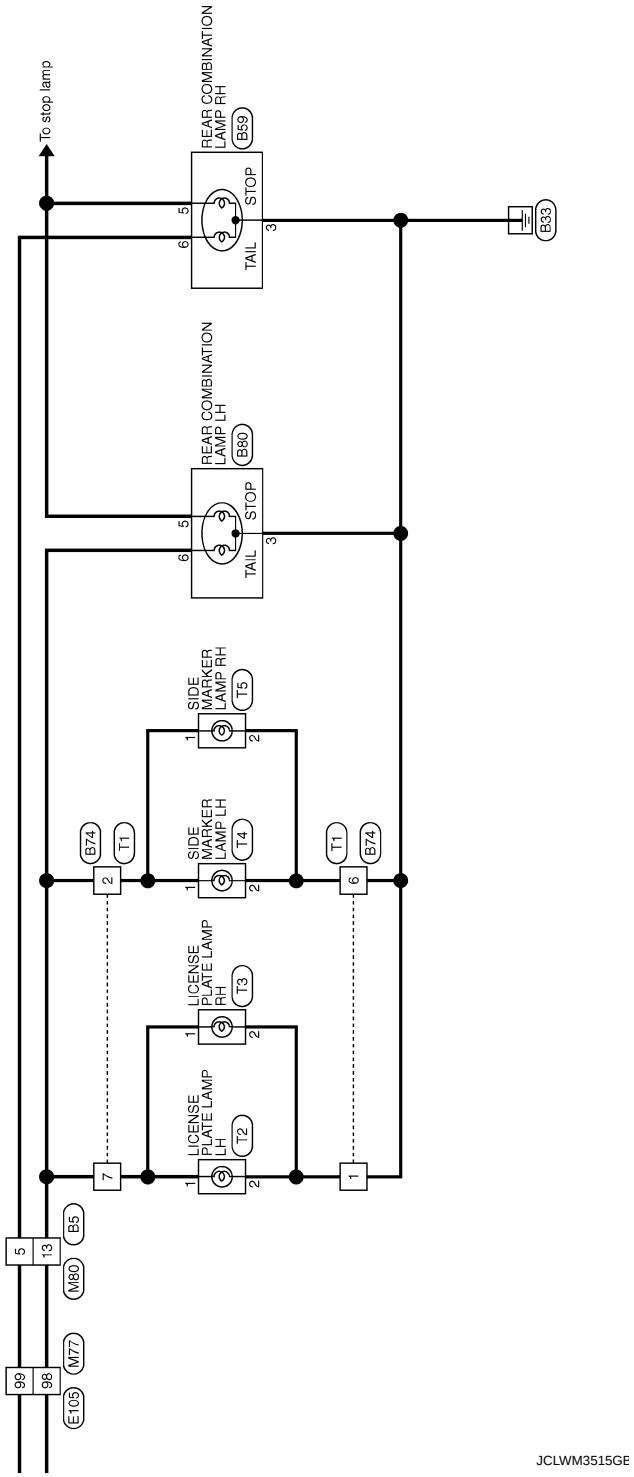
JCLWM4447GE

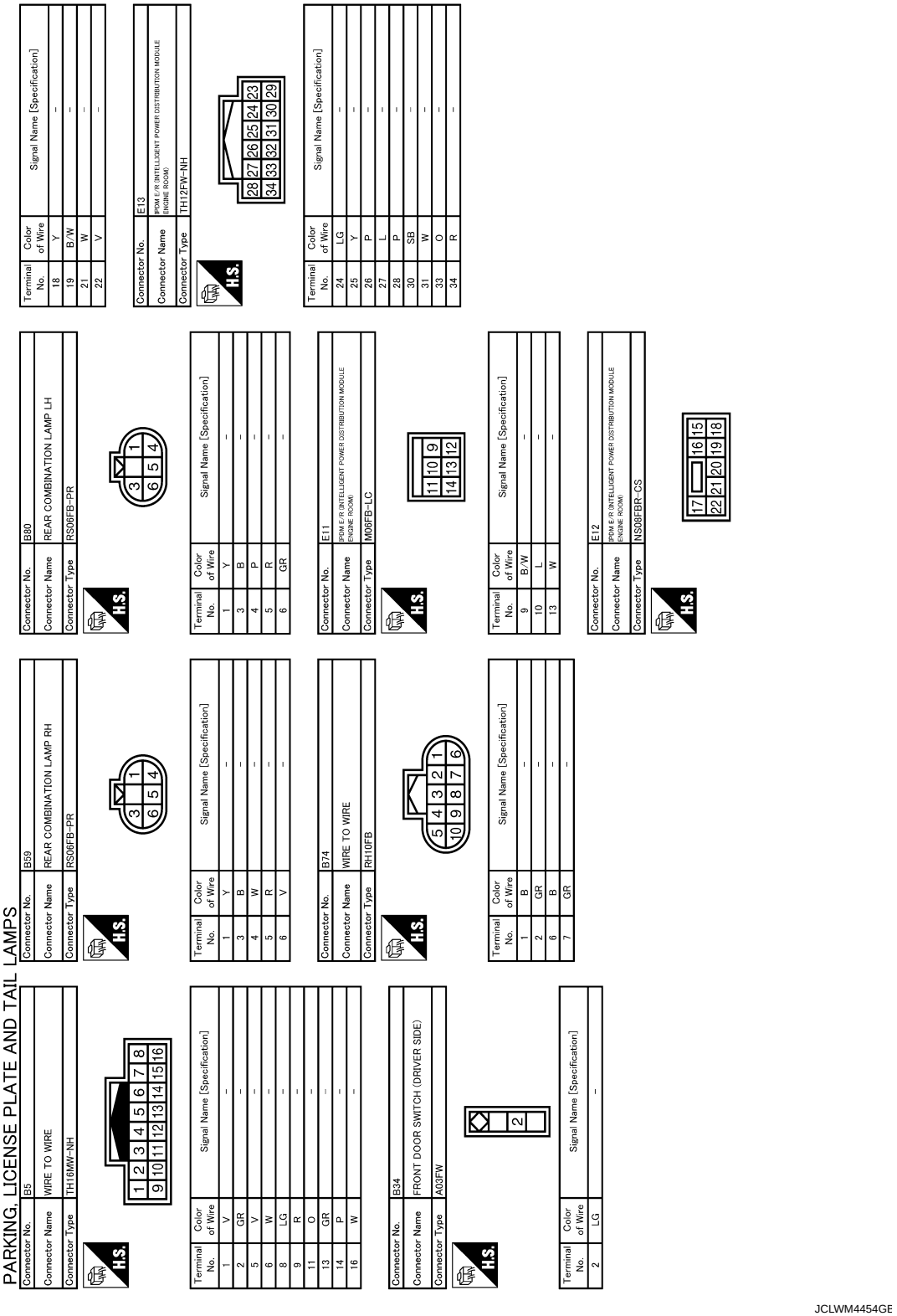
# PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS SYSTEM

## Wiring Diagram - PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS -

INFOID:0000000005491685




To stop lamp
REAR COMBINATION LAMP RH
B59
STOP
TAIL
5
6
3
B33
REAR COMBINATION LAMP LH
B80
STOP
TAIL
5
6
3
SIDE MARKER LAMP RH
T5
SIDE MARKER LAMP LH
T4
B74
T1
2
6
LICENSE PLATE LAMP RH
T3
LICENSE PLATE LAMP LH
T2
7
1
B5
M80
M77
E105
5
13
99
98
JCLWM3515GE




JCLWM4454GE

PARKING, LICENSE PLATE AND TAIL LAMPS

| Connector No. | E14 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS12FBR-CS |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 36 | Y | – |
| 37 | V | – |
| 38 | G | – |
| 39 | V | – |
| 40 | R | – |
| 41 | SB | – |
| 42 | W | – |
| 43 | G | – |
| 44 | P | – |
| 45 | Y | – |
| 46 | O | – |

| Connector No. | E24 |
|---|---|
| Connector Name | PARKING LAMP LH |
| Connector Type | RK02FB |




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

| Connector No. | E43 |
|---|---|
| Connector Name | PARKING LAMP RH |
| Connector Type | RK02FB |




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

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |

| 47 | W | – |
|---|---|---|
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

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




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 4 | B | – |
| 5 | B | – |
| 6 | L | – |
| 7 | GR/R | – |
| 8 | O | – |
| 14 | P | – |
| 16 | LG/R | – |

| Connector No. | M27 |
|---|---|
| Connector Name | COMBINATION SWITCH |
| Connector Type | TH16FW-NH |




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | O | WASHER (RR) |
| 2 | GR | INPUT 4 |
| 3 | L | WASHER (FR) |
| 4 | W | IGN |
| 5 | L/Y | INPUT 3 |
| 6 | B | GND |
| 7 | W | OUTPUT 3 |
| 8 | BR/W | INPUT 5 |
| 9 | R/L | OUTPUT 2 |
| 10 | Y/L | OUTPUT 4 |
| 11 | L/O | OUTPUT 1 |
| 12 | L/R | INPUT 1 |
| 13 | LG | OUTPUT 5 |
| 14 | G | INPUT 2 |

JCLWM4455GE

## PARKING, LICENSE PLATE AND TAIL LAMPS

| Connector No. | M34 |
|---|---|
| Connector Name | COMBINATION METER |
| Connector Type | TH40FW-NH |

H.S.

| 20 | 19 | 18 | 17 | 15 | 13 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 38 | | 35 | | 31 | | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | CAN-H |
| 2 | P | CAN-L |
| 3 | V | VEHICLE SPEED SIGNAL (2-PULSE) |
| 4 | L | VEHICLE SPEED SIGNAL (8-PULSE) |
| 6 | BR/Y | FUEL LEVEL SENSOR SIGNAL |
| 7 | R/G | AIR BAG SIGNAL |
| 8 | P | OVERDRIVE CONTROL SWITCH SIGNAL |
| 9 | O | SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE) |
| 10 | SB | PARKING BRAKE SWITCH SIGNAL |
| 11 | G/R | BRAKE FLUID LEVEL SWITCH SIGNAL |
| 13 | B/R | ILLUMINATION CONTROL SIGNAL |
| 15 | L/Y | ACC POWER SUPPLY |
| 17 | G | WASHER LEVEL SWITCH SIGNAL |
| 18 | R/Y | SECURITY SIGNAL |
| 19 | V/W | AMBIENT SENSOR SIGNAL |
| 20 | R/W | AMBIENT SENSOR GROUND |
| 21 | B | GROUND |
| 22 | B | GROUND |
| 23 | B | GROUND |
| 24 | V | FUEL LEVEL SENSOR GROUND |
| 25 | B | VDC GROUND |
| 27 | LG | BATTERY POWER SUPPLY |
| 28 | GR | IGNITION SIGNAL |
| 29 | BR | PASSENGER SEAT BELT WARNING SIGNAL |
| 31 | R | A/C AUTO AMP. CONNECTION RECOGNITION SIGNAL |
| 35 | BR | ENGINE COOLANT TEMPERATURE SIGNAL |
| 38 | GR | ALTERNATOR SIGNAL |

| Connector No. | M65 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FW-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW |
| 10 | W/L | REAR WINDOW DEFOGGER SW |
| 11 | L/Y | ACC |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | V/W | TIRE PRESS WARNING CHECK SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 26 | GR | THERMO CONTROL AMP. |
| 27 | Y/G | A/C SW [With auto A/C] |
| 28 | Y/R | A/C SW [With manual A/C] |
| 29 | L/W | BLOWER FAN SW |
| 31 | G/Y | HAZARD SW |
| 32 | LG | FR DEFROSTER SW |
| 33 | Y/L | COMBI SW OUTPUT 5 |
| 34 | W | COMBI SW OUTPUT 4 |
| 35 | R/L | COMBI SW OUTPUT 3 |
| 36 | L/O | COMBI SW OUTPUT 2 |
| 37 | R/W | COMBI SW OUTPUT 1 |
| 38 | O | KEY SWITCH |
| 39 | L | IGN |
| 40 | P | CAN-H |
| | | CAN-L |

| Connector No. | M66 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 50 | SB | A/C INDICATOR OUTPUT |
| 54 | L/W | REAR WIPER OUTPUT |

| Connector No. | M67 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |

H.S.

| 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 |
|---|---|---|---|---|---|---|---|---|
| 65 | 66 | 67 | 68 | 69 | 70 | | | |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | G | PASSENGER DOOR, REAR DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M68 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | TH40FB-NH |

H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 2 | BR/W | COMBI SW INPUT 5 |
| 3 | GR | COMBI SW INPUT 4 |
| 4 | L/Y | COMBI SW INPUT 3 |
| 5 | G | COMBI SW INPUT 2 |
| 6 | L/R | COMBI SW INPUT 1 |
| 7 | W/R | KEY CYL UNLOCK SW |
| 8 | W/B | KEY CYL LOCK SW |
| 9 | R | STOP LAMP SW 1 |
| 10 | V/W | TIRE PRESS WARNING CHECK SW |
| 11 | L/Y | ACC F/B |
| 12 | SB | PASSENGER DOOR SW |
| 13 | GR/L | REAR RH DOOR SW |
| 14 | L/B | OPTICAL SENSOR |
| 15 | W/L | REAR WINDOW DEFOGGER SW |
| 17 | R/G | OPTICAL SENSOR POWER SUPPLY |
| 18 | V | RECEIVER / SENSOR GND |
| 19 | BR | KEYLESS ENTRY RECEIVER POWER SUPPLY |
| 20 | G/Y | KEYLESS ENTRY RECEIVER COMM |
| 21 | P/L | NATS ANTENNA AMP. |
| 22 | W/G | KEYLESS ENTRY RECEIVER RSSI |
| 23 | R/Y | SECURITY INDICATOR LAMP |
| 24 | GR/R | DONGLE LINK |
| 25 | LG | NATS ANTENNA AMP. |
| 27 | Y/R | A/C SW |
| 28 | G/W | BLOWER FAN SW |
| 29 | L/W | HAZARD SW |
| 31 | G/B | DR DOOR UNLOCK SENSOR |
| 32 | LG | COMBI SW OUTPUT 5 |
| 33 | Y/L | COMBI SW OUTPUT 4 |
| 34 | W | COMBI SW OUTPUT 3 |
| 35 | R/L | COMBI SW OUTPUT 2 |
| 36 | L/O | COMBI SW OUTPUT 1 |
| 37 | G/O | SHIFT P |
| 38 | O | IGN F/B |
| 39 | L | CAN-H |
| 40 | P | CAN-L |

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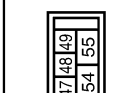
PARKING, LICENSE PLATE AND TAIL LAMPS

| Connector No. | M69 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FW-FHA6-SA |



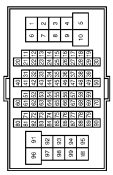
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 43 | W | BACK DOOR SW |
| 44 | LG | REAR WIPER STOP POSITION |
| 45 | GR | CENTRAL DOOR LOCK SW |
| 46 | BR | CENTRAL DOOR UNLOCK SW |
| 47 | BR/Y | DRIVER DOOR SW |
| 48 | W/G | REAR LH DOOR SW |
| 54 | L/W | REAR WIPER OUTPUT |
| 55 | G | REAR DOOR UNLOCK OUTPUT |

| Connector No. | M70 |
|---|---|
| Connector Name | BCM (BODY CONTROL MODULE) |
| Connector Type | FEA09FB-FHA6-SA |



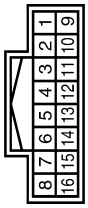
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 56 | L | INTERIOR ROOM LAMP POWER SUPPLY |
| 57 | Y | BAT (FUSE) |
| 59 | G | PASSENGER DOOR UNLOCK OUTPUT |
| 60 | W/B | TURN SIGNAL LH OUTPUT |
| 61 | W/L | TURN SIGNAL RH OUTPUT |
| 63 | BR | ROOM LAMP TIMER CONTROL |
| 65 | V | ALL DOOR LOCK OUTPUT |
| 66 | L/B | DRIVER DOOR UNLOCK OUTPUT |
| 67 | B | GND |
| 68 | L | POWER WINDOW POWER SUPPLY (IGN) |
| 69 | L/W | POWER WINDOW POWER SUPPLY (BAT) |
| 70 | Y | BAT (F/L) |

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

| Connector No. | M80 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH16FW-NH |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L/B | – |
| 2 | GR/L | – |
| 5 | W | – |
| 6 | W/L | – |
| 8 | BR/Y | – |
| 9 | R/Y | – |
| 11 | O | – |
| 13 | BR/W | – |
| 14 | W/B | – |
| 16 | W/G | – |

| Connector No. | T1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | RH10MB |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR | – |
| 2 | GR | – |
| 6 | B | – |
| 7 | W | – |

| Connector No. | T2 |
|---|---|
| Connector Name | LICENSE PLATE LAMP LH |
| Connector Type | RK02FBR |

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | W | – |
| 2 | BR | – |

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PARKING, LICENSE PLATE AND TAIL LAMPS

| Connector No. | T3 |
|---|---|
| Connector Name | LICENSE PLATE LAMP RH |
| Connector Type | RK02FBR |

H.S.

2 1

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | – |
| 2 | B | – |

| Connector No. | T4 |
|---|---|
| Connector Name | SIDE MARKER LAMP LH |
| Connector Type | HS02FG-W |

H.S.

1 2

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | – |
| 2 | B | – |

| Connector No. | T5 |
|---|---|
| Connector Name | SIDE MARKER LAMP RH |
| Connector Type | HS02FG-W |

H.S.

1 2

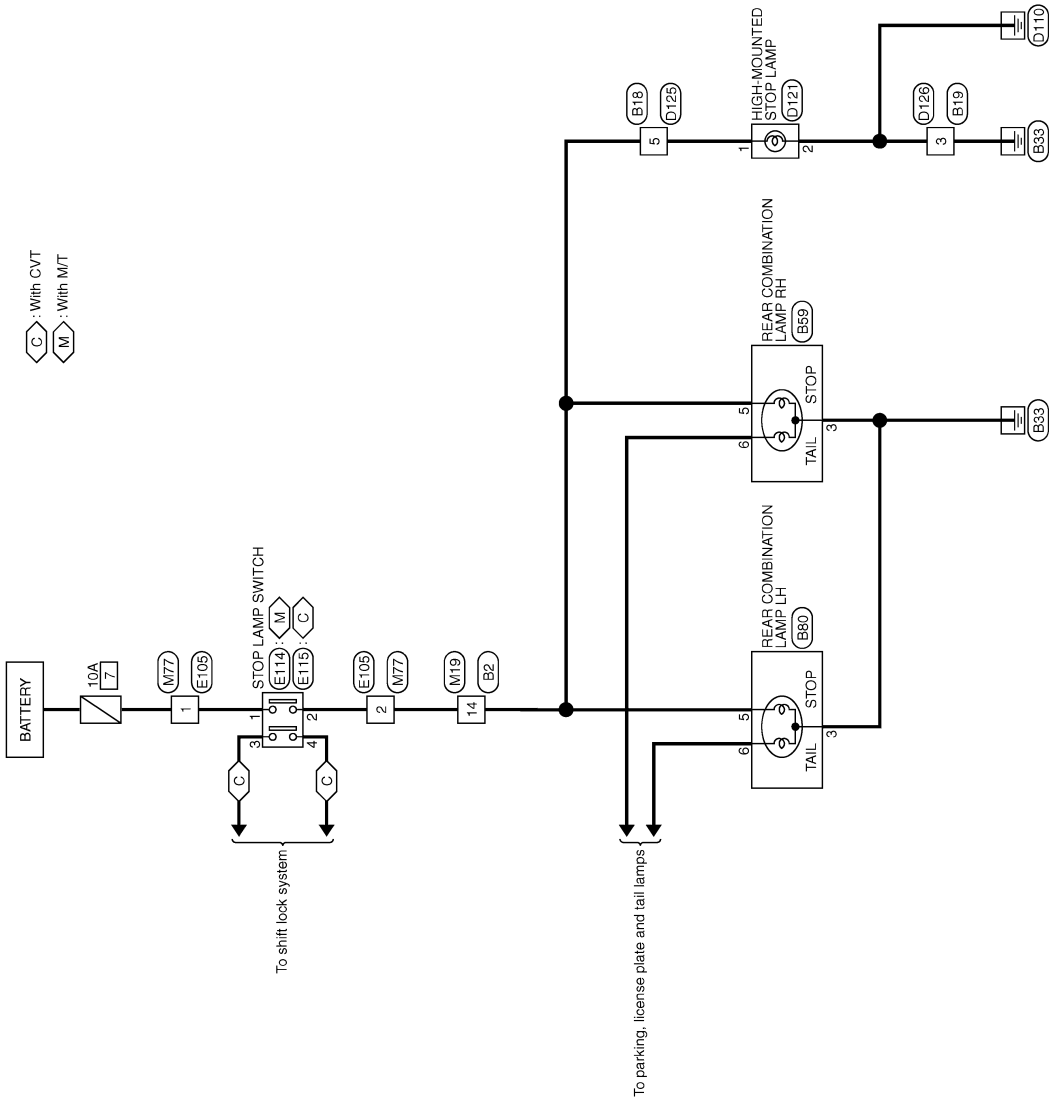
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | GR | – |
| 2 | B | – |

JCLWM4458GE

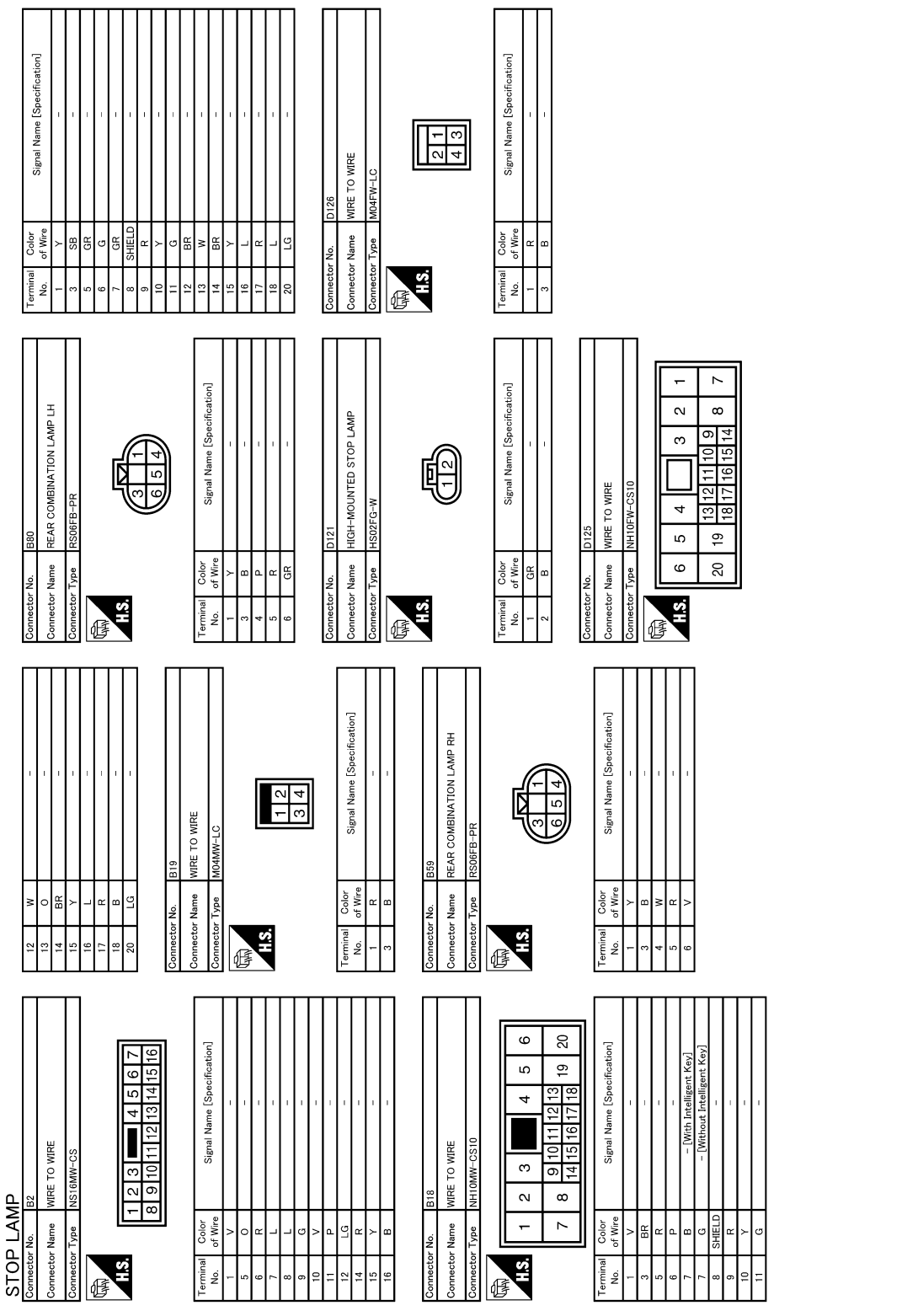
# STOP LAMP

## Wiring Diagram - STOP LAMP -

INFOID:0000000005491686




STOP LAMP




JCLWM4448GE

STOP LAMP

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW-CS16-TM4 |

H.S.

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |

| 70 | SHIELD | – |
|---|---|---|
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | E114 |
|---|---|
| Connector Name | STOP LAMP SWITCH |
| Connector Type | M02FB-LC |

H.S.

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |

| Connector No. | E115 |
|---|---|
| Connector Name | STOP LAMP SWITCH |
| Connector Type | M04FW-LC |

H.S.

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | O | – |
| 4 | G | – |

| Connector No. | M19 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16FW-CS |

H.S.

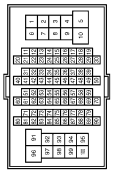
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 5 | L/R | – |
| 6 | R | – |
| 7 | L | – |
| 8 | R/B | – |
| 9 | G | – |
| 10 | V | – |
| 11 | L/W | – |
| 12 | LG | – |
| 14 | R | – |
| 15 | Y/R | – |
| 16 | B/R | – |

JCLWM4449GE

STOP LAMP

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW-CS16-TM4 |

H.S.



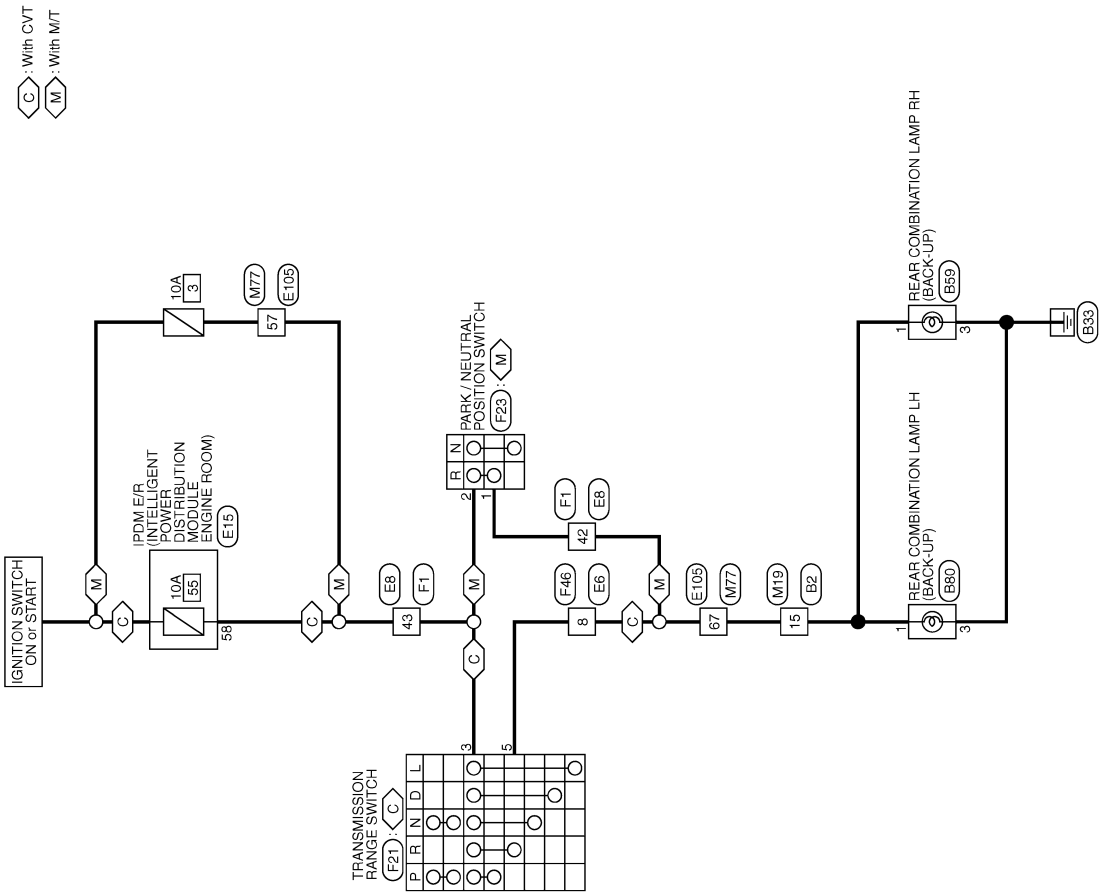
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 36 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

JCLWM4450GE

# BACK-UP LAMP

## Wiring Diagram - BACK-UP LAMP -

INFOID:0000000005491687




BACK-UP LAMP

BACK−UP LAMP

| Connector No. | B2 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16MW−CS |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 5 | O | – |
| 6 | R | – |
| 7 | L | – |
| 8 | L | – |
| 9 | G | – |
| 10 | V | – |
| 11 | P | – |
| 12 | LG | – |
| 14 | R | – |
| 15 | Y | – |
| 16 | B | – |

| Connector No. | B59 |
|---|---|
| Connector Name | REAR COMBINATION LAMP RH |
| Connector Type | RS06FB−PR |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 3 | B | – |
| 4 | W | – |
| 5 | R | – |
| 6 | V | – |

| Connector No. | B80 |
|---|---|
| Connector Name | REAR COMBINATION LAMP LH |
| Connector Type | RS06FB−PR |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | Y | – |
| 3 | B | – |
| 4 | P | – |
| 5 | R | – |
| 6 | GR | – |

| Connector No. | E6 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | RH12FB |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | L | – |
| 2 | BR | – |
| 3 | P | – |
| 4 | V | – |
| 5 | LG | – |
| 6 | R | – |
| 7 | SB | – |
| 8 | GR | – |
| 9 | LG | – |
| 10 | R | – |
| 11 | W | – |

| Connector No. | E8 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36MB−RS10−SJZ2 |

H.S.




| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | BR | – |
| 2 | LG | – |
| 3 | Y | – |
| 4 | W | – |
| 7 | Y | – |
| 8 | SB | – |
| 9 | L | – |
| 10 | V | – |
| 11 | P | – |
| 12 | BR | – |
| 13 | LG | – |
| 14 | Y | – |
| 15 | SB | – |
| 16 | L | – |
| 17 | W | – |
| 18 | O | – |
| 21 | G | – |
| 23 | SB | – |
| 24 | W | – |
| 25 | BR | – |
| 26 | B | – |
| 27 | GR | – |
| 28 | P | – |
| 29 | V | – |
| 30 | G | – |
| 31 | G | – |
| 32 | O | – |
| 33 | W | – |
| 34 | Y | – |
| 35 | V | – |
| 36 | P | – |
| 37 | LG | – |
| 39 | SB | – |
| 40 | GR | – |
| 41 | O | – |
| 42 | V | – |
| 43 | R | – [With CVT] |
| 43 | LG | – [With M/T] |
| 44 | R | – |
| 46 | W | – |
| 47 | G | – |
| 48 | BR | – |

| Connector No. | E15 |
|---|---|
| Connector Name | IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) |
| Connector Type | NS16FW−CS |

H.S.

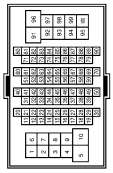



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 47 | BR | – |
| 49 | W | – |
| 50 | GR | – |
| 51 | R | – |
| 52 | P | – |
| 54 | GR | – |
| 55 | P | – |
| 56 | SB | – |
| 57 | G | – |
| 58 | R | – [With CVT] |
| 58 | Y | – [With M/T] |
| 59 | Y | – |
| 60 | V | – |
| 61 | W | – |
| 62 | L | – |

JCLWM4451GE

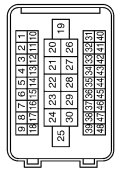
BACK−UP LAMP

| Connector No. | E105 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80MW−CS16−TM4 |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | W | – |
| 3 | SB | – |
| 4 | G | – |
| 5 | P | – |
| 6 | R | – |
| 7 | Y | – |
| 8 | O | – |
| 9 | W | – |
| 10 | SB | – |
| 31 | V | – |
| 32 | R | – |
| 33 | GR | – |
| 34 | P | – |
| 35 | Y | – |
| 36 | BR | – |
| 39 | SB | – |
| 44 | R | – |
| 45 | V | – |
| 46 | P | – |
| 47 | W | – |
| 48 | L | – |
| 49 | Y | – |
| 50 | W | – |
| 51 | BR | – [With CVT] |
| 51 | B | – [With M/T] |
| 53 | SB | – |
| 54 | W | – [With CVT] |
| 54 | O | – [With M/T] |
| 57 | LG | – |
| 59 | L | – |
| 60 | O | – |
| 61 | G | – |
| 62 | W | – |
| 63 | L | – |
| 67 | GR | – [With CVT] |
| 67 | V | – [With M/T] |
| 69 | P | – |
| 70 | SHIELD | – |
| 71 | GR | – |
| 72 | LG | – |
| 73 | P | – |
| 74 | V | – |
| 76 | Y | – |
| 77 | LG | – |
| 78 | O | – |
| 79 | G | – |
| 80 | P | – |
| 81 | L | – |
| 82 | W | – |
| 83 | BR | – |
| 84 | B | – |
| 87 | GR | – |
| 91 | W | – |
| 92 | Y | – |
| 93 | Y | – |
| 94 | R | – |
| 95 | V | – |
| 96 | LG | – |
| 97 | R | – |
| 98 | SB | – |
| 99 | G | – |
| 100 | P | – |

| Connector No. | F1 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | SAA36FB−RS10−SJZ2 |

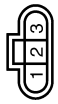


| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | SB | – |
| 2 | LG | – |
| 3 | R | – |
| 4 | Y | – |
| 7 | V | – |
| 8 | G | – |
| 9 | SB | – |
| 10 | L | – |
| 11 | Y | – |
| 12 | GR | – |
| 13 | BR | – |
| 14 | G | – |
| 15 | W | – |
| 16 | Y | – |
| 17 | P | – |
| 18 | BR | – |
| 21 | G | – |
| 23 | W | – |
| 24 | R | – |
| 25 | R | – |
| 26 | B | – |
| 27 | SB | – |
| 28 | V | – |
| 29 | V | – |
| 30 | BR | – |
| 31 | GR | – |
| 32 | BR | – |
| 33 | W | – |
| 34 | LG | – |
| 35 | V | – |
| 36 | Y | – |
| 37 | W | – |
| 39 | G | – |
| 40 | P | – |
| 41 | O | – |
| 42 | G | – |
| 43 | R | – |
| 44 | P | – |
| 46 | GR | – |
| 47 | Y | – |
| 48 | BR | – |

| Connector No. | F21 |
|---|---|
| Connector Name | TRANSMISSION RANGE SWITCH |
| Connector Type | RK08FG |

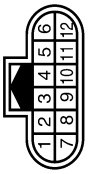
| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 2 | BR | – |
| 3 | R | – |
| 4 | GR | – |
| 5 | SB | – |
| 6 | W | – |
| 7 | Y | – |
| 8 | Y | – |
| 8 | G | – |

| Connector No. | F23 |
|---|---|
| Connector Name | PARK / NEUTRAL POSITION SWITCH |
| Connector Type | FEA03FG |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | R | – |
| 3 | L | – |

| Connector No. | F46 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | RH12MB |



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | G | – |
| 2 | O | – |
| 3 | L | – |
| 4 | V | – |
| 5 | BR | – |
| 6 | LG | – |
| 7 | Y | – |
| 8 | SB | – |
| 9 | W | – |
| 10 | R | – |
| 11 | G | – |

JCLWM4452GE

BACK−UP LAMP

| Connector No. | M19 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | NS16FW−CS |

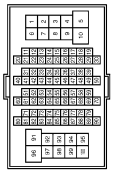
H.S.

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

| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | V | – |
| 5 | L/R | – |
| 6 | R | – |
| 7 | L | – |
| 8 | R/B | – |
| 9 | G | – |
| 10 | V | – |
| 11 | L/W | – |
| 12 | LG | – |
| 14 | R | – |
| 15 | Y/R | – |
| 16 | B/R | – |

| Connector No. | M77 |
|---|---|
| Connector Name | WIRE TO WIRE |
| Connector Type | TH80FW−CS16−TM4 |

H.S.



| Terminal No. | Color of Wire | Signal Name [Specification] |
|---|---|---|
| 1 | B/O | – |
| 2 | R | – |
| 3 | G/R | – |
| 4 | G/B | – |
| 5 | L | – |
| 6 | L | – |
| 7 | W/R | – |
| 8 | G/W | – |
| 9 | Y/L | – |
| 10 | W | – |

| | | |
|---|---|---|
| 31 | GR/L | – |
| 32 | L/B | – |
| 33 | R/Y | – |
| 34 | SB | – |
| 35 | BR | – |
| 38 | G | – |
| 39 | L/R | – |
| 44 | G/O | – |
| 45 | LG/R | – |
| 46 | GR/W | – |
| 47 | BR/Y | – |
| 48 | L/O | – |
| 49 | L/W | – |
| 50 | P/L | – |
| 51 | B/W | – |
| 53 | R/L | – |
| 54 | O | – |
| 57 | GR | – |
| 59 | V | – |
| 60 | R/W | – |
| 61 | V/W | – |
| 62 | W/L | – |
| 63 | W/B | – |
| 67 | Y/R | – |
| 69 | LG | – |
| 70 | SHIELD | – |
| 71 | P/B | – |
| 72 | R/G | – |
| 73 | R | – |
| 74 | L/Y | – |
| 76 | W/G | – |
| 77 | GR/R | – |
| 78 | O | – |
| 79 | LG | – |
| 80 | P | – |
| 81 | L | – |
| 82 | GR | – |
| 83 | G/R | – |
| 84 | B | – |
| 87 | G | – |
| 91 | R | – |
| 92 | O | – |
| 93 | Y | – |
| 94 | R/B | – |
| 95 | L/W | – |
| 96 | Y | – |
| 97 | L | – |
| 98 | BR/W | – |
| 99 | W | – |
| 100 | G/R | – |

JCLWM4453GE

# ECU DIAGNOSIS INFORMATION

## BCM (BODY CONTROL MODULE)
## WITH INTELLIGENT KEY

### WITH INTELLIGENT KEY : Reference Value

INFOID:0000000005817176

#### VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

| Monitor Item | Condition | Value/Status |
|---|---|---|
| FR WIPER HI | Other than front wiper switch HI | Off |
| | Front wiper switch HI | On |
| FR WIPER LOW | Other than front wiper switch LO | Off |
| | Front wiper switch LO | On |
| FR WASHER SW | Front washer switch OFF | Off |
| | Front washer switch ON | On |
| FR WIPER INT | Other than front wiper switch INT/AUTO | Off |
| | Front wiper switch INT/AUTO | On |
| FR WIPER STOP | Front wiper is not in STOP position | Off |
| | Front wiper is in STOP position | On |
| INT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | Wiper intermittent dial position |
| RR WIPER ON | Other than rear wiper switch ON | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Other than rear wiper switch INT | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |
| RR WIPER STOP | Rear wiper is in STOP position | Off |
| | Rear wiper is not in STOP position | On |
| TURN SIGNAL R | Other than turn signal switch RH | Off |
| | Turn signal switch RH | On |
| TURN SIGNAL L | Other than turn signal switch LH | Off |
| | Turn signal switch LH | On |
| TAIL LAMP SW | Other than lighting switch 1ST and 2ND | Off |
| | Lighting switch 1ST or 2ND | On |
| HI BEAM SW | Other than lighting switch HI | Off |
| | Lighting switch HI | On |
| HEAD LAMP SW 1 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| HEAD LAMP SW 2 | Other than lighting switch 2ND | Off |
| | Lighting switch 2ND | On |
| PASSING SW | Other than lighting switch PASS | Off |
| | Lighting switch PASS | On |
| AUTO LIGHT SW | Other than lighting switch AUTO | Off |
| | Lighting switch AUTO | On |

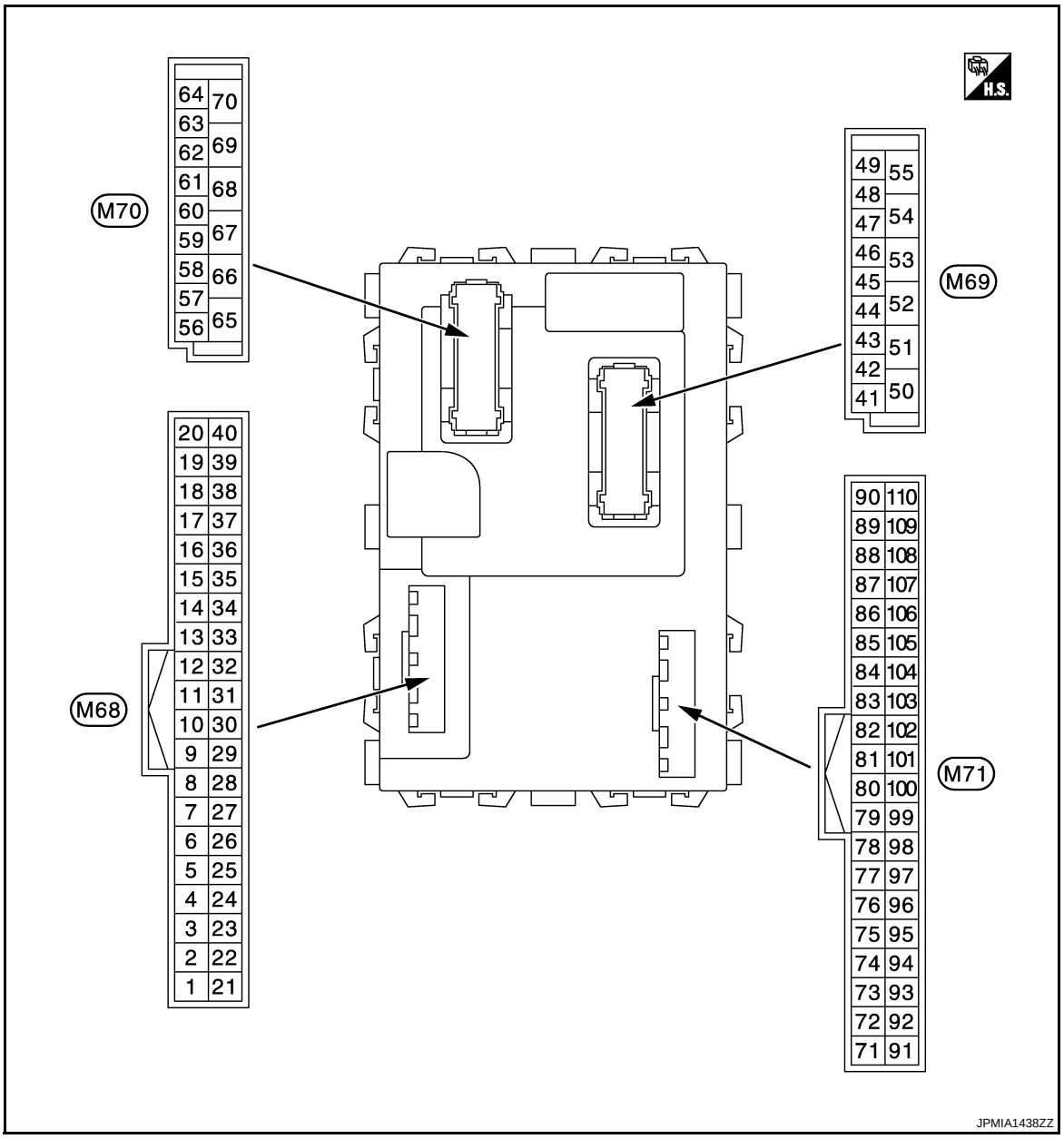
| Monitor Item | Condition | Value/Status |
|---|---|---|
| FR FOG SW | Front fog lamp switch OFF | Off |
| | Front fog lamp switch ON | On |
| DOOR SW-DR | Driver door closed | Off |
| | Driver door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear LH door closed | Off |
| | Rear LH door opened | On |
| DOOR SW-BK | Back door closed | Off |
| | Back door opened | On |
| CDL LOCK SW | Other than power door lock switch LOCK | Off |
| | Power door lock switch LOCK | On |
| CDL UNLOCK SW | Other than power door lock switch UNLOCK | Off |
| | Power door lock switch UNLOCK | On |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | Off |
| | Driver door key cylinder LOCK position | On |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | Off |
| | Driver door key cylinder UNLOCK position | On |
| HAZARD SW | Hazard switch is OFF | Off |
| | Hazard switch is ON | On |
| REAR DEF SW | Rear window defogger switch OFF | Off |
| | Rear window defogger switch ON | On |
| TR/BD OPEN SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRNK/HAT MNTR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| FAN ON SIG | Blower fan OFF | Off |
| | Blower fan ON | On |
| AIR COND SW | Air conditioner OFF (A/C switch indicator OFF) | Off |
| | Air conditioner ON (A/C switch indicator ON) | On |
| RKE-LOCK | LOCK button of the key is not pressed | Off |
| | LOCK button of the key is pressed | On |
| RKE-UNLOCK | UNLOCK button of the key is not pressed | Off |
| | UNLOCK button of the key is pressed | On |
| RKE-TR/BD | BACK DOOR OPEN button of the key is not pressed | Off |
| | BACK DOOR OPEN button of the key is pressed | On |
| RKE-PANIC | PANIC button of the key is not pressed | Off |
| | PANIC button of the key is pressed | On |
| RKE-MODE CHG | LOCK/UNLOCK button of the key is not pressed and held simultaneously | Off |
| | LOCK/UNLOCK button of the key is pressed and held simultaneously | On |
| OPTI SEN (DTCT) | Bright outside of the vehicle | Close to 5 V |
| | Dark outside of the vehicle | Close to 0 V |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| OPTI SEN (FILT) | Bright outside of the vehicle (Lighting switch AUTO) | Close to 5 V |
| | Dark outside of the vehicle (Lighting switch AUTO) | Close to 1.50 V |
| OPTICAL SENSOR | **NOTE:** The item is indicated, but not monitored. | Off |
| RAIN SENSOR | **NOTE:** The item is indicated, but not monitored. | Off |
| REQ SW -DR | Driver door request switch is not pressed | Off |
| | Driver door request switch is pressed | On |
| REQ SW -AS | Passenger door request switch is not pressed | Off |
| | Passenger door request switch is pressed | On |
| REQ SW -RR | **NOTE:** The item is indicated, but not monitored. | Off |
| REQ SW -RL | **NOTE:** The item is indicated, but not monitored. | Off |
| REQ SW -BD/TR | Back door request switch is not pressed | Off |
| | Back door request switch is pressed | On |
| PUSH SW | Push-button ignition switch (push switch) is not pressed | Off |
| | Push-button ignition switch (push switch) is pressed | On |
| CLUCH SW | **NOTE:** The item is indicated, but not monitored. | Off |
| BRAKE SW 1 | The brake pedal is not depressed | Off |
| | The brake pedal is depressed | On |
| BRAKE SW 2 | The brake pedal is depressed when No. 7 fuse is blown | Off |
| | The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal | On |
| DETE/CANCL SW | Selector lever in P position | Off |
| | Selector lever in any position other than P | On |
| SFT PN/N SW | Selector lever in any position other than P and N | Off |
| | Selector lever in P or N position | On |
| S/L -LOCK | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L -UNLOCK | Steering is unlocked | Off |
| | Steering is locked | On |
| S/L RELAY-F/B | Steering is unlocked | Off |
| | Steering is locked | On |
| UNLK SEN -DR | Driver door is locked | Off |
| | Driver door is unlocked | On |
| PUSH SW -IPDM | Push-button ignition switch (push-switch) is not pressed | Off |
| | Push-button ignition switch (push-switch) is pressed | On |
| IGN RLY1 -F/B | Ignition switch in OFF or ACC position | Off |
| | Ignition switch in ON position | On |
| DETE SW -IPDM | Selector lever in any position other than P | Off |
| | Selector lever in P position | On |
| SFT PN -IPDM | Selector lever in any position other than P and N | Off |
| | Selector lever in P or N position | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| SFT P -MET | Selector lever in any position other than P | Off |
| | Selector lever in P position | On |
| SFT N -MET | Selector lever in any position other than N | Off |
| | Selector lever in N position | On |
| ENGINE STATE | Engine stopped | Stop |
| | While the engine stalls | Stall |
| | At engine cranking | Crank |
| | Engine running | Run |
| S/L LOCK-IPDM | Steering is locked | Off |
| | Steering is unlocked | On |
| S/L UNLK-IPDM | Steering is unlocked | Off |
| | Steering is locked | On |
| S/L RELAY-REQ | Steering is unlocked | Off |
| | Steering is locked | On |
| VEH SPEED 1 | While driving | Equivalent to speedometer reading |
| VEH SPEED 2 | While driving | Equivalent to speedometer reading |
| DOOR STAT-DR | Driver door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Driver door is unlocked | UNLOCK |
| DOOR STAT-AS | Passenger door is locked | LOCK |
| | Wait with selective UNLOCK operation (5 seconds) | READY |
| | Passenger door is unlocked | UNLOCK |
| ID OK FLAG | Steering is locked | Reset |
| | Steering is unlocked | Set |
| PRMT ENG STRT | The engine start is prohibited | Reset |
| | The engine start is permitted | Set |
| PRMT RKE STRT | **NOTE:**<br>The item is indicated, but not monitored. | Reset |
| RKE OPE COUN1 | During the operation of the key | Operation frequency of the key |
| RKE OPE COUN2 | **NOTE:**<br>The item is indicated, but not monitored. | — |
| CONFRM ID ALL | The key ID that the key slot receives is not recognized by any key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by any key ID registered to BCM. | Done |
| CONFIRM ID4 | The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the fourth key ID registered to BCM. | Done |
| CONFIRM ID3 | The key ID that the key slot receives is not recognized by the third key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the third key ID registered to BCM. | Done |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| CONFIRM ID2 | The key ID that the key slot receives is not recognized by the second key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the second key ID registered to BCM. | Done |
| CONFIRM ID1 | The key ID that the key slot receives is not recognized by the first key ID registered to BCM. | Yet |
| | The key ID that the key slot receives is recognized by the first key ID registered to BCM. | Done |
| NOT REGISTERED | BCM detects registered key ID, or BCM does not detect key ID. | ID OK |
| | BCM detects non-registration key ID. | ID NG |
| TP 4 | The ID of fourth key is not registered to BCM | Yet |
| | The ID of fourth key is registered to BCM | Done |
| TP 3 | The ID of third key is not registered to BCM | Yet |
| | The ID of third key is registered to BCM | Done |
| TP 2 | The ID of second key is not registered to BCM | Yet |
| | The ID of second key is registered to BCM | Done |
| TP 1 | The ID of first key is not registered to BCM | Yet |
| | The ID of first key is registered to BCM | Done |
| AIR PRESS FL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front LH tire |
| AIR PRESS FR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of front RH tire |
| AIR PRESS RR | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear RH tire |
| AIR PRESS RL | Ignition switch ON (Only when the signal from the transmitter is received) | Air pressure of rear LH tire |
| ID REGST FL1 | ID of front LH tire transmitter is registered | Done |
| | ID of front LH tire transmitter is not registered | Yet |
| ID REGST FR1 | ID of front RH tire transmitter is registered | Done |
| | ID of front RH tire transmitter is not registered | Yet |
| ID REGST RR1 | ID of rear RH tire transmitter is registered | Done |
| | ID of rear RH tire transmitter is not registered | Yet |
| ID REGST RL1 | ID of rear LH tire transmitter is registered | Done |
| | ID of rear LH tire transmitter is not registered | Yet |
| WARNING LAMP | Tire pressure indicator OFF | Off |
| | Tire pressure indicator ON | On |
| BUZZER | Tire pressure warning alarm is not sounding | Off |
| | Tire pressure warning alarm is sounding | On |

TERMINAL LAYOUT

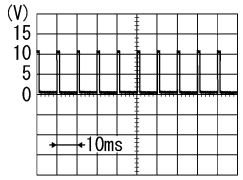
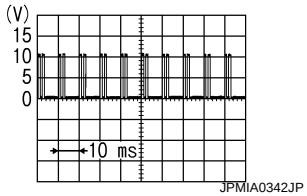
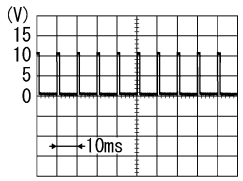
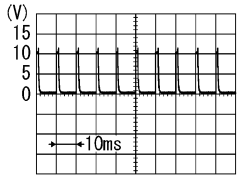
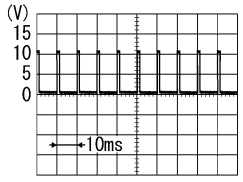


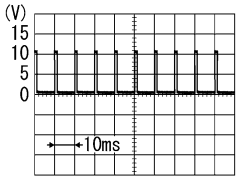
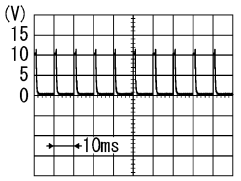
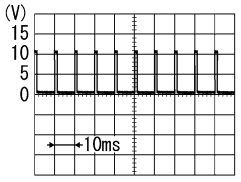
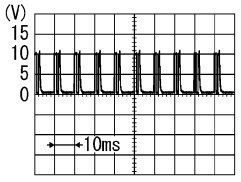
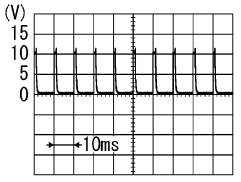

**NOTE:**

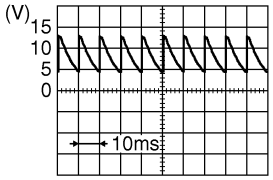
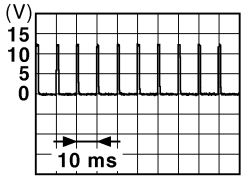
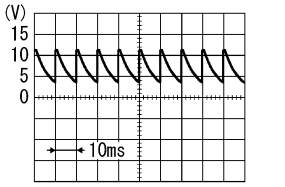
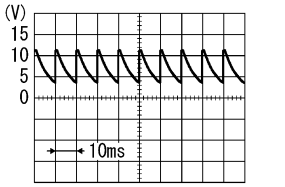
Connector color

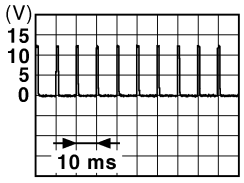
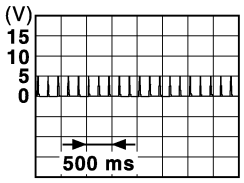
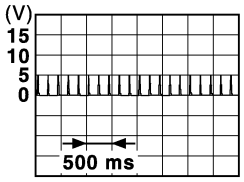
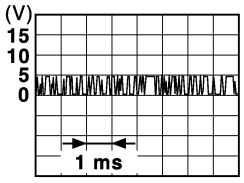
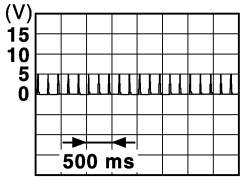
- M68, M70: Black
- M69, M71: White

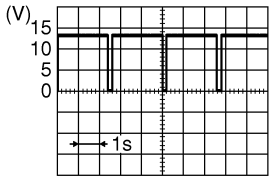
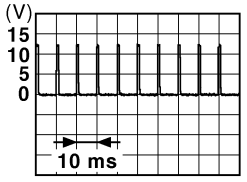
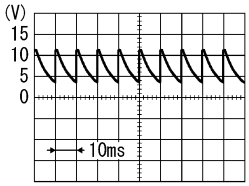
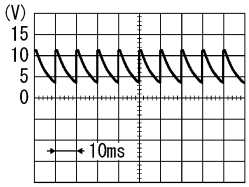
PHYSICAL VALUES

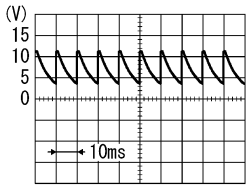
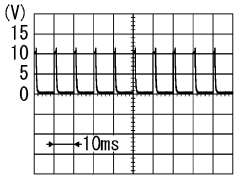
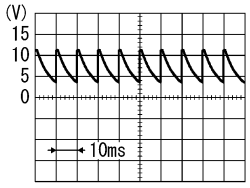
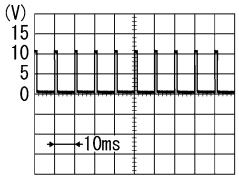
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 2 (BR/W) | Ground | Combination switch INPUT 5 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch RH<br>Lighting switch HI<br>Lighting switch 1ST |  PKIB4958J 1.0 V |
| | | | | | Lighting switch 2ND |  JPMIA0342JP 2.0 V |
| 3 (GR) | Ground | Combination switch INPUT 4 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch LH<br>Lighting switch PASS<br>Lighting switch 2ND |  PKIB4958J 1.0 V |
| | | | | | Front fog lamp switch ON |  PKIB4956J 0.8 V |
| 4 (L/Y) | Ground | Combination switch INPUT 3 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Front wiper switch LO<br>Front wiper switch MIST<br>Front wiper switch INT<br>Lighting switch AUTO |  PKIB4958J 1.0 V |

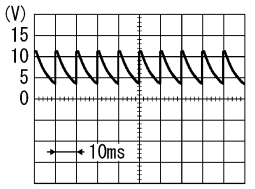
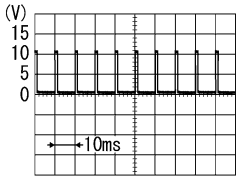
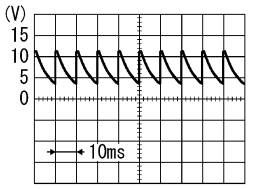
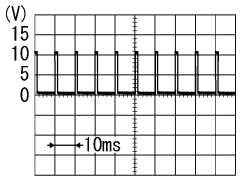
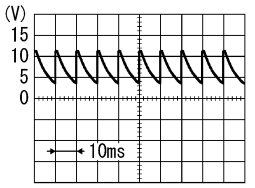
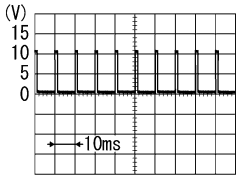
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 5 (G) | Ground | Combination switch INPUT 2 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear washer ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 | |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) |  PKIB4956J 0.8 V |
| 6 (L/R) | Ground | Combination switch INPUT 1 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | | Wiper intermittent dial 3 (All switch OFF) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2 |  PKIB4952J 1.9 V |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  PKIB4956J 0.8 V |

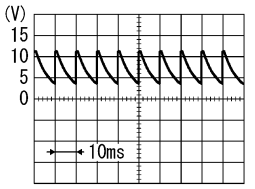
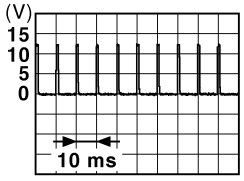
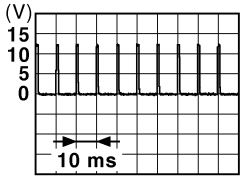
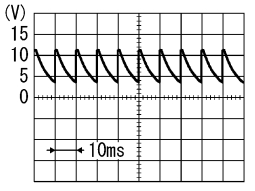
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 7 (W/R) | Ground | Door key cylinder switch UNLOCK | Input | Door key cylinder switch | NEUTRAL position |  JPMIA0587GB 8.0 - 8.5 V |
| | | | | | UNLOCK position | 0 V |
| 8 (W/B) | Ground | Door key cylinder switch LOCK | Input | Door key cylinder switch | NEUTRAL position | 12 V |
| | | | | | LOCK position | 0 V |
| 9 (R) | Ground | Stop lamp switch 1 | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | Battery voltage |
| 10 (V/W) | Ground | Tire pressure warning check switch | Input | Ignition switch OFF | |  JPMIA0012GB 1.0 - 1.5 V |
| 11 (L/Y) | Ground | ACC feedback | Input | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ACC or ON | | Battery voltage |
| 12 (SB) | Ground | Passenger door switch | Input | Passenger door switch | OFF (When passenger door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When passenger door opened) | 0 V |
| 13 (GR/L) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear RH door opened) | 0 V |
| 14 (L/B) | Ground | Optical sensor | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | | When dark outside of the vehicle | Close to 0 V |

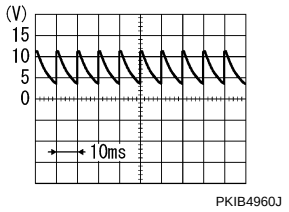
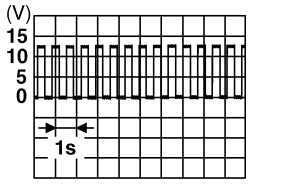
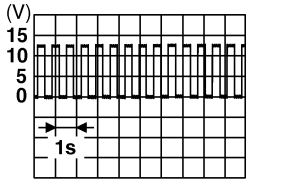
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 15 (W/L) | Ground | Rear window defogger switch | Input | Rear window defogger switch | Not pressed |  JPMIA0012GB<br>1.0 - 1.5 V |
| | | | | | Pressed | 0 V |
| 17 (R/G) | Ground | Optical sensor power supply | Output | Ignition switch | OFF, ACC | 0 V |
| | | | | | ON | 5 V |
| 18 (V) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V |
| 19 (BR) | Ground | Remote keyless entry receiver power supply | Output | Ignition switch OFF | |  JMKIA3838GB |
| 20 (G/Y) | Ground | Remote keyless entry receiver communication | Input | Waiting | |  JMKIA3838GB |
| | | | | Signal receiving | |  JMKIA3841GB |
| 21 (P/L) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 22 (W/G) | Ground | Remote keyless entry receiver RSSI | Input | Waiting | | 0 V |
| | | | | Signal receiving | |  JMKIA3838GB |

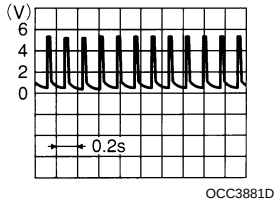
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 23 (R/Y) | Ground | Security indicator lamp | Output | Security indicator | ON | 0 V |
| | | | | | Blinking (Ignition switch OFF) |  JPMIA0590GB 12.0 V |
| | | | | | OFF | Battery voltage |
| 24* (GR/R) | Ground | Dongle link | Input/ Output | Ignition switch OFF | | 5 V |
| 25 (LG) | Ground | NATS antenna amp. | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 27 (Y/G) | Ground | A/C switch | Input | Air conditioner | OFF (A/C switch indicator: OFF) |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON (A/C switch indicator: ON) | 0 V |
| 28 (G/W) | Ground | Blower fan switch | Input | Blower fan | OFF | 0 V |
| | | | | | ON |  PKIB4960J 7.0 - 8.0 V |
| 29 (L/W) | Ground | Hazard switch | Input | Hazard switch | OFF | 12 V |
| | | | | | ON | 0 V |
| 31 (G/B) | Ground | Front door lock assembly driver side (Unlock sensor) | Input | Driver door | LOCK status (Unlock sensor switch OFF) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | UNLOCK status (Unlock sensor switch ON) | 0 V |

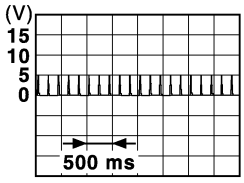
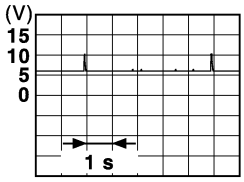
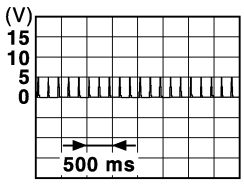
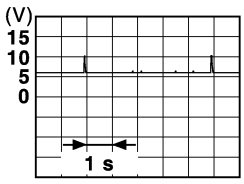
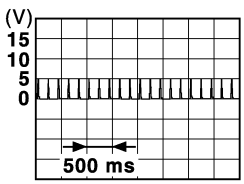
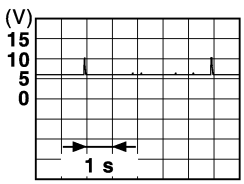
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 32 (LG) | Ground | Combination switch OUTPUT 5 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Front fog lamp switch ON (Wiper intermittent dial 4)<br>Rear wiper switch ON (Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  PKIB4956J 1.0 V |
| 33 (Y/L) | Ground | Combination switch OUTPUT 4 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4)<br>Lighting switch AUTO (Wiper intermittent dial 4)<br>Rear wiper switch INT (Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 |  PKIB4958J 1.2 V |

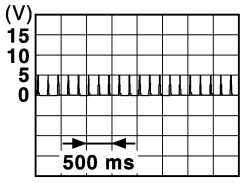
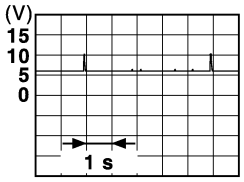
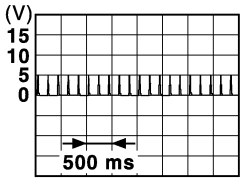
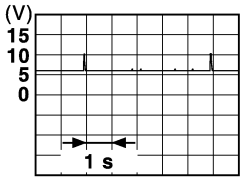
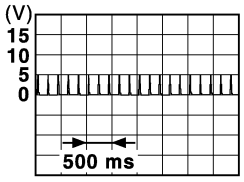
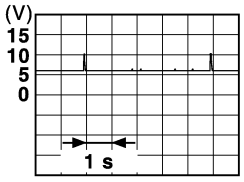
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 34 (W) | Ground | Combination switch OUTPUT 3 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4) |  PKIB4958J 1.2 V |
| | | | | | Lighting switch HI (Wiper intermittent dial 4) | |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3 | |
| 35 (R/L) | Ground | Combination switch OUTPUT 2 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND |  PKIB4958J 1.2 V |
| | | | | | Lighting switch PASS | |
| | | | | | Front wiper switch INT | |
| | | | | | Front wiper switch HI | |
| 36 (L/O) | Ground | Combination switch OUTPUT 1 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Turn signal switch RH |  PKIB4958J 1.2 V |
| | | | | | Turn signal switch LH | |
| | | | | | Front wiper switch LO (Front wiper switch MIST) | |
| | | | | | Front washer switch ON | |

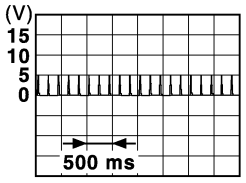
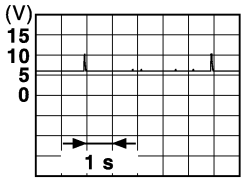
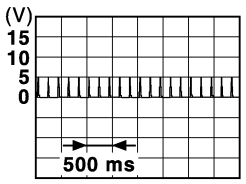
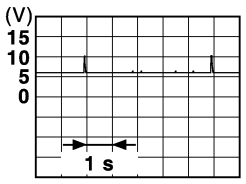
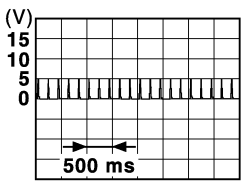
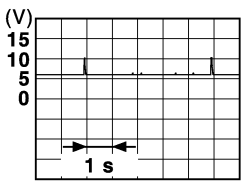
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 37 (G/O) | Ground | Selector lever P position switch | Input | Selector lever | P position | 0 V |
| | | | | | Any position other than P | 12 V |
| 38 (O) | Ground | IGN feedback | Input | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | Battery voltage |
| 39 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 40 (P) | Ground | CAN-L | Input/ Output | — | | — |
| 43 (W) | Ground | Back door switch | Input | Back door switch | OFF (When back door closed) |   PKIB4960J 9.5 - 10.0 V |
| | | | | | ON (When back door opened) | 0 V |
| 44 (LG) | Ground | Rear wiper stop position | Input | Ignition switch ON | Rear wiper stop position | 12 V |
| | | | | | Any position other than rear wiper stop position | 0 V |
| 45 (GR) | Ground | Door lock and unlock switch LOCK | Input | Door lock and unlock switch | NEUTRAL position |   JPMIA0012GB 1.0 - 1.5 V |
| | | | | | LOCK position | 0 V |
| 46 (BR) | Ground | Door lock and unlock switch UNLOCK | Input | Door lock and unlock switch | NEUTRAL position |   JPMIA0012GB 1.0 - 1.5 V |
| | | | | | UNLOCK position | 0 V |
| 47 (BR/Y) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closed) |   PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When driver door opened) | 0 V |

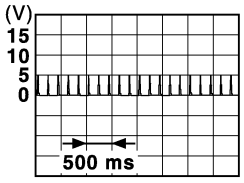
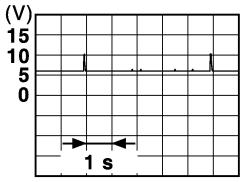
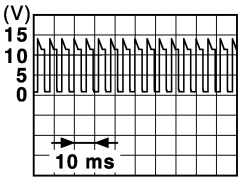
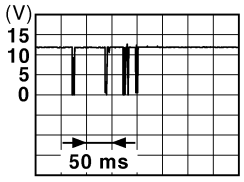
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 48 (W/G) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closed) |  PKIB4960J<br>7.0 - 8.0 V |
| | | | | | ON (When rear door LH opened) | 0 V |
| 54 (L/W) | Ground | Rear wiper | Output | Rear wiper | OFF (Stopped) | 0 V |
| | | | | | ON (Activated) | 12 V |
| 55 (G) | Ground | Rear door UNLOCK | Output | Rear door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 56 (L) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V |
| 57 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 59 (G) | Ground | Passenger door UNLOCK | Output | Passenger door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 60 (W/B) | Ground | Turn signal LH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKIC6370E<br>6.0 V |
| 61 (W/L) | Ground | Turn signal RH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKIC6370E<br>6.0 V |
| 63 (BR) | Ground | Interior room lamp timer control | Output | Interior room lamp | OFF | 12 V |
| | | | | | ON | 0 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 65 (V) | Ground | All doors LOCK | Output | All doors | LOCK (Actuator is activated) | 12 V |
| | | | | | Other then LOCK (Actuator is not activated) | 0 V |
| 66 (L/B) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 67 (B) | Ground | Ground | Output | Ignition switch ON | | 0 V |
| 68 (L) | Ground | P/W power supply (IGN) | Output | Ignition switch ON | | 12 V |
| 69 (L/W) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V |
| 70 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 71 (R) | Ground | Tire pressure receiver communication | Input/ Output | Ignition switch ON | Standby state |   OCC3881D |
| | | | | | When receiving the signal from the transmitter |   OCC3880D |
| 72 (R/W) | Ground | Back door lock actuator relay control | Output | Back door | LOCK (Actuator is activated) | 0 V |
| | | | | | Other than LOCK (Actuator is not activated) | Battery voltage |
| 75 (SB) | Ground | Driver door request switch | Input | Driver door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |
| 76 (G) | Ground | Passenger door request switch | Input | Passenger door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |
| 77 (W) | Ground | Back door request switch | Input | Back door request switch | ON (Pressed) | 0 V |
| | | | | | OFF (Not pressed) | 12 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 78 (LG) | Ground | Driver door antenna (+) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 79 (V) | Ground | Driver door antenna (-) | Output | When the driver door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 80 (BR/Y) | Ground | Passenger door antenna (+) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 81 (L/Y) | Ground | Passenger door antenna (-) | Output | When the passenger door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 82 (W/B) | Ground | Back door antenna (+) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 83 (B/W) | Ground | Back door antenna (-) | Output | When the back door request switch is operated with ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 84 (Y/G) | Ground | Room antenna (+) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 85 (Y/L) | Ground | Room antenna (-) (Instrument panel) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 86 (P) | Ground | Luggage room antenna (+) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |

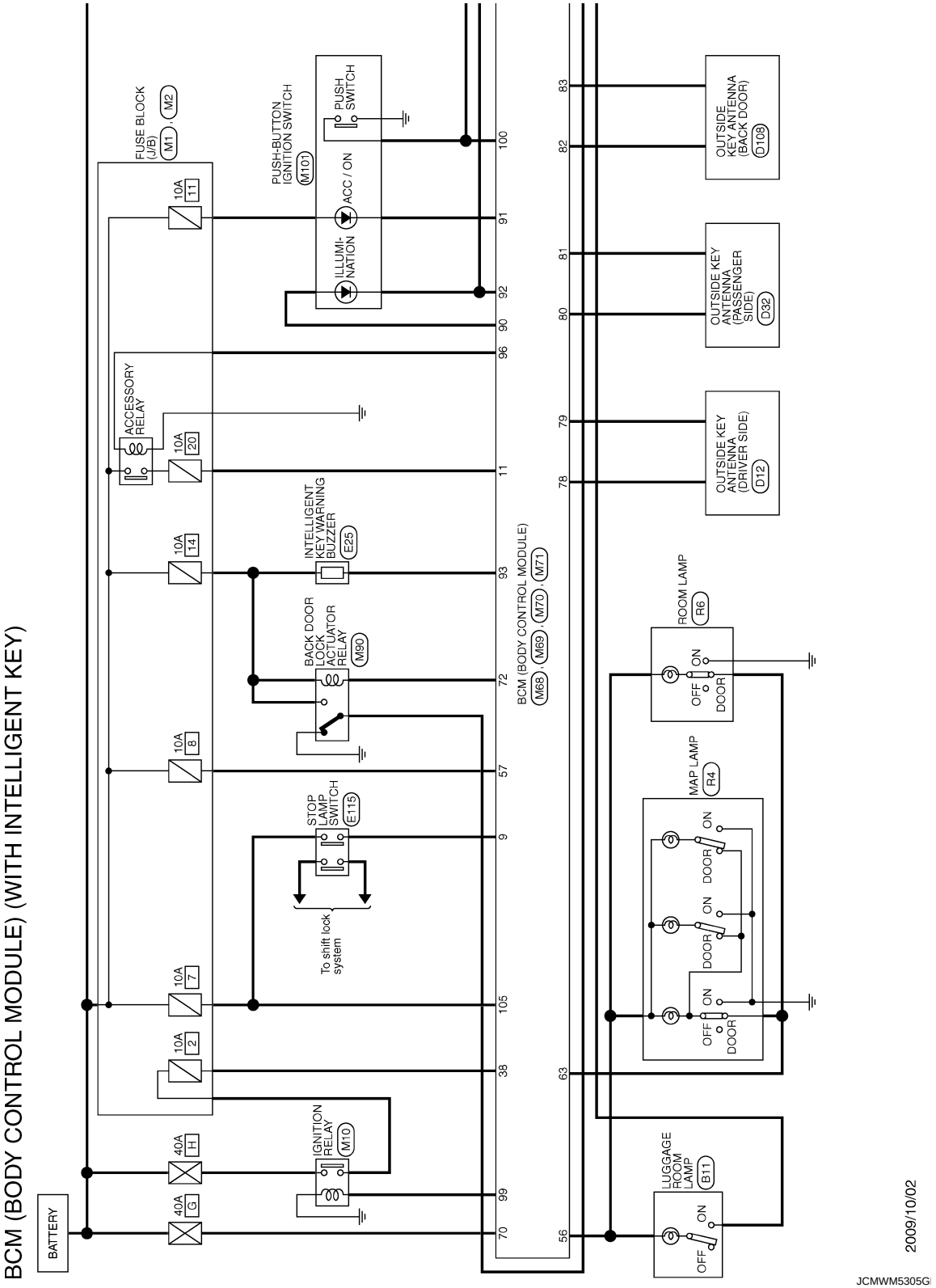
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 87 (L) | Ground | Luggage room antenna (-) | Output | Ignition switch OFF | When Intelligent Key is not in the antenna detection area |  JMKIA3838GB |
| | | | | | When Intelligent Key is in the antenna detection area |  JMKIA3839GB |
| 90 (W/L) | Ground | Push-button ignition switch illumination | Output | Push-button ignition switch illumination | ON | 12 V |
| | | | | | OFF | 0 V |
| 91 (Y) | Ground | ACC/ON indicator lamp | Output | Ignition switch | OFF | Battery voltage |
| | | | | | ACC or ON | 0.5 V |
| 92 (BR/R) | Ground | Push-button ignition switch illumination ground | Output | Tail lamp | OFF | 0 V |
| | | | | | ON | **NOTE:**<br>When the illumination brightening/dimming level is in the neutral position<br>  JPMIA1554GB<br>6.0 - 7.0 V |
| 93 (GR/W) | Ground | Intelligent Key warning buzzer | Output | Intelligent Key warning buzzer | Sounding | 0 V |
| | | | | | Not sounding | 12 V |
| 94 (Y/R) | Ground | Steering lock unit communication | Input/ Output | Steering lock | LOCK status | 12 V |
| | | | | | LOCK or UNLOCK |  JMKIA0066GB |
| | | | | | For 15 seconds after UNLOCK | 12 V |
| | | | | | 15 seconds or later after UNLOCK | 0 V |
| 95 (W/G) | Ground | Steering lock unit power supply | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |

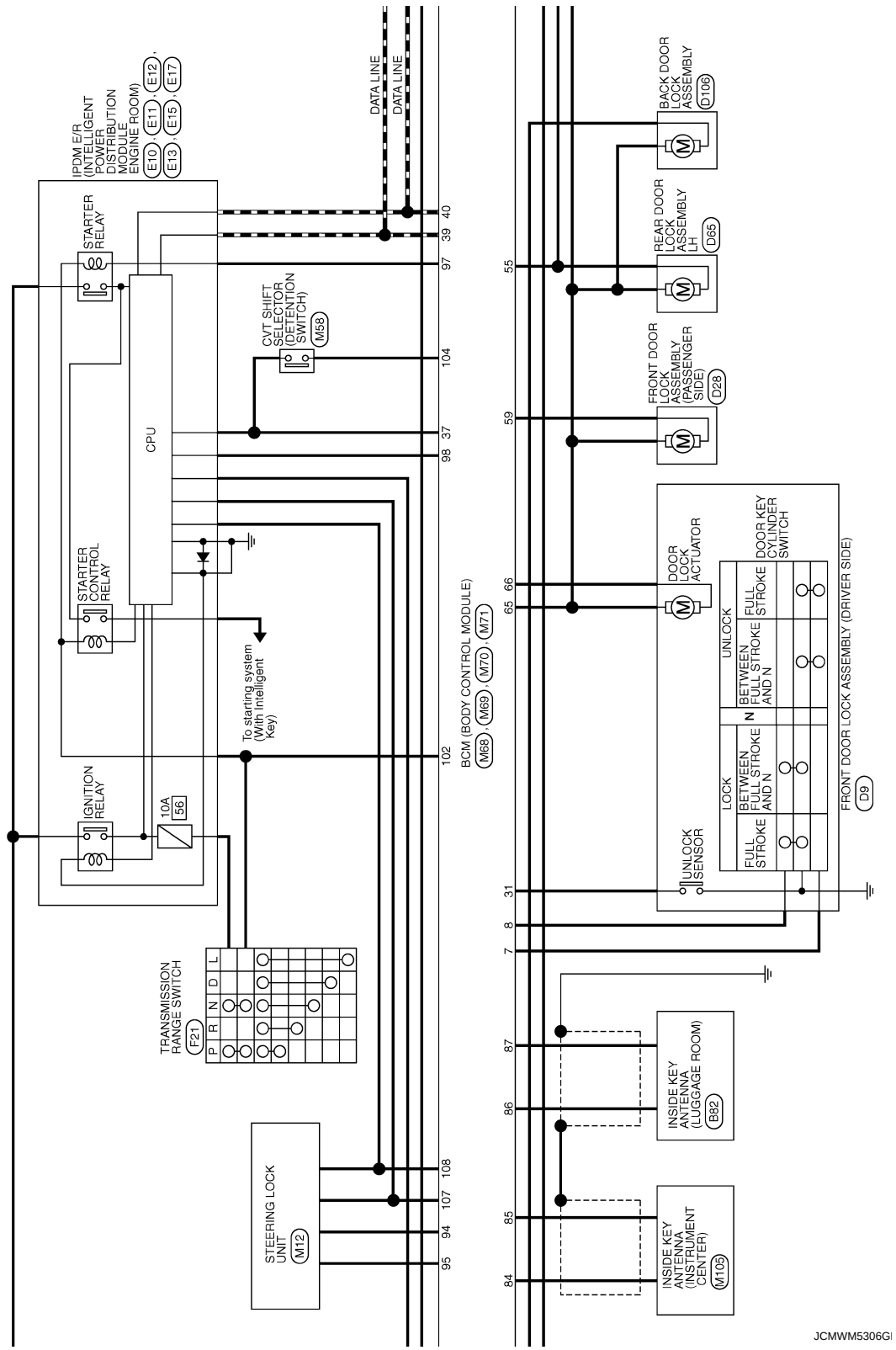
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 96 (G) | Ground | ACC relay control | Output | Ignition switch | OFF | 0 V |
| | | | | | ACC or ON | 12 V |
| 97 (L/R) | Ground | Starter relay control | Output | Ignition switch ON | When selector lever is in P or N position | Battery voltage |
| | | | | | When selector lever is not in P or N position | 0 V |
| 98 (BR) | Ground | Ignition relay (IPDM E/R) control | Output | Ignition switch | OFF or ACC | 12 V |
| | | | | | ON | 0 V |
| 99 (W/R) | Ground | Ignition relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 100 (L/O) | Ground | Push-button ignition switch (push switch) | Input | Push-button ignition switch (push switch) | Pressed | 0 V |
| | | | | | Not pressed | 12 V |
| 102 (G) | Ground | Selector lever P/N position | Input | Selector lever | P or N position | Battery voltage |
| | | | | | Except P and N positions | 0 V |
| 104 (Y/R) | Ground | CVT shift selector (detention switch) power supply | Output | Ignition switch ON | | 12 V |
| 105 (B/O) | Ground | Stop lamp switch 2 | Input | Ignition switch OFF | | Battery voltage |
| 106 (Y/B) | Ground | Blower fan motor relay control | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 12 V |
| 107 (L/W) | Ground | Steering lock condition No. 1 | Input | Steering lock | LOCK status | 0 V |
| | | | | | UNLOCK status | 12 V |
| 108 (P/L) | Ground | Steering lock condition No. 2 | Input | Steering lock | LOCK status | 12 V |
| | | | | | UNLOCK status | 0 V |
| 110 (BR/W) | Ground | Tire pressure receiver power supply | Output | Ignition switch | OFF or ACC | 0 V |
| | | | | | ON | 5 V |

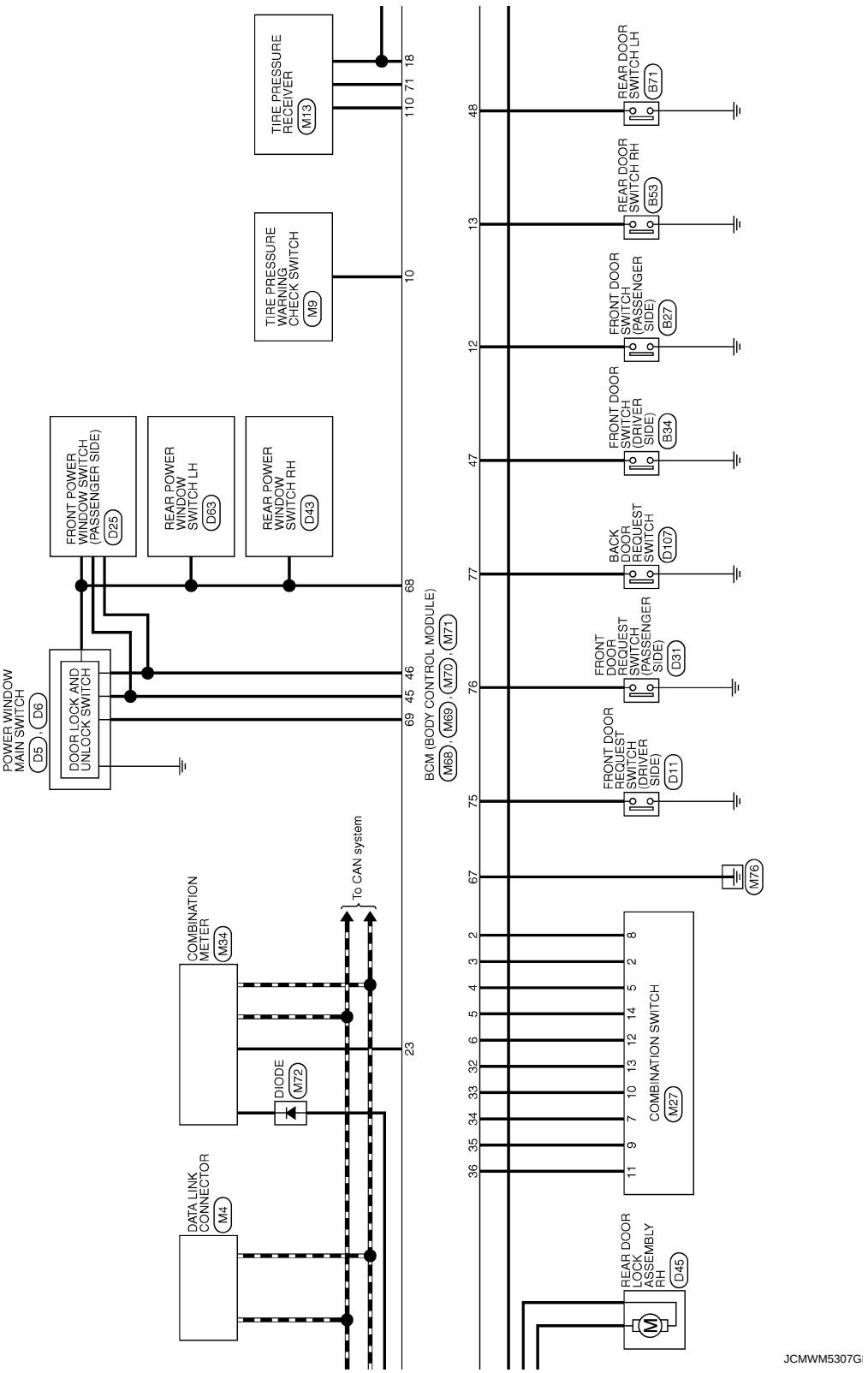
*: For Canada

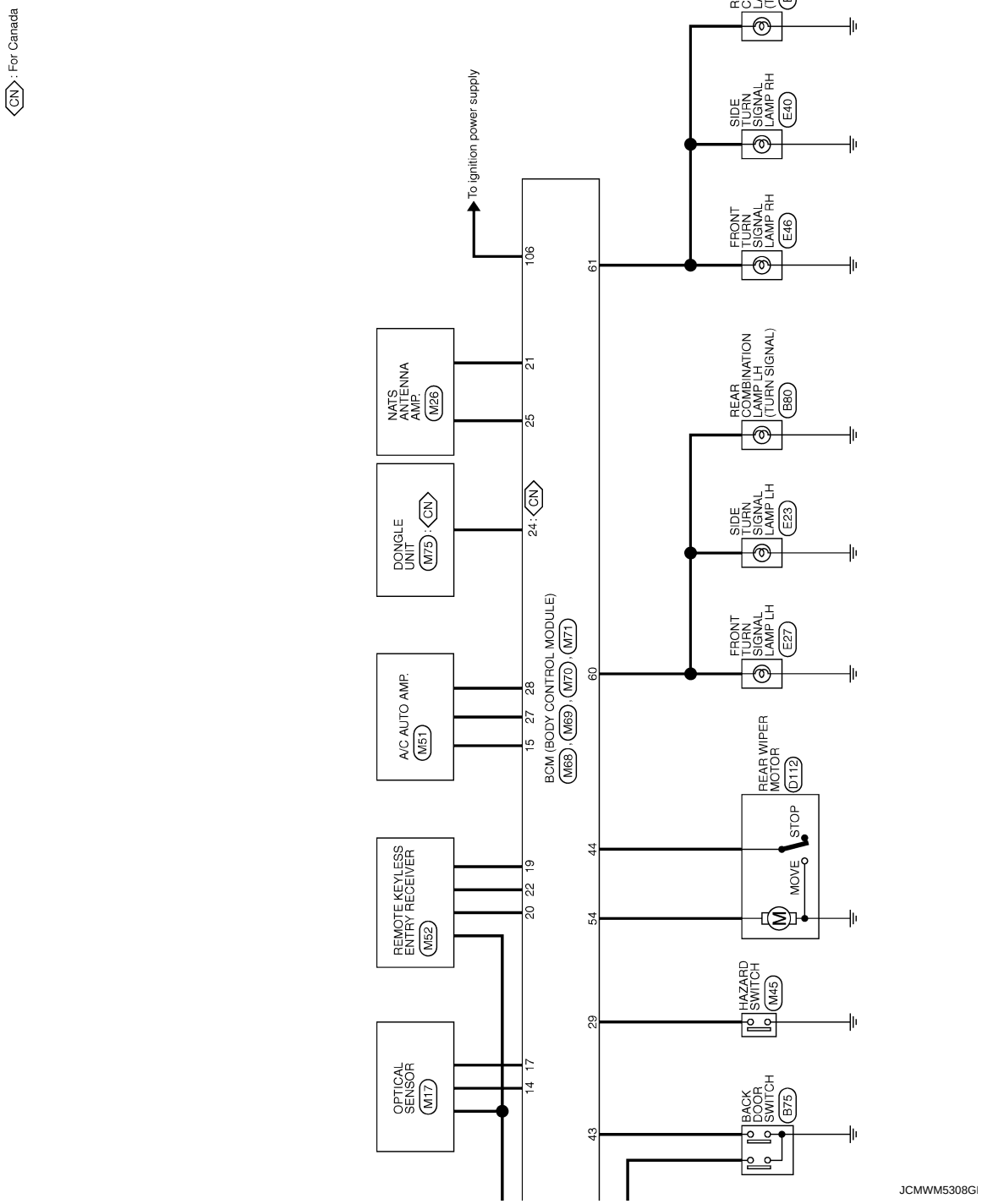
## WITH INTELLIGENT KEY : Wiring Diagram - BCM -

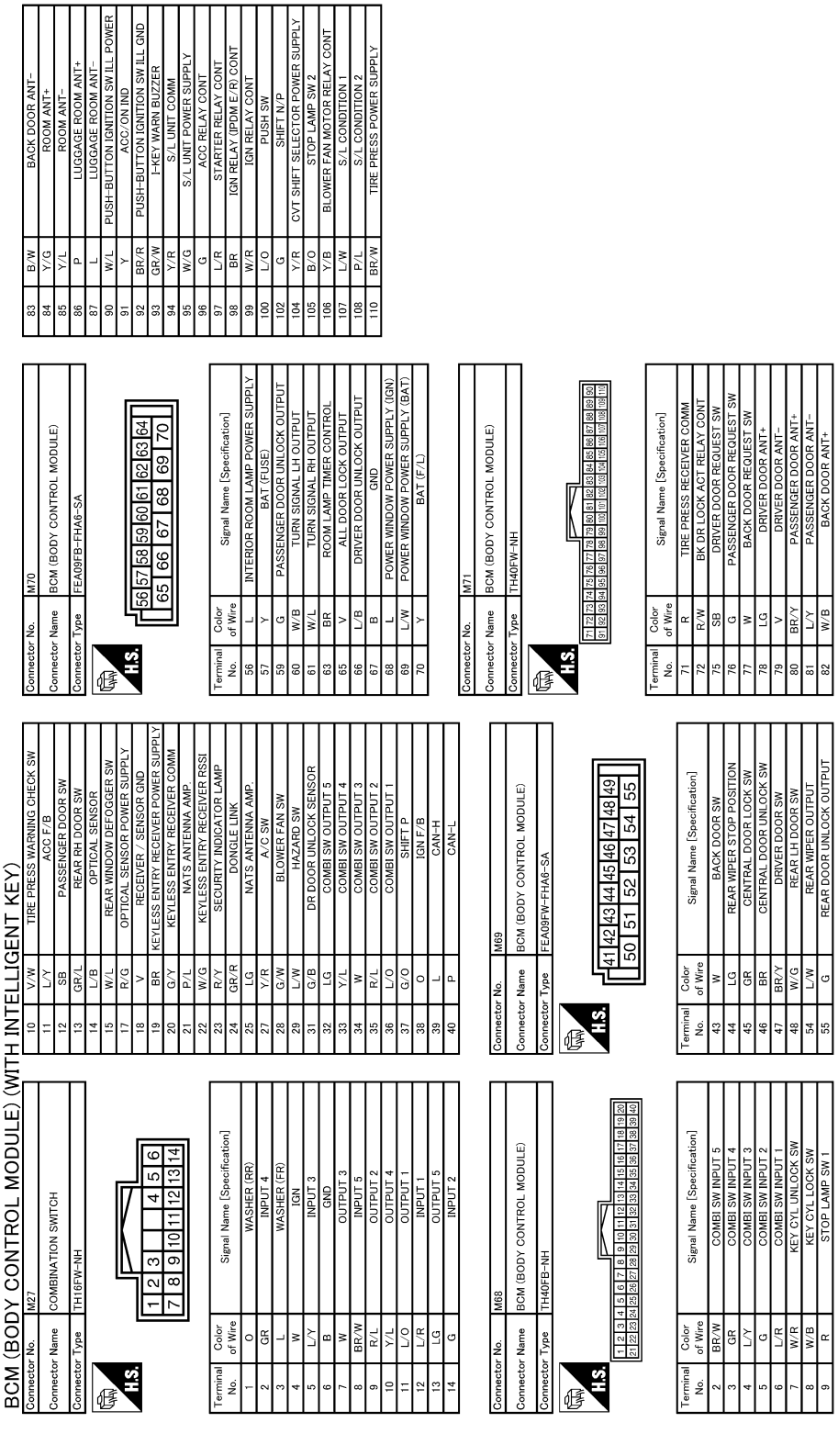
INFOID:0000000005817177




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E10, E11, E12, E13, E15, E17
DATA LINE
DATA LINE
STARTER RELAY
CVT SHIFT SELECTOR (DETENTION SWITCH) M58
CPU
STARTER CONTROL RELAY
IGNITION RELAY
10A 56
To starting system (With intelligent Key)
BCM (BODY CONTROL MODULE) M68, M69, M70, M71
TRANSMISSION RANGE SWITCH F21
P R N D L
STEERING LOCK UNIT M12
BACK DOOR LOCK ASSEMBLY D106
REAR DOOR LOCK ASSEMBLY LH D65
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) D28
DOOR LOCK ACTUATOR
UNLOCK SENSOR
DOOR KEY CYLINDER SWITCH
LOCK
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) D9
INSIDE KEY ANTENNA (LUGGAGE ROOM) B82
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M105
JCMWM5306GB


TIRE PRESSURE RECEIVER M13
TIRE PRESSURE WARNING CHECK SWITCH M9
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) D25
REAR POWER WINDOW SWITCH LH D63
REAR POWER WINDOW SWITCH RH D43
POWER WINDOW MAIN SWITCH D5, D6
DOOR LOCK AND UNLOCK SWITCH
BCM (BODY CONTROL MODULE) M68, M69, M70, M71
COMBINATION METER M34
DIODE M72
DATA LINK CONNECTOR M4
To CAN system
REAR DOOR SWITCH LH B71
REAR DOOR SWITCH RH B53
FRONT DOOR SWITCH (PASSENGER SIDE) B27
FRONT DOOR SWITCH (DRIVER SIDE) B34
BACK DOOR REQUEST SWITCH D107
FRONT DOOR REQUEST SWITCH (PASSENGER SIDE) D31
FRONT DOOR REQUEST SWITCH (DRIVER SIDE) D11
M76
COMBINATION SWITCH M27
REAR DOOR LOCK ASSEMBLY RH D45
JCMWM5307G


CN : For Canada
To ignition power supply
REAR COMBINATION LAMP RH (TURN SIGNAL) B59
SIDE TURN SIGNAL LAMP RH E40
FRONT TURN SIGNAL LAMP RH E46
REAR COMBINATION LAMP LH (TURN SIGNAL) B80
SIDE TURN SIGNAL LAMP LH E23
FRONT TURN SIGNAL LAMP LH E27
REAR WIPER MOTOR D112
STOP
MOVE
HAZARD SWITCH M45
BACK DOOR SWITCH B75
NATS ANTENNA AMP. M26
DONGLE UNIT M75 : CN
A/C AUTO AMP. M51
REMOTE KEYLESS ENTRY RECEIVER M52
OPTICAL SENSOR M17
BCM (BODY CONTROL MODULE) M68 , M69 , M70 , M71
106
61
21
25
24 : CN
60
28
27
15
44
54
19
22
20
29
17
14
43
JCMWM5308GI




JCMWM5309G

## WITH INTELLIGENT KEY : Fail-safe

INFOID:0000000005817178

### FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B2013: ID DISCORD BCM-S/L | Inhibit engine cranking | When communication between BCM and steering lock unit are communicated normally. |
| B2014: CHAIN OF S/L-BCM | Inhibit engine cranking | When communication between BCM and steering lock unit are communicated normally. |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2195: ANTI-SCANNING | Inhibit engine cranking | Ignition switch ON → OFF |
| B2196: DONGLE NG | Inhibit engine cranking | Erase DTC |
| B2198: NATS ANTENNA AMP | Inhibit engine cranking | Erase DTC |
| B2557: VEHICLE SPEED | Inhibit steering lock | When the following CAN signal status (vehicle speed signal) becomes consistent<br>• Vehicle speed signal (ABS)<br>• Vehicle speed signal (Meter) |
| B2601: SHIFT POSITION | Inhibit steering lock | 500 ms after the following signal reception status becomes consistent<br>• Selector lever P position switch signal<br>• P range signal (CAN) |
| B2602: SHIFT POSITION | Inhibit steering lock | 5 seconds after the following BCM recognition conditions are fulfilled<br>• Ignition switch is in the ON position<br>• Selector lever P position switch signal: Except P position (battery voltage)<br>• Vehicle speed: 4 km/h (2.5 MPH) or more |
| B2603: SHIFT POSI STATUS | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Ignition switch is in the ON position<br>- Selector lever P position switch signal: Except P position (12 V)<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P position switch signal: P position (0 V)<br>- Selector lever P/N position signal: P or N positions (12 V) |
| B2604: PNP/CLUTCH SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: P or N position (12 V)<br>- Shift position signal (CAN): P or N position<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>- Shift position signal (CAN): Except P and N position |
| B2605: PNP/CLUTCH SW | Inhibit steering lock | 500 ms after any of the following BCM recognition conditions are fulfilled<br>• Status 1<br>- Power position: IGN<br>- Selector lever P/N position signal: Except P and N positions (0 V)<br>- Interlock/PNP switch signal (CAN): OFF<br>• Status 2<br>- Ignition switch is in the ON position<br>- Selector lever P/N position signal: P or N position (12 V)<br>- Interlock/PNP switch signal (CAN): ON |
| B2608: STARTER RELAY | Inhibit engine cranking | 500 ms after the following signal communication status becomes consistent<br>• Starter motor relay control signal<br>• Starter relay status signal (CAN) |
| B2609: S/L STATUS | • Inhibit engine cranking<br>• Inhibit steering lock | When the following steering lock conditions agree<br>• BCM steering lock control status<br>• Steering lock condition No. 1 signal status<br>• Steering lock condition No. 2 signal status |
| B260B: STEERING LOCK UNIT | Inhibit steering lock | Erase DTC |

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B260D: STEERING LOCK UNIT | Inhibit steering lock | Erase DTC |
| B260F: ENG STATE SIG LOST | Inhibit engine cranking | When any of the following conditions are fulfilled<br>• Power position changes to ACC<br>• Receives engine status signal (CAN) |
| B2612: S/L STATUS | • Inhibit engine cranking<br>• Inhibit steering lock | When any of the following conditions are fulfilled<br>• Steering lock unit status signal (CAN) is received normally<br>• The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) |
| B2619: BCM | Inhibit engine cranking | 1 second after the steering lock unit power supply output control inside BCM becomes normal |
| B26EF: STRG LCK RELAY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Steering lock relay signal (CAN): ON<br>• Steering lock unit status signal (CAN): ON |
| B26F0: STRG LCK RELAY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Steering lock relay signal (CAN): OFF<br>• Steering lock unit status signal (CAN): OFF |
| B26F1: IGN RELAY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Ignition switch ON signal (CAN: Transmitted from BCM): ON<br>• Ignition switch ON signal (CAN: Transmitted from IPDM E/R): ON |
| B26F2: IGN RELAY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Ignition switch ON signal (CAN: Transmitted from BCM): OFF<br>• Ignition switch ON signal (CAN: Transmitted from IPDM E/R): OFF |
| B26F3: START CONT RLY ON | Inhibit engine cranking | When the following conditions are fulfilled<br>• Starter control relay signal (CAN: Transmitted from BCM): OFF<br>• Starter control relay signal (CAN: Transmitted from IPDM E/R): OFF |
| B26F4: START CONT RLY OFF | Inhibit engine cranking | When the following conditions are fulfilled<br>• Starter control relay signal (CAN: Transmitted from BCM): ON<br>• Starter control relay signal (CAN: Transmitted from IPDM E/R): ON |
| B26F7: BCM | Inhibit engine cranking by Intelligent Key system | When room antenna and luggage room antenna functions normally |
| U0415: VEHICLE SPEED | Inhibit steering lock | When vehicle speed signal (Meter) (CAN) is received normally |

## REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.
When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation
1. More than 1 minute is passed after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## WITH INTELLIGENT KEY : DTC Inspection Priority Chart

INFOID:0000000005817179

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

| Priority | DTC |
|---|---|
| 1 | B2562: LOW VOLTAGE |
| 2 | • U1000: CAN COMM CIRCUIT<br>• U1010: CONTROL UNIT (CAN) |
| 3 | • B2192: ID DISCORD BCM-ECM<br>• B2193: CHAIN OF BCM-ECM<br>• B2195: ANTI-SCANNING<br>• B2196: DONGLE NG<br>• B2198: NATS ANTENNA AMP |

| Priority | DTC |
|---|---|
| 4 | • B2013: ID DISCORD BCM-S/L<br>• B2014: CHAIN OF S/L-BCM<br>• B2553: IGNITION RELAY<br>• B2555: STOP LAMP<br>• B2556: PUSH-BTN IGN SW<br>• B2557: VEHICLE SPEED<br>• B2601: SHIFT POSITION<br>• B2602: SHIFT POSITION<br>• B2603: SHIFT POSI STATUS<br>• B2604: PNP/CLUTCH SW<br>• B2605: PNP/CLUTCH SW<br>• B2608: STARTER RELAY<br>• B2609: S/L STATUS<br>• B260B: STEERING LOCK UNIT<br>• B260C: STEERING LOCK UNIT<br>• B260D: STEERING LOCK UNIT<br>• B260F: ENG STATE SIG LOST<br>• B2612: S/L STATUS<br>• B2614: BCM<br>• B2615: BCM<br>• B2616: BCM<br>• B2618: BCM<br>• B2619: BCM<br>• B261A: PUSH-BTN IGN SW<br>• B26E9: LOCK MALFUNCTION<br>• B26EF: STRG LCK RELAY OFF<br>• B26F0: STRG LCK RELAY ON<br>• B26F1: IGN RELAY OFF<br>• B26F2: IGN RELAY ON<br>• B26F3: START CONT RLY ON<br>• B26F4: START CONT RLY OFF<br>• B26F5: STRG LCK STS SW<br>• B26F6: BCM<br>• B26F7: BCM<br>• B26F8: BCM<br>• B26FC: KEY REGISTRATION<br>• C1729: VHCL SPEED SIG ERR<br>• U0415: VEHICLE SPEED |
| 5 | • C1704: LOW PRESSURE FL<br>• C1705: LOW PRESSURE FR<br>• C1706: LOW PRESSURE RR<br>• C1707: LOW PRESSURE RL<br>• C1708: [NO DATA] FL<br>• C1709: [NO DATA] FR<br>• C1710: [NO DATA] RR<br>• C1711: [NO DATA] RL<br>• C1716: [PRESSDATA ERR] FL<br>• C1717: [PRESSDATA ERR] FR<br>• C1718: [PRESSDATA ERR] RR<br>• C1719: [PRESSDATA ERR] RL<br>• C1734: CONTROL UNIT |
| 6 | • B2621: INSIDE ANTENNA<br>• B2622: INSIDE ANTENNA |
| 7 | • B2626: OUTSIDE ANTENNA<br>• B2627: OUTSIDE ANTENNA<br>• B2628: OUTSIDE ANTENNA |

## WITH INTELLIGENT KEY : DTC Index

INFOID:0000000005817180

**NOTE:**
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-18, "COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)".

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---|---|---|---|---|---|
| No DTC is detected. further testing may be required. | — | — | — | — | — |
| U1000: CAN COMM | — | — | — | — | BCS-39 |
| U1010: CONTROL UNIT (CAN) | — | — | — | — | BCS-40 |
| U0415: VEHICLE SPEED | × | — | × | — | BCS-41 |
| B2013: ID DISCORD BCM-S/L | × | × | × | — | SEC-45 |
| B2014: CHAIN OF S/L-BCM | × | × | × | — | SEC-46 |
| B2192: ID DISCORD BCM-ECM | × | — | — | — | SEC-35 |
| B2193: CHAIN OF BCM-ECM | × | — | — | — | SEC-37 |
| B2195: ANTI-SCANNING | × | — | — | — | SEC-38 |
| B2196: DONGLE NG | × | — | — | — | SEC-39 |
| B2198: NATS ANTENNA AMP | × | — | — | — | SEC-41 |
| B2553: IGNITION RELAY | — | × | × | — | PCS-77 |
| B2555: STOP LAMP | — | × | × | — | SEC-49 |
| B2556: PUSH-BTN IGN SW | — | × | × | — | SEC-51 |
| B2557: VEHICLE SPEED | × | × | × | — | SEC-53 |
| B2562: LOW VOLTAGE | — | × | — | — | BCS-42 |
| B2601: SHIFT POSITION | × | × | × | — | SEC-54 |
| B2602: SHIFT POSITION | × | × | × | — | SEC-57 |
| B2603: SHIFT POSI STATUS | × | × | × | — | SEC-60 |
| B2604: PNP/CLUTCH SW | × | × | × | — | SEC-65 |
| B2605: PNP/CLUTCH SW | × | × | × | — | SEC-68 |
| B2608: STARTER RELAY | × | × | × | — | SEC-70 |
| B2609: S/L STATUS | × | × | × | — | SEC-72 |
| B260B: STEERING LOCK UNIT | × | × | × | — | SEC-75 |
| B260C: STEERING LOCK UNIT | — | × | × | — | SEC-76 |
| B260D: STEERING LOCK UNIT | × | × | × | — | SEC-77 |
| B260F: ENG STATE SIG LOST | × | × | × | — | SEC-78 |
| B2612: S/L STATUS | × | × | × | — | SEC-79 |
| B2614: BCM | — | × | × | — | PCS-79 |
| B2615: BCM | — | × | × | — | PCS-82 |
| B2616: BCM | — | × | × | — | PCS-85 |
| B2618: BCM | — | × | × | — | PCS-88 |
| B2619: BCM | × | × | × | — | SEC-82 |
| B261A: PUSH-BTN IGN SW | — | × | × | — | PCS-89 |
| B2621: INSIDE ANTENNA | — | × | — | — | DLK-44 |
| B2622: INSIDE ANTENNA | — | × | — | — | DLK-46 |
| B2626: OUTSIDE ANTENNA | — | × | — | — | DLK-48 |

| CONSULT display | Fail-safe | Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition | Intelligent Key warning lamp ON | Tire pressure monitor warning lamp ON | Reference page |
|---|---|---|---|---|---|
| B2627: OUTSIDE ANTENNA | — | × | — | — | DLK-50 |
| B2628: OUTSIDE ANTENNA | — | × | — | — | DLK-52 |
| B26E9: LOCK MALFUNCTION | — | × | × (Turn ON for 15 seconds) | — | SEC-83 |
| B26EF: STRG LCK RELAY OFF | × | × | × | — | SEC-84 |
| B26F0: STRG LCK RELAY ON | × | × | × | — | SEC-86 |
| B26F1: IGN RELAY OFF | × | × | × | — | PCS-91 |
| B26F2: IGN RELAY ON | × | × | × | — | PCS-94 |
| B26F3: START CONT RLY ON | × | × | × | — | SEC-87 |
| B26F4: START CONT RLY OFF | × | × | × | — | SEC-88 |
| B26F5: STRG LCK STS SW | — | × | × | — | SEC-90 |
| B26F6: BCM | — | × | × | — | PCS-97 |
| B26F7: BCM | × | × | × | — | SEC-93 |
| B26F8: BCM | — | × | × | — | SEC-94 |
| B26FC: KEY REGISTRATION | — | × | × | — | SEC-95 |
| C1704: LOW PRESSURE FL | — | — | — | × | WT-30 |
| C1705: LOW PRESSURE FR | — | — | — | × | |
| C1706: LOW PRESSURE RR | — | — | — | × | |
| C1707: LOW PRESSURE RL | — | — | — | × | |
| C1708: [NO DATA] FL | — | — | — | × | WT-32 |
| C1709: [NO DATA] FR | — | — | — | × | |
| C1710: [NO DATA] RR | — | — | — | × | |
| C1711: [NO DATA] RL | — | — | — | × | |
| C1716: [PRESSDATA ERR] FL | — | — | — | × | WT-35 |
| C1717: [PRESSDATA ERR] FR | — | — | — | × | |
| C1718: [PRESSDATA ERR] RR | — | — | — | × | |
| C1719: [PRESSDATA ERR] RL | — | — | — | × | |
| C1729: VHCL SPEED SIG ERR | — | — | — | × | WT-37 |
| C1734: CONTROL UNIT | — | — | — | × | WT-39 |

## WITHOUT INTELLIGENT KEY

## WITHOUT INTELLIGENT KEY : Reference Value

INFOID:0000000005817181

### VALUES ON THE DIAGNOSIS TOOL

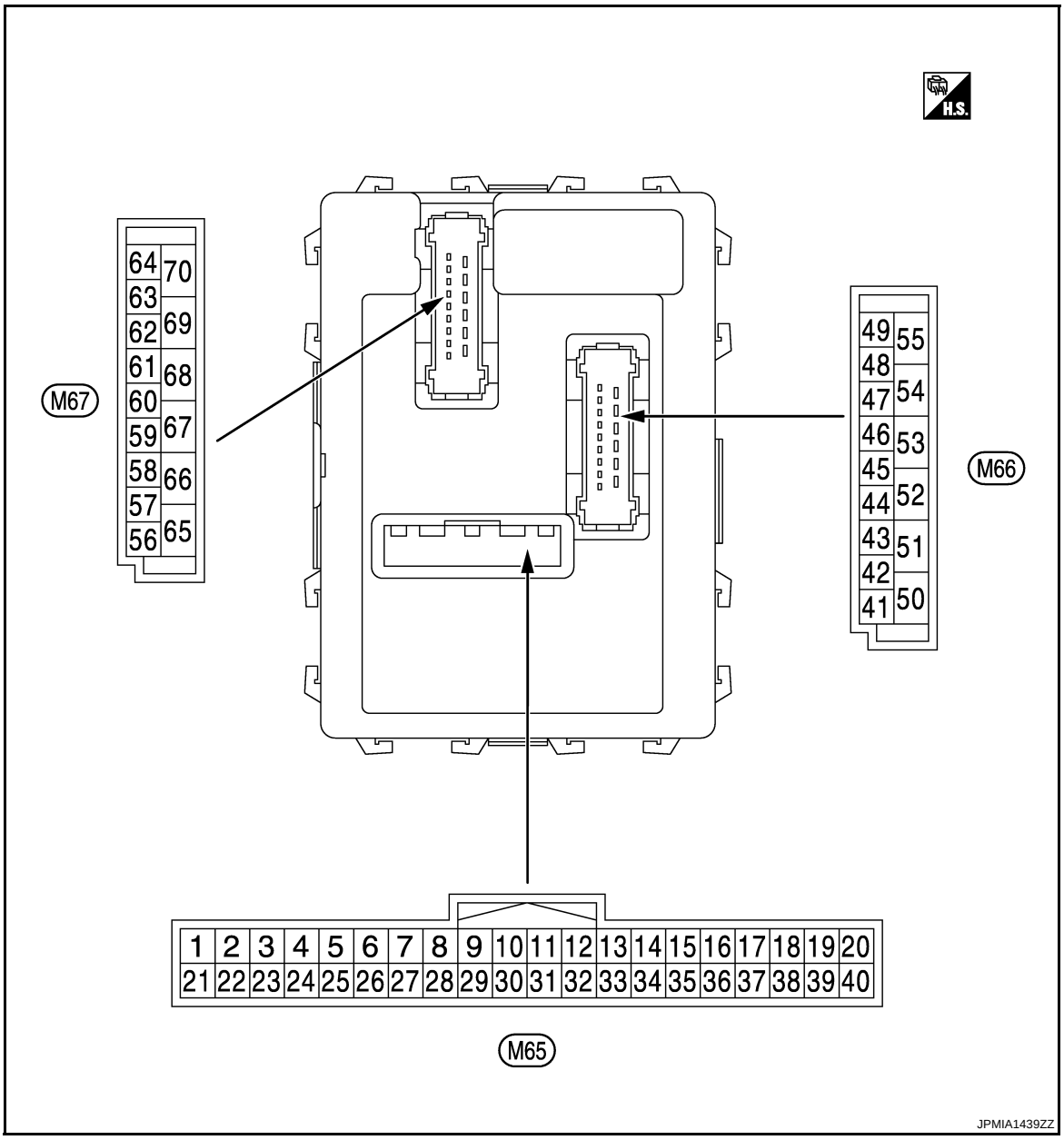
| Monitor Item | Condition | Value/Status |
|---|---|---|
| IGN ON SW | Ignition switch OFF or ACC | Off |
| | Ignition switch ON | On |
| KEY ON SW | Mechanical key is removed from key cylinder | Off |
| | Mechanical key is inserted to key cylinder | On |
| CDL LOCK SW | Door lock/unlock switch does not operate | Off |
| | Press door lock/unlock switch to the lock side | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| CDL UNLOCK SW | Door lock/unlock switch does not operate | Off |
| | Press door lock/unlock switch to the unlock side | On |
| DOOR SW-DR | Driver's door closed | Off |
| | Driver's door opened | On |
| DOOR SW-AS | Passenger door closed | Off |
| | Passenger door opened | On |
| DOOR SW-RR | Rear RH door closed | Off |
| | Rear RH door opened | On |
| DOOR SW-RL | Rear LH door closed | Off |
| | Rear LH door opened | On |
| BACK DOOR SW | Back door closed | Off |
| | Back door opened | On |
| LOCK STATUS | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| ACC ON SW | Ignition switch OFF | Off |
| | Ignition switch ACC or ON | On |
| KEYLESS LOCK | “LOCK” button of key fob is not pressed | Off |
| | “LOCK” button of key fob is pressed | On |
| KEYLESS UNLOCK | “UNLOCK” button of key fob is not pressed | Off |
| | “UNLOCK” button of key fob is pressed | On |
| SHOCK SENSOR | **NOTE:**<br>The item is indicated, but not monitored. | NORMAL |
| KEY CYL LK-SW | Other than driver door key cylinder LOCK position | Off |
| | Driver door key cylinder LOCK position | On |
| KEY CYL UN-SW | Other than driver door key cylinder UNLOCK position | Off |
| | Driver door key cylinder UNLOCK position | On |
| VEHICLE SPEED | While driving | Equivalent to speed-ometer reading |
| REAR DEF SW | Rear window defogger switch OFF | Off |
| | Rear window defogger switch ON | On |
| REVERSE SW CAN | **NOTE:**<br>The item is indicated, but not used. | Off |
| | | On |
| TAIL LAMP SW | Lighting switch OFF | Off |
| | Lighting switch 1ST | On |
| FR FOG SW | Front fog lamp switch OFF | Off |
| | Front fog lamp switch ON | On |
| BUCKLE SW | The seat belt (driver side) is fastened. [Seat belt switch (driver side) OFF] | Off |
| | The seat belt (driver side) is unfastened. [Seat belt switch (driver side) ON] | On |
| TRNK/HAT MNTR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| ACC SW | Ignition switch OFF | Off |
| | Ignition switch ACC or ON | On |
| KYLS TRNK/HAT | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| KEYLESS PANIC | PANIC button of key fob is not pressed | Off |
| | PANIC button of key fob is pressed | On |

| Monitor Item | Condition | Value/Status |
|---|---|---|
| HI BEAM SW | Lighting switch OFF | Off |
| | Lighting switch HI | On |
| HEAD LAMP SW 1 | Lighting switch OFF | Off |
| | Lighting switch 2ND | On |
| HEAD LAMP SW 2 | Lighting switch OFF | Off |
| | Lighting switch 2ND | On |
| AUTO LIGHT SW | Lighting switch OFF | Off |
| | Lighting switch AUTO | On |
| PASSING SW | Other than lighting switch PASS | Off |
| | Lighting switch PASS | On |
| RR FOG SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TURN SIGNAL R | Turn signal switch OFF | Off |
| | Turn signal switch RH | On |
| TURN SIGNAL L | Turn signal switch OFF | Off |
| | Turn signal switch LH | On |
| PKB SW | Parking brake switch is OFF | Off |
| | Parking brake switch is ON | On |
| ENGINE RUN | Engine stopped | Off |
| | Engine running | On |
| OPTI SEN (DTCT) | Bright outside of the vehicle | Close to 5 V |
| | Dark outside of the vehicle | Close to 0 V |
| OPTI SEN (FILT) | Bright outside of the vehicle (Lighting switch AUTO) | Close to 5 V |
| | Dark outside of the vehicle (Lighting switch AUTO) | Close to 1.50 V |
| LIG SEN COND | **NOTE:**<br>The item is indicated, but not monitored. | OFF |
| IGN SW CAN | Ignition switch OFF or ACC | Off |
| | Ignition switch ON | On |
| FR WIPER HI | Front wiper switch OFF | Off |
| | Front wiper switch HI | On |
| FR WIPER LOW | Front wiper switch OFF | Off |
| | Front wiper switch LO | On |
| FR WIPER INT | Front wiper switch OFF | Off |
| | Front wiper switch INT | On |
| FR WASHER SW | Front washer switch OFF | Off |
| | Front washer switch ON | On |
| INT VOLUME | Wiper intermittent dial is in a dial position 1 - 7 | 1 - 7 |
| FR WIPER STOP | Any position other than front wiper stop position | Off |
| | Front wiper stop position | On |
| RR WIPER ON | Rear wiper switch OFF | Off |
| | Rear wiper switch ON | On |
| RR WIPER INT | Rear wiper switch OFF | Off |
| | Rear wiper switch INT | On |
| RR WASHER SW | Rear washer switch OFF | Off |
| | Rear washer switch ON | On |

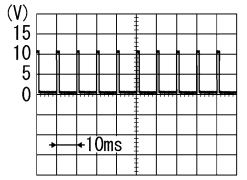
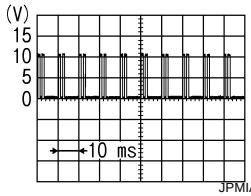
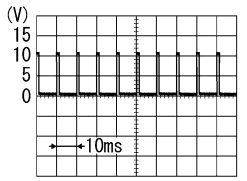
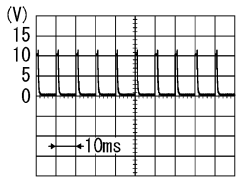
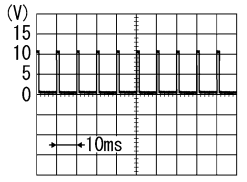
| Monitor Item | Condition | Value/Status |
|---|---|---|
| RR WIPER STOP | Rear wiper stop position | Off |
| | Other than rear wiper stop position | On |
| RAIN SENSOR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| HAZARD SW | Hazard switch OFF | Off |
| | Hazard switch ON | On |
| FAN ON SIG | Blower control dial OFF | Off |
| | Other than blower control dial OFF | On |
| AIR COND SW | • Air conditioner OFF (A/C switch indicator OFF) (Automatic air conditioner)<br>• A/C switch OFF (Manual air conditioner) | Off |
| | • Air conditioner ON (A/C switch indicator ON) (Automatic air conditioner)<br>• A/C switch ON (Manual air conditioner) | On |
| THERMO AMP<br>**NOTE:**<br>At models with automatic air conditioner this item is not monitored. | Ignition switch ON | Off |
| | Evaporator is extremely low temperature | On |
| FR DEF SW | Other than A/C mode defroster ON position | Off |
| | A/C mode defroster ON position | On |
| KEYLESS TRUNK | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRNK OPNR SW | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| TRNK OPN MNTR | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| HOOD SW | Close the hood | Off |
| | Open the hood | On |
| TRANSPONDER | Other than the ignition switch is ON by key registered to BCM. | Off |
| | The ignition switch is ON by key registered to BCM. | On |
| INTELLI KEY | **NOTE:**<br>The item is indicated, but not used. | Off |
| AUTO RELOCK | **NOTE:**<br>The item is indicated, but not monitored. | Off |
| OIL PRESS SW | • Ignition switch OFF or ACC<br>• Engine running | Off |
| | Ignition switch ON | On |
| BRAKE SW | Brake pedal is not depressed | Off |
| | Brake pedal is depressed | On |

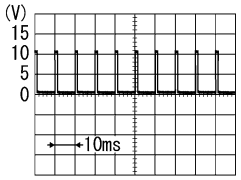
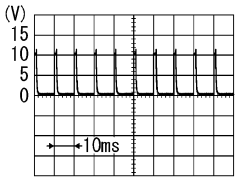
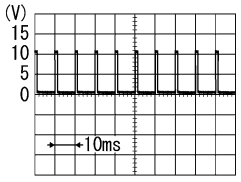
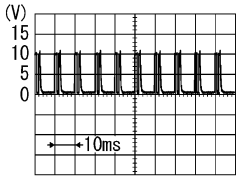
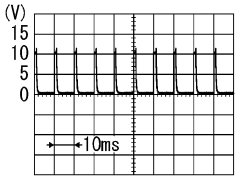
TERMINAL LAYOUT

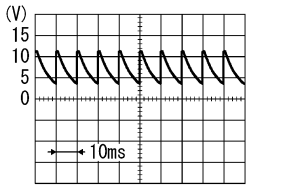
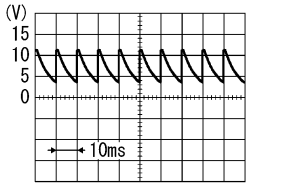
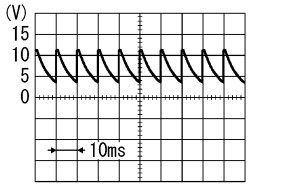


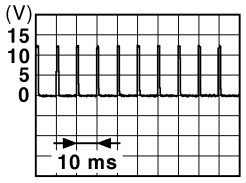
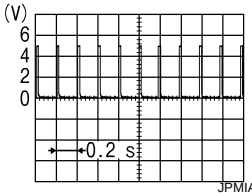
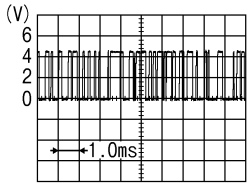
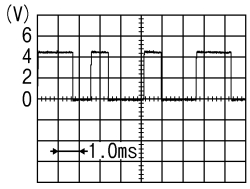

**NOTE:**
- M65, M66: White
- M67: Black

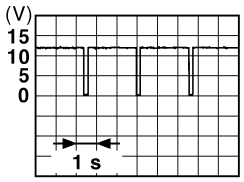
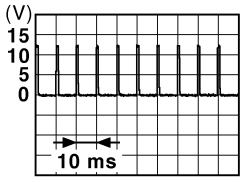
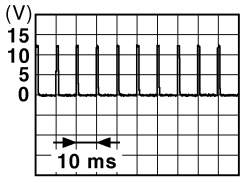
PHYSICAL VALUES

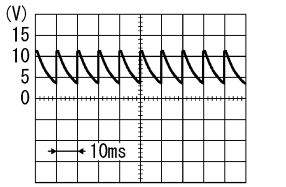
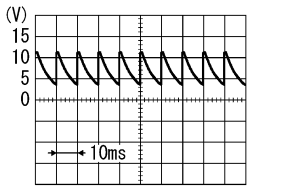
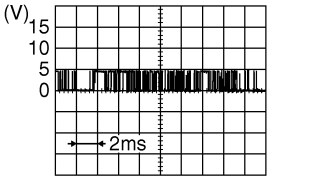
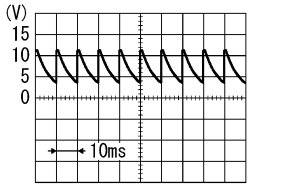
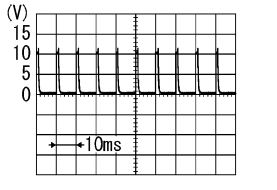
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| | | Signal name | Input/ Output | | | |
| + | – | | | | | |
| 2 (BR/W) | Ground | Combination switch INPUT 5 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch RH<br>Lighting switch HI<br>Lighting switch 1ST |  PKIB4958J 1.0 V |
| | | | | | Lighting switch 2ND |  JPMIA0342JP 2.0 V |
| 3 (GR) | Ground | Combination switch INPUT 4 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Turn signal switch LH<br>Lighting switch PASS<br>Lighting switch 2ND |  PKIB4958J 1.0 V |
| | | | | | Front fog lamp switch ON |  PKIB4956J 0.8 V |
| 4 (L/Y) | Ground | Combination switch INPUT 3 | Input | Combination switch (Wiper intermittent dial 4) | All switch OFF | 0 V |
| | | | | | Front wiper switch LO<br>Front wiper switch MIST<br>Front wiper switch INT<br>Lighting switch AUTO |  PKIB4958J 1.0 V |

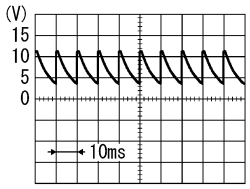
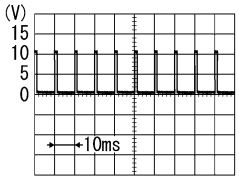
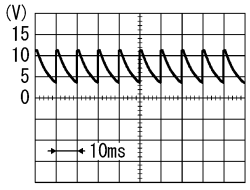
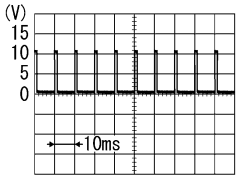
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 5 (G) | Ground | Combination switch INPUT 2 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front washer switch (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear washer switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 | |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) |  PKIB4956J 0.8 V |
| 6 (L/R) | Ground | Combination switch INPUT 1 | Input | Combination switch | All switch OFF (Wiper intermittent dial 4) | 0 V |
| | | | | | Front wiper switch HI (Wiper intermittent dial 4) |  PKIB4958J 1.0 V |
| | | | | | Rear wiper switch INT (Wiper intermittent dial 4) | |
| | | | | | Wiper intermittent dial 3 (All switch OFF) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2 |  PKIB4952J 1.9 V |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 |  PKIB4956J 0.8 V |

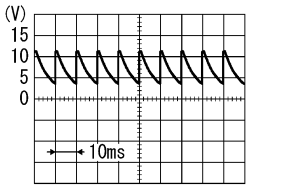
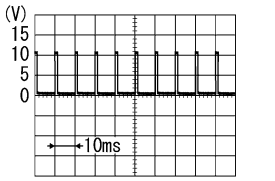
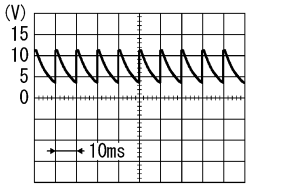
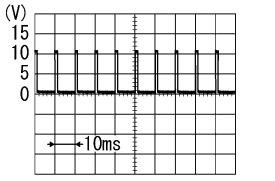
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 7 (W/R) | Ground | Door key cylinder switch UNLOCK | Input | Door key cylinder switch | NEUTRAL position |  PKIB4960J 7.0 - 8.0 V |
| | | | | | UNLOCK position | 0 V |
| 8 (W/B) | Ground | Door key cylinder switch LOCK | Input | Door key cylinder switch | NEUTRAL position | 12 V |
| | | | | | LOCK position | 0 V |
| 9 (R) | Ground | Stop lamp switch | Input | Stop lamp switch | OFF (Brake pedal is not depressed) | 0 V |
| | | | | | ON (Brake pedal is depressed) | Battery voltage |
| 10 (W/L) | Ground | Rear window defogger switch | Input | Rear window defogger switch | OFF (Not pressed) | 12 V |
| | | | | | ON (Pressed) | 0 V |
| 11 (L/Y) | Ground | Ignition switch ACC | Input | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ACC or ON | | Battery voltage |
| 12 (SB) | Ground | Passenger door switch | Input | Passenger door switch | OFF (When passenger door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When passenger door opened) | 0 V |
| 13 (GR/L) | Ground | Rear RH door switch | Input | Rear RH door switch | OFF (When rear RH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear RH door opened) | 0 V |
| 14 (L/B) | Ground | Optical sensor | Input | Ignition switch ON | When bright outside of the vehicle | Close to 5 V |
| | | | | | When dark outside of the vehicle | Close to 0 V |

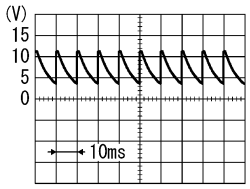
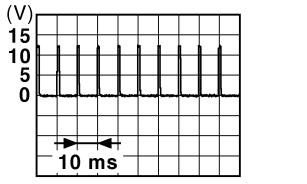
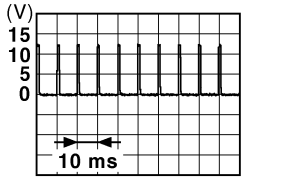
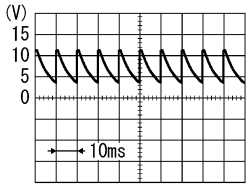
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 15 (V/W) | Ground | Tire pressure warning check switch | Input | Ignition switch OFF | |  JPMIA0012GB<br>1.0 - 1.5 V |
| 17 (R/G) | Ground | Optical sensor power supply | Output | Ignition switch | OFF, ACC | 0 V |
| | | | | | ON | 5 V |
| 18 (V) | Ground | Receiver and sensor ground | Input | Ignition switch ON | | 0 V |
| 19 (BR) | Ground | Remote keyless entry receiver power supply | Input | Ignition switch OFF | Insert mechanical key into ignition key cylinder | 0 V |
| | | | | | Remove mechanical key from ignition key cylinder (Any door opened) | 5 V |
| | | | | | Remove mechanical key from ignition key cylinder (Any door closed) |  JPMIA0338JP |
| 20 (G/Y) | Ground | Remote keyless entry receiver communication | Input | Ignition switch OFF | Insert mechanical key into ignition key cylinder | 0 V |
| | | | | | Waiting |  PIIB7728J |
| | | | | | Signal receiving |  PIIB7729J |
| 21 (P/L) | Ground | Immobilizer antenna (Clock) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |

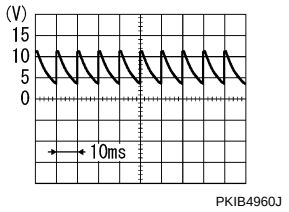
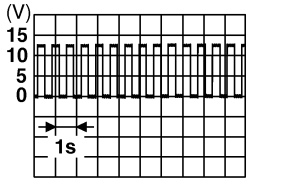
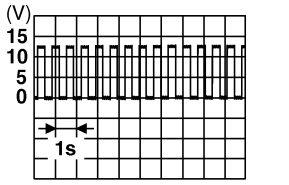
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 23 (R/Y) | Ground | Security indicator | Input | Security indicator | ON | 0 V |
| | | | | | Blinking (Ignition switch OFF) |  JPMIA0014GB 11.3 V |
| | | | | | OFF | 12 V |
| 24 (GR/R) | Ground | Dongle link | Input/ Output | Ignition switch OFF | | 5 V |
| 25 (LG) | Ground | Immobilizer antenna (Rx, Tx) | Input/ Output | During waiting | Ignition switch is pressed while inserting the key into the key slot. | Just after pressing ignition switch. Pointer of tester should move. |
| 26*1 (GR) | Ground | Thermo control amp. | Input | Ignition switch ON | | 0 V |
| | | | | Evaporator is extremely low temperature | | 12 V |
| 27 (Y/G)*2 (Y/R)*3 | Ground | A/C switch (Automatic air conditioner) | Input | A/C | OFF (A/C switch indicator: OFF) |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON (A/C switch indicator: ON) | 0 V |
| | | A/C switch (Manual air conditioner) | | A/C switch | OFF |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | ON | 0 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 28 (G/W) | Ground | Blower fan switch (Automatic air conditioner) | Input | Fan switch | Blower fan switch OFF | 0 V |
| | | | | | Blower fan switch ON |  PKIB4960J 7.0 - 8.0 V |
| | | Blower fan switch (Manual air conditioner) | | Fan switch | Blower fan switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Blower fan switch ON | 0 V |
| 29 (L/W) | Ground | Hazard switch | Input | Hazard switch | OFF | Battery voltage |
| | | | | | ON | 0 V |
| 31 (G/Y) | Ground | Front defroster switch | Input | Ignition switch ON | A/C mode defroster ON position | 0 V |
| | | | | | Other than A/C mode defroster ON position |  JPMIA0589GB 8.0 - 9.0 V |
| 32 (LG) | Ground | Combination switch OUTPUT 5 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Front fog lamp switch ON (Wiper intermittent dial 4) |  PKIB4956J 1.0 V |
| | | | | | Rear wiper switch ON (Wiper intermittent dial 4) | |
| | | | | | Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 6<br>• Wiper intermittent dial 7 | |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 33 (Y/L) | Ground | Combination switch OUTPUT 4 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 1ST (Wiper intermittent dial 4)<br>Lighting switch AUTO (Wiper intermittent dial 4)<br>Rear wiper switch INT (Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 5<br>• Wiper intermittent dial 6 |  PKIB4958J 1.2 V |
| 34 (W) | Ground | Combination switch OUTPUT 3 | Output | Combination switch | All switch OFF (Wiper intermittent dial 4) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND (Wiper intermittent dial 4)<br>Lighting switch HI (Wiper intermittent dial 4)<br>Rear washer switch ON (Wiper intermittent dial 4)<br>Any of the condition below with all switch OFF<br>• Wiper intermittent dial 1<br>• Wiper intermittent dial 2<br>• Wiper intermittent dial 3 |  PKIB4958J 1.2 V |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 35 (R/L) | Ground | Combination switch OUTPUT 2 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Lighting switch 2ND<br>Lighting switch PASS<br>Front wiper switch INT<br>Front wiper switch HI |  PKIB4958J 1.2 V |
| 36 (L/O) | Ground | Combination switch OUTPUT 1 | Output | Combination switch (Wiper intermittent dial 4) | All switch OFF |  PKIB4960J 7.0 - 8.0 V |
| | | | | | Turn signal switch RH<br>Turn signal switch LH<br>Front wiper switch LO (Front wiper switch MIST)<br>Front washer switch ON |  PKIB4958J 1.2 V |
| 37 (R/W) | Ground | Key switch | Input | Insert mechanical key into ignition key cylinder | | Battery voltage |
| | | | | Remove mechanical key from ignition key cylinder | | 0 V |
| 38 (O) | Ground | Ignition switch ON | Input | Ignition switch OFF or ACC | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 39 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 40 (P) | Ground | CAN-L | Input/ Output | — | | — |

| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 43 (W) | Ground | Back door switch | Input | Back door switch | OFF (When back door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When back door opened) | 0 V |
| 44 (LG) | Ground | Rear wiper stop position | Input | Ignition switch ON | Rear wiper stop position | 12 V |
| | | | | | Any position other than rear wiper stop position | 0 V |
| 45 (GR) | Ground | Door lock and unlock switch LOCK | Input | Door lock and unlock switch | NEUTRAL position |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | LOCK position | 0 V |
| 46 (BR) | Ground | Door lock and unlock switch UNLOCK | Input | Door lock and unlock switch | NEUTRAL position |  JPMIA0012GB 1.0 - 1.5 V |
| | | | | | UNLOCK position | 0 V |
| 47 (BR/Y) | Ground | Driver door switch | Input | Driver door switch | OFF (When driver door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When driver door opened) | 0 V |

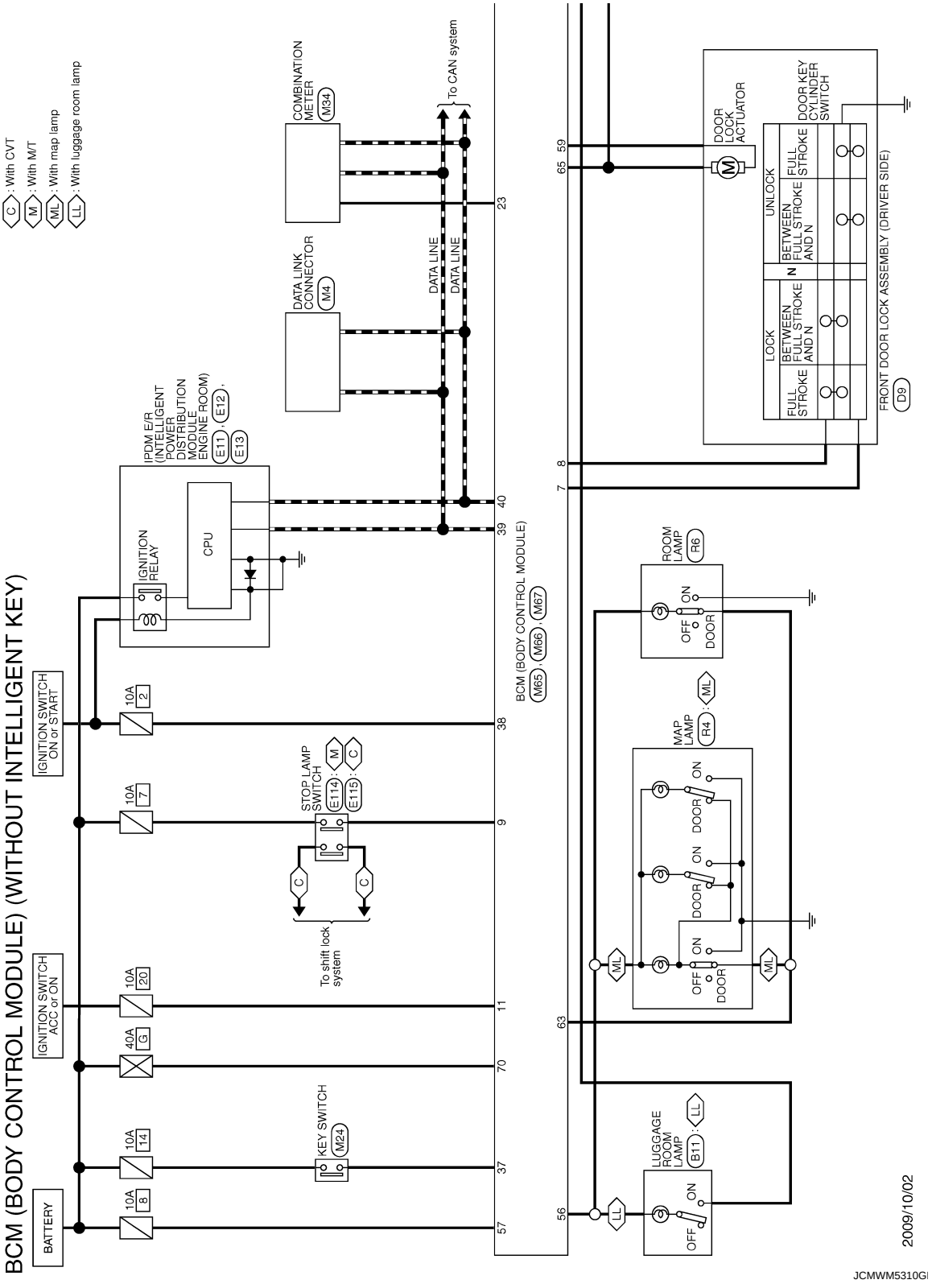
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 48 (W/G) | Ground | Rear LH door switch | Input | Rear LH door switch | OFF (When rear LH door closed) |  PKIB4960J 7.0 - 8.0 V |
| | | | | | ON (When rear LH door opened) | 0 V |
| 50*1 (SB) | Ground | A/C indicator | Output | A/C indicator | OFF | 12 V |
| | | | | | ON | 0 V |
| 54 (L/W) | Ground | Rear wiper | Output | Ignition switch ON | Rear wiper switch OFF | 0 V |
| | | | | | Rear wiper switch ON | 12 V |
| 56 (L) | Ground | Interior room lamp power supply | Output | Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply) | | 0 V |
| | | | | Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply) | | 12 V |
| 57 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |
| 59 (L/B) | Ground | Driver door UNLOCK | Output | Driver door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 60 (W/B) | Ground | Turn signal LH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch LH |  PKIC6370E 6.0 V |
| 61 (W/L) | Ground | Turn signal RH | Output | Ignition switch ON | Turn signal switch OFF | 0 V |
| | | | | | Turn signal switch RH |  PKIC6370E 6.0 V |
| 63 (BR) | Ground | Interior room lamp timer control | Output | Interior room lamp | OFF | 12 V |
| | | | | | ON | 0 V |

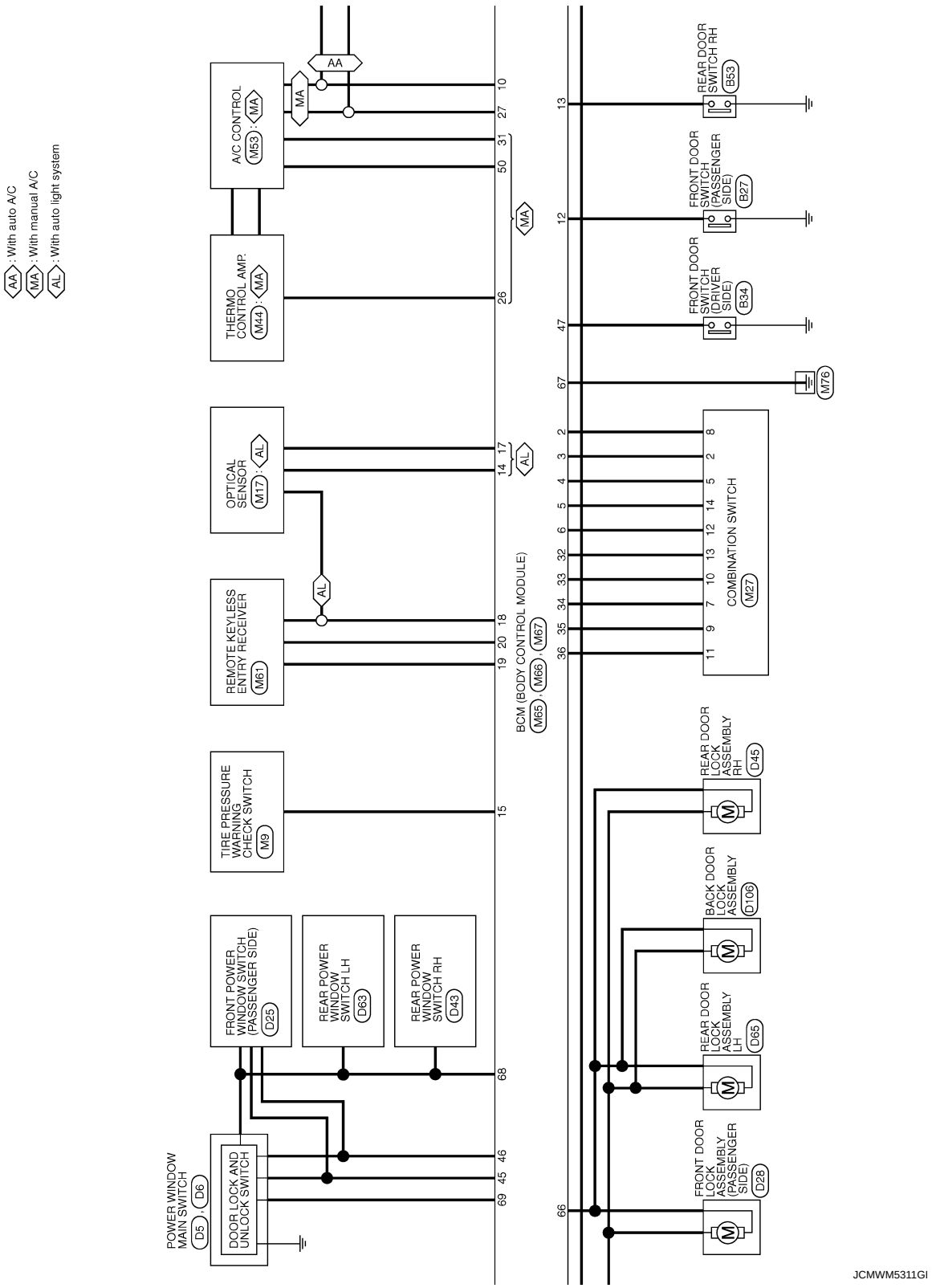
| Terminal No. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| | | Signal name | Input/ Output | | | |
| + | – | | | | | |
| 65 (V) | Ground | All doors LOCK | Output | All doors | LOCK (Actuator is activated) | 12 V |
| | | | | | Other then LOCK (Actuator is not activated) | 0 V |
| 66 (G) | Ground | Passenger door and rear door UNLOCK | Output | Passenger door and rear door | UNLOCK (Actuator is activated) | 12 V |
| | | | | | Other then UNLOCK (Actuator is not activated) | 0 V |
| 67 (B) | Ground | Ground | Output | Ignition switch ON | | 0 V |
| 68 (L) | Ground | P/W power supply (IGN) | Output | Ignition switch ON | | 12 V |
| 69 (L/W) | Ground | P/W power supply (BAT) | Output | Ignition switch OFF | | 12 V |
| 70 (Y) | Ground | Battery power supply | Input | Ignition switch OFF | | Battery voltage |

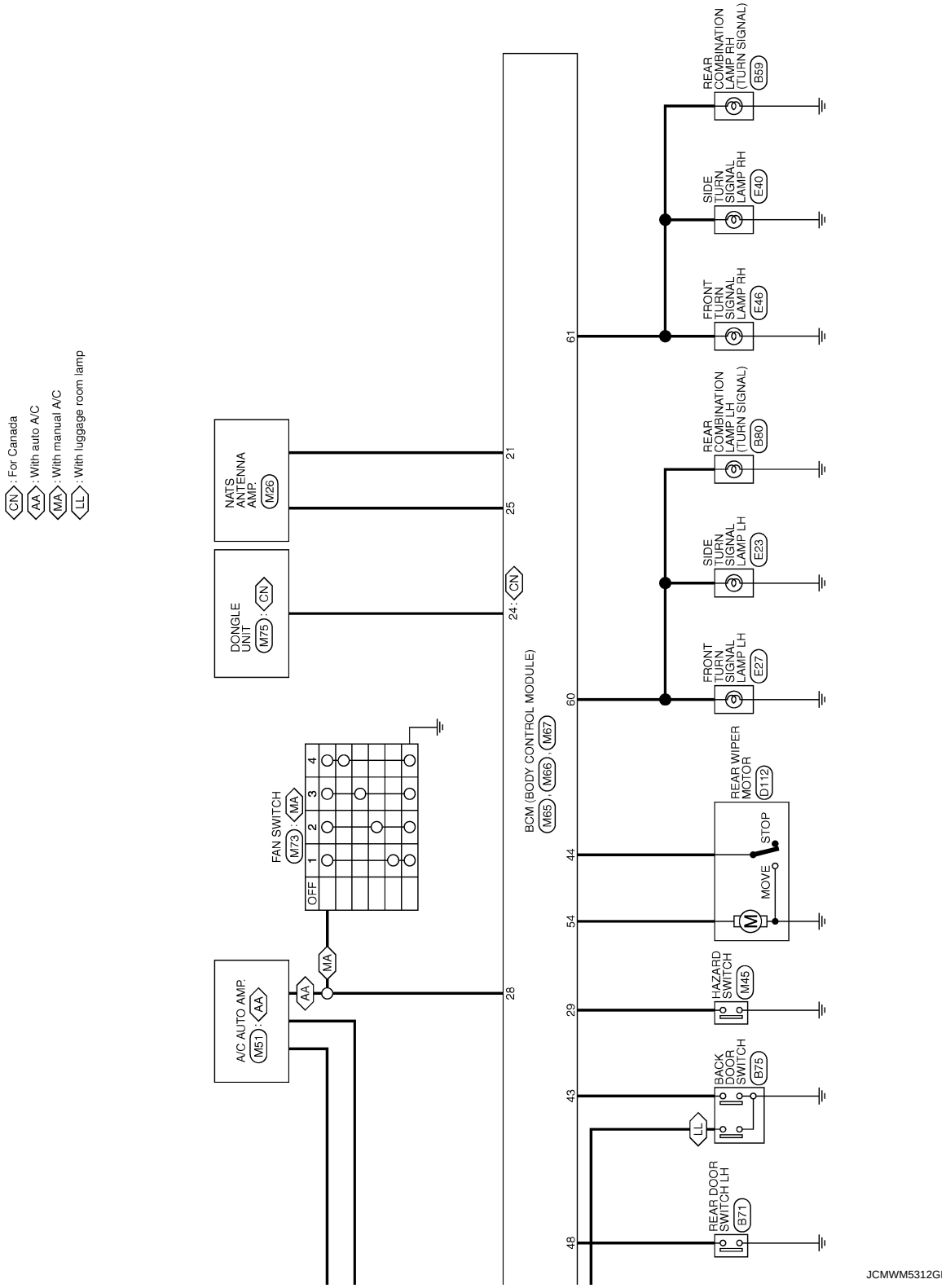
- *1: Only manual air conditioner
- *2: Automatic air conditioner
- *3: Manual air conditioner

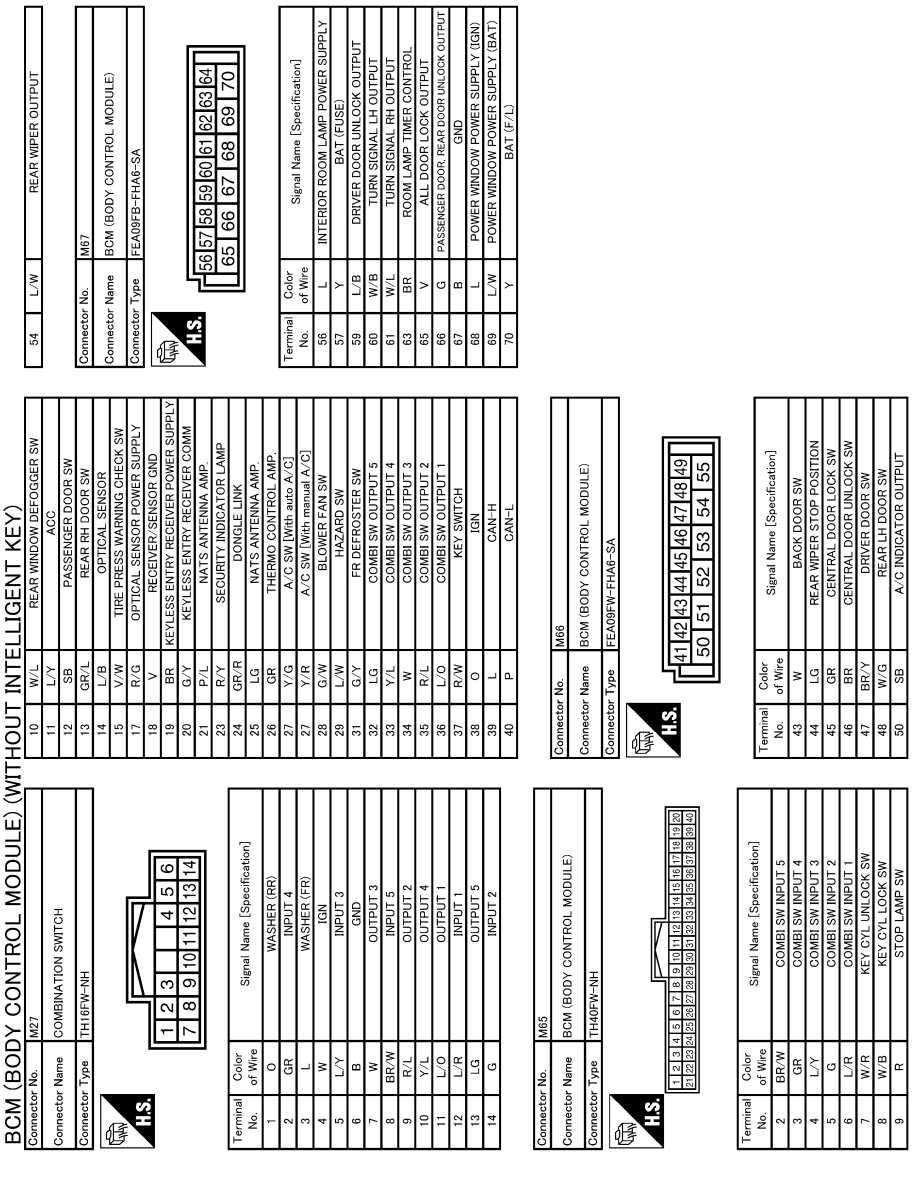
# WITHOUT INTELLIGENT KEY : Wiring Diagram - BCM -

INFOID:0000000005817182




AA : With auto A/C
MA : With manual A/C
AL : With auto light system
A/C CONTROL (M53) MA
THERMO CONTROL AMP. (M44) : MA
OPTICAL SENSOR (M17) AL
REMOTE KEYLESS ENTRY RECEIVER (M61)
TIRE PRESSURE WARNING CHECK SWITCH (M9)
FRONT POWER WINDOW SWITCH (PASSENGER SIDE) (D25)
REAR POWER WINDOW SWITCH LH (D63)
REAR POWER WINDOW SWITCH RH (D43)
POWER WINDOW MAIN SWITCH (D5), (D6)
DOOR LOCK AND UNLOCK SWITCH
BCM (BODY CONTROL MODULE) (M65), (M66), (M67)
COMBINATION SWITCH (M27)
REAR DOOR SWITCH RH (B53)
FRONT DOOR SWITCH (PASSENGER SIDE) (B27)
FRONT DOOR SWITCH (DRIVER SIDE) (B34)
(M76)
REAR DOOR LOCK ASSEMBLY RH (D45)
BACK DOOR LOCK ASSEMBLY (D106)
REAR DOOR LOCK ASSEMBLY LH (D65)
FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE) (D28)
JCMWM5311GI


CN : For Canada
AA : With auto A/C
MA : With manual A/C
LL : With luggage room lamp
NATS ANTENNA AMP. M26
DONGLE UNIT M75 : CN
A/C AUTO AMP. M51 : AA
FAN SWITCH M73 : MA
OFF 1 2 3 4
BCM (BODY CONTROL MODULE) M65 M66 M67
21
25
24 : CN
28
61
60
44
54
29
43
48
REAR COMBINATION LAMP RH (TURN SIGNAL) B59
SIDE TURN SIGNAL LAMP RH E40
FRONT TURN SIGNAL LAMP RH E46
REAR COMBINATION LAMP LH (TURN SIGNAL) B80
SIDE TURN SIGNAL LAMP LH E23
FRONT TURN SIGNAL LAMP LH E27
REAR WIPER MOTOR D112
STOP
MOVE
HAZARD SWITCH M45
BACK DOOR SWITCH B75
REAR DOOR SWITCH LH B71
JCMWM5312GI




JCMWM5313G

## WITHOUT INTELLIGENT KEY : Fail-safe

*INFOID:0000000005817183*

### FAIL-SAFE CONTROL BY DTC

BCM performs fail-safe control when any DTC are detected.

| Display contents of CONSULT | Fail-safe | Cancellation |
|---|---|---|
| B2190: NATS ANTENNA AMP | Inhibit engine cranking | Erase DTC |
| B2191: DIFFERENCE OF KEY | Inhibit engine cranking | Erase DTC |
| B2192: ID DISCORD BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2193: CHAIN OF BCM-ECM | Inhibit engine cranking | Erase DTC |
| B2195: ANTI SCANNING | Inhibit engine cranking | Ignition switch ON → OFF |
| B2196: DONGLE NG | Inhibit engine cranking | Erase DTC |

### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.
When the rear wiper auto stop signal does not change more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation
1. Pass more than 1 minute after the rear wiper stop.
2. Turn rear wiper switch OFF.
3. Operate the rear wiper switch or rear washer switch.

## WITHOUT INTELLIGENT KEY : DTC Inspection Priority Chart

INFOID:0000000005817184

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

| Priority | DTC |
|---|---|
| 1 | • U1000: CAN COMM<br>• U1010: CONTROL UNIT (CAN) |
| 2 | • B2190: NATS ANTENNA AMP<br>• B2191: DIFFERENCE OF KEY<br>• B2192: ID DISCORD BCM-ECM<br>• B2193: CHAIN OF BCM-ECM<br>• B2195: ANTI SCANNING<br>• B2196: DONGLE NG |
| 3 | C1735: IGN CIRCUIT OPEN |
| 4 | • C1704: LOW PRESSURE FL<br>• C1705: LOW PRESSURE FR<br>• C1706: LOW PRESSURE RR<br>• C1707: LOW PRESSURE RL<br>• C1708: [NO DATA] FL<br>• C1709: [NO DATA] FR<br>• C1710: [NO DATA] RR<br>• C1711: [NO DATA] RL<br>• C1716: [PRESSDATA ERR] FL<br>• C1717: [PRESSDATA ERR] FR<br>• C1718: [PRESSDATA ERR] RR<br>• C1719: [PRESSDATA ERR] RL<br>• C1729: VHCL SPEED SIG ERR<br>• C1734: CONTROL UNIT |

## WITHOUT INTELLIGENT KEY : DTC Index

INFOID:0000000005817185

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

| CONSULT display | Fail-safe | Tire pressure monitor warning lamp ON | Reference |
|---|---|---|---|
| U1000: CAN COMM | — | — | BCS-115 |
| U1010: CONTROL UNIT (CAN) | — | — | BCS-116 |
| B2190: NATS ANTENNA AMP | × | — | SEC-219 |
| B2191: DIFFERENCE OF KEY | × | — | SEC-222 |
| B2192: ID DISCORD BCM-ECM | × | — | SEC-223 |
| B2193: CHAIN OF BCM-ECM | × | — | SEC-225 |
| B2195: ANTI SCANNING | × | — | SEC-226 |
| B2196: DONGLE NG | × | — | SEC-227 |
| C1704: LOW PRESSURE FL | — | × | WT-30 |
| C1705: LOW PRESSURE FR | — | × | |
| C1706: LOW PRESSURE RR | — | × | |
| C1707: LOW PRESSURE RL | — | × | |
| C1708: [NO DATA] FL | — | × | WT-32 |
| C1709: [NO DATA] FR | — | × | |
| C1710: [NO DATA] RR | — | × | |
| C1711: [NO DATA] RL | — | × | |
| C1716: [PRESS DATA ERR] FL | — | × | WT-35 |
| C1717: [PRESS DATA ERR] FR | — | × | |
| C1718: [PRESS DATA ERR] RR | — | × | |
| C1719: [PRESS DATA ERR] RL | — | × | |
| C1729: VHCL SPEED SIG ERR | — | × | WT-37 |
| C1734: CONTROL UNIT | — | × | WT-39 |
| C1735: IGN CIRCUIT OPEN | — | — | BCS-117 |

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

## WITH INTELLIGENT KEY

### WITH INTELLIGENT KEY : Reference Value

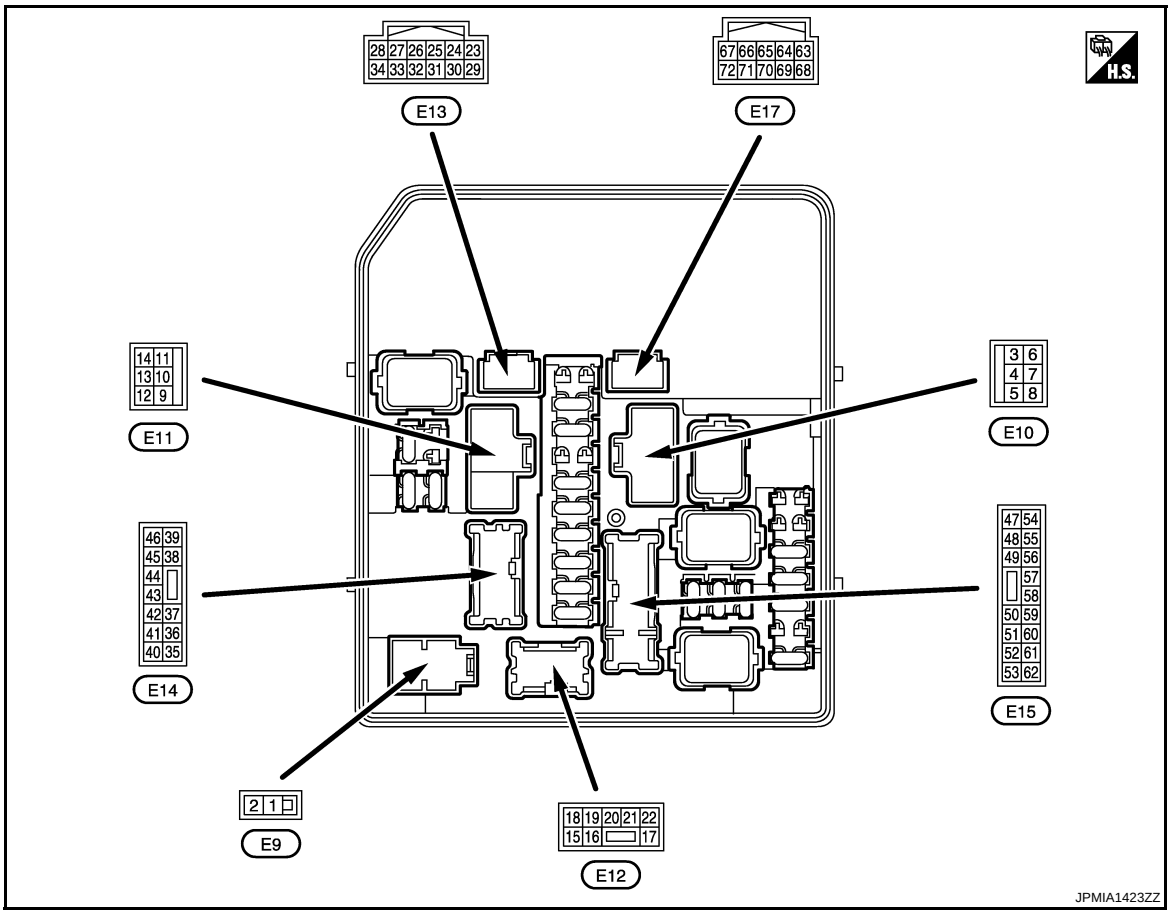
INFOID:0000000005817201

VALUES ON THE DIAGNOSIS TOOL

| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| MOTOR FAN REQ | Engine idle speed | Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc. | 1/2/3/4 |
| AC COMP REQ | Engine running | A/C switch OFF | Off |
| | | A/C switch ON (Compressor is operating) | On |
| TAIL&CLR REQ | Lighting switch OFF | | Off |
| | Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated) | | On |
| HL LO REQ | Lighting switch OFF | | Off |
| | Lighting switch 2ND, HI or AUTO (Light is illuminated) | | On |
| HL HI REQ | Lighting switch OFF | | Off |
| | Lighting switch HI | | On |
| FR FOG REQ | Lighting switch 2ND or AUTO (Light is illuminated) | Front fog lamp switch OFF | Off |
| | | Front fog lamp switch ON | On |
| FR WIP REQ | Ignition switch ON | Front wiper switch OFF | Stop |
| | | Front wiper switch INT | 1LOW |
| | | Front wiper switch LO | Low |
| | | Front wiper switch HI | Hi |
| WIP AUTO STOP | Ignition switch ON | Front wiper stop position | STOP P |
| | | Any position other than front wiper stop position | ACT P |
| WIP PROT | Ignition switch ON | Front wiper operates normally | Off |
| | | Front wiper stops at fail-safe operation | BLOCK |
| IGN RLY1 -REQ | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| IGN RLY | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| PUSH SW | Release the push-button ignition switch | | Off |
| | Press the push-button ignition switch | | On |
| INTER/NP SW | Ignition switch ON | • Selector lever in any position other than P or N (CVT models)<br>• Release clutch pedal (M/T models) | Off |
| | | • Selector lever in P or N position (CVT models)<br>• Depress clutch pedal (M/T models) | On |
| ST RLY CONT | Ignition switch ON | | Off |
| | At engine cranking | | On |

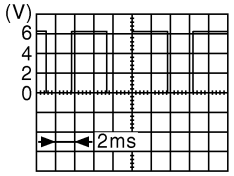
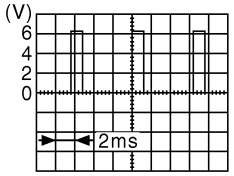
| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| IHBT RLY -REQ | Ignition switch ON | | Off |
| | At engine cranking | | On |
| ST/INHI RLY | Ignition switch ON | | Off |
| | At engine cranking | | INHI ON → ST ON |
| | The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF | | UNKWN |
| DETENT SW | Ignition switch ON | • Pull the selector lever with selector lever in P position<br>• Selector lever in any position other than P | Off |
| | Release the selector lever with selector lever in P position<br>**NOTE:**<br>Fixed On for M/T models | | On |
| S/L RLY -REQ | None of the conditions below are present | | Off |
| | • Open the driver door after the ignition switch is turned OFF (for a few seconds)<br>• Press the push-button ignition switch when the steering lock is activated | | On |
| S/L STATE | Steering lock is activated | | LOCK |
| | Steering lock is deactivated | | UNLOCK |
| | [DTC: B210A] is detected | | UNKWN |
| DTRL REQ<br>**NOTE:**<br>This item is monitored only on the vehicle with the daytime running light system. | Not operation | | Off |
| | Daytime running light system is operated. | | On |
| OIL P SW | Ignition switch OFF, ACC or engine running | | Open |
| | Ignition switch ON | | Close |
| HOOD SW | **NOTE:**<br>The item is indicated, but not monitored. | | Off |
| THFT HRN REQ | Not operation | | Off |
| | • Panic alarm is activated<br>• Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | | On |
| HORN CHIRP | Not operating | | Off |
| | Door locking with Intelligent Key (horn chirp mode) | | On |

## TERMINAL LAYOUT




## PHYSICAL VALUES

| Terminal NO. (Wire color) | | Description | | Condition | Value (Approx.) |
|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | |
| 1 (R) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 2 (G) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 3 (BR) | Ground | Starter motor | Output | Ignition switch ON | 0 V |
| | | | | At engine cranking | Battery voltage |
| 4 (SB) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 5 (LG) | Ground | Cooling fan relay-1 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan operated | Battery voltage |
| 7 (Y) | Ground | Cooling fan relay-2 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan LO operated | 9.0 V |
| | | | | Cooling fan HI operated | Battery voltage |
| 8 (V) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 9 (B/W) | Ground | Ground | — | Ignition switch ON | 0 V |
| 10 (L) | Ground | Cooling fan motor ground | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan LO operated | 5.0 V |
| | | | | Cooling fan HI operated | 0 V |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 13 (W) | Ground | Rear window defogger | Output | Ignition switch ON | Rear window defogger switch OFF | 0 V |
| | | | | | Rear window defogger switch ON | Battery voltage |
| 19 (B/W) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 21 (W) | Ground | Front fog lamp (RH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 22 (V) | Ground | Front fog lamp (LH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 24 (LG) | Ground | Oil pressure switch | Input | Ignition switch ON | Engine stopped | 0 V |
| | | | | | Engine running | Battery voltage |
| 25 (Y) | Ground | Front wiper auto stop | Input | Ignition switch ON | Front wiper stop position | 0 V |
| | | | | | Any position other than front wiper stop position | Battery voltage |
| 26 (P) | Ground | CAN-L | Input/ Output | — | | — |
| 27 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 28*1 (P) | Ground | Daytime running light relay-1 control | Output | Daytime running light deactivated | | 0 V |
| | | | | Daytime running light activated | | Battery voltage |
| 30 (SB) | Ground | Starter relay control | Output | At engine cranking | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 31 (W) | Ground | Fuel pump relay control | Output | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | 0 - 1.5 V |
| | | | | Approximately 1 second or more after turning the ignition switch ON | | Battery voltage |
| 33 (O) | Ground | Power generation command signal | Output | Ignition switch ON | | Battery voltage |
| | | | | 40 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |  JPMIA0002GB 3.8 V |
| | | | | 80 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |  JPMIA0003GB 1.4 V |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 34 (R) | Ground | Horn relay control | Output | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 36 (Y) | Ground | Parking lamp (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 37 (V) | Ground | Parking lamp (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 38 (G) | Ground | Tail lamp (RH) & illuminations | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 39 (V) | Ground | Front wiper HI | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch HI | Battery voltage |
| 40 (R) | Ground | ECM relay control | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | Battery voltage |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | 0 - 1.5 V |
| 41 (SB) | Ground | Tail lamp (LH) & license plate lamps | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 42 (W) | Ground | Steering lock unit power supply | Output | Ignition switch ACC or ON | | 0 V |
| | | | | Ignition switch ON | A few seconds after opening the driver door | Battery voltage |
| | | | | Ignition switch LOCK | Press the push-button ignition switch | Battery voltage |
| 43 (G) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 44 (P) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 45 (Y) | Ground | TCM power supply | Output | Ignition switch OFF | | Battery voltage |
| 46 (O) | Ground | Front wiper LO | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch LO | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 47 (BR) | Ground | Transmission range switch*2 | Input | Select lever in any position other than P or N (Ignition switch ON) | | 0 V |
| | | | | Select lever P or N (Ignition switch ON) | | Battery voltage |
| | | Clutch interlockk switch*3 | | Release the clutch pedal | | 0 V |
| | | | | Depress the clutch pedal | | Battery voltage |
| 49 (W) | Ground | Headlamp HI (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated*1 | | 7.0 V |
| 50 (GR) | Ground | Headlamp HI (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated*1 | | 7.0 V |
| 51 (R) | Ground | Headlamp LO (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 2ND | Battery voltage |
| 52 (P) | Ground | Headlamp LO (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | Daytime running light relay-2*1 | | | Lighting switch 2ND | Battery voltage |
| 54 (GR) | Ground | Throttle control motor relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 55 (P) | Ground | Fuel pump power supply | Output | Approximately 1 second or more than after turning the ignition switch ON | | 0 V |
| | | | | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | Battery voltage |
| 56 (SB) | Ground | A/C relay power supply | Output | Engine running | A/C switch OFF | 0 V |
| | | | | | A/C switch ON (A/C compressor is operating) | Battery voltage |
| 57 (G) | Ground | Throttle control motor relay control | Output | Ignition switch ON → OFF | | 0 - 1.0 V<br>↓<br>Battery voltage<br>↓<br>0 V |
| | | | | Ignition switch ON | | 0 - 1.0 V |
| 58 (R)*2 (Y)*3 | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 59 (Y) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 60 (V) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 61 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 62 (L) | Ground | Ignition relay power supply | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 64*2 (R) | Ground | CVT shift selector (Detention switch) | Input | Ignition switch ON | Select lever P | 0 V |
| | | | | | Select lever in any position other than P | Battery voltage |
| 65 (Y) | Ground | Steering lock unit condition-1 | Input | Steering lock is activated | | 0 V |
| | | | | Steering lock is deactivated | | Battery voltage |
| 66 (L) | Ground | Push-button ignition switch | Input | Press the push-button ignition switch | | 0 V |
| | | | | Release the push-button ignition switch | | Battery voltage |
| 68 (W) | Ground | Steering lock unit condition-2 | Input | Steering lock is activated | | Battery voltage |
| | | | | Steering lock is deactivated | | 0 V |
| 69 (Y) | Ground | Ignition relay monitor | Input | Ignition switch OFF or ACC | | Battery voltage |
| | | | | Ignition switch ON | | 0 V |

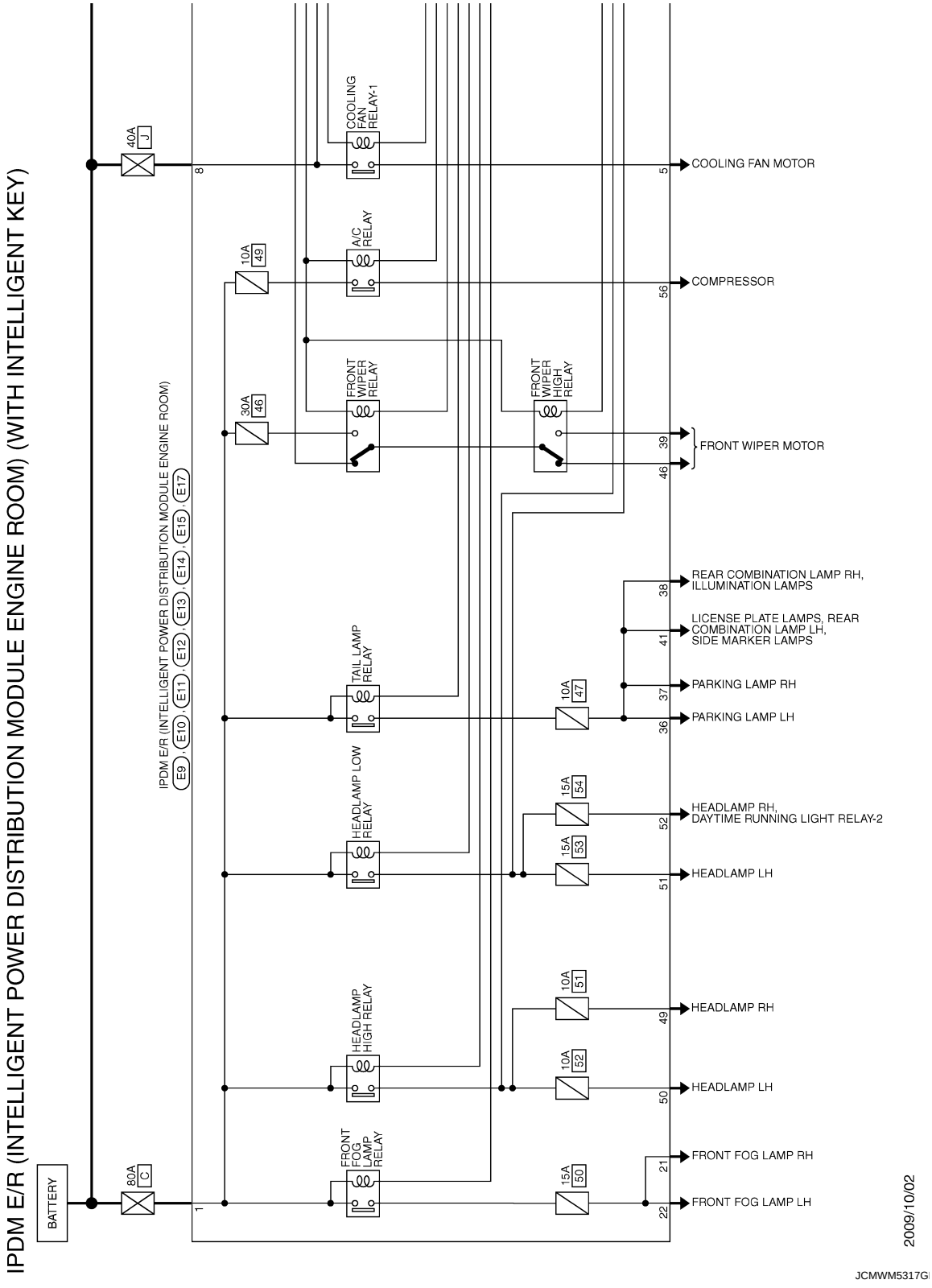
*1: With daytime running light system

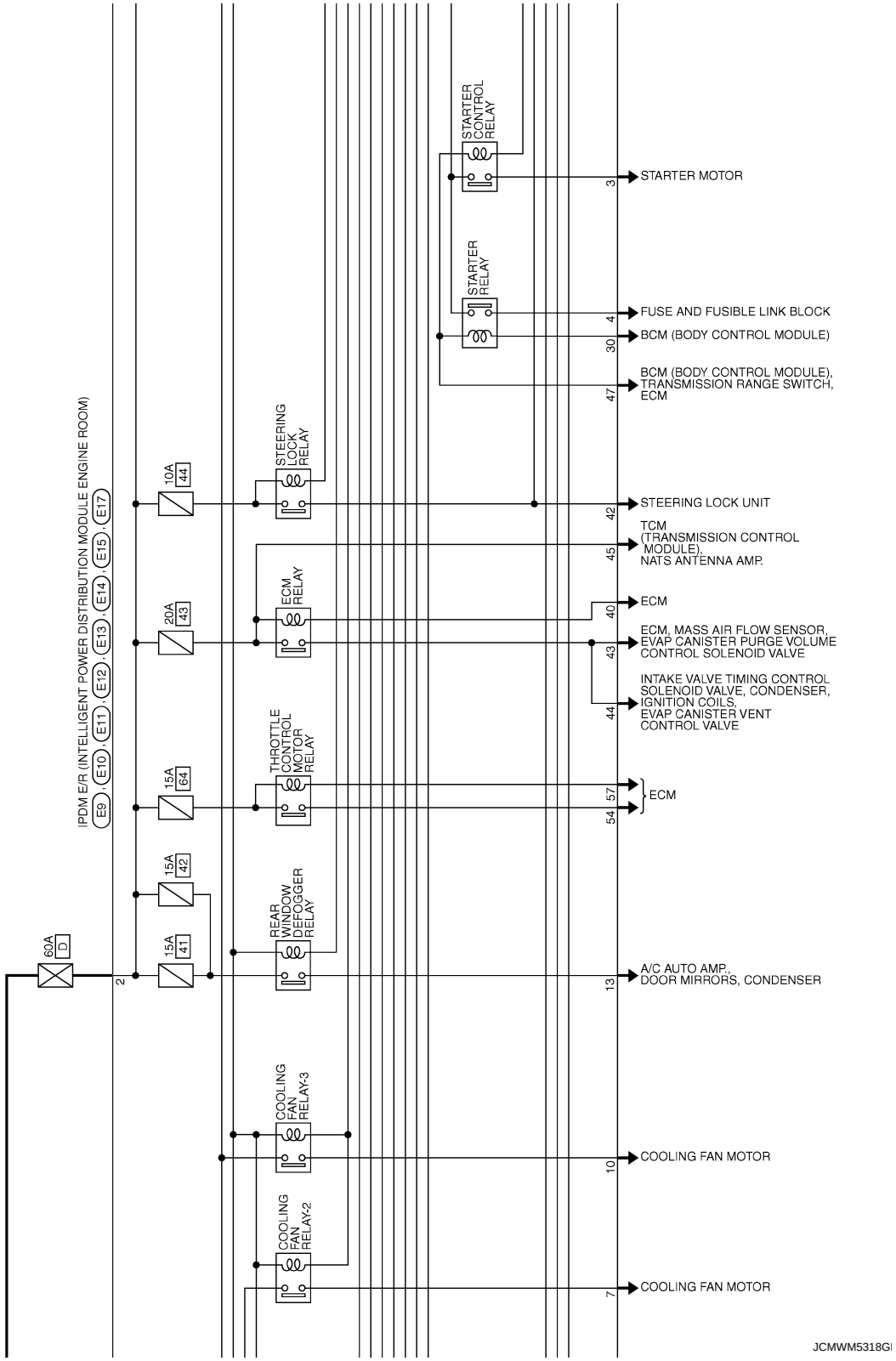
*2: CVT models

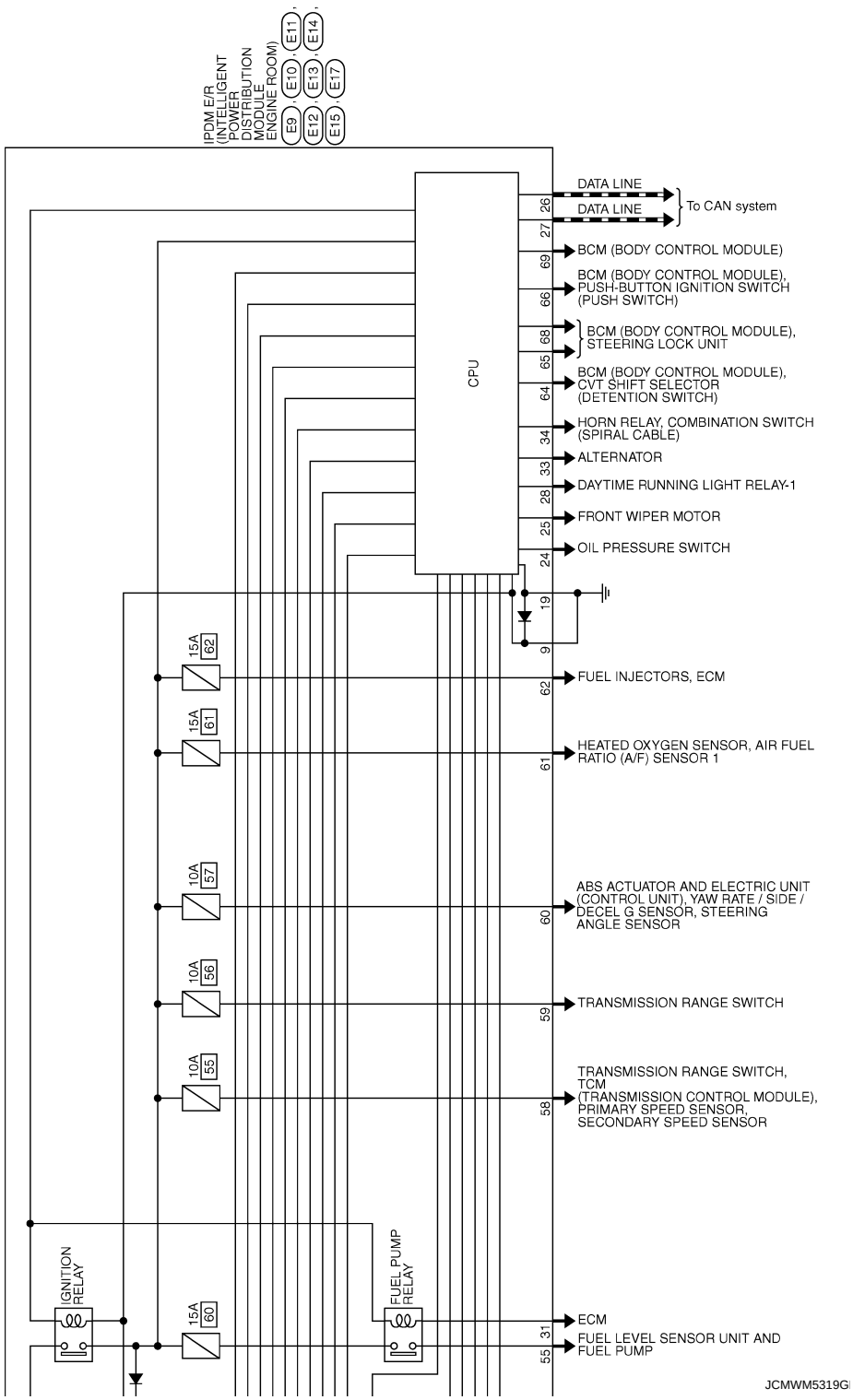
*3: M/T models

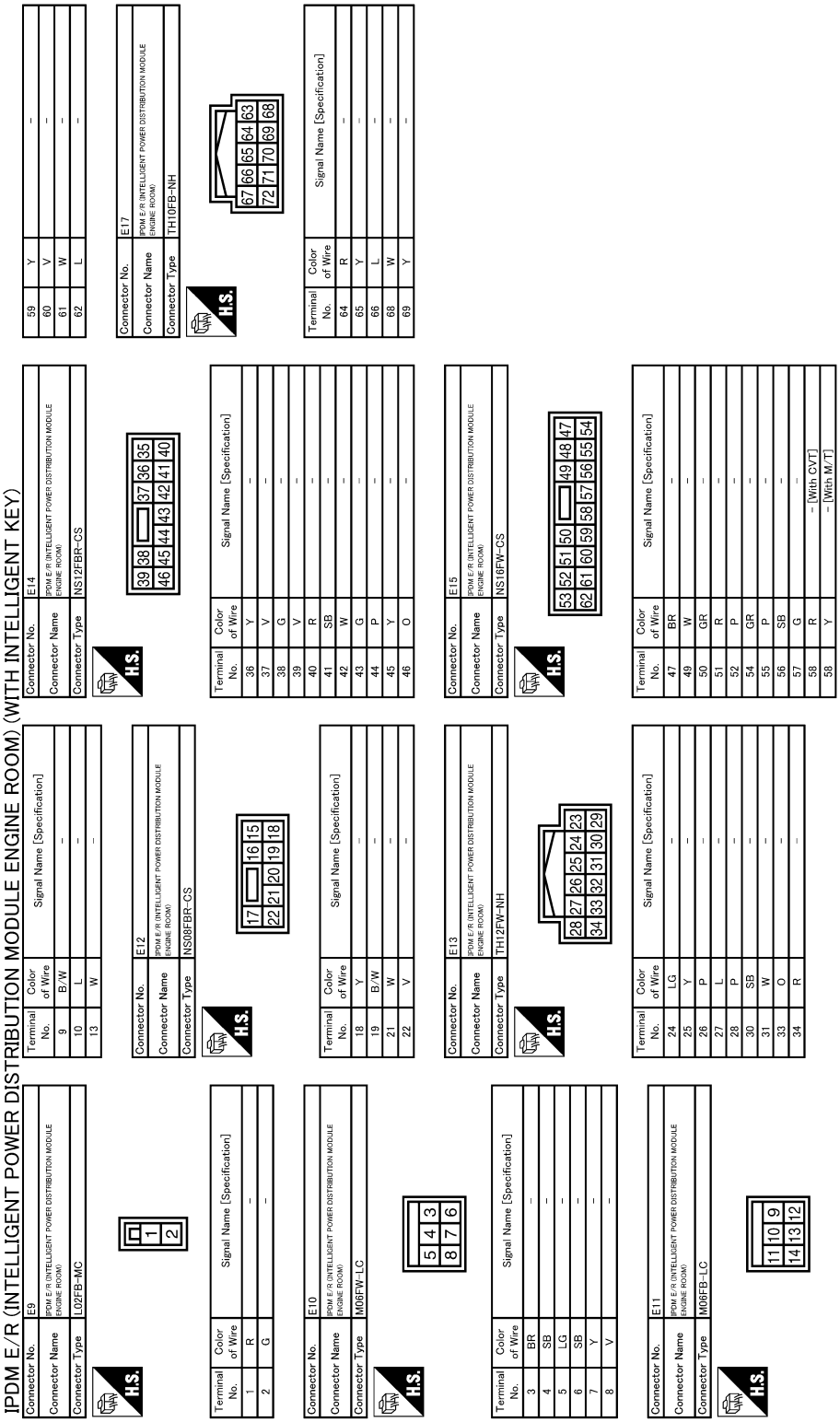
## WITH INTELLIGENT KEY : Wiring Diagram — IPDM E/R —

INFOID:0000000005817202




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, E13, E14, E15, E17
60A D
10A 44
20A 43
15A 64
15A 42
15A 41
STEERING LOCK RELAY
ECM RELAY
THROTTLE CONTROL MOTOR RELAY
REAR WINDOW DEFOGGER RELAY
COOLING FAN RELAY-3
COOLING FAN RELAY-2
STARTER CONTROL RELAY
STARTER RELAY
2
3 STARTER MOTOR
4 FUSE AND FUSIBLE LINK BLOCK
30 BCM (BODY CONTROL MODULE)
47 BCM (BODY CONTROL MODULE), TRANSMISSION RANGE SWITCH, ECM
42 STEERING LOCK UNIT
45 TCM (TRANSMISSION CONTROL MODULE), NATS ANTENNA AMP.
40 ECM
43 ECM, MASS AIR FLOW SENSOR, EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE
44 INTAKE VALVE TIMING CONTROL SOLENOID VALVE, CONDENSER, IGNITION COILS, EVAP CANISTER VENT CONTROL VALVE
57, 54 ECM
13 A/C AUTO AMP., DOOR MIRRORS, CONDENSER
10 COOLING FAN MOTOR
7 COOLING FAN MOTOR
JCMWM5318GB


IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, E13, E14, E15, E17
CPU
DATA LINE
DATA LINE
To CAN system
BCM (BODY CONTROL MODULE)
BCM (BODY CONTROL MODULE), PUSH-BUTTON IGNITION SWITCH (PUSH SWITCH)
BCM (BODY CONTROL MODULE), STEERING LOCK UNIT
BCM (BODY CONTROL MODULE), CVT SHIFT SELECTOR (DETENTION SWITCH)
HORN RELAY, COMBINATION SWITCH (SPIRAL CABLE)
ALTERNATOR
DAYTIME RUNNING LIGHT RELAY-1
FRONT WIPER MOTOR
OIL PRESSURE SWITCH
FUEL INJECTORS, ECM
HEATED OXYGEN SENSOR, AIR FUEL RATIO (A/F) SENSOR 1
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT), YAW RATE / SIDE / DECEL G SENSOR, STEERING ANGLE SENSOR
TRANSMISSION RANGE SWITCH
TRANSMISSION RANGE SWITCH, TCM (TRANSMISSION CONTROL MODULE), PRIMARY SPEED SENSOR, SECONDARY SPEED SENSOR
ECM
FUEL LEVEL SENSOR UNIT AND FUEL PUMP
IGNITION RELAY
FUEL PUMP RELAY
15A 62
15A 61
10A 57
10A 56
10A 55
15A 60
JCMWM5319G




JCMWM5320GI

## WITH INTELLIGENT KEY : Fail-Safe

INFOID:0000000005817203

### CAN COMMUNICATION CONTROL

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

If No CAN Communication Is Available With ECM

| Control part | Fail-safe operation |
|---|---|
| Cooling fan | • The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn ON when the ignition switch is turned ON (Cooling fan HI operation)<br>• The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn OFF when the ignition switch is turned OFF |
| A/C compressor | A/C relay OFF |
| Alternator | Outputs the power generation command signal (PWM signal) 0% |

If No CAN Communication Is Available With BCM

| Control part | Fail-safe operation |
|---|---|
| Headlamp | • Turns ON the headlamp low relay when the ignition switch is turned ON<br>• Turns OFF the headlamp low relay when the ignition switch is turned OFF<br>• Headlamp high relay OFF<br>• Daytime running light relay OFF* |
| • Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Illuminations<br>• Tail lamps | • Turns ON the tail lamp relay when the ignition switch is turned ON<br>• Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | • The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.<br>• The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. |
| Front fog lamps | Front fog lamp relay OFF |
| Horn | Horn OFF |
| Ignition relay | The status just before activation of fail-safe is maintained. |
| Starter motor | Starter control relay OFF |
| Steering lock unit | Steering lock relay OFF |

*: With daytime running light system

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit and excitation coil circuit of the ignition relay inside it.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the excitation coil circuit.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

| Voltage judgment | | IPDM E/R judgment | Operation |
|---|---|---|---|
| Ignition relay contact side | Ignition relay excitation coil side | | |
| ON | ON | Ignition relay ON normal | — |
| OFF | OFF | Ignition relay OFF normal | — |
| ON | OFF | Ignition relay ON stuck | • Detects DTC “B2098: IGN RELAY ON”<br>• Turns ON the tail lamp relay for 10 minutes |
| OFF | ON | Ignition relay OFF stuck | Detects DTC “B2099: IGN RELAY OFF” |

## FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper stop position signal.
When a front wiper stop position signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

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

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

### STARTER MOTOR PROTECTION FUNCTION

IPDM E/R turns OFF the starter control relay to protect the starter motor when the starter control relay remains active for 90 seconds.

## WITH INTELLIGENT KEY : DTC Index

INFOID:0000000005817204

**NOTE:**
- The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
- The number is 0 when is detected now.
- The number increases like 1 → 2 ··· 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

| CONSULT display | Fail-safe | Refer to |
|---|---|---|
| No DTC is detected. further testing may be required. | — | — |
| U1000: CAN COMM CIRCUIT | × | PCS-16 |
| B2098: IGN RELAY ON | × | PCS-17 |
| B2099: IGN RELAY OFF | — | PCS-18 |
| B2108: STRG LCK RELAY ON | — | SEC-96 |
| B2109: STRG LCK RELAY OFF | — | SEC-97 |
| B210A: STRG LCK STATE SW | — | SEC-98 |
| B210B: START CONT RLY ON | — | SEC-101 |
| B210C: START CONT RLY OFF | — | SEC-102 |
| B210D: STARTER RELAY ON | — | SEC-103 |
| B210E: STARTER RELAY OFF | — | SEC-104 |
| B210F: INTRLCK/PNP SW ON | — | SEC-106 |
| B2110: INTRLCK/PNP SW OFF | — | SEC-108 |

## WITHOUT INTELLIGENT KEY

## WITHOUT INTELLIGENT KEY : Reference Value

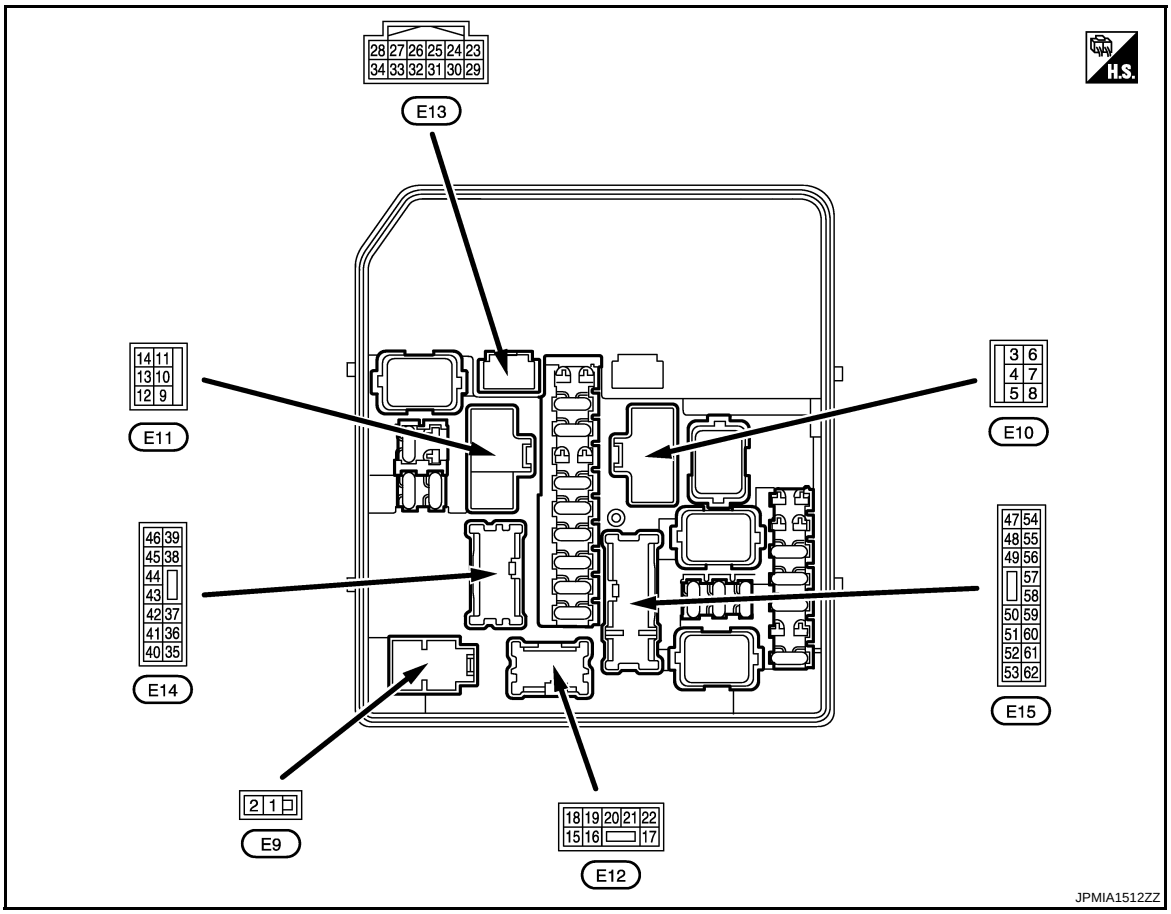
INFOID:0000000005817205

### VALUES ON THE DIAGNOSIS TOOL

| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| MOTOR FAN REQ | Engine idle speed | Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc. | 1/2/3/4 |

| Monitor Item | Condition | | Value/Status |
|---|---|---|---|
| AC COMP REQ | Engine running | A/C switch OFF | Off |
| | | A/C switch ON (Compressor is operating) | On |
| TAIL&CLR REQ | Lighting switch OFF | | Off |
| | Lighting switch 1ST, 2ND, HI or AUTO (Light is illuminated) | | On |
| HL LO REQ | Lighting switch OFF | | Off |
| | Lighting switch 2ND, HI or AUTO (Light is illuminated) | | On |
| HL HI REQ | Lighting switch OFF | | Off |
| | Lighting switch HI | | On |
| FR FOG REQ | Lighting switch 2ND or AUTO (Light is illuminated) | Front fog lamp switch OFF | Off |
| | | Front fog lamp switch ON | On |
| FR WIP REQ | Ignition switch ON | Front wiper switch OFF | Stop |
| | | Front wiper switch INT | 1LOW |
| | | Front wiper switch LO | Low |
| | | Front wiper switch HI | Hi |
| WIP AUTO STOP | Ignition switch ON | Front wiper stop position | STOP P |
| | | Any position other than front wiper stop position | ACT P |
| WIP PROT | Ignition switch ON | Front wiper operates normally | Off |
| | | Front wiper stops at fail-safe operation | BLOCK |
| IGN RLY | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| INTER/NP SW | Ignition switch ON | Selector lever in any position other than P or N (CVT models) | Off |
| | | Selector lever in P or N position (CVT models) | On |
| ST RLY -REQ | Ignition switch OFF or ACC | | Off |
| | Ignition switch ON | | On |
| DTRL REQ<br>**NOTE:**<br>This item is monitored only on the vehicle with the daytime running light system. | Not operation | | Off |
| | Daytime running light system is operated. | | On |
| OIL P SW | Ignition switch OFF, ACC or engine running | | Open |
| | Ignition switch ON | | Close |
| HOOD SW | **NOTE:**<br>The item is indicated, but not monitored. | | Off |
| THFT HRN REQ | Not operation | | Off |
| | • Panic alarm is activated<br>• Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM | | On |
| HORN CHIRP | Not operating | | Off |
| | Door locking with key fob (horn chirp mode) | | On |

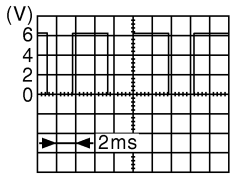
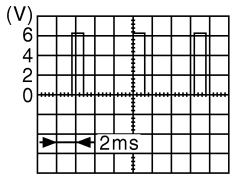
## TERMINAL LAYOUT




## PHYSICAL VALUES

| Terminal NO. (Wire color) | | Description | | Condition | Value (Approx.) |
|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | |
| 1 (R) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 2 (G) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 3 (BR) | Ground | Starter motor | Output | Ignition switch ON | 0 V |
| | | | | At engine cranking | Battery voltage |
| 5 (LG) | Ground | Cooling fan relay-1 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan operated | Battery voltage |
| 6 (SB) | Ground | Ignition switch START | Output | Any position other ignition switch START | 0 V |
| | | | | Ignition switch START | Battery voltage |
| 7 (Y) | Ground | Cooling fan relay-2 power supply | Output | Cooling fan OFF | 0 V |
| | | | | Cooling fan LO operated | 9.0 V |
| | | | | Cooling fan HI operated | Battery voltage |
| 8 (V) | Ground | Battery power supply | Input | Ignition switch OFF | Battery voltage |
| 9 (B/W) | Ground | Ground | — | Ignition switch ON | 0 V |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 10 (L) | Ground | Cooling fan motor ground | Output | Cooling fan OFF | | 0 V |
| | | | | Cooling fan LO operated | | 5.0 V |
| | | | | Cooling fan HI operated | | 0 V |
| 13 (W) | Ground | Rear window defogger | Output | Ignition switch ON | Rear window defogger switch OFF | 0 V |
| | | | | | Rear window defogger switch ON | Battery voltage |
| 18 (Y) | Ground | Ignition switch | Output | Ignition switch OFF | | 0 V |
| | | | | Ignition switch ON | | Battery voltage |
| 19 (B/W) | Ground | Ground | — | Ignition switch ON | | 0 V |
| 21 (W) | Ground | Front fog lamp (RH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 22 (V) | Ground | Front fog lamp (LH) | Output | Lighting switch 2ND | Front fog lamp switch OFF | 0 V |
| | | | | | Front fog lamp switch ON | Battery voltage |
| 24 (LG) | Ground | Oil pressure switch | Input | Ignition switch ON | Engine stopped | 0 V |
| | | | | | Engine running | Battery voltage |
| 25 (Y) | Ground | Front wiper auto stop | Input | Ignition switch ON | Front wiper stop position | 0 V |
| | | | | | Any position other than front wiper stop position | Battery voltage |
| 26 (P) | Ground | CAN-L | Input/ Output | — | | — |
| 27 (L) | Ground | CAN-H | Input/ Output | — | | — |
| 28*1 (P) | Ground | Daytime running light relay-1 control | Output | Daytime running light deactivated | | 0 V |
| | | | | Daytime running light activated | | Battery voltage |
| 31 (W) | Ground | Fuel pump relay control | Output | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | 0 - 1.5 V |
| | | | | Approximately 1 second or more after turning the ignition switch ON | | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 33 (O) | Ground | Power generation command signal | Output | Ignition switch ON | | Battery voltage |
| | | | | 40 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |   JPMIA0002GB 3.8 V |
| | | | | 80 % is set on “ACTIVE TEST”, “ALTERNATOR DUTY” of “ENGINE” | |   JPMIA0003GB 1.4 V |
| 34 (R) | Ground | Horn relay control | Output | The horn is deactivated | | Battery voltage |
| | | | | The horn is activated | | 0 V |
| 36 (Y) | Ground | Parking lamp (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 37 (V) | Ground | Parking lamp (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 38 (G) | Ground | Tail lamp (RH) & illuminations | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 39 (V) | Ground | Front wiper HI | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch HI | Battery voltage |
| 40 (R) | Ground | ECM relay control | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | Battery voltage |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | 0 - 1.5 V |
| 41 (SB) | Ground | Tail lamp (LH) & license plate lamps | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 1ST | Battery voltage |
| 43 (G) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | | Value (Approx.) |
|---|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | | |
| 44 (P) | Ground | ECM relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 45 (Y) | Ground | TCM power supply | Output | Ignition switch OFF | | Battery voltage |
| 46 (O) | Ground | Front wiper LO | Output | Ignition switch ON | Front wiper switch OFF | 0 V |
| | | | | | Front wiper switch LO | Battery voltage |
| 47 (BR) | Ground | Transmission range switch[*2] | Input | Select lever in any position other than P or N (Ignition switch ON) | | 0 V |
| | | | | Select lever P or N (Ignition switch ON) | | Battery voltage |
| | | Clutch interlock switch[*3] | Input | Release the clutch pedal | | 0 V |
| | | | | Depress the clutch pedal | | Battery voltage |
| 49 (W) | Ground | Headlamp HI (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated[*1] | | 7.0 V |
| 50 (GR) | Ground | Headlamp HI (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | • Lighting switch HI<br>• Lighting switch PASS | Battery voltage |
| | | | | Daytime running light activated[*1] | | 7.0 V |
| 51 (R) | Ground | Headlamp LO (LH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | | | | Lighting switch 2ND | Battery voltage |
| 52 (P) | Ground | Headlamp LO (RH) | Output | Ignition switch ON | Lighting switch OFF | 0 V |
| | | Daytime running light relay-2[*1] | | | Lighting switch 2ND | Battery voltage |
| 54 (GR) | Ground | Throttle control motor relay power supply | Output | Ignition switch OFF (More than a few seconds after turning ignition switch OFF) | | 0 V |
| | | | | • Ignition switch ON<br>• Ignition switch OFF (For a few seconds after turning ignition switch OFF) | | Battery voltage |
| 55 (P) | Ground | Fuel pump power supply | Output | Approximately 1 second or more than after turning the ignition switch ON | | 0 V |
| | | | | • Approximately 1 second after turning the ignition switch ON<br>• Engine running | | Battery voltage |
| 56 (SB) | Ground | A/C relay power supply | Output | Engine running | A/C switch OFF | 0 V |
| | | | | | A/C switch ON (A/C compressor is operating) | Battery voltage |

| Terminal NO. (Wire color) | | Description | | Condition | Value (Approx.) |
|---|---|---|---|---|---|
| + | – | Signal name | Input/ Output | | |
| 57 (G) | Ground | Throttle control motor relay control | Output | Ignition switch ON → OFF | 0 - 1.0 V ↓ Battery voltage ↓ 0 V |
| | | | | Ignition switch ON | 0 - 1.0 V |
| 58 (R)*2 (Y)*3 | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 59 (Y) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 60 (V) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 61 (W) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |
| 62 (L) | Ground | Ignition relay power supply | Output | Ignition switch OFF | 0 V |
| | | | | Ignition switch ON | Battery voltage |

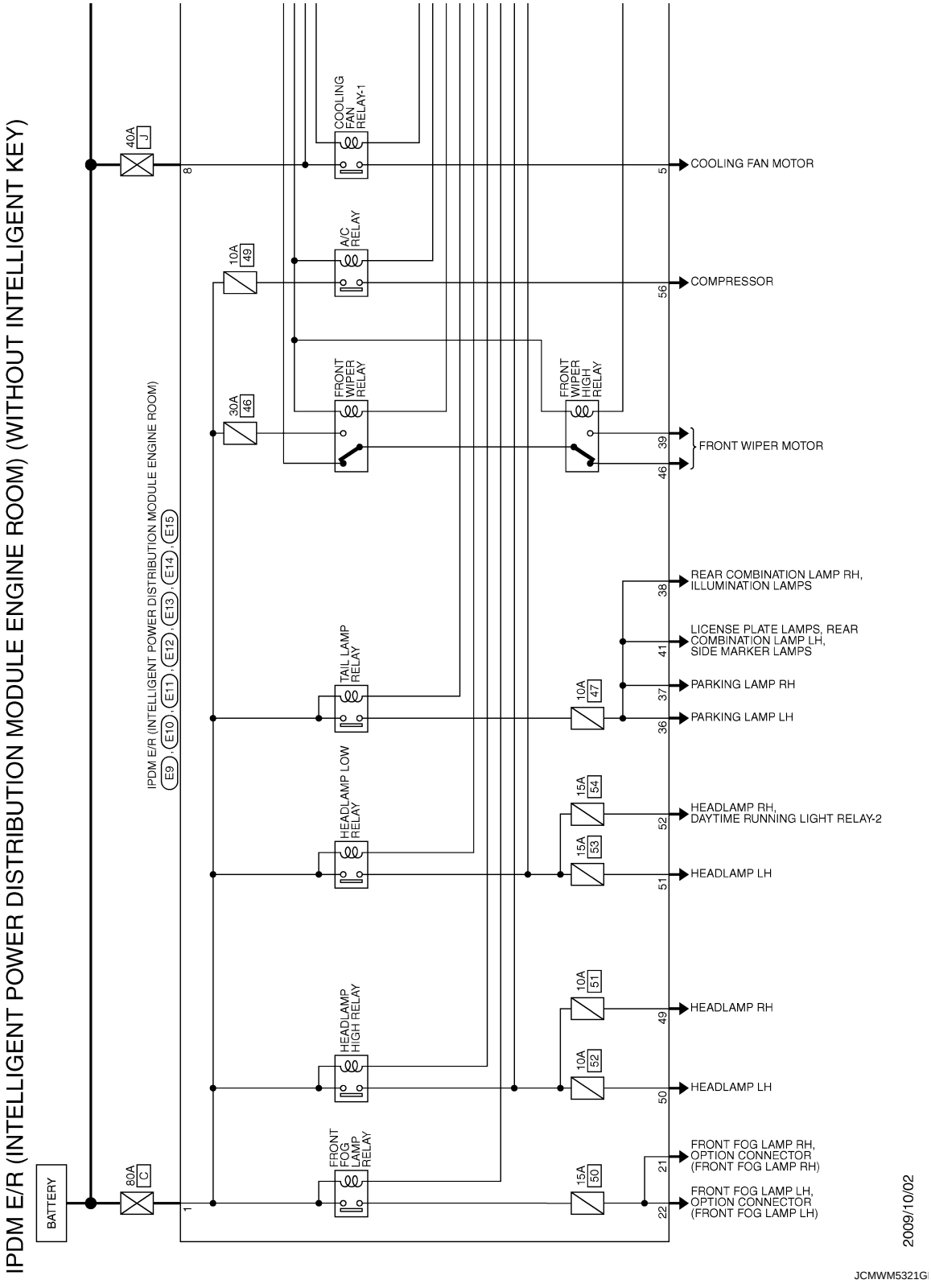
*1: With daytime running light system

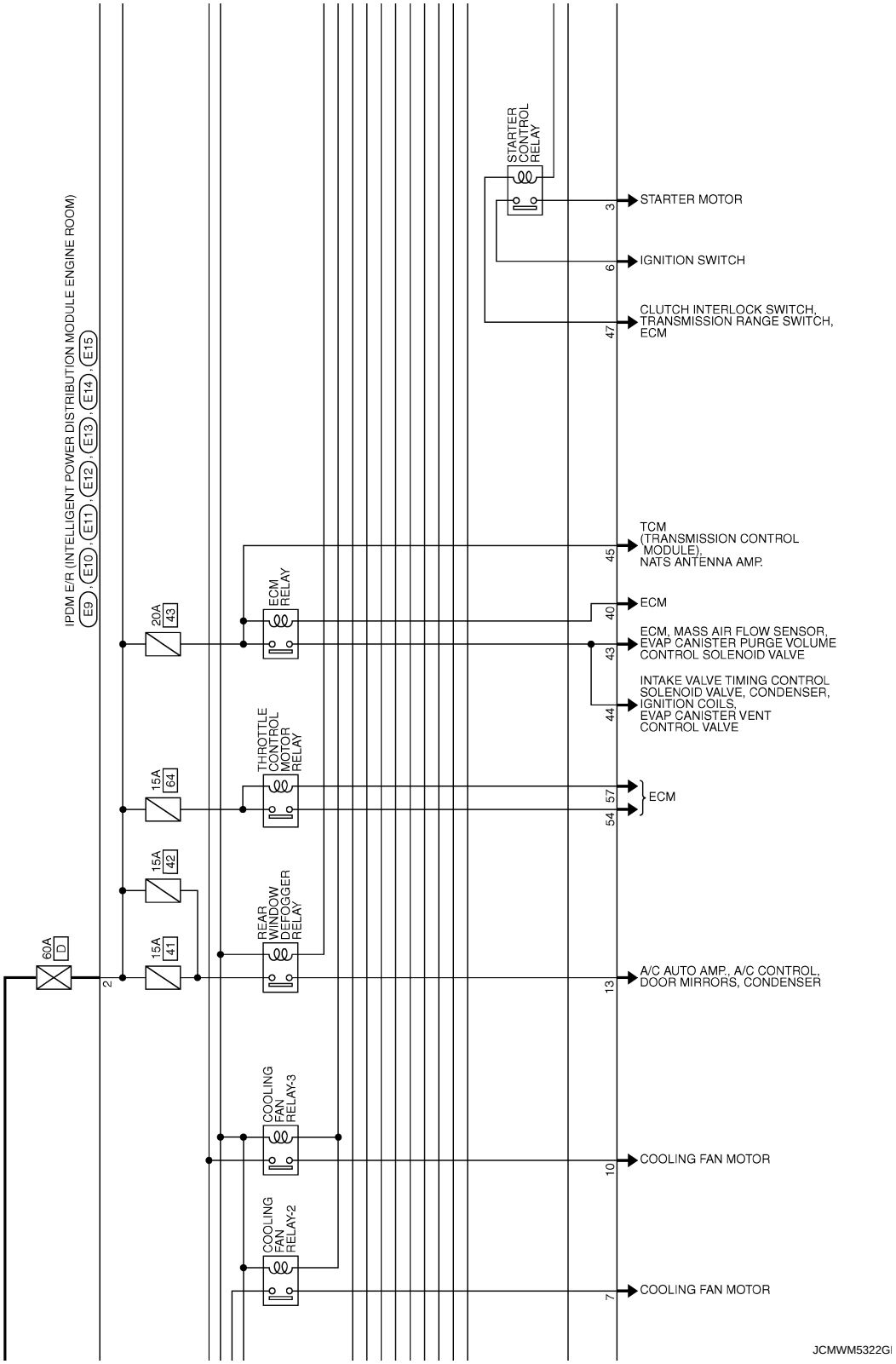
*2: CVT models

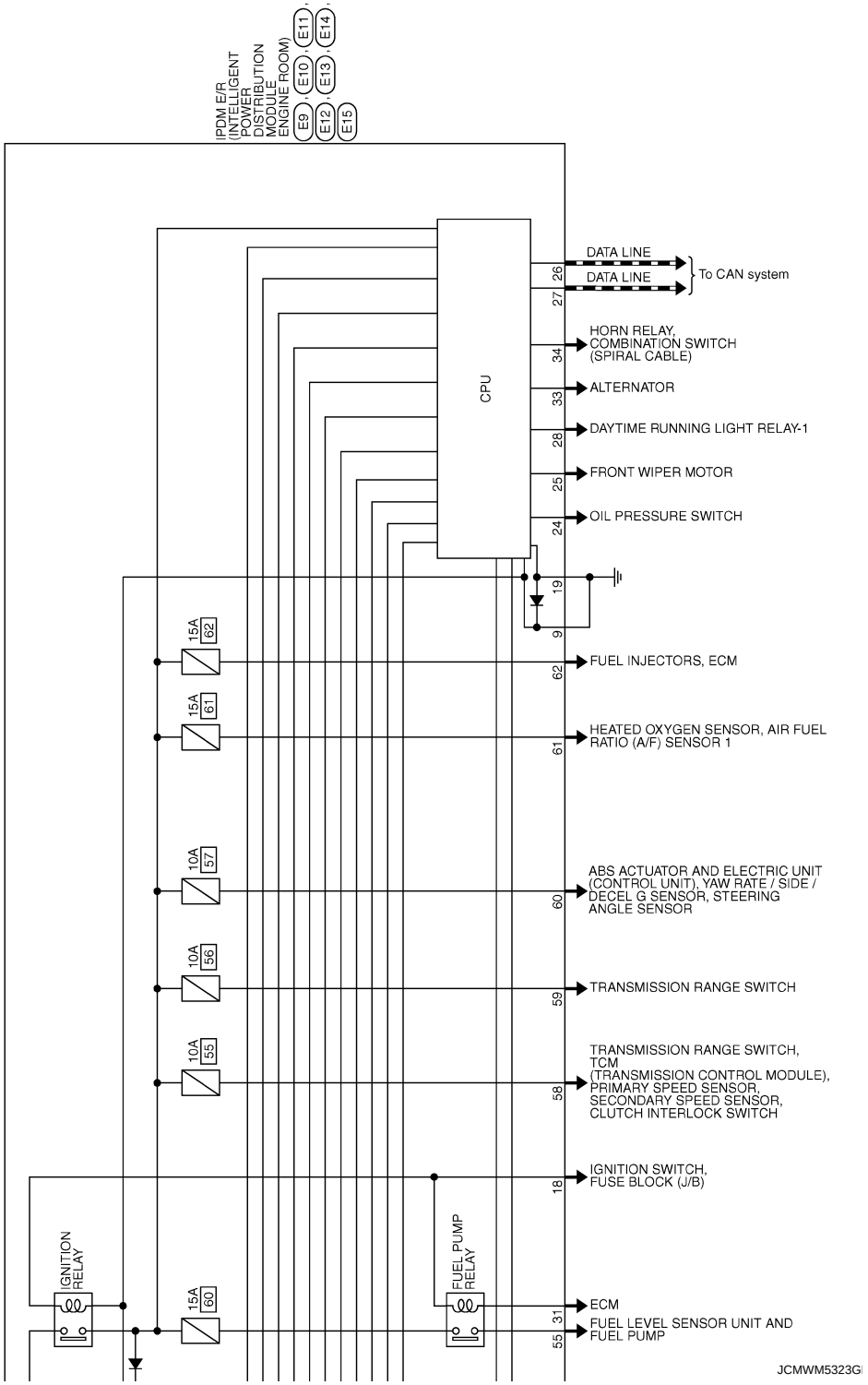
*3: M/T models

## WITHOUT INTELLIGENT KEY : Wiring Diagram — IPDM E/R —

INFOID:0000000005817206




IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E9, E10, E11, E12, E13, E14, E15
60A D
20A 43
15A 64
15A 42
15A 41
ECM RELAY
THROTTLE CONTROL MOTOR RELAY
REAR WINDOW DEFOGGER RELAY
COOLING FAN RELAY-3
COOLING FAN RELAY-2
STARTER CONTROL RELAY
2
3 STARTER MOTOR
6 IGNITION SWITCH
47 CLUTCH INTERLOCK SWITCH, TRANSMISSION RANGE SWITCH, ECM
45 TCM (TRANSMISSION CONTROL MODULE), NATS ANTENNA AMP.
40 ECM
43 ECM, MASS AIR FLOW SENSOR, EVAP CANISTER PURGE VOLUME CONTROL SOLENOID VALVE
44 INTAKE VALVE TIMING CONTROL SOLENOID VALVE, CONDENSER, IGNITION COILS, EVAP CANISTER VENT CONTROL VALVE
57, 54 ECM
13 A/C AUTO AMP., A/C CONTROL, DOOR MIRRORS, CONDENSER
10 COOLING FAN MOTOR
7 COOLING FAN MOTOR
JCMWM5322GI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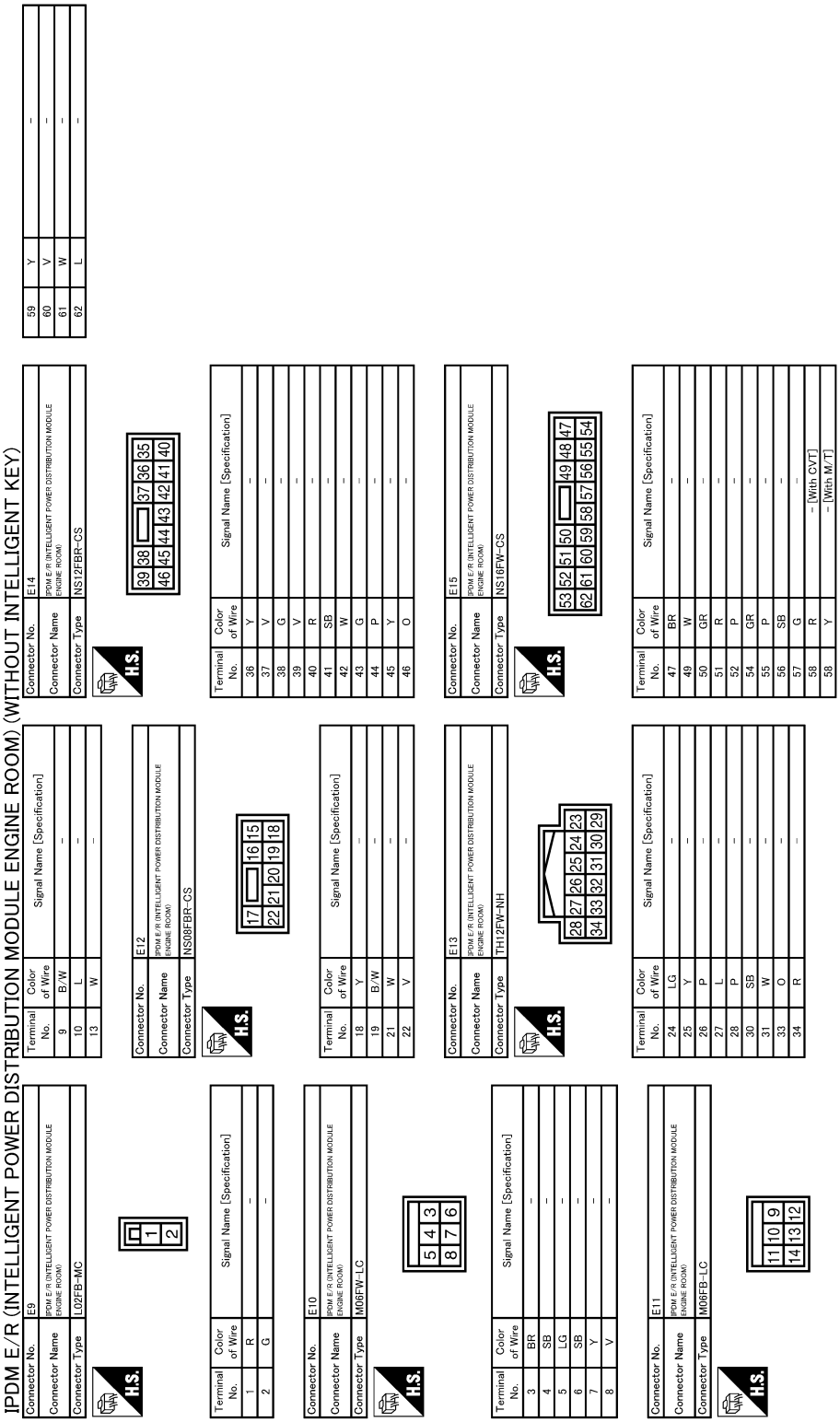



JCMWM5324GI

## WITHOUT INTELLIGENT KEY : Fail-Safe

INFOID:0000000005817207

### CAN COMMUNICATION CONTROL

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

If No CAN Communication Is Available With ECM

| Control part | Fail-safe operation |
|---|---|
| Cooling fan | • The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn ON when the ignition switch is turned ON (Cooling fan HI operation)<br>• The cooling fan relay-1, the cooling fan relay-2 and the cooling fan relay-3 turn OFF when the ignition switch is turned OFF |
| A/C compressor | A/C relay OFF |
| Alternator | Outputs the power generation command signal (PWM signal) 0% |

If No CAN Communication Is Available With BCM

| Control part | Fail-safe operation |
|---|---|
| Headlamp | • Turns ON the headlamp low relay when the ignition switch is turned ON<br>• Turns OFF the headlamp low relay when the ignition switch is turned OFF<br>• Headlamp high relay OFF<br>• Daytime running light relay OFF* |
| • Parking lamps<br>• Side marker lamps<br>• License plate lamps<br>• Illuminations<br>• Tail lamps | • Turns ON the tail lamp relay when the ignition switch is turned ON<br>• Turns OFF the tail lamp relay when the ignition switch is turned OFF |
| Front wiper | • The status just before activation of fail-safe control is maintained until the ignition switch is turned OFF while the front wiper is operating at LO or HI speed.<br>• The wiper is operated at LO speed until the ignition switch is turned OFF if the fail-safe control is activated while the front wiper is set in the INT mode and the front wiper motor is operating. |
| Front fog lamps | Front fog lamp relay OFF |
| Rear window defogger relay | Rear window defogger relay OFF |
| Horn | Horn OFF |

*: With daytime running light system

## IGNITION RELAY MALFUNCTION DETECTION FUNCTION

- IPDM E/R monitors the voltage at the contact circuit of the ignition relay inside and ignition switch status from BCM via CAN communication.
- IPDM E/R judges the ignition relay error if the voltage differs between the contact circuit and the ignition switch status from BCM via CAN communication.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

| Voltage judgment | | IPDM E/R judgment | Operation |
|---|---|---|---|
| Ignition relay contact side | Ignition switch status from BCM | | |
| ON | ON | Ignition relay ON normal | — |
| OFF | OFF | Ignition relay OFF normal | — |
| ON | OFF | Ignition relay ON stuck | • Detects DTC “B2098: IGN RELAY ON”<br>• Turns ON the tail lamp relay for 10 minutes |
| OFF | ON | Ignition relay OFF stuck | Detects DTC “B2099: IGN RELAY OFF” |

## FRONT WIPER CONTROL

IPDM E/R detects front wiper stop position by a front wiper stop position signal.
When a front wiper stop position signal is in the conditions listed below, IPDM E/R stops power supply to wiper after repeating a front wiper 10 seconds activation and 20 seconds stop five times.

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

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

## WITHOUT INTELLIGENT KEY : DTC Index

INFOID:0000000005817208

**NOTE:**
- The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.
- IGN counter is displayed on FFD (Freeze Frame data).
- The number is 0 when is detected now.
- The number increases like 1 → 2 ··· 38 → 39 after returning to the normal condition whenever IGN OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

×: Applicable

| CONSULT display | Fail-safe | Refer to |
|---|---|---|
| No DTC is detected. further testing may be required. | — | — |
| U1000: CAN COMM CIRCUIT | × | PCS-16 |
| B2098: IGN RELAY ON | × | PCS-17 |
| B2099: IGN RELAY OFF | — | PCS-48 |

# SYMPTOM DIAGNOSIS

## EXTERIOR LIGHTING SYSTEM SYMPTOMS WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:0000000005491706

**CAUTION:**
**Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.**

| Symptom | | Possible cause | Inspection item |
|---|---|---|---|
| Headlamp (HI) is not turned ON. | One side | • Fuse<br>• Halogen bulb (HI)<br>• Harness between IPDM E/R and the headlamp<br>• Harness between headlamp and the ground<br>• IPDM E/R | Headlamp (HI) circuit<br>Refer to EXL-47. |
| | Both sides | **Symptom diagnosis**<br>"BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON"<br>Refer to EXL-198. | |
| High beam indicator lamp is not turned ON. [Headlamp (HI) is turned ON.] | | Combination meter | • Combination meter<br>Data monitor "HI-BEAM IND"<br>• BCM (HEADLAMP)<br>Active test "HEADLAMP" |
| Headlamp (LO) is not turned ON. | One side | • Fuse<br>• Halogen bulb (LO)<br>• Harness between IPDM E/R and the headlamp<br>• Harness between headlamp and the ground<br>• IPDM E/R | Headlamp (LO) circuit<br>Refer to EXL-50. |
| | Both sides | **Symptom diagnosis**<br>"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON"<br>Refer to EXL-199. | |
| Headlamp is not turned OFF. | When ignition switch is turned ON. | | |
| | When ignition switch is turned OFF. | IPDM E/R | — |
| Headlamp is not turned ON/OFF with the lighting switch AUTO. | | • Combination switch<br>• Harness between the combination switch and BCM<br>• BCM | Combination switch<br>Refer to BCS-145. |
| | | • Optical sensor<br>• Harness between the optical sensor and BCM<br>• BCM | Optical sensor<br>Refer to EXL-64. |
| Front fog lamp is not turned ON. | One side | • Front fog lamp bulb<br>• Harness between IPDM E/R and the front fog lamp<br>• Front fog lamp<br>• IPDM E/R | Front fog lamp circuit<br>Refer to EXL-55. |
| | Both side | **Symptom diagnosis**<br>"BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON"<br>Refer to EXL-201. | |
| Front fog lamp is not turned ON. | | | |
| Parking lamp is not turned ON. | | • Parking lamp bulb<br>• Harness between IPDM E/R and the parking lamp<br>• Front combination lamp assembly<br>• IPDM E/R | Parking lamp circuit<br>Refer to EXL-60. |

| Symptom | | Possible cause | Inspection item |
|---|---|---|---|
| Tail lamp is not turned ON. | | • Tail lamp bulb<br>• Harness between IPDM E/R and the rear combination lamp<br>• Rear combination lamp assembly | Tail lamp circuit<br>Refer to EXL-69. |
| Rear side marker lamp is not turned ON. | | • Rear side marker lamp bulb<br>• Harness between IPDM E/R and the rear side marker lamp<br>• Rear side marker lamp assembly | Rear side marker lamp circuit<br>Refer to EXL-71. |
| License plate lamp is not turned ON. | | • License plate lamp bulb<br>• Harness between IPDM E/R and the license plate lamp<br>• License plate lamp assembly | License plate lamp circuit<br>Refer to EXL-72. |
| • Parking lamp, tail lamp, rear side marker lamp and license plate lamp are not turned ON.<br>• Parking lamp, tail lamp, rear side marker lamp and license plate lamp are not turned OFF.<br>(Each illumination is turned ON/OFF.) | | **Symptom diagnosis**<br>“PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON”<br>Refer to EXL-200. | |
| Tail lamp indicator is not turned ON.<br>(Parking and tail lamps are turned ON.) | | Combination meter | • Combination meter<br>Data monitor “LIGHT IND”<br>• BCM (HEADLAMP)<br>Active test “TAIL LAMP” |
| Turn signal lamp does not blink. | Indicator lamp is normal.<br>(Applicable side performs the high flasher activation.) | • Harness between BCM and each turn signal lamp<br>• Turn signal lamp bulb | Turn signal circuit<br>Refer to EXL-62. |
| | Indicator lamp is included. | • Combination switch<br>• Harness between the combination switch and BCM<br>• BCM | Combination switch<br>Refer toBCS-145. |
| Turn signal indicator lamp does not blink.<br>(Turn signal indicator lamp is normal.) | One side | Combination meter | — |
| | Both sides<br>(Always) | • Turn signal indicator lamp signal<br>- BCM<br>• Combination meter | • Combination meter<br>Data monitor “TURN IND”<br>• BCM (FLASHER)<br>Active test “FLASHER” |
| | Both sides<br>(Only when activating hazard warning lamp with the ignition switch OFF.) | • Combination meter power supply and the ground circuit<br>• Combination meter | Combination meter<br>Power supply and the ground circuit<br>Refer to MWI-39. |
| • Hazard warning lamp does not activate.<br>• Hazard warning lamp continues activating.<br>(Turn signal is normal.) | | • Hazard switch<br>• Harness between the hazard switch and BCM<br>• BCM | Hazard switch<br>Refer to EXL-67. |

## WITH DAYTIME RUNNING LIGHT SYSTEM

## WITH DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:0000000005491707

**CAUTION:**

**Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.**

| Symptom | | Possible cause | Inspection item |
|---|---|---|---|
| Headlamp (HI) is not turned ON. | One side | • Fuse<br>• Halogen bulb (HI)<br>• Harness between IPDM E/R and the headlamp<br>• Harness between the headlamp and the daytime running light relay-1<br>• Harness between the daytime running light relay-1 and the ground<br>• Harness between the headlamp and the ground<br>• Daytime running light relay-1<br>• IPDM E/R | Headlamp (HI) circuit<br>Refer to EXL-47. |
| | Both sides | **Symptom diagnosis**<br>"BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON"<br>Refer to EXL-198. | |
| High beam indicator lamp is not turned ON.<br>[Headlamp (HI) is turned ON.] | | Combination meter | • Combination meter<br>Data monitor "HI-BEAM IND"<br>• BCM (HEADLAMP)<br>Active test "HEADLAMP" |
| Headlamp (LO) is not turned ON. | One side | • Fuse<br>• Halogen bulb (LO)<br>• Harness between IPDM E/R and the headlamp<br>• Harness between IPDM E/R and the daytime running light relay-2<br>• Harness between IPDM E/R and the headlamp<br>• Harness between daytime running light relay-2 and the headlamp<br>• Harness between the headlamp and the ground<br>• Harness between the headlamp and the daytime running light relay-1<br>• Harness between the daytime running light relay-1 and the ground<br>• Daytime running light relay-1<br>• Daytime running light relay-2<br>• IPDM E/R | Headlamp (LO) circuit<br>Refer to EXL-50. |
| | Both sides | **Symptom diagnosis**<br>"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON"<br>Refer to EXL-199. | |
| Headlamp is not turned OFF. | When ignition switch is turned ON. | | |
| | When ignition switch is turned OFF. | IPDM E/R | — |
| Daytime running light is not turned ON.<br>[Headlamp (HI) is turned ON.] | | • Fuse<br>• Harness between IPDM E/R and the daytime running light relay-1<br>• Daytime running light relay-1<br>• IPDM E/R<br>• BCM<br>• ECM<br>• Combination meter | • Daytime running light relay circuit<br>Refer to EXL-57.<br>• BCM (HEADLAMP)<br>Data monitor "ENGINE STATE"<br>• Combination mete<br>Data monitor "PKB SW"<br>• BCM (HEADLAMP)<br>Active test "DAYTIME RUNNING LIGHT" |

| Symptom | | Possible cause | Inspection item |
|---|---|---|---|
| Headlamp is not turned ON/OFF with the lighting switch AUTO. | | • Combination switch<br>• Harness between the combination switch and BCM<br>• BCM | Combination switch<br>Refer to BCS-79. |
| | | • Optical sensor<br>• Harness between the optical sensor and BCM<br>• BCM | Optical sensor<br>Refer to EXL-64. |
| Front fog lamp is not turned ON. | One side | • Front fog lamp bulb<br>• Harness between IPDM E/R and the front fog lamp<br>• Front fog lamp<br>• IPDM E/R | Front fog lamp circuit<br>Refer to EXL-55. |
| | Both side | **Symptom diagnosis**<br>"BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON"<br>Refer to EXL-201. | |
| Front fog lamp is not turned ON. | | | |
| Parking lamp is not turned ON. | | • Parking lamp bulb<br>• Harness between IPDM E/R and the parking lamp<br>• Front combination lamp assembly<br>• IPDM E/R | Parking lamp circuit<br>Refer to EXL-60. |
| Tail lamp is not turned ON. | | • Tail lamp bulb<br>• Harness between IPDM E/R and the rear combination lamp<br>• Rear combination lamp assembly | Tail lamp circuit<br>Refer to EXL-69. |
| Rear side marker lamp is not turned ON. | | • Rear side marker lamp bulb<br>• Harness between IPDM E/R and the rear side marker lamp<br>• Rear side marker lamp assembly | Rear side marker lamp circuit<br>Refer to EXL-71. |
| License plate lamp is not turned ON. | | • License plate lamp bulb<br>• Harness between IPDM E/R and the license plate lamp<br>• License plate lamp assembly | License plate lamp circuit<br>Refer to EXL-72. |
| • Parking lamp, tail lamp, rear side marker lamp and license plate lamp are not turned ON.<br>• Parking lamp, tail lamp, rear side marker lamp and license plate lamp are not turned OFF.<br>(Each illumination is turned ON/OFF.) | | **Symptom diagnosis**<br>"PARKING, LICENSE PLATE, SIDE MARKER AND TAIL LAMPS ARE NOT TURNED ON"<br>Refer to EXL-200. | |
| Tail lamp indicator is not turned ON.<br>(Parking and tail lamps are turned ON.) | | Combination meter | • Combination meter<br>Data monitor "LIGHT IND"<br>• BCM (HEADLAMP)<br>Active test "TAIL LAMP" |
| Turn signal lamp does not blink. | Indicator lamp is normal.<br>(Applicable side performs the high flasher activation.) | • Harness between BCM and each turn signal lamp<br>• Turn signal lamp bulb | Turn signal circuit<br>Refer to EXL-62. |
| | Indicator lamp is included. | • Combination switch<br>• Harness between the combination switch and BCM<br>• BCM | Combination switch<br>Refer toBCS-79. |

| Symptom | | Possible cause | Inspection item |
|---|---|---|---|
| Turn signal indicator lamp does not blink. (Turn signal indicator lamp is normal.) | One side | Combination meter | — |
| | Both sides (Always) | • Turn signal indicator lamp signal<br>- BCM<br>• Combination meter | • Combination meter<br>Data monitor “TURN IND”<br>• BCM (FLASHER)<br>Active test “FLASHER” |
| | Both sides (Only when activating hazard warning lamp with the ignition switch OFF.) | • Combination meter power supply and the ground circuit<br>• Combination meter | Combination meter<br>Power supply and the ground circuit<br>Refer to MWI-39. |
| • Hazard warning lamp does not activate.<br>• Hazard warning lamp continues activating.<br>(Turn signal is normal.) | | • Hazard switch<br>• Harness between the hazard switch and BCM<br>• BCM | Hazard switch<br>Refer to EXL-67. |

# NORMAL OPERATING CONDITION

## Description

INFOID:0000000005491708

### AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes the control difference. This is normal.

# BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

## Description

INFOID:0000000005491709

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

## Diagnosis Procedure

INFOID:0000000005491710

### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

### 2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select “HL HI REQ” of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

| Monitor item | Condition | | Monitor status |
|---|---|---|---|
| HL HI REQ | Lighting switch (2ND) | HI or PASS | ON |
| | | LO | OFF |

Is the item status normal?

YES >> GO TO 3.
NO >> Replace BCM. Refer to BCS-81, "Exploded View".

### 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to EXL-47, "Component Function Check".

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.
NO >> Repair or replace the malfunctioning part.

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

## Description

INFOID:0000000005491711

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

## Diagnosis Procedure

INFOID:0000000005491712

### 1.CHECK COMBINATION SWITCH

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

### 2.CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select “HL LO REQ” of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

| Monitor item | Condition | | Monitor status |
|---|---|---|---|
| HL LO REQ | Lighting switch | 2ND | ON |
| | | OFF | OFF |

Is the item status normal?

YES >> GO TO 3.
NO >> Replace BCM. Refer to BCS-81, "Exploded View".

### 3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to EXL-50, "Component Function Check".

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.
NO >> Repair or replace the malfunctioning part.

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

## Description

INFOID:0000000005491713

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

## Diagnosis Procedure

INFOID:0000000005491714

### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 2.
NO >> Repair or replace the malfunctioning part.

### 2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select “TAIL & CLR REQ” of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

| Monitor item | Condition | | Monitor status |
|---|---|---|---|
| TAIL & CLR REQ | Lighting switch | 1ST | ON |
| | | OFF | OFF |

Is the item status normal?

YES >> GO TO 3.
NO >> Replace BCM. Refer to BCS-81, "Exploded View".

### 3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to EXL-69, "Component Function Check".

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.
NO >> Repair or replace the malfunctioning part.

# BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

## Description

INFOID:0000000005491715

The front fog lamps are not turned ON in any condition.

## Diagnosis Procedure

INFOID:0000000005491716

### 1.CHECK FUSE

Check that the following fuse is fusing.

| Unit | Location | Fuse No. | Capacity |
|---|---|---|---|
| Front fog lamp | IPDM E/R | #65 | 15 A |

Is the fuse fusing?

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

### 2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to BCS-79, "Symptom Table".

Is the combination switch normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning part.

### 3.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select “FR FOG REQ” of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

| Monitor item | Condition | | Monitor status |
|---|---|---|---|
| FR FOG REQ | Front fog lamp switch (With lighting switch 1ST) | ON | ON |
| | | OFF | OFF |

Is the item status normal?

YES >> GO TO 4.
NO >> Replace BCM. Refer to BCS-81, "Exploded View".

### 4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to EXL-55, "Component Function Check".

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.
NO >> Repair or replace the malfunctioning part.

# PRECAUTION

## PRECAUTIONS

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

INFOID:0000000005491717

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted.
Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

**WARNING:**

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

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

**WARNING:**

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

# PERIODIC MAINTENANCE

## HEADLAMP AIMING ADJUSTMENT

### Description

INFOID:0000000005491718

#### PREPARATION BEFORE ADJUSTING

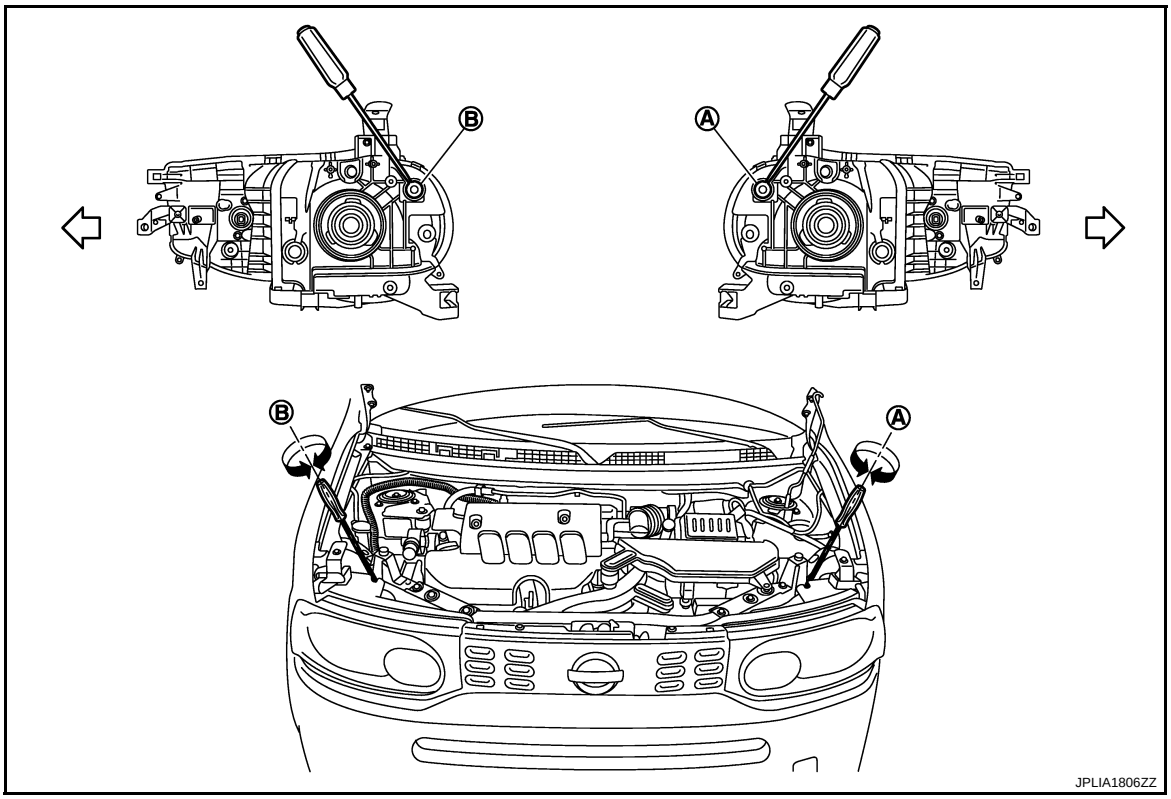
**NOTE:**

- For details, refer to the regulations in your own country.
- Perform aiming if the vehicle front body has been repaired and/or the headlamp assembly has been replaced.

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the trunk room.)
  **NOTE:**
  Do not remove the temporary tire, jack and on-vehicle tool.
- Wipe out dirt on the headlamp.
  **CAUTION:**
  **Never use organic solvent (thinner, gasoline etc.)**
- Ride alone on the driver seat.

#### AIMING ADJUSTMENT SCREW




A Headlamp (RH) UP/DOWN adjustment screw

B. Headlamp (LH) UP/DOWN adjustment screw

⇦: Vehicle center

| Adjustment screw | | Screw driver rotation | Facing direction |
|---|---|---|---|
| A | Headlamp (RH) UP/DOWN | Clockwise | DOWN |
| | | Counterclockwise | UP |
| B | Headlamp (LH) UP/DOWN | Clockwise | DOWN |
| | | Counterclockwise | UP |

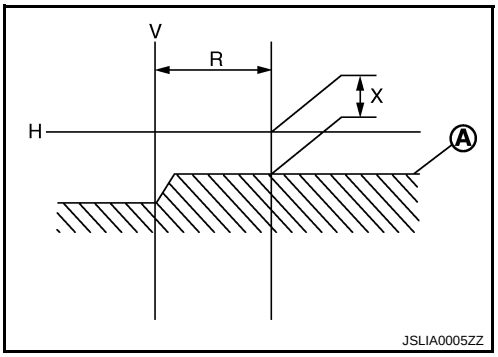
## Aiming Adjustment Procedure

INFOID:0000000005491719

1. Place the screen.
   **NOTE:**
   - Stop the vehicle facing the wall.
   - Place the board on a plain road vertically.
2. Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the headlamp center and the screen.
3. Start the engine. Turn the headlamp (LO) ON.
   **NOTE:**
   Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.
   **CAUTION:**
   **Never cover the lens surface with a tape etc. The lens is made of resin.**
4. Measure the distance (X) between the horizontal center line of headlamp (H) and the cutoff line (A) within the light axis measurement range (R) from the vertical center line ahead of headlamp (V).

**Light axis measurement range (R)** : **350 ± 175 mm (13.78 ± 6.89 in)**

Low beam distribution on the screen

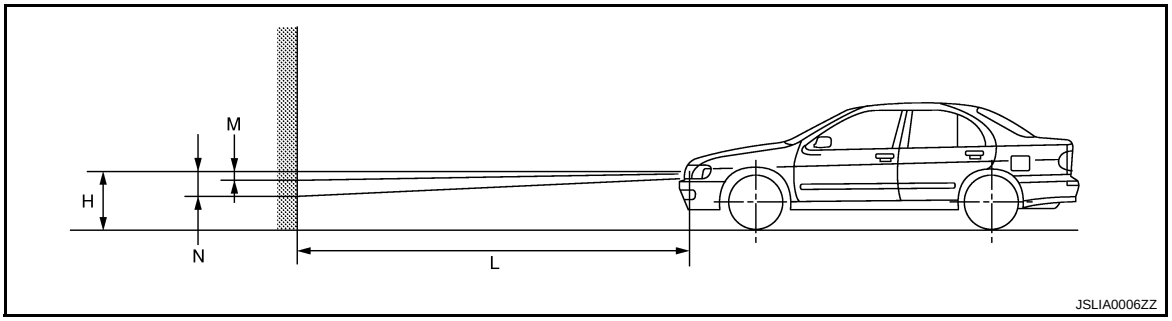



5. Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

unit: mm (in)

| Horizontal center line of headlamp (H) | Highest cutoff line height (M) | Lowest cutoff line height (N) |
|---|---|---|
| 700 (27.56) or less | 4 (0.16) | 30 (1.18) |
| 701(27.60) – 800 (31.50) | 4 (0.16) | 30 (1.18) |
| 801 (31.54) or more | 17 (0.67) | 44 (1.73) |

Side view



| | |
|---|---|
| **Distance between the headlamp center and the screen (L)** | **: 10 m (32.8 ft)** |

# FRONT FOG LAMP AIMING ADJUSTMENT

## Description

INFOID:0000000005491720

### PREPARATION BEFORE ADJUSTING

**NOTE:**

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

Before performing aiming adjustment, check the following.

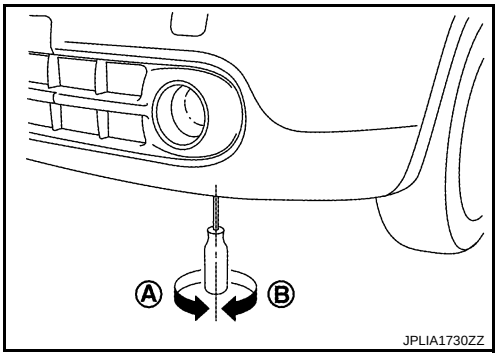
- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)
  **NOTE:**
  Do not remove the temporary tire, jack and on-vehicle tool.
- Wipe out dirt on the headlamp.
  **CAUTION:**
  **Never use organic solvent (thinner, gasoline etc.)**
- Ride alone on the driver seat.

### AIMING ADJUSTMENT SCREW

- Turn the aiming adjusting screw for adjustment.

  A: UP

  B: DOWN



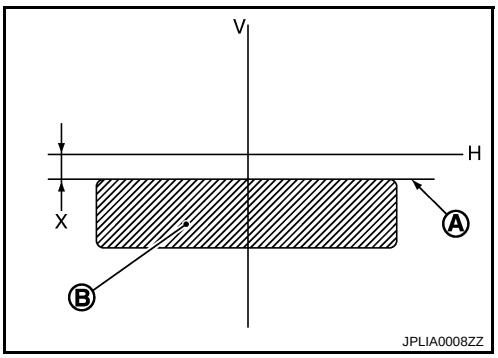

- For the position and direction of the adjusting screw, refer to the figure.
  **NOTE:**
  A screwdriver or hexagonal wrench [6 mm (0.24 in)] can be used for adjustment.

## Aiming Adjustment Procedure

INFOID:0000000005491721

1. Place the screen.
   **NOTE:**
   - Stop the vehicle facing the wall.
   - Place the board on a plain road vertically.
2. Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the front fog lamp center and the screen.
3. Start the engine. Illuminate the front fog lamp.
   **CAUTION:**
   **Never cover the lens surface with a tape etc. The lens is made of resin.**
   **NOTE:**
   Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.
4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

Front fog lamp light distribution on the screen



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

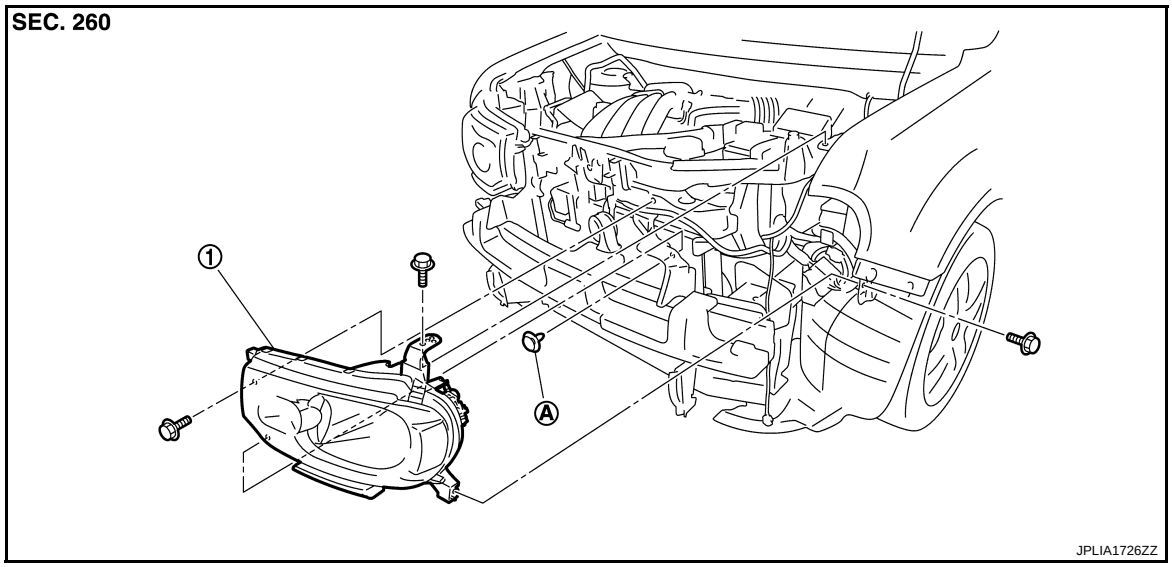
# REMOVAL AND INSTALLATION

## FRONT COMBINATION LAMP

### Exploded View

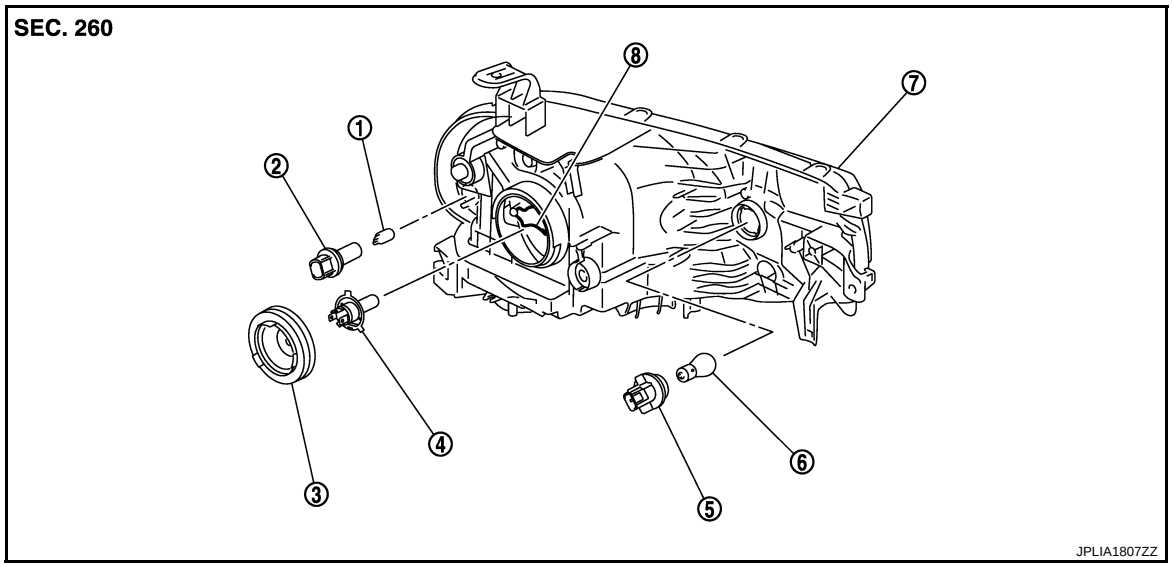
INFOID:0000000005491722

REMOVAL




1. Front combination lamp
A. Air duct clip(only left)

DISASSEMBLY




1. Parking(side marker) lamp bulb
2. Parking(side marker)lamp bulb socket
3. Back cover
4. Halogen bulb
5. Front turn signal lamp bulb socket
6. Front turn signal lamp bulb
7. Headlamp housing assembly
8. Retaining spring

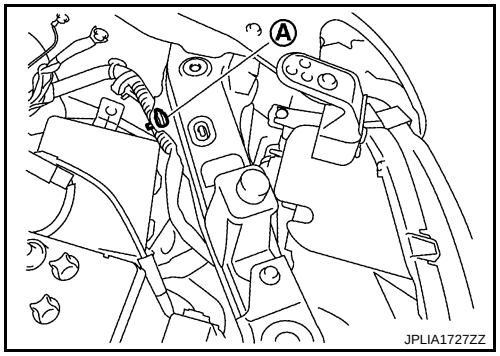
### Removal and Installation

INFOID:0000000005491723

REMOVAL

**CAUTION:**
**Disconnect the battery negative terminal or the fuse.**

1. Remove front bumper fascia. Refer to EXT-12, "Exploded View".
2. Remove the harness clips (A)*.
   *: When replace a left.
3. Remove the air duct clip*.
   *: When replace a left.
4. Remove the headlamp mounting bolts.
5. Pull out the headlamp assembly forward the vehicle.
6. Disconnect the connector before removing the headlamp assembly.




### INSTALLATION

Install in the reverse order of removal.

**NOTE:**
After installation, perform aiming adjustment. Refer to EXL-203, "Description".

## Replacement

INFOID:0000000005491724

**CAUTION:**
- **Disconnect the battery negative terminal or the fuse.**
- **After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

### HEADLAMP BULB

1. Disconnect the headlamp bulb connector.
2. Remove the back cover.
3. Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.

### PARKING(FRONT SIDE MARKER) LAMP BULB

1. Remove the fender protector. Refer to EXT-22, "FENDER PROTECTOR : Exploded View". Keep a service area.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

### FRONT TURN SIGNAL LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

## Disassembly and Assembly

INFOID:0000000005491725

### DISASSEMBLY

1. Remove the back cover.
2. Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.
3. Rotate the parking(front side marker) lamp bulb socket counterclockwise and unlock it.
4. Remove the bulb from the parking(front side marker) lamp bulb socket.
5. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
6. Remove the bulb from the front turn signal lamp bulb socket.

### ASSEMBLY

Assemble in the reverse order of disassembly.

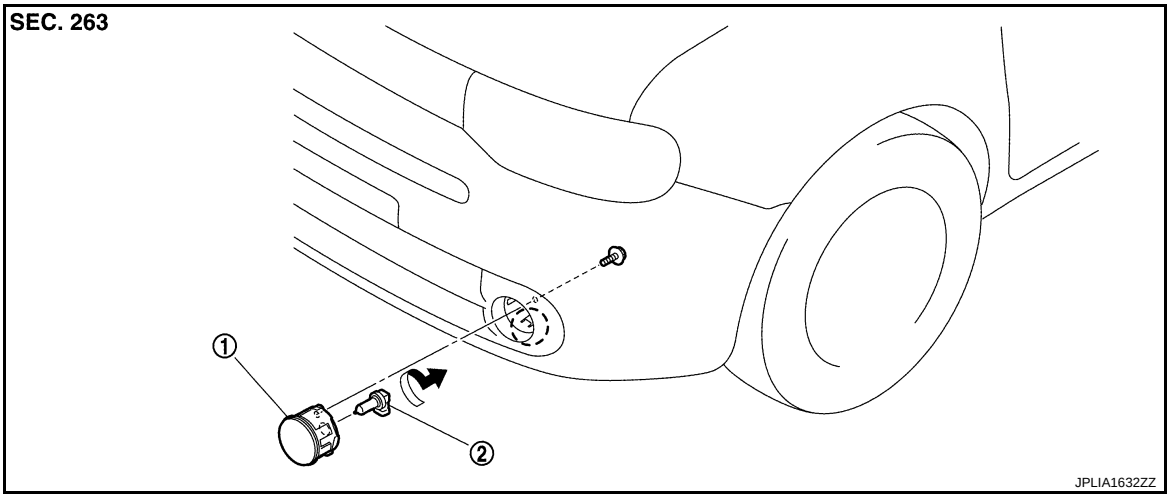
**CAUTION:**

**After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**

# FRONT FOG LAMP

## Exploded View

INFOID:0000000005491726




1. Front fog lamp
2. Front fog lamp bulb

: Pawl

## Removal and Installation

INFOID:0000000005491727

**CAUTION:**
**Disconnect the battery negative terminal or the fuse.**

REMOVAL

1. Remove the fender protector. Refer to EXT-22, "FENDER PROTECTOR : Exploded View".
2. Remove the front fog lamp connector.
3. Remove the front fog lamp mounting bolt.
4. While pressing pawls, remove the front fog lamp.

INSTALLATION

Installation is the reverse order of removal.

**NOTE:**

After installation, perform aiming adjustment. Refer to EXL-206, "Description".

## Replacement

INFOID:0000000005491728

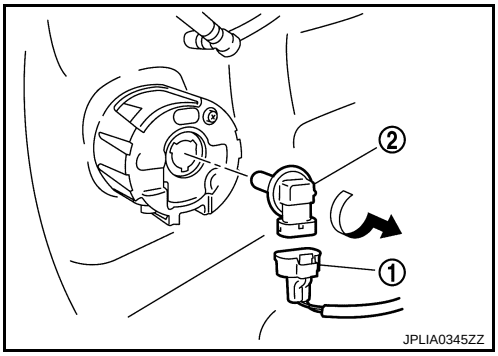
**CAUTION:**

- **Disconnect the battery negative terminal or the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

FRONT FOG LAMP BULB

1. Remove the fender protector. Keep the service area.Refer to EXT-22, "FENDER PROTECTOR : Exploded View".

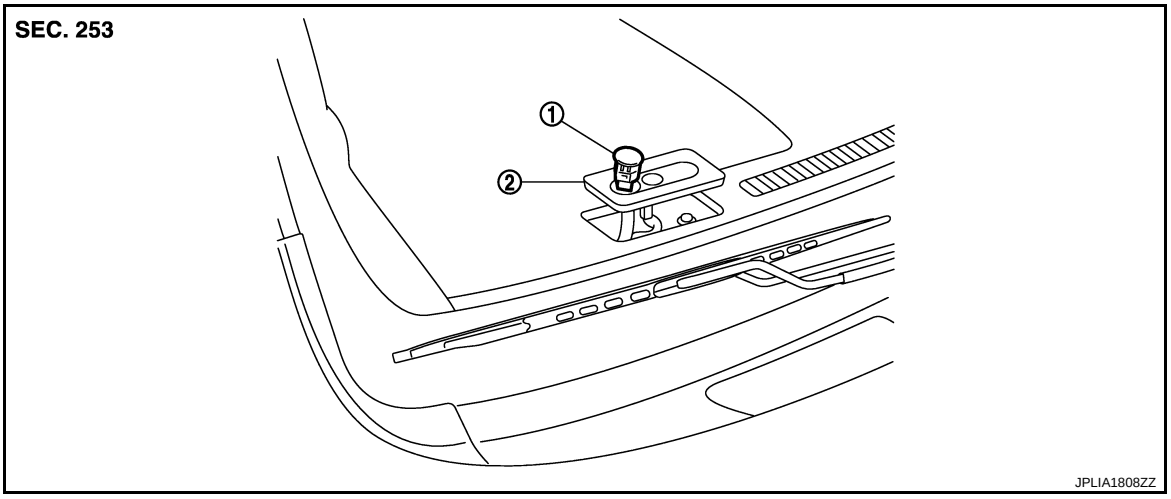
2. Remove the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.



# OPTICAL SENSOR

## Exploded View

INFOID:0000000005491729




1. Optical sensor
2. Instrument mask

## Removal and Installation

INFOID:0000000005491730

### REMOVAL

1. Remove the instrument mask.
2. Disconnect the connector. Remove the optical sensor.

### INSTALLATION

Install in the reverse order of removal.

# LIGHTING & TURN SIGNAL SWITCH

## Exploded View

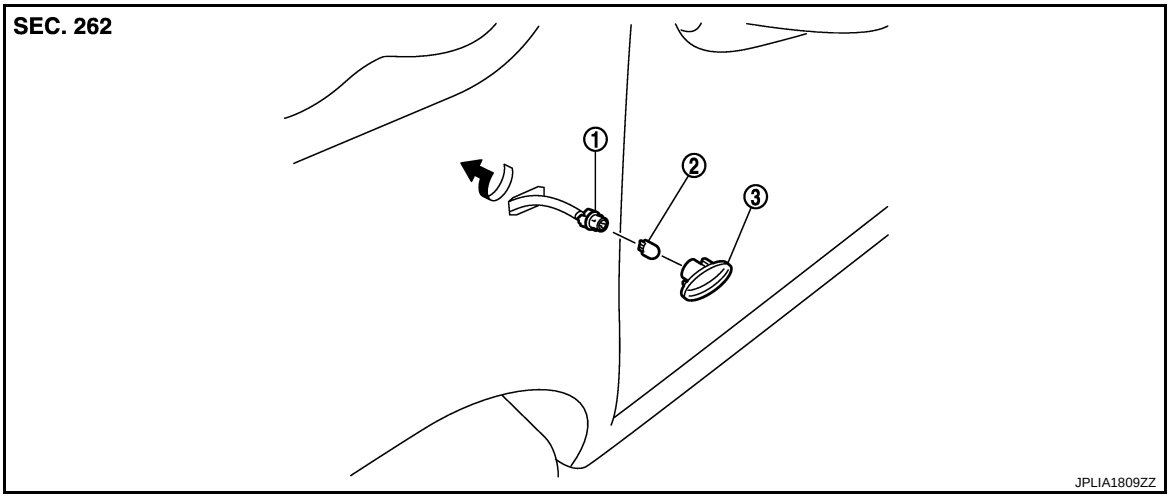
INFOID:0000000005491731

The lighting & turn switch is integrated in the combination switch. Refer to BCS-82, "Exploded View".

# SIDE TURN SIGNAL LAMP

## Exploded View

INFOID:0000000005491732




1. Side turn signal lamp bulb socket
2. Side turn signal lamp bulb
3. Side turn signal lamp housing

## Removal and Installation

INFOID:0000000005491733

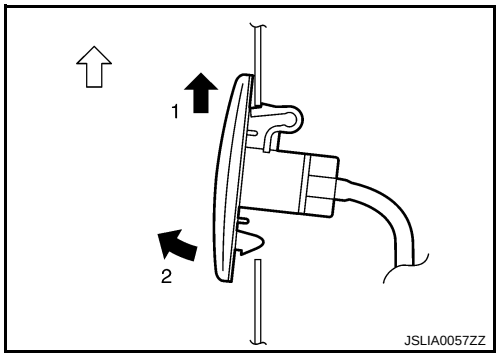
**CAUTION:**
**Disconnect battery negative terminal or remove the fuse.**

### REMOVAL

1. Remove the side turn signal lamp in numerical order shown in the figure.

⇦ : Installable both direction

2. Rotate the bulb socket counterclockwise and unlock it.
**NOTE:**
Support side turn signal lamp harness with tape so that it won't fall into the front fender.




### INSTALLATION

1. Rotate the bulb socket clockwise and lock it.
2. Fix the pawl-side behind the side turn signal lamp housing first, then push the resin clip-side.

## Replacement

INFOID:0000000005491734

**CAUTION:**
- **Disconnect battery negative terminal or remove the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

### SIDE TURN SIGNAL LAMP BULB

1. Remove the side turn signal lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
**NOTE:**

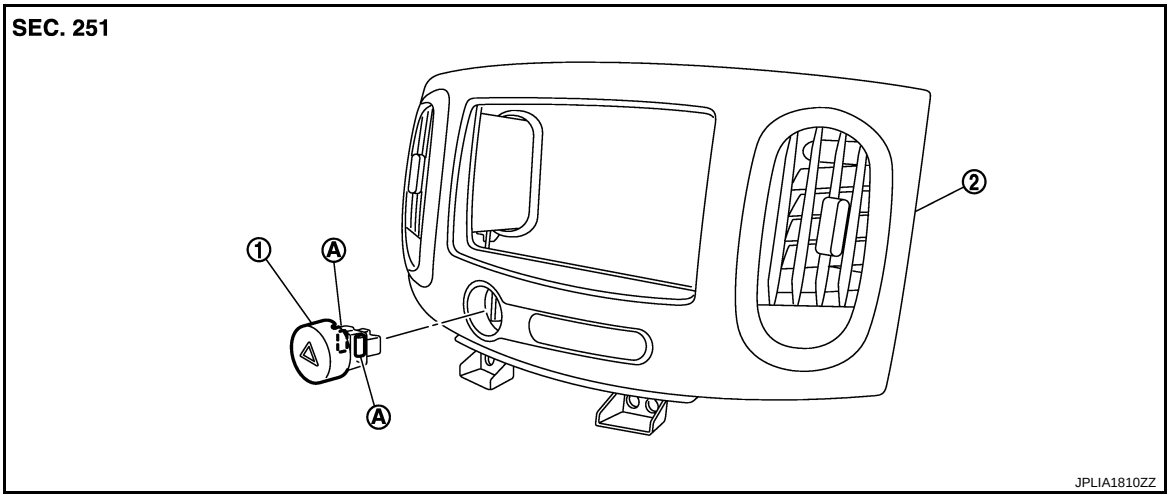
Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.

3. Remove the bulb from the bulb socket.

# HAZARD SWITCH

## Exploded View

INFOID:0000000005491735




1. Hazard switch
2. Cluster lid C

A. Pawl

## Removal and Installation

INFOID:0000000005491736

### REMOVAL

1. Remove the cluster lid C. Refer to IP-12, "Exploded View".
2. While pressing pawls, push the hazard switch. And remove it.

### INSTALLATION

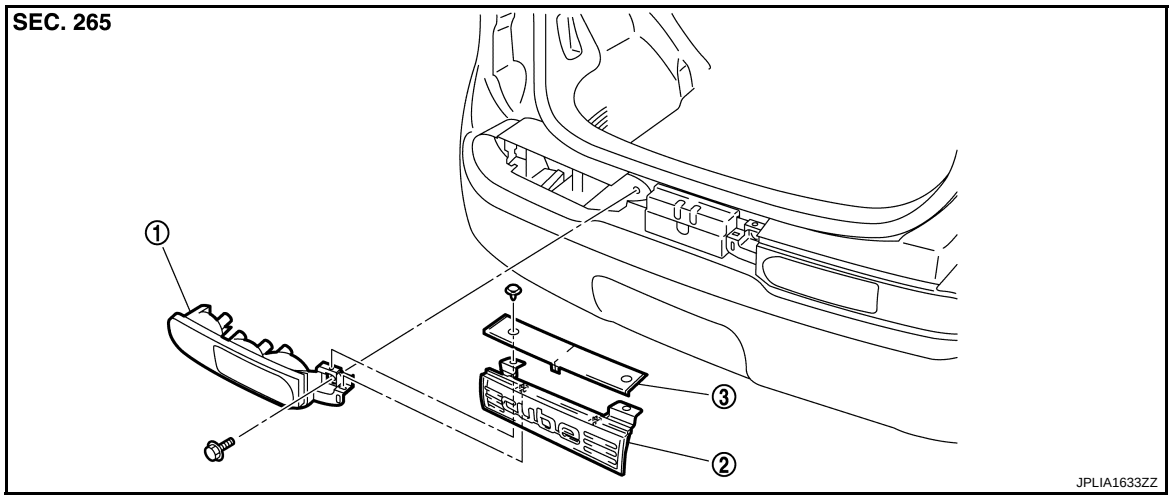
Install in the reverse order of removal.

# REAR COMBINATION LAMP

## Exploded View

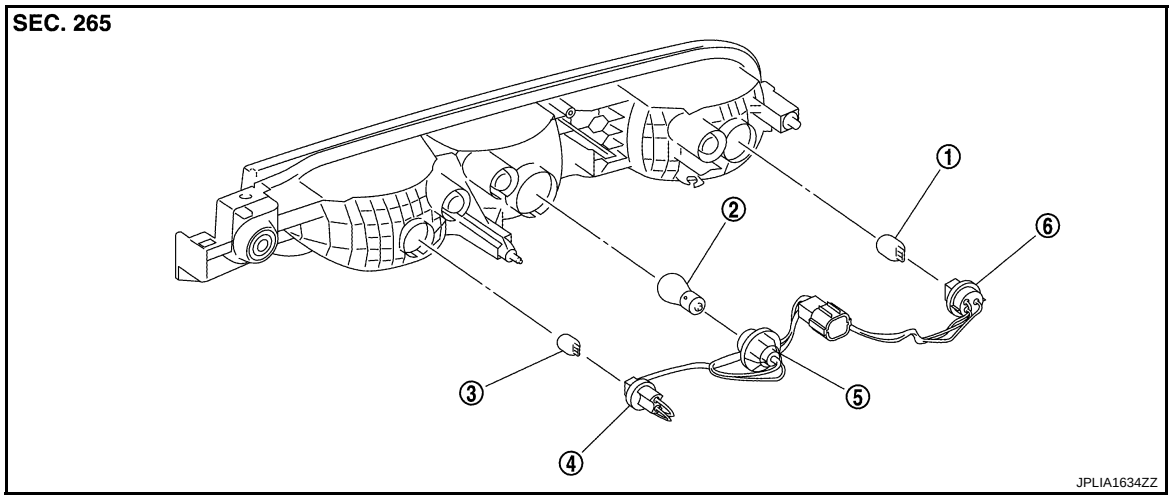
INFOID:0000000005491737

### REMOVAL




1. Rear combination lamp
2. Back door finisher
3. Back door finisher cover

### DISASSEMBLY




1. Stop/tail lamp bulb
2. Rear turn signal lamp bulb
3. Reverse lamp bulb
4. Reverse lamp bulb socket
5. Rear turn signal lamp bulb socket
6. Stop/tail lamp bulb socket

## Removal and Installation

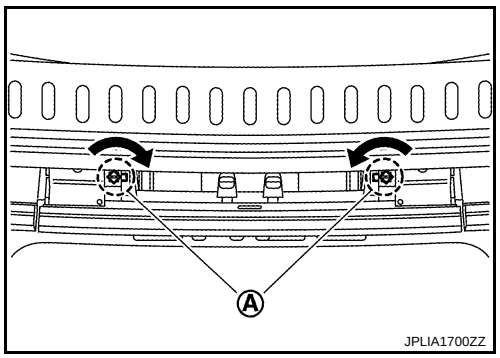
INFOID:0000000005491738

**CAUTION:**
- **Disconnect the battery negative terminal or the fuse.**
- **Wrap the tip of remover tool with a cloth to protect the body from damage.**

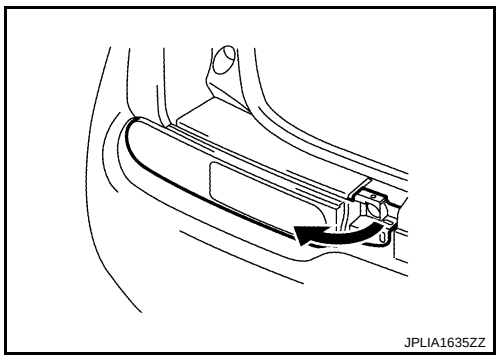
### REMOVAL

1. Remove rear back door finisher cover.

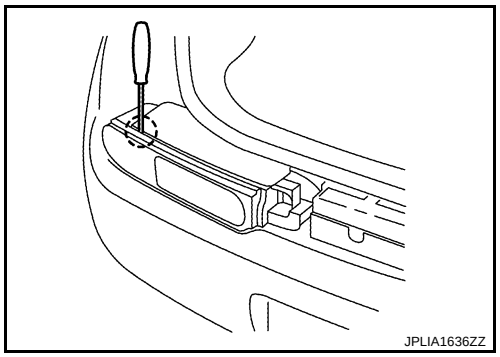
2. Disengage backdoor finisher mounting fastener (A) to remove the back door finisher.




3. Remove rear combination lamp mounting bolts.
4. Slightly turn the rear combination lamp to leave a clearance.




5. Insert an appropriate tool into the clearance between the rear combination lamp and the rear bamper side bracket.
   **CAUTION:**
   **Since the rear combination lamp has another clip at the lower center, be careful when removing the outer clip.**




6. Pull rear combination lamp rearward to remove.
7. Disconnect rear combination lamp connector.

## INSTALLATION

Install in the reverse order of removal.

**NOTE:**

The back door finisher mounting fastener remains on the rear combination lamp side after removing the back door finisher. Therefore, be sure to install the mountind fastener on the back door finisher side.

# Replacement

*INFOID:0000000005491739*

**CAUTION:**

- **Disconnect the battery negative terminal or the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

## STOP/TAIL LAMP BULB

1. Remove rear combination lamp assembly.
2. Rotate the stop/tail lamp bulb socket counterclockwise, and unlock it.
3. Remove bulb from the bulb socket.

## REAR TURN SIGNAL LAMP BULB

1. Remove rear combination lamp assembly.
2. Rotate the rear turn signal lamp bulb socket counterclockwise, and unlock it.
3. Remove bulb from the bulb socket.

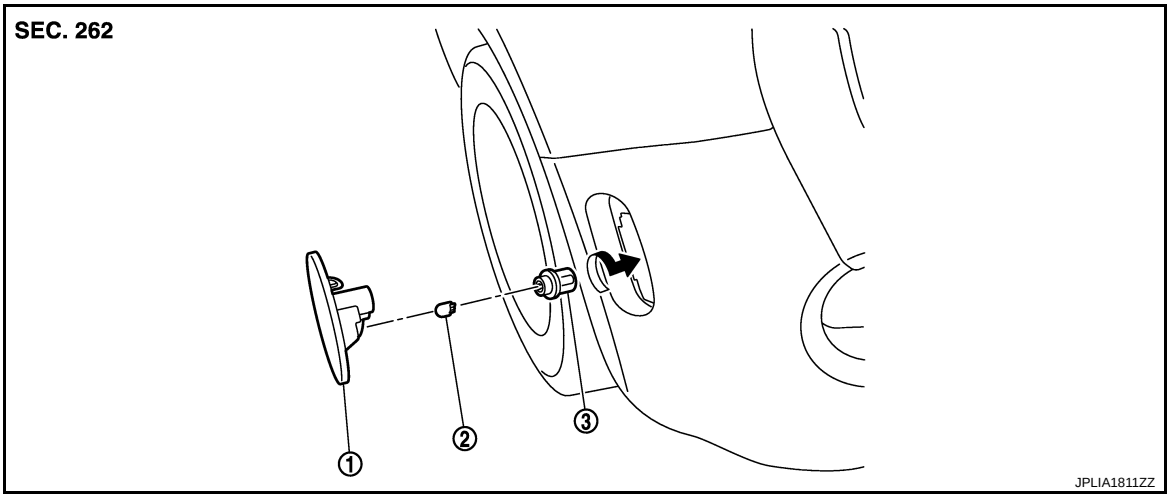
## BACK-UP LAMP BULB

1. Remove rear combination lamp assembly.
2. Rotate the back-up lamp bulb socket counterclockwise, and unlock it.
3. Remove bulb from the bulb socket.

# REAR SIDE MARKER LAMP

## Exploded View

INFOID:0000000005491740




1. Rear side marker lamp housing
2. Rear side marker lamp
3. Rear side marker lamp socket

## Removal and Installation

INFOID:0000000005491741

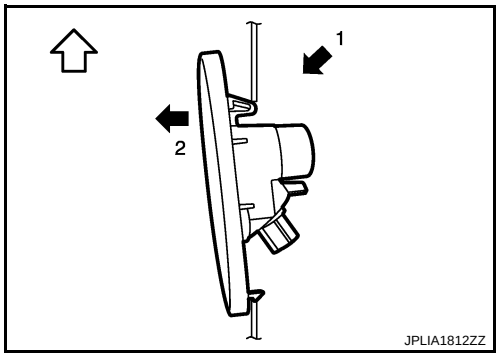
### REMOVAL

**CAUTION:**

**Disconnect the battery negative terminal or remove the fuse.**

1. Remove rear bunper closing. Refer to EXT-15, "Exploded View".
2. Disconnect rear side marker lamp connector.
3. Remove rear side marker lamp in numerical order shown in the figure.

⇦ **:Vehicle front**




### INSTALLATION

Install in the reverse order of removal.

## Replacement

INFOID:0000000005491742

**CAUTION:**

- **Disconnect battery negative terminal or remove the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

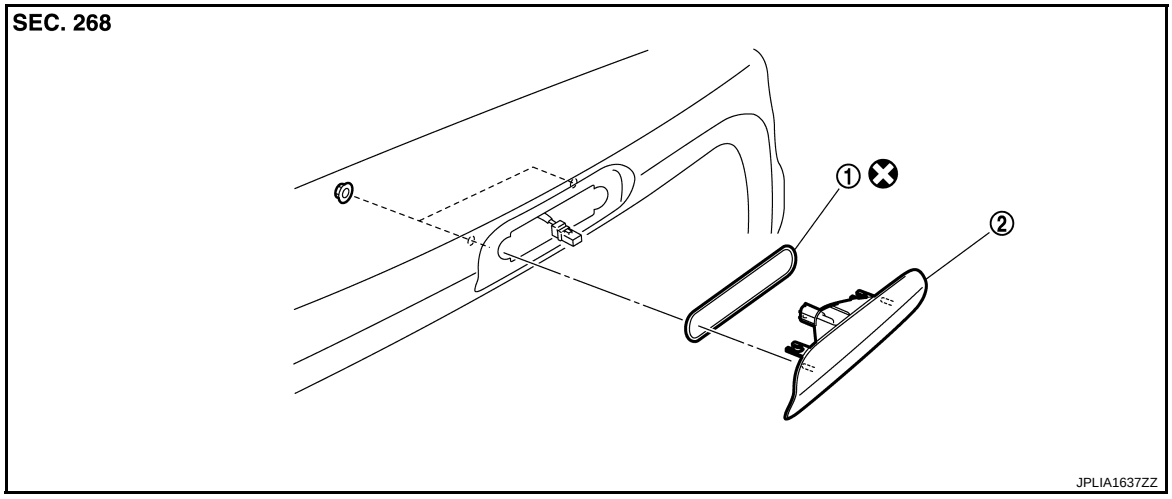
### REAR SIDE MARKER LAMP BULB

1. Remove the rear side marker lamp.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

# HIGH-MOUNTED STOP LAMP

## Exploded View

INFOID:0000000005491743




1. Seal packing
2. High-mounted stop lamp

Refer to GI-4, "Components" for symbols in the figure.

## Removal and Installation

INFOID:0000000005491744

**CAUTION:**
**Disconnect battery negative terminal or remove the fuse.**

### REMOVAL

1. Remove the back door finisher upper. Refer to INT-26, "Exploded View".
2. Remove the mounting nuts.
3. Disconnect the high-mounted stop lamp connector.
4. Pull the high-mounted stop lamp toward rear of the vehicle.

### INSTALLATION

Install in the reverse order of removal.

**CAUTION:**
**Seal packing cannot be reused.**

## Replacement

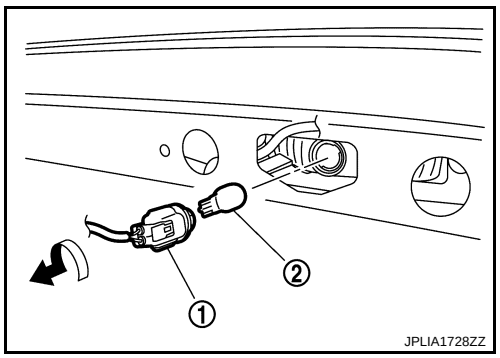
INFOID:0000000005491745

**CAUTION:**
- **Disconnect the battery negative terminal or the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

### HIGH-MOUNTED STOP LAMP BULB

1. Remove the back door finisher upper. Refer to INT-26, "Exploded View".

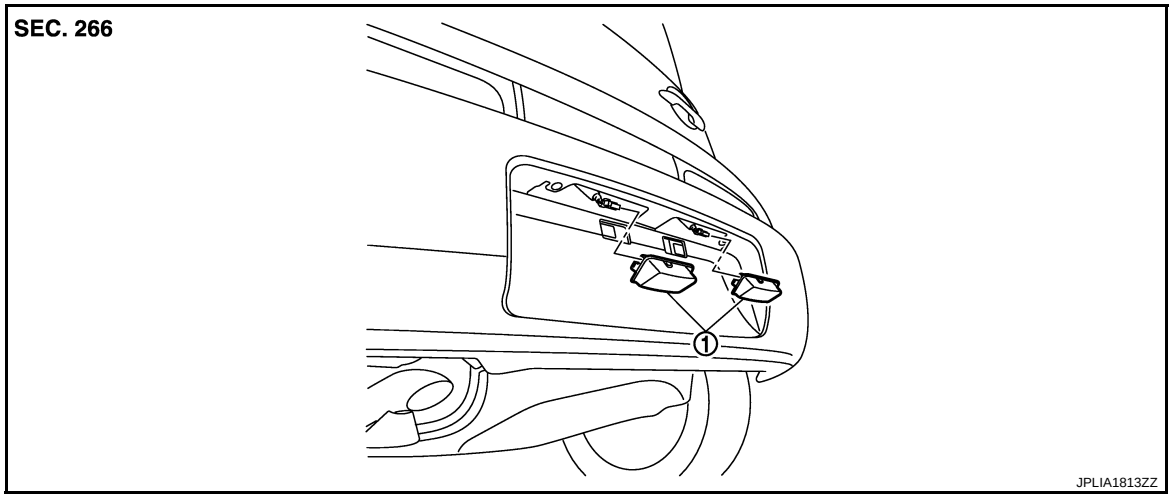
2. Rotate the bulb socket(1) counterclockwise, and unlock it.
3. Remove the bulb from the bulb(2) socket.



# LICENSE PLATE LAMP

## Exploded View

INFOID:0000000005491746




1. License plate lamp

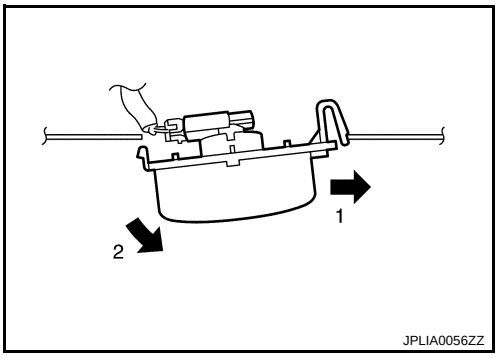
## Removal and Installation

INFOID:0000000005491747

**CAUTION:**
**Disconnect the battery negative terminal or remove the fuse.**

### REMOVAL

1. Remove the license plate lamp in numerical order.
2. Disconnect the license plate lamp connector.
3. Remove the license plate lamp.




### INSTALLATION

1. Connect the license plate lamp connector.
2. Fix the pawl side. And then push the resin clip side.

## Replacement

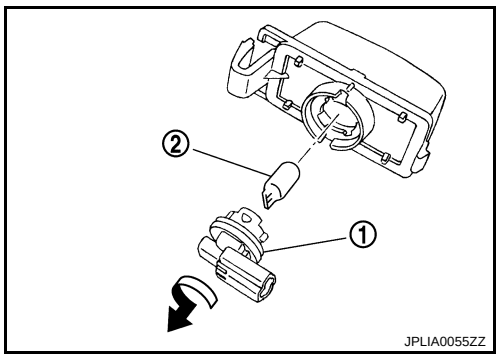
INFOID:0000000005491748

**CAUTION:**
- **Disconnect the battery negative terminal or remove the fuse.**
- **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.**
- **Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.**

### LICENSE PLATE LAMP BULB

1. Remove the license plate lamp.

2. Turn the bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the socket.



# SERVICE DATA AND SPECIFICATIONS (SDS)

## SERVICE DATA AND SPECIFICATIONS (SDS)

### Bulb Specifications

INFOID:0000000005491749

| Item | | Type | Wattage (W) |
|---|---|---|---|
| Front combination lamp | Headlamp (HI/LO) | H4 | 60/55 |
| | Front turn signal lamp | PY21W (Amber) | 21 |
| | Parking(front side marker) lamp | W5W | 5 |
| Front fog lamp | | H8 | 35 |
| Side turn signal lamp | | WY5W (Amber) | 5 |
| Rear combination lamp | Stop lamp/Tail lamp | W21/5W | 21/5 |
| | Rear turn signal lamp | PY21W | 16 |
| | Back-up lamp | W16W | 21 |
| License plate lamp | | W5W | 5 |
| High-mounted stop lamp | | W16W | — |
| Rear side marker lamp | | W5W | 5 |