

# SECTION EXL

## EXTERIOR LIGHTING SYSTEM

### CONTENTS

<b>XENON TYPE</b>		
<b>BASIC INSPECTION</b> .....	7	
<b>DIAGNOSIS AND REPAIR WORK FLOW</b> .....	7	
Work Flow .....	7	
<b>INSPECTION AND ADJUSTMENT</b> .....	10	
<b>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT)</b> .....	10	
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT) : Description .....	10	
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT) : Special Repair Requirement .....	10	
<b>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR)</b> .....	10	
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR) : Description .....	10	
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR) : Special Repair Requirement .....	10	
<b>LEVELIZER ADJUSTMENT</b> .....	10	
LEVELIZER ADJUSTMENT : Description .....	10	
LEVELIZER ADJUSTMENT : Special Repair Requirement .....	10	
<b>SYSTEM DESCRIPTION</b> .....	12	
<b>HEADLAMP SYSTEM</b> .....	12	
System Diagram .....	12	
System Description .....	12	
Component Parts Location .....	13	
Component Description .....	14	
<b>AUTO LIGHT SYSTEM</b> .....	15	
System Diagram .....	15	
System Description .....	15	
Component Parts Location .....	16	
Component Description .....	17	
<b>DAYTIME RUNNING LIGHT SYSTEM</b> .....	18	
System Diagram .....	18	
System Description .....	18	
Component Parts Location .....	19	
Component Description .....	19	
<b>ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM</b> .....	21	
System Diagram .....	21	
System Description .....	21	
Component Parts Location .....	23	
Component Description .....	23	
<b>FRONT FOG LAMP SYSTEM</b> .....	25	
System Diagram .....	25	
System Description .....	25	
Component Parts Location .....	26	
Component Description .....	26	
<b>TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM</b> .....	27	
System Diagram .....	27	
System Description .....	27	
Component Parts Location .....	28	
Component Description .....	28	
<b>PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM</b> .....	29	
System Diagram .....	29	
System Description .....	29	
Component Parts Location .....	30	
Component Description .....	30	
<b>EXTERIOR LAMP BATTERY SAVER SYSTEM</b> .....	31	
System Diagram .....	31	
System Description .....	31	
Component Parts Location .....	32	
Component Description .....	32	

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

<b>DIAGNOSIS SYSTEM (BCM) .....</b>	<b>33</b>	Description .....	61
<b>COMMON ITEM .....</b>	<b>33</b>	DTC Logic .....	61
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM) .....	33	Diagnosis Procedure .....	61
<b>HEADLAMP .....</b>	<b>34</b>	<b>U1000 CAN COMM CIRCUIT .....</b>	<b>62</b>
HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (Xenon Type) .....	34	Description .....	62
<b>FLASHER .....</b>	<b>36</b>	DTC Logic .....	62
FLASHER : CONSULT Function (BCM - FLASH- ER) (Xenon Type) .....	36	Diagnosis Procedure .....	62
<b>DIAGNOSIS SYSTEM (IPDM E/R) .....</b>	<b>38</b>	<b>U1010 CONTROL UNIT (CAN) .....</b>	<b>63</b>
Diagnosis Description .....	38	DTC Logic .....	63
CONSULT Function (IPDM E/R) .....	40	Diagnosis Procedure .....	63
<b>DIAGNOSIS SYSTEM (AFS) .....</b>	<b>43</b>	<b>POWER SUPPLY AND GROUND CIRCUIT ....</b>	<b>64</b>
CONSULT Function (ADAPTIVE LIGHT) .....	43	<b>BCM (BODY CONTROL MODULE) .....</b>	<b>64</b>
<b>DTC/CIRCUIT DIAGNOSIS .....</b>	<b>45</b>	BCM (BODY CONTROL MODULE) : Diagnosis Procedure .....	64
<b>B2503, B2504 SWIVEL ACTUATOR .....</b>	<b>45</b>	<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>64</b>
Description .....	45	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Pro- cedure .....	64
DTC Logic .....	45	<b>AFS CONTROL UNIT .....</b>	<b>65</b>
Diagnosis Procedure .....	46	AFS CONTROL UNIT : Diagnosis Procedure .....	65
Component Inspection .....	49	<b>HEADLAMP (HI) CIRCUIT .....</b>	<b>67</b>
<b>B2514 HEIGHT SENSOR UNUSUAL [RR] .....</b>	<b>51</b>	Component Function Check .....	67
Description .....	51	Diagnosis Procedure .....	67
DTC Logic .....	51	<b>HEADLAMP (LO) CIRCUIT .....</b>	<b>69</b>
Diagnosis Procedure .....	51	Description .....	69
Component Inspection .....	53	Component Function Check .....	69
<b>B2516 SHIFT SIGNAL [P, R] .....</b>	<b>54</b>	Diagnosis Procedure .....	69
Description .....	54	<b>XENON HEADLAMP .....</b>	<b>71</b>
DTC Logic .....	54	Description .....	71
Diagnosis Procedure .....	54	Diagnosis Procedure .....	71
<b>B2517 VEHICLE SPEED SIGNAL .....</b>	<b>55</b>	<b>HEADLAMP LEVELIZER CIRCUIT .....</b>	<b>72</b>
Description .....	55	Description .....	72
DTC Logic .....	55	Component Function Check .....	72
Diagnosis Procedure .....	55	Diagnosis Procedure .....	72
<b>B2519 LEVELIZER CALIBRATION .....</b>	<b>56</b>	<b>FRONT FOG LAMP CIRCUIT .....</b>	<b>74</b>
Description .....	56	Component Function Check .....	74
DTC Logic .....	56	Diagnosis Procedure .....	74
Diagnosis Procedure .....	56	<b>PARKING LAMP CIRCUIT .....</b>	<b>76</b>
<b>B2521 ECU CIRCUIT .....</b>	<b>57</b>	Component Function Check .....	76
Description .....	57	Diagnosis Procedure .....	76
DTC Logic .....	57	<b>TURN SIGNAL LAMP CIRCUIT .....</b>	<b>78</b>
Diagnosis Procedure .....	57	Description .....	78
<b>C0126 STEERING ANGLE SENSOR SIGNAL..</b>	<b>60</b>	Component Function Check .....	78
Description .....	60	Diagnosis Procedure .....	78
DTC Logic .....	60	<b>OPTICAL SENSOR .....</b>	<b>80</b>
Diagnosis Procedure .....	60	Description .....	80
<b>C0428 STEERING ANGLE SENSOR CALI- BRATION .....</b>	<b>61</b>	Component Function Check .....	80

Diagnosis Procedure .....	80	Fail-safe .....	197	
<b>HAZARD SWITCH .....</b>	<b>83</b>	DTC Inspection Priority Chart .....	197	A
Description .....	83	DTC Index .....	198	
Component Function Check .....	83	<b>SYMPTOM DIAGNOSIS .....</b>	<b>199</b>	B
Diagnosis Procedure .....	83	<b>EXTERIOR LIGHTING SYSTEM SYMPTOMS. 199</b>		
<b>TAIL LAMP CIRCUIT .....</b>	<b>85</b>	Symptom Table .....	199	C
Component Function Check .....	85	<b>NORMAL OPERATING CONDITION .....</b>	<b>201</b>	
Diagnosis Procedure .....	85	Description .....	201	
<b>LICENSE PLATE LAMP CIRCUIT .....</b>	<b>87</b>	<b>BOTH SIDE HEADLAMPS (HI) ARE NOT</b>		D
Component Function Check .....	87	<b>TURNED ON .....</b>	<b>202</b>	
Diagnosis Procedure .....	87	Description .....	202	
<b>HEADLAMP SYSTEM .....</b>	<b>88</b>	Diagnosis Procedure .....	202	E
Wiring Diagram - HEADLAMP - .....	88	<b>BOTH SIDE HEADLAMPS (LO) ARE NOT</b>		
<b>AUTO LIGHT SYSTEM .....</b>	<b>93</b>	<b>TURNED ON .....</b>	<b>203</b>	F
Wiring Diagram - AUTO LIGHT SYSTEM - .....	93	Description .....	203	
<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>100</b>	Diagnosis Procedure .....	203	
Wiring Diagram - DAYTIME LIGHT SYSTEM - ....	100	<b>PARKING, LICENSE PLATE AND TAIL</b>		G
<b>FRONT FOG LAMP SYSTEM .....</b>	<b>105</b>	<b>LAMPS ARE NOT TURNED ON .....</b>	<b>204</b>	
Wiring Diagram - FRONT FOG LAMP - .....	105	Description .....	204	
<b>TURN SIGNAL AND HAZARD WARNING</b>		Diagnosis Procedure .....	204	H
<b>LAMP SYSTEM .....</b>	<b>109</b>	<b>BOTH SIDE FRONT FOG LAMPS ARE NOT</b>		
Wiring Diagram - TURN AND HAZARD WARN- ING LAMPS - .....	109	<b>TURNED ON .....</b>	<b>205</b>	I
<b>PARKING, LICENSE PLATE AND TAIL</b>		Description .....	205	
<b>LAMPS SYSTEM .....</b>	<b>115</b>	Diagnosis Procedure .....	205	
Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS - .....	115	<b>PRECAUTION .....</b>	<b>206</b>	J
<b>STOP LAMP .....</b>	<b>121</b>	<b>PRECAUTIONS .....</b>	<b>206</b>	
Wiring Diagram - STOP LAMP - .....	121	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER" .....	206	K
<b>BACK-UP LAMP .....</b>	<b>126</b>	Precautions For Xenon Headlamp Service .....	206	
Wiring Diagram - BACK-UP LAMP - .....	126	<b>PERIODIC MAINTENANCE .....</b>	<b>207</b>	EXL
<b>ECU DIAGNOSIS INFORMATION .....</b>	<b>130</b>	<b>HEADLAMP AIMING ADJUSTMENT .....</b>	<b>207</b>	
<b>BCM (BODY CONTROL MODULE) .....</b>	<b>130</b>	Description .....	207	M
Reference Value .....	130	Aiming Adjustment Procedure .....	208	
Wiring Diagram - BCM - .....	154	<b>FRONT FOG LAMP AIMING ADJUSTMENT . 209</b>		N
Fail-safe .....	168	Description .....	209	
DTC Inspection Priority Chart .....	169	Aiming Adjustment Procedure .....	209	
DTC Index .....	170	<b>REMOVAL AND INSTALLATION .....</b>	<b>211</b>	O
<b>IPDM E/R (INTELLIGENT POWER DISTRI- BUTION MODULE ENGINE ROOM) .....</b>	<b>173</b>	<b>FRONT COMBINATION LAMP .....</b>	<b>211</b>	
Reference Value .....	173	Exploded View .....	211	P
Wiring Diagram - IPDM E/R - .....	180	Removal and Installation .....	212	
Fail-safe .....	183	Replacement .....	212	
DTC Index .....	185	Disassembly and Assembly .....	213	
<b>AFS CONTROL UNIT .....</b>	<b>186</b>	<b>FRONT FOG LAMP .....</b>	<b>214</b>	
Reference Value .....	186	Exploded View .....	214	
Wiring Diagram - ACTIVE AFS - .....	189	Removal and Installation .....	214	
		Replacement .....	214	

<b>OPTICAL SENSOR .....</b>	<b>216</b>	Component Parts Location .....	232
Exploded View .....	216	Component Description .....	233
Removal and Installation .....	216		
<b>LIGHTING AND TURN SIGNAL SWITCH .....</b>	<b>217</b>	<b>AUTO LIGHT SYSTEM .....</b>	<b>234</b>
Exploded View .....	217	System Diagram .....	234
<b>HAZARD SWITCH .....</b>	<b>218</b>	System Description .....	234
Exploded View .....	218	Component Parts Location .....	235
<b>AFS CONTROL UNIT .....</b>	<b>219</b>	Component Description .....	236
Exploded View .....	219	<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>237</b>
Removal and Installation .....	219	System Diagram .....	237
<b>STEERING ANGLE SENSOR .....</b>	<b>220</b>	System Description .....	237
Removal and Installation .....	220	Component Parts Location .....	238
<b>HEIGHT SENSOR .....</b>	<b>221</b>	Component Description .....	238
Exploded View .....	221	<b>FRONT FOG LAMP SYSTEM .....</b>	<b>240</b>
Removal and Installation .....	221	System Diagram .....	240
<b>REAR COMBINATION LAMP .....</b>	<b>222</b>	System Description .....	240
Exploded View .....	222	Component Parts Location .....	241
Removal and Installation .....	222	Component Description .....	241
<b>REAR TURN SIGNAL LAMP .....</b>	<b>223</b>	<b>TURN SIGNAL AND HAZARD WARNING</b>	
Exploded View .....	223	<b>LAMP SYSTEM .....</b>	<b>242</b>
Removal and Installation .....	223	System Diagram .....	242
Replacement .....	223	System Description .....	242
<b>HIGH-MOUNTED STOP LAMP .....</b>	<b>224</b>	Component Parts Location .....	243
Exploded View .....	224	Component Description .....	243
Removal and Installation .....	224	<b>PARKING, LICENSE PLATE AND TAIL</b>	
<b>BACK-UP LAMP .....</b>	<b>225</b>	<b>LAMPS SYSTEM .....</b>	<b>244</b>
Exploded View .....	225	System Diagram .....	244
Removal and Installation .....	225	System Description .....	244
Replacement .....	225	Component Parts Location .....	245
<b>LICENSE PLATE LAMP .....</b>	<b>226</b>	Component Description .....	245
Exploded View .....	226	<b>EXTERIOR LAMP BATTERY SAVER SYS-</b>	
Removal and Installation .....	226	<b>TEM .....</b>	<b>246</b>
Replacement .....	226	System Diagram .....	246
<b>SERVICE DATA AND SPECIFICATIONS</b>		System Description .....	246
<b>(SDS) .....</b>	<b>227</b>	Component Parts Location .....	247
<b>SERVICE DATA AND SPECIFICATIONS</b>		Component Description .....	247
<b>(SDS) .....</b>	<b>227</b>	<b>DIAGNOSIS SYSTEM (BCM) .....</b>	<b>248</b>
Bulb Specifications .....	227	<b>COMMON ITEM .....</b>	<b>248</b>
<b>HALOGEN TYPE</b>		COMMON ITEM : CONSULT Function (BCM -	
<b>BASIC INSPECTION .....</b>	<b>228</b>	COMMON ITEM) .....	248
<b>DIAGNOSIS AND REPAIR WORK FLOW .....</b>	<b>228</b>	<b>HEADLAMP .....</b>	<b>249</b>
Work Flow .....	228	HEADLAMP : CONSULT Function (BCM - HEAD	
<b>SYSTEM DESCRIPTION .....</b>	<b>231</b>	LAMP) (Halogen Type) .....	249
<b>HEADLAMP SYSTEM .....</b>	<b>231</b>	<b>FLASHER .....</b>	<b>251</b>
System Diagram .....	231	FLASHER : CONSULT Function (BCM - FLASH-	
System Description .....	231	ER) (Halogen Type) .....	251
		<b>DIAGNOSIS SYSTEM (IPDM E/R) .....</b>	<b>253</b>
		Diagnosis Description .....	253
		CONSULT Function (IPDM E/R) .....	255
		<b>DTC/CIRCUIT DIAGNOSIS .....</b>	<b>258</b>

<b>POWER SUPPLY AND GROUND CIRCUIT ...</b>	<b>258</b>	
<b>BCM (BODY CONTROL MODULE) .....</b>	<b>258</b>	
BCM (BODY CONTROL MODULE) : Diagnosis Procedure .....	258	
<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>258</b>	
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure .....	258	
<b>HEADLAMP (HI) CIRCUIT .....</b>	<b>260</b>	
Component Function Check .....	260	
Diagnosis Procedure .....	260	
<b>HEADLAMP (LO) CIRCUIT .....</b>	<b>262</b>	
Component Function Check .....	262	
Diagnosis Procedure .....	262	
<b>FRONT FOG LAMP CIRCUIT .....</b>	<b>264</b>	
Component Function Check .....	264	
Diagnosis Procedure .....	264	
<b>PARKING LAMP CIRCUIT .....</b>	<b>266</b>	
Component Function Check .....	266	
Diagnosis Procedure .....	266	
<b>TURN SIGNAL LAMP CIRCUIT .....</b>	<b>268</b>	
Description .....	268	
Component Function Check .....	268	
Diagnosis Procedure .....	268	
<b>OPTICAL SENSOR .....</b>	<b>270</b>	
Description .....	270	
Component Function Check .....	270	
Diagnosis Procedure .....	270	
<b>HAZARD SWITCH .....</b>	<b>273</b>	
Description .....	273	
Component Function Check .....	273	
Diagnosis Procedure .....	273	
<b>TAIL LAMP CIRCUIT .....</b>	<b>275</b>	
Component Function Check .....	275	
Diagnosis Procedure .....	275	
<b>LICENSE PLATE LAMP CIRCUIT .....</b>	<b>277</b>	
Component Function Check .....	277	
Diagnosis Procedure .....	277	
<b>HEADLAMP SYSTEM .....</b>	<b>278</b>	
Wiring Diagram - HEADLAMP - .....	278	
<b>AUTO LIGHT SYSTEM .....</b>	<b>283</b>	
Wiring Diagram - AUTO LIGHT SYSTEM - .....	283	
<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>290</b>	
Wiring Diagram - DAYTIME LIGHT SYSTEM - ....	290	
<b>FRONT FOG LAMP SYSTEM .....</b>	<b>295</b>	
Wiring Diagram - FRONT FOG LAMP - .....	295	
<b>TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM .....</b>	<b>299</b>	<b>A</b>
Wiring Diagram - TURN AND HAZARD WARNING LAMPS - .....	299	
<b>PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM .....</b>	<b>305</b>	<b>B</b>
Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS - .....	305	<b>C</b>
<b>STOP LAMP .....</b>	<b>311</b>	
Wiring Diagram - STOP LAMP - .....	311	<b>D</b>
<b>BACK-UP LAMP .....</b>	<b>316</b>	
Wiring Diagram - BACK-UP LAMP - .....	316	<b>E</b>
<b>ECU DIAGNOSIS INFORMATION .....</b>	<b>320</b>	
<b>BCM (BODY CONTROL MODULE) .....</b>	<b>320</b>	<b>F</b>
Reference Value .....	320	
Wiring Diagram - BCM - .....	344	
Fail-safe .....	358	
DTC Inspection Priority Chart .....	359	<b>G</b>
DTC Index .....	360	
<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>363</b>	<b>H</b>
Reference Value .....	363	
Wiring Diagram - IPDM E/R - .....	370	
Fail-safe .....	373	<b>I</b>
DTC Index .....	375	
<b>SYMPTOM DIAGNOSIS .....</b>	<b>376</b>	<b>J</b>
<b>EXTERIOR LIGHTING SYSTEM SYMPTOMS. ....</b>	<b>376</b>	
Symptom Table .....	376	<b>K</b>
<b>NORMAL OPERATING CONDITION .....</b>	<b>378</b>	
Description .....	378	
<b>BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON .....</b>	<b>379</b>	<b>EXL</b>
Description .....	379	
Diagnosis Procedure .....	379	<b>M</b>
<b>BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON .....</b>	<b>380</b>	<b>N</b>
Description .....	380	
Diagnosis Procedure .....	380	
<b>PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON .....</b>	<b>381</b>	<b>O</b>
Description .....	381	
Diagnosis Procedure .....	381	<b>P</b>
<b>BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON .....</b>	<b>382</b>	
Description .....	382	
Diagnosis Procedure .....	382	
<b>PRECAUTION .....</b>	<b>383</b>	

<b>PRECAUTIONS</b> .....	<b>383</b>	<b>HAZARD SWITCH</b> .....	<b>395</b>
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	383	Exploded View .....	395
<b>PERIODIC MAINTENANCE</b> .....	<b>384</b>	<b>REAR COMBINATION LAMP</b> .....	<b>396</b>
<b>HEADLAMP AIMING ADJUSTMENT</b> .....	<b>384</b>	Exploded View .....	396
Description .....	384	Removal and Installation .....	396
Aiming Adjustment Procedure .....	385	<b>REAR TURN SIGNAL LAMP</b> .....	<b>397</b>
<b>FRONT FOG LAMP AIMING ADJUSTMENT</b> .	<b>386</b>	Exploded View .....	397
Description .....	386	Removal and Installation .....	397
Aiming Adjustment Procedure .....	386	Replacement .....	397
<b>REMOVAL AND INSTALLATION</b> .....	<b>388</b>	<b>HIGH-MOUNTED STOP LAMP</b> .....	<b>398</b>
<b>FRONT COMBINATION LAMP</b> .....	<b>388</b>	Exploded View .....	398
Exploded View .....	388	Removal and Installation .....	398
Removal and Installation .....	388	<b>BACK-UP LAMP</b> .....	<b>399</b>
Replacement .....	389	Exploded View .....	399
Disassembly and Assembly .....	390	Removal and Installation .....	399
<b>FRONT FOG LAMP</b> .....	<b>391</b>	Replacement .....	399
Exploded View .....	391	<b>LICENSE PLATE LAMP</b> .....	<b>400</b>
Removal and Installation .....	391	Exploded View .....	400
Replacement .....	391	Removal and Installation .....	400
<b>OPTICAL SENSOR</b> .....	<b>393</b>	Replacement .....	400
Exploded View .....	393	<b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....	<b>401</b>
Removal and Installation .....	393	<b>SERVICE DATA AND SPECIFICATIONS (SDS)</b> .....	<b>401</b>
<b>LIGHTING AND TURN SIGNAL SWITCH</b> .....	<b>394</b>	Bulb Specifications .....	401
Exploded View .....	394		

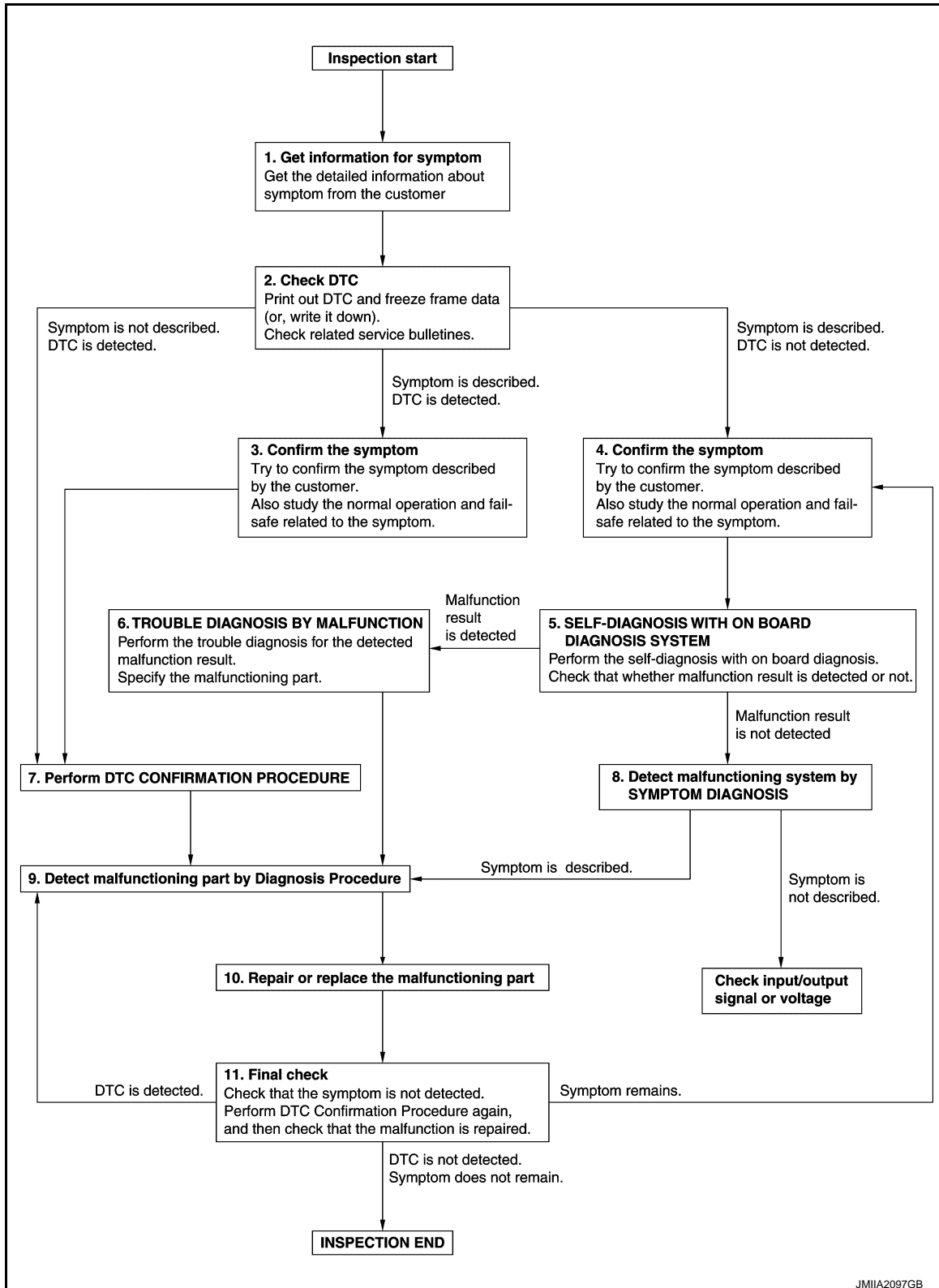
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

#### Work Flow

INFOID:000000008288941

#### OVERALL SEQUENCE



#### DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[XENON TYPE]

## 1.GET INFORMATION FOR SYMPTOM

---

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

## 2.CHECK DTC

---

1. Check DTC.
2. Perform the following procedure if DTC is detected.
  - Record DTC and freeze frame data (Print them out using CONSULT.)
  - Erase DTC.
  - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 7.

## 3.CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 7.

## 4.CONFIRM THE SYMPTOM

---

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 5.SELF-DIAGNOSIS WITH ON BOARD DIAGNOSIS SYSTEM

---

Perform the self-diagnosis with on board diagnosis. Check that whether malfunction result is detected or not.

Is malfunction result detected?

YES >> GO TO 6.

NO >> GO TO 8.

## 6.TROUBLE DIAGNOSIS BY MALFUNCTION

---

Perform the trouble diagnosis for the detected malfunction result. Specify the malfunctioning part.

>> GO TO 9.

## 7.PERFORM DTC CONFIRMATION PROCEDURE

---

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.

If two or more DTCs are detected, refer to DTC INSPECTION PRIORITY CHART, and determine trouble diagnosis order.

### NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?



# DIAGNOSIS AND REPAIR WORK FLOW

[XENON TYPE]

## < BASIC INSPECTION >

- YES >> GO TO 9.  
NO >> Check according to [GI-42, "Intermittent Incident"](#).

## 8.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

Is the symptom described?

- YES >> GO TO 9.  
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

## 9.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

Inspect according to Diagnosis Procedure of the system.

Is malfunctioning part detected?

- YES >> GO TO 10.  
NO >> Check according to [GI-42, "Intermittent Incident"](#).

## 10.REPAIR OR REPLACE THE MALFUNCTIONING PART

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 11.

## 11.FINAL CHECK

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

Is DTC detected and does symptom remain?

- YES-1 >> DTC is detected: GO TO 9.  
YES-2 >> Symptom remains: GO TO 4.  
NO >> Before returning the vehicle to the customer, always erase DTC.

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EXL

## INSPECTION AND ADJUSTMENT

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT)

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT) : Description

INFOID:0000000008288942

Perform "LEVELIZER ADJUSTMENT" with CONSULT when replacing the AFS control unit.

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (AFS CONTROL UNIT) : Special Repair Requirement

INFOID:0000000008288943

## 1.LEVELIZER ADJUSTMENT

Perform "LEVELIZER ADJUSTMENT".

>> Refer to [EXL-10. "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR)

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR) : Description

INFOID:0000000008288944

Perform "LEVELIZER ADJUSTMENT" with CONSULT when replacing the height sensor.

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (HEIGHT SENSOR) : Special Repair Requirement

INFOID:0000000008288945

## 1.LEVELIZER ADJUSTMENT

Perform "LEVELIZER ADJUSTMENT".

>> Refer to [EXL-10. "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).

## LEVELIZER ADJUSTMENT

## LEVELIZER ADJUSTMENT : Description

INFOID:0000000008288946

Perform "LEVELIZER ADJUSTMENT" when installing, removing, and replacing the height sensor and the suspension components.

## LEVELIZER ADJUSTMENT : Special Repair Requirement

INFOID:0000000008288947

## 1.CHECK VEHICLE CONDITION

1. Park the vehicle in the straight-forward position.
2. Unload the vehicle (no passenger aboard).

>> GO TO 2.

## 2.LEVELIZER ADJUSTMENT

## ⑧CONSULT WORK SUPPORT

1. Select "LEVELIZER ADJUSTMENT" of ADAPTIVE LIGHT work support item.
2. Select "START".
3. When "ADJUSTMENT IS COMPLETED", select "END".

**CAUTION:**

If "CAN NOT BE TESTED" is indicated, AFS control unit detects that the height sensor signal changes. The levelizer adjustment is cancelled. In this case, turn the ignition switch OFF to prevent the vehicle from the height change. Perform the levelizer adjustment again.

## INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[XENON TYPE]

Is the levelizer adjustment completed?

YES >> GO TO 3.

NO >> Perform the levelizer adjustment again.

### 3.SELF-DIAGNOSIS RESULT CHECK

Perform self-diagnosis with CONSULT. Check that any DTC is not detected.

Is any DTC detected?

YES >> GO TO 2.

NO >> Levelizer adjustment completed

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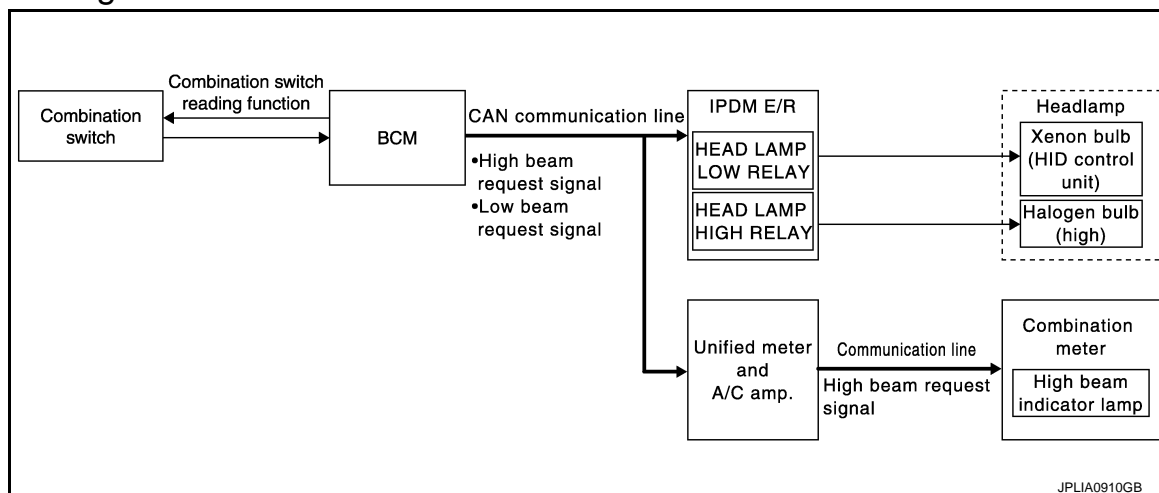
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## SYSTEM DESCRIPTION

### HEADLAMP SYSTEM

#### System Diagram



#### System Description

INFOID:000000008288949

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

#### HEADLAMP (HI) OPERATION

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

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

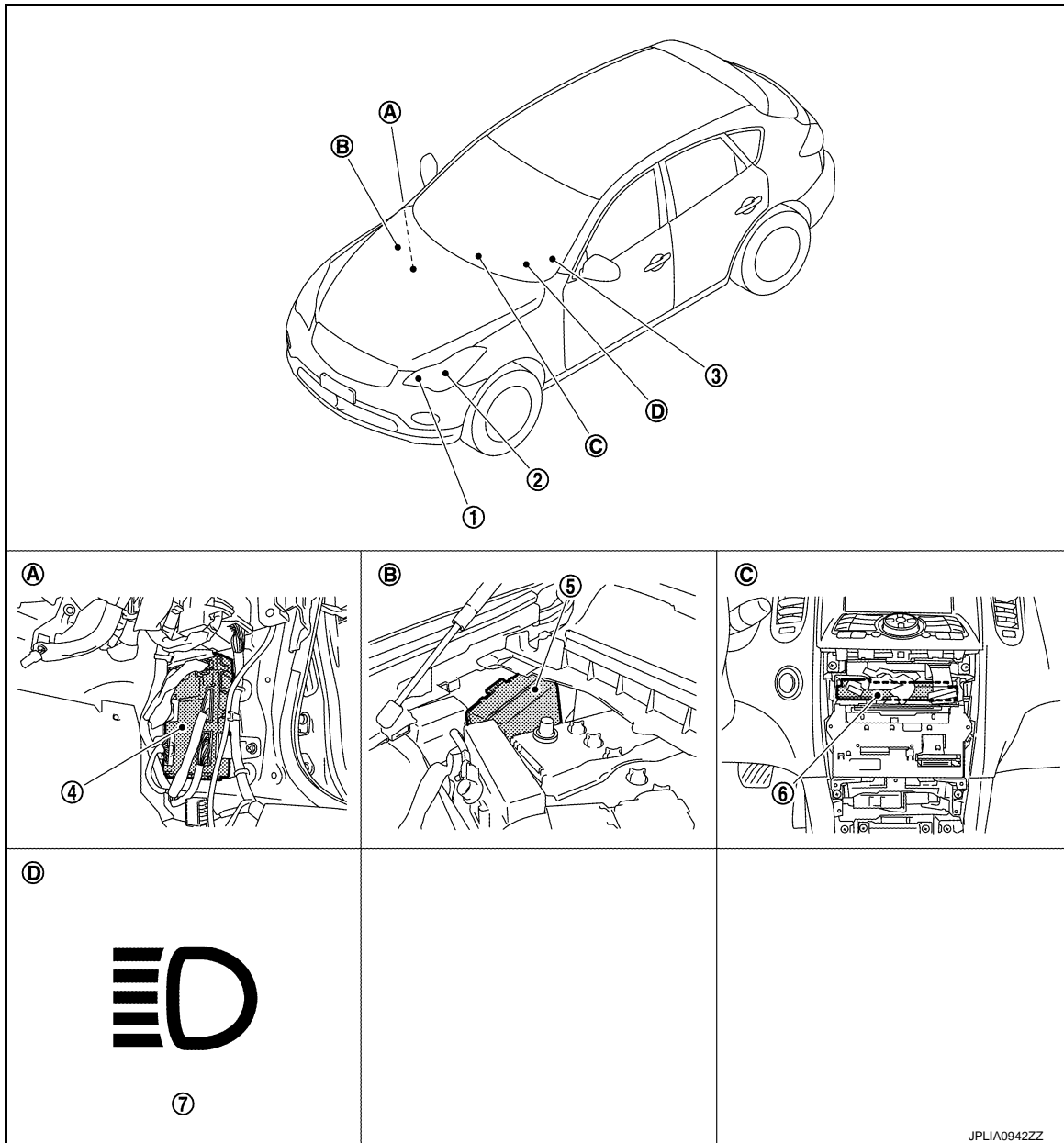
# HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Parts Location

INFOID:000000008288950



- |                                     |                                |                               |
|-------------------------------------|--------------------------------|-------------------------------|
| 1. Headlamp (HI)                    | 2. Headlamp (LO)               | 3. Combination switch         |
| 4. BCM                              | 5. IPDM E/R                    | 6. Unified meter and A/C amp. |
| 7. High beam indicator lamp         |                                |                               |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C   |
| D. On the combination meter         |                                |                               |

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# HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

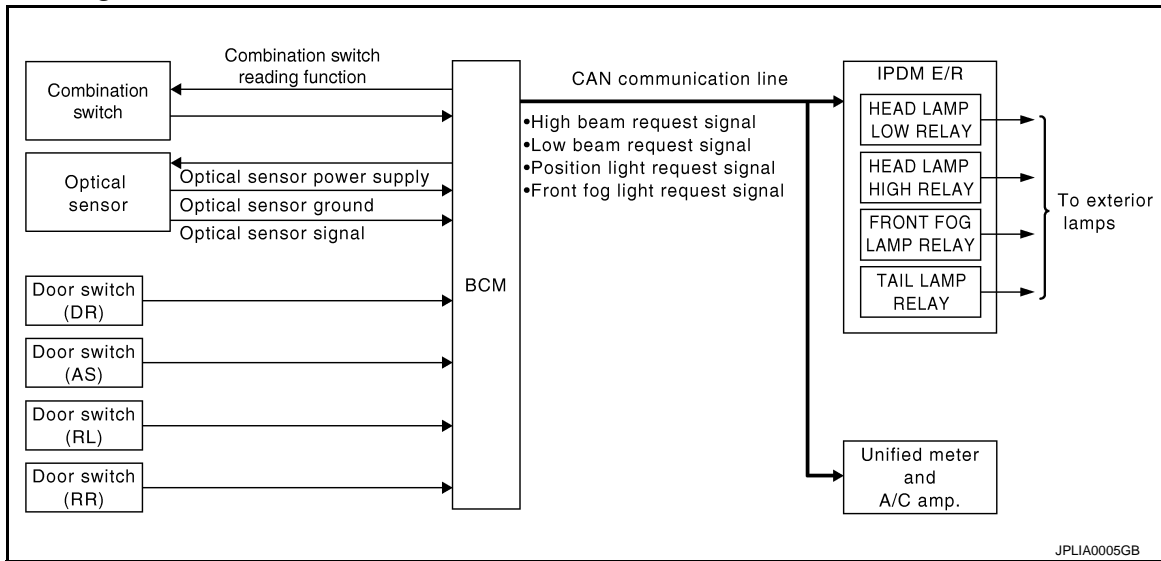
## Component Description

INFOID:000000008288951

Part		Description
BCM		<ul style="list-style-type: none"><li>• Detects each switch condition by the combination switch reading function.</li><li>• Judges that the headlamp is turned ON according to the vehicle condition.</li><li>- Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication).</li><li>- Requests the high beam indicator lamp ON to the combination meter [with CAN communication (through unified meter and A/C amp.)].</li></ul>
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 <a href="#">BCS-10, "System Diagram"</a> .
Combination meter (High beam indicator lamp)		Turns the high beam indicator lamp ON according to the request from BCM [with CAN communication (through unified meter and A/C amp.)].
Front combination lamp assembly	<ul style="list-style-type: none"><li>• HID control unit</li><li>• Xenon bulb</li></ul>	Refer to <a href="#">EXL-71, "Description"</a> .

## AUTO LIGHT SYSTEM

### System Diagram



### System Description

INFOID:0000000008288953

#### 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

##### Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and the delay timer function.
- Auto light function turns the exterior lamps\* and each illumination ON/OFF automatically according to the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF depending on the vehicle condition with the auto light function after a certain period of time.

\*: Headlamp (LO/HI), parking lamp, tail lamp, and front fog lamp (Headlamp HI and front fog lamp depend on the combination switch condition.)

#### AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM supplies voltage to 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 judges outside brightness from the optical sensor signal and judges ON/OFF condition of the exterior lamp and each illumination according to the outside brightness.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

#### NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to [EXL-34, "HEADLAMP : CONSULT Function \(BCM - HEAD LAMP\) \(Xenon Type\)".](#)

#### 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).

# AUTO LIGHT SYSTEM

[XENON TYPE]

## < SYSTEM DESCRIPTION >

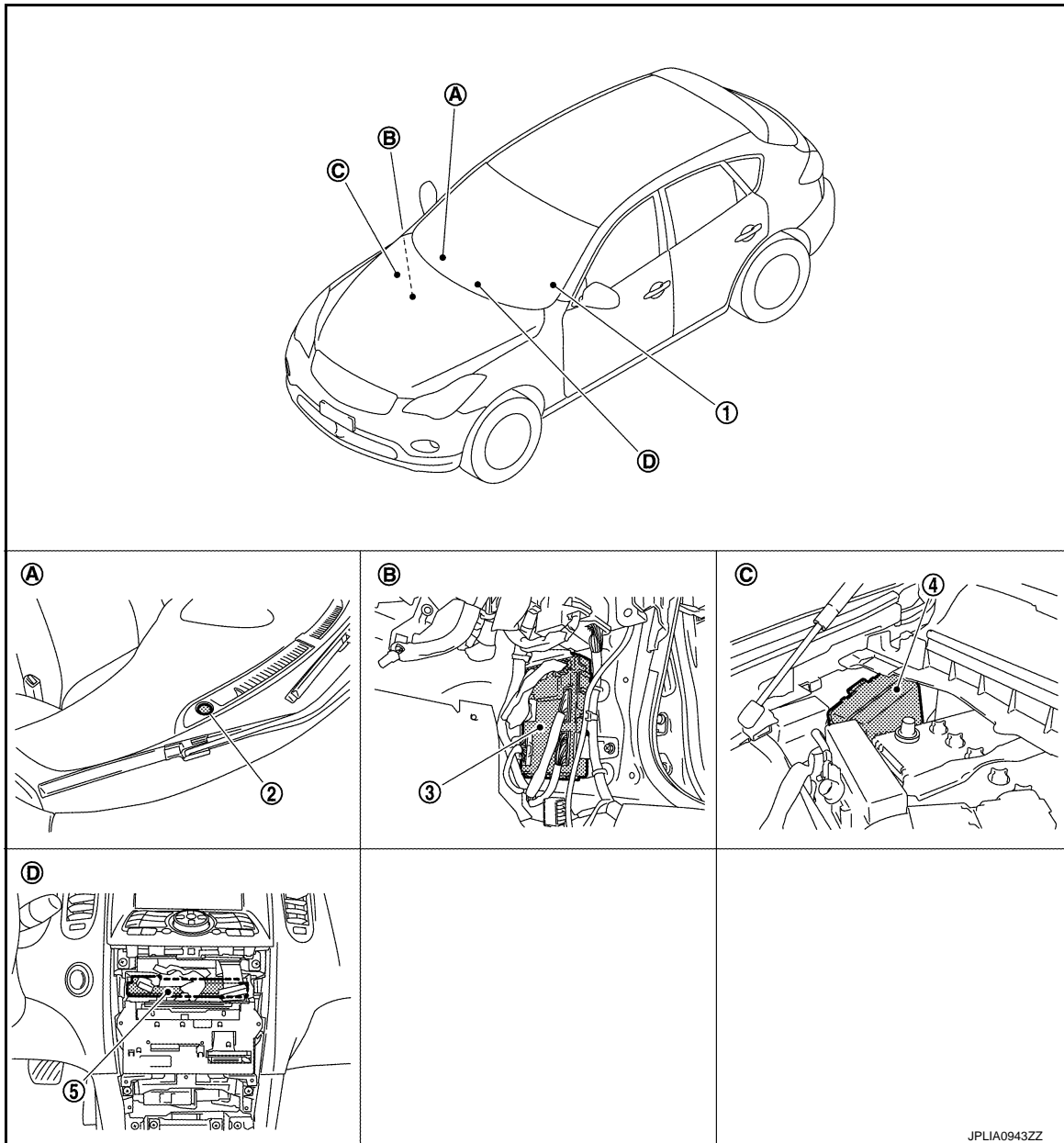
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- \*: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [EXL-34, "HEAD-LAMP : CONSULT Function \(BCM - HEAD LAMP\) \(Xenon Type\)"](#).

### 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:000000008288954



- |                                |                                     |                                |
|--------------------------------|-------------------------------------|--------------------------------|
| 1. Combination switch          | 2. Optical sensor                   | 3. BCM                         |
| 4. IPDM E/R                    | 5. Unified meter and A/C amp.       |                                |
| A. Instrument upper panel (RH) | B. Dash side lower (Passenger side) | C. Engine room dash panel (RH) |
| D. Behind the cluster lid C    |                                     |                                |

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# AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Description

INFOID:000000008288955

Part	Description
BCM	<ul style="list-style-type: none"><li>• Judges each switch condition by the combination switch reading function.</li><li>• Judges the outside brightness from the optical sensor signal.</li><li>• Judges the OFF timing according to the vehicle condition.</li><li>• Judges the ON/OFF status of the exterior lamp and each illumination according to the outside brightness and the vehicle condition.</li></ul> 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 (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
Optical sensor	Refer to <a href="#">EXL-80, "Description"</a> .

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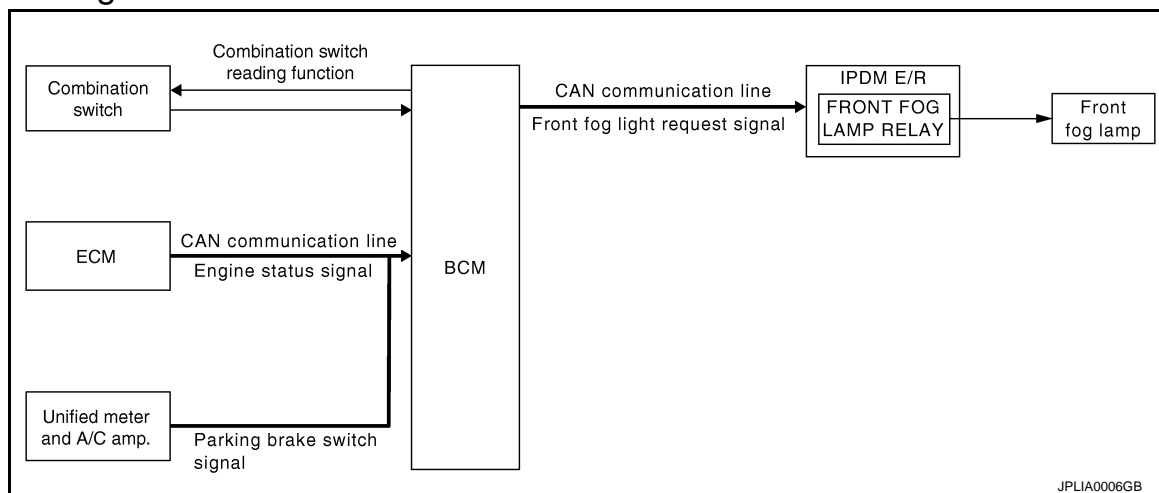
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## DAYTIME RUNNING LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000008288957

#### OUTLINE

- Turns the front fog lamp ON 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 vehicle condition depending on the following signals.
  - Engine condition signal (received from ECM with CAN communication)
  - Parking brake switch signal (received from unified meter and A/C amp. with CAN communication)
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

Daytime running light ON condition

- While the engine running with the parking brake released

Daytime running light OFF condition

- Engine stopped
- Headlamp ON (Passing included)
- IPDM E/R turns the integrated front fog lamp relay ON and turns the front fog lamp ON according to the front fog light request signal.

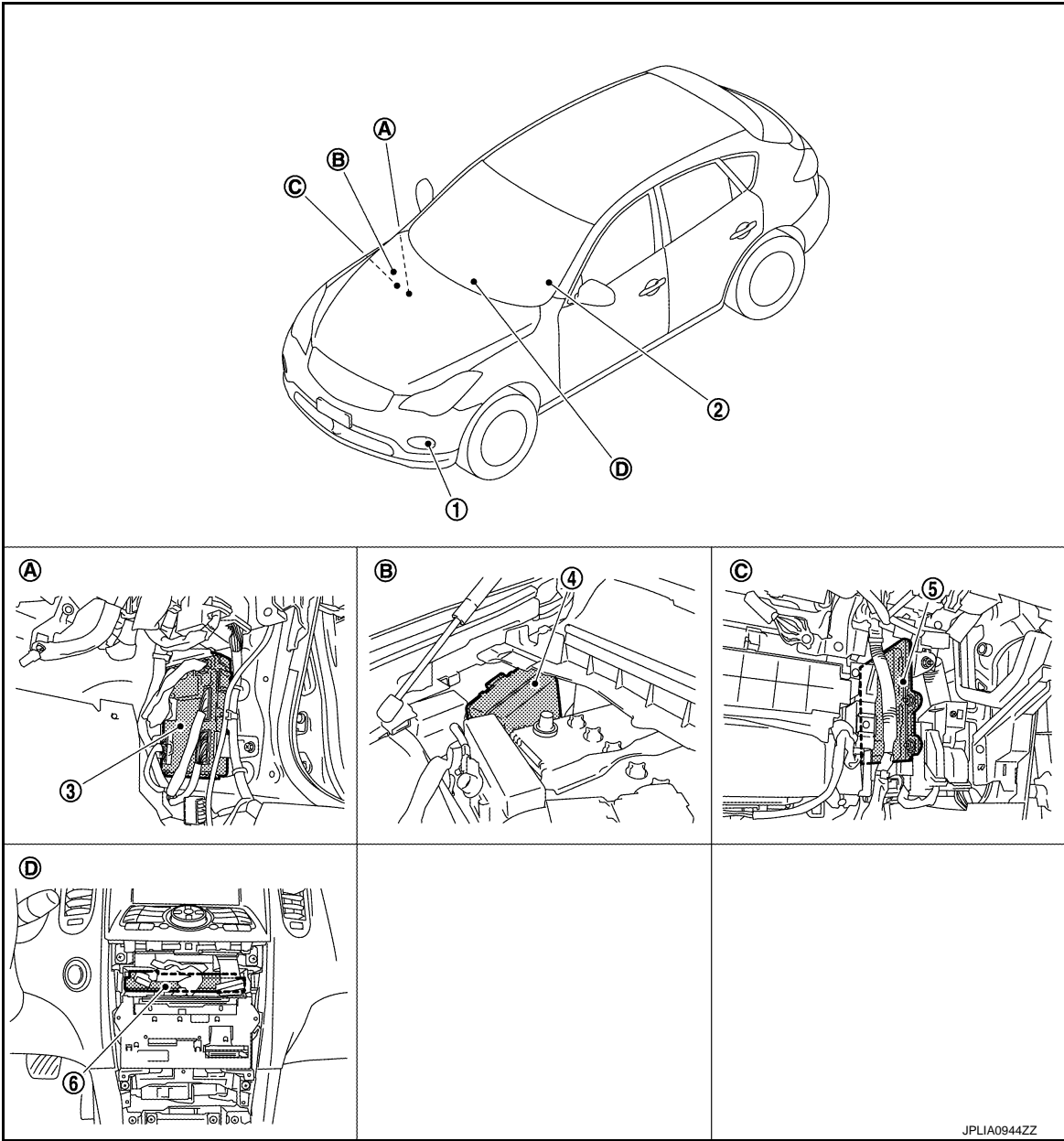
DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Component Parts Location

INFOID:000000008288958



- |  |                                |                               |
|--|--------------------------------|-------------------------------|
| 1. Daytime running light<br>(Front fog lamp) | 2. Combination switch          | 3. BCM                        |
| 4. IPDM E/R                                  | 5. ECM                         | 6. Unified meter and A/C amp. |
| A. Dash side lower (Passenger side)          | B. Engine room dash panel (RH) | C. Behind the glove box       |
| D. Behind the cluster lid C                  |                                |                               |

Component Description

INFOID:000000008288959

Part	Description
BCM	<ul style="list-style-type: none"><li>Judges each switch condition with the combination switch reading function.</li><li>Judges the headlamp ON/OFF status according to the vehicle condition. Requests the front fog lamp relay ON to IPDM E/R (with CAN communication).</li></ul>
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).

## DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
ECM	Transmits the engine condition signal to BCM with CAN communication.
Unified meter and A/C amp.	Transmits the parking brake switch signal to BCM with CAN communication.

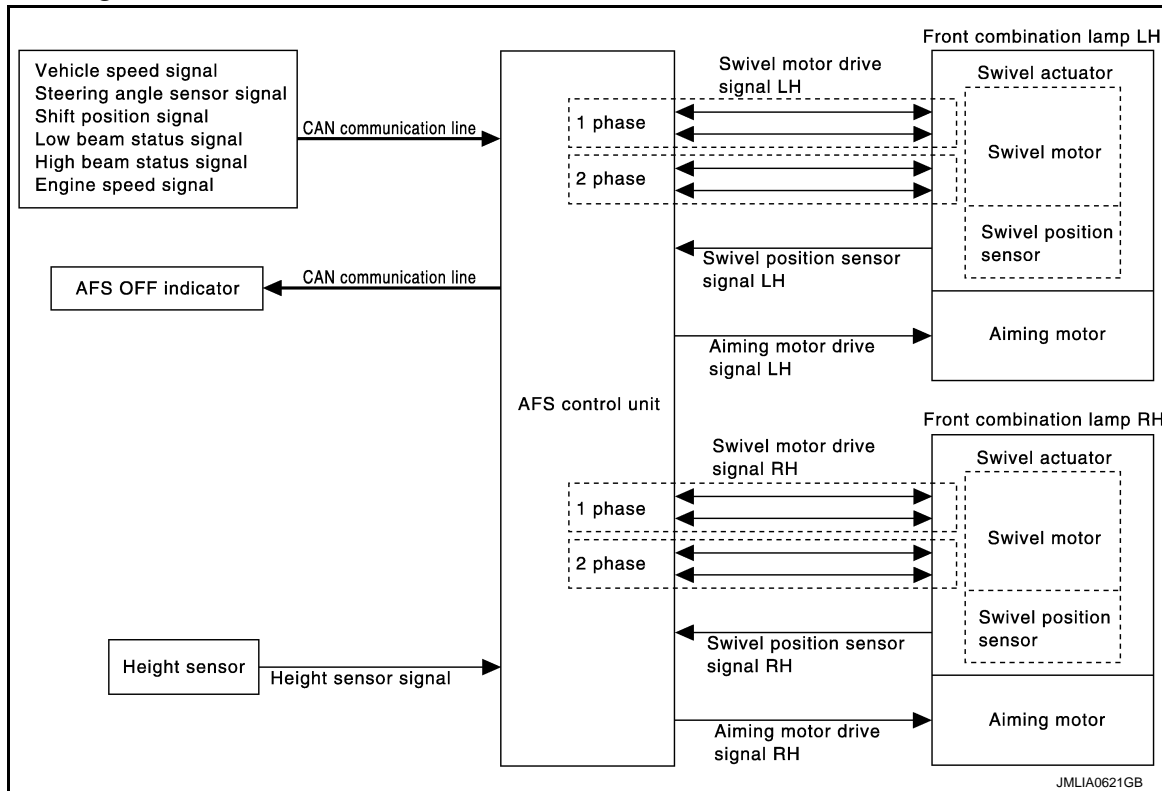
# ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

### System Diagram



### System Description

#### OUTLINE

- AFS (ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM) is controlled by AFS control unit.
- AFS has AFS control (swivel control) and the headlamp auto aiming control.
- AFS control swivels the headlamp to the steering direction.
- Headlamp auto aiming control moves the headlamp light axis up/down according to the vehicle height.

#### AFS (ADAPTIVE FRONT-LIGHTING SYSTEM)

##### AFS Control Description

- AFS control controls the headlamp (right) only when the steering wheel is turned rightward, and the headlamp (left) only when the steering wheel is turned leftward.
- AFS control unit detects the vehicle condition necessary for AFS control with the following signals.
  - Steering angle sensor signal (received from steering angle sensor with CAN communication)
  - Engine speed signal (received from ECM with CAN communication)
  - Shift position signal (received from TCM with CAN communication)
  - Low beam status and high beam status (received from IPDM E/R with CAN communication)
  - Vehicle speed signal (received from unified meter and A/C amp. with CAN communication)
- When the operation conditions are satisfied, AFS control unit controls the swivel angle depending on the steering angle and the vehicle speed.

##### AFS operation condition

- Swivel actuator initialization completed
- Headlamp ON
- While the engine running
- Selector lever position other than "P" or "R"
- Vehicle speed approximately 25 km/h (15.5 MPH) or more (left swivel only; Right swivel activates regardless of the vehicle speed.)

##### Swivel Actuator Initialization

- AFS control unit performs the swivel actuator initialization when detecting that the engine starts.

# ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

[XENON TYPE]

## < SYSTEM DESCRIPTION >

- Swivels the headlamp to the vehicle-center side until it hits the stopper.
- Returns the swivel angle from the stopper. Completes the initialization with regarding the returned position as the swivel angle 0° (straight-forward position).

### Swivel Operation

- AFS control unit transmits the drive signal to the swivel actuator when activation conditions are satisfied. And swivels the headlamp.
- The swivel starts after steering approximately 20° or more from straight-forward position.

#### NOTE:

- The steering angle differs between right turn and left turn.
- The swivel angle becomes the maximum angle toward the driving direction if the steering angle is approximately 90° or more depending on the vehicle speed. The swivel angle is maintained by shutting off the drive signal.
- The swivel starts, and returns to the swivel angle 0° (straight-forward position) when the steering is returned to the straight-forward position.
- AFS control unit returns the swivel angle to the straight-forward position, and stops the swivel regardless of the steering angle if the operation condition is not satisfied while the swivel angle is 0°.

### AFS OFF Indicator Lamp

- AFS control unit transmits AFS OFF indicator lamp signal to the combination meter (through the unified meter and A/C amp.) with CAN communication.
- Combination meter turns AFS OFF indicator lamp ON/OFF/blinking according to AFS OFF indicator lamp signal.
- AFS OFF indicator lamp is turned ON for 1 second for the AFS OFF indicator lamp bulb check when the ignition switch is turned ON. AFS OFF indicator lamp is turned OFF within 1 second when the engine starts.
- AFS OFF indicator lamp blinks (1 second each) if AFS control unit detects a specific DTC.

#### NOTE:

Combination meter blinks AFS OFF indicator lamp (approximately 1 second each) if AFS OFF indicator lamp signal is not received from AFS control unit.

## HEADLAMP AUTO AIMING

### Headlamp Auto Aiming Control Description

- Headlamp auto aiming control controls the headlamp light axis height appropriately according to the vehicle height.
- AFS control unit detects the vehicle condition necessary for headlamp auto aiming control with the following signals.
  - Height sensor signal
  - Engine speed signal (received from ECM with CAN communication)
  - Low beam status signal and high beam status signal (received from IPDM E/R with CAN communication)
  - Vehicle speed signal (received from unified meter and A/C amp. with CAN communication)
- When the operation conditions are satisfied, AFS control unit transmits the aiming motor drive signal for adjusting the headlamp axis height.

### Headlamp auto aiming operation condition

- Headlamp ON
- While the engine running
- Vehicle speed (Control mode is switched according to the driving condition.)

### Headlamp Auto Aiming Operation

- AFS control unit calculates the vehicle pitch angle from the height sensor signal. AFS control unit judges the angle for adjusting the axis gap from the preset position.

#### CAUTION:

**Adjusted axis position may differ from the preset position although the headlamp auto aiming activates properly if the suspension is replaced or worn.**

- AFS control unit controls the headlamp axis by changing the aiming motor drive signal output according to the vehicle-rearward height when detecting the following vehicle condition. Output is maintained if other condition than following is detected.
  - Engine starts.
  - Headlamp is turned ON.
  - Vehicle posture becomes stable after changing the vehicle posture change is detected with the headlamp ON and the vehicle stopped.
  - Vehicle speed is maintained with the headlamp ON and the vehicle driven.

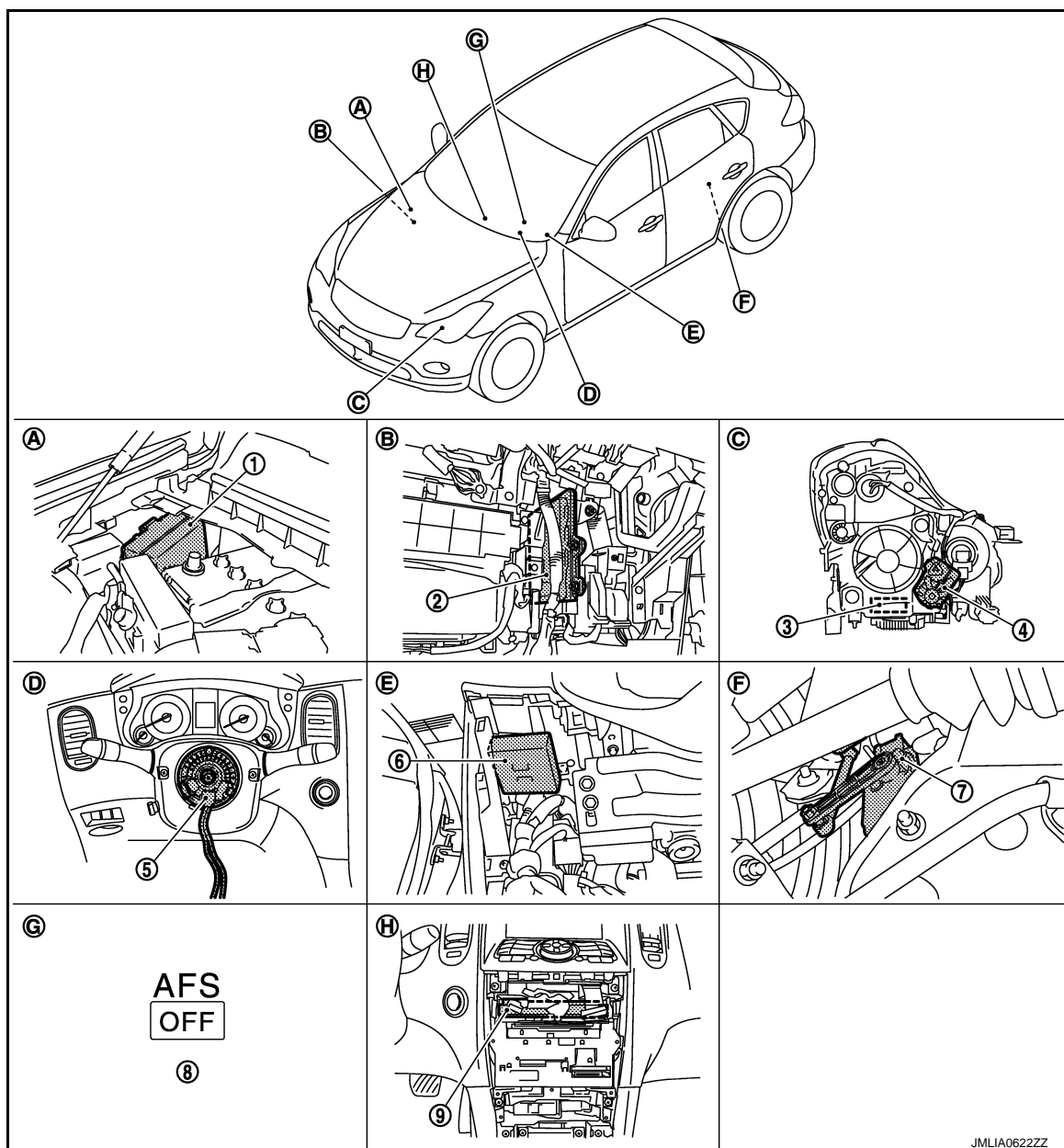
# ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

[XENON TYPE]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008288962



- |                                   |   |                                  |
|-----------------------------------|---|----------------------------------|
| 1. IPDM E/R                       | 2. ECM                                      | 3. Swivel actuator               |
| 4. Aiming motor                   | 5. Steering angle sensor                    | 6. AFS control unit              |
| 7. Height sensor                  | 8. AFS OFF indicator lamp                   | 9. Unified meter and A/C amp.    |
| A. Engine room dash panel (RH)    | B. Behind the glove box                     | C. Front combination lamp (back) |
| D. Steering column cover (inside) | E. Behind the instrument driver lower panel | F. Rear suspension member (LH)   |
| G. On the combination meter       | H. Behind the cluster lid C                 |                                  |

## Component Description

INFOID:000000008288963

Part	Description
AFS control unit	Refer to <a href="#">EXL-57, "Description"</a> .
Swivel actuator	Refer to <a href="#">EXL-45, "Description"</a> .

# ACTIVE ADAPTIVE FRONT-LIGHTING SYSTEM

[XENON TYPE]

## < SYSTEM DESCRIPTION >

Part	Description
Aiming motor	Refer to <a href="#">EXL-72, "Description"</a> .
Height sensor	Refer to <a href="#">EXL-51, "Description"</a> .
Steering angle sensor	Refer to <a href="#">EXL-60, "Description"</a> .
IPDM E/R	Transmits the headlamp (LO) ON signal and the headlamp (HI) ON signal to AFS control unit with CAN communication.
ECM	Transmits the engine speed signal to AFS control unit with CAN communication.
TCM	Refer to <a href="#">EXL-54, "Description"</a> .
Unified meter and A/C amp.	Refer to <a href="#">EXL-55, "Description"</a> .
Combination meter	Turns AFS OFF indicator lamp ON/OFF/blinking according to AFS control unit request [with CAN communication (through unified meter and A/C amp.)].



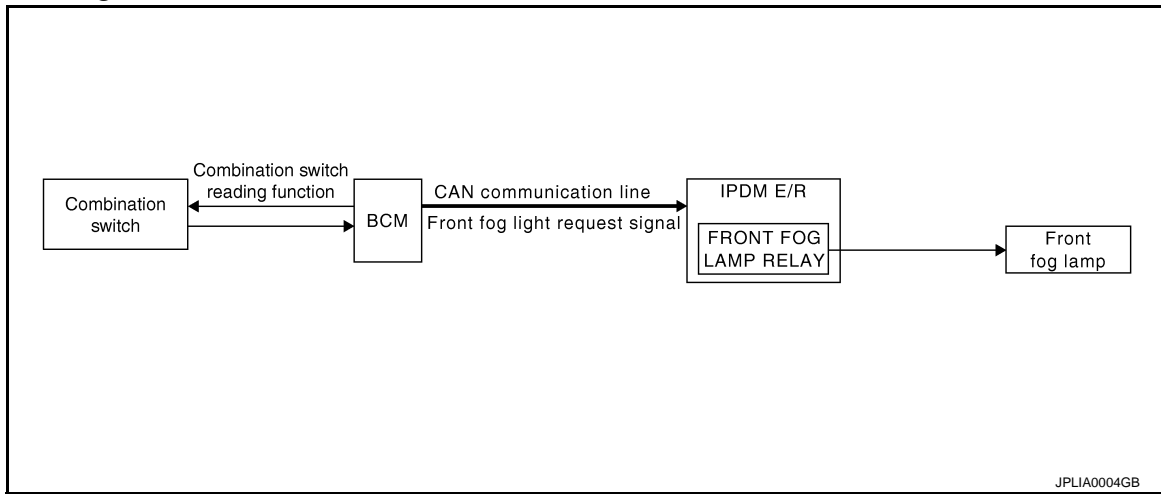
# FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## FRONT FOG LAMP SYSTEM

### System Diagram



### System Description

INFOID:0000000008288965

#### 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.

#### NOTE:

For Canada models, the front fog lamp is turned ON as the daytime running light. Refer to [EXL-18, "System Diagram"](#) for the detail.

#### FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog light 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 the 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 light request signal.

EXL

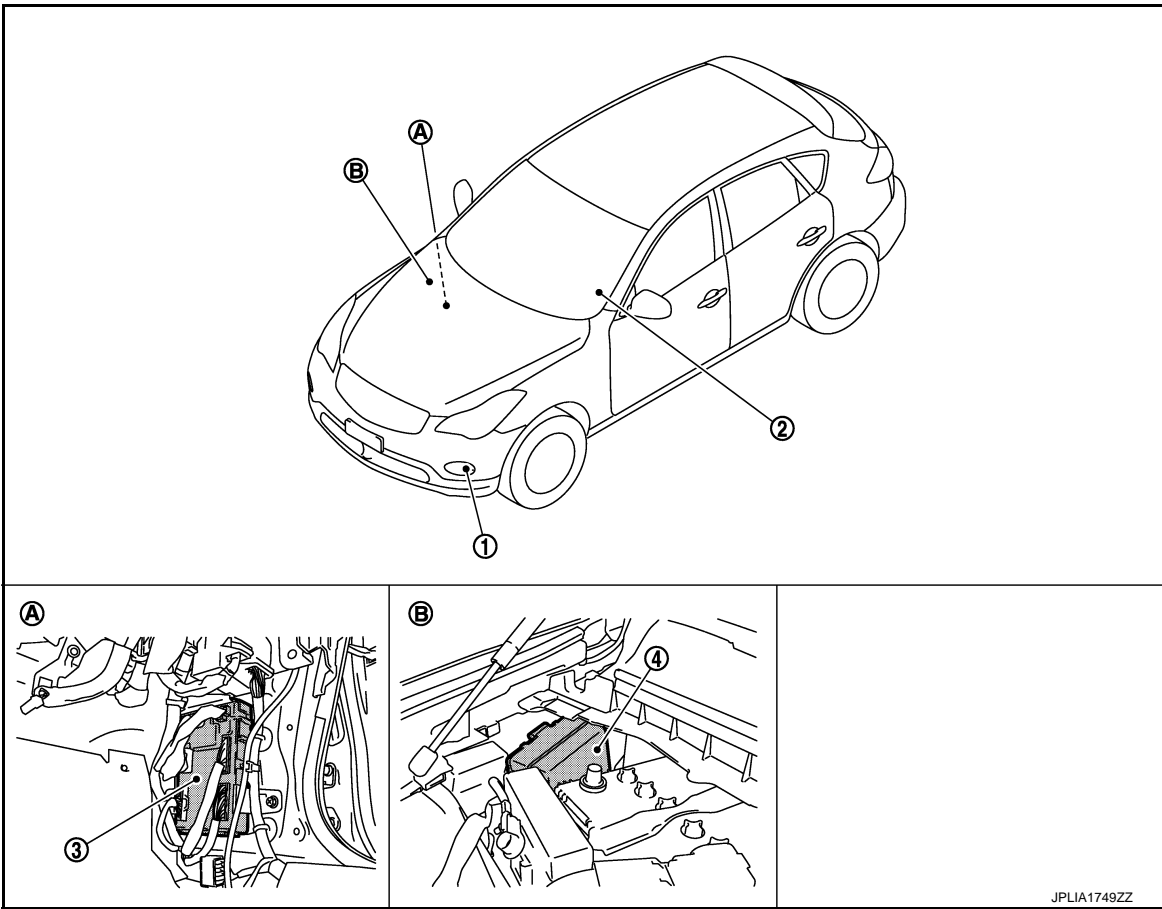
# FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Parts Location

INFOID:000000008288966



1. Front fog lamp  
2. Combination switch  
3. BCM  
4. IPDM E/R  
A. Dash side lower (Passenger side)  
B. Engine room dash panel (RH)

## Component Description

INFOID:000000008288967

Part	Description
BCM	<ul style="list-style-type: none"><li>Judges each switch condition by the combination switch reading function.</li><li>Judges the front fog lamp ON/OFF status according to the vehicle condition.</li><li>- Requests the front fog lamp relay ON to IPDM E/R (with CAN communication).</li></ul>
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 <a href="#">BCS-10, "System Diagram"</a> .

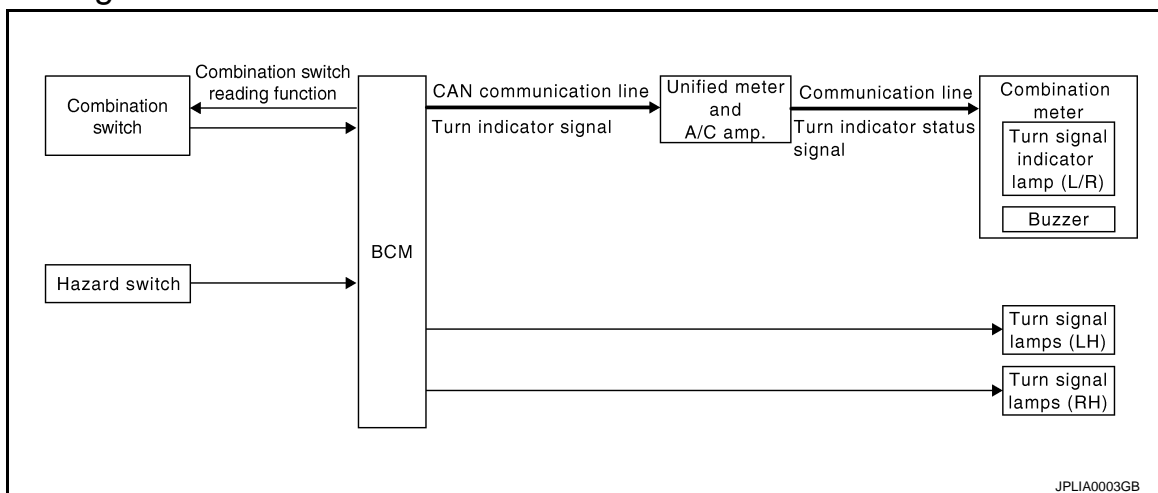
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### System Diagram



### System Description

INFOID:0000000008288969

#### OUTLINE

Turn signal 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 SOUND OPERATION

- BCM transmits the turn signal indicator lamp signal to the combination meter (through the unified meter and A/C amp.) with CAN communication while the turn signal lamp and the hazard warning lamp 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 (FAIL-SAFE)

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

#### NOTE:

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

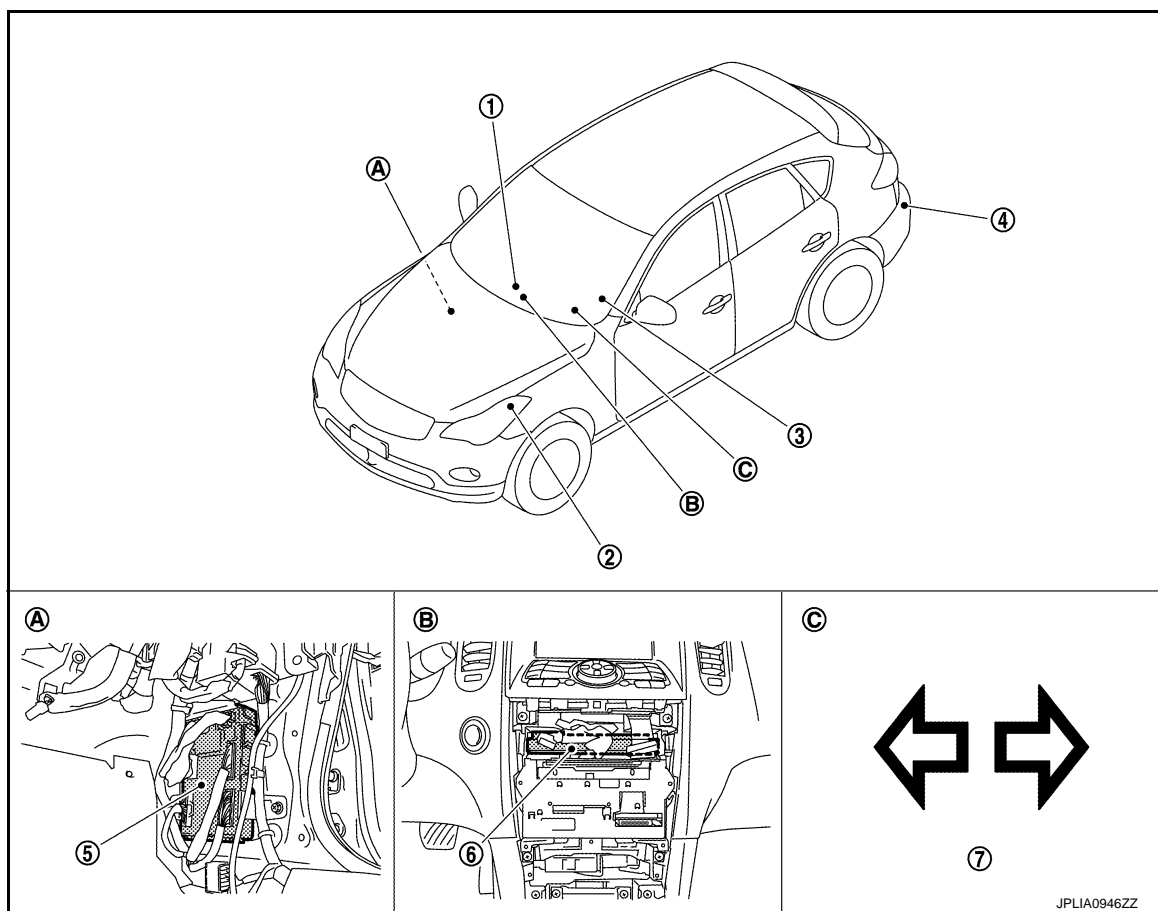
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Parts Location

INFOID:000000008288970



- |                                     |                             |                               |
|-------------------------------------|-----------------------------|-------------------------------|
| 1. Hazard warning switch            | 2. Front turn signal lamp   | 3. Combination switch         |
| 4. Rear turn signal lamp            | 5. BCM                      | 6. Unified meter and A/C amp. |
| 7. Turn signal indicator lamp       |                             |                               |
| A. Dash side lower (Passenger side) | B. Behind the cluster lid C | C. On the combination meter   |

## Component Description

INFOID:000000008288971

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks.</li> </ul> Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
Hazard switch (Multifunction switch)	Refer to <a href="#">EXL-83, "Description"</a> .
Combination meter (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 (through unified meter and A/C amp.)].

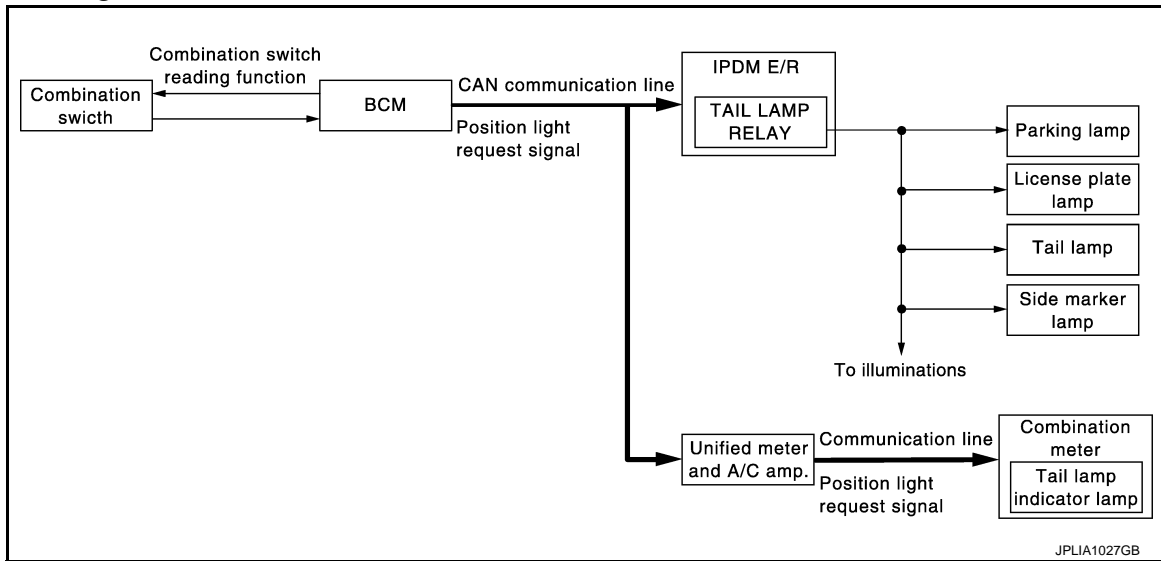
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

### System Diagram



### System Description

INFOID:000000008288973

#### OUTLINE

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

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

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

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

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (with auto light system)
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate, side marker and tail lamps ON according to the position light request signal.
- Combination meter turns the tail lamp indicator lamp ON according to the position light request signal.

EXL

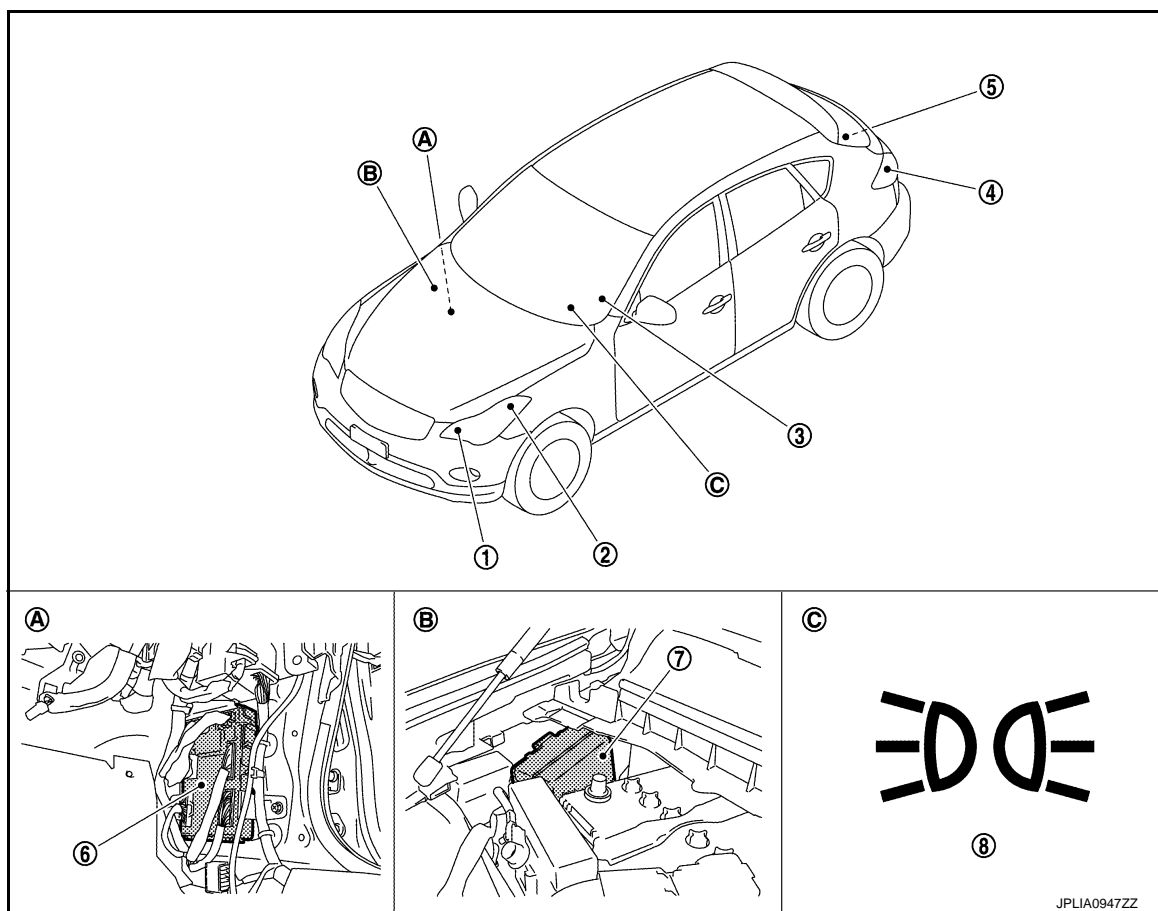
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Parts Location

INFOID:000000008288974



- |                                     |                                |                             |
|-------------------------------------|--------------------------------|-----------------------------|
| 1. Parking lamp                     | 2. Side marker lamp            | 3. Combination switch       |
| 4. Tail lamp and side marker lamp   | 5. License plate lamp          | 6. BCM                      |
| 7. IPDM E/R                         | 8. Tail lamp indicator lamp    |                             |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (RH) | C. On the combination meter |

## Component Description

INFOID:000000008288975

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the ON/OFF status of the clearance, license plate, side marker and tail lamps according to the vehicle condition. Requests the tail lamp relay ON to IPDM E/R (with CAN communication).</li> </ul>
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 <a href="#">BCS-10, "System Diagram"</a> .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM [with CAN communication (through the unified meter and A/C amp.)].

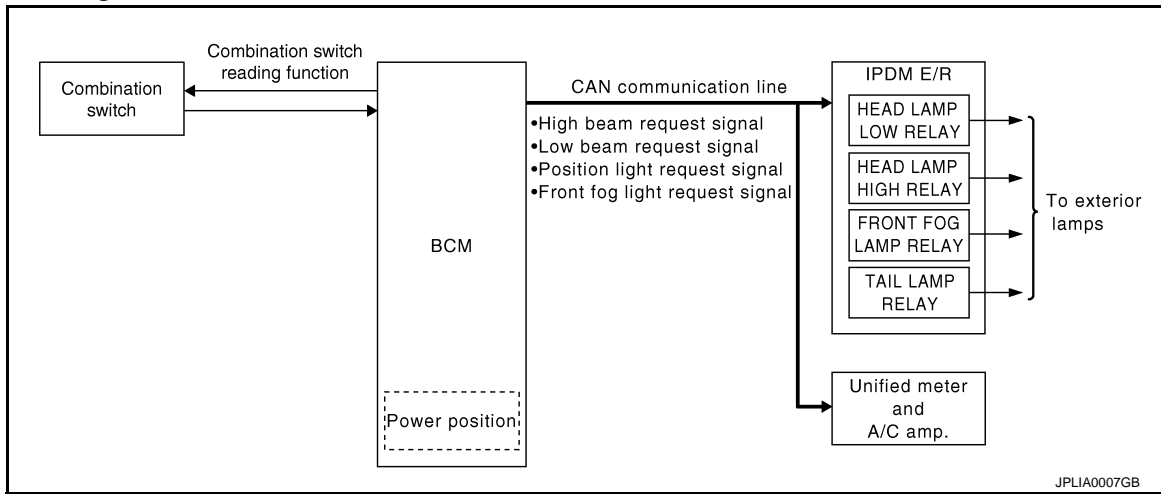
# EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## EXTERIOR LAMP BATTERY SAVER SYSTEM

### System Diagram



### System Description

INFOID:000000008288977

#### 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 lamp, tail lamp, side marker lamp, license plate lamp and front fog lamp

#### NOTE:

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to [EXL-15. "System Diagram"](#).

#### 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.

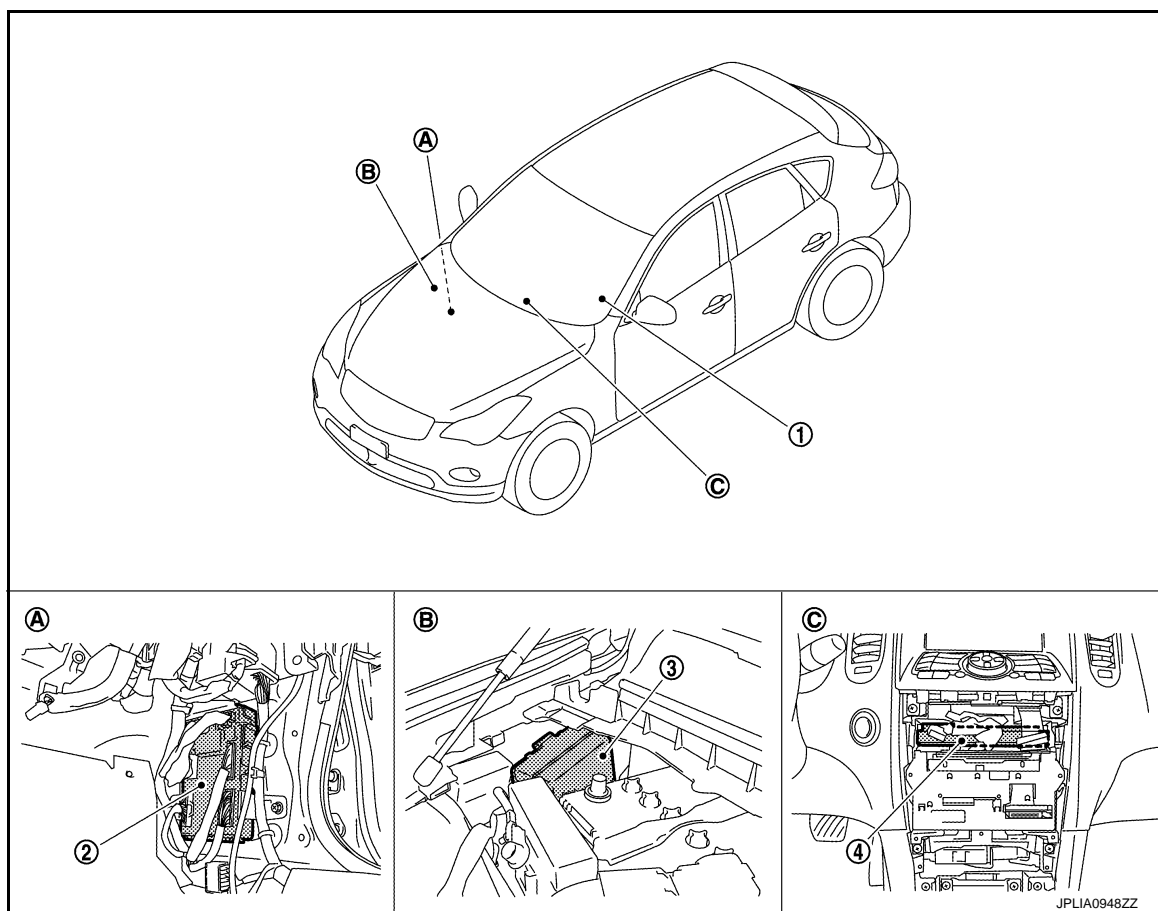
# EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[XENON TYPE]

## Component Parts Location

INFOID:000000008288978



- |                                     |                                |                             |
|-------------------------------------|--------------------------------|-----------------------------|
| 1. Combination switch               | 2. BCM                         | 3. IPDM E/R                 |
| 4. Unified meter and A/C amp.       |                                |                             |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C |

## Component Description

INFOID:000000008288979

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .



# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000008772638

### APPLICATION ITEM

CONSULT 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.
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	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

### 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	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> <li>Intelligent Key system</li> <li>Engine start system</li> </ul>	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

#### NOTE:

\*: This item is displayed, but is not used.

### FREEZE FRAME DATA (FFD)

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

# DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

< SYSTEM DESCRIPTION >

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 supply 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" (Except emergency stop operation)
	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"*
	OFF		Power supply position is "OFF" (Ignition switch OFF)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected <ul style="list-style-type: none"> <li>• The number is 0 when a malfunction is detected now.</li> <li>• The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>• The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>	

## NOTE:

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

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

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

## HEADLAMP

## HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (Xenon Type)

INFOID:000000008288981

## WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Service item	Setting item	Setting	
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.	
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.)	

\*: Initial setting

## DATA MONITOR

### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates [STOP/START/CRANK/RUN] condition of engine states.
VEH SPEED 1 [km/h]	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
KEY SW-SLOT [On/Off]	Indicates [ON/OFF] condition of key slot.
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]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Monitor item [Unit]	Description
RR FOG SW [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored.
DOOR SW-DR [On/Off]	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS [On/Off]	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR [On/Off]	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW- RL [On/Off]	Indicated [ON/OFF] condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicated [ON/OFF] condition of back door switch.
OPTICAL SENSOR [V]	The value of exterior brightness voltage input from the optical sensor

## 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 position light request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Low	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 light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
RR FOG LAMP	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	
DAYTIME RUNNING LIGHT	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	
CORNERING LAMP	RH	<b>NOTE:</b> The item is indicated, but cannot be tested.
	LH	
	Off	
ILL DIM SIGNAL	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	

## FLASHER

### FLASHER : CONSULT Function (BCM - FLASHER) (Xenon Type)

INFOID:000000008288982

## 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	

# DIAGNOSIS SYSTEM (BCM)

[XENON TYPE]

## < SYSTEM DESCRIPTION >

\*: Initial setting

### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS [On/Off]	Indicated [ON/OFF] condition of door request switch (passenger side).
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.

### 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.

EXL

## DIAGNOSIS SYSTEM (IPDM E/R)

## Diagnosis Description

INFOID:000000008772689

## 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
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side marker lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (cooling fan control module)

## 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 front door switch (driver side) 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-63, "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
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Side marker lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> </ul>	10 seconds
4	Headlamps	<ul style="list-style-type: none"> <li>• LO 10 seconds</li> <li>• HI ON ⇔ OFF 5 times</li> </ul>
5	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
6*	Cooling fan	MID for 5 seconds → HI for 5 seconds

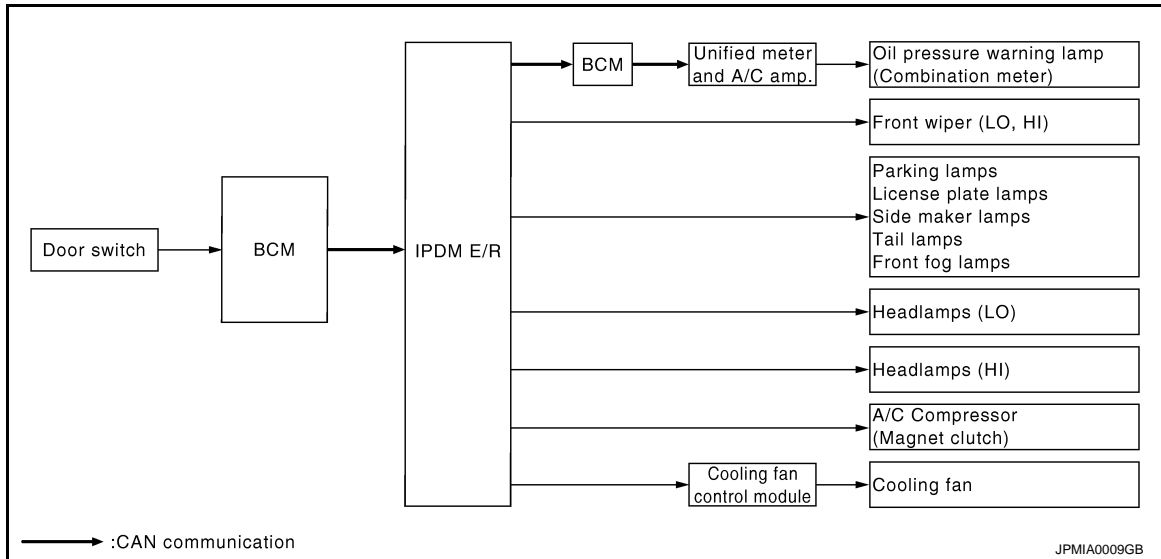
\*: Outputs duty ratio of 50% for 5 seconds → duty ratio of 100% for 5 seconds on the cooling fan control module.

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Any of the following components do not operate <ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Side maker lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> <li>• Headlamp (HI, LO)</li> <li>• Front wiper (HI, LO)</li> </ul>	Perform auto active test. Does the applicable system operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> <li>• Lamp or motor</li> <li>• Lamp or motor ground circuit</li> <li>• Harness or connector between IPDM E/R and applicable system</li> <li>• IPDM E/R</li> </ul>
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES <ul style="list-style-type: none"> <li>• Unified meter and A/C amp. signal input circuit</li> <li>• CAN communication signal between unified meter and A/C amp. and ECM</li> <li>• CAN communication signal between ECM and IPDM E/R</li> </ul>
		NO <ul style="list-style-type: none"> <li>• Magnet clutch</li> <li>• Harness or connector between IPDM E/R and magnet clutch</li> <li>• IPDM E/R</li> </ul>
Oil pressure warning lamp does not operate	Perform auto active test. Does the oil pressure warning lamp blink?	YES <ul style="list-style-type: none"> <li>• Harness or connector between IPDM E/R and oil pressure switch</li> <li>• Oil pressure switch</li> <li>• IPDM E/R</li> </ul>
		NO <ul style="list-style-type: none"> <li>• CAN communication signal between IPDM E/R and BCM</li> <li>• CAN communication signal between BCM and unified meter and A/C amp.</li> <li>• Combination meter</li> </ul>

# DIAGNOSIS SYSTEM (IPDM E/R)

[XENON TYPE]

## < SYSTEM DESCRIPTION >

Symptom	Inspection contents		Possible cause
Cooling fan does not operate	Perform auto active test. Does the cooling fan operate?	YES	<ul style="list-style-type: none"> <li>ECM signal input circuit</li> <li>CAN communication signal between ECM and IPDM E/R</li> </ul>
		NO	<ul style="list-style-type: none"> <li>Cooling fan</li> <li>Harness or connector between cooling fan and cooling fan control module</li> <li>Cooling fan control module</li> <li>Harness or connector between IPDM E/R and cooling fan control module</li> <li>Cooling fan relay</li> <li>Harness or connector between IPDM E/R and cooling fan relay</li> <li>IPDM E/R</li> </ul>

## CONSULT Function (IPDM E/R)

INFOID:000000008772690

### APPLICATION ITEM

CONSULT 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 [EXL-185, "DTC Index"](#).

### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item [Unit]	MAIN SIG- NALS	Description
RAD FAN REQ [%]	×	Displays the value of the cooling fan speed 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.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.



# DIAGNOSIS SYSTEM (IPDM E/R)

## < SYSTEM DESCRIPTION >

[XENON TYPE]

Monitor Item [Unit]	MAIN SIG- NALS	Description
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 shift position 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 A/T shift selector (detention switch) judged by IPDM E/R.
S/L RLY -REQ [Off/On]		Displays the status of the steering lock relay request received from BCM via CAN communication. <b>NOTE:</b> For models without steering lock unit, this item is not monitored.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. <b>NOTE:</b> For models without steering lock unit, this item is not monitored.
DTRL REQ [Off/On]		<b>NOTE:</b> The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R.
HL WASHER REQ [Off/On]		<b>NOTE:</b> 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.
CRNRNG LMP REQ [Off/On]		<b>NOTE:</b> The item is indicated, but not monitored.

## ACTIVE TEST

### Test item

Test item	Operation	Description
CORNERING LAMP	Off	<b>NOTE:</b> The item is indicated, but cannot be tested.
	LH	
	RH	
HORN	On	Operates horn relay 1 and horn relay 2 for 20 ms.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.

## DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[XENON TYPE]

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
	3	Outputs 80% pulse duty signal (PWM signal) to the cooling fan control module.
	4	Outputs 100% pulse duty signal (PWM signal) to the cooling fan control module.
HEAD LAMP WASHER	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
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 (AFS)

## CONSULT Function (ADAPTIVE LIGHT)

INFOID:000000008288985

## APPLICATION ITEM

Diagnostic mode	Description
ECU Identification	Allows confirmation of auto levelizer control unit part number.
Self Diagnostic Result	Displays the diagnosis results judged by AFS control unit.
Work support	Sets each sensor.
Data monitor	Indicates AFS control unit input data in real time.
Active test	Provides the drive signal to the load. Checks operation.

## WORK SUPPORT

Service item	Description
ST ANG SEN ADJUSTMENT*	—
LEVELIZER ADJUSTMENT	Adjusts the height sensor signal output value (AFS control unit recognized) in the unloaded vehicle condition.

\*: Adjusts the steering angle sensor neutral position on ABS actuator and electrical unit (control unit) side. Refer to [BRC-9, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement"](#).

## DATA MONITOR

**NOTE:**

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
STR ANGLS SIG [deg]	The steering angle value judged by the steering angle sensor signal received from the steering angle sensor with CAN communication
VHCL SPD [km/h]	The vehicle speed signal value from the unified meter and A/C amp. with CAN communication
SLCT LVR POSI [P - 1]	The selector lever status judged by the position indicator signal received from TCM with CAN communication
HEAD LAMP [On/Off]	The headlamp On/Off status judged by the low beam headlamp (ON) signal received from IPDM E/R with CAN communication
AFS SW [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored.
HI SEN OTP RR [V]	The height sensor signal voltage value input from the height sensor
LEV ACTR VLTG [%]	The ratio value to the battery voltage generated by the levelizer activation signal control value judged by AFS control unit
SWVL SEN RH* [deg]	The head lamp swivel angle value judged by AFS control unit received from the swivel position sensor signal input from the swivel actuator
SWVL SEN LH* [deg]	
SWVL ANGLE RH* [deg]	The swivel angle command value to the swivel motor judged by AFS control unit
SWVL ANGLE LH * [deg]	

\*: The swivel angle "0°" (feedback value) of the swivel position sensor signal may differ from the swivel angle "0°" of the swivel motor (AFS control unit command value). This causes that the swivel motor initializes the value based on the step number from the stopper.

## DIAGNOSIS SYSTEM (AFS)

< SYSTEM DESCRIPTION >

[XENON TYPE]

### ACTIVE TEST

#### NOTE:

Start the engine when using "ACTIVE TEST".

Test item	Operation Item	Description
LOW BEAM TEST RIGHT	Origin Fast	Swivels the right headlamp to the swivel angle 0° in the normal speed.
	Peak Fast	Swivels the right headlamp to the swivel angle approximately 15° in the normal speed.
	Origin Slow	Swivels the right headlamp to the swivel angle 0° in the speed at the initialization.
	Peak Slow	Swivels the right headlamp to the swivel angle approximately 15° in the speed at the initialization.
LOW BEAM TEST LEFT	Origin Fast	Swivels the left headlamp to the swivel angle 0° in the normal speed.
	Peak Fast	Swivels the left headlamp to the swivel angle approximately 17° in the normal speed.
	Origin Slow	Swivels the left headlamp to the swivel angle 0° in the speed at the initialization.
	Peak Slow	Swivels the left headlamp to the swivel angle approximately 17° in the speed at the initialization.
LEVELIZER TEST	Origin	Changes the aiming motor drive signal to approximately 70% of the battery voltage. Moves the headlamp upward and downward.
	Peak	Changes the aiming motor drive signal to approximately 15% of the battery voltage. Moves the headlamp upward and downward.

#### NOTE:

"Fast" operation speed is as three times fast as "Slow".

**DTC/CIRCUIT DIAGNOSIS****B2503, B2504 SWIVEL ACTUATOR****Description**

INFOID:000000008288986

**SWIVEL ACTUATOR**

The swivel actuator is installed in the headlamp unit. The swivel actuator consists of the swivel motor and the swivel position sensor.

**SWIVEL MOTOR**

- The swivel motor is the two-phase step motor.
- The swivel motor drives headlamp by exciting the two drive coils according to the drive signal from AFS control unit.
- The rotation direction of the swivel motor is changeable by changing the exciting pattern.

**SWIVEL POSITION SENSOR**

The swivel position sensor detects the headlamp swivel angle to transmit the swivel position sensor signal to AFS control unit.

**DTC Logic**

INFOID:000000008288987

**DTC DETECTION LOGIC**

- [B2503] Swivel actuator [RH]
- [B2504] Swivel actuator [LH]

DTC detection condition	DTC erase condition	Possible cause
<p>AFS control unit indicates an applicable DTC when detecting any of the following conditions continuously for 2 seconds or more.</p> <ul style="list-style-type: none"> <li>• AFS control unit-recognized swivel position differs extremely from the swivel position sensor-input value while the swivel operating*.</li> <li>• The swivel position sensor signal does not change even though AFS control unit transmits the swivel motor driving signal while the swivel operating*.</li> <li>• The swivel motor short and open is detected while the swivel operating*.</li> <li>• The swivel position sensor power supply is 6 V or more, or 4 V or less.</li> <li>• The swivel position sensor signal is 0.25 V or less, or 4.75 V or more.</li> </ul>	Ignition switch OFF	<p>Swivel position sensor</p> <ul style="list-style-type: none"> <li>• Swivel position sensor</li> <li>• Harness and connector</li> </ul> <p>AFS control unit</p> <p>Swivel motor</p> <ul style="list-style-type: none"> <li>• Swivel motor</li> <li>• Harness and connector</li> <li>• AFS control unit</li> </ul>

\*: Initialization is not included.

**DTC CONFIRMATION PROCEDURE****1.DTC ERASE**

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

**2.CONFIRMATION DTC SELECTION**

Select "B2503" or "B2504" for confirmation.

**Which DTC is confirmation?**

B2503 >> GO TO 3.

B2504 >> GO TO 4.

**3.DTC CONFIRMATION (B2503)**

1. Steer to the straight-forward position.
2. Start the engine.
3. Turn the headlamp ON.
4. Shift the selector lever to "N".
5. Steer to the right. (Rotate it once or more.)
6. Perform the self-diagnosis with CONSULT.

## B2503, B2504 SWIVEL ACTUATOR

[XENON TYPE]

### < DTC/CIRCUIT DIAGNOSIS >

#### Is "B2503" detected?

- YES >> Refer to [EXL-46. "Diagnosis Procedure"](#).  
NO >> Refer to [GI-42. "Intermittent Incident"](#).

### 4. DTC CONFIRMATION (B2504)

1. Steer to the straight-forward position.
2. Start the engine.
3. Turn the headlamp ON.
4. Drive at 25 km/h (15.5 MPH) or more.
5. Steer to the left. (Rotate it once or more.)
6. Stop the vehicle.
7. Perform the self-diagnosis with CONSULT.

#### Is "B2504" detected?

- YES >> Refer to [EXL-46. "Diagnosis Procedure"](#).  
NO >> Refer to [GI-42. "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000008288988

### 1. CHECK SWIVEL POSITION SENSOR SIGNAL INPUT

1. Turn the ignition switch ON.
2. Check the voltage between the AFS control unit harness connector and the ground.

Terminals				Voltage (Approx.)
(+)			(-)	
AFS control unit				
Connector		Terminal	Ground	0.25 - 4.75 V
RH	M16	9		
LH		29		

#### Is the measurement value within the standard value?

- YES >> GO TO 2.  
Less than the standard value >> GO TO 6.  
Higher than the standard value >> GO TO 9.

### 2. CHECK SWIVEL MOTOR

Check the swivel motor. [EXL-49. "Component Inspection"](#).

#### Is the inspection result normal?

- YES >> GO TO 3.  
NO >> Replace the front combination lamp.

### 3. CHECK SWIVEL MOTOR OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector and the headlamp swivel actuator connector.
3. Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

## B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AFS control unit		Headlamp swivel actuator		Continuity	
Connector		Terminal	Connector		Terminal
RH	M16	11	E29	8	Existed
		13		7	
		32		3	
		34		4	
LH		15	E59	3	
		17		4	
		36		8	
		38		7	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

### 4.CHECK SWIVEL MOTOR SHORT CIRCUIT

Check continuity between the AFS control unit harness connector and the ground.

AFS control unit			Ground	Continuity
Connector		Terminal		Not existed
RH	M16	11		
		13		
		32		
		34		
LH		15		
		17		
		36		
		38		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

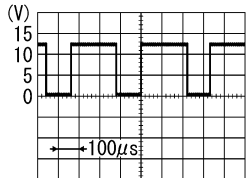
### 5.CHECK SWIVEL MOTOR CIRCUIT VOLTAGE OUTPUT

1. Connect AFS control unit connector.
2. Turn the ignition switch ON.
3. Turn the headlamp ON.
4. Select "LOW BEAM TEST RIGHT" or "LOW BEAM TEST LEFT" of ADAPTIVE LIGHT active test item.
5. With operating the test item, check the voltage between the AFS control unit harness connector and the ground.

# B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals				Condition	Voltage (Approx.)
(+)		(-)			
AFS control unit				Swivel motor	
Connector	Terminal			Active	
RH	M16	11			Ground
		32			
		15			
LH		36			
	RH	13		Stop	
		34			
17					
LH	38		9.5 - 11.5 V		

Is the measurement value within the standard value?

YES >> Replace the front combination lamp.

NO >> Replace AFS control unit.

## 6.CHECK SWIVEL POSITION SENSOR SIGNAL OUTPUT

Check the voltage between the AFS control unit harness connector and the ground.

Terminals				Voltage (Approx.)
(+)			(-)	
AFS control unit			Ground	
Connector		Terminal		
RH	M16	4		
LH		24		
				5 V

Is the measurement value normal?

YES >> GO TO 7.

NO >> GO TO 9.

## 7.CHECK SWIVEL POSITION SENSOR POWER SUPPLY CIRCUIT INPUT VOLTAGE

1. Turn the ignition switch OFF.
2. Disconnect the headlamp swivel actuator connector.
3. Turn the ignition switch ON.
4. Check the voltage between the headlamp swivel actuator harness connector and the ground.

Terminals				Voltage (Approx.)
(+)			(-)	
Headlamp swivel actuator			Ground	
Connector		Terminal		
RH	E29	2		
LH	E59	2		
				5 V

Is the measurement value normal?

YES >> GO TO 8.

NO >> Repair the harnesses or connectors.

## 8.CHECK SWIVEL POSITION SENSOR SIGNAL SHORT CIRCUIT



## B2503, B2504 SWIVEL ACTUATOR

### < DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector.
3. Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

AFS control unit		Headlamp swivel actuator		Continuity
Connector	Terminal	Connector	Terminal	
RH	M16	E29	1	Existed
LH		E59	1	

#### Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

### 9.CHECK SWIVEL POSITION SENSOR GROUND CIRCUIT VOLTAGE OUTPUT

Check the voltage between the AFS control unit harness connector and the ground.

Terminals				Voltage (Approx.)
(+) AFS control unit			(-)	
Connector		Terminal	Ground	
RH	M16	2		
LH		27		
				0 V

#### Is the measurement value normal?

YES >> GO TO 10.

NO >> Replace AFS control unit.

### 10.CHECK SWIVEL POSITION SENSOR SHORT GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector and the headlamp swivel actuator connector.
3. Check continuity between the AFS control unit harness connector and the headlamp swivel actuator harness connector.

AFS control unit		Headlamp swivel actuator		Continuity
Connector	Terminal	Connector	Terminal	
RH	M16	E29	6	Existed
LH		E59	6	

#### Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

## Component Inspection

INFOID:000000008288989

### 1.CHECK SWIVEL MOTOR SINGLE PART

1. Disconnect the swivel actuator connector.
2. Check the resistance among each swivel actuator connector terminal.

Swivel actuator		Resistance (Approx.)
Terminal	Terminal	
3	7	7.2 Ω
4	8	7.2 Ω
3	4	10 MΩ or more

## B2503, B2504 SWIVEL ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

---

Is the measurement value normal?

YES    >> Swivel actuator is normal.

NO     >> Replace the front combination lamp.

# B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## B2514 HEIGHT SENSOR UNUSUAL [RR]

### Description

INFOID:000000008288990

The height sensor is installed to the rear suspension arm. The height sensor detects the suspension arm displacement as the vehicle height change. The height sensor transmits the height sensor signal to AFS control unit.

#### NOTE:

The sensor angle of the unloaded vehicle position is the reference value.

### DTC Logic

INFOID:000000008288991

### DTC DETECTION LOGIC

[B2514] Height sensor unusual [RR]

DTC detection condition	DTC erase condition	Possible cause
An applicable DTC is indicated when any of the following conditions is detected continuously for 2 seconds or more. <ul style="list-style-type: none"><li>The height sensor power supply is 6 V or more, or 4 V or less.</li><li>The height sensor signal is 0.25 V or less, or 4.75 V or more.</li></ul>	Ignition switch OFF	Height sensor <ul style="list-style-type: none"><li>Height sensor</li><li>Harness and connector</li><li>AFS control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

#### 2.DTC CONFIRMATION

1. Start the engine.
2. Turn the headlamp ON.
3. Select the self-diagnosis with CONSULT.
4. Check the self-diagnosis result. Refer to [EXL-198. "DTC Index"](#).

Is "B2514" detected?

YES >> Refer to [EXL-51. "Diagnosis Procedure"](#).

NO >> Refer to [GI-42. "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000008288992

#### 1.CHECK HEIGHT SENSOR POWER SUPPLY OUTPUT

1. Turn the ignition switch ON.
2. Check the voltage between the AFS control unit harness connector and the ground.

Terminals			Voltage (Approx.)
(+)		(-)	
AFS control unit			
Connector	Terminal	Ground	
M16	6		
			5 V

Is the measurement value within the standard value?

YES >> GO TO 2.

NO >> Replace AFS control unit.

#### 2.CHECK HEIGHT SENSOR POWER SUPPLY INPUT

Check the voltage between the AFS control unit harness connector and the ground.

## B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			Voltage (Approx.)
(+)		(-)	
AFS control unit		Ground	
Connector	Terminal		
M16	28		0.25 - 4.75 V

Is the measurement value within the standard value?

- YES >> Replace AFS control unit.  
Less than the standard value >> GO TO 3.  
Higher than the standard value >> GO TO 6.

### 3. CHECK HEIGHT SENSOR POWER SUPPLY CIRCUIT OUTPUT VOLTAGE

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

Terminals			Voltage (Approx.)
(+)		(-)	
Height sensor		Ground	
Connector	Terminal		
B32	1		5 V

Is the measurement value within the standard value?

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

### 4. CHECK HEIGHT SENSOR SIGNAL OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector.
3. Check continuity between the AFS control unit harness connector and the height sensor harness connector.

AFS control unit		Height sensor		Continuity
Connector	Terminal	Connector	Terminal	
M16	28	B32	2	Existed

Does continuity exist?

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

### 5. CHECK HEIGHT SENSOR SIGNAL SHORT CIRCUIT

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

Height sensor		Ground	Continuity
Connector	Terminal		
B32	2		Not existed

Does continuity exist?

- YES >> Repair the harnesses or connectors.  
NO >> Replace the height sensor.

### 6. CHECK HEIGHT SENSOR GROUND

Check the voltage between the AFS control unit harness connector and the ground.

# B2514 HEIGHT SENSOR UNUSUAL [RR]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			Voltage (Approx.)
(+)		(-)	
AFS control unit		Ground	
Connector	Terminal		
M16	8		
			0 V

Is the measurement value within the standard value?

YES >> GO TO 7.

NO >> Replace AFS control unit.

## 7.CHECK HEIGHT SENSOR GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector and the height sensor connector.
3. Check continuity between the AFS control unit harness connector and the height sensor harness connector.

AFS control unit		Height sensor		Continuity
Connector	Terminal	Connector	Terminal	
M16	8	B32	3	Existed

Does continuity exist?

YES >> Replace the height sensor.

NO >> Repair the harnesses or connectors.

## Component Inspection

INFOID:0000000008288993

## 1.CHECK HEIGHT SENSOR

1. Remove the height sensor (the height sensor connector is connected).
2. Start the engine.
3. Turn the light switch 2ND.
4. Select "HI SEN OTP RR" of AFS data monitor item.
5. With moving the sensor lever, check the monitor status.

Monitor item	Condition		Monitor status [Standard value (Approx.)]
HI SEN OTP RR	Sensor lever position	Contact with stopper	0.9 V
		Moving between two positions	Smooth movement
		90° from stopper	4.5 V

Is the output value normal?

YES >> Height sensor is normal.

NO >> Replace the height sensor.

## B2516 SHIFT SIGNAL [P, R]

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

### B2516 SHIFT SIGNAL [P, R]

#### Description

INFOID:000000008288994

AFS control unit receives the shift position signal from TCM with CAN communication.

#### DTC Logic

INFOID:000000008288995

#### DTC DETECTION LOGIC

[B2516] Shift signal [P, R]

DTC detection condition	DTC erase condition	Possible causes
The shift position signal is not received.	Ignition switch OFF	<ul style="list-style-type: none"><li>• TCM</li><li>• AFS control unit</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

##### 2.DTC CONFIRMATION

1. Turn ignition ON.
2. Select the self-diagnosis with CONSULT.
3. Check the self-diagnosis result. Refer to [EXL-198. "DTC Index"](#).

Is "B2516" detected?

- YES >> Refer to [EXL-54. "Diagnosis Procedure"](#).  
NO >> Refer to [GI-42. "Intermittent Incident"](#).

#### Diagnosis Procedure

INFOID:000000008288996

##### 1.TCM SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that TCM does not detect any DTCs.

Is any DTC detected?

- YES >> Check TCM. Refer to [TM-156. "DTC Index"](#).  
NO >> GO TO 2.

##### 2.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

Is the memory erased?

- YES >> Inspection end.  
NO >> Replace AFS control unit.

# B2517 VEHICLE SPEED SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## B2517 VEHICLE SPEED SIGNAL

### Description

INFOID:0000000008288997

AFS control unit receives the vehicle speed signal from the unified meter and A/C amp. with CAN communication.

### DTC Logic

INFOID:0000000008288998

### DTC DETECTION LOGIC

[B2517] Vehicle speed signal

DTC detection condition	DTC erase condition	Possible causes
The vehicle speed signal is not received.	Ignition switch OFF	<ul style="list-style-type: none"><li>Unified meter and A/C amp.</li><li>AFS control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

#### 2.DTC CONFIRMATION

- Turn ignition ON.
- Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to [EXL-198, "DTC Index"](#).

Is "B2517" detected?

- YES >> Refer to [EXL-55, "Diagnosis Procedure"](#).  
NO >> Refer to [GI-42, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:0000000008288999

#### 1.UNIFIED METER AND A/C AMP. SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that the unified meter and A/C amp. does not detect any DTCs.

Is any DTC detected?

- YES >> Check the unified meter and A/C amp. Refer to [MWI-110, "DTC Index"](#).  
NO >> GO TO 2.

#### 2.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

Is the memory erased?

- YES >> Inspection end.  
NO >> Replace AFS control unit.

## B2519 LEVELIZER CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

### B2519 LEVELIZER CALIBRATION

#### Description

INFOID:0000000008289000

AFS control unit transmits the height sensor signal from the height sensor.

#### DTC Logic

INFOID:0000000008289001

[B2519] Levelizer calibration

DTC detection condition	DTC erase condition	Possible causes
The height sensor adjustment position is not recognized.	When the levelizer adjustment is completed	AFS control unit

#### Diagnosis Procedure

INFOID:0000000008289002

#### 1.LEVELIZER ADJUSTMENT

Perform the levelizer adjustment.

>> Refer to [EXL-10, "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).



# B2521 ECU CIRCUIT

## Description

INFOID:0000000008289003

AFS control unit judges the vehicle condition from each signal. AFS control unit controls AFS function and the headlamp aiming.

## DTC Logic

INFOID:0000000008289004

### DTC DETECTION LOGIC

[B2521] ECU circuit

Error detection condition	DTC erase condition	Possible cause
<ul style="list-style-type: none"> <li>AFS control unit indicates an applicable DTC when detecting any of the following conditions continuously for 2 seconds or more.</li> <li>The swivel position sensor is shorted to the power supply or the ground.</li> <li>The swivel position sensor signal is shorted to the ground.</li> <li>The height sensor power supply is shorted to the power supply or the ground.</li> <li>The height sensor signal is shorted to the ground.</li> <li>AFS control unit RAM/ROM error</li> </ul>	Ignition switch OFF	Swivel position sensor <ul style="list-style-type: none"> <li>Swivel position sensor</li> <li>Harness and connector</li> <li>AFS control unit</li> </ul> Height sensor <ul style="list-style-type: none"> <li>Height sensor</li> <li>Harness and connector</li> <li>AFS control unit</li> </ul> AFS control unit (RAM/ROM) <ul style="list-style-type: none"> <li>AFS control unit</li> </ul>

### DTC CONFIRMATION PROCEDURE

#### 1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

#### 2.DTC CONFIRMATION PROCEDURE

- Turn ignition ON.
- Select the self-diagnosis with CONSULT.
- Check the self-diagnosis result. Refer to [EXL-198. "DTC Index"](#).

Is "B2521" detected?

YES >> Refer to [EXL-57. "Diagnosis Procedure"](#).

NO >> Refer to [GI-42. "Intermittent Incident"](#).

## Diagnosis Procedure

INFOID:0000000008289005

#### 1.CHECK EACH SENSOR POWER SUPPLY

- Turn the ignition switch ON.
- Check the voltage between the AFS control unit harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
AFS control unit		5 V
Connector	Terminal	
M16	4	
	6	
	24	
Ground		

Is the measurement value within the standard value?

YES >> GO TO 2.

Less than the standard value >>GO TO 3.

Higher than the standard value>>GO TO 4.

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

## 2.CHECK EACH SENSOR SIGNAL

Check the voltage between the AFS control unit harness connector and the ground.

Terminals			Voltage (Approx.)
(+)		(-)	
AFS control unit		Ground	
Connector	Terminal		
M16	9		
	28		
	29		
			0.25 - 4.75 V

Is the measurement value within the standard value?

YES >> Replace AFS control unit.

Less than the standard value >>GO TO 5.

Higher than the standard value>>GO TO 6.

## 3.CHECK EACH SENSOR POWER SUPPLY SHORT CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector.
3. Check continuity between the AFS control unit harness connector and the ground.

AFS control unit			Continuity
Connector	Terminal		
M16	4	Ground	Not existed
	6		
	24		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace AFS control unit.

## 4.CHECK EACH SENSOR POWER SUPPLY CIRCUIT

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

Terminals			Voltage (Approx.)
(+)		(-)	
AFS control unit		Ground	
Connector	Terminal		
M16	4		
	6		
	24		
		0 V	

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

## 5.CHECK EACH SENSOR SIGNAL SHORT CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector.
3. Check continuity between the AFS control unit harness connector and the ground.

## B2521 ECU CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AFS control unit		Ground	Continuity
Connector	Terminal		
M16	9	Ground	Not existed
	28		
	29		

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace AFS control unit.

### 6.CHECK EACH SENSOR SIGNAL SHORT CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector.
3. Turn the ignition switch ON.
4. Check the voltage between the AFS control unit harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
AFS control unit		0 V
Connector	Terminal	
M16	9	
	28	
	29	

Is the measurement value normal?

YES >> Replace AFS control unit.

NO >> Repair the harnesses or connectors.

A

B

C

D

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EXL

M

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O

P

# C0126 STEERING ANGLE SENSOR SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## C0126 STEERING ANGLE SENSOR SIGNAL

### Description

INFOID:000000008289006

AFS control unit receives the steering angle sensor signal from the steering angle sensor with CAN communication.

### DTC Logic

INFOID:000000008289007

### DTC DETECTION LOGIC

[C0126] Steering angle sensor signal

DTC detection condition	DTC erase condition	Possible causes
In any of the following conditions <ul style="list-style-type: none"><li>The steering angle sensor signal is not received.</li><li>The steering angle sensor signal error is received.</li><li>Out-of-standard signal (-900°- +900°) is received.</li></ul>	The ignition switch OFF	<ul style="list-style-type: none"><li>Steering angle sensor</li><li>AFS control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1.DTC ERASE

Erase the DTC memory of AFS with CONSULT.

>> GO TO 2.

#### 2.DTC CONFIRMATION

1. Start the engine.
2. Turn the steering wheel to the maximum right/left.
3. Select the self-diagnosis with CONSULT.
4. Check the self-diagnosis result. Refer to [EXL-198, "DTC Index"](#).

Is "C0126" detected?

YES >> Refer to [EXL-60, "Diagnosis Procedure"](#).

NO >> Refer to [GI-42, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000008289008

#### 1.ABS ACTUATOR AND ELECTRICAL UNIT (CONTROL UNIT) SELF-DIAGNOSIS

Check the self-diagnosis result with CONSULT. Check that ABS actuator and electrical unit (control unit) does not detect any DTCs.

Is any DTC detected?

YES >> Check ABS actuator and electrical unit (control unit).Refer to [BRC-117, "DTC No. Index"](#).

NO >> GO TO 2.

#### 2.DTC ERASE

Erase DTC memory of AFS with CONSULT.

Is the memory erased?

YES >> Inspection end.

NO >> Replace AFS control unit.

# C0428 STEERING ANGLE SENSOR CALIBRATION

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## C0428 STEERING ANGLE SENSOR CALIBRATION

### Description

INFOID:000000008289009

AFS control unit receives the steering angle sensor signal from the steering angle sensor with CAN communication.

### DTC Logic

INFOID:000000008289010

[C0428] Steering angle sensor calibration

DTC detection condition	DTC erase condition	Possible causes
The steering angle sensor neutral position is not recognized.	When the steering angle sensor neutral position registration is completed	Steering angle sensor

### Diagnosis Procedure

INFOID:000000008289011

#### 1. STEERING ANGLE SENSOR NEUTRAL POSITION ADJUSTMENT

Perform the steering angle sensor neutral position adjustment.

#### **CAUTION:**

**Perform the steering angle sensor neutral position adjustment on VDC side. VDC may activate incorrectly.**

>> Refer to [BRC-9, "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION : Special Repair Requirement"](#).

EXL

## U1000 CAN COMM CIRCUIT

### Description

INFOID:0000000008289012

CAN (Controller Area Network) is the serial transmission for real time application. CAN is the multiplex communication for the vehicle with superior data transmission speed and error detection ability. Many electronic control units are equipped on the vehicle. These control units do not operate individually, but associates with other control units by sharing information. In CAN communication, each control unit is connected with two communication lines (CAN-H and CAN-L). Much information is transmitted with fewer communication lines than before. Each control unit transmits/receives data and reads the necessary data only. CAN Communication Signal Chart. Refer to [LAN-25. "CAN Communication Signal Chart"](#).

### DTC Logic

INFOID:0000000008289013

#### DTC DETECTION LOGIC

[U1000] CAN communication circuit

DTC detection condition	DTC erase condition	Possible causes
When AFS control unit does not transmit/receive CAN communication signal continuously for 2 seconds or more	Ignition switch OFF	CAN communication system

### Diagnosis Procedure

INFOID:0000000008289014

#### 1.PERFORM SELF DIAGNOSTIC

1. Turn ignition switch ON and wait for 2 seconds or more.
2. Check "Self Diagnostic Result".

Is "CAN COMM CIRCUIT" displayed?

- YES >> Refer to [LAN-16. "Trouble Diagnosis Flow Chart"](#).  
 NO >> Refer to [GI-42. "Intermittent Incident"](#).

## U1010 CONTROL UNIT (CAN)

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

### U1010 CONTROL UNIT (CAN)

#### DTC Logic

INFOID:0000000008289015

#### DTC DETECTION LOGIC

[U1000] CAN communication circuit

DTC	CONSULT display description	DTC detection condition	Possible causes
U1010	CONTROL UNIT (CAN)	AFS control unit detected internal CAN communication circuit malfunction.	AFS control unit

#### Diagnosis Procedure

INFOID:0000000008289016

#### 1.REPLACE AFS CONTROL UNIT

When DTC [U1010] is detected, replace AFS control unit.

>> Replace AFS control unit.

EXL

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## POWER SUPPLY AND GROUND CIRCUIT

### BCM (BODY CONTROL MODULE)

#### BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000008772641

#### 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	K
	10

##### 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		
M118	1		
M119	11		
			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		
M119	13		Existed

##### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

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

INFOID:000000008772712

#### 1.CHECK FUSES AND FUSIBLE LINK

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



# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Signal name	Fuses and fusible link No.
Battery power supply	C
	50
	51

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	Battery voltage
E4	1		

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		
E5	12		Existed
E6	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

## AFS CONTROL UNIT

### AFS CONTROL UNIT : Diagnosis Procedure

INFOID:0000000008289019

## 1.FUSE INSPECTION

Check that the following fuses are not fusing.

Signal name	Connection position	Fuse No.	Capacity
Ignition power supply	FUSE BLOCK (J/B)	3	10 A

Is the fuse fusing?

YES >> Repair the applicable circuit. And then replace the fuse.

NO >> GO TO 2.

## 2.CHECK POWER SUPPLY CIRCUIT

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

## POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Terminals			Voltage (Approx.)
( + )		( - )	
AFS control unit		Ground	
Connector	Terminal		
M16	1		
			Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between AFS control unit harness connectors and ground.

AFS control unit		Ground	Continuity
Connector	Terminal		
M16	25		Existed

Does continuity exist?

YES >> Power supply and ground circuit are normal.

NO >> Repair harness or connector.

# HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (HI) CIRCUIT

### Component Function Check

INFOID:000000008289020

#### 1.CHECK HEADLAMP (HI) OPERATION

##### ☒ IPDM E/R AUTO ACTIVE TEST

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

##### ☐ CONSULT 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-67, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289021

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

##### ☐ CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp 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				Condition	Voltage (Approx.)
(+)			(-)		
IPDM E/R			Ground	External lamp	
Connector		Terminal			
RH	E8	89		Hi	Battery voltage
				Off	0 V
LH		90		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 IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

# HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

IPDM E/R			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
RH	E8	89	E28	7	Existed
LH		90	E58	7	

Does continuity exist?

YES >> GO TO 5.

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	#55	10 A
Headlamp HI (LH)	IPDM E/R	#54	10 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

## 4.CHECK HEAD LAMP (HI) SHORT CIRCUIT

1. Disconnect 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	E8	89		Not existed
LH		90		

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 HEAD LAMP (HI) GROUND OPEN CIRCUIT

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

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E28	2		Existed
LH	E58	2		

Does continuity exist?

YES >> Replace the headlamp (HI) bulb. (Bulb socket is abnormally.)

NO >> Repair the harnesses or connectors.

# HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (LO) CIRCUIT

### Description

INFOID:000000008289022

Headlamp (LO) circuit is connected to HID control unit integrated in the headlamp. Headlamp (LO) circuit turns xenon headlamp ON.

For the details of HID control unit and the xenon headlamp, refer to [EXL-71, "Description"](#).

### Component Function Check

INFOID:000000008289023

#### 1.CHECK HEADLAMP (LO) OPERATION

##### ☒ IPDM E/R AUTO ACTIVE TEST

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

##### ☐ CONSULT 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 >> Refer to [EXL-69, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289024

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

##### ☐ CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp 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 LAMP			
Connector		Terminal				
RH	E8	83	Ground	Lo	Battery voltage	
				Off	0 V	
LH	E8	84		Ground	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 front combination lamp harness connector.

# HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

IPDM E/R			Front combination lamp		Continuity
Connector		Terminal	Connector	Terminal	
RH	E8	83	E28	5	Existed
LH		84	E58	5	

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	#57	15 A
Headlamp LO (LH)	IPDM E/R	#56	15 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

## 4.CHECK HEADLAMP (LO) SHORT CIRCUIT

1. Disconnect 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	E8	83		Not existed
LH		84		

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

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

Front combination lamp			Ground	Continuity
Connector		Terminal		
RH	E28	3		Existed
LH	E58	3		

Does continuity exist?

YES >> Perform the xenon headlamp diagnosis. Refer to [EXL-71. "Diagnosis Procedure"](#).

NO >> Repair the harnesses or connectors.

## XENON HEADLAMP

### Description

INFOID:0000000008289025

### OUTLINE

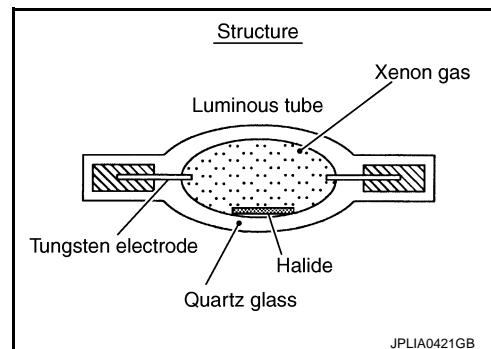
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

### ILLUMINATION PRINCIPLE

1. Discharging starts in high voltage pulse between bulb electrodes.
2. Xenon gas is activated by current between electrodes. Pale light is emitted.
3. The luminous tube (bulb) temperature elevates. Evaporated halide is activated by discharge. The color of light changes into white.

#### NOTE:

- Brightness and the color of light may change slightly immediately after the headlamp turned ON until the xenon bulb becomes stable. This is not malfunction.
- Illumination time lag may occur between right and left. This is not malfunction.



### PRECAUTIONS FOR TROUBLE DIAGNOSIS

Representative malfunction examples are; "Light does not turn ON", "Light blinks", and "Brightness is inadequate." The cause often be the xenon bulb. Such malfunctions, however, are occurred occasionally by HID control unit malfunction or lamp case malfunction. Specify the malfunctioning part with diagnosis procedure.

#### WARNING:

- **Never touch the harness, HID control unit, the inside and metal part of lamp when turning the headlamp ON or operating the light switch.**
- **Never work with wet hands.**

#### CAUTION:

- **Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.**
- **Temporarily install the headlamp on the vehicle. Connect the battery to the connector (vehicle side) when checking ON/OFF status.**
- **Disconnect the battery negative terminal before disconnecting the lamp socket connector or the harness connector.**
- **Check for fusing of the fusible link(s), open around connector, short, disconnection if the symptom is caused by electric error.**

#### NOTE:

- Turn the switch OFF once before turning ON, if the ON/OFF is inoperative.
- The xenon bulb drops the amount of light, repeats blinking, and illuminates in red if the bulb reaches the service life.

### Diagnosis Procedure

INFOID:0000000008289026

#### 1. CHECK XENON BULB

Install the normal bulb to the applicable headlamp. Check that the xenon bulb is turned ON.

Is the headlamp turned ON?

- YES >> Replace the xenon bulb.
- NO >> Check the headlamp control system, replace the xenon headlamp assembly if normal.

# HEADLAMP LEVELIZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP LEVELIZER CIRCUIT

### Description

INFOID:000000008289027

The headlamp levelizer adjusts the headlamp light axis upward and downward with the aiming motor integrated in the front combination lamp.

### Component Function Check

INFOID:000000008289028

#### 1.CHECK AIMING MOTOR OPERATION

##### CONSULT ACTIVE TEST

1. Start the engine.
2. Turn the lighting switch 2ND.
3. Select "LEVELIZER TEST" of ADAPTIVE LIGHT active test item.
4. With operating the test item, check the operation.

Test item	Light axis angle (Reference value)	10 m (32.8 ft)-forward light axis change reference quantity (Approx.)
LEVELIZER TEST		
Origin	0°	—
Peak	2.5°	450 mm (17.9 in)

Is the operation normal?

- YES >> Headlamp levelizer circuit is normal.  
NO >> Refer to [EXL-72, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289029

#### 1.CHECK AIMING MOTOR DRIVE SIGNAL OUTPUT

##### CONSULT ACTIVE TEST

1. Start the engine.
2. Turn the light switch 2ND.
3. Select "LEVELIZER TEST" of ADAPTIVE LIGHT active test item.
4. With operating the test item, check the voltage between the AFS control unit harness connector and the ground.

Terminals				Test item	Voltage (Approx.)
(+)			(-)		
AFS control unit				LEVELIZER TEST	
Connector		Terminal			
RH	M16	19	Ground	Origin	8.8 V
					Peak
LH		40		Origin	8.8 V
					Peak

Is the measurement value normal?

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

#### 2.CHECK AIMING MOTOR DRIVE SIGNAL CIRCUIT INPUT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector and aiming motor connector.
3. Check continuity between AFS control unit harness connector and the aiming motor harness connector.



# HEADLAMP LEVELIZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

AFS control unit		Aiming motor		Continuity
Connector	Terminal	Connector	Terminal	
RH	M16	E26	1	Existed
LH		E56	1	

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses and connectors.

## 3.CHECK AIMING MOTOR DRIVE SIGNAL SHORT CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect AFS control unit connector and aiming motor connector.
3. Check continuity between AFS control unit harness connector and ground.

AFS control unit			Ground	Continuity
Connector		Terminal		
RH	M16	19		Not existed
LH		40		

Does continuity exist?

YES >> Repair the harness and connectors.

NO >> Replace AFS control unit.

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

EXL

# FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000008289030

#### 1.CHECK FRONT FOG LAMP OPERATION

##### ⊗IPDM E/R AUTO ACTIVE TEST

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

##### ⓅCONSULT 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-74, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289031

#### 1.CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	10 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 lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E8	86		Not existed
LH		87		

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 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.

# FRONT FOG LAMP CIRCUIT

## < DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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 LAMP	
Connector		Terminal			
RH	E8	86		Fog	Battery voltage
					Off
LH	E8	87		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

- Turn the ignition switch OFF.
- Disconnect IPDM E/R connector.
- 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	E8	E34	1	Existed
LH		E64	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		Existed
RH	E34	2		
LH	E64	2		

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

# PARKING LAMP CIRCUIT

[XENON TYPE]

< DTC/CIRCUIT DIAGNOSIS >

## PARKING LAMP CIRCUIT

### Component Function Check

INFOID:000000008289032

#### 1.CHECK PARKING LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

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

##### Ⓟ CONSULT 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-76, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289033

#### 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	IPDM E/R	#52	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 front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector		Terminal		
RH	E9	91		Not existed
LH		92		

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 ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMPS" of IPDM E/R active test item.

# PARKING LAMP CIRCUIT

[XENON TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

- 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 LAMP	
Connector		Terminal			
RH	E9	91		TAIL	Battery voltage
					Off
LH	E9	92		TAIL	Battery voltage
				Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

## 5.CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E9	E28	8	Existed
LH		E58	8	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

## 6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Front combination lamp			Ground	Continuity
Connector		Terminal		Existed
RH	E28	4		
LH	E58	4		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

# TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL LAMP CIRCUIT

### Description

INFOID:0000000008289034

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

#### NOTE:

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

### Component Function Check

INFOID:0000000008289035

#### 1.CHECK TURN SIGNAL LAMP

##### CONSULT ACTIVE TEST

1. Select "FLASHER" of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamp blinks.

**LH** : Turn signal lamp LH blinking  
**RH** : Turn signal lamp RH blinking  
**Off** : The turn signal lamp OFF

Does the turn signal lamp blink?

- YES >> Turn signal lamp circuit is normal.  
NO >> Refer to [EXL-78, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:0000000008289036

#### 1.CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

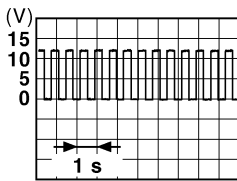
Is the bulb normal?

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

#### 2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

##### CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. Select "FLASHER" of BCM (FLASHER) active test item.
5. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
BCM			FLASHER	
Connector		Terminal		
Front RH	M119	17	LH or RH	
Front LH		18		
Rear RH	M120	20	Off	0 V
Rear LH		25		

Is the measurement value normal?

# TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.  
NO >> Replace BCM.

### 3.CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

BCM		Front combination lamp/ Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
Front RH	M119	17	E28	Existed
Front LH		18	E58	
Rear RH	M120	20	B261	
Rear LH		25	B260	

Does continuity exist?

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

### 4.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

BCM			Continuity
Connector	Terminal		
Front RH	M119	17	Not existed
Front LH		18	
Rear RH	M120	20	
Rear LH		25	

Does continuity exist?

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

### 5.CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front combination lamp / Rear combination lamp			Continuity
Connector	Terminal		
Front RH	E28	4	Existed
Front LH	E58	4	
Rear RH	B261	2	
Rear LH	B260	2	

Does continuity exist?

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

## OPTICAL SENSOR

## Description

INFOID:000000008289037

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

## Component Function Check

INFOID:000000008289038

## 1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT

## CONSULT DATA MONITOR

1. Turn the ignition switch ON.
2. Select "OPTICAL SENSOR" 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.)
OPTICAL SENSOR	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-80, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:000000008289039

## 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		
M94	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		
M94	3		
			0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> GO TO 6.

## 3.CHECK OPTICAL SENSOR SIGNAL OUTPUT



# OPTICAL SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

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

Terminals		Condition	Voltage (Approx.)	
(+)	(-)			
Optical sensor		Optical sensor		
Connector	Terminal			
M94	2	Ground	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	
M94	1	M123	138	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		
M94	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	
M94	3	M123	137	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

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M94	2	M123	113	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		
M94	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.

# HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HAZARD SWITCH

### Description

INFOID:000000008289040

Hazard switch is integrated in the multifunction switch. Hazard switch inputs the signals to BCM when pressing the switch.

### Component Function Check

INFOID:000000008289041

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

##### CONSULT 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	While pressing the switch	On
		While not pressing the switch	Off

##### Is the item status normal?

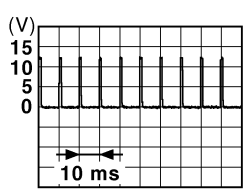
- YES >> Hazard switch circuit is normal.  
NO >> Refer to [EXL-83, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289042

#### 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	0 V
Connector	Terminal		
M122	110	While pressing the switch	
		While not pressing the switch	

JPMIA0012GB

##### Is the measurement value normal?

- YES >> Replace BCM.  
NO >> GO TO 2.

#### 2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

# HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

Multifunction switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M72	16	M122	110	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 multifunction switch harness connector and the ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	16		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 multifunction switch harness connector and the ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	1		Existed

Does continuity exist?

YES >> Replace the hazard switch (multifunction switch).

NO >> Repair the harnesses or connectors.

# TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TAIL LAMP CIRCUIT

### Component Function Check

INFOID:000000008289043

#### 1.CHECK TAIL LAMP OPERATION

##### ☒ IPDM E/R AUTO ACTIVE TEST

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

##### ☐ CONSULT 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-85, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289044

#### 1.CHECK TAIL LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"><li>• Tail lamp</li><li>• Rear side marker lamp</li><li>• License plate lamp</li></ul>	IPDM E/R	#53	10 A

##### Is the fuse fusing?

- YES >> Repair the malfunctioning part before replacing the fuse.  
NO >> GO TO 2.

#### 2.CHECK TAIL LAMP OUTPUT VOLTAGE

##### ☐ CONSULT 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 LAMP	Battery voltage
Connector	Terminal		
E5	7	TAIL	0 V
		Off	

##### Is the measurement value normal?

- YES >> GO TO 3.  
NO >> Replace IPDM E/R.

#### 3.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.

## TAIL LAMP CIRCUIT

[XENON TYPE]

### < DTC/CIRCUIT DIAGNOSIS >

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	E5	7	B232	1	Existed
LH			B60	1	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

### 4. 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	B232	4		Existed
LH	B60	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

# LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## LICENSE PLATE LAMP CIRCUIT

### Component Function Check

INFOID:000000008289045

#### NOTE:

Check the tail lamp circuit if the tail 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 [PCS-9, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

#### 📱 CONSULT 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-87, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289046

### 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	E5	D117	1	Existed
LH		D112	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	D117	2		Existed
LH	D112	2		

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

# HEADLAMP SYSTEM


[XENON TYPE]

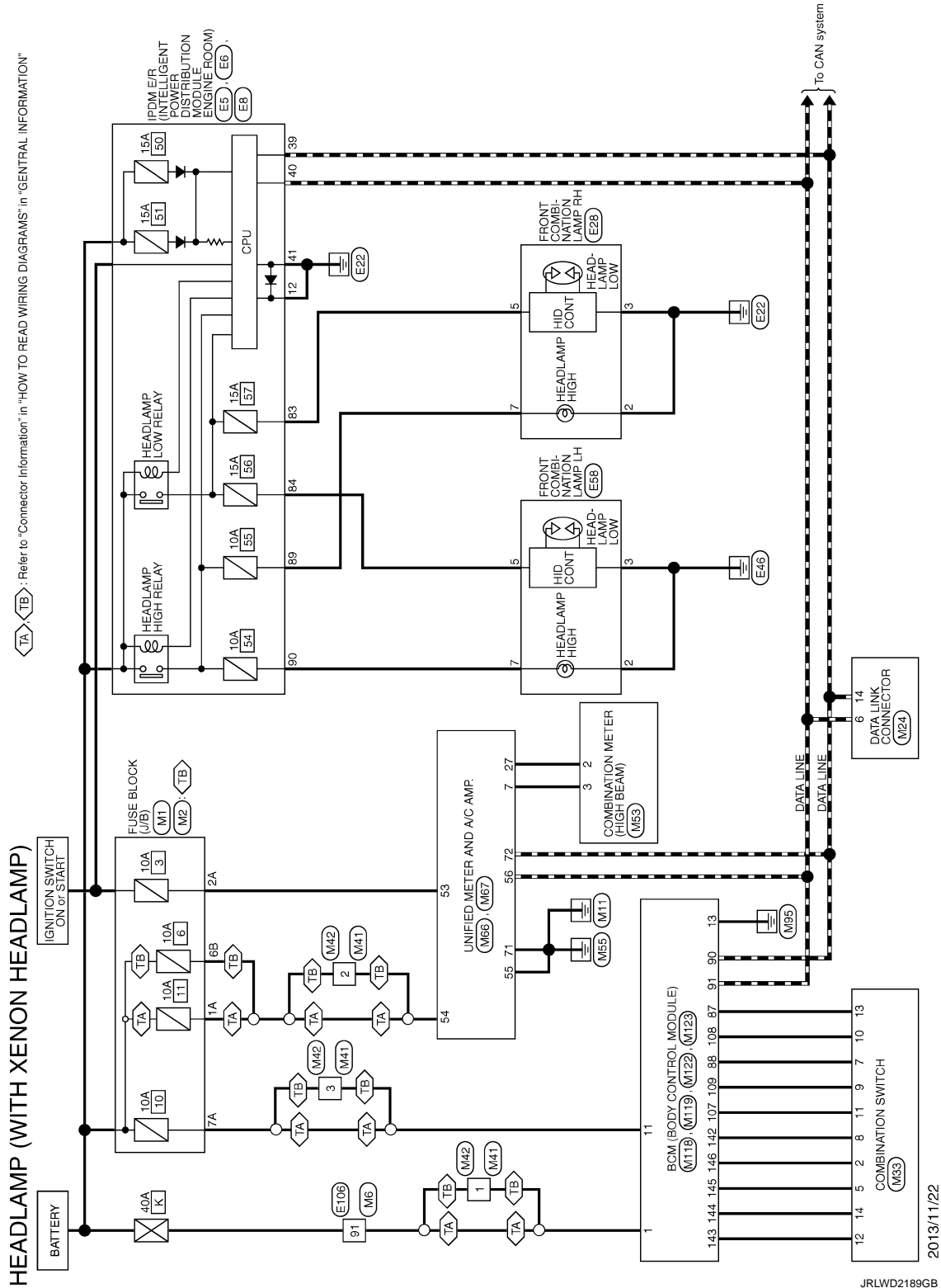
< DTC/CIRCUIT DIAGNOSIS >

## HEADLAMP SYSTEM

### Wiring Diagram - HEADLAMP -

INFOID:0000000008289047

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).





# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

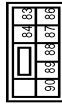
[XENON TYPE]

## HEADLAMP (WITH XENON HEADLAMP)

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V



Connector No.	E8
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS08FW-CS



Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BLW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BLW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-PR



Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BLW	-
43	SB	-
44	BR	-
45	G	-

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-

15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC] - [Without ICC]
75	G	- [With ICC] - [Without ICC]

JRLWD2321GB

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

# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (WITH XENON HEADLAMP)

Terminal No.	Wire	Signal Name [Specification]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	EG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	EG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

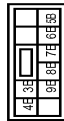
Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	P	-
4A	B	-
4A	R	- [For push button]

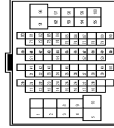
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	EG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

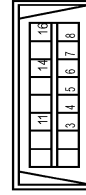


Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
8	Y	-
9	BR	-

10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
30	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-

73	SB	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	-
76	GR	- [Without ICC]
76	W	- [With ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	L	- [Without ICC]
78	R	- [With ICC]
79	W	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	G	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (WITH XENON HEADLAMP)

Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-



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

Connector No.	M43
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



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

Connector No.	M53
Connector Name	COMBINATION METER
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	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	G	WASHER LEVEL SWITCH SIGNAL
31	L	ILLUMINATION CONTROL SIGNAL
33	B	SELECT SWITCH SIGNAL
36	LG	ENTER SWITCH SIGNAL
37	SB	TRIP A/B RESET SWITCH SIGNAL
38	L	ILLUMINATION CONTROL SWITCH SIGNAL (1)
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (2)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (3)



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

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03PW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASH(ER) OUTPUT 4
2	SB	FR WASH(ER) IGN
3	GR	GROUND
4	G	OUTPUT 3
5	L	INPUT 3
6	B	OUTPUT 5
7	V	INPUT 5
8	BG	INPUT 2
9	Y	INPUT 4
10	R	INPUT 1
11	LG	OUTPUT 1
12	P	INPUT 5
13	BR	OUTPUT 2
14	G	

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
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	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP-METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD-AMP)
20	L	IGNITION OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER-AMP)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP-LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH52FW-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	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (WITH XENON HEADLAMP)

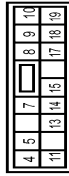
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS (FOR FUSE DOOR DETECTING SENSOR SIGNAL)
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	A/C CLAN SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN-L

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03F-B-LC



Terminal No.	Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	INS16FV-CS



Terminal No.	Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1-
79	BR	ROOM ANT1+
80	GR	NATS ANT AMP.

81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	Puddle LAMP CONT
95	BG	ACC RELAY CONT
96	GR	AT SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH




Terminal No.	Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER SENSOR GND
138	Y	RECEIVER SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM

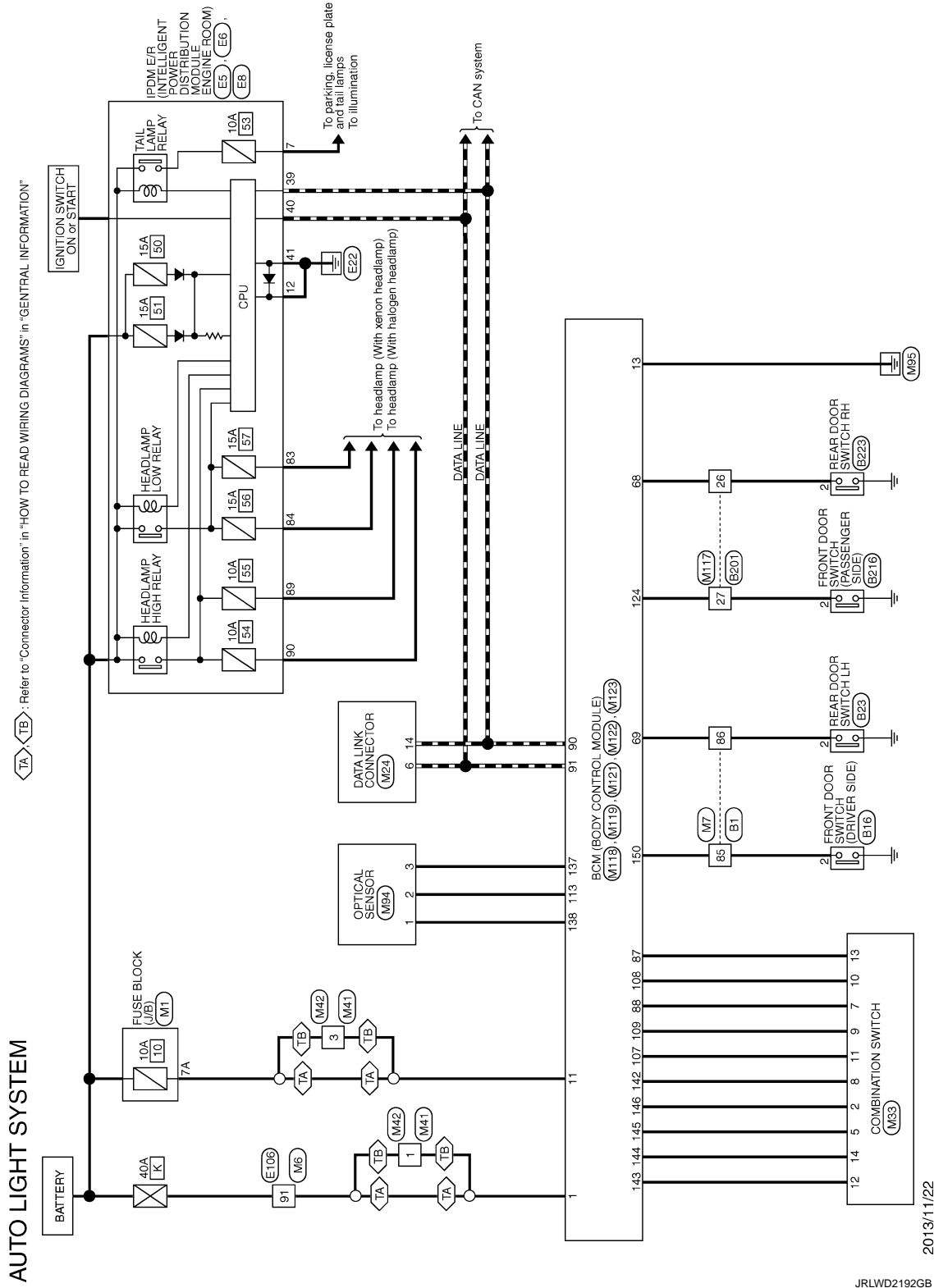
JRLW2324GB

## AUTO LIGHT SYSTEM

### Wiring Diagram - AUTO LIGHT SYSTEM -

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For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GL-12, "Connector Information"](#).



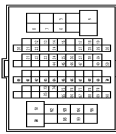
# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM

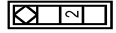
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	Y	-
8	L	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

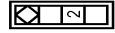
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	W	-
67	V	-
68	SB	-
69	SHIELD	-
70	W	-
73	SB	-
74	L	-
75	W	-
76	BR	-
77	R	-
78	P	-
79	GR	-
83	BG	-
85	V	-
86	LG	-
87	Y	-
88	R	-
89	B	-
90	BG	-
91	G	-
92	BR	-
93	G	-
94	SB	-
95	G	-
96	Y	-
98	W	-
99	GR	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



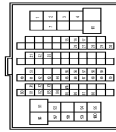
Terminal No.	Color Of Wire	Signal Name [Specification]
2	V	-

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	BG	-
7	LG	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	G	-
56	R	-
57	W	-
58	B	-
59	SHIELD	-
60	LG	-
61	W	-
62	BR	-
63	P	-
64	L	-
65	G	-
66	P	-
67	L	-
68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	BR	-
75	Y	-
80	V	-
81	SB	-
82	LG	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-

JRLWD2333GB

**[XENON TYPE]**

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-

16	V	-
17	SB	-
18	V	-
20	BG	-
21	V	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
46	L	-
49	P	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICG]
75	L	- [Without ICG]
76	G	- [With ICG]
77	W	- [Without ICG]
78	W	- [With ICG]

EXL

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

# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM

76	Y	- [Without ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-

7A	R	-
8A	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

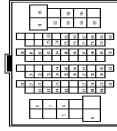


Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-

38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
74	L	- [With ICC]
75	G	-
76	GR	-
76	W	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]
78	L	- [With ICC]
78	R	- [Without ICC]
79	W	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-

94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	L	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-



# AUTO LIGHT SYSTEM

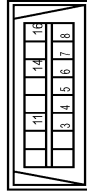
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM

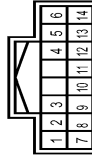
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38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-
94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(-)
2	SB	OUTPUT 4
3	GR	FR WASHER(+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



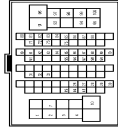
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M94
Connector Name	OPTICAL SENSOR
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER
2	P	OUTPUT
3	B	GROUND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
3	GR	-
4	SB	-
7	W	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	LG	-
28	Y	-
29	Y	-
30	V	-
31	R	-
32	BR	-
33	G	-

JRLWD2336GB

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EXL  
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# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM

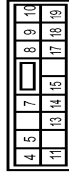
51	R	-
55	W	-
56	B	-
57	R	-
58	G	-
59	SHIELD	-
60	V	-
61	LG	-
62	BR	-
63	L	-
64	LG	-
65	B	-
66	R	-
67	W	-
68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	G	-
75	W	-
80	V	-
81	SB	-
82	V	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
91	V	-
92	G	-
94	G	-
95	W	-
96	G	-
97	Y	-
98	BR	-
99	P	-
99	V	-
100	L	-
100	SB	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FBL-C



Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (E/L)
2	W		POWER WINDOW POWER SUPPLY (BAT)
3	Y		POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM LAMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
7	Y		STEP LAMP CONT
8	V		ALL DOOR FUEL LID LOCK OUTPUT
9	G		DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR		REAR DOOR UNLOCK OUTPUT
11	R		BAT (FUSE)
13	B		GROUND
14	W		PUSH-BUTTON IGNITION SW ILL GND
15	Y		ACC IND
17	W		TURN SIGNAL RH (FRONT)
18	BG		TURN SIGNAL LH (FRONT)
19	V		INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



Terminal No.	Color	Wire	Signal Name [Specification]
34	SB		LUGGAGE ROOM ANT-
35	V		LUGGAGE ROOM ANT+
38	B		BACK DOOR ANT-
39	W		BACK DOOR ANT+
47	Y		IGN RELAY (IPRM F/B) CONT
52	SB		STARTER RELAY CONT
60	BR		PUSH SW
61	W		BACK DOOR OPENER REQUEST SW
64	V		THEY WARN BUZZER (ENG ROOM)
65	BG		REAR WIPER STOP POSITION
66	R		BACK DOOR SW
67	GR		REAR RH DOOR SW
68	BR		REAR LH DOOR SW
69	R		REAR LH DOOR SW

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



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AUTO LIGHT SYSTEM	
139	L TIRE PRESSURE RECEIVER COMM
140	GR SHIFT NP
141	G SECURITY IND LAMP CONT
142	BG COMBI SW OUTPUT 5
143	P COMBI SW OUTPUT 1
144	G COMBI SW OUTPUT 2
145	L COMBI SW OUTPUT 3
146	SB COMBI SW OUTPUT 4
150	LG DRIVER DOOR SW
151	G REAR WINDOW DEFOGGER RELAY CONT

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# DAYTIME RUNNING LIGHT SYSTEM


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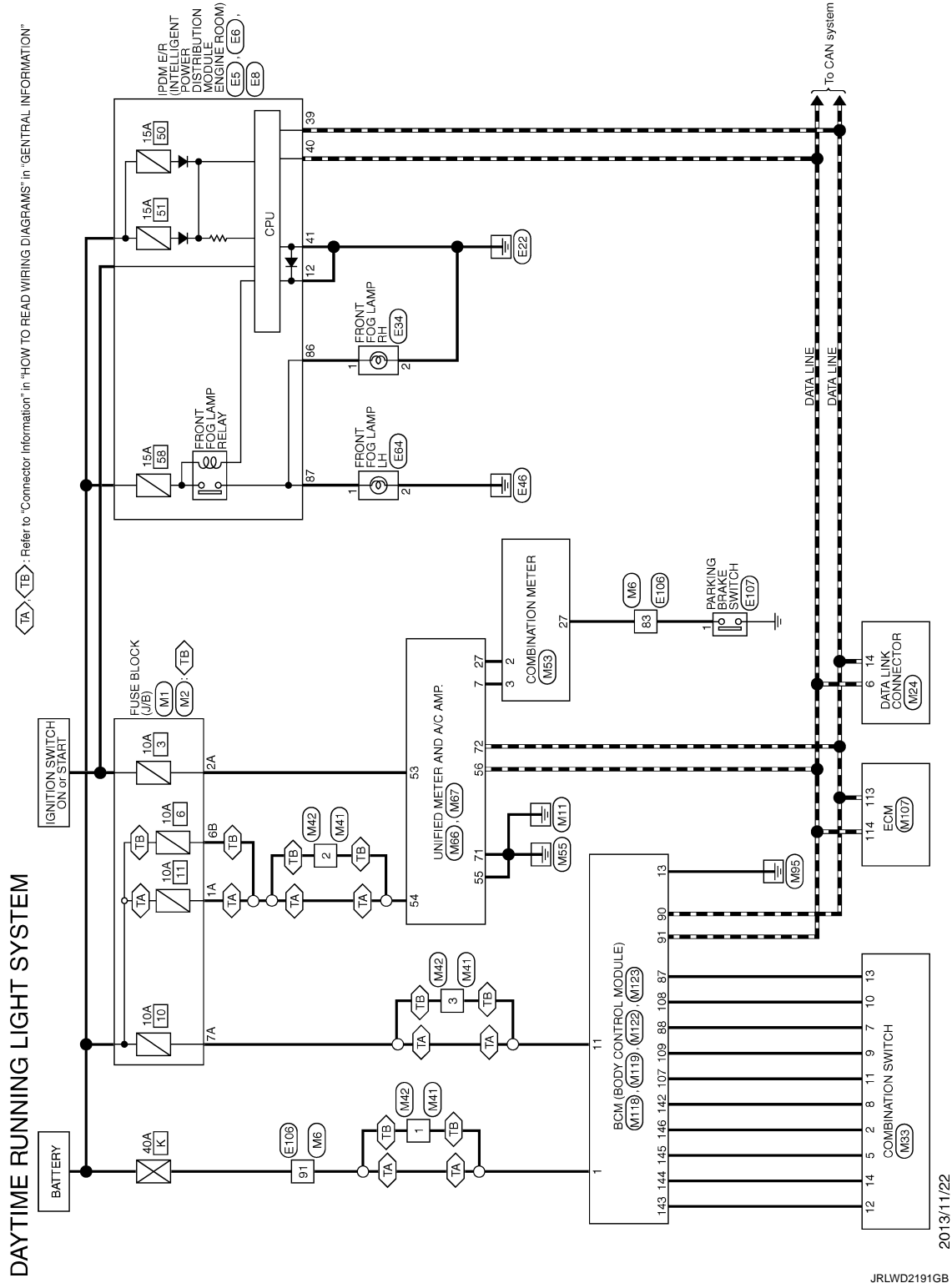
[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

### Wiring Diagram - DAYTIME LIGHT SYSTEM -

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For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

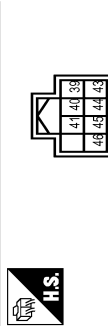
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E5
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

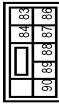
Connector No.	E6
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH10FW-NH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-

Connector No.	R
Connector Name	-

Connector No.	E8
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E34
Connector Name	FRONT FOG LAMP RH
Connector Type	FH202FB



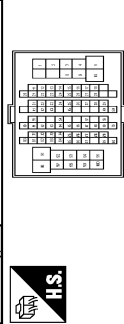
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BW	-

Connector No.	E64
Connector Name	FRONT FOG LAMP LH
Connector Type	FH202FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BW	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-

21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]

JRLWD2329GB

# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

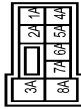
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	Signal Name [Specification]
78	BR - [Without ICC]
79	L - [With ICC]
80	SB - [Without ICC]
81	R - [With ICC]
82	SB - [Without ICC]
83	EG - [With ICC]
84	G - [Without ICC]
85	L - [With ICC]
86	P - [Without ICC]
87	V - [With ICC]
89	GR - [Without ICC]
90	SHIELD - [With ICC]
91	W - [Without ICC]
92	Y - [With ICC]
93	V - [Without ICC]
94	LG - [With ICC]
95	EG - [Without ICC]
96	P - [With ICC]
97	R - [Without ICC]
98	SHIELD - [With ICC]
99	L - [Without ICC]
100	P - [With ICC]

Connector No.	Signal Name [Specification]
E107	PARKING BRAKE SWITCH
TB01FW	

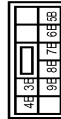


Connector No.	Signal Name [Specification]
M1	FUSE BLOCK (J/B)
NS08FW-M2	



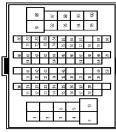
Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For mesh button]
5A	R	- [For key slot]
6A	V	-
7A	R	-
8A	L	-

Connector No.	Signal Name [Specification]
M2	FUSE BLOCK (J/B)
NS10FW-LCS	



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	EG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	Signal Name [Specification]
M6	WIRE TO WIRE
TH80MW-CS16-TM4	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	LG	-
8	GR	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
19	BG	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	- [With ICC]
74	BR	- [Without ICC]
75	G	-
76	GR	- [Without ICC]
76	W	- [With ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	L	- [Without ICC]
78	R	- [With ICC]
79	W	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-

JRLWD2330GB

# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(O)
2	SB	OUTPUT 4
3	GR	FR WASHER(O)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND

7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AIR RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (1)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (1)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP-METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD-AMP)
20	L	IGNITION OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER-AMP)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP-LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

JRLWD2331GB

# DAYTIME RUNNING LIGHT SYSTEM

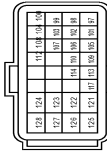
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Terminal No.	Color	Signal Name [Specification]
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GASE (FOR PRESSURE DETECTING) SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN/H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	ACL/LAN SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN/L

Connector No.	M107
Connector Name	ECM
Connector Type	RICAFGY-R28-RLHZ



Terminal No.	Color	Signal Name [Specification]
97	R	ACCELERATOR PEDAL POSITION SENSOR 1
98	P	ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD)
99	G	ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD)
99	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD))
100	W	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD))
101	SB	ASD/ICC STEERING SWITCH
102	LG	EVAP CONTROL SYSTEM PRESS SENSOR
103	G	SENSOR POWER SUPPLY (EVAP CONTROL SYSTEM PRESS SENSOR)
103	L	SENSOR GROUND (EVAP CONTROL SYSTEM PRESS SENSOR)
104	BR	SENSOR POWER SUPPLY (REFRIGERANT PRESS SENSOR)
104	GR	SENSOR GROUND (REFRIGERANT PRESS SENSOR)
106	L	REFRIGERANT PRESS SENSOR
106	W	FUEL TANK TEMPERATURE SENSOR
107	RG	SENSOR POWER SUPPLY (PRESSURE SENSOR)
108	Y	SENSOR GROUND (ASD/ICC STEERING SWITCH)

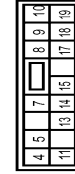
Terminal No.	Color	Signal Name [Specification]
109	G	PNP signal
110	R	ENGINE SPEED OUTPUT SIGNAL
112	V	SENSOR GROUND (EUP CONTROL SYSTEM PRESS SENSOR)
113	P	CAN COMMUNICATION LINE
114	L	CAN COMMUNICATION LINE
117	V	DATA LINK CONNECTOR
121	LG	EVAP CANISTER VENT CONTROL VALVE
122	P	STOP LAMP SWITCH
123	B	ECM GROUND
124	B	ECM GROUND
125	R	POWER SUPPLY FOR ECM
126	BR	ASD/ICC BRAKE SWITCH
127	B	ECM GROUND
128	B	ECM GROUND

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL ID LOCK OUTPUT
9	G	DRIVER DOOR FUEL ID LOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1
79	BR	ROOM ANT1+
80	GR	NATS ANT AMP
81	W	NATS ANT AMP
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN/L
91	L	CAN/H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	PUDDLE LAMP CONT
95	BG	ACC RELAY CONT
96	GR	AT SHIFT SELECTOR POWER SUPPLY

99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER/SENSOR GND
138	Y	RECEIVER/SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NIP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROSTER RELAY CONT

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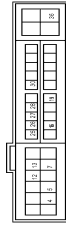
# FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP

Connector No.	E5
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

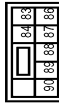
Connector No.	E6
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH10FW-NH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-

46	R	-
----	---	---

Connector No.	E8
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E34
Connector Name	FRONT FOG LAMP RH
Connector Type	FH20ZFB



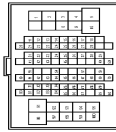
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BW	-

Connector No.	E64
Connector Name	FRONT FOG LAMP LH
Connector Type	FH20ZFB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BW	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-

21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]

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# FRONT FOG LAMP SYSTEM

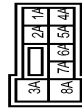
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP

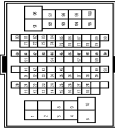
Terminal No.	Color Of Wire	Signal Name [Specification]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	INS06FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M6
Connector Name	WIPE TO WIRE
Connector Type	TH06MW-CS16-TM4

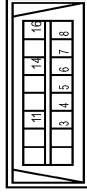


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

43	BG	-
45	W	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	V	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	-
76	GR	- [Without ICC]
76	W	- [With ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	L	-
78	R	- [Without ICC]
79	W	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-

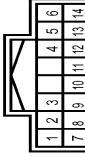
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER L
2	SB	OUTPUT 1
3	GR	FR WASHER L
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND

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# FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP

Terminal No.	Wire	Signal Name [Specification]
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



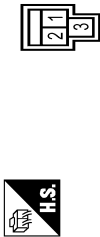
Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



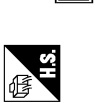
Terminal No.	Wire	Signal Name [Specification]
1	W	BAT (E/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M06FW-CS



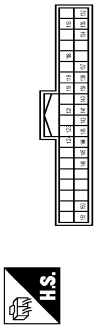
Terminal No.	Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSHBUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1
79	BR	ROOM ANT1+
80	GR	NATS ANT AMP-
81	W	NATS ANT AMP+
82	R	IGN RELAY (P/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CANL
91	L	CANH
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	Puddle LAMP CONT
95	BG	ACC RELAY CONT
96	GR	AT SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN FB
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSHBUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER SENSOR GND
138	Y	RECEIVER SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NIP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

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# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM


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[XENON TYPE]

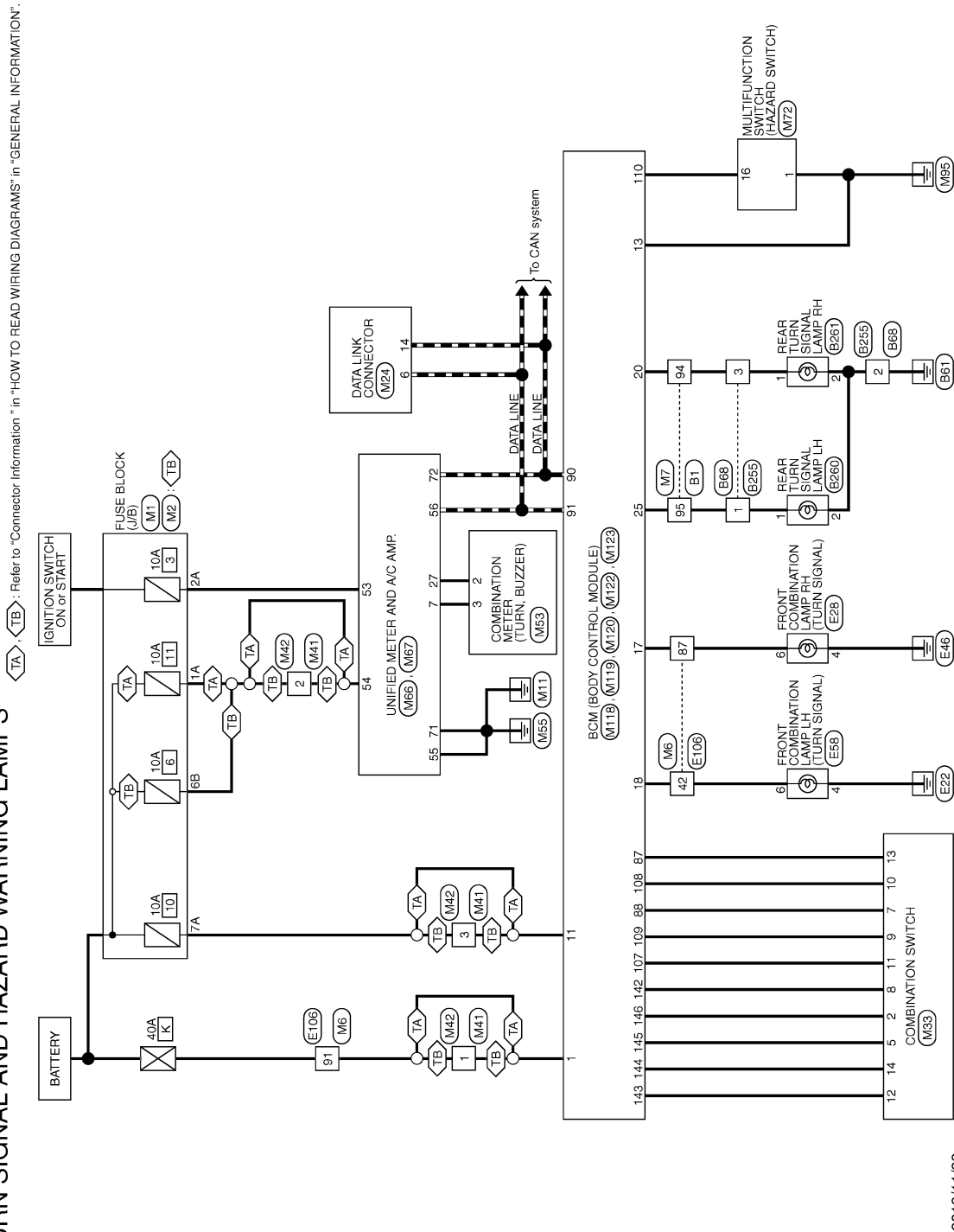
## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

INFOID:000000008289051

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).

### TURN SIGNAL AND HAZARD WARNING LAMPS



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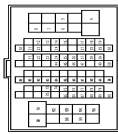
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

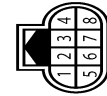
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CST6-TM4



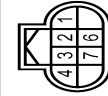
Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	Y	-
8	L	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RH8MB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	SB	-
4	R	-
6	B	-
7	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RH8FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	V	-
4	W	-
6	B	-
7	R	-

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

JRLWD2348GB

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-PR



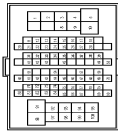
Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4

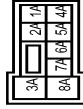


Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
6	Y	-
7	BR	-
8	BG	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-

43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	V	-
68	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]
78	BR	- [With ICC]
78	L	- [Without ICC]
79	L	- [With ICC]
79	Y	- [Without ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	V	-
93	V	-
94	LG	-
95	BG	-
96	P	-

97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-

JRLWD2349GB

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

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

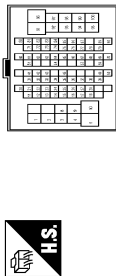
< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

8B	R	-
9B	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4

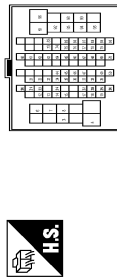


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-

38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
75	L	-
76	GR	-
77	P	-
78	L	-
79	W	-
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-

94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	W	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-

37	P	-
38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-
94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

JRLWD2350GB



# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Connector No.	M41
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Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(-)
2	SB	OUTPUT 4
3	GR	FR WASHER(+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
---------------	-----

Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AIR RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP-METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD-AMP)
20	L	IGNITION OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER-AMP)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP-LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH16FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

JRLWD2351GB

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Terminal No.	Color	Wire	Signal Name [Specification]
46	BG		SUNLOAD SENSOR SIGNAL
47	G		EXHAUST GAS (OX) FRESH DOOR DETECTING SENSOR SIGNAL
53	G		IGNITION POWER SUPPLY
54	Y		BATTERY POWER SUPPLY
55	B		GROUND
56	L		CAN-H
57	W		BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR		FUEL LEVEL SENSOR GROUND
59	GR		INTAKE SENSOR GROUND
60	L		IN-VEHICLE SENSOR GROUND
61	BR		AMBIENT SENSOR GROUND
62	SB		SUNLOAD SENSOR GROUND
63	R		-
65	BG		ECV SIGNAL
69	L		ACL/LAN SIGNAL
70	R		EACH DOOR MOTOR POWER SUPPLY
71	B		GROUND
72	P		CAN-L



H.S.

Connector No.	Signal Name [Specification]
M118	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
M03FBL-C	INS16FW-LC



H.S.

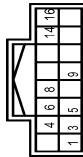
Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (E/L)
2	W		POWER WINDOW POWER SUPPLY (BAT)
3	Y		POWER WINDOW POWER SUPPLY (BAT)

Connector No.	Signal Name [Specification]
M172	MULTIFUNCTION SWITCH
Connector Name	Connector Type
TH16FW-NH	



H.S.

Terminal No.	Color	Wire	Signal Name [Specification]
1	B		GROUND
3	V		ACC
4	R		ILL
5	Y		ILL CONT
6	SB		AV COMM (H)
8	LG		AV COMM (L)
9	B		SW GND
14	Y		DISK EJECT SIGNAL
16	G		HAZARD ON



H.S.

Connector No.	Signal Name [Specification]
M120	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
NS12FW-CS	



H.S.

Terminal No.	Color	Wire	Signal Name [Specification]
20	V		TURN SIGNAL RH (REAR)
23	G		BACK DOOR OPEN OUTPUT
25	G		TURN SIGNAL LH (REAR)
26	G		REAR WIPER OUTPUT

Connector No.	Signal Name [Specification]
M122	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
TH40FB-NH	



H.S.

Terminal No.	Color	Wire	Signal Name [Specification]
74	SB		PASSENGER DOOR ANT-
75	GR		PASSENGER DOOR ANT+
76	V		DRIVER DOOR ANT-
77	LG		DRIVER DOOR ANT+
78	Y		ROOM ANT1-
79	BR		ROOM ANT1+
80	GR		NATS ANT AMP
81	W		NATS ANT AMP
82	R		IGN RELAY (E/B) CONT
83	Y		KEYLESS ENTRY RECEIVER COMM
87	BR		COMBI SW INPUT 5
88	V		COMBI SW INPUT 3
90	P		CAN-L
91	L		CAN-H
92	LG		KEY SLOT ILL CONT
93	V		ON IND



H.S.

Terminal No.	Color	Wire	Signal Name [Specification]
94	Y		Puddle Lamp Cont
95	BG		ACC Relay Cont
96	GR		AT Shift Selector Power Supply
99	R		Shift P
100	G		Passenger Door Request SW
101	SB		Driver Door Request SW
102	BG		Blower Fan Motor Relay Cont
103	LG		Keyless Entry Receiver Power Supply
107	LG		Combi SW Input 1
108	R		Combi SW Input 4
109	Y		Combi SW Input 2
110	G		Hazard SW

Connector No.	Signal Name [Specification]
M123	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
TH40FG-NH	



H.S.

Terminal No.	Color	Wire	Signal Name [Specification]
113	P		Optical Sensor
116	SB		Stop Lamp SW 1
118	P		Stop Lamp SW 2
119	SB		DR Door Unlock Sensor
121	BR		Key Slot SW
123	W		IGN F/B
124	LG		Passenger Door SW
132	BR		Power Window SW Comm
133	W		Push-Button Ignition SW ILL Power
134	GR		Lock Ind
137	BG		Receiver Sensor GND
138	Y		Receiver Sensor Power Supply
139	L		Tire Pressure Receiver Comm
140	GR		Shift NP
141	G		Security Ind Lamp Cont
142	BG		Combi SW Output 5
143	P		Combi SW Output 1
144	G		Combi SW Output 2
145	L		Combi SW Output 3
146	SB		Combi SW Output 4
150	LG		Driver Door SW
151	G		Rear Window Defogger Relay Cont



H.S.

JRLWD2352GB

**[XENON TYPE]**

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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A  
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XL  
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P



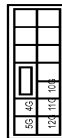
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBRCS



Terminal No.	Color Of Wire	Signal Name [Specification]
10G	W	-
11G	W	-
12G	GR	-
4G	R	-
5G	LG	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	BG	-
13	BR	-
14	R	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	B	- [Without around view monitor]
15	Y	- [With around view monitor]
16	W	- [Without around view monitor]
17	L	- [With around view monitor]
17	R	- [Without around view monitor]
18	SHIELD	-

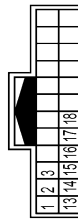
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	B	-
16	BR	-
17	LG	-
18	L	-

18	P	-
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Connector No.	B232
Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH24MW-NH



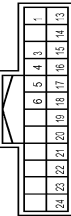
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	GR	-
16	BR	-
17	LG	-
18	L	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
13	R	-
14	L	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	Y	-
16	G	- [With around view monitor]
16	L	- [Without around view monitor]
17	G	- [Without around view monitor]
17	W	- [With around view monitor]
18	SHIELD	-
19	LG	-
20	O	-
21	V	-
22	P	-
23	BR	-
24	R	-

JRLWLD2360GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	D112
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TK02FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-

Connector No.	D117
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TK02FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-IM4-1V



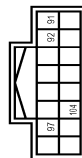
Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E9
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH16FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-FR



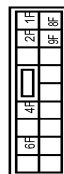
Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-FR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E103
Connector Name	FUSE BLOCK (JB)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

JRLWD2361GB

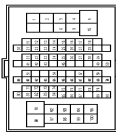
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-C516-TM4

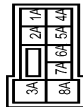


Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
6	Y	-
7	BR	-
8	GR	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
19	BG	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-

43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC] - [Without ICC]
75	G	- [With ICC] - [Without ICC]
76	W	- [With ICC] - [Without ICC]
77	P	- [With ICC] - [Without ICC]
78	BR	- [With ICC] - [Without ICC]
79	L	- [With ICC] - [Without ICC]
80	SB	- [With ICC] - [Without ICC]
81	R	-
82	SB	-
83	BG	-
84	G	-
85	P	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-

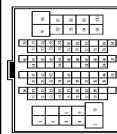
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
5A	R	- [For key slot]
6A	V	-
7A	Y	-
8A	R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-

8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	V	-
69	GR	-
70	LG	-

JRLWLD2362GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

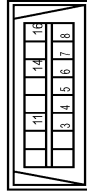
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[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

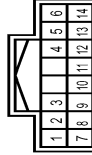
71	LG	-
72	Y	-
73	SB	-
74	BR	- [With ICC] - [Without ICC]
75	G	-
76	GR	- [Without ICC] - [With ICC]
77	P	- [Without ICC] - [With ICC]
78	R	- [Without ICC] - [With ICC]
79	W	- [Without ICC] - [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(-) OUTPUT 4
2	SB	IGN
3	GR	FR WASHER(+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	RG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FELC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	BAT (EL)
2	W	POWER WINDOW POWER SUPPLY(BAT)
3	Y	POWER WINDOW POWER SUPPLY(IG&P)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	RG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

JRLWD2363GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1
79	BR	ROOM ANT1+
80	GR	WATS ANT AMP-
81	W	WATS ANT AMP+
82	R	IGN RELAY (P/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CANL
91	L	CANH
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	PIDDLE LAMP CONT
95	BG	ACC RELAY CONT
96	GR	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Terminal No.	Color Of Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN/FB
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER/SENSOR GND
138	Y	RECEIVER/SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

JRLWDD2364GB



**EXL-121**

**STOP LAMP**

2013 EX

## Revision: 2013 December

JCLWA3714GB



2009/07/16

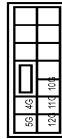
# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## STOP LAMP

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10G	W	-
11G	W	-
12G	GR	-
4G	R	-
5G	LG	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	BG	-
13	BR	-
14	R	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	B	- [With around view monitor]
15	Y	- [Without around view monitor]
16	W	-
17	L	- [With around view monitor]
17	R	- [Without around view monitor]
18	SHIELD	-

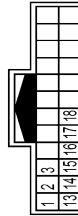
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	TH44MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

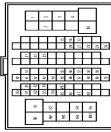
Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	B	-
16	BR	-
17	BG	-

18	P	-
----	---	---

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	BG	-
7	LG	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	G	-
56	R	-
57	W	-
58	B	-
59	SHIELD	-
60	LG	-
61	W	-
62	BR	-
63	P	-
64	L	-
65	G	-
66	P	-
67	L	-
68	SHIELD	-

69	V	-
70	Y	-
71	SB	-
72	W	-
73	BR	-
75	Y	-
80	V	-
81	SB	-
82	LG	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
91	V	-
92	R	-
94	R	-
95	SB	-
96	G	-
97	G	-
98	R	-
99	P	-
100	L	-

Connector No.	B232
Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH44MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

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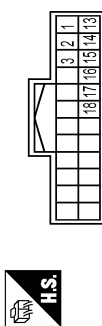
# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## STOP LAMP

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



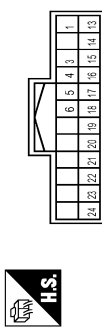
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	BR	-
3	B	-
13	L	-
14	W	-
15	GR	-
16	BR	-
17	LG	-
18	L	-

Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TH24FGY



Terminal No.	Color Of Wire	Signal Name [Specification]
33	BR	IGNITION
40	SB	IRA OFF SW
42	G	IGNITION
46	B	GROUND
47	V	BRAKE HOLD RLY DRIVE SIGNAL

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



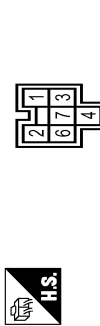
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
13	R	-
14	L	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	Y	-
16	G	- [With around view monitor]
16	L	- [Without around view monitor]
17	G	- [Without around view monitor]
17	W	- [With around view monitor]
18	SHIELD	-
19	LG	-
20	O	-
21	V	-
22	P	-
23	BR	-
24	R	-

Connector No.	D106
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	TB02MW



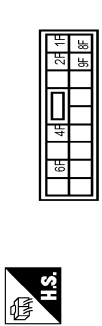
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-

Connector No.	E50
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	MO6FGY-R-US



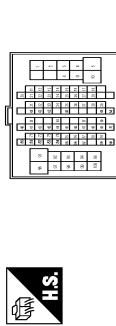
Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-
3	P	-
4	SB	-
6	P	-
7	R	-

Connector No.	E103
Connector Name	FUSE BLOCK (JIB)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-

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# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## STOP LAMP

17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	-
75	G	-
76	W	-
76	Y	-

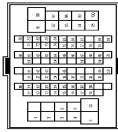
77	P	-
77	R	-
78	BR	-
78	L	-
79	L	-
79	Y	-
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Wire	Signal Name [Specification]
1	L	-
2	W	-
3	Y	-
4	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	LG	-
8	BR	-
9	R	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
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62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
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74	L	-
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77	P	-
77	R	-
78	L	-
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79	W	-
79	Y	-
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
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94	P	-
95	GR	-
96	W	-
97	L	-

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STOP LAMP

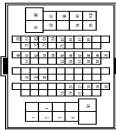
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[XENON TYPE]

STOP LAMP

98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
3	GR	-
4	SB	-
7	W	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	LG	-
28	Y	-
29	Y	-
30	V	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	W	-
56	B	-
57	R	-
58	G	-
59	SHIELD	-
60	V	-
61	LG	-
62	BR	-
63	L	-
64	LG	-
65	B	-
66	R	-
67	W	-

68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	G	-
75	W	-
80	V	-
81	SB	-
82	V	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
94	V	-
92	G	-
94	G	-
95	W	-
96	G	-
97	Y	-
98	BR	-
99	P	-
99	V	-
100	L	-
100	SB	-

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# BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

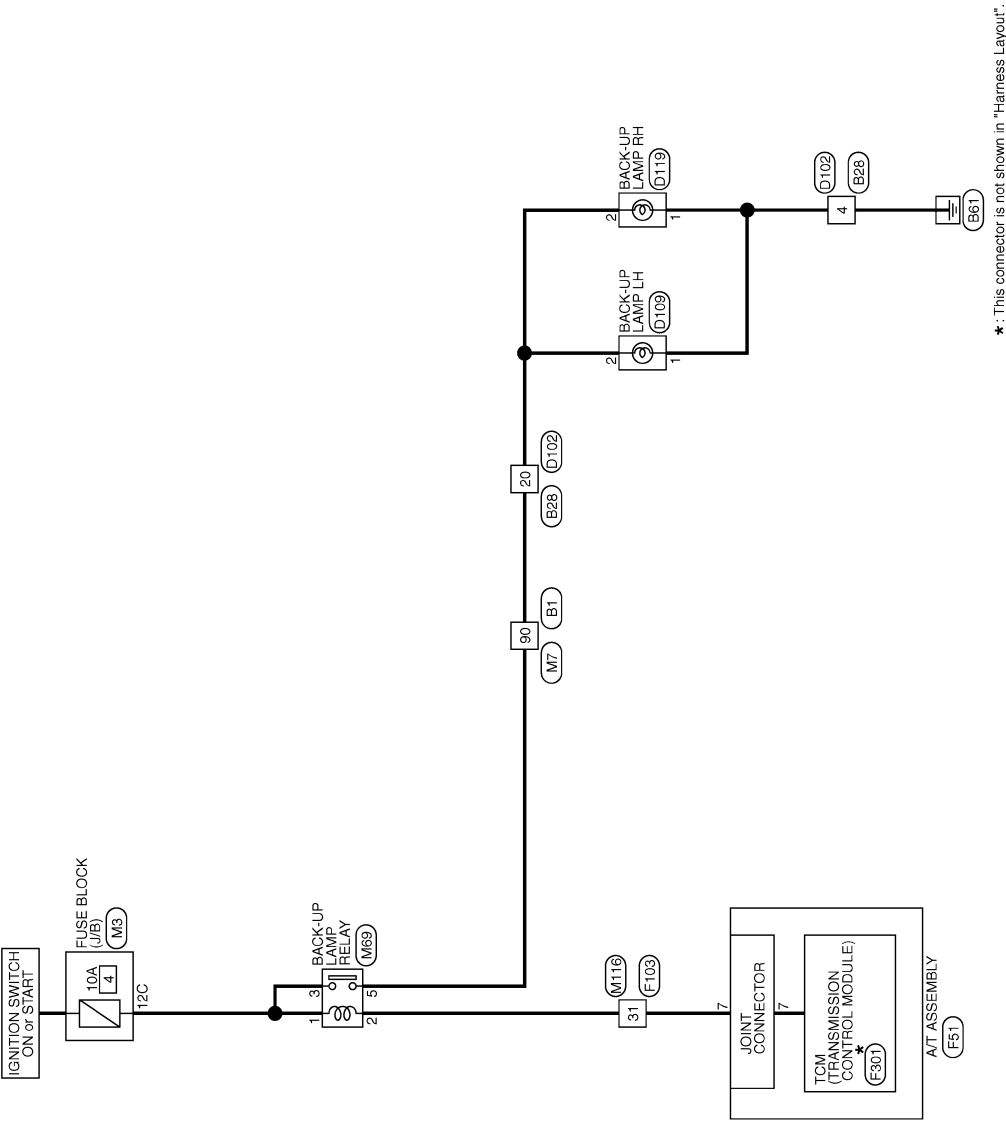
[XENON TYPE]

## BACK-UP LAMP

### Wiring Diagram - BACK-UP LAMP -

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BACK-UP LAMP



2010/09/21

JCLWA4394GB

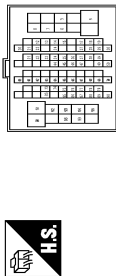
# BACK-UP LAMP

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[XENON TYPE]

## BACK-UP LAMP

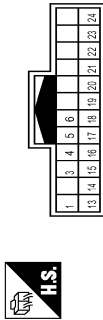
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	V	-
8	L	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

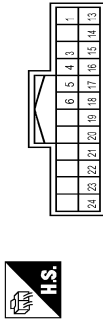
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	W	-
67	V	-
68	SB	-
69	SHIELD	-
70	W	-
73	SB	-
74	L	-
75	W	-
76	BR	-
77	R	-
78	P	-
79	GR	-
83	RG	-
85	V	-
86	LG	-
87	Y	-
88	R	-
89	B	-
90	BG	-
91	G	-
92	BR	-
93	G	-
94	SB	-
95	G	-
96	Y	-
98	W	-
99	GR	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	RG	-
13	BR	-
14	R	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	B	- [With around view monitor]
15	Y	- [Without around view monitor]
16	W	-
17	L	- [With around view monitor]
17	R	- [Without around view monitor]
18	SHIELD	-
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
13	R	-
14	L	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	Y	-
16	G	- [With around view monitor]
16	L	- [Without around view monitor]
17	G	- [With around view monitor]
17	W	- [Without around view monitor]
18	SHIELD	-
19	LG	-
20	O	-
21	V	-
22	P	-
23	BR	-
24	R	-

JRLWD2357GB

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# BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[XENON TYPE]

## BACK-UP LAMP

Connector No.	D109
Connector Name	BACK-UP LAMP LH
Connector Type	NS02MW-CS



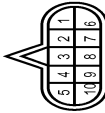
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	O	-

Connector No.	D119
Connector Name	BACK-UP LAMP RH
Connector Type	NS02MW-CS



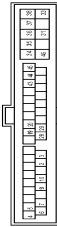
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER SUPPLY
2	BR	POWER SUPPLY (MEMORY BACK-UP)
3	O	CAN-H
4	V	K LINE
5	B	GROUND
6	V	POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

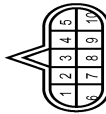
Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	-
3	W	-
4	R	-
5	B	-
9	Y	-
10	GR	-
19	BG	-
20	O	-
28	B	-

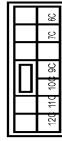
29	LG	-
31	R	-
33	GR	-
34	B	-
35	L	-
36	P	-
37	Y	-
38	G	-
43	LG	-
44	O	-
45	Y	-
46	V	-

Connector No.	F301
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	POWER SUPPLY
2	-	POWER SUPPLY (MEMORY BACK-UP)
3	-	CAN-H
4	-	K LINE
5	-	GROUND
6	-	POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-

JRLWD2358GB



**EXL-129**

## Revision: 2013 December

2013 EX

## BACK-UP LAMP

21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	L	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-

94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	W	-
3	R	-
5	BG	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK36MW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
2	P	-
3	L	-
4	R	-
5	B	-
9	R	-
10	R	-
19	BG	-
20	Y	-
28	B	-

JRLWD2359GB

EXL

## ECU DIAGNOSIS INFORMATION

## BCM (BODY CONTROL MODULE)

## Reference Value

INFOID:000000008772643

## VALUES ON THE DIAGNOSIS TOOL

**NOTE:**

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

## CONSULT 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	Off
	Front wiper switch INT	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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
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
KEY CYL SW-TR	<b>NOTE:</b> The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TR CANCEL SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	<b>NOTE:</b> The item is indicated, but not monitored.	Off
REVERSE SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-P/W OPEN	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed and held	On

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status
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
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
REQ SW -RL	<b>NOTE:</b> 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
IGN RLY2 -F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
ACC RLY -F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
CLUCH SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
BRAKE SW 1	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
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
S/L -UNLOCK	<b>NOTE:</b> The item is indicated, but not monitored.	Off
S/L RELAY-F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Monitor Item	Condition	Value/Status	
SFT P -MET	Selector lever in any position other than P	Off	A
	Selector lever in P position	On	
SFT N -MET	Selector lever in any position other than N	Off	B
	Selector lever in N position	On	
ENGINE STATE	Engine stopped	Stop	C
	While the engine stalls	Stall	
	At engine cranking	Crank	
	Engine running	Run	D
S/L LOCK-IPDM	<b>NOTE:</b> The item is indicated, but not monitored.	Off	
S/L UNLK-IPDM	<b>NOTE:</b> The item is indicated, but not monitored.	Off	E
S/L RELAY-REQ	<b>NOTE:</b> The item is indicated, but not monitored.	Off	F
VEH SPEED 1	While driving	Equivalent to speedometer reading	
VEH SPEED 2	While driving	Equivalent to speedometer reading	G
DOOR STAT-DR	Driver door is locked	LOCK	
	Wait with selective UNLOCK operation (5 seconds)	READY	H
	Driver door is unlocked	UNLOCK	
DOOR STAT-AS	Passenger door is locked	LOCK	
	Wait with selective UNLOCK operation (5 seconds)	READY	I
	Passenger door is unlocked	UNLOCK	
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset	J
	Ignition switch ON	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	K
	The engine start is permitted	Set	
PRMT RKE STRT	<b>NOTE:</b> The item is indicated, but not monitored.	Reset	EXL
KEY SW -SLOT	The key is not inserted into key slot	Off	
	The key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	M
RKE OPE COUN2	<b>NOTE:</b> The item is indicated, but not monitored.	—	N
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	O
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	P
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

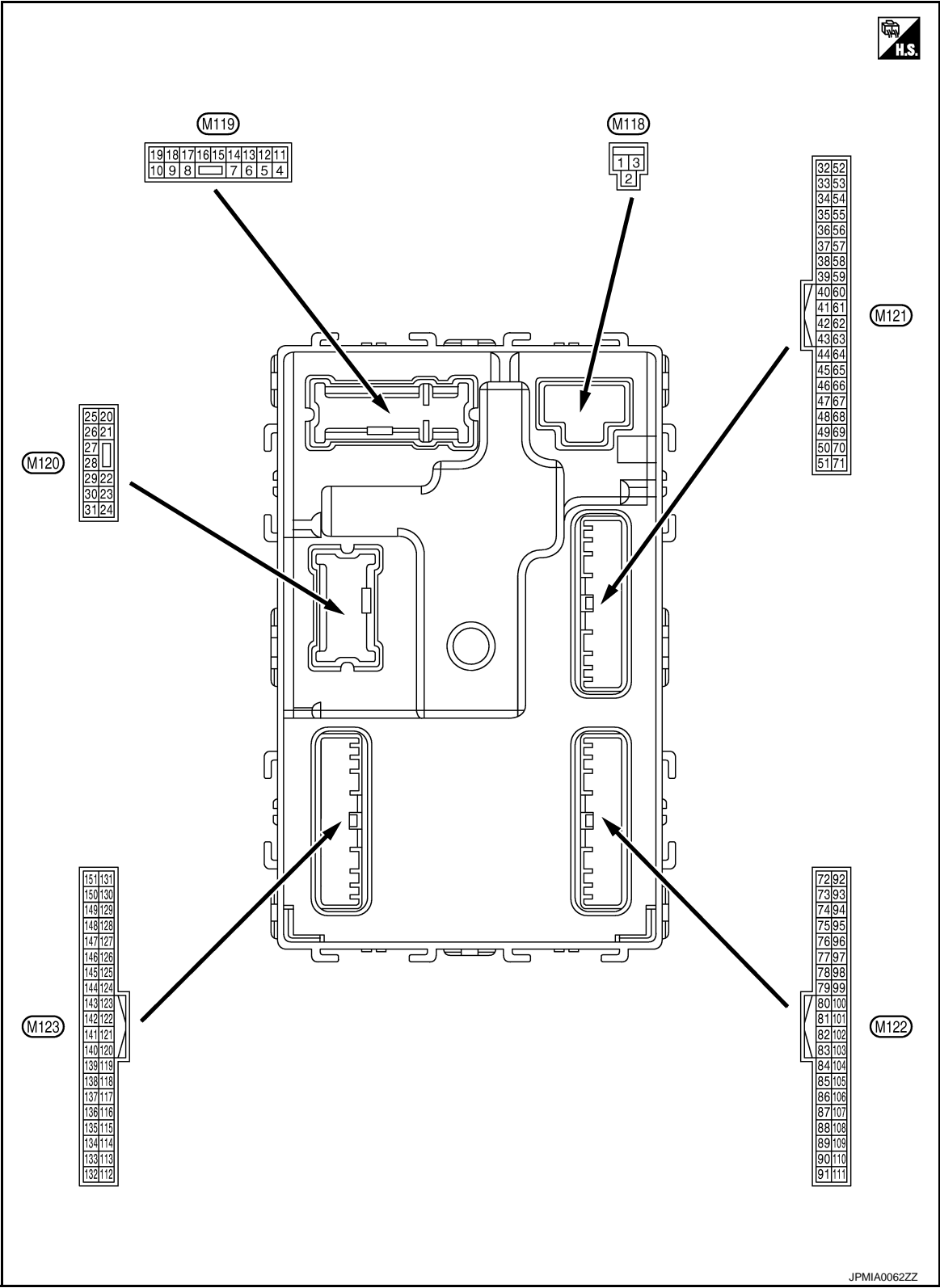
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

TERMINAL LAYOUT

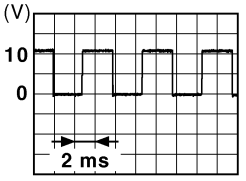


PHYSICAL VALUES

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

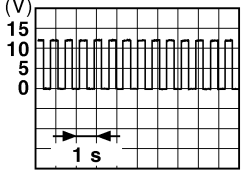
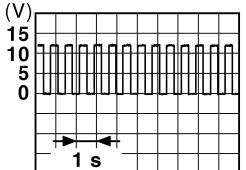
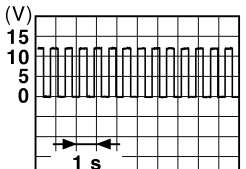
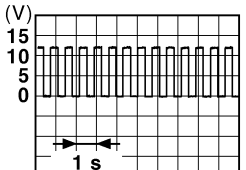
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (LG)	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)		Battery voltage
5 (L)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p><b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position</p>  <p>JSNIA0010GB</p>
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage
					ACC	0 V



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	
23 (G)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
					Other than OPEN (Back door opener actuator is not activated)	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	Battery voltage

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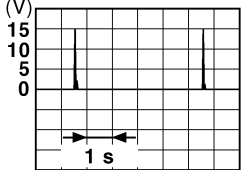
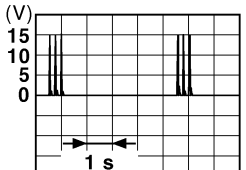
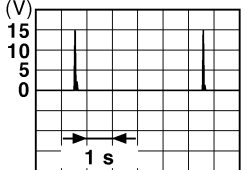
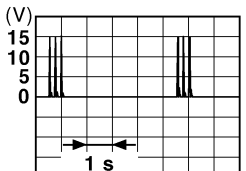
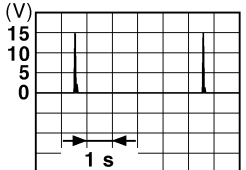
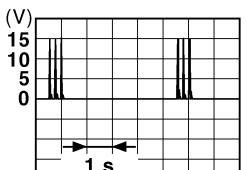
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

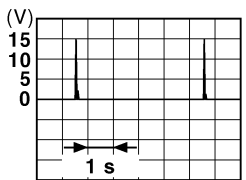
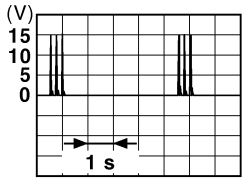
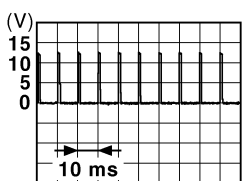
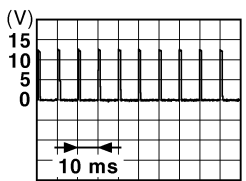
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (SB)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
38 (B)	Ground	Back door antenna (-)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 <p>JMKIA0062GB</p>
					When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When the back door opener request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
52 (SB)	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
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (V)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	 JPMIA0016GB 1.0 V
					Not in stop position	0 V

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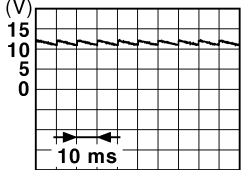
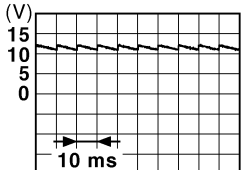
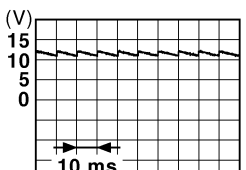
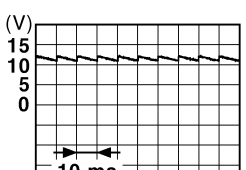
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# BCM (BODY CONTROL MODULE)

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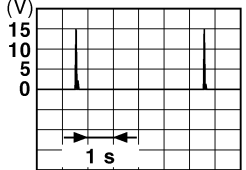
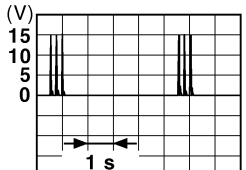
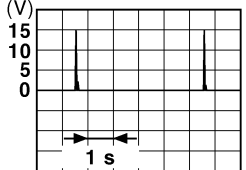
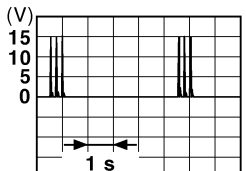
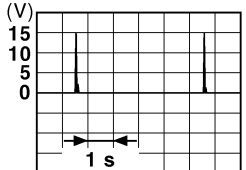
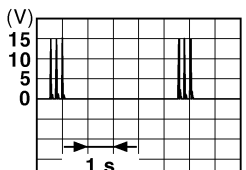
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
74 (SB)	Ground	Passenger door antenna (-)	Output	When the passenger door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
75 (GR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>

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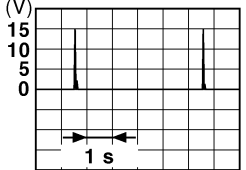
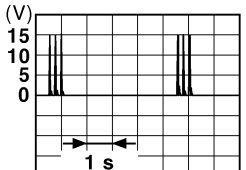
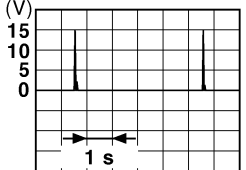
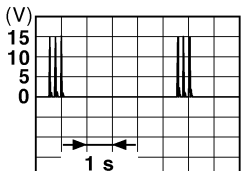
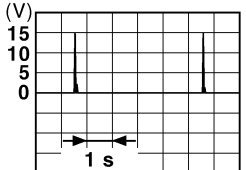
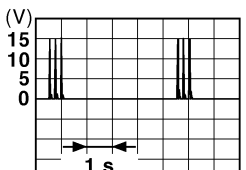
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

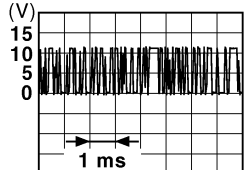
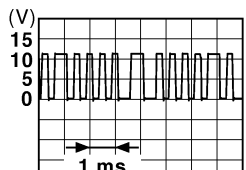
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
80 (GR)	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.
81 (W)	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.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		
				When operating either button on the key		

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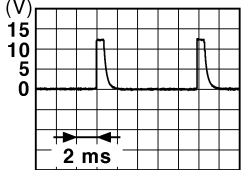

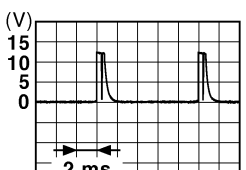
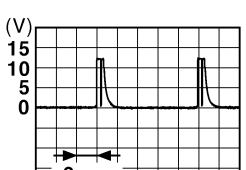
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

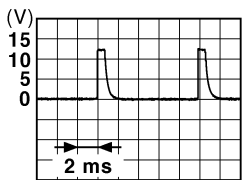
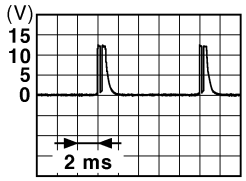
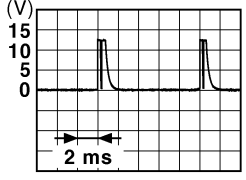
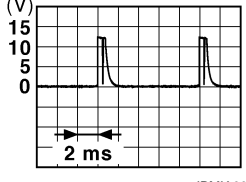
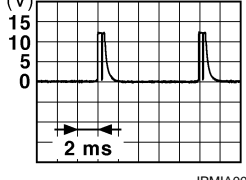
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	 <p>JPMIA0041GB</p> <p>1.4 V</p>
				Front fog lamp switch ON (Wiper intermittent dial 4)	 <p>JPMIA0037GB</p> <p>1.3 V</p>
				Rear wiper switch ON (Wiper intermittent dial 4)	 <p>JPMIA0039GB</p> <p>1.3 V</p>
				Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	 <p>JPMIA0040GB</p> <p>1.3 V</p>



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	<p>All switches OFF (Wiper intermittent dial 4)</p>  <p>1.4 V</p>
					<p>Lighting switch HI (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Lighting switch 2ND (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Rear washer switch ON (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Any of the conditions below with all switches OFF</p> <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> </ul>  <p>1.3 V</p>
90 (P)	Ground	CAN-L	Input/ Output	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—

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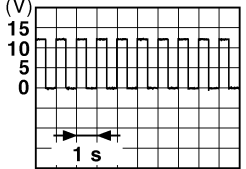
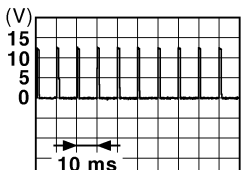
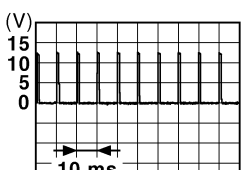
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# BCM (BODY CONTROL MODULE)

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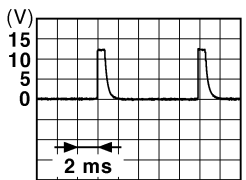
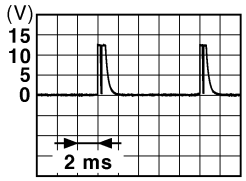
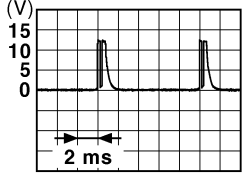
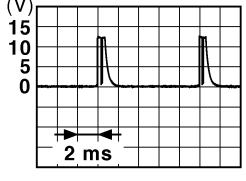
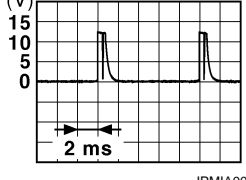
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 <p>JPMIA0015GB</p> <p>6.5 V</p>
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage
					ON	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		Battery voltage
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>JPMIA0016GB</p> <p>1.0 V</p>
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>JPMIA0016GB</p> <p>1.0 V</p>
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

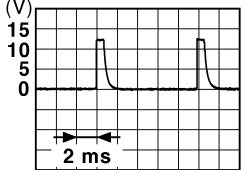
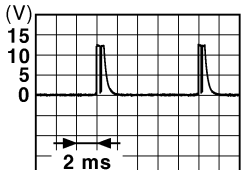
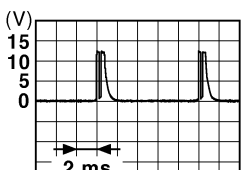
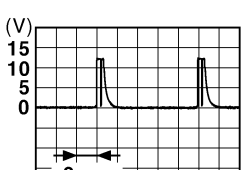
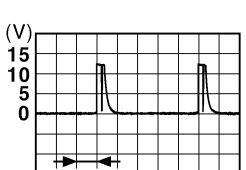
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	 <p>1.4 V</p>
				Turn signal switch LH	 <p>1.3 V</p>
				Turn signal switch RH	 <p>1.3 V</p>
				Front wiper switch LO	 <p>1.3 V</p>
				Front washer switch ON	 <p>1.3 V</p>

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	<p>All switches OFF (Wiper intermittent dial 4)</p>  <p>1.4 V</p>
					<p>Lighting switch AUTO (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Lighting switch 1ST (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Rear wiper switch INT (Wiper intermittent dial 4)</p>  <p>1.3 V</p>
					<p>Any of the conditions below with all switches OFF</p> <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>  <p>1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	<p>All switches OFF</p> <p>JPMIA0041GB 1.4 V</p>
					<p>Lighting switch PASS</p> <p>JPMIA0037GB 1.3 V</p>
					<p>Lighting switch 2ND</p> <p>JPMIA0036GB 1.3 V</p>
					<p>Front wiper switch INT</p> <p>JPMIA0038GB 1.3 V</p>
					<p>Front wiper switch HI</p> <p>JPMIA0040GB 1.3 V</p>
110 (G)	Ground	Hazard switch	Input	Hazard switch	<p>ON</p> <p>0 V</p>
				OFF	<p>JPMIA0012GB 1.1 V</p>

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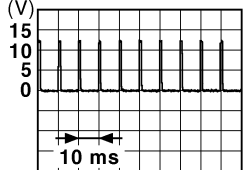
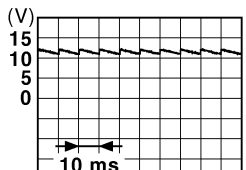
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

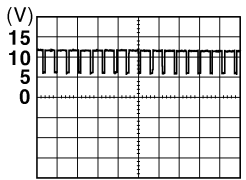
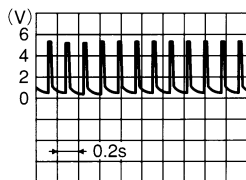
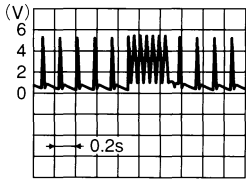
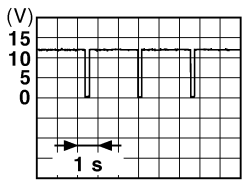
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
113 (P)	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
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not de- pressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
				121 (BR)	Ground	Key slot switch
				When the key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
				132 (BR)	Ground	Power window switch communication
Ignition switch OFF or ACC		Battery voltage				

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

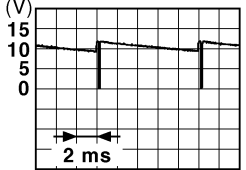
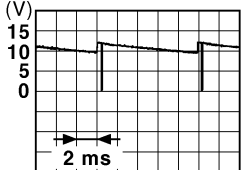
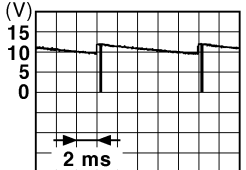
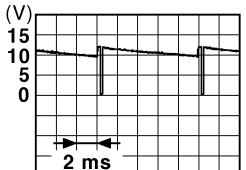
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	<b>NOTE:</b> The pulse width of this wave is varied by the illumination bright- ening/dimming level. 
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	Ignition switch ON	Standby state	
					When receiving the signal from the transmitter	
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	
					OFF	Battery voltage

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

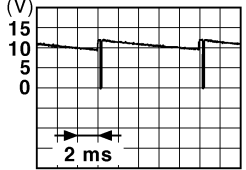
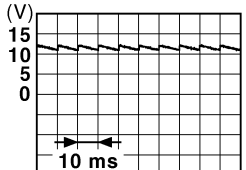
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	 <p>10.7 V</p>
				All switches OFF	
				Lighting switch 1ST	
				Lighting switch HI	
				Lighting switch 2ND	
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	 <p>10.7 V</p>
				All switches OFF (Wiper intermittent dial 4)	
				Front wiper switch HI (Wiper intermittent dial 4)	
				Rear wiper switch INT (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	 <p>10.7 V</p>
				All switches OFF (Wiper intermittent dial 4)	
				Front washer switch ON (Wiper intermittent dial 4)	
				Rear wiper switch ON (Wiper intermittent dial 4)	
				Rear washer switch ON (Wiper intermittent dial 4)	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	 <p>10.7 V</p>
				All switches OFF	
				Front wiper switch INT	
				Front wiper switch LO	
				Lighting switch AUTO	



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

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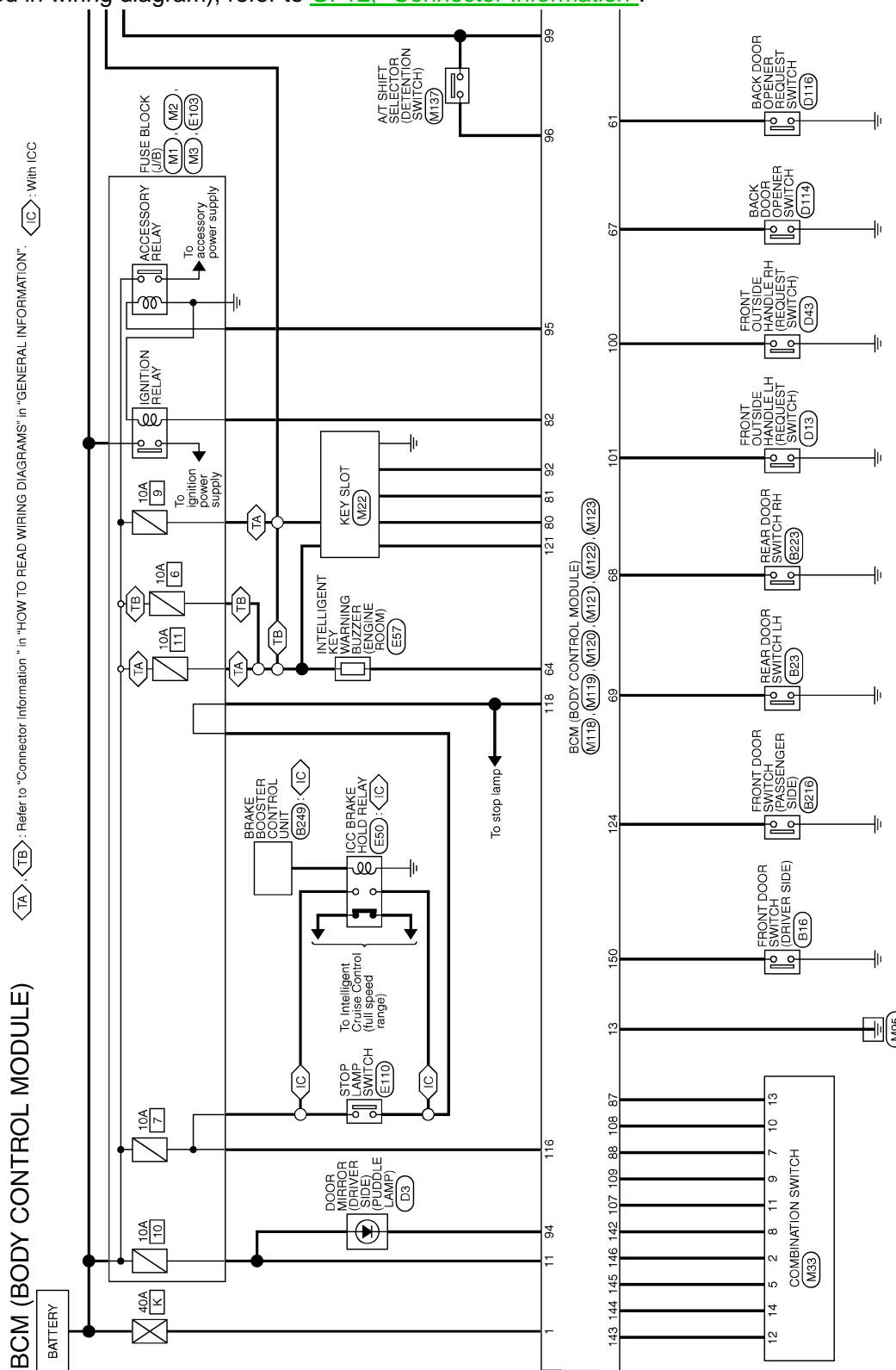
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**[XENON TYPE]**

## Wiring Diagram - BCM -

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For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



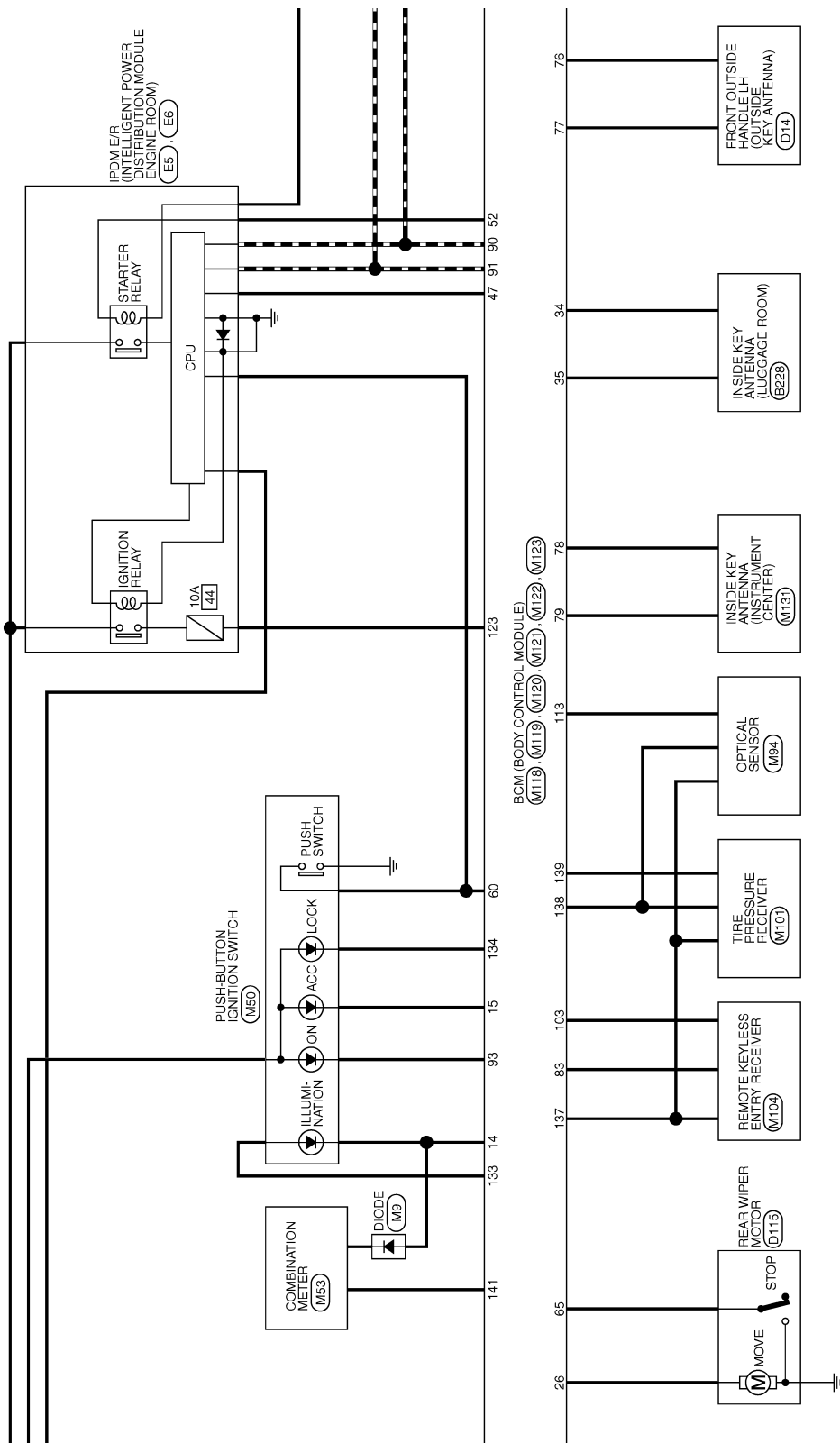
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2013/11/22

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]



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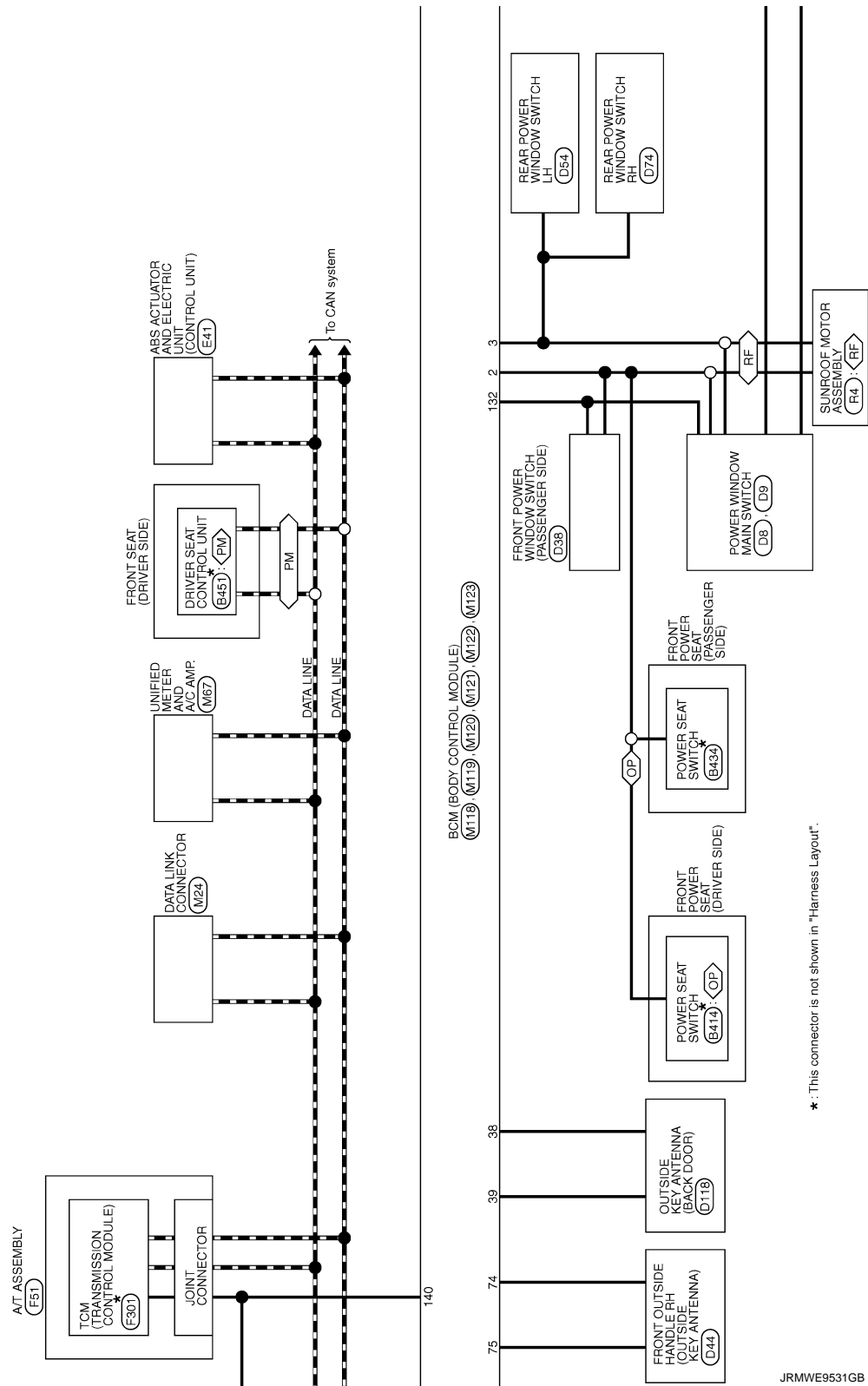
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

RF : With sunroof  
PM : With automatic drive positioner  
OP : Without automatic drive positioner

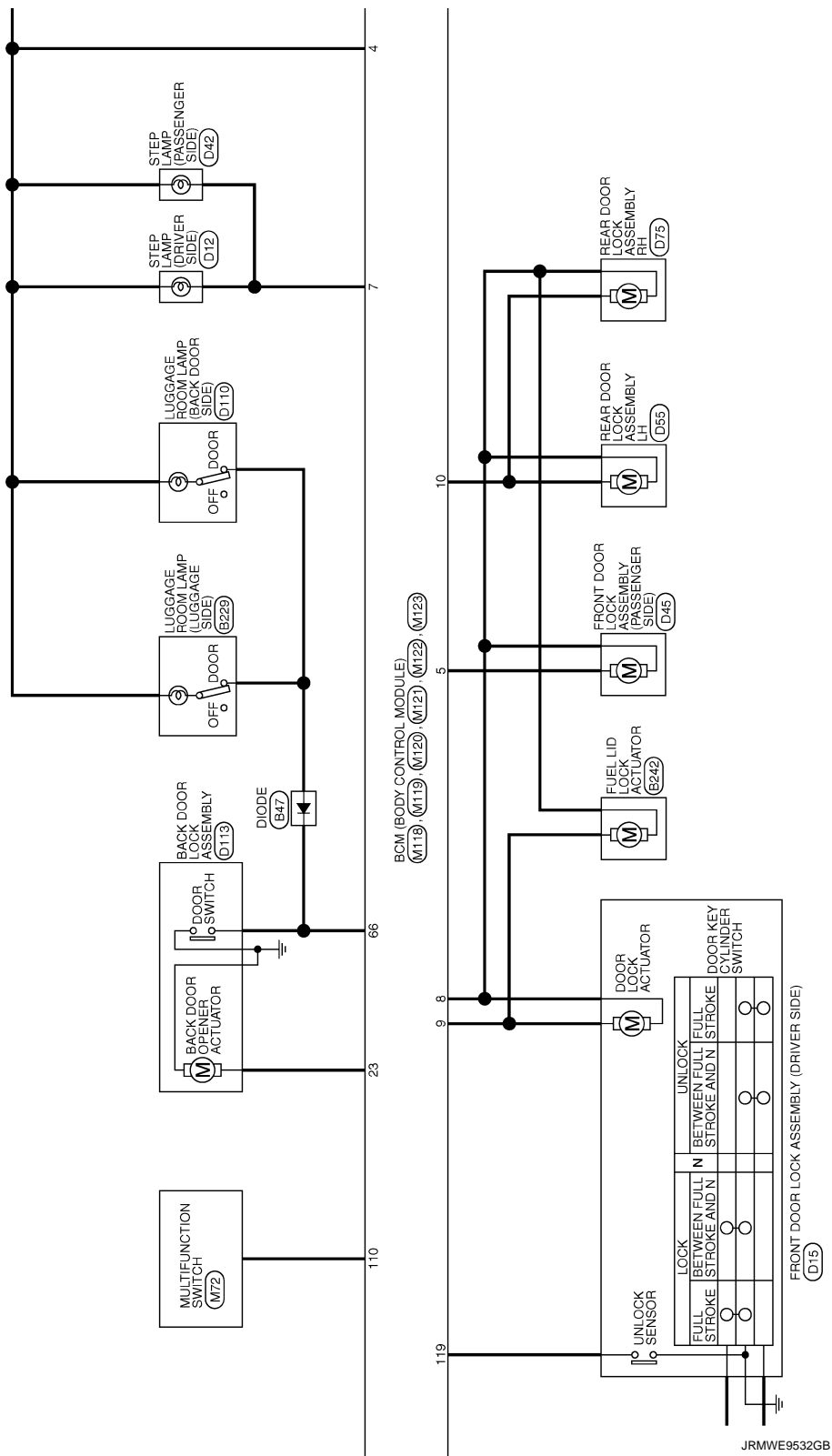


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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

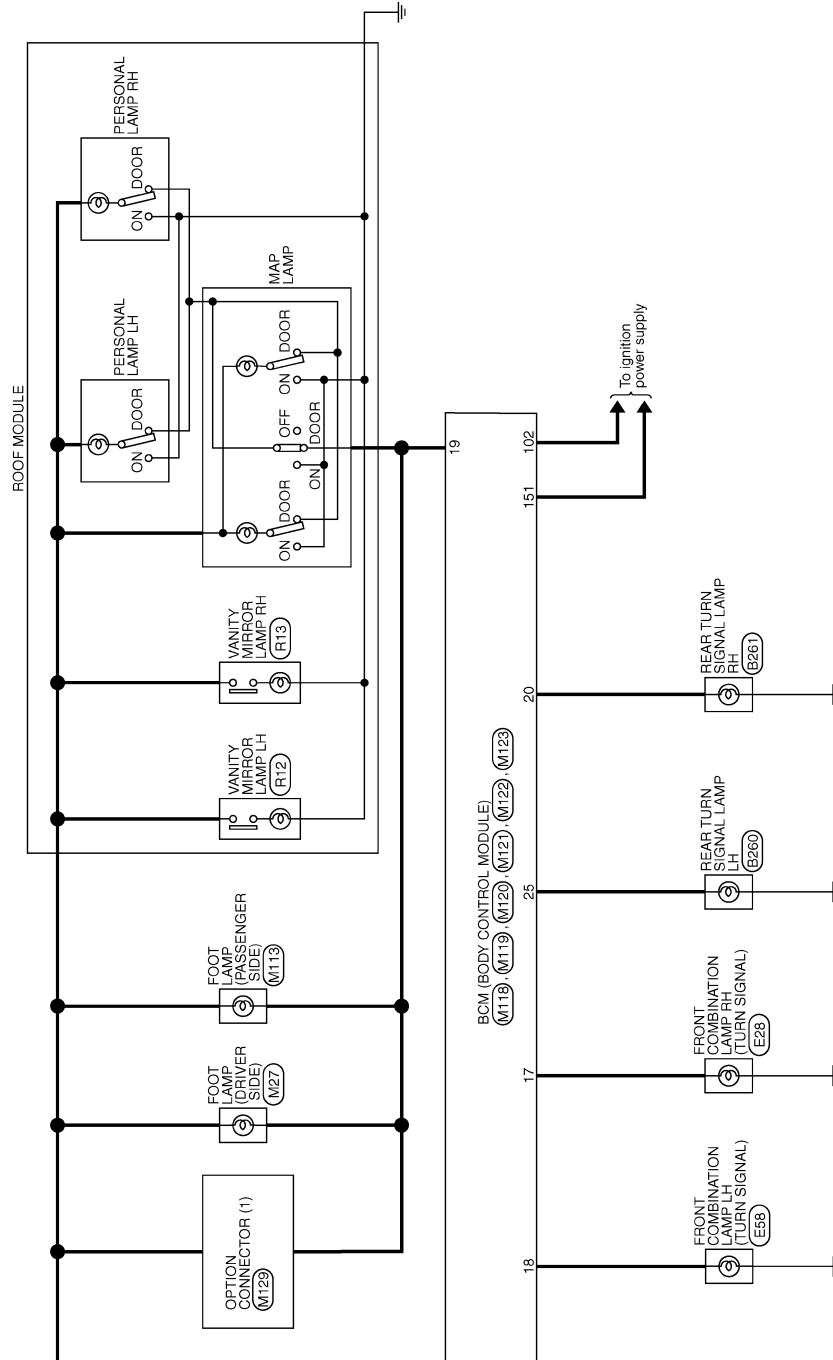


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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]


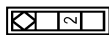

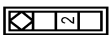







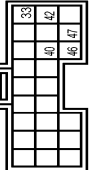


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# BCM (BODY CONTROL MODULE)

[XENON TYPE]

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)			
Connector No. B16	Signal Name [Specification]	Terminal Color Of Wire	Signal Name [Specification]
Connector Name FRONT DOOR SWITCH (DRIVER SIDE)	-	1 B	-
Connector Type A03FW	-	2 L	-
		Connector No. B216	Signal Name [Specification]
		Connector Name FRONT DOOR SWITCH (PASSENGER SIDE)	-
		Connector Type A03FW	-
Terminal Color Of Wire	Signal Name [Specification]	Terminal Color Of Wire	Signal Name [Specification]
2 V	-	1 V	-
		2 SB	-
Connector No. B23	Signal Name [Specification]	Connector No. B229	Signal Name [Specification]
Connector Name REAR DOOR SWITCH-LH	-	Connector Name LUGGAGE ROOM LAMP (LUGGAGE SIDE)	-
Connector Type A03FW	-	Connector Type TK03FW	-
			
Terminal Color Of Wire	Signal Name [Specification]	Terminal Color Of Wire	Signal Name [Specification]
2 LG	-	1 GR	-
		2 L	-
Connector No. B47	Signal Name [Specification]	Terminal Color Of Wire	Signal Name [Specification]
Connector Name DIODE	-	1 GR	-
Connector Type 24335 CS900	-	2 L	-
		Terminal Color Of Wire	Signal Name [Specification]
		33 BR	IGNITION
		40 SB	IBA OFF SW
		42 G	IGNITION
		46 B	GROUND
		47 V	BRAKE HOLD RLY DRIVE SIGNAL
Connector No. B242	Signal Name [Specification]	Terminal Color Of Wire	Signal Name [Specification]
Connector Name FUEL LID LOCK ACTUATOR	-	1 R	-
Connector Type M04FW-LC	-	2 V	-
		Connector No. B249	Signal Name [Specification]
		Connector Name BRAKE BOOSTER CONTROL UNIT	-
		Connector Type TK24FGY	-
			

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FG-W



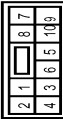
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

Connector No.	B414
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	GY	-
4	P	-
5	W	-
6	V	-
7	LY	-
8	L	-
9	L/R	-
10	GW	-

Connector No.	B434
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	GY	-
4	-	-
5	P	-
6	W	-
7	V	-
8	LY	-
9	L	-
10	GW	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH82FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LW	RX
3	RY	CANH
9	W/G	PULSE (RECLINING)
10	P/B	PULSE (FR LIFTING)
11	BR	SLIDING SW (BACKWARD)
12	SB	RECLINING SW (BACKWARD)
13	GR	FRONT LIFTING SW (DOWNWARD)
14	G/B	REAR LIFTING SW (DOWNWARD)
16	O	VCC
17	Y/R	TX
19	V	CANL
21	LY	P RANGE SW
24	R	PULSE (SLIDING)
25	Y/B	PULSE (FR LIFTING)
26	Y	SLIDING SW (FORWARD)
27	R/G	RECLINING SW (FORWARD)
28	W/B	FRONT LIFTING SW (UPWARD)
29	P/L	REAR LIFTING SW (UPWARD)
31	GR	SENSOR GND
32	B/W	GND (SIGNAL)

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
2	O	-
3	B	SIDE CAMERA LH COMM
5	Y	SIDE CAMERA LH IMAGE SIGNAL
6	R	SIDE CAMERA LH POWER SUPPLY
7	W	-
10	G	-
11	P	-
12	O	-
14	LG	-
17	G	SIDE CAMERA LH IMAGE GND
18	W	SIDE CAMERA LH GND
19	B	-
21	GR	-
22	BR	-
23	Y	-
24	V	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	GR	-
4	V	-

JRMWE9717GB



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	D13
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	RK02FL



Connector No.	D9
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS09FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	-
19	W	-

Connector No.	D12
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	TB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D15
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	ED0FCY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	P	-
3	L	-
4	B	-
5	Y	-
6	V	-

Connector No.	D38
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	G	-
8	W	-
9	G	-
10	W	-
11	B	-
12	R	-
15	O	-
16	V	-

Connector No.	D42
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	TB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D43
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	RK02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

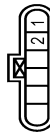
## BCM (BODY CONTROL MODULE)

Connector No.	D44
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGY



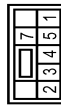
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D45
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	E06FGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	LG	-

Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



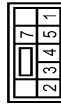
Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	V	-
3	G	-
4	L	-
5	W	-
7	B	-

Connector No.	D55
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS



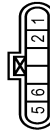
Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	G	-
5	V	-
6	G	-

Connector No.	D74
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-
3	G	-
4	B	-
5	O	-
7	B	-

Connector No.	D75
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	E06FGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	V	-
5	V	-
6	G	-

Connector No.	D110
Connector Name	LUGGAGE ROOM LAMP (BACK DOOR SIDE)
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	P	-

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	B	-
3	V	-
4	B	-

JRMWE9719GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	D114
Connector Name	BACK DOOR OPENER SWITCH
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	B	-

Connector No.	D115
Connector Name	REAR WIPER MOTOR
Connector Type	CJ04FM-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	-
3	O	-
4	B	-

Connector No.	D116
Connector Name	BACK DOOR OPENER REQUEST SWITCH
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D118
Connector Name	OUTSIDE KEY ANTENNA (BACK DOOR)
Connector Type	RK02FGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CST2-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-FR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA42FB-AH24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	LBWIR
3	R	LBVIR
4	B	GROUND
5	V	DS FL
6	BG	DP RL
7	BR	DP RR
9	B	DP FR
10	W	DS FR
12	L	VAC
14	P	CAN-L
15	SHIELD	GROUND
19	P	UST

JRMWE9720GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-FR



Connector No.	E50
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	M08FGY-R-US



Terminal No.	Signal Name [Specification]
1	V
2	B
3	P
4	SB
6	P
7	R

Connector No.	E57
Connector Name	INTELLIGENT KEY WARNING BUZZER (ENGINE ROOM)
Connector Type	RK03FB-R



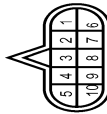
Terminal No.	Signal Name [Specification]
1	V
3	V

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Signal Name [Specification]
1	L
2	W
3	Y
4	SB

Connector No.	F51
Connector Name	AT ASSEMBLY
Connector Type	RK0FG-DGY



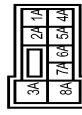
Terminal No.	Signal Name [Specification]
1	Y
2	BR
3	O
4	V
5	B
6	Y
7	R
8	LG
9	GR
10	B

Connector No.	F301
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Signal Name [Specification]
1	-
2	POWER SUPPLY
3	POWER SUPPLY (MEMORY BACK-UP)
4	CANH
5	K LINE
6	GROUND
7	POWER SUPPLY
8	BACK-UP LAMP RELAY
9	CAN-L
10	STARTER RELAY

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Signal Name [Specification]
1A	GR
2A	G
3A	L
4A	P
5A	R
6A	V
7A	Y
8A	L

JRMWE9721GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

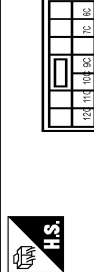
## BCM (BODY CONTROL MODULE)

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



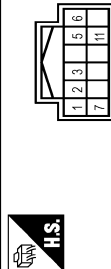
Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M9
Connector Name	DIODE
Connector Type	24335, C3900



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12FW-MH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	BAT
2	GR	CLOCK
3	W	DATA
5	Y	ILL BAT
6	LG	ILL
7	B	GROUND
11	BR	KEY SWITCH SIGNAL

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



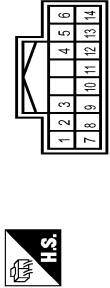
Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M27
Connector Name	FOOT LAMP (DRIVER SIDE)
Connector Type	A02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-MH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER L
2	SB	OUTPUT 4
3	GR	FR WASHER R
4	G	IG
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M50
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W	-
3	W	-
4	BR	-
5	GR	-
6	Y	-

JRMWE9722GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	7	V	-
Connector Name	B	P	-

Connector No.	M53
Connector Name	COMBINATION METER
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
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER AMP.)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP.)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AIR RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (1)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (2)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-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
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Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS OXIDE CONCENTRATION SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CANH
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	A/C LAN SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CANH

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
3	V	ACC
4	R	ILL
5	Y	ILL CONT
6	SB	AV COMM (H)
8	LG	AV COMM (L)
9	B	SW GND
14	Y	DISK EJECT SIGNAL
16	G	HAZARD ON

Connector No.	M94
Connector Name	OPTICAL SENSOR
Connector Type	TK03FW



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER
2	P	OUTPUT
3	B	GROUND

Connector No.	M101
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK04FW



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	L	SIGNAL
4	Y	BATTERY

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	Y	SIGNAL OUTPUT
4	LG	BATTERY

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	M113
Connector Name	FOOT LAMP (PASSENGER SIDE)
Connector Type	A02FW



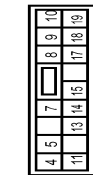
Terminal No.	Color	Wire	Signal Name [Specification]
1	R		-
2	BR		-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



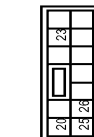
Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (F/L)
2	W		POWER WINDOW POWER SUPPLY(BAT)
3	Y		POWER WINDOW POWER SUPPLY(RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM AMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
6	Y		STEP LAMP CONT
7	V		ALL DOOR FUEL LID LOCK OUTPUT
8	G		DRIVER DOOR FUEL LID LOCK OUTPUT
9	R		REAR DOOR UNLOCK OUTPUT
10	BR		BAT (FUSE)
11	R		GROUND
12	B		ACC IND
13	W		PUSH-BUTTON IGNITION SW ILL GND
14	Y		TURN SIGNAL RH (FRONT)
15	W		TURN SIGNAL LH (FRONT)
16	BG		TURN SIGNAL LH (FRONT)
17	W		INT ROOM LAMP CONT
18	V		
19	V		

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



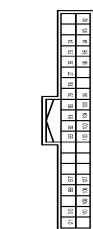
Terminal No.	Color	Wire	Signal Name [Specification]
20	V		TURN SIGNAL RH (REAR)
21	G		BACK DOOR OPEN OUTPUT
22	G		TURN SIGNAL LH (REAR)
23	G		REAR WIPER OUTPUT
24	G		
25	G		
26	G		

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
34	SB		LUGGAGE ROOM ANTI-
35	V		LUGGAGE ROOM ANTI-
36	B		BACK DOOR ANTI-
37	W		BACK DOOR ANTI-
38	Y		IGN RELAY (PDM/EN) CONT
39	SB		STARTER RELAY CONT
40	BR		PUSH SW
41	W		BACK DOOR OPENER REQUEST SW
42	BG		THEY WARN BUZZER (ENG ROOM)
43	R		BACK DOOR SW
44	GR		BACK DOOR OPENER SW
45	BR		REAR RH DOOR SW
46	BR		REAR LH DOOR SW
47	R		

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
74	SB		PASSENGER DOOR ANTI-
75	GR		PASSENGER DOOR ANTI-
76	V		DRIVER DOOR ANTI-
77	LG		DRIVER DOOR ANTI-
78	Y		ROOM ANTI-
79	BR		ROOM ANTI+

80	GR		NATS ANT AMP.
81	W		NATS ANT AMP.
82	R		IGN RELAY (F/B) CONT
83	Y		KEYLESS ENTRY RECEIVER COMM
87	BR		COMBI SW INPUT 5
88	V		COMBI SW INPUT 3
90	P		CAN-L
91	L		CAN-H
92	LG		KEY SLOT ILL CONT
93	V		ON IND
94	Y		Puddle LAMP CONT
95	BG		ACC RELAY CONT
96	GR		AT SHIFT SELECTOR POWER SUPPLY
99	R		SHIFT P
100	G		PASSENGER DOOR REQUEST SW
101	SB		DRIVER DOOR REQUEST SW
102	BG		BLOWER FAN MOTOR RELAY CONT
103	LG		REFLESS FRONT RESERVE POWER SUPPLY
107	LG		COMBI SW INPUT 1
108	R		COMBI SW INPUT 4
109	Y		COMBI SW INPUT 2
110	G		HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
113	P		OPTICAL SENSOR
116	SB		STOP LAMP SW 1
118	P		STOP LAMP SW 2
119	SB		DR DOOR UNLOCK SENSOR
121	BR		KEY SLOT SW
123	W		IGN F/B
124	LG		PASSENGER DOOR SW
132	BR		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGNITION SW ILL POWER
134	GR		LOCK IND
137	Y		RECEIVER SENSOR GND
138	Y		RECEIVER SENSOR POWER SUPPLY

# BCM (BODY CONTROL MODULE)

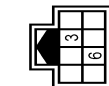
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## BCM (BODY CONTROL MODULE)

139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NIP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M129
Connector Name	OPTION CONNECTOR (1)
Connector Type	TH08MW-NH



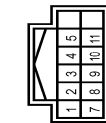
Terminal Color Of No.	Signal Name [Specification]
3 G	ROOM LAMP BAT SAVER(POWER)
6 R	ROOM LAMP OUTPUT

Connector No.	M131
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02FGY



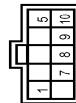
Terminal Color Of No.	Signal Name [Specification]
1 BR	-
2 Y	-

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12FM-NH



Terminal Color Of No.	Signal Name [Specification]
1 W	-
2 V	-
3 L	-
4 B	-
5 G	-
7 R	-
8 SB	-
9 B	-
10 GR	-
11 R	-

Connector No.	R4
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEA10FGY



Terminal Color Of No.	Signal Name [Specification]
1 GR	SW-BIT1
5 P	SW-BIT-
7 BR	4B
8 L	SPEED SENSOR(2P)
9 Y	TIMER+IGN
10 G	GROUND

Connector No.	R12
Connector Name	VANITY MIRROR LAMP LH
Connector Type	MCA02FW



Terminal Color Of No.	Signal Name [Specification]
1 -	-
2 -	-

Connector No.	R13
Connector Name	VANITY MIRROR LAMP RH
Connector Type	MCA02FW



Terminal Color Of No.	Signal Name [Specification]
1 -	-
2 -	-

## Fail-safe

### FAIL-SAFE CONTROL BY DTC

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

JRMWE9725GB

INFOID:000000008772645



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled <ul style="list-style-type: none"> <li>Power position changes to ACC</li> <li>Receives engine status signal (CAN)</li> </ul>
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

## 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

- More than 1 minute is passed after the rear wiper stops.
- Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

INFOID:000000008772646

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	<ul style="list-style-type: none"> <li>U1000: CAN COMM CIRCUIT</li> <li>U1010: CONTROL UNIT (CAN)</li> </ul>
3	<ul style="list-style-type: none"> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2195: ANTI SCANNING</li> </ul>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Priority	DTC
4	<ul style="list-style-type: none"> <li>• B2553: IGNITION RELAY</li> <li>• B2555: STOP LAMP</li> <li>• B2556: PUSH-BTN IGN SW</li> <li>• B2557: VEHICLE SPEED</li> <li>• B2560: STARTER CONT RELAY</li> <li>• B2601: SHIFT POSITION</li> <li>• B2602: SHIFT POSITION</li> <li>• B2603: SHIFT POSI STATUS</li> <li>• B2604: PNP SW</li> <li>• B2605: PNP SW</li> <li>• B2608: STARTER RELAY</li> <li>• B260A: IGNITION RELAY</li> <li>• B260F: ENG STATE SIG LOST</li> <li>• B2614: ACC RELAY CIRC</li> <li>• B2615: BLOWER RELAY CIRC</li> <li>• B2616: IGN RELAY CIRC</li> <li>• B2617: STARTER RELAY CIRC</li> <li>• B2618: BCM</li> <li>• B261A: PUSH-BTN IGN SW</li> <li>• B261E: VEHICLE TYPE</li> <li>• B26EA: KEY REGISTRATION</li> <li>• C1729: VHCL SPEED SIG ERR</li> <li>• U0415: VEHICLE SPEED SIG</li> </ul>
5	<ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1716: [PRESSDATA ERR] FL</li> <li>• C1717: [PRESSDATA ERR] FR</li> <li>• C1718: [PRESSDATA ERR] RR</li> <li>• C1719: [PRESSDATA ERR] RL</li> <li>• C1734: CONTROL UNIT</li> </ul>
6	<ul style="list-style-type: none"> <li>• B2621: INSIDE ANTENNA</li> <li>• B2623: INSIDE ANTENNA</li> </ul>

## DTC Index

INFOID:000000008772647

### 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 [INL-15, "COMMON ITEM : CONSULT 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 CIRCUIT	—	—	—	—	<a href="#">BCS-41</a>
U1010: CONTROL UNIT (CAN)	—	—	—	—	<a href="#">BCS-42</a>
U0415: VEHICLE SPEED SIG	—	—	—	—	<a href="#">BCS-43</a>
B2190: NATS ANTENNA AMP	×	—	—	—	<a href="#">SEC-40</a>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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	
B2191: DIFFERENCE OF KEY	×	—	—	—	<a href="#">SEC-43</a>	A
B2192: ID DISCORD BCM-ECM	×	—	—	—	<a href="#">SEC-44</a>	B
B2193: CHAIN OF BCM-ECM	×	—	—	—	<a href="#">SEC-45</a>	C
B2195: ANTI SCANNING	×	—	—	—	<a href="#">SEC-46</a>	
B2553: IGNITION RELAY	—	×	—	—	<a href="#">PCS-50</a>	D
B2555: STOP LAMP	—	×	—	—	<a href="#">SEC-47</a>	
B2556: PUSH-BTN IGN SW	—	×	×	—	<a href="#">SEC-49</a>	E
B2557: VEHICLE SPEED	×	×	×	—	<a href="#">SEC-51</a>	
B2560: STARTER CONT RELAY	×	×	×	—	<a href="#">SEC-52</a>	
B2562: LOW VOLTAGE	—	×	—	—	<a href="#">BCS-44</a>	F
B2601: SHIFT POSITION	×	×	×	—	<a href="#">SEC-53</a>	
B2602: SHIFT POSITION	×	×	×	—	<a href="#">SEC-56</a>	
B2603: SHIFT POSI STATUS	×	×	×	—	<a href="#">SEC-59</a>	G
B2604: PNP SW	×	×	×	—	<a href="#">SEC-62</a>	
B2605: PNP SW	×	×	×	—	<a href="#">SEC-64</a>	H
B2608: STARTER RELAY	×	×	×	—	<a href="#">SEC-66</a>	
B260A: IGNITION RELAY	×	×	×	—	<a href="#">PCS-52</a>	
B260F: ENG STATE SIG LOST	×	×	×	—	<a href="#">SEC-68</a>	I
B2614: ACC RELAY CIRC	—	×	×	—	<a href="#">PCS-54</a>	
B2615: BLOWER RELAY CIRC	—	×	×	—	<a href="#">PCS-57</a>	J
B2616: IGN RELAY CIRC	—	×	×	—	<a href="#">PCS-60</a>	
B2617: STARTER RELAY CIRC	×	×	×	—	<a href="#">SEC-71</a>	
B2618: BCM	×	×	×	—	<a href="#">PCS-63</a>	K
B261A: PUSH-BTN IGN SW	—	×	×	—	<a href="#">SEC-73</a>	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-76</a>	EXL
B2621: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-58</a>	
B2623: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-60</a>	
B26E1: ENG STATE NO RES	×	×	×	—	<a href="#">SEC-69</a>	M
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-70</a>	N
C1704: LOW PRESSURE FL	—	—	—	×	<a href="#">WT-23</a>	O
C1705: LOW PRESSURE FR	—	—	—	×		
C1706: LOW PRESSURE RR	—	—	—	×		
C1707: LOW PRESSURE RL	—	—	—	×		
C1708: [NO DATA] FL	—	—	—	×	<a href="#">WT-25</a>	P
C1709: [NO DATA] FR	—	—	—	×		
C1710: [NO DATA] RR	—	—	—	×		
C1711: [NO DATA] RL	—	—	—	×		

## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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
C1716: [PRESSDATA ERR] FL	—	—	—	×	<a href="#">WT-28</a>
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	<a href="#">WT-30</a>
C1734: CONTROL UNIT	—	—	—	×	<a href="#">WT-32</a>

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

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

### Reference Value

INFOID:000000008772692

### VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition		Value/Status
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 – 100 %
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 • Daytime running light activated (Only for Canada)	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	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

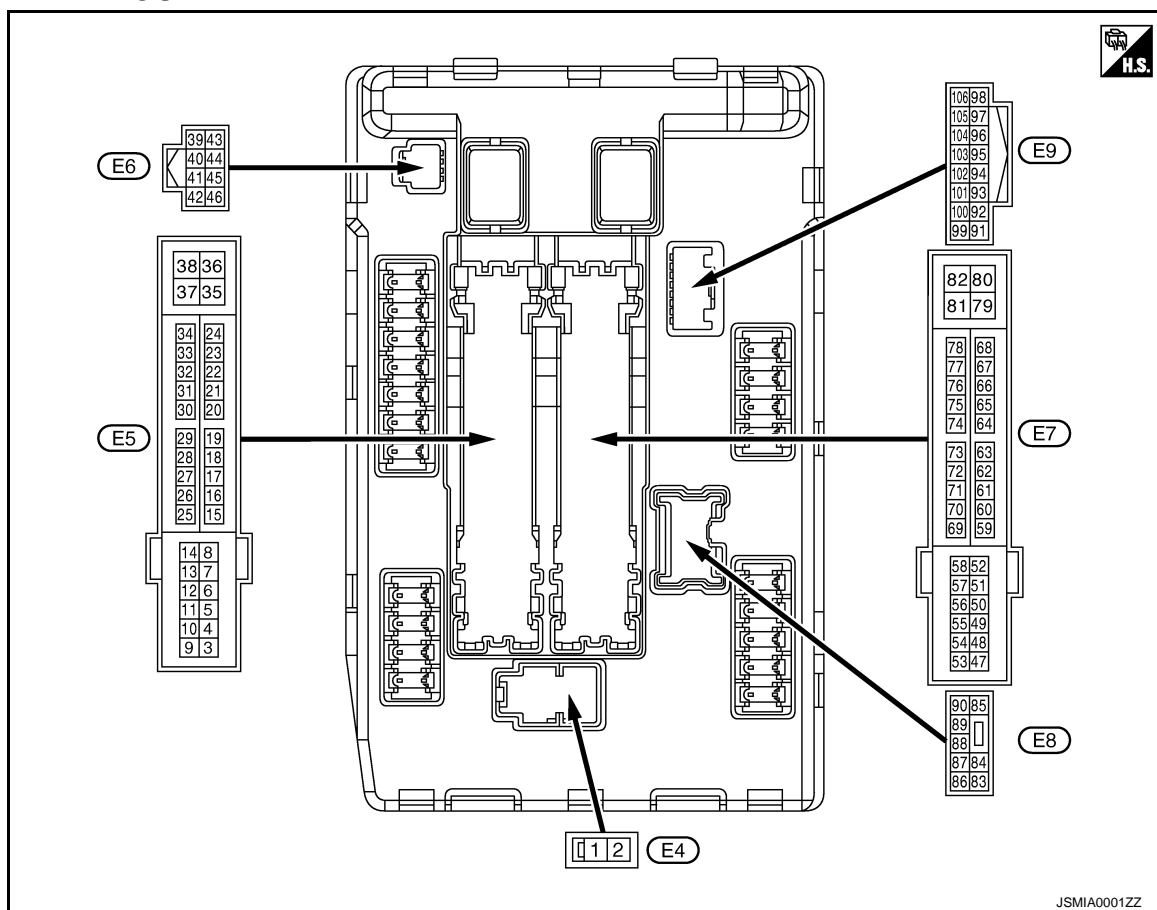
Monitor Item	Condition		Value/Status
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		INHI ON → ST ON
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button with selector lever in P position</li> <li>Selector lever in any position other than P</li> </ul>	Off
	Release the selector button with selector lever in P position		On
S/L RLY -REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
S/L STATE	<b>NOTE:</b> The item is indicated, but not monitored.		UNLOCK
DTRL REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
HOOD SW	Close the hood		Off
	Open the hood		On
HL WASHER REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
THFT HRN REQ	Not operation		Off
	<ul style="list-style-type: none"> <li>Panic alarm is activated</li> <li>Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM</li> </ul>		On
HORN CHIRP	Not operating		Off
	Door locking with Intelligent Key (horn chirp mode)		On
CRNRNG LMP REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (V)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch HI	Battery voltage
7 (R)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
12 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
13 (Y)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		Battery voltage
16 (LG)	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

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
19 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
25 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
26* (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (BG)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (L)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
39 (P)	—	CAN-L	Input/ Output	—		—
40 (L)	—	CAN-H	Input/ Output	—		—
41 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
42 (Y)	Ground	Cooling fan relay control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button (Selector lever P)</li> <li>Selector lever in any position other than P</li> </ul>	Battery voltage
					Release the selector button (selector lever P)	0 V
44 (BR)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
45 (G)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
46 (R)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
48 (L)	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
49 (BG)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>Ignition switch OFF (For a few seconds after turning ignition switch OFF)</li> </ul>		Battery voltage



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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

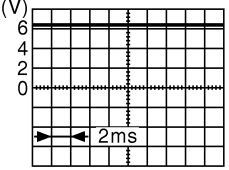
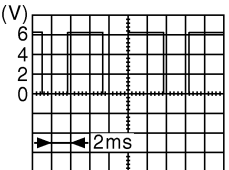
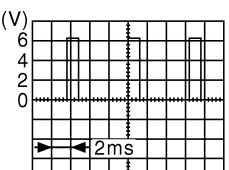
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
51 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
53 (W)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		Battery voltage
54 (P)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
57 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
58 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
69 (BR)	Ground	ECM relay control	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF		0 – 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 – 1.0 V
74 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
75 (SB)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage

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

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (Y)	Ground	Power generation command signal	Output	Ignition switch ON		 6.3 V
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 3.8 V
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 1.4 V
77 (R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		0 – 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> <li>Front fog lamp switch ON</li> <li>Daytime running light activated (Only for Canada)</li> </ul>	Battery voltage
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> <li>Front fog lamp switch ON</li> <li>Daytime running light activated (Only for Canada)</li> </ul>	Battery voltage
88 (GR)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
89 (BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					<ul style="list-style-type: none"> <li>• Lighting switch HI</li> <li>• Lighting switch PASS</li> </ul>	Battery voltage
90 (P)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					<ul style="list-style-type: none"> <li>• Lighting switch HI</li> <li>• Lighting switch PASS</li> </ul>	Battery voltage
91 (P)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
92 (BG)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 – 5 V
104 (LG)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V

\*: Only for the models with ICC system

A  
B  
C  
D  
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EXL  
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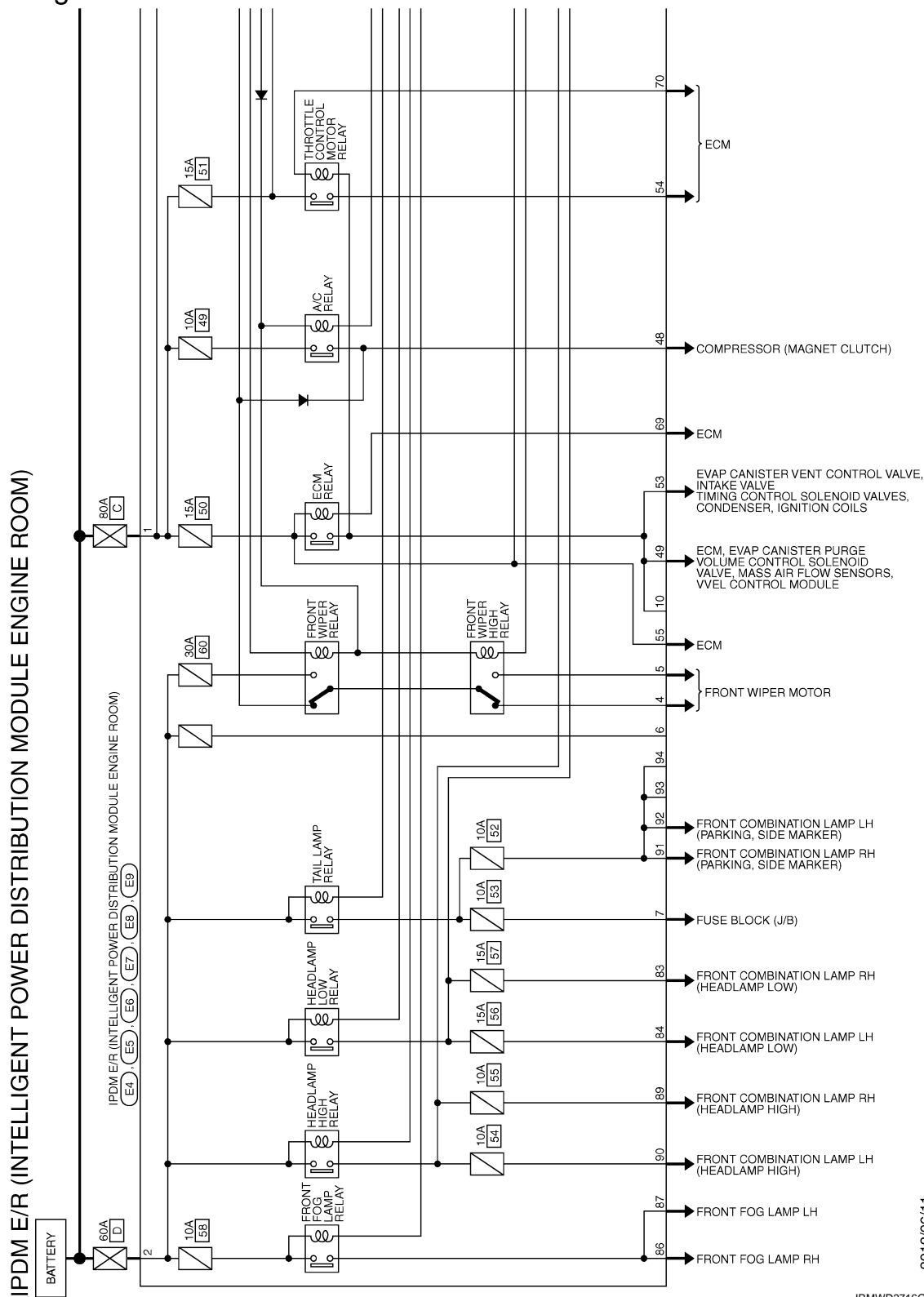
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## Wiring Diagram - IPDM E/R -

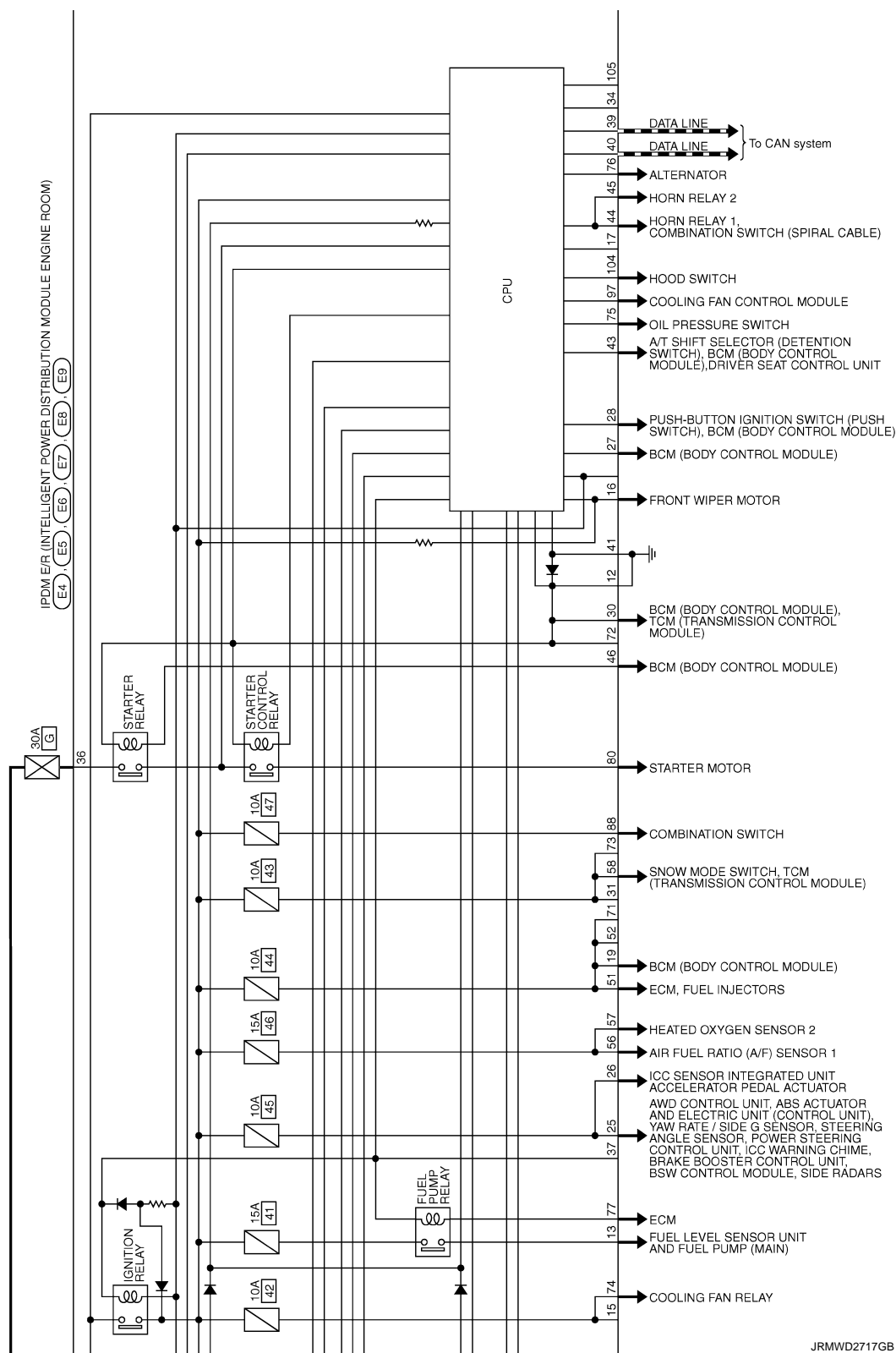
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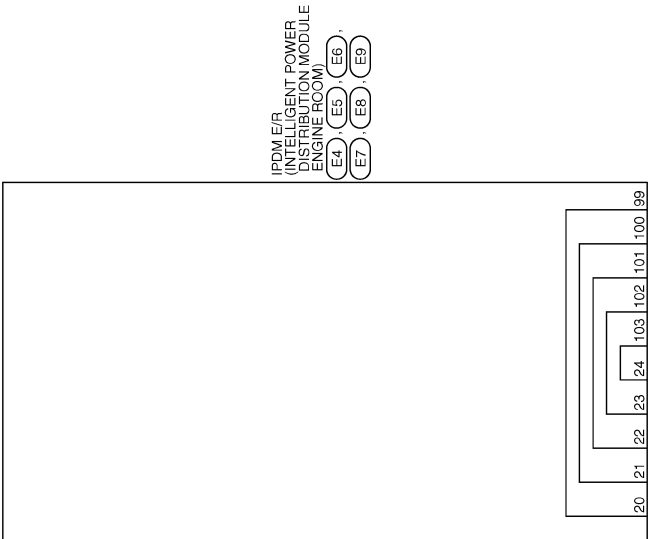
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JRMWD2716GB

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) < ECU DIAGNOSIS INFORMATION > [XENON TYPE]



JRMWD2717GB



JRMWD2718GB

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

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

Connector No.	E4
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	L02FB-MC

Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	L	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V

Connector No.	E6
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH

Terminal No.	Wire	Signal Name [Specification]
39	P	-
40	L	-
41	B/W	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E7
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4

Terminal No.	Wire	Signal Name [Specification]
48	L	-
49	BG	-
51	Y	-
53	W	-
54	P	-
55	SB	-
56	LG	-
57	G	-
58	V	-
69	BR	-
70	BG	-
74	P	-

Connector No.	E9
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH16FW-NH

Terminal No.	Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

Connector No.	E8
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS08FW-CS

Terminal No.	Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Terminal No.	Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

## Fail-safe

### 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

JRMWE9734GB

INFOID:000000008772694

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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Control part	Fail-safe operation
Cooling fan	<ul style="list-style-type: none"> <li>Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON</li> <li>Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF</li> </ul>
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	<ul style="list-style-type: none"> <li>Turns ON the headlamp low relay when the ignition switch is turned ON</li> <li>Turns OFF the headlamp low relay when the ignition switch is turned OFF</li> <li>Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>Parking lamps</li> <li>License plate lamps</li> <li>Side maker lamps</li> <li>Illuminations</li> <li>Tail lamps</li> </ul>	<ul style="list-style-type: none"> <li>Turns ON the tail lamp relay when the ignition switch is turned ON</li> <li>Turns OFF the tail lamp relay when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF

## 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	<ul style="list-style-type: none"> <li>Detects DTC "B2098: IGN RELAY ON"</li> <li>Turns ON the tail lamp relay for 10 minutes</li> </ul>
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.



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

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## 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.

## DTC Index

INFOID:000000008772695

## 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	Reference
No DTC is detected. further testing may be required.	—	—
U1000: CAN COMM CIRCUIT	×	<a href="#">PCS-14</a>
B2098: IGN RELAY ON CIRC	×	<a href="#">PCS-15</a>
B2099: IGN RELAY OFF CIRC	—	<a href="#">PCS-17</a>
B210B: STR CONT RLY ON CIRC	—	<a href="#">SEC-77</a>
B210C: STR CONT RLY OFF CIRC	—	<a href="#">SEC-78</a>
B210D: STARTER RLY ON CIRC	—	<a href="#">SEC-80</a>
B210E: STARTER RLY OFF CIRC	—	<a href="#">SEC-82</a>
B210F: INTRLCK/PNP SW ON	—	<a href="#">SEC-84</a>
B2110: INTRLCK/PNP SW OFF	—	<a href="#">SEC-86</a>

EXL

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## AFS CONTROL UNIT

### Reference Value

INFOID:000000008289064

### VALUES ON THE DIAGNOSIS TOOL

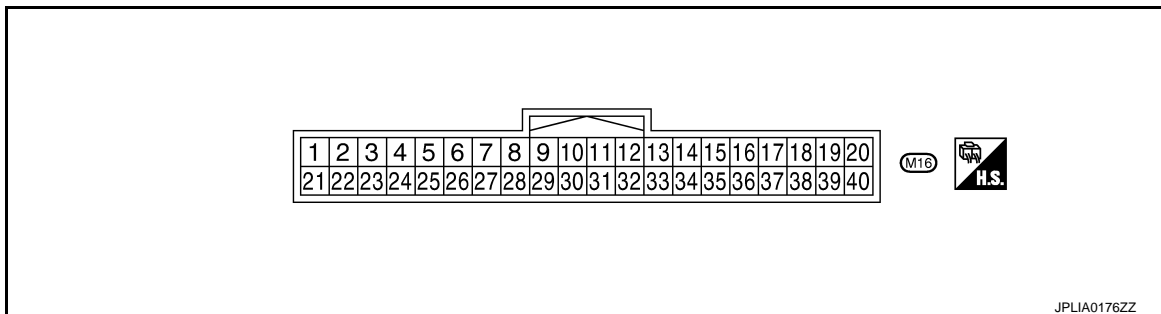
#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

#### CONSULT MONITOR ITEM

Monitor Item	Condition		Value/Status
STR ANGLE SIG	Steering	Straight-forward	Approx. 0°
		Steering	Approx. -900° - +900°
VHCL SPD	Driving at 40 km/h (25 MPH)		40 km/h
SLCT LVR POSI	Selector lever operation		P - 1
HEAD LAMP	Light switch	2ND	On
		Other than 2ND	Off
AFS SW	<b>NOTE:</b> The item is indicated, but not monitored.		On
HI SEN OTP RR	Vehicle rear height	Unloaded vehicle condition	Approx. 2.5 V
		Low (Leveling operation downward edge)	Approx. 1.6 V
LEV ACTR VLTG	Headlamp leveling	Unloaded vehicle condition	Approx. 70.0%
		Low (Leveling operation downward edge)	Approx. 35.4% (With 17-inch wheel)
			Approx. 32.1% (With 18-inch wheel)
SWVL SEN RH	Right headlamp swivel activation	Standard position	Approx. 0°
		Activation	Positive degree (+°)
SWVL SEN LH	Left headlamp swivel activation	Standard position	Approx. 0°
		Activation	Positive degree (+°)
SWVL ANGLE RH	Right headlamp swivel activation	Standard position	Approx. 0°
		Activation	Positive degree (+°)
SWVL ANGLE LH	Left headlamp swivel activation	Standard position	Approx. 0°
		Activation	Positive degree (+°)

### TERMINAL LAYOUT

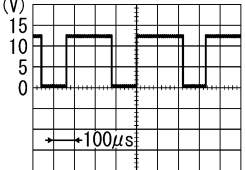
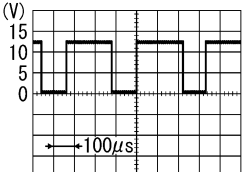


### PHYSICAL VALUES

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ output			
1 (Y)	Ground	Ignition power supply	Input	The ignition switch ON		Battery voltage
2 (LG)	Ground	Right swivel position sensor ground	Input	The ignition switch ON		0 V
4 (Y)	Ground	Right swivel position sensor power supply	Output	The ignition switch ON		5 V
6 (W)	Ground	Height sensor power supply	Output	The ignition switch ON		5 V
7 (P)	Ground	CAN-L	Input/ output	—		—
8 (B)	Ground	Height sensor ground	Input	The ignition switch ON		0 V
9 (GR)	Ground	Right swivel position sensor signal	Output	Right headlamp swivel angle	0°	0.7 V
					15°	2.8 V
11 (R)	Ground	Right swivel motor 1-phase (−)	Output	Right headlamp swivel	Activation	<div>Reference waveform</div> <div></div> <div>8 - 12 V</div>
13 (B)	Ground	Right swivel motor 2-phase (−)	Output	Right headlamp swivel	Stopped	9.5 - 11.5 V
15 (G)	Ground	Left swivel motor 1-phase (+)	Output	Left headlamp swivel	Activation	<div>Reference waveform</div> <div></div> <div>8 - 12 V</div>
17 (W)	Ground	Left swivel motor 2-phase (+)	Output	Left headlamp swivel	Stopped	9.5 - 11.5 V
19 (SB)	Ground	Right levelizer signal	Output	Right headlamp leveling	Unloaded vehicle condition	8.8 V
					Leveling operation downward edge	4.4 V (With 17-inch wheel)
						4.0 V (With 18-inch wheel)
24 (V)	Ground	Left swivel position sensor power supply	Output	The ignition switch ON		5 V
25 (B)	Ground	Ground	—	The ignition switch ON		0 V
27 (BR)	Ground	Left swivel position sensor ground	Input	The ignition switch ON		0 V

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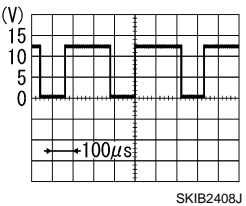
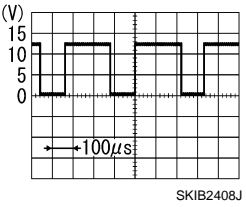
O

P

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ output			
28 (SB)	Ground	Height sensor signal	Output	Vehicle rear height	Unloaded vehicle condition	2.5 V
					Low (Leveling operation downward edge)	1.6 V
29 (O)	Ground	Left swivel position sensor signal	Output	Left headlamp swivel angle	0°	0.7 V
					17°	3.0 V
30 (L)	Ground	CAN-H	Input/ output	—		—
32 (G)	Ground	Right swivel motor 2-phase (+)	Output	Right headlamp swivel	Activation	<p>Reference waveform</p>  <p>8 - 12 V</p>
34 (W)	Ground	Right swivel motor 1-phase (+)	Output	Right headlamp swivel	Stopped	9.5 - 11.5 V
36 (R)	Ground	Left swivel motor 2-phase (-)	Output	Left headlamp swivel	Activation	<p>Reference waveform</p>  <p>8 - 12 V</p>
38 (B)	Ground	Left swivel motor 1-phase (-)	Output	Left headlamp swivel	Stopped	9.5 - 11.5 V
40 (L)	Ground	Left levelizer signal	Output	Right headlamp leveling	Unloaded vehicle condition	8.8 V
					Leveling operation downward edge	4.4 V (With 17-inch wheel)
						4.0 V (With 18-inch wheel)


# AFS CONTROL UNIT

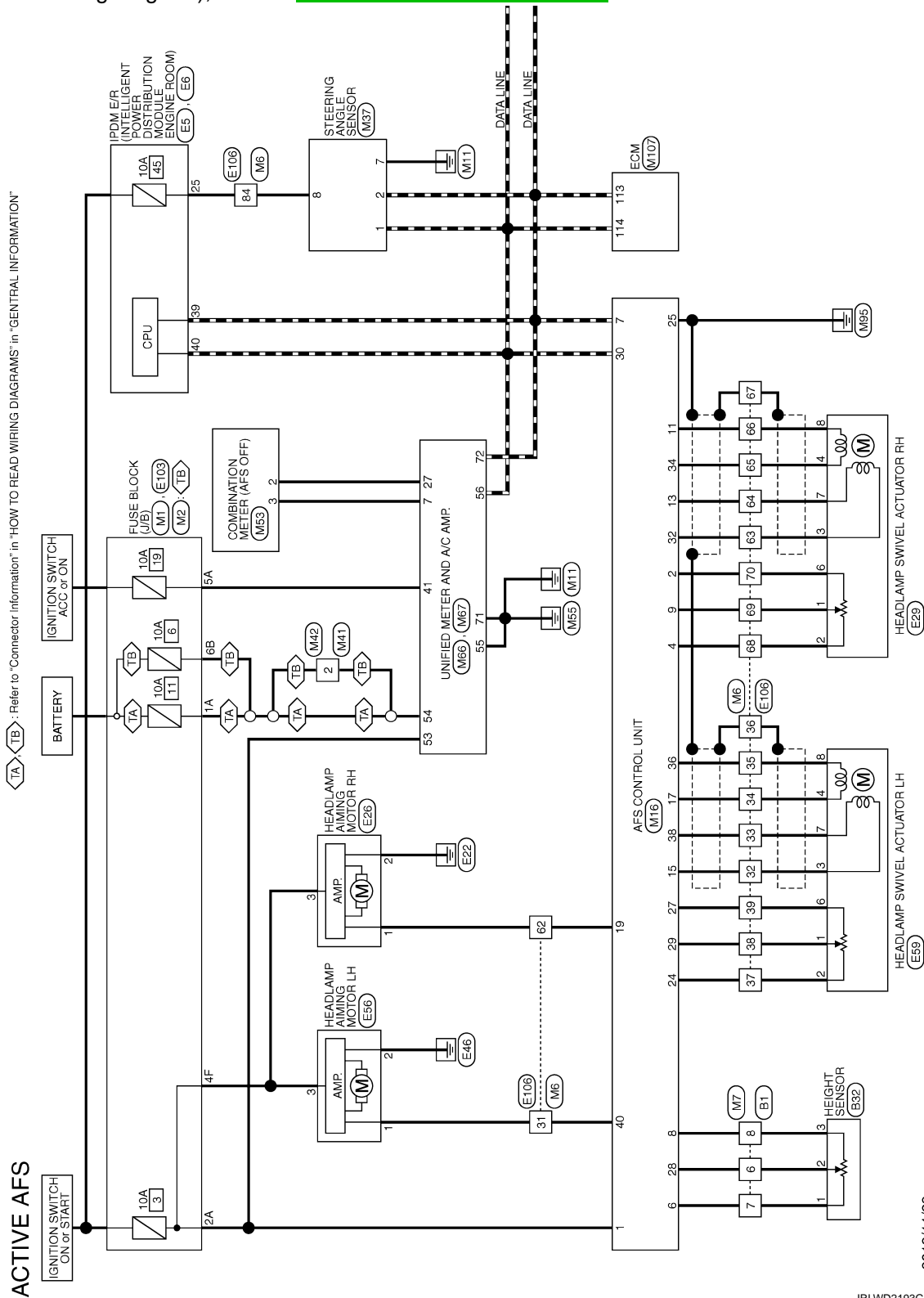
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## Wiring Diagram - ACTIVE AFS -

INFOID:000000000289065

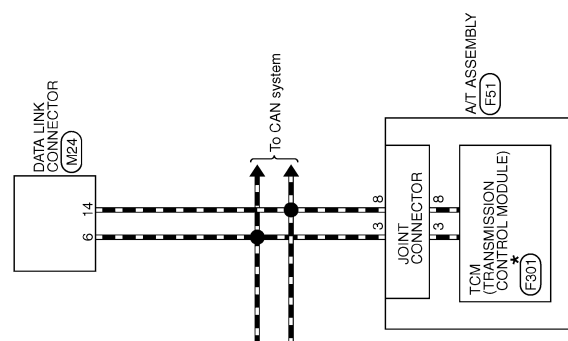
For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GL-12, "Connector Information"](#).



2013/11/22

JRLWD2193GB

★ : This connector is not shown in "Harness Layout".



JRLWD2194GB

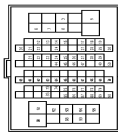
# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH09FW-CS16-TM4



Terminal No.	Color	Off Wire	Signal Name [Specification]
3	R	-	-
5	G	-	-
6	SB	-	-
7	V	-	-
8	L	-	-
12	SB	-	-
13	LG	-	-
14	GR	-	-
15	LG	-	-
17	W	-	-
18	SB	-	-
19	LG	-	-
20	BR	-	-
21	SHIELD	-	-
22	Y	-	-
24	P	-	-
27	B	-	-
28	R	-	-
29	W	-	-
30	SHIELD	-	-
32	W	-	-
33	SB	-	-
34	L	-	-
35	P	-	-
36	L	-	-
37	P	-	-
38	BR	-	-
39	Y	-	-
44	Y	-	-
45	GR	-	-
46	LG	-	-
47	SB	-	-
49	G	-	-
50	V	-	-

60	P	-	-
61	L	-	-
62	SHIELD	-	-
63	R	-	-
64	G	-	-
65	SHIELD	-	-
66	W	-	-
67	V	-	-
68	SB	-	-
69	SHIELD	-	-
70	W	-	-
73	SB	-	-
74	L	-	-
75	W	-	-
76	BR	-	-
77	R	-	-
78	P	-	-
79	GR	-	-
83	RG	-	-
85	V	-	-
86	LG	-	-
87	Y	-	-
88	R	-	-
89	B	-	-
90	BG	-	-
91	G	-	-
92	BR	-	-
93	G	-	-
94	SB	-	-
95	G	-	-
96	Y	-	-
98	W	-	-
99	GR	-	-

Connector No.	B32
Connector Name	HEIGHT SENSOR
Connector Type	RH03FB



Terminal No.	Color	Off Wire	Signal Name [Specification]
1	V	-	-
2	SB	-	-
3	L	-	-

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH09FW-CS12-M4-1V



Terminal No.	Color	Off Wire	Signal Name [Specification]
4	V	-	-
5	L	-	-
7	R	-	-
12	B/W	-	-
13	Y	-	-
16	LG	-	-
19	W	-	-
25	G	-	-
26	R	-	-
27	BG	-	-
28	L	-	-
30	GR	-	-
36	G	-	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH09FW-AH1



Terminal No.	Color	Off Wire	Signal Name [Specification]
39	P	-	-
40	L	-	-
41	B/W	-	-
43	SB	-	-
44	BR	-	-
45	G	-	-
46	R	-	-

Connector No.	E26
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	HS03GY



Terminal No.	Color	Off Wire	Signal Name [Specification]
1	SB	-	-
2	B	-	-
3	G	-	-

JRLWD2339GB

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# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

Connector No.	E29
Connector Name	HEADLAMP SWIVEL ACTUATOR RH
Connector Type	RS08FGY-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	Y	-
3	W	-
4	G	-
6	W	-
7	B	-
8	R	-

Connector No.	E56
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	HS03FGY



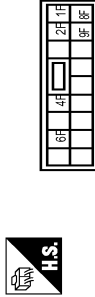
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	-
2	B	-
3	G	-

Connector No.	E59
Connector Name	HEADLAMP SWIVEL ACTUATOR LH
Connector Type	RS08FGY-PR



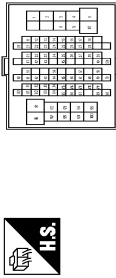
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	V	-
3	W	-
4	R	-
6	BG	-
7	B	-
8	G	-

Connector No.	E103
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH09FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
6	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-

43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]
78	BR	- [With ICC]
78	L	- [Without ICC]
79	L	- [With ICC]
79	Y	- [Without ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
96	BG	-
96	P	-

JRLWDD2340GB



# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	F51
Connector Name	AUT ASSEMBLY
Connector Type	IRK10FG-DGY



Terminal No.	Color	Wire	Signal Name [Specification]
1	Y	-	POWER SUPPLY
2	BR	-	POWER SUPPLY (MEMORY BACK-UP)
3	O	-	CAN-H
4	V	-	K LINE
5	B	-	GROUND
6	Y	-	POWER SUPPLY
7	R	-	BACK-UP LAMP RELAY
8	LG	-	CAN-L
9	GR	-	STARTER RELAY
10	B	-	GROUND

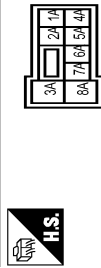
Connector No.	F301
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SP10FG



Terminal No.	Color	Wire	Signal Name [Specification]
1	-	-	POWER SUPPLY
2	-	-	POWER SUPPLY (MEMORY BACK-UP)
3	-	-	CAN-H
4	-	-	K LINE

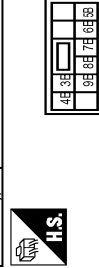
5	-	GROUND
6	-	POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Color	Wire	Signal Name [Specification]
1A	GR	-	-
2A	G	-	-
3A	L	-	-
4A	P	-	- [For push button]
5A	V	-	- [For key slot]
6A	Y	-	-
7A	R	-	-
8A	L	-	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
3B	P	-	-
4B	G	-	-
5B	BG	-	-

6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	R	-	-
3	B	-	-
4	SHIELD	-	-
5	G	-	-
6	Y	-	-
7	BR	-	-
8	R	-	-
9	BR	-	-
10	R	-	-
11	BR	-	-
12	BG	-	-
13	L	-	-
14	R	-	-
15	P	-	-
16	V	-	-
17	SB	-	-
18	V	-	-
20	BG	-	-
21	L	-	-
22	W	-	-
23	P	-	-
24	BR	-	-
25	Y	-	-
26	V	-	-
27	G	-	-
28	G	-	-
30	L	-	-
32	G	-	-
33	B	-	-
34	W	-	-
35	R	-	-

36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
74	L	-
75	G	-
76	GR	-
76	W	-
77	P	-
77	R	-
78	L	-
78	R	-
79	W	-
79	Y	-
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	G	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-

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# AFS CONTROL UNIT

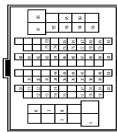
< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	L	-
32	P	-
33	SB	-
34	L	-

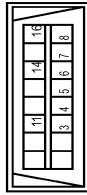
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-
94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

Connector No.	M16
Connector Name	AFS CONTROL UNIT
Connector Type	TH40FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	IGN
2	LG	PSG-R
4	Y	PSV-R
6	W	HSV-R
7	P	CAN-L
8	B	HSG-R
9	GR	PSR
11	R	SMR-1 (c)
13	B	SMR-2 (c)
15	G	SMR-1 (+)
17	W	SMR-2 (+)
19	SB	AMDS-R
24	V	PSV-L
25	B	GROUND
27	BR	PSG-L
28	BG	HSR
29	BG	PS-L
30	L	CAN-H
32	G	SMR-2 (+)
34	W	SMR-1 (+)
36	R	SMR-1 (c)
38	B	SMR-2 (c)
40	L	AMDS-L

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M37
Connector Name	STEERING ANGLE SENSOR
Connector Type	TH08FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	CAN-H
2	P	CAN-L
7	B	GROUND
8	G	IGN

JRLW02342GB

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



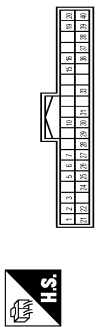
Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



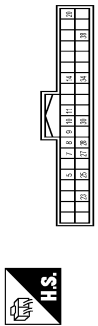
Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-AH



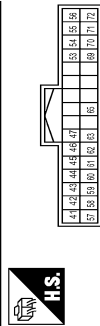
Terminal No.	Color	Wire	Signal Name [Specification]
1	GR	-	BATTERY POWER SUPPLY
2	LG	-	COMMUNICATION SIGNAL (AMP-AMP)
3	GR	-	COMMUNICATION SIGNAL (AMP-METER)
4	B	-	GROUND
5	B	-	ALTERNATOR SIGNAL
6	P	-	AIR BAG SIGNAL
7	BR	-	SECURITY SIGNAL
10	G	-	GROUND
15	B	-	METER CONTROL SWITCH GROUND
16	B	-	ILL GND
19	B	-	ILL
20	R	-	IGNITION SIGNAL
21	BG	-	GROUND
22	B	-	COMMUNICATION SIGNAL (LCD-AMP)
24	BR	-	COMMUNICATION SIGNAL (AMP-LCD)
25	Y	-	VEHICLE SPEED SIGNAL (8-PULSE)
26	R	-	PARKING BRAKE SWITCH SIGNAL
27	V	-	VEHICLE SPEED SIGNAL
28	W	-	VEHICLE SPEED SIGNAL
29	SB	-	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	G	-	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
31	L	-	WASHER LEVEL SWITCH SIGNAL
33	B	-	ILLUMINATION CONTROL SIGNAL
36	LG	-	SELECT SWITCH SIGNAL
37	SB	-	ENTER SWITCH SIGNAL
38	L	-	TRIP AIR RESET SWITCH SIGNAL
39	P	-	ILLUMINATION CONTROL SWITCH SIGNAL (+)
40	BG	-	ILLUMINATION CONTROL SWITCH SIGNAL (-)

Connector No.	M66
Connector Name	UNITED METER AND A/C AMP.
Connector Type	TH40FW-AH



Terminal No.	Color	Wire	Signal Name [Specification]
5	L	-	MANUAL MODE SHIFT UP SIGNAL
7	GR	-	COMMUNICATION SIGNAL (AMP-METER)
8	L	-	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	-	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	-	VEHICLE SPEED SIGNAL
11	G	-	NON-MANUAL MODE SIGNAL
14	BR	-	COMMUNICATION SIGNAL (LCD-AMP)
20	L	-	ION ON/OFF SIGNAL
23	Y	-	AT SNOW SWITCH SIGNAL
25	V	-	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	-	COMMUNICATION SIGNAL (METER-AMP)
30	R	-	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	-	PARKING BRAKE SWITCH SIGNAL
34	Y	-	COMMUNICATION SIGNAL (AMP-LCD)
38	P	-	BLOWER MOTOR CONTROL SIGNAL

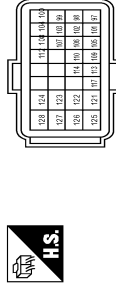
Connector No.	M67
Connector Name	UNITED METER AND A/C AMP.
Connector Type	TH2FW-AH



Terminal No.	Color	Wire	Signal Name [Specification]
41	V	-	ACC POWER SUPPLY
42	Y	-	FUEL LEVEL SENSOR SIGNAL
43	R	-	INTAKE SENSOR SIGNAL
44	LG	-	IN-VEHICLE SENSOR SIGNAL
45	P	-	AMBIENT SENSOR SIGNAL

46	BG	-	SUNLOAD SENSOR SIGNAL
47	G	-	EXHAUST GAS FLOW/TEMPERATURE DETECTING SENSOR SIGNAL
53	G	-	IGNITION POWER SUPPLY
54	Y	-	BATTERY POWER SUPPLY
55	B	-	GROUND
56	L	-	CAN-H
57	W	-	VEHICLE SPEED SIGNAL
58	BR	-	FUEL LEVEL SENSOR GROUND
59	GR	-	INTAKE SENSOR GROUND
60	L	-	IN-VEHICLE SENSOR GROUND
61	BR	-	AMBIENT SENSOR GROUND
62	SB	-	SUNLOAD SENSOR GROUND
63	R	-	ECV SIGNAL
65	BG	-	ECV SIGNAL
69	L	-	A/C CLAN SIGNAL
70	R	-	EACH DOOR MOTOR POWER SUPPLY
71	B	-	GROUND
72	P	-	CAN-L

Connector No.	M107
Connector Name	ECM
Connector Type	PH24FY-R28-R-LH-Z



Terminal No.	Color	Wire	Signal Name [Specification]
97	R	-	ACCELERATOR PEDAL POSITION SENSOR 1
98	P	-	ACCELERATOR PEDAL POSITION SENSOR 2 (W/IN-LCD)
98	Y	-	ACCELERATOR PEDAL POSITION SENSOR 2 (W/IN-LCD)
99	G	-	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 1/2/3)
99	L	-	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 1/2/3)
100	W	-	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 1/2/3)
101	SB	-	ASCD/CC STEERING SWITCH
102	LG	-	EWP CONTROL SYSTEM PRESS SENSOR
103	G	-	SENSOR POWER SUPPLY (EWP CONTROL SYSTEM PRESS SENSOR)
103	L	-	SENSOR POWER SUPPLY (EWP CONTROL SYSTEM PRESS SENSOR)
104	BR	-	SENSOR POWER SUPPLY (EWP CONTROL SYSTEM PRESS SENSOR)
104	GR	-	SENSOR POWER SUPPLY (EWP CONTROL SYSTEM PRESS SENSOR)
105	L	-	REFRIGERANT PRESS SENSOR
106	W	-	FUEL TANK TEMPERATURE SENSOR
107	BG	-	SENSOR POWER SUPPLY (REFRIGERANT PRESS SENSOR)
108	Y	-	SENSOR GROUND (ASCD/CC STEERING SWITCH)

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## ACTIVE AFS

	P/N signal	
109	G	
110	R	ENGINE SPEED OUTPUT SIGNAL
112	V	SENSOR GROUND (EAP CONTROL SYSTEM PRESS-SENSOR)
113	P	CAN COMMUNICATION LINE
114	L	CAN COMMUNICATION LINE
117	V	DATA LINK CONNECTOR
121	LG	EVAP CANISTER VENT CONTROL VALVE
122	P	STOP LAMP SWITCH
123	B	ECM GROUND
124	B	ECM GROUND
125	R	POWER SUPPLY FOR ECM
126	BR	ASCD/ICC BRAKE SWITCH
127	B	ECM GROUND
128	B	ECM GROUND

JRLWD2344GB

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## Fail-safe

INFOID:000000008289066

DTC	Fail-safe	AFS OFF indicator lamp	Cancellation
CAN COMM CIRCUIT [U1000]	<ul style="list-style-type: none"> <li>Right and left swivel motors stop at the position when DTC is detected.</li> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
CONTROL UNIT (CAN) [U1010]	<ul style="list-style-type: none"> <li>Right and left swivel motors stop at the position when DTC is detected.</li> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
SWIVEL ACTUATOR [RH, LH] [B2503, B2504]	<ul style="list-style-type: none"> <li>Right and left swivel motors stop at the position when DTC is detected.</li> <li>The signal, approximately 2 V decreased from the levelizer signal when DTC detected, is output.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
HI SEN UNUSUAL [RR] [B2514]	<ul style="list-style-type: none"> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	—	Ignition switch OFF
ST ANG SEN SIG [C0126]	<ul style="list-style-type: none"> <li>Right and left swivel motor swivel angle returns to 0° and fixed.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
SHIFT SIG [P, R] [B2516]	<ul style="list-style-type: none"> <li>Right and left swivel motor swivel angle returns to 0° and fixed.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
VEHICLE SPEED SIG [B2517]	<ul style="list-style-type: none"> <li>Right and left swivel motor swivel angle returns to 0° and fixed.</li> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	Blinks 1 second each.	Ignition switch OFF
LEVELIZER CALIB [B2519]	<ul style="list-style-type: none"> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	—	When the levelizer adjustment is completed.
ST ANGLE SEN CALIB [C0428]	<ul style="list-style-type: none"> <li>Right and left swivel motor swivel angle returns to 0° and fixed.</li> </ul>	Blinks 1 second each.	When the steering angle sensor neutral position registration is completed
ECU CIRC [B2521]	<ul style="list-style-type: none"> <li>Right and left swivel motors stop at the position when DTC is detected.</li> <li>Right and left aiming motors stop at the position when DTC is detected.</li> </ul>	Blinks 1 second each.	Ignition switch OFF

## DTC Inspection Priority Chart

INFOID:000000008289067

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

### NOTE:

- If DTC U1000 is displayed with other DTC, first perform the trouble diagnosis for DTC U1000.
- If DTC U1010 is displayed with other DTC, first perform the trouble diagnosis for DTC U1010.

Priority	Detected items (DTC)
1	<ul style="list-style-type: none"> <li>U1000 CAN COMM CIRCUIT</li> <li>U1010 CONTROL UNIT (CAN)</li> </ul>
2	<ul style="list-style-type: none"> <li>B2519 LEVELIZER CALIB</li> <li>B2521 ECU CIRC</li> <li>C0428 ST ANG SEN CALIB</li> </ul>
3	<ul style="list-style-type: none"> <li>B2503 SWIVEL ACTUATOR [RH]</li> <li>B2504 SWIVEL ACTUATOR [LH]</li> <li>B2514 HI SEN UNUSUAL [RR]</li> <li>B2516 SHIFT SIG [P, R]</li> <li>B2517 VEHICLE SPEED SIG</li> <li>C0126 ST ANG SEN SIG</li> </ul>

# AFS CONTROL UNIT

< ECU DIAGNOSIS INFORMATION >

[XENON TYPE]

## DTC Index

INFOID:000000008289068

×: Applicable

CONSULT indication	Fail-safe	AFS OFF indicator lamp	Reference
U1000: CAN COMM CIRCUIT	×	×	<a href="#">EXL-62, "Description"</a>
U1010: CONTROL UNIT (CAN)	×	×	<a href="#">EXL-63, "DTC Logic"</a>
B2503, B2504: SWIVEL ACTUATOR [RH, LH]	×	×	<a href="#">EXL-45, "Description"</a>
B2514: HI SEN UNUSUAL [RR]	×		<a href="#">EXL-51, "Description"</a>
B2516: SHIFT SIG [P, R]	×	×	<a href="#">EXL-54, "Description"</a>
B2517: VEHICLE SPEED SIG	×	×	<a href="#">EXL-55, "Description"</a>
B2519: LEVELIZER CALIB	×		<a href="#">EXL-56, "Description"</a>
B2521: ECU CIRC	×	×	<a href="#">EXL-57, "Description"</a>
C0126: ST ANG SEN SIG	×	×	<a href="#">EXL-60, "Description"</a>
C0428: ST ANGLE SEN CALIB	×	×	<a href="#">EXL-61, "Description"</a>

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## SYMPTOM DIAGNOSIS

### EXTERIOR LIGHTING SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000008289069

#### CAUTION:

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Halogen bulb (HI)</li> <li>Harness between IPDM E/R and the headlamp high</li> <li>IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-67</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to <a href="#">EXL-202</a> .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	IPDM E/R	—
High beam indicator lamp is not turned ON. [The headlamp (HI) is turned ON.]		Combination meter	<ul style="list-style-type: none"> <li>Combination meter</li> <li>Data monitor "HI-BEAM IND"</li> <li>BCM (HEAD LAMP)</li> <li>Active test "HEADLAMP"</li> </ul>
Headlamp (LO) is not turned ON.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Xenon bulb (LO)</li> <li>Harness between IPDM E/R and the headlamp low</li> <li>IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-69</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-203</a> .	
Headlamp (LO) 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.		<ul style="list-style-type: none"> <li>Combination switch</li> <li>Harness between the combination switch and BCM</li> <li>BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-93</a> .
		<ul style="list-style-type: none"> <li>Optical sensor</li> <li>Harness between the optical sensor and BCM</li> <li>BCM</li> </ul>	Optical sensor Refer to <a href="#">EXL-80</a> .
Front fog lamp is not turned ON.	One side	<ul style="list-style-type: none"> <li>Front fog lamp bulb</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp</li> <li>IPDM E/R</li> </ul>	Front fog lamp circuit Refer to <a href="#">EXL-74</a> .
	Both side	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-205</a> .	
Front fog lamp is not turned ON.			
Parking lamp is not turned ON.		<ul style="list-style-type: none"> <li>Fuse</li> <li>Parking lamp bulb</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp</li> <li>IPDM E/R</li> </ul>	Parking lamp circuit Refer to <a href="#">EXL-76</a> .

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# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Tail lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between IPDM E/R and the rear combination lamp</li> <li>• Rear combination lamp</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-85</a> .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between IPDM E/R and the license plate lamp</li> <li>• License plate lamp</li> </ul>	License plate lamp circuit Refer to <a href="#">EXL-87</a> .
Tail lamp and the license plate lamp are not turned ON.		<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Harness between IPDM E/R and the rear combination lamp</li> <li>• IPDM E/R</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-85</a> .
<ul style="list-style-type: none"> <li>• Parking lamp, the tail lamp and the license plate lamp are not turned ON.</li> <li>• Parking lamp, the tail lamp and the license plate lamp are not turned OFF.</li> </ul> (Each illumination is turned ON/OFF.)		<b>Symptom diagnosis</b> "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-204</a> .	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	<ul style="list-style-type: none"> <li>• Harness between BCM and each turn signal lamp</li> <li>• Turn signal lamp bulb</li> </ul>	Turn signal lamp circuit Refer to <a href="#">EXL-78</a> .
	Indicator lamp is included	<ul style="list-style-type: none"> <li>• Combination switch</li> <li>• Harness between the combination switch and BCM</li> <li>• BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-93</a> .
Turn signal indicator lamp does not blink. (The turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> <li>• Turn signal indicator lamp signal</li> <li>- Unified meter and A/C amp.</li> <li>- BCM</li> <li>• Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>• Unified meter and A/C amp.</li> <li>Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>Active test "FLASHER"</li> </ul>
	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• The combination meter power supply and the ground circuit</li> <li>• Combination meter</li> </ul>	Combination meter Power supply and the ground circuit Refer to <a href="#">MWI-55</a> .
<ul style="list-style-type: none"> <li>• Hazard warning lamp does not activate.</li> <li>• Hazard warning lamp continues activating.</li> </ul> (Turn signal is normal.)		<ul style="list-style-type: none"> <li>• Hazard switch</li> <li>• Harness between the hazard switch and BCM</li> <li>• BCM</li> </ul>	Hazard switch Refer to <a href="#">EXL-83</a> .
Headlamp auto aiming does not activate. (AFS is normal.)		<ul style="list-style-type: none"> <li>• Harness between AFS control unit and aiming motor</li> <li>• Front combination lamp (Aiming motor)</li> <li>• AFS control unit</li> </ul>	Headlamp levelizer circuit Refer to <a href="#">EXL-72</a> .
AFS OFF indicator lamp is not turned ON.		<ul style="list-style-type: none"> <li>• AFS OFF indicator lamp signal</li> <li>- Unified meter and A/C amp.</li> <li>- AFS control unit</li> <li>• Combination meter</li> </ul>	Unified meter and A/C amp. Data monitor "AFS OFF IND"



## NORMAL OPERATING CONDITION

### Description

INFOID:0000000008289070

#### XENON HEADLAMP

- Brightness and the color of light may change slightly immediately after turning the headlamp ON until the xenon bulb becomes stable. This is normal.
- Illumination time lag may occur between right and left. This is normal.

#### AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes for the control difference. This is normal.

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# BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

### Description

INFOID:000000008289071

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

### Diagnosis Procedure

INFOID:000000008289072

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93, "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 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-96, "Exploded View"](#).

#### 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-67, "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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

### Description

INFOID:000000008289073

The headlamps (both sides) are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000008289074

#### 1.CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-93. "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 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.

#### 3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-69. "Description"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

# PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

### Description

INFOID:000000008289075

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

### Diagnosis Procedure

INFOID:000000008289076

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT DATA MONITOR

1. Select "TAIL & CLR REQ" 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.

#### 3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-85, "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

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

### Description

INFOID:000000008289077

The front fog lamps are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000008289078

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

##### CONSULT DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.

2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status
FR FOG REQ	Front fog lamp switch (Lighting switch 2ND)	ON On
		OFF Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

#### 3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-74. "Component Function Check"](#).

Is the front fog lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

EXL

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000008289079

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:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

#### Precautions For Xenon Headlamp Service

INFOID:000000008289080

#### **WARNING:**

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

#### **CAUTION:**

Comply with the following cautions to prevent any error and malfunction.

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

# HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

## PERIODIC MAINTENANCE

### HEADLAMP AIMING ADJUSTMENT

#### Description

INFOID:000000008289081

#### 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.

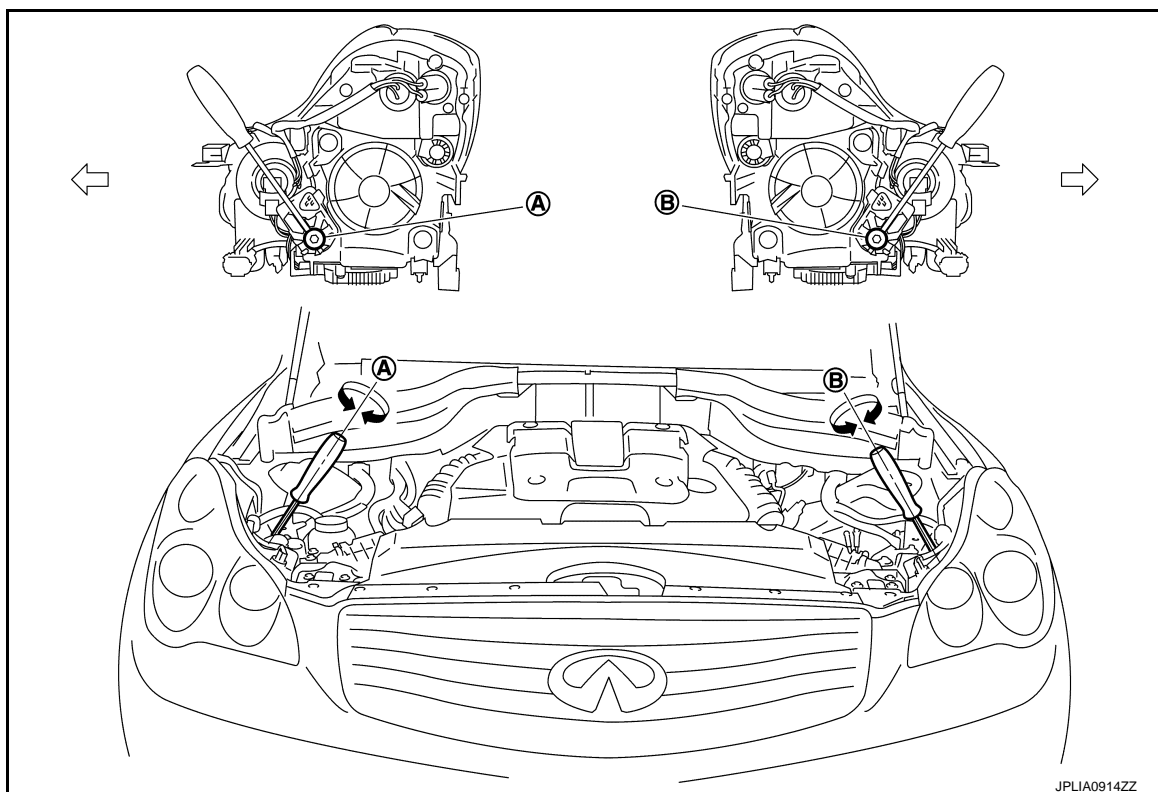
- Wipe out dirt on the headlamp.

##### 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

##### NOTE:

The figure is the vehicle without AFS. Each adjustment screw is applied to the vehicle with AFS.

# HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

Adjustment screw		Screw driver rotation	Facing direction
A	Headlamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Headlamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN

## Aiming Adjustment Procedure

INFOID:000000008289082

- Place the screen.

### NOTE:

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

- Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the headlamp center and the screen.

- Start the engine. Turn the headlamp (LO) ON.

### NOTE:

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

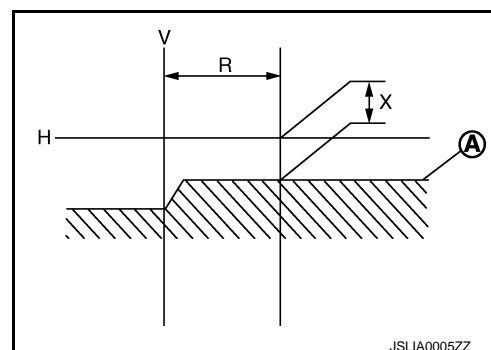
### CAUTION:

**Never cover the lens surface with a tape etc. The lens is made of resin.**

- 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



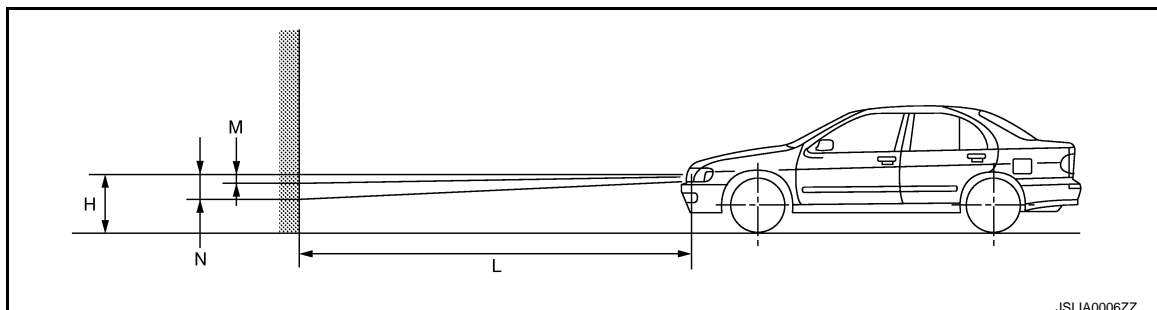
JSLIA0005ZZ

- 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



JSLIA0006ZZ

**Distance between the headlamp center and the screen (L) : 10 m (32.8 ft)**



# FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

## FRONT FOG LAMP AIMING ADJUSTMENT

### Description

INFOID:000000008289083

### 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

- Turn the aiming adjusting screw for adjustment.

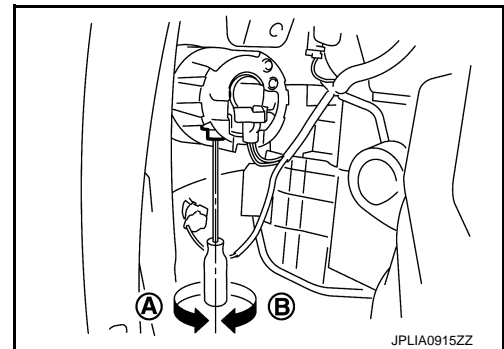
A: UP

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:000000008289084

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. Turn the front fog lamp 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.**

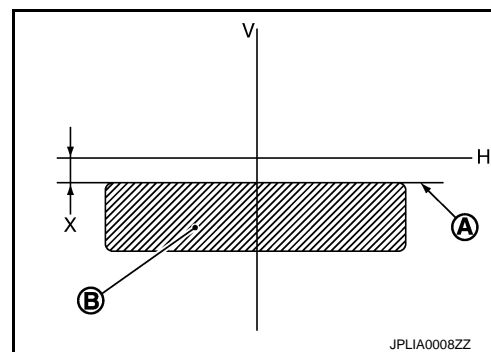
4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

# FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[XENON TYPE]

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

# FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[XENON TYPE]

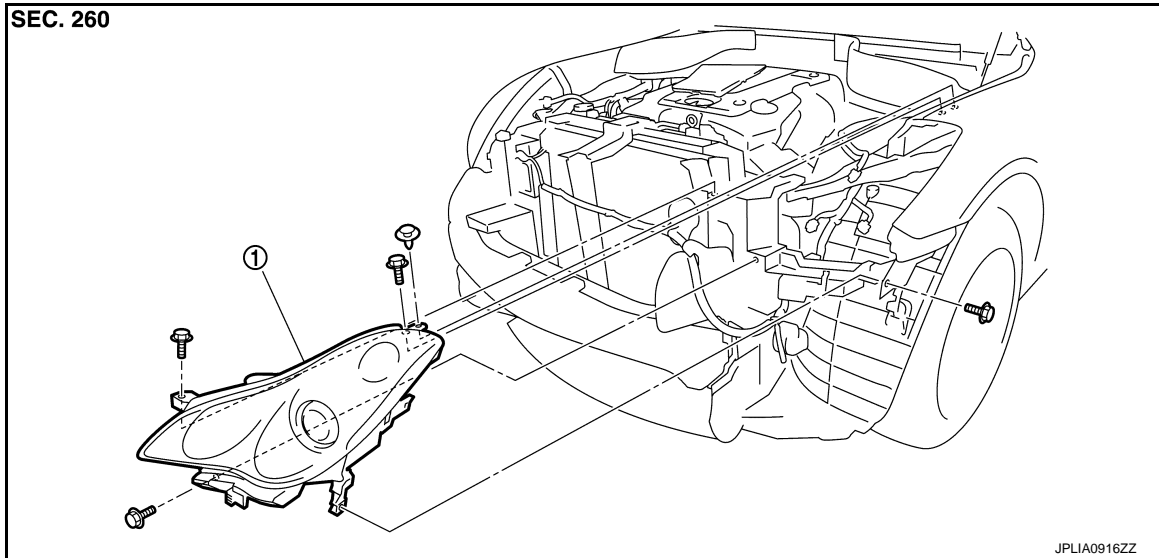
## REMOVAL AND INSTALLATION

### FRONT COMBINATION LAMP

Exploded View

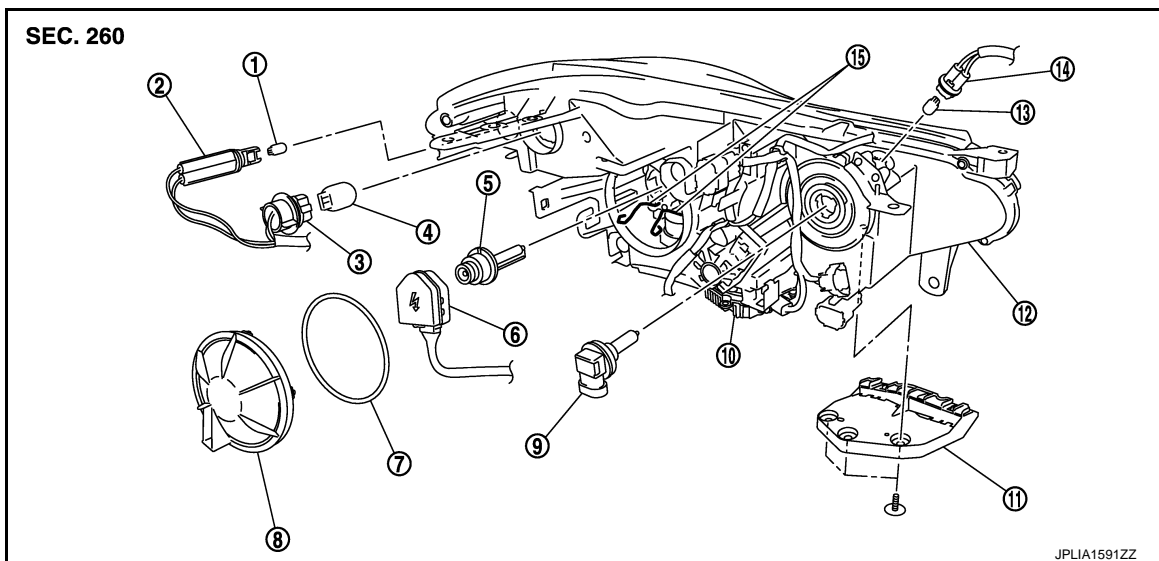
INFOID:000000008289085

#### REMOVAL



1. Front combination lamp

#### DISASSEMBLY



- |                                |                                       |                                       |
|--------------------------------|---------------------------------------|---------------------------------------|
| 1. Front side marker lamp bulb | 2. Front side marker lamp bulb socket | 3. Front turn signal lamp bulb socket |
| 4. Front turn signal lamp bulb | 5. Xenon bulb                         | 6. Xenon bulb socket                  |
| 7. Seal packing                | 8. Resin cap                          | 9. Headlamp (HI) bulb                 |
| 10. HID control unit           | 11. Bumper bracket                    | 12. Headlamp housing assembly         |
| 13. Parking lamp bulb          | 14. Parking lamp bulb socket          | 15. Retaining spring                  |

#### CAUTION:

HID control unit and xenon bulb socket cannot be disassembled.

# FRONT COMBINATION LAMP

[XENON TYPE]

< REMOVAL AND INSTALLATION >

## Removal and Installation

INFOID:000000008289086

### REMOVAL

#### CAUTION:

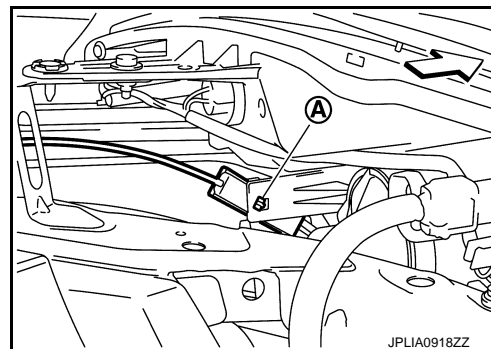
**Disconnect the battery negative terminal or remove the fuse.**

1. Remove the front bumper fascia. Refer to [EXT-12. "Exploded View"](#).
2. Remove the headlamp mounting bolts and clips.
3. Remove the harness clip and the holding clip (A) \*.

\*: Left side only.

⇐ : Vehicle front

4. Pull out the headlamp assembly forward the vehicle.
5. 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-207. "Description"](#).

### Replacement

INFOID:000000008289087

#### CAUTION:

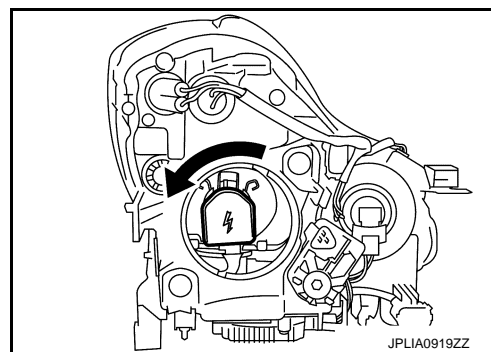
- **Disconnect the battery negative terminal or remove the fuse.**
- **After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**
- **Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.**
- **Never touch bulb by hand 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 (LO)

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the resin cap counterclockwise and unlock it.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the retaining spring lock. And then remove the bulb from the headlamp housing assembly.

#### CAUTION:

**Never break the xenon bulb ceramic tube when replacing the bulb.**



### HEADLAMP BULB (HI)

1. Remove the washer tank inlet \*. Refer to [WW-112. "Exploded View"](#).

\*:When replace a right.

2. Disconnect the headlamp (HI) bulb connector.
3. Rotate the bulb socket counterclockwise and unlock it.
4. Remove the bulb socket from the headlamp housing assembly.

### PARKING LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.

# FRONT COMBINATION LAMP

## < REMOVAL AND INSTALLATION >

[XENON TYPE]

2. Remove the bulb from the bulb socket.

### FRONT TURN SIGNAL LAMP BULB

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

### FRONT SIDE MARKER LAMP BULB

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

## Disassembly and Assembly

INFOID:000000008289088

### **CAUTION:**

**HID control unit and xenon bulb socket cannot be disassembled.**

### DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Rotate the xenon bulb socket counterclockwise and unlock it.
3. Remove the retaining spring lock. Remove the xenon bulb.
4. Remove the bumper bracket.
5. Rotate the parking lamp bulb socket counterclockwise and unlock it.
6. Remove the bulb from the parking lamp bulb socket.
7. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
8. Remove the bulb from the front turn signal lamp bulb socket.
9. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.
10. Remove the bulb from the front side marker lamp bulb socket.
11. Rotate the headlamp (HI) bulb socket counterclockwise and unlock it.
12. Remove the bulb socket from the headlamp housing assembly.

### ASSEMBLY

Assemble in the reverse order of disassembly.

### **CAUTION:**

**After installing the bulb, install the resin cap and the bulb socket securely for watertightness.**

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

# FRONT FOG LAMP

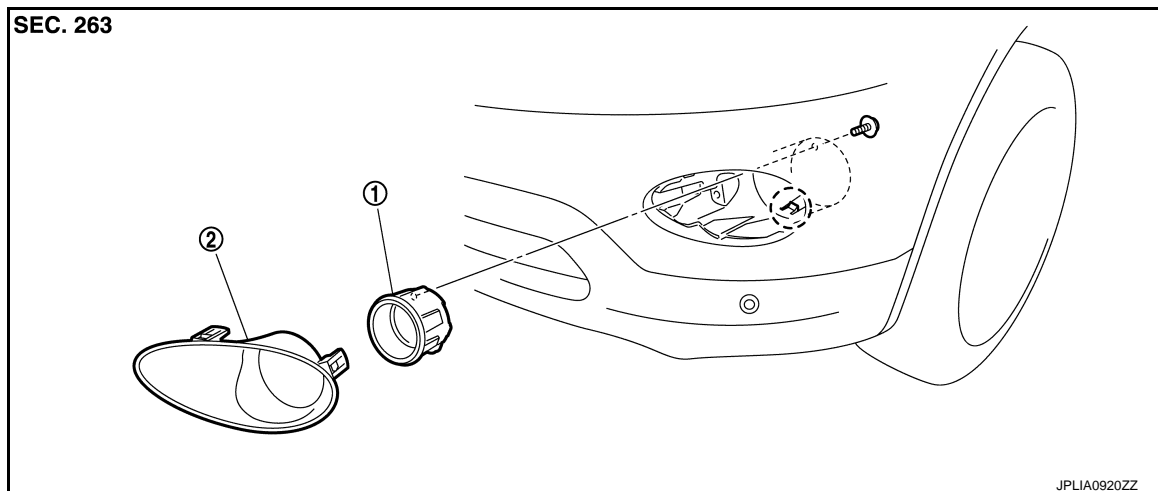
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## FRONT FOG LAMP

### Exploded View

INFOID:000000008289089



1. Front fog lamp
2. Front fog lamp finisher

○ : Pawl

### Removal and Installation

INFOID:000000008289090

#### CAUTION:

Disconnect the battery negative terminal or remove the fuse.

#### REMOVAL

1. Remove the front fender protector. Keep a service area. Refer to [EXT-25. "FENDER PROTECTOR : Exploded View"](#).
2. Remove the front fog lamp finisher.
3. Remove the front fog lamp connector.
4. Remove the screw.
5. Disengage the pawl. And then remove the front fog lamp.

#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

After installation, perform aiming adjustment. Refer to [EXL-209. "Description"](#)

### Replacement

INFOID:000000008289091

#### 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.

#### FRONT FOG LAMP BULB

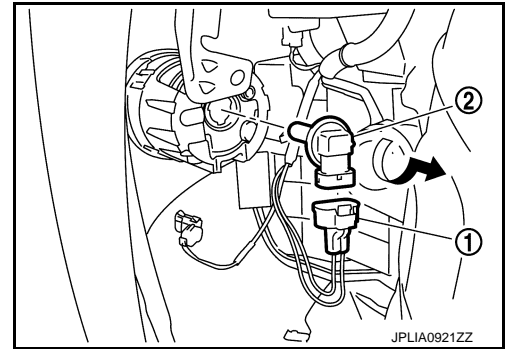
1. Remove the front fender protector. Keep the service area. Refer to [EXT-25. "FENDER PROTECTOR : Exploded View"](#).

## FRONT FOG LAMP

### < REMOVAL AND INSTALLATION >

[XENON TYPE]

2. Remove the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.

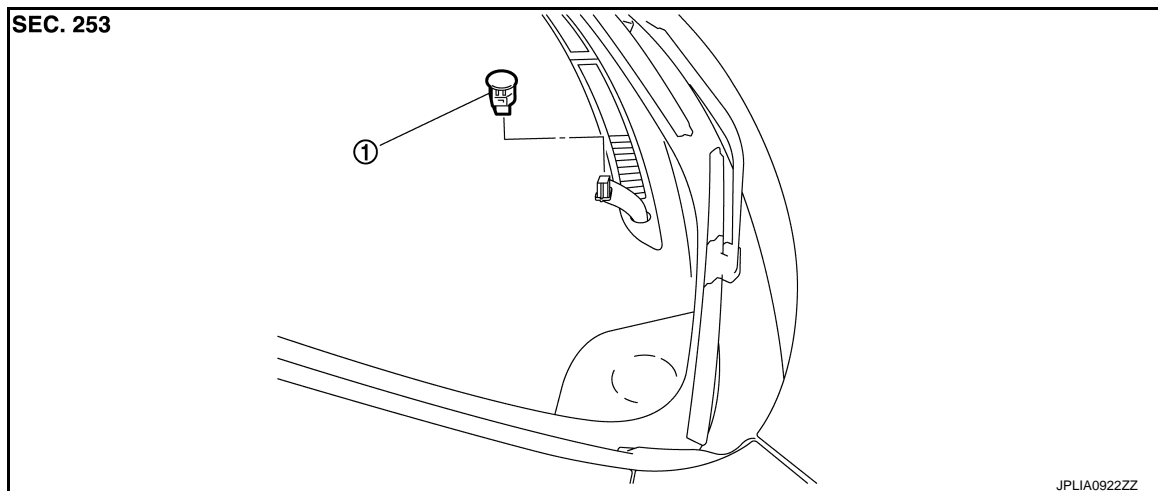


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL  
M  
N  
O  
P

## OPTICAL SENSOR

### Exploded View

INFOID:000000008289092



1. Optical sensor

### Removal and Installation

INFOID:000000008289093

#### REMOVAL

1. Insert an appropriate tool between the optical sensor and the instrument upper panel. Pull out the optical sensor upward.
2. Disconnect the optical sensor connector. And then remove the optical sensor.

#### INSTALLATION

Install in the reverse order of removal.



# LIGHTING AND TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[XENON TYPE]

## LIGHTING AND TURN SIGNAL SWITCH

### Exploded View

INFOID:0000000008289094

Lighting and turn signal switch is integrated in the combination switch. [BCS-97. "Exploded View".](#)

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

---

### HAZARD SWITCH

#### Exploded View

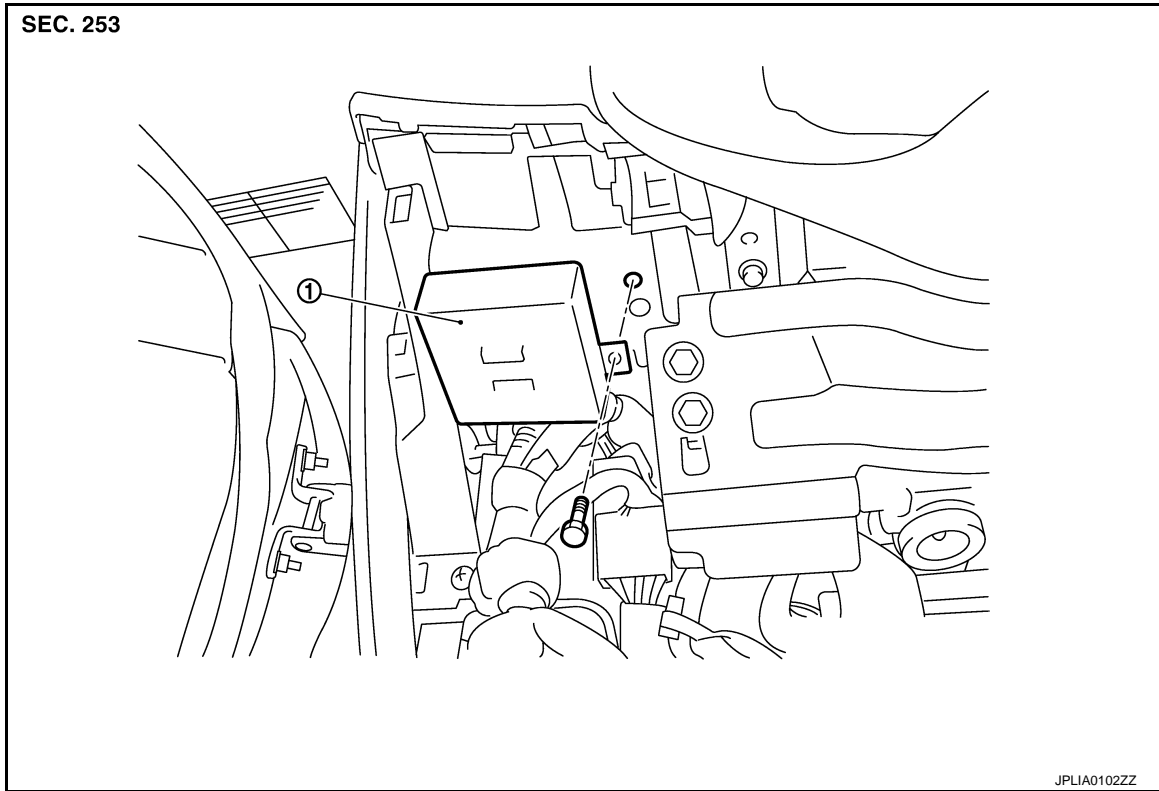
INFOID:000000008289095

The hazard warning switch is integrated in the multifunction switch. Refer to [AV-138. "Exploded View"](#).

## AFS CONTROL UNIT

### Exploded View

INFOID:0000000008289096



1. AFS control unit

### Removal and Installation

INFOID:0000000008289097

#### REMOVAL

1. Remove the instrument lower panel LH. Refer to [IP-12. "Exploded View"](#).
2. Remove the AFS control unit mounting bolt.
3. Disconnect the AFS control unit connector.
4. Remove the AFS control unit.

#### INSTALLATION

Install in the reverse order of removal.

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

## STEERING ANGLE SENSOR

< REMOVAL AND INSTALLATION >

[XENON TYPE]

---

### STEERING ANGLE SENSOR

#### Removal and Installation

INFOID:000000008289098

Refer to [SR-14. "Removal and Installation"](#).

# HEIGHT SENSOR

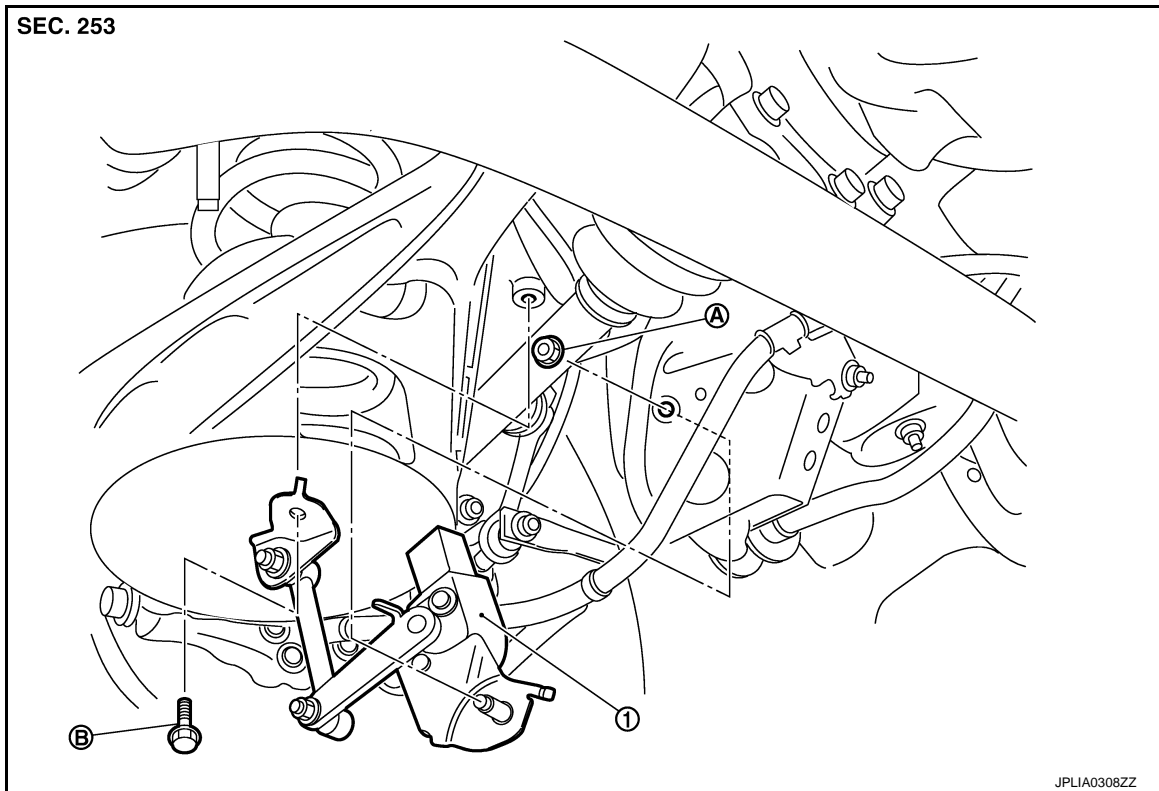
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## HEIGHT SENSOR

### Exploded View

INFOID:0000000008289099



- 1. Height sensor
- A Height sensor mounting nut
- B. Height sensor lever link bracket mounting bolt

### Removal and Installation

INFOID:0000000008289100

#### REMOVAL

1. Remove the height sensor mounting nut.
2. Remove the height sensor lever link bracket mounting bolt.
3. Disconnect the height sensor connector.
4. Remove the height sensor.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Perform the levelizer adjustment when removing the height sensor. Refer to [EXL-10, "LEVELIZER ADJUSTMENT : Special Repair Requirement"](#).

## REAR COMBINATION LAMP

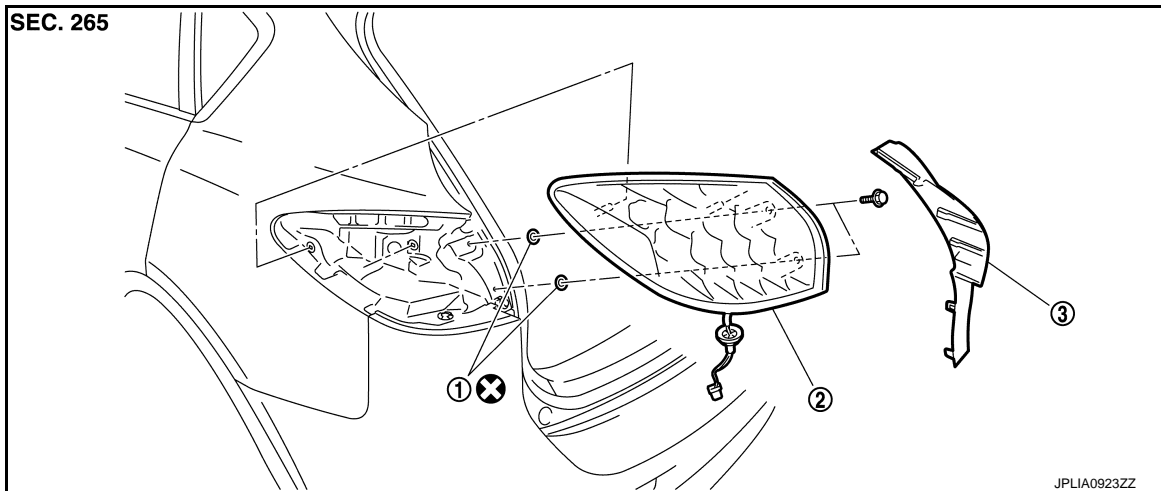
< REMOVAL AND INSTALLATION >

[XENON TYPE]

### REAR COMBINATION LAMP

#### Exploded View

INFOID:000000008289101



1. Seal packing
2. Rear combination lamp
3. Rear combination lamp finisher

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### Removal and Installation

INFOID:000000008289102

##### **CAUTION:**

**Disconnect the battery negative terminal or remove the fuse.**

##### REMOVAL

1. Remove the luggage side finisher lower. Refer to [INT-36, "Exploded View"](#).
2. Remove the rear combination lamp finisher.
3. Remove the rear combination lamp mounting bolts.
4. Disconnect the rear combination lamp connector.
5. Pull the rear combination lamp toward outside of the vehicle. Remove the rear combination lamp.

##### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Seal packing cannot be reused.**

# REAR TURN SIGNAL LAMP

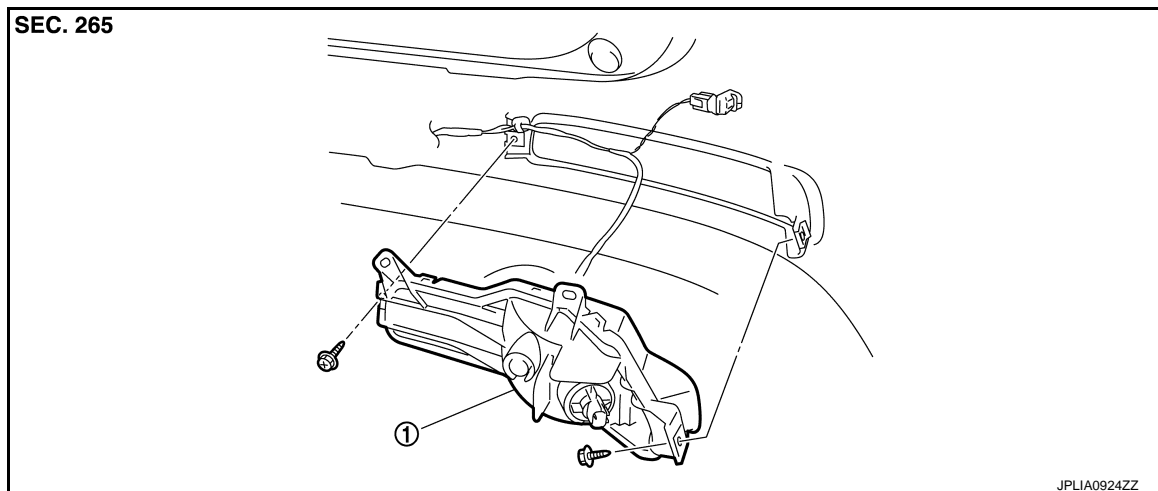
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## REAR TURN SIGNAL LAMP

### Exploded View

INFOID:000000008289103



1. Rear turn signal lamp

### Removal and Installation

INFOID:000000008289104

#### CAUTION:

**Disconnect the battery negative terminal or remove the fuse.**

#### REMOVAL

1. Remove the rear bumper fascia. Refer to [EXT-16, "Exploded View"](#).
2. Remove the rear turn signal lamp.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

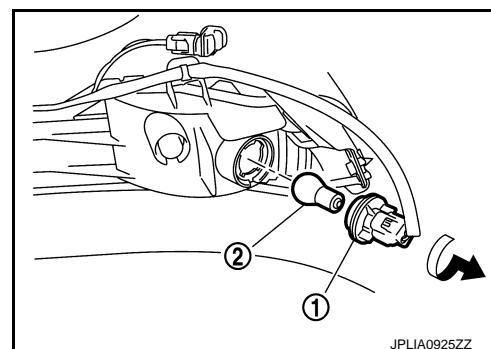
INFOID:000000008289105

#### 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.**

### REAR TURN SIGNAL LAMP BULB

1. Turn the bulb socket (1) counterclockwise and unlock it.
2. Remove the bulb (2) from the socket.



# HIGH-MOUNTED STOP LAMP

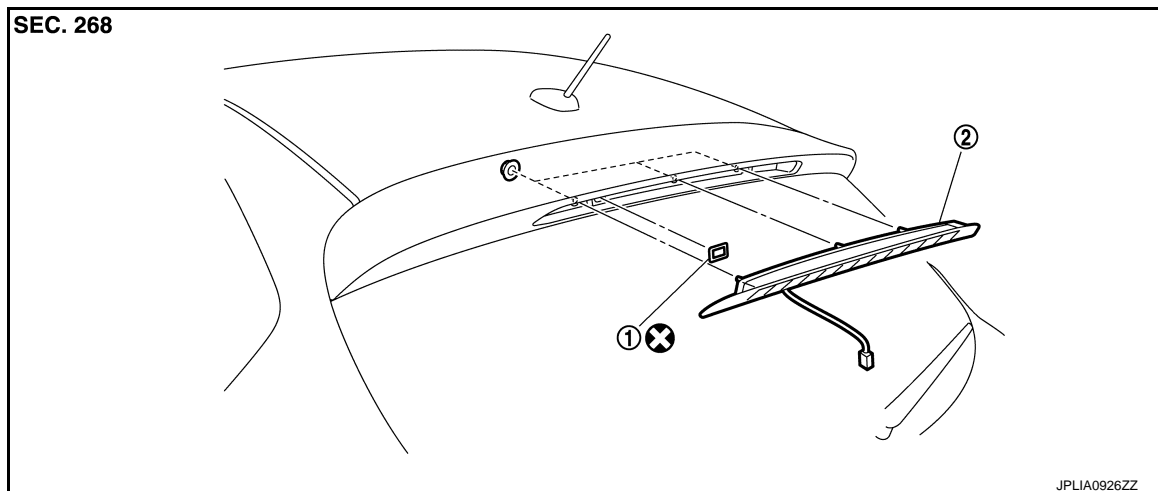
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## HIGH-MOUNTED STOP LAMP

### Exploded View

INFOID:000000008289106



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4, "Components"](#) for symbols in the figure.

### Removal and Installation

INFOID:000000008289107

#### REMOVAL

1. Remove the back door finisher inner. Refer to [INT-40, "Exploded View"](#).
2. Remove the high-mounted stop lamp mounting nuts.
3. Disconnect the high-mounted stop lamp connector. And then remove the rear washer tube.
4. Pull the high-mounted stop lamp toward rear of the vehicle.
5. Remove the high-mounted stop lamp.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Seal packing cannot be reused.**



# BACK-UP LAMP

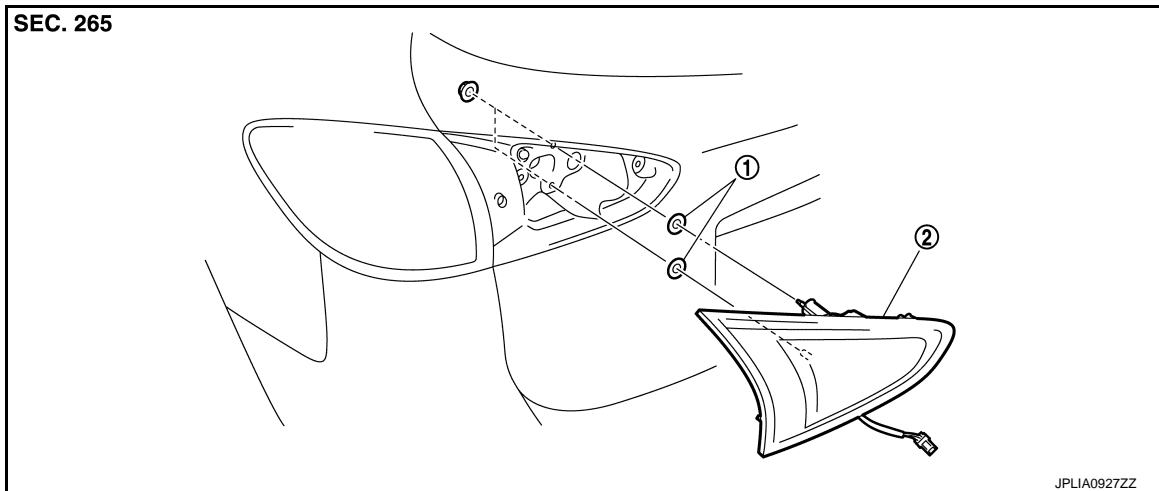
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## BACK-UP LAMP

### Exploded View

INFOID:0000000008289108



1. Seal packing

2. Back-up lamp

### Removal and Installation

INFOID:0000000008289109

#### CAUTION:

**Disconnect the battery negative terminal or remove the fuse.**

#### REMOVAL

1. Remove the back door finisher inner. Refer to [INT-40, "Exploded View"](#).
2. Remove the back-up lamp mounting nuts.
3. Disconnect the back-up lamp connector. And then remove the back-up lamp.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

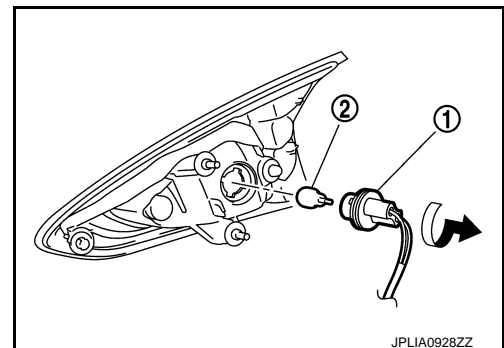
INFOID:0000000008289110

#### 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.**

#### BACK-UP LAMP BULB

1. Remove the back-up lamp. Refer to [EXL-225, "Exploded View"](#).
2. Turn the bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the socket.



# LICENSE PLATE LAMP

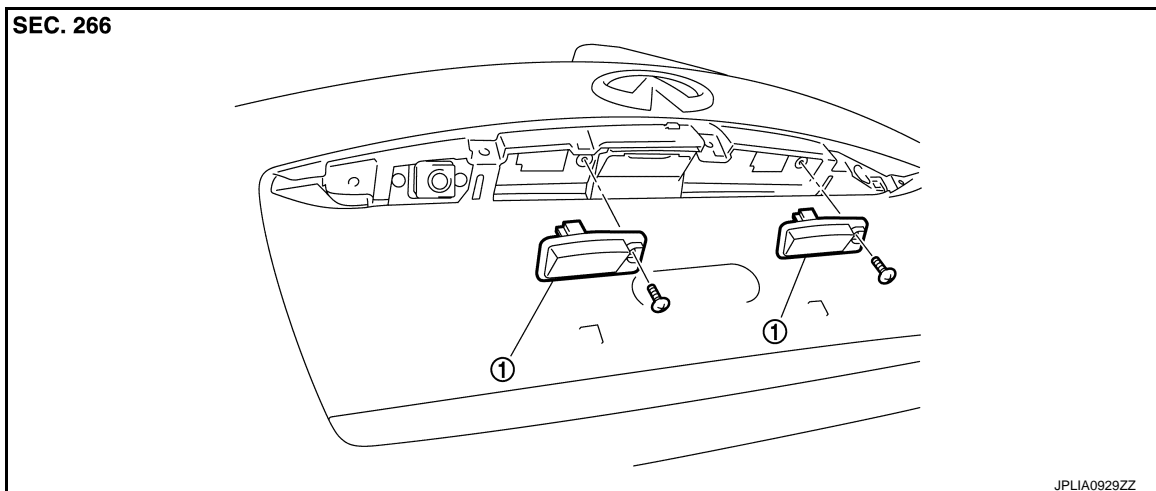
< REMOVAL AND INSTALLATION >

[XENON TYPE]

## LICENSE PLATE LAMP

### Exploded View

INFOID:000000008289111



1. License plate lamp

### Removal and Installation

INFOID:000000008289112

#### CAUTION:

**Disconnect the battery negative terminal or remove the fuse.**

#### REMOVAL

1. Remove the door handle cover. Refer to [EXT-48, "Exploded View"](#).
2. Remove the screw. And then remove the license plate lamp.
3. Disconnect the license plate lamp connector.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

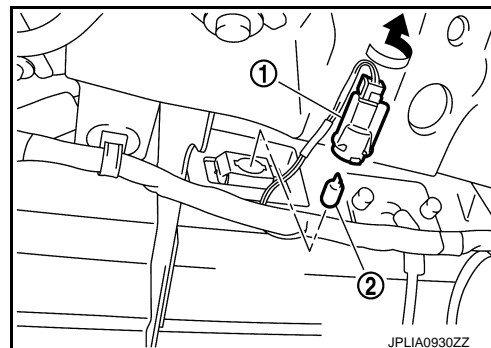
INFOID:000000008289113

#### 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 back door finisher inner. Refer to [INT-40, "Exploded View"](#).
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)

[XENON TYPE]

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Bulb Specifications

INFOID:000000008289114

Item		Type	Wattage (W)
Front combination lamp	Headlamp (HI)	H9 (Halogen)	65
	Headlamp (LO)	D2S (XENON)	35
	Front turn signal lamp	W21W	21
	Parking lamp	W5W	5
	Front side marker lamp	W5W	5
Front fog lamp		H8	35
Rear combination lamp	Stop lamp/Tail lamp	LED	—
	Rear side marker lamp	LED	—
Rear turn signal lamp		PY21W (Amber)	21
Back-up lamp		W16W	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	—

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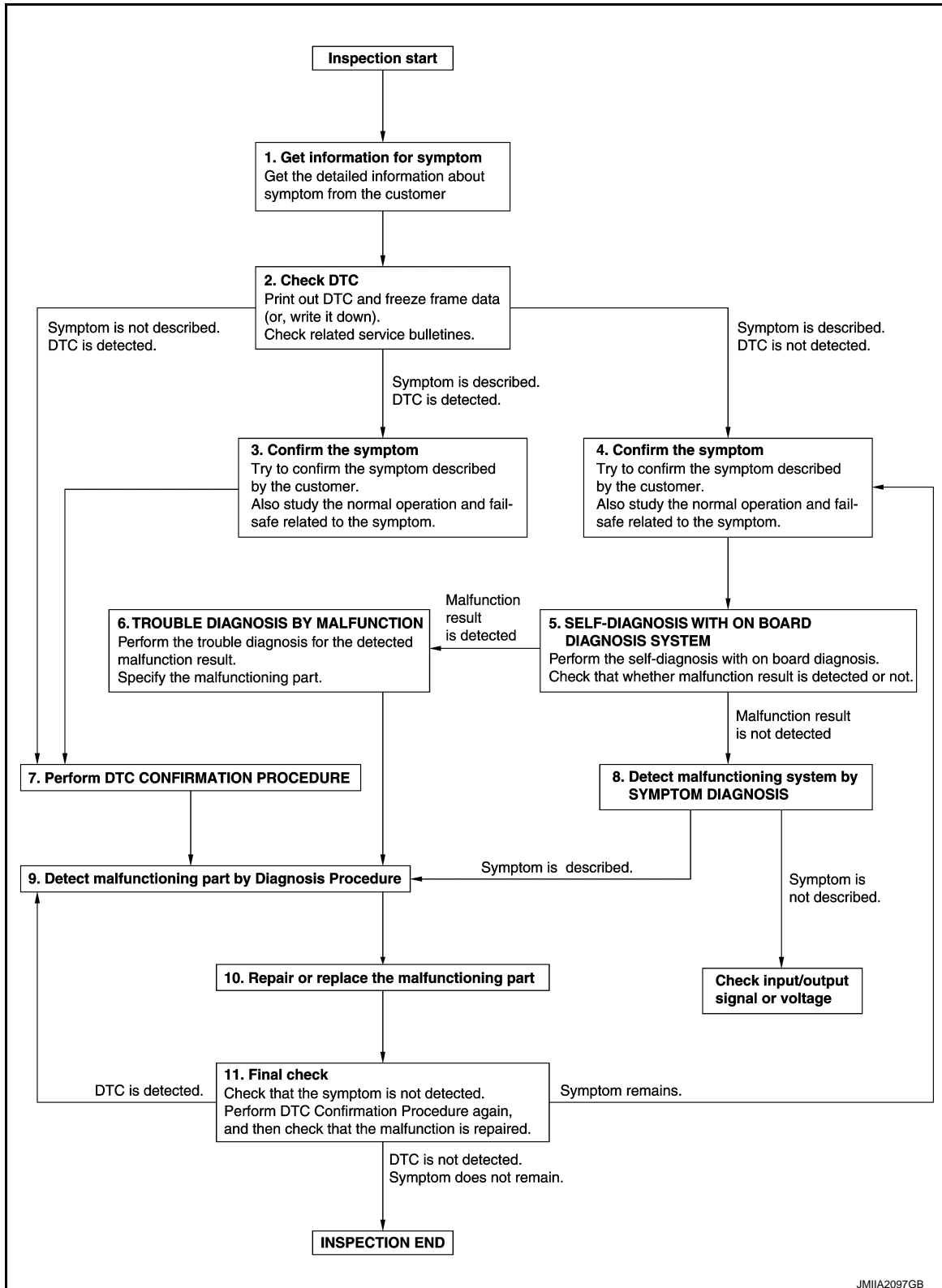
## BASIC INSPECTION

### DIAGNOSIS AND REPAIR WORK FLOW

#### Work Flow

INFOID:000000008289115

#### OVERALL SEQUENCE



JMIIA2097GB

#### DETAILED FLOW

# DIAGNOSIS AND REPAIR WORK FLOW

< BASIC INSPECTION >

[HALOGEN TYPE]

## 1.GET INFORMATION FOR SYMPTOM

1. Get detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurs).
2. Check operation condition of the function that is malfunctioning.

>> GO TO 2.

## 2.CHECK DTC

1. Check DTC.
2. Perform the following procedure if DTC is detected.
  - Record DTC and freeze frame data (Print them out using CONSULT.)
  - Erase DTC.
  - Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.

Are any symptoms described and any DTC detected?

Symptom is described, DTC is detected>>GO TO 3.

Symptom is described, DTC is not detected>>GO TO 4.

Symptom is not described, DTC is detected>>GO TO 7.

## 3.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 7.

## 4.CONFIRM THE SYMPTOM

Try to confirm the symptom described by the customer.

Also study the normal operation and fail-safe related to the symptom.

Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5.

## 5.SELF-DIAGNOSIS WITH ON BOARD DIAGNOSIS SYSTEM

Perform the self-diagnosis with on board diagnosis. Check that whether malfunction result is detected or not.

Is malfunction result detected?

YES >> GO TO 6.

NO >> GO TO 8.

## 6.TROUBLE DIAGNOSIS BY MALFUNCTION

Perform the trouble diagnosis for the detected malfunction result. Specify the malfunctioning part.

>> GO TO 9.

## 7.PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC CONFIRMATION PROCEDURE for the detected DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check self diagnostic results in real time.

If two or more DTCs are detected, refer to DTC INSPECTION PRIORITY CHART, and determine trouble diagnosis order.

### NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC CONFIRMATION PROCEDURE is not included on Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

If the result of Component Function Check is NG, it is the same as the detection of DTC by DTC CONFIRMATION PROCEDURE.

Is DTC detected?

## DIAGNOSIS AND REPAIR WORK FLOW

[HALOGEN TYPE]

### < BASIC INSPECTION >

---

- YES >> GO TO 9.  
NO >> Check according to [GI-42, "Intermittent Incident"](#).

### 8.DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

---

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

#### Is the symptom described?

- YES >> GO TO 9.  
NO >> Monitor input data from related sensors or check voltage of related module terminals using CONSULT.

### 9.DETECT MALFUNCTIONING PART BY DIAGNOSIS PROCEDURE

---

Inspect according to Diagnosis Procedure of the system.

#### Is malfunctioning part detected?

- YES >> GO TO 10.  
NO >> Check according to [GI-42, "Intermittent Incident"](#).

### 10.REPAIR OR REPLACE THE MALFUNCTIONING PART

---

1. Repair or replace the malfunctioning part.
2. Reconnect parts or connectors disconnected during Diagnosis Procedure again after repair and replacement.
3. Check DTC. If DTC is detected, erase it.

>> GO TO 11.

### 11.FINAL CHECK

---

When DTC is detected in step 2, perform DTC CONFIRMATION PROCEDURE again, and then check that the malfunction is repaired securely.

When symptom is described by the customer, refer to confirmed symptom in step 3 or 4, and check that the symptom is not detected.

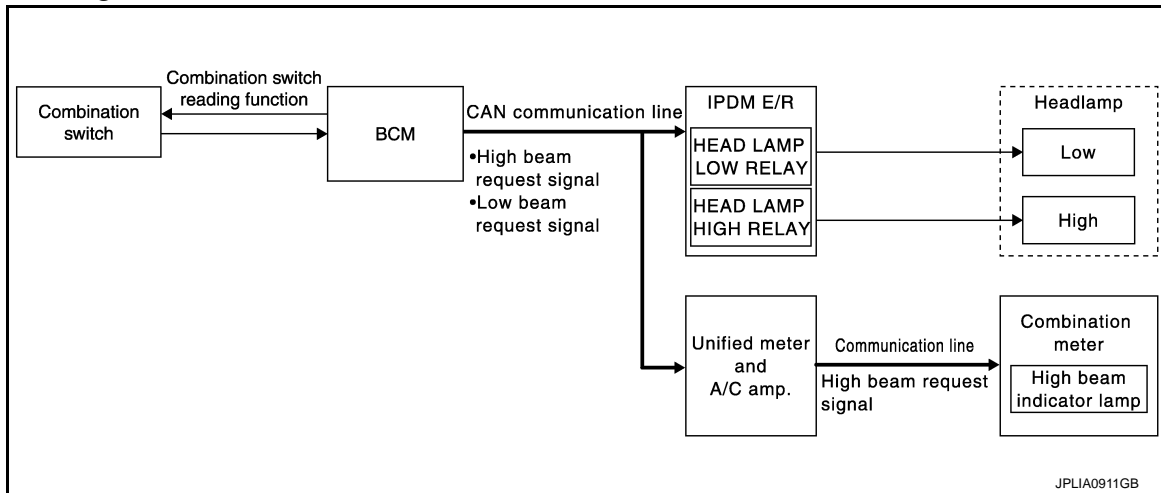
#### Is DTC detected and does symptom remain?

- YES-1 >> DTC is detected: GO TO 9.  
YES-2 >> Symptom remains: GO TO 4.  
NO >> Before returning the vehicle to the customer, always erase DTC.

## SYSTEM DESCRIPTION

### HEADLAMP SYSTEM

#### System Diagram



#### System Description

INFOID:0000000008289117

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

#### HEADLAMP (HI) OPERATION

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

Headlamp (HI) ON condition

- Lighting switch HI with the lighting switch 2ND
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according to the high beam request signal.

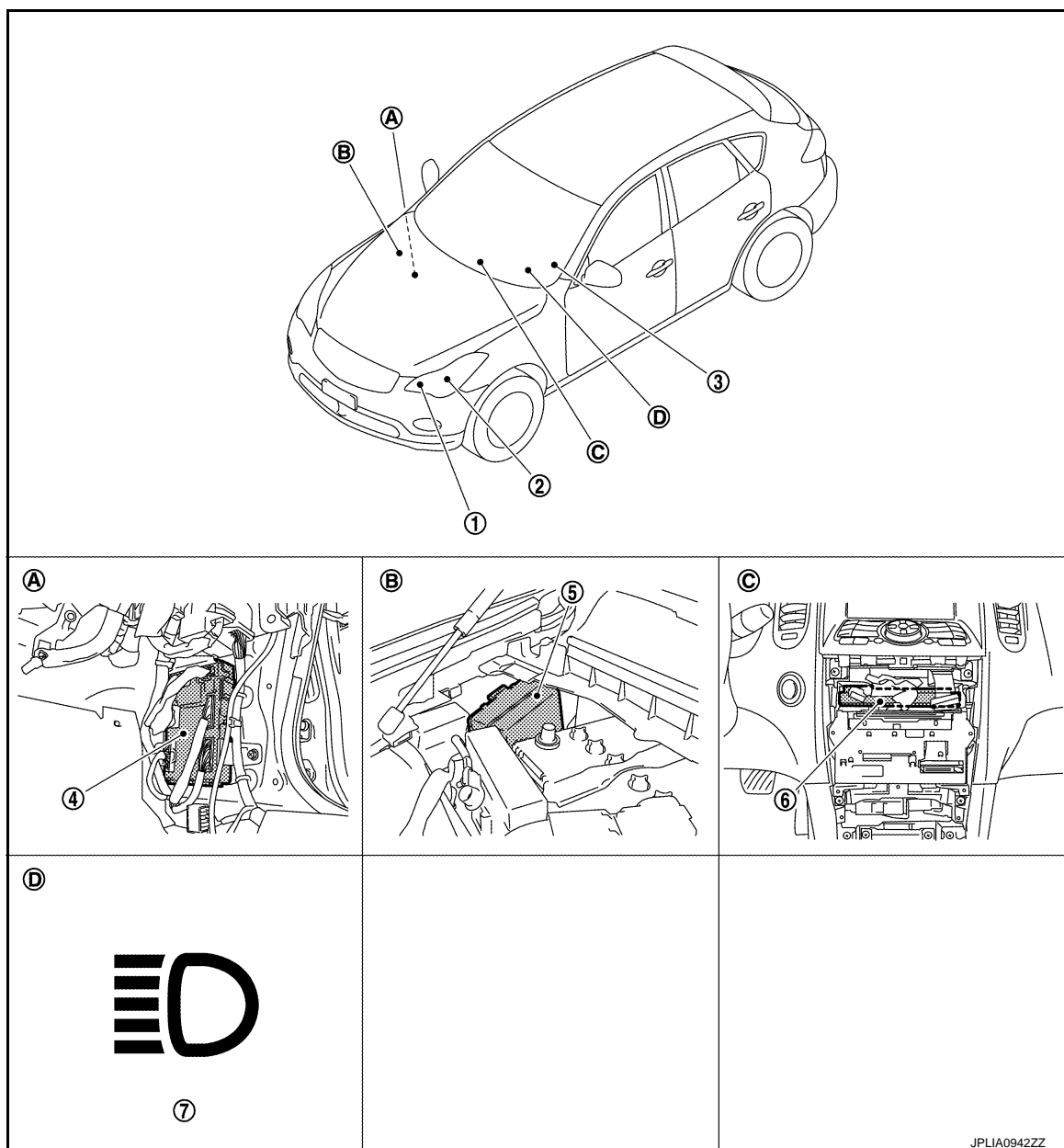
# HEADLAMP SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008289118



- |                                     |                                |                               |
|-------------------------------------|--------------------------------|-------------------------------|
| 1. Headlamp (HI)                    | 2. Headlamp (LO)               | 3. Combination switch         |
| 4. BCM                              | 5. IPDM E/R                    | 6. Unified meter and A/C amp. |
| 7. High beam indicator lamp         |                                |                               |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (LH) | C. Behind the cluster lid c   |
| D. On the combination meter         |                                |                               |

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# HEADLAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## Component Description

INFOID:000000008289119

Part	Description
BCM	<ul style="list-style-type: none"><li>• Detects each switch condition by the combination switch reading function.</li><li>• Judges that the headlamp is turned ON according to the vehicle condition.</li><li>- Requests the headlamp relay (HI/LO) ON to IPDM E/R (with CAN communication).</li><li>- Requests the high beam indicator lamp ON to the combination meter (with CAN communication).</li></ul>
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 <a href="#">BCS-10, "System Diagram"</a> .
Combination meter (High beam indicator lamp)	Turns the high beam indicator lamp ON according to the request from BCM [(with CAN communication (through unified meter and A/C amp.))].

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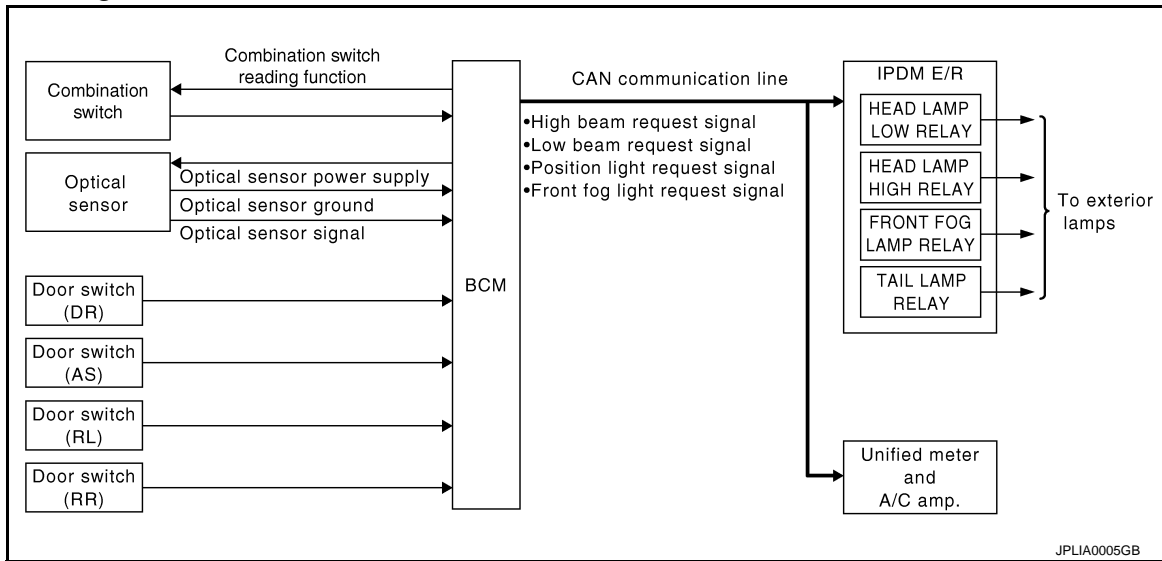
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## AUTO LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000008289121

#### 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

##### Control by IPDM E/R

- Relay control function
- Auto light system has the auto light function and the delay timer function.
- Auto light function turns the exterior lamps\* and each illumination ON/OFF automatically according to the outside brightness.
- When auto light system turns the exterior lamps ON with the ignition switch OFF, delay timer function turns the exterior lamps OFF depending on the vehicle condition with the auto light function after a certain period of time.

\*: Headlamp (LO/HI), parking lamp, tail lamp, and front fog lamp (Headlamp HI and front fog lamp depend on the combination switch condition.)

#### AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM supplies voltage to 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 judges outside brightness from the optical sensor signal and judges ON/OFF condition of the exterior lamp and each illumination according to the outside brightness.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

#### NOTE:

ON/OFF timing differs based on the sensitivity from the setting. The setting can be set by CONSULT. Refer to [EXL-249, "HEADLAMP : CONSULT Function \(BCM - HEAD LAMP\) \(Halogen Type\)".](#)

#### 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).

# AUTO LIGHT SYSTEM

[HALOGEN TYPE]

## < SYSTEM DESCRIPTION >

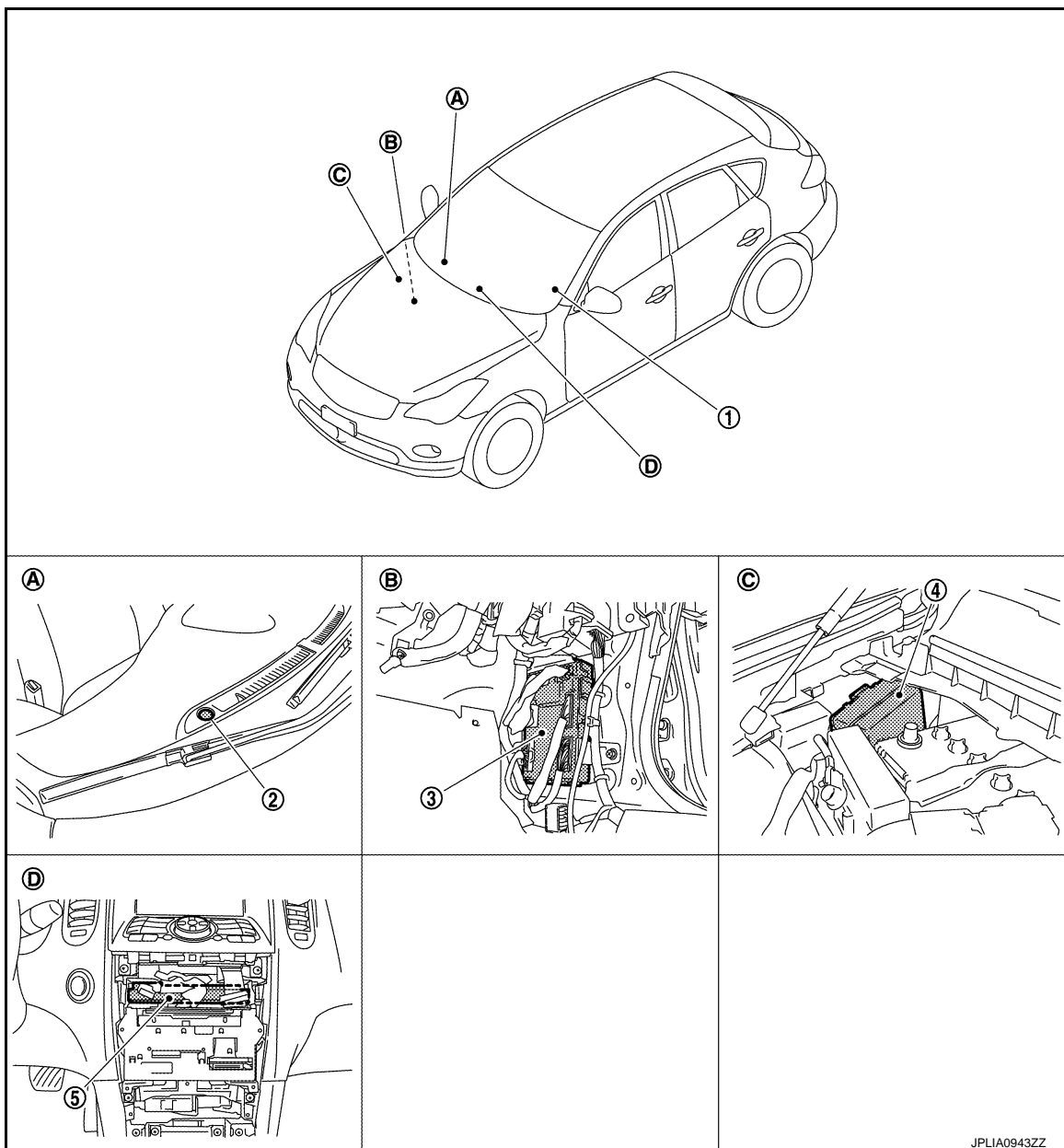
- Turns the exterior lamp OFF with the ignition switch ACC or the light switch OFF.
- \*: The preset time is 45 seconds. The timer operating time can be set by CONSULT. Refer to [EXL-249](#), "HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (Halogen Type)".

### 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:000000008289122



- |                                |                                     |                                |
|--------------------------------|-------------------------------------|--------------------------------|
| 1. Combination switch          | 2. Optical sensor                   | 3. BCM                         |
| 4. IPDM E/R                    | 5. Unified meter and A/C amp.       |                                |
| A. Instrument upper panel (RH) | B. Dash side lower (Passenger side) | C. Engine room dash panel (RH) |
| D. Behind the cluster lid C    |                                     |                                |

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# AUTO LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## Component Description

INFOID:000000008289123

Part	Description
BCM	<ul style="list-style-type: none"><li>• Judges each switch condition by the combination switch reading function.</li><li>• Judges the outside brightness from the optical sensor signal.</li><li>• Judges the OFF timing according to the vehicle condition.</li><li>• Judges the ON/OFF status of the exterior lamp and each illumination according to the outside brightness and the vehicle condition.</li></ul> 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 (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
Optical sensor	Refer to <a href="#">EXL-270, "Description"</a> .

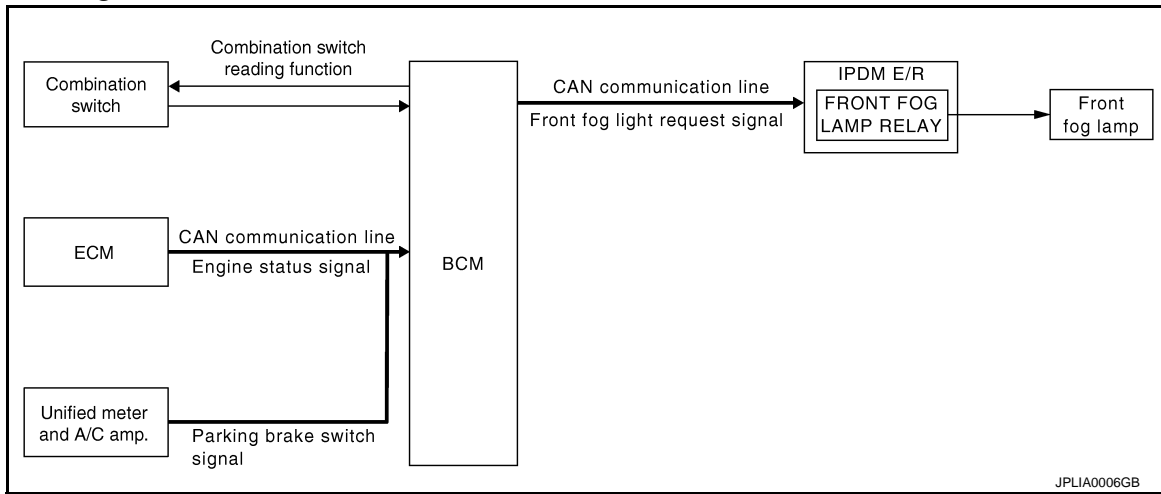
# DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

### System Diagram



### System Description

INFOID:0000000008289125

#### OUTLINE

- Turns the front fog lamp ON 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 vehicle condition depending on the following signals.
  - Engine condition signal (received from ECM with CAN communication)
  - Parking brake switch signal (received from unified meter and A/C amp. with CAN communication)
- BCM transmits the front fog light request signal to IPDM E/R with CAN communication according to the daytime running light ON condition.

Daytime running light ON condition

- While the engine running with the parking brake released

Daytime running light OFF condition

- Engine stopped
- Headlamp ON (Passing included)
- IPDM E/R turns the integrated front fog lamp relay ON and turns the front fog lamp ON according to the front fog light request signal.

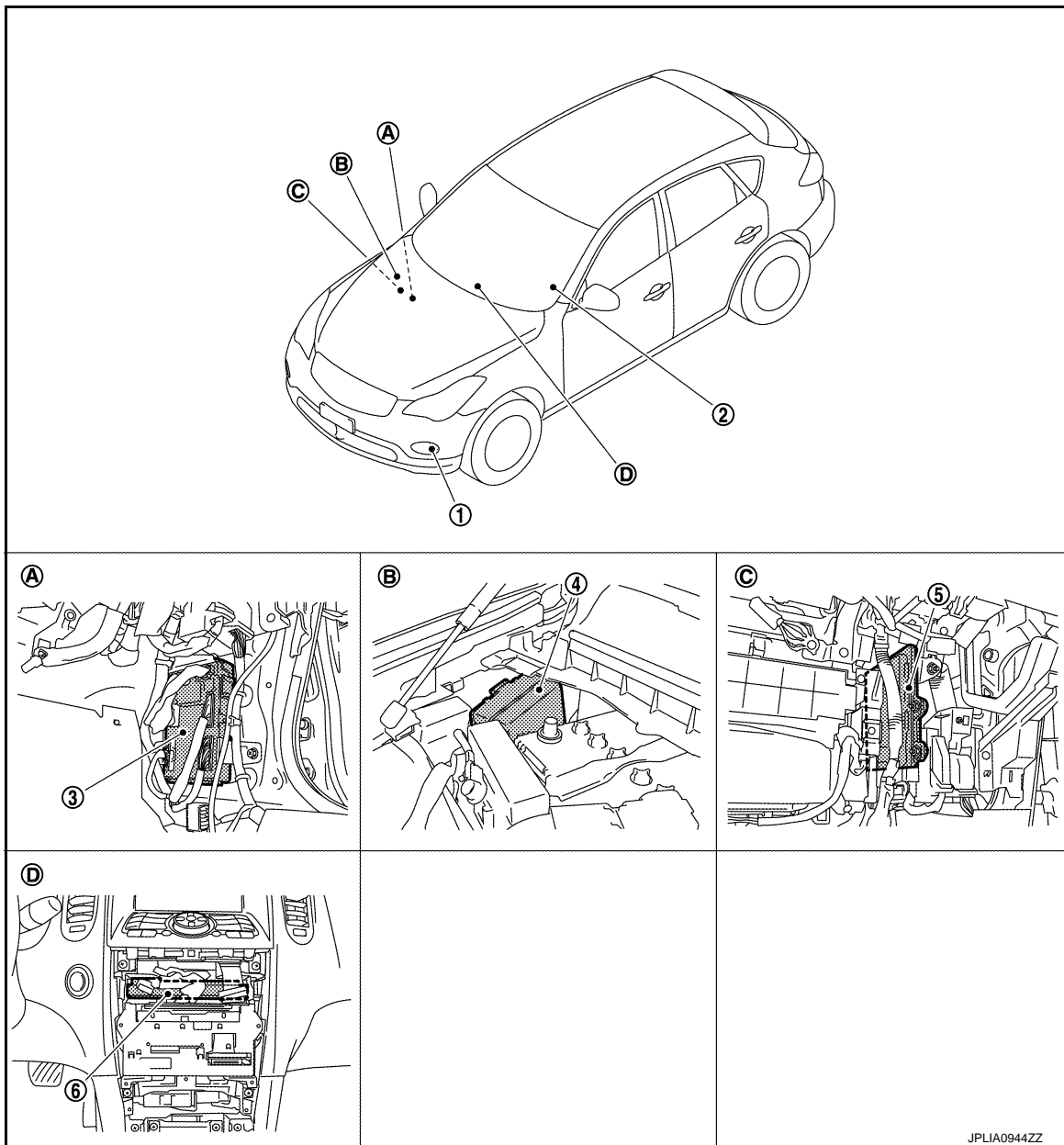
# DAYTIME RUNNING LIGHT SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008289126



- |  |                                |                               |
|--|--------------------------------|-------------------------------|
| 1. Daytime running light<br>(Front fog lamp) | 2. Combination switch          | 3. BCM                        |
| 4. IPDM E/R                                  | 5. ECM                         | 6. Unified meter and A/C amp. |
| A. Dash side lower (Passenger side)          | B. Engine room dash panel (RH) | C. Behind the glove box       |
| D. Behind the cluster lid C                  |                                |                               |

## Component Description

INFOID:000000008289127

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition with the combination switch reading function.</li> <li>Judges the headlamp ON/OFF status according to the vehicle condition. Requests the front fog lamp relay ON to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay and supplies voltage to the load according to the request from BCM (with CAN communication).

## DAYTIME RUNNING LIGHT SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
ECM	Transmits the engine condition signal to BCM with CAN communication.
Unified meter and A/C amp.	Transmits the parking brake switch signal to BCM with CAN communication.

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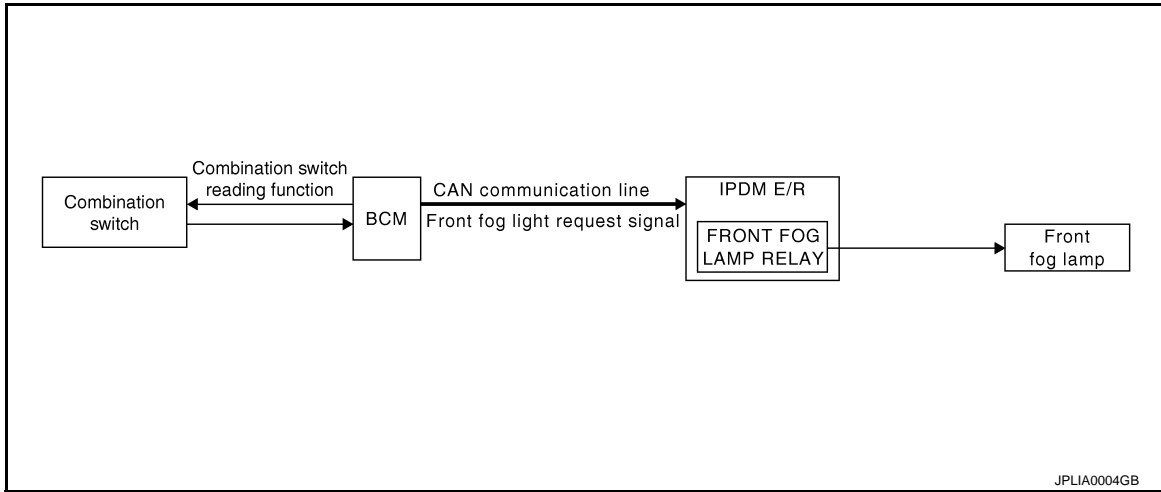
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## FRONT FOG LAMP SYSTEM

### System Diagram

INFOID:000000008289128



### System Description

INFOID:000000008289129

#### 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.

#### NOTE:

For Canada models, the front fog lamp is turned ON as the daytime running light. Refer to [EXL-237. "System Diagram"](#) for the detail.

#### FRONT FOG LAMP OPERATION

- BCM detects the combination switch condition by the combination switch reading function.
- BCM transmits the front fog light 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 the 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 light request signal.



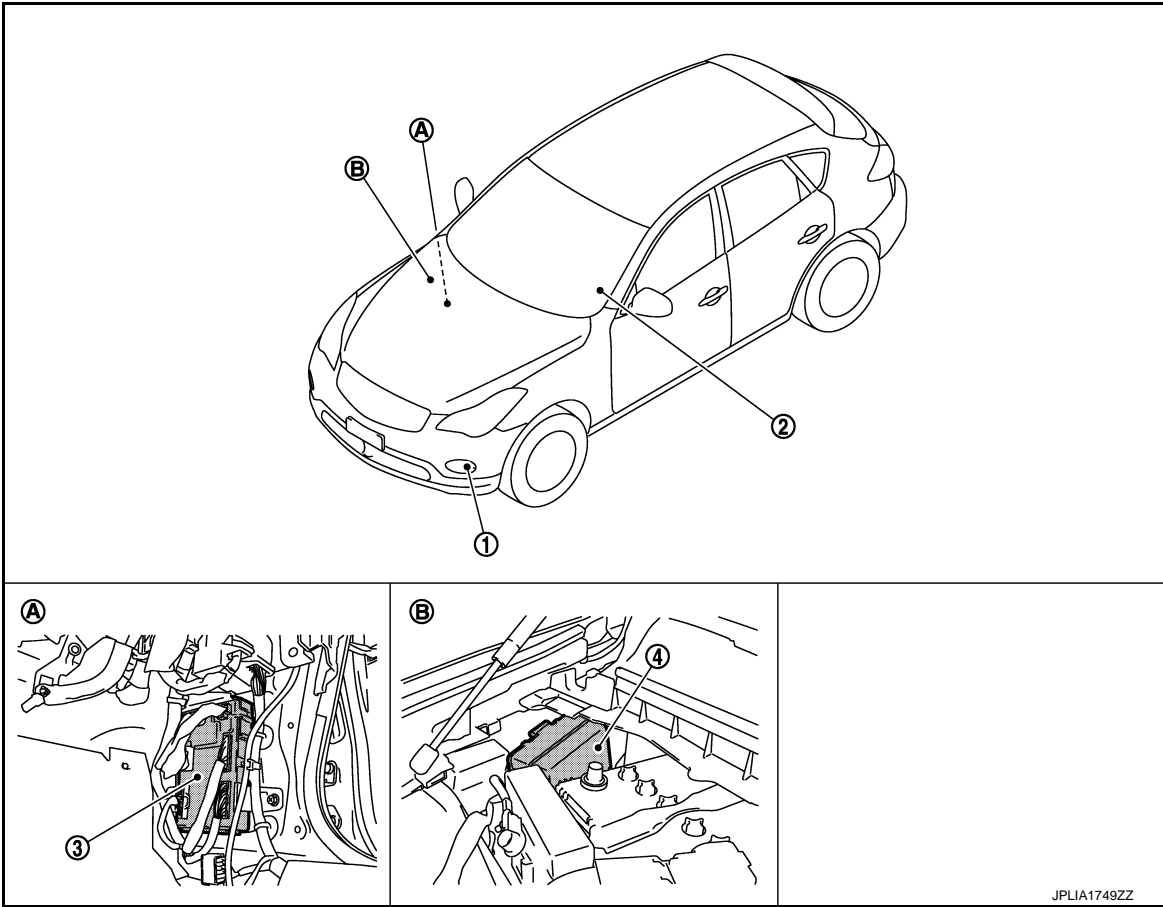
FRONT FOG LAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Component Parts Location

INFOID:0000000008289130



1. Front fog lamp
2. Combination switch
3. BCM
4. IPDM E/R
- A. Dash side lower (Passenger side)
- B. Engine room dash panel (RH)

Component Description

INFOID:0000000008289131

Part	Description
BCM	<ul style="list-style-type: none"><li>Judges each switch condition by the combination switch reading function.</li><li>Judges the front fog lamp ON/OFF status according to the vehicle condition.</li><li>- Requests the front fog lamp relay ON to IPDM E/R (with CAN communication).</li></ul>
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 <a href="#">BCS-10, "System Diagram"</a> .

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

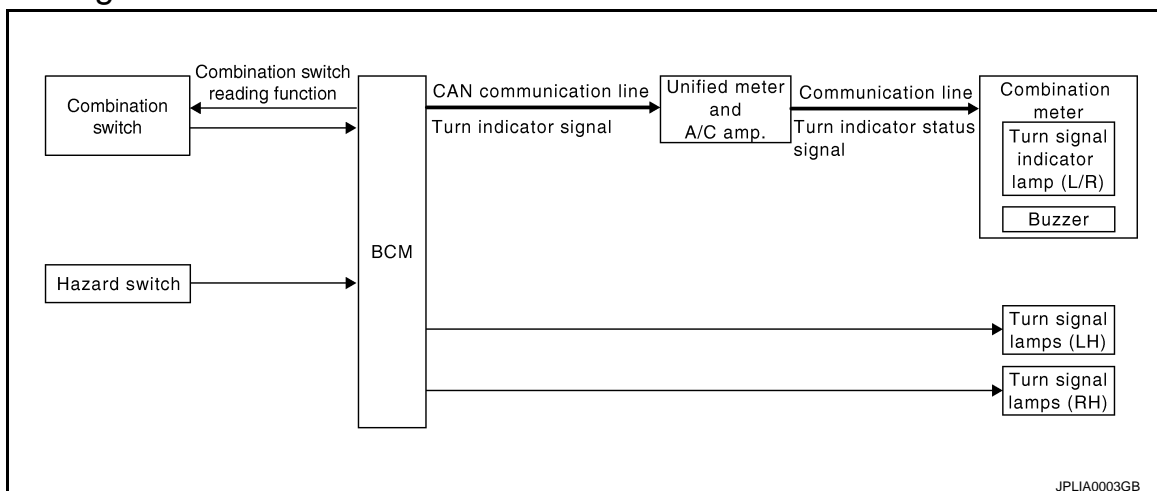
< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### System Diagram

INFOID:000000008289132



JPLIA0003GB

### System Description

INFOID:000000008289133

#### OUTLINE

Turn signal 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 SOUND OPERATION

- BCM transmits the turn signal indicator lamp signal to the combination meter (through the unified meter and A/C amp.) with CAN communication while the turn signal lamp and the hazard warning lamp 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 (FAIL-SAFE)

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

#### NOTE:

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

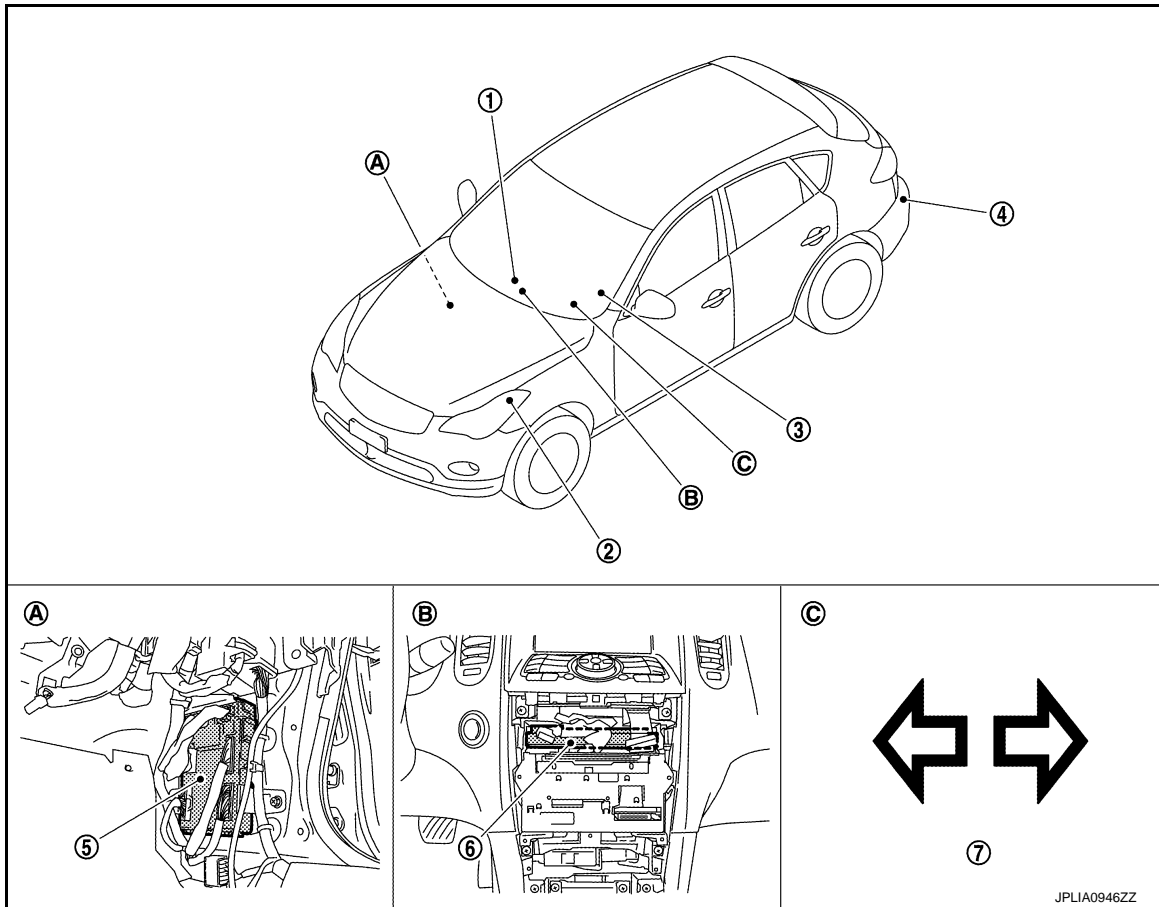
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## Component Parts Location

INFOID:0000000008289134



- |                                     |                             |                               |
|-------------------------------------|-----------------------------|-------------------------------|
| 1. Hazard warning switch            | 2. Front turn signal lamp   | 3. Combination switch         |
| 4. Rear turn signal lamp            | 5. BCM                      | 6. Unified meter and A/C amp. |
| 7. Turn signal indicator lamp       |                             |                               |
| A. Dash side lower (Passenger side) | B. Behind the cluster lid C | C. On the combination meter   |

## Component Description

INFOID:0000000008289135

EXL

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the blinks of the turn signal lamp and the hazard warning lamp from each switch status. The applicable turn signal lamp blinks.</li> </ul> <p>Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).</p>
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .
Hazard switch (Multifunction switch)	Refer to <a href="#">EXL-273, "Description"</a> .
Combination meter (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 (through unified meter and A/C amp.)].

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

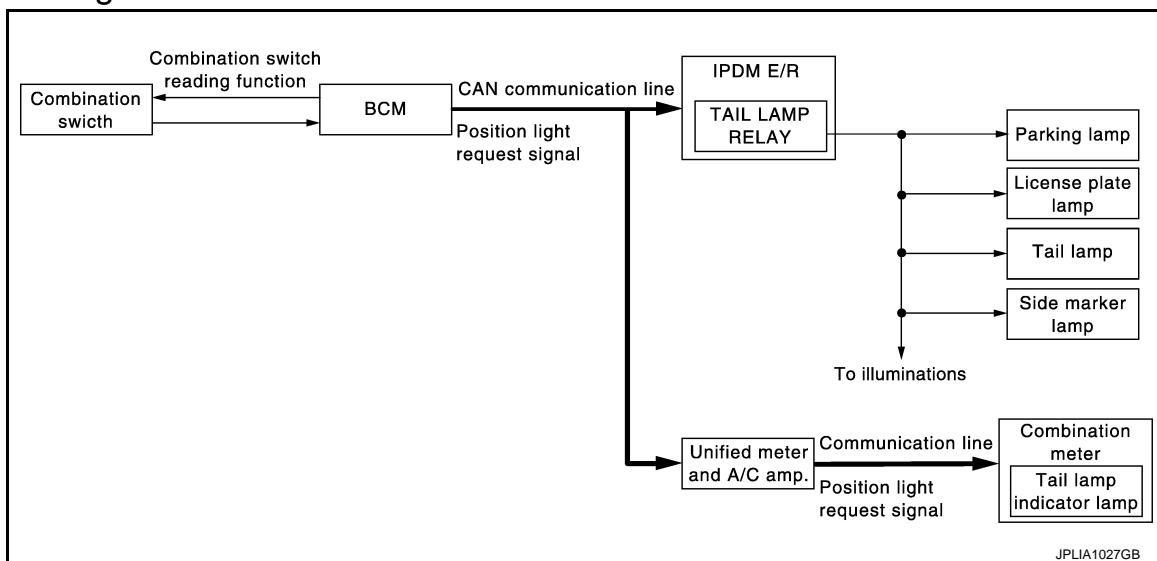
< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

### System Diagram

INFOID:000000008289136



### System Description

INFOID:000000008289137

#### OUTLINE

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

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

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

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

- Lighting switch 1ST
- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (with auto light system)
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate, side marker and tail lamps ON according to the position light request signal.
- Combination meter turns the tail lamp indicator lamp ON according to the position light request signal.

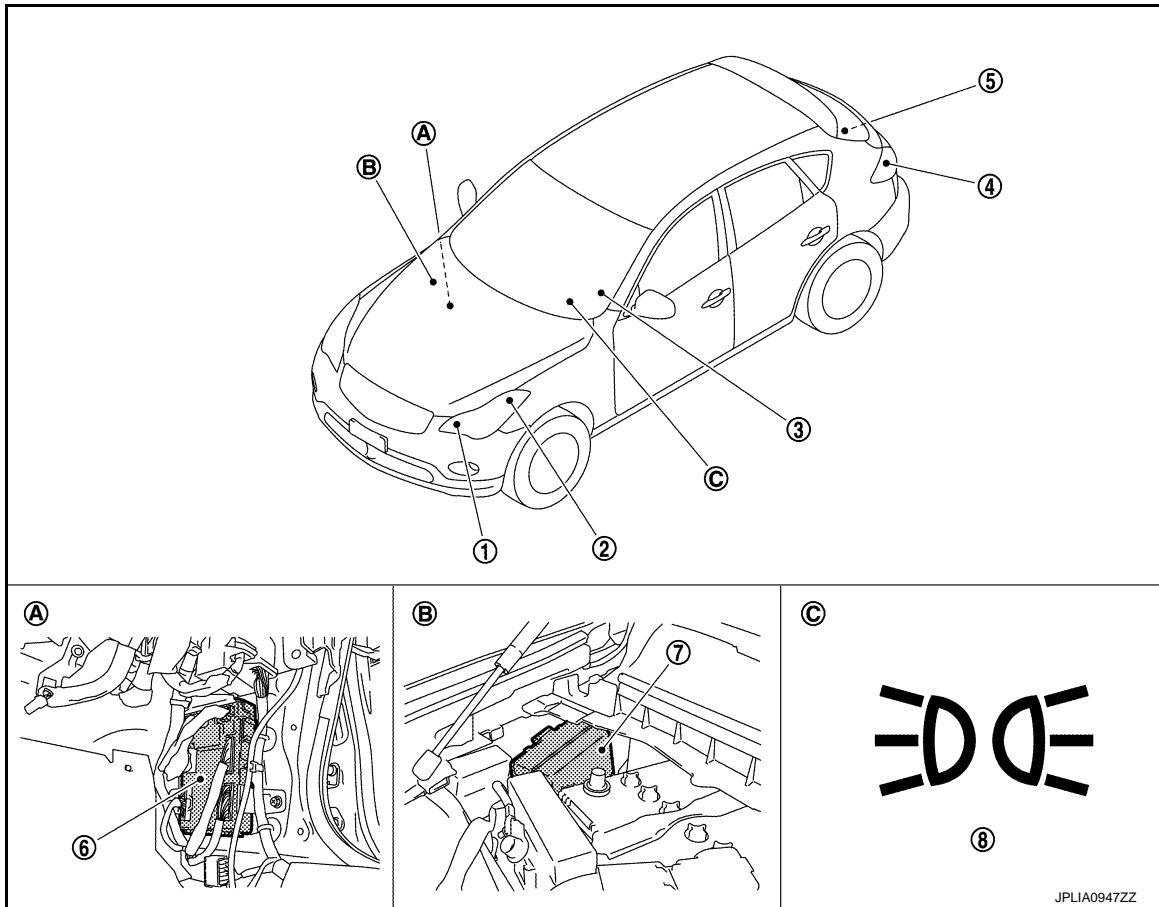
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## Component Parts Location

INFOID:0000000008289138



- |                                     |                                |                             |
|-------------------------------------|--------------------------------|-----------------------------|
| 1. Parking lamp                     | 2. Side marker lamp            | 3. Combination switch       |
| 4. Tail lamp and side marker lamp   | 5. License plate lamp          | 6. BCM                      |
| 7. IPDM E/R                         | 8. Tail lamp indicator lamp    |                             |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (RH) | C. On the combination meter |

## Component Description

INFOID:0000000008289139

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the ON/OFF status of the clearance, license plate, side marker and tail lamps according to the vehicle condition. Requests the tail lamp relay ON to IPDM E/R (with CAN communication).</li> </ul>
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 <a href="#">BCS-10, "System Diagram"</a> .
Combination meter (Tail lamp indicator lamp)	Turns the tail lamp indicator lamp ON according to the request from BCM [with CAN communication (through the unified meter and A/C amp.)].

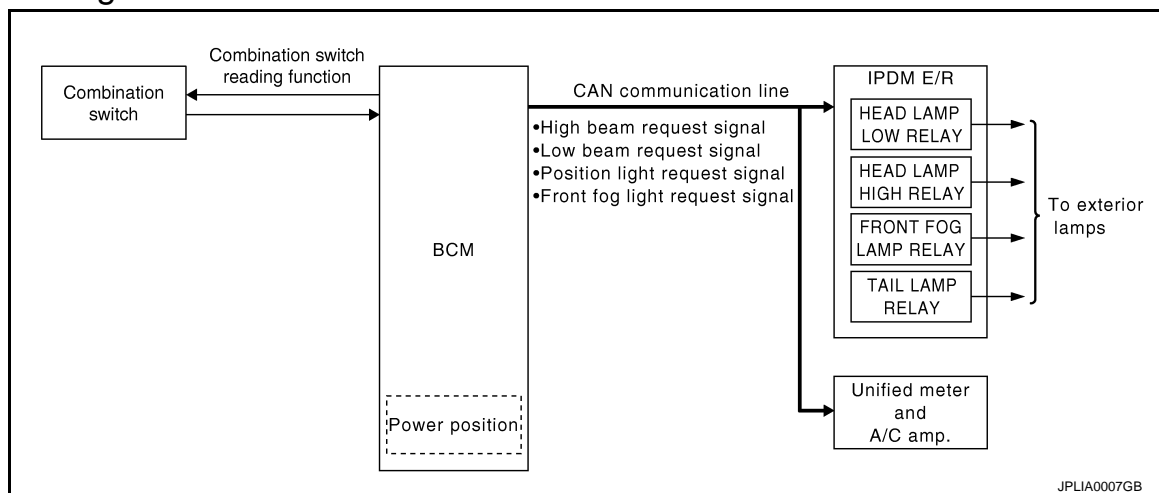
# EXTERIOR LAMP BATTERY SAVER SYSTEM

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

## EXTERIOR LAMP BATTERY SAVER SYSTEM

### System Diagram



### System Description

INFOID:000000008289141

#### 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 lamp, tail lamp, side marker lamp, license plate lamp and front fog lamp

#### NOTE:

When the lighting switch is turned AUTO, the exterior lamp battery saver switches to the auto light system. Refer to [EXL-234, "System Diagram"](#).

#### 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.

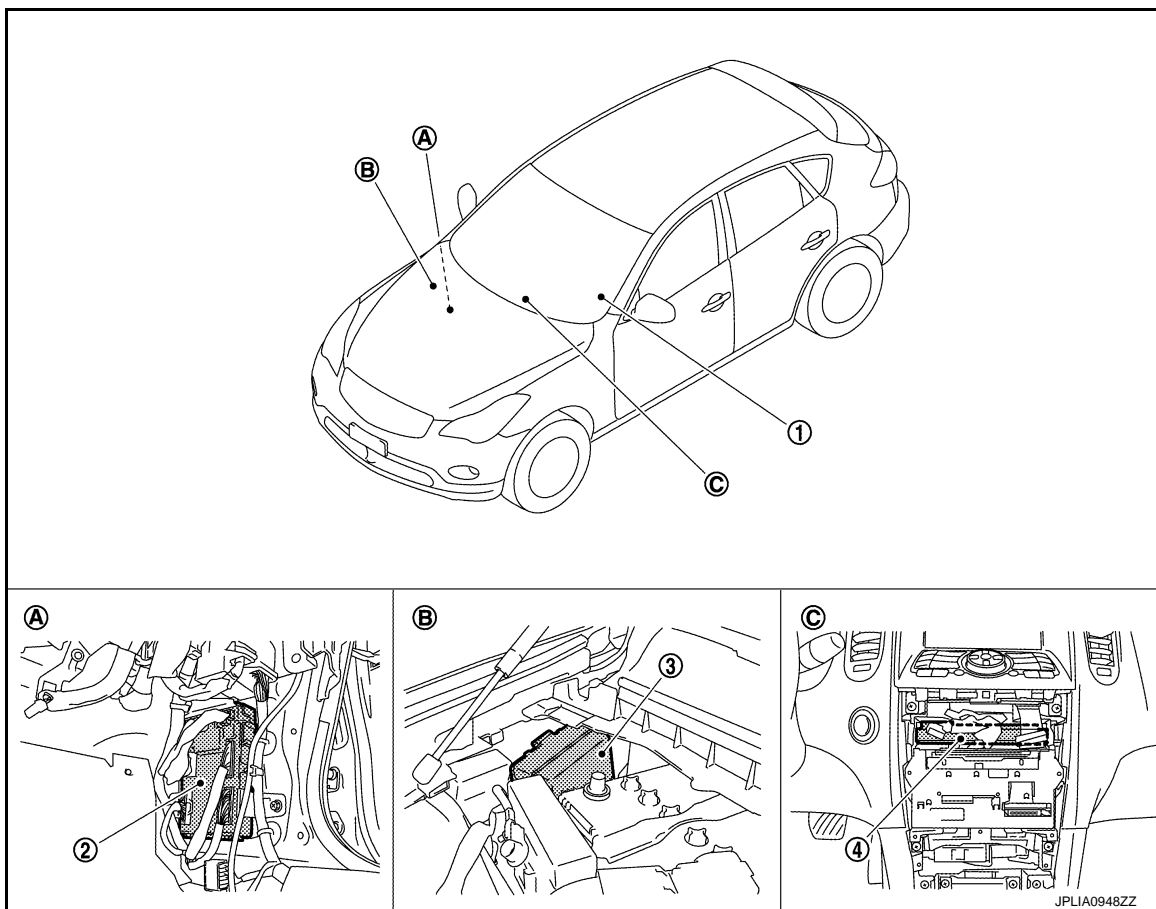
# EXTERIOR LAMP BATTERY SAVER SYSTEM

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

## Component Parts Location

INFOID:000000008289142



- |                                     |                                |                             |
|-------------------------------------|--------------------------------|-----------------------------|
| 1. Combination switch               | 2. BCM                         | 3. IPDM E/R                 |
| 4. Unified meter and A/C amp.       |                                |                             |
| A. Dash side lower (Passenger side) | B. Engine room dash panel (RH) | C. Behind the cluster lid C |

## Component Description

INFOID:000000008289143

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges each switch condition by the combination switch reading function.</li> <li>Judges the exterior lamp OFF according to the vehicle condition. Requests each relay OFF to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the integrated relay according to the request from BCM (with CAN communication).
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-10, "System Diagram"</a> .

# DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

< SYSTEM DESCRIPTION >

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000008772657

### APPLICATION ITEM

CONSULT 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.
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	<ul style="list-style-type: none"> <li>Read and save the vehicle specification.</li> <li>Write the vehicle specification when replacing BCM.</li> </ul>

### 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	×	×	×
—	AIR CONDITONER*			
<ul style="list-style-type: none"> <li>Intelligent Key system</li> <li>Engine start system</li> </ul>	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

#### NOTE:

\*: This item is displayed, but is not used.

### FREEZE FRAME DATA (FFD)

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



# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		A
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
Vehicle Condition	SLEEP>LOCK	Power supply 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"*)	B
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	C
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	D
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Except emergency stop operation)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	E
	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"	F
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*	
	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G
	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	H
	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"*	I
	OFF		Power supply position is "OFF" (Ignition switch OFF)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	J
	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)	K
	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 <ul style="list-style-type: none"> <li>• The number is 0 when a malfunction is detected now.</li> <li>• The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>• The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>		EXL

## NOTE:

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

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

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

## HEADLAMP

## HEADLAMP : CONSULT Function (BCM - HEAD LAMP) (Halogen Type)

INFOID:000000008289145

## WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Service item	Setting item	Setting	
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 func- tion	
	MODE 3	30 sec.	
	MODE 4	60 sec.	
	MODE 5	90 sec.	
	MODE 6	120 sec.	
	MODE 7	150 sec.	
	MODE 8	180 sec.	
CUSTOM A/LIGHT SET- TING	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.)	

\*: Initial setting

## DATA MONITOR

### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
ENGINE STATE [Stop/Stall/Crank/Run]	Indicates [STOP/START/CRANK/RUN] condition of engine states.
VEH SPEED 1 [km/h]	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
KEY SW-SLOT [On/Off]	Indicates [ON/OFF] condition of key slot.
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]	
HI BEAM SW [On/Off]	
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
PASSING SW [On/Off]	
AUTO LIGHT SW [On/Off]	
FR FOG SW [On/Off]	

# DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Monitor item [Unit]	Description
RR FOG SW [On/Off]	<b>NOTE:</b> The item is indicated, but not monitored.
DOOR SW-DR [On/Off]	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS [On/Off]	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR [On/Off]	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW- RL [On/Off]	Indicated [ON/OFF] condition of rear door switch LH.
DOOR SW-BK [On/Off]	Indicated [ON/OFF] condition of back door switch.
OPTICAL SENSOR [V]	The value of exterior brightness voltage input from the optical sensor

## 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 position light request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Low	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 light request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog light request signal transmission.
RR FOG LAMP	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	
DAYTIME RUNNING LIGHT	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	
CORNERING LAMP	RH	<b>NOTE:</b> The item is indicated, but cannot be tested.
	LH	
	Off	
ILL DIM SIGNAL	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
	Off	

## FLASHER

FLASHER : CONSULT Function (BCM - FLASHER) (Halogen Type)

INFOID:0000000008289146

## 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	

# DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

## < SYSTEM DESCRIPTION >

\*: Initial setting

### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor item [Unit]	Description
REQ SW-DR [On/Off]	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS [On/Off]	Indicated [ON/OFF] condition of door request switch (passenger side).
PUSH SW [On/Off]	Indicates [ON/OFF] condition of push-button ignition switch.
TURN SIGNAL R [On/Off]	Each switch condition that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
HAZARD SW [On/Off]	The switch status input from the hazard switch
RKE-LOCK [On/Off]	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK [On/Off]	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-PANIC [On/Off]	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.

### 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)

## Diagnosis Description

INFOID:000000008772697

## 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
- Front wiper (LO, HI)
- Parking lamps
- License plate lamps
- Side maker lamps
- Tail lamps
- Front fog lamps
- Headlamps (LO, HI)
- A/C compressor (magnet clutch)
- Cooling fan (cooling fan control module)

## 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 front door switch (driver side) 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-63, "Component Function Check"](#).
- Do not start the engine.

## Inspection in Auto Active Test Mode

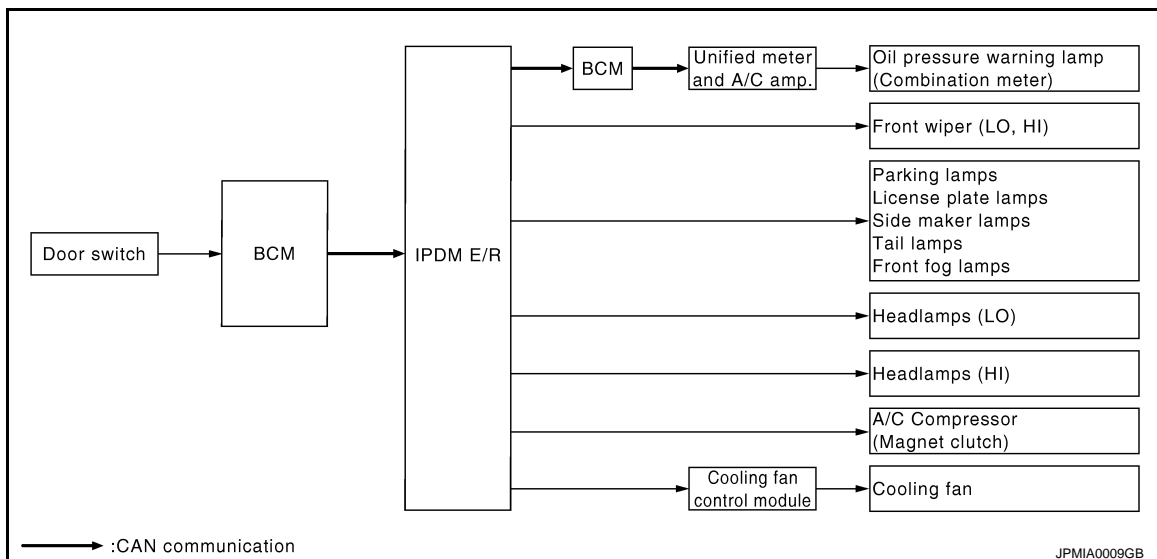
When auto active test mode is actuated, the following 6 steps are repeated 3 times.

Operation sequence	Inspection location	Operation
1	Oil pressure warning lamp	Blinks continuously during operation of auto active test
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Side maker lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> </ul>	10 seconds
4	Headlamps	<ul style="list-style-type: none"> <li>• LO 10 seconds</li> <li>• HI ON ⇔ OFF 5 times</li> </ul>
5	A/C compressor (magnet clutch)	ON ⇔ OFF 5 times
6*	Cooling fan	MID for 5 seconds → HI for 5 seconds

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

## < SYSTEM DESCRIPTION >

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Any of the following components do not operate <ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Side maker lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> <li>• Headlamp (HI, LO)</li> <li>• Front wiper (HI, LO)</li> </ul>	Perform auto active test. Does the applicable system operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> <li>• Lamp or motor</li> <li>• Lamp or motor ground circuit</li> <li>• Harness or connector between IPDM E/R and applicable system</li> <li>• IPDM E/R</li> </ul>
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES <ul style="list-style-type: none"> <li>• Unified meter and A/C amp. signal input circuit</li> <li>• CAN communication signal between unified meter and A/C amp. and ECM</li> <li>• CAN communication signal between ECM and IPDM E/R</li> </ul>
		NO <ul style="list-style-type: none"> <li>• Magnet clutch</li> <li>• Harness or connector between IPDM E/R and magnet clutch</li> <li>• IPDM E/R</li> </ul>
Oil pressure warning lamp does not operate	Perform auto active test. Does the oil pressure warning lamp blink?	YES <ul style="list-style-type: none"> <li>• Harness or connector between IPDM E/R and oil pressure switch</li> <li>• Oil pressure switch</li> <li>• IPDM E/R</li> </ul>
		NO <ul style="list-style-type: none"> <li>• CAN communication signal between IPDM E/R and BCM</li> <li>• CAN communication signal between BCM and unified meter and A/C amp.</li> <li>• Combination meter</li> </ul>

# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Symptom	Inspection contents		Possible cause
Cooling fan does not operate	Perform auto active test. Does the cooling fan operate?	YES	<ul style="list-style-type: none"> <li>ECM signal input circuit</li> <li>CAN communication signal between ECM and IPDM E/R</li> </ul>
		NO	<ul style="list-style-type: none"> <li>Cooling fan</li> <li>Harness or connector between cooling fan and cooling fan control module</li> <li>Cooling fan control module</li> <li>Harness or connector between IPDM E/R and cooling fan control module</li> <li>Cooling fan relay</li> <li>Harness or connector between IPDM E/R and cooling fan relay</li> <li>IPDM E/R</li> </ul>

## CONSULT Function (IPDM E/R)

INFOID:000000008772698

### APPLICATION ITEM

CONSULT 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 [EXL-375. "DTC Index"](#).

### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item [Unit]	MAIN SIG- NALS	Description
RAD FAN REQ [%]	×	Displays the value of the cooling fan speed 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.
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.

# DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

## < SYSTEM DESCRIPTION >

Monitor Item [Unit]	MAIN SIG- NALS	Description
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 shift position 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 A/T shift selector (detention switch) judged by IPDM E/R.
S/L RLY -REQ [Off/On]		Displays the status of the steering lock relay request received from BCM via CAN communication. <b>NOTE:</b> For models without steering lock unit, this item is not monitored.
S/L STATE [LOCK/UNLOCK/UNKWN]		Displays the status of the steering lock judged by IPDM E/R. <b>NOTE:</b> For models without steering lock unit, this item is not monitored.
DTRL REQ [Off/On]		<b>NOTE:</b> The item is indicated, but not monitored.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R.
HL WASHER REQ [Off/On]		<b>NOTE:</b> 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.
CRNRNG LMP REQ [Off/On]		<b>NOTE:</b> The item is indicated, but not monitored.

## ACTIVE TEST

### Test item

Test item	Operation	Description
CORNERING LAMP	Off	<b>NOTE:</b> The item is indicated, but cannot be tested.
	LH	
	RH	
HORN	On	Operates horn relay 1 and horn relay 2 for 20 ms.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.



# DIAGNOSIS SYSTEM (IPDM E/R)

< SYSTEM DESCRIPTION >

[HALOGEN TYPE]

Test item	Operation	Description
MOTOR FAN	1	OFF
	2	Outputs 50% pulse duty signal (PWM signal) to the cooling fan control module.
	3	Outputs 80% pulse duty signal (PWM signal) to the cooling fan control module.
	4	Outputs 100% pulse duty signal (PWM signal) to the cooling fan control module.
HEAD LAMP WASHER	On	<b>NOTE:</b> The item is indicated, but cannot be tested.
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.

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## DTC/CIRCUIT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT

#### BCM (BODY CONTROL MODULE)

#### BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:000000008772666

#### 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	K
	10

#### 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  Battery voltage
Connector	Terminal	
M118	1	
M119	11	

#### 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		
M119	13		Existed

#### Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

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

INFOID:000000008772713

#### 1.CHECK FUSES AND FUSIBLE LINK

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

# POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

Signal name	Fuses and fusible link No.
Battery power supply	C
	50
	51

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	Battery voltage
E4	1		

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		
E5	12		Existed
E6	41		

Does continuity exist?

YES >> INSPECTION END

NO >> Repair the harness or connector.

# HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (HI) CIRCUIT

### Component Function Check

INFOID:000000008289151

#### 1.CHECK HEADLAMP (HI) OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

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

##### Ⓟ CONSULT 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-260, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289152

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

##### Ⓟ CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp high 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				Condition	Voltage (Approx.)
(+)			(-)		
IPDM E/R			Ground	External lamp	
Connector		Terminal			
RH	E8	89		Hi	Battery voltage
					Off
LH	E8	90	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 IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the front combination lamp harness connector.

# HEADLAMP (HI) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

IPDM E/R		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E8	E28	7	Existed
LH		E58	7	

Does continuity exist?

YES >> GO TO 5.

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	#55	10 A
Headlamp HI (LH)	IPDM E/R	#54	10 A

Is the fuse fusing?

YES >> GO TO 4.

NO >> Replace IPDM E/R.

## 4.CHECK HEADLAMP (HI) SHORT CIRCUIT

1. Disconnect 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	E8	89	Not existed
LH		90	

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

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

Front combination lamp		Ground	Continuity
Connector	Terminal		
RH	E28	2	Existed
LH	E58	2	

Does continuity exist?

YES >> Replace the headlamp (HI) bulb. (Bulb socket is abnormally.)

NO >> Repair the harnesses or connectors.

# HEADLAMP (LO) CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (LO) CIRCUIT

### Component Function Check

INFOID:000000008289153

#### 1.CHECK HEADLAMP (LO) OPERATION

##### ⊗IPDM E/R AUTO ACTIVE TEST

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

##### ⓂCONSULT 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 >> Refer to [EXL-262, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289154

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

##### ⓂCONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp 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.)
(+) (−)			Ground		
IPDM E/R				External lamp	
Connector		Terminal			
RH	E8	83	Lo	Battery voltage	
			Off	0 V	
LH	E8	84	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 front combination lamp harness connector.

IPDM E/R			Front combination lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E8	83	E28	5	Existed
LH		84	E58	5	

Does continuity exist?

# HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

- 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	#57	15 A
Headlamp LO (LH)	IPDM E/R	#56	15 A

#### Is the fuse fusing?

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

### 4.CHECK HEADLAMP (LO) SHORT CIRCUIT

1. Disconnect 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	E8	83		Not existed
LH		84		

#### 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

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

Front combination lamp		Ground	Continuity
Connector	Terminal		
RH	E28		3
LH	E58		3
			Existed

#### Does continuity exist?

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

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

# FRONT FOG LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000008289155

#### 1.CHECK FRONT FOG LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

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

##### Ⓟ CONSULT 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-264, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289156

#### 1.CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#58	10 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 lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E8	86		Not existed
LH		87		

##### 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 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.



# FRONT FOG LAMP CIRCUIT

[HALOGEN TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

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 LAMP		
Connector		Terminal				
RH	E8	86		Fog	Battery voltage	
					Off	0 V
LH		87		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

- Turn the ignition switch OFF.
- Disconnect IPDM E/R connector.
- 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	E8	86	E34	1	Existed
LH		87	E64	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		Existed
RH	E34	2		
LH	E64	2		

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

# PARKING LAMP CIRCUIT

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

## PARKING LAMP CIRCUIT

### Component Function Check

INFOID:000000008289157

#### 1.CHECK PARKING LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

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

##### Ⓟ CONSULT 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-266, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289158

#### 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	IPDM E/R	#52	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 front combination lamp connector.
2. Check continuity between the IPDM E/R harness connector and the ground.

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E9	91		Not existed
LH		92		

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 ACTIVE TEST

1. Disconnect the front combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMPS" of IPDM E/R active test item.

# PARKING LAMP CIRCUIT

[HALOGEN TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

- 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 LAMP	
Connector		Terminal		
RH	E9	91	TAIL	Battery voltage
			Off	0 V
LH		92	TAIL	Battery voltage
			Off	0 V

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

## 5.CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R		Front combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E9	E28	8	Existed
LH		E58	8	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

## 6.CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

Front combination lamp			Continuity
Connector		Terminal	
RH	E28	4	Existed
LH	E58	4	

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

# TURN SIGNAL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL LAMP CIRCUIT

### Description

INFOID:000000008289159

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

#### NOTE:

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

### Component Function Check

INFOID:000000008289160

#### 1.CHECK TURN SIGNAL LAMP

##### CONSULT ACTIVE TEST

1. Select "FLASHER" of BCM (FLASHER) active test item.
2. With operating the test items, check that the turn signal lamp blinks.

**LH** : Turn signal lamp LH blinking

**RH** : Turn signal lamp RH blinking

**Off** : The turn signal lamp OFF

Does the turn signal lamp blink?

YES >> Turn signal lamp circuit is normal.

NO >> Refer to [EXL-268. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289161

#### 1.CHECK TURN SIGNAL LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

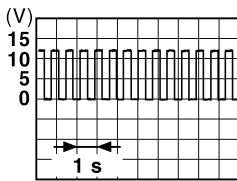
YES >> GO TO 2.

NO >> Replace the bulb.

#### 2.CHECK TURN SIGNAL LAMP OUTPUT VOLTAGE

##### CONSULT ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the front combination lamp connector or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. Select "FLASHER" of BCM (FLASHER) active test item.
5. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Test item	Voltage (Approx.)
(+)		(-)		
BCM			FLASHER	
Connector		Terminal		
Front RH	M119	17	LH or RH	
Front LH		18		
Rear RH	M120	20	Off	0 V
Rear LH		25		

Is the measurement value normal?

# TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

## < DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.  
NO >> Replace BCM.

### 3.CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

BCM		Front combination lamp/ Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
Front RH	M119	17	E28	Existed
Front LH		18	E58	
Rear RH	M120	20	B261	
Rear LH		25	B260	

Does continuity exist?

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

### 4.CHECK TURN SIGNAL LAMP SHORT CIRCUIT

Check continuity between the BCM harness connector and the ground.

BCM			Continuity
Connector	Terminal		
Front RH	M119	17	Not existed
Front LH		18	
Rear RH	M120	20	
Rear LH		25	

Does continuity exist?

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

### 5.CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front combination lamp / Rear combination lamp			Continuity
Connector	Terminal		
Front RH	E28	4	Existed
Front LH	E58	4	
Rear RH	B261	2	
Rear LH	B260	2	

Does continuity exist?

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

## OPTICAL SENSOR

## Description

INFOID:000000008289162

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

## Component Function Check

INFOID:000000008289163

## 1.CHECK OPTICAL SENSOR SIGNAL BY CONSULT

## CONSULT DATA MONITOR

1. Turn the ignition switch ON.
2. Select "OPTICAL SENSOR" 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.)
OPTICAL SENSOR	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-270, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:000000008289164

## 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		
M94	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		
M94	3		
			0 V

Is the measurement value normal?

YES >> GO TO 3.

NO >> GO TO 6.

## 3.CHECK OPTICAL SENSOR SIGNAL OUTPUT

# OPTICAL SENSOR

## < DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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

Terminals		Condition	Voltage (Approx.)	
(+)	(-)			
Optical sensor		Optical sensor		
Connector	Terminal			
M94	2	Ground	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	
M94	1	M123	138	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		
M94	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	
M94	3	M123	137	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

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

Optical sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M94	2	M123	113	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		
M94	2		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM.



## HAZARD SWITCH

## Description

INFOID:0000000008289165

Hazard switch is integrated in the multifunction switch. Hazard switch inputs the signals to BCM when pressing the switch.

## Component Function Check

INFOID:0000000008289166

## 1.CHECK HAZARD SWITCH SIGNAL BY CONSULT

## CONSULT 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	While pressing the switch	On
		While not pressing the switch	Off

## Is the item status normal?

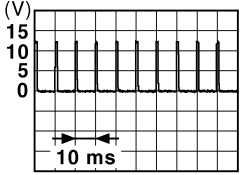
- YES >> Hazard switch circuit is normal.  
 NO >> Refer to [EXL-273, "Diagnosis Procedure"](#).

## Diagnosis Procedure

INFOID:0000000008289167

## 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	0 V
Connector	Terminal		
M122	110	While pressing the switch	
		While not pressing the switch	
	Ground		

JPMIA0012GB

## Is the measurement value normal?

- YES >> Replace BCM.  
 NO >> GO TO 2.

## 2.CHECK HAZARD SWITCH SIGNAL OPEN CIRCUIT

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

# HAZARD SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

Multifunction switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M72	16	M122	110	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 multifunction switch harness connector and the ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	16		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 multifunction switch harness connector and the ground.

Multifunction switch		Ground	Continuity
Connector	Terminal		
M72	1		Existed

Does continuity exist?

YES >> Replace the hazard switch (multifunction switch).

NO >> Repair the harnesses or connectors.

# TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TAIL LAMP CIRCUIT

### Component Function Check

INFOID:000000008289168

#### 1.CHECK TAIL LAMP OPERATION

##### ☒ IPDM E/R AUTO ACTIVE TEST

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

##### ☐ CONSULT 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-275, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289169

#### 1.CHECK TAIL LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"><li>• Tail lamp</li><li>• Rear side marker lamp</li><li>• License plate lamp</li></ul>	IPDM E/R	#53	10 A

##### Is the fuse fusing?

YES >> Repair the malfunctioning part before replacing the fuse.

NO >> GO TO 2.

#### 2.CHECK TAIL LAMP OUTPUT VOLTAGE

##### ☐ CONSULT 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 LAMP	Battery voltage
Connector	Terminal		
E5	7	TAIL	0 V
		Off	

##### Is the measurement value normal?

YES >> GO TO 3.

NO >> Replace IPDM E/R.

#### 3.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect IPDM E/R connector.

## TAIL LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

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	E5	7	B232	1	Existed
LH			B60	1	

Does continuity exist?

YES >> GO TO 4.

NO >> Repair the harnesses or connectors.

### 4. 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	B232	4		Existed
LH	B60	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

# LICENSE PLATE LAMP CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## LICENSE PLATE LAMP CIRCUIT

### Component Function Check

INFOID:000000008289170

#### NOTE:

Check the tail lamp circuit if the tail 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 [PCS-9, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

#### 📱 CONSULT 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-277, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000008289171

### 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	E5	D117	1	Existed
LH		D112	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	D117	2		Existed
LH	D112	2		

Does continuity exist?

YES >> Replace the license plate lamp.

NO >> Repair the harnesses or connectors.

# HEADLAMP SYSTEM


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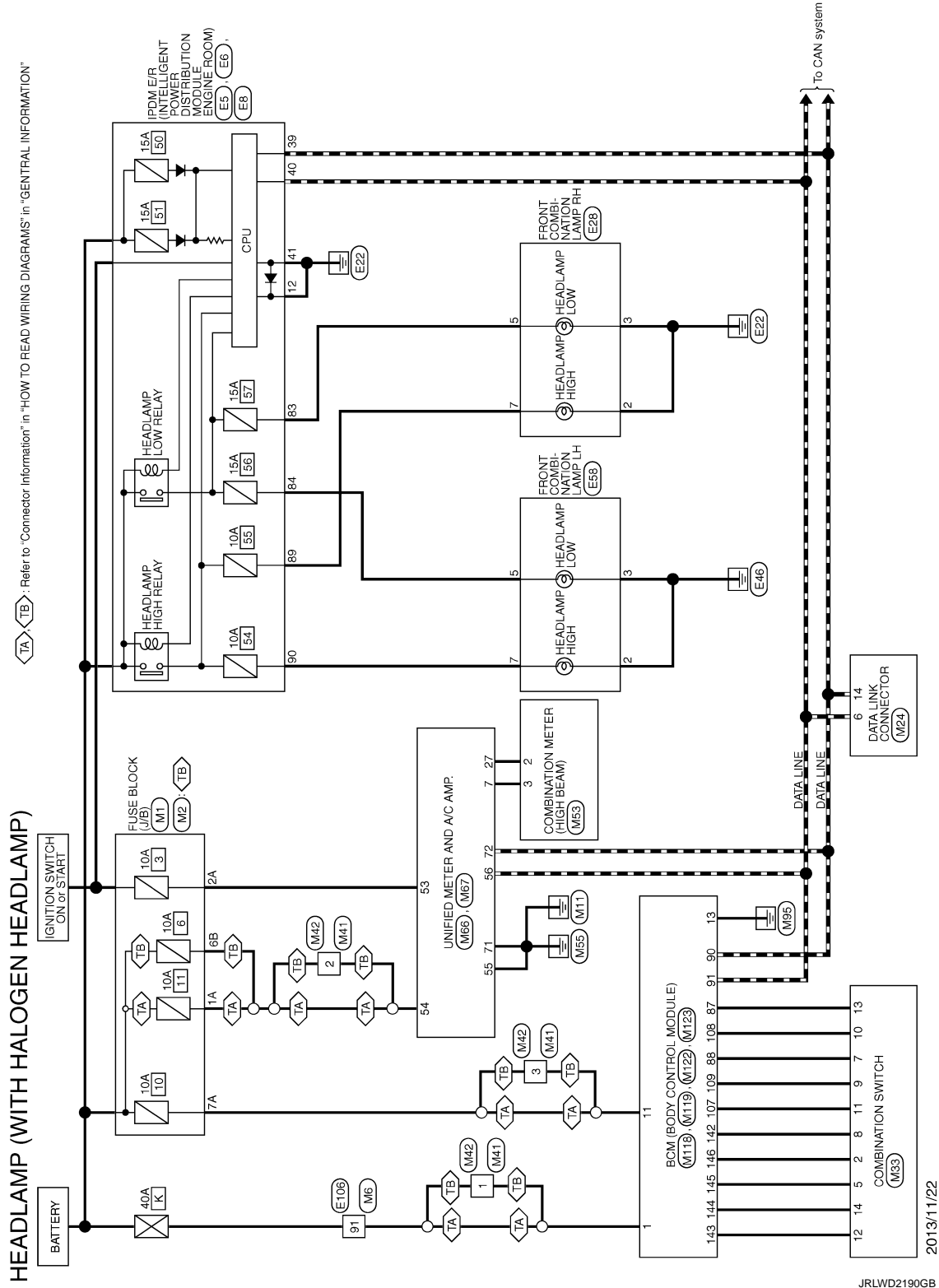
[HALOGEN TYPE]

## HEADLAMP SYSTEM

### Wiring Diagram - HEADLAMP -

INFOID:000000008289172

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



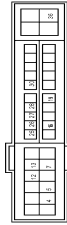
# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

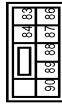
[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V



Connector No.	E8
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BLW	-
13	W	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-NH



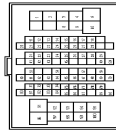
Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BLW	-
43	SB	-
44	BR	-
45	G	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BLW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-

15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC] - [Without ICC]
75	G	- [With ICC] - [Without ICC]

JRLWD2325GB

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

# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

Terminal No.	Wire	Signal Name [Specification]
75	W	- [Without ICC]
76	W	- [With ICC]
77	Y	- [Without ICC]
78	P	- [Without ICC]
79	R	- [With ICC]
80	BR	- [Without ICC]
81	L	- [With ICC]
82	SB	- [Without ICC]
83	EG	- [Without ICC]
84	G	- [Without ICC]
85	L	- [Without ICC]
86	P	- [Without ICC]
87	V	- [Without ICC]
88	GR	- [Without ICC]
89	SHIELD	- [Without ICC]
90	W	- [Without ICC]
91	Y	- [Without ICC]
92	LG	- [Without ICC]
93	EG	- [Without ICC]
94	P	- [Without ICC]
95	R	- [Without ICC]
96	SHIELD	- [Without ICC]
97	L	- [Without ICC]
98	P	- [Without ICC]
99	L	- [Without ICC]
100	P	- [Without ICC]

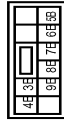
Connector No.	Signal Name [Specification]
M1	FUSE BLOCK (J/B)
NS08FW-M2	



Terminal No.	Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	P	-
4A	L	-
4A	R	- [For push button]

Terminal No.	Wire	Signal Name [Specification]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	Signal Name [Specification]
M2	FUSE BLOCK (J/B)
NS10FW-CS	



Terminal No.	Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	EG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	Signal Name [Specification]
M6	WIRE TO WIRE
TH80MW-CS16-TM4	

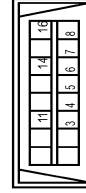


Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	Y	-
9	BR	-

Terminal No.	Wire	Signal Name [Specification]
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
30	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-

Terminal No.	Wire	Signal Name [Specification]
73	SB	-
74	BR	- [With ICC]
75	L	- [Without ICC]
76	G	-
77	GR	- [Without ICC]
78	W	- [With ICC]
79	P	- [Without ICC]
80	R	- [With ICC]
81	L	- [Without ICC]
82	R	- [Without ICC]
83	W	- [With ICC]
84	Y	- [Without ICC]
85	V	- [Without ICC]
86	P	- [Without ICC]
87	W	- [Without ICC]
88	GR	- [Without ICC]
89	SHIELD	- [Without ICC]
90	W	- [Without ICC]
91	Y	- [Without ICC]
92	BR	- [Without ICC]
93	P	- [Without ICC]
94	GR	- [Without ICC]
95	W	- [Without ICC]
96	L	- [Without ICC]
97	SHIELD	- [Without ICC]
98	V	- [Without ICC]
99	V	- [Without ICC]
100	SB	- [Without ICC]

Connector No.	Signal Name [Specification]
M24	DATA LINK CONNECTOR
BD16FW	





# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-



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

Connector No.	M53
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



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

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-



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

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03PW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER( )
2	SB	OUTPUT 4
3	GR	FR WASHER(+)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP.)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP.)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP A/B RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL ( )
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL ( )

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH52FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

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# HEADLAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

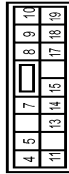
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS OXIDE (DOOR DETECTING) SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN-H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	A/C LAMP SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN-L

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03F-B-LC



Terminal No.	Wire	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FV-CS



Terminal No.	Wire	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (F/USE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Wire	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1-
79	BR	ROOM ANT1+
80	GR	NATS ANT AMP.

81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	Puddle Lamp Cont
95	BG	ACC RELAY CONT
96	GR	AT SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW


Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH

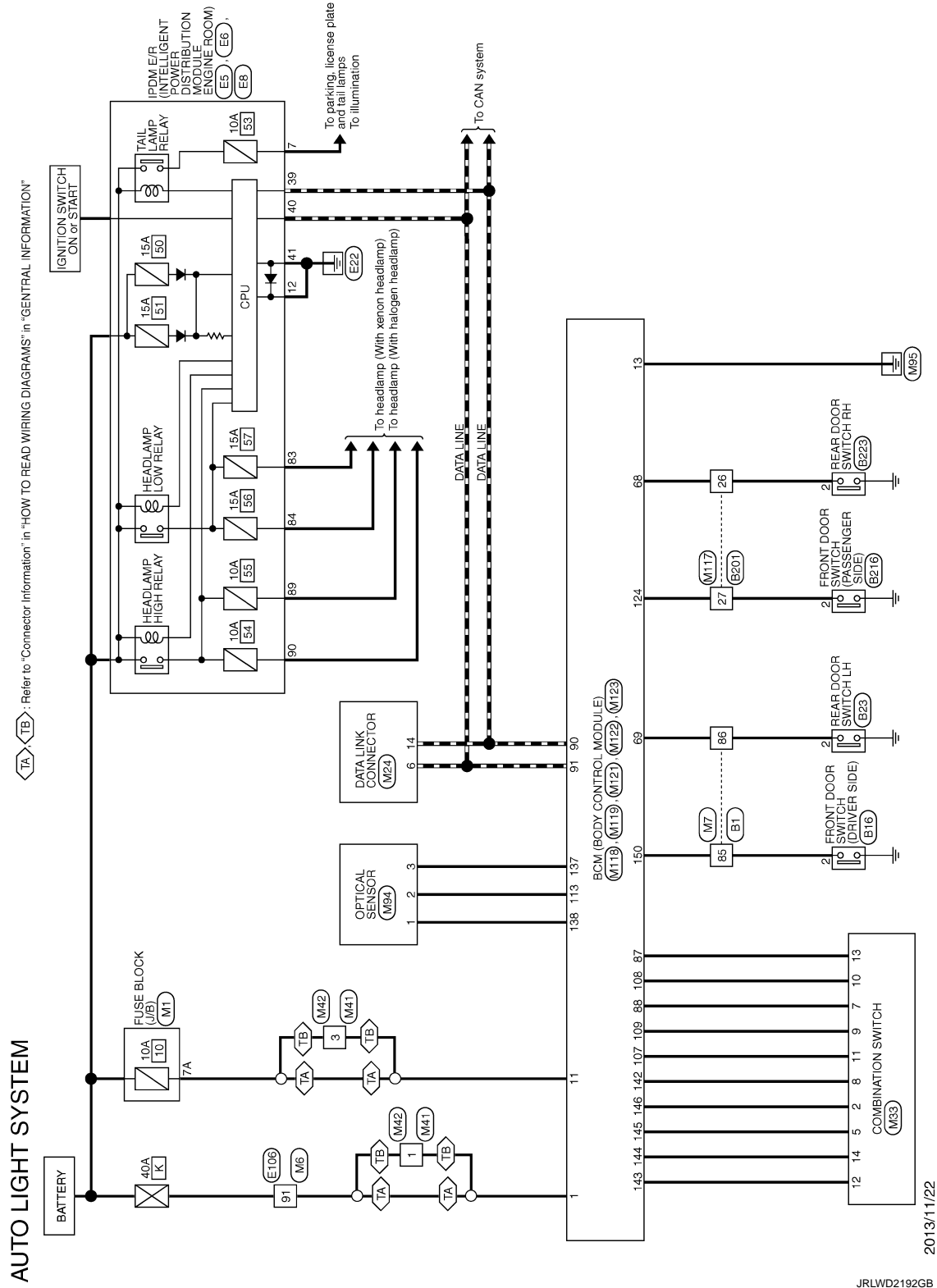


## AUTO LIGHT SYSTEM

### Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:000000008289173

For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GL-12, "Connector Information"](#).



# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM

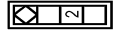
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	Y	-
8	L	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

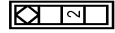
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	W	-
67	V	-
68	SB	-
69	SHIELD	-
70	W	-
73	SB	-
74	L	-
75	W	-
76	BR	-
77	R	-
78	P	-
79	GR	-
83	BG	-
85	V	-
86	LG	-
87	Y	-
88	R	-
89	B	-
90	BG	-
91	G	-
92	BR	-
93	G	-
94	SB	-
95	G	-
96	Y	-
98	W	-
99	GR	-

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



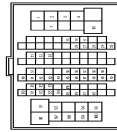
Terminal No.	Color Of Wire	Signal Name [Specification]
2	V	-

Connector No.	B23
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	BG	-
7	LG	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	G	-
56	R	-
57	W	-
58	B	-
59	SHIELD	-
60	LG	-
61	W	-
62	BR	-
63	P	-
64	L	-
65	G	-
66	P	-
67	L	-
68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	BR	-
75	Y	-
80	V	-
81	SB	-
82	LG	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-

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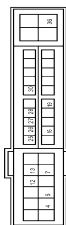
# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

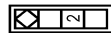
## AUTO LIGHT SYSTEM

Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	91	V	-
	92	R	-
	94	R	-
	95	SB	-
	96	G	-
	97	G	-
	98	R	-
E8	99	P	-
	100	L	-

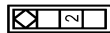


Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

Connector No.	Terminal No.	Wire	Signal Name [Specification]
B216	1	V	-
	2	R	-
A03FW	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-



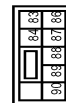
Connector No.	Terminal No.	Wire	Signal Name [Specification]
B223	1	V	-
	2	R	-
A03FW	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-



Connector No.	Terminal No.	Wire	Signal Name [Specification]
B223	1	V	-
	2	R	-
A03FW	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

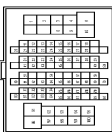
Connector No.	Terminal No.	Wire	Signal Name [Specification]
B223	1	V	-
	2	R	-
A03FW	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-



Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-



Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

Connector No.	Terminal No.	Wire	Signal Name [Specification]
E5	1	V	-
	2	R	-
E8	3	SB	-
	4	G	-
	5	G	-
	6	R	-
	7	P	-
	8	L	-
	9	W	-
	10	W	-
	11	W	-
	12	W	-

JRLWD2334GB

# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM

76	Y	- [Without ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-

7A	R	-
8A	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-

38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
74	L	- [With ICC]
75	G	- [Without ICC]
76	GR	- [With ICC]
76	W	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]
78	L	- [With ICC]
78	R	- [Without ICC]
79	W	- [With ICC]
79	Y	- [Without ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-

94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	W	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-

# AUTO LIGHT SYSTEM

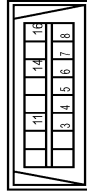
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM

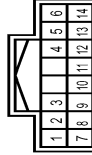
37	P	-
38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-
94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-AH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(-) OUTPUT 4
2	SB	FR WASHER(+)
3	GR	IGN
4	G	OUTPUT 3
5	L	GROUND
6	B	INPUT 3
7	V	OUTPUT 5
8	BG	INPUT 2
9	Y	INPUT 4
10	R	INPUT 1
11	LG	-

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



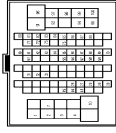
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M94
Connector Name	OPTICAL SENSOR
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER OUTPUT
2	P	-
3	B	GROUND

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH6MMW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
3	GR	-
4	SB	-
7	W	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	LG	-
28	Y	-
29	V	-
30	V	-
31	R	-
32	BR	-
33	G	-

JRLWD2336GB

# AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM

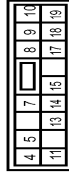
51	R	-
55	W	-
56	B	-
57	R	-
58	G	-
59	SHIELD	-
60	V	-
61	LG	-
62	BR	-
63	L	-
64	LG	-
65	B	-
66	R	-
67	W	-
68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	G	-
75	W	-
80	V	-
81	SB	-
82	V	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
91	V	-
92	G	-
94	G	-
95	W	-
96	G	-
97	Y	-
98	BR	-
99	P	-
99	V	-
100	L	-
100	SB	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FBL-C



Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (E/L)
2	W		POWER WINDOW POWER SUPPLY (BAT)
3	Y		POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM LAMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
7	Y		STEP LAMP CONT
8	V		ALL DOOR FUEL LID LOCK OUTPUT
9	G		DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR		REAR DOOR UNLOCK OUTPUT
11	R		BAT (FUSE)
13	B		GROUND
14	W		PUSH-BUTTON IGNITION SW ILL GND
15	Y		ACC IND
17	W		TURN SIGNAL RH (FRONT)
18	BG		TURN SIGNAL LH (FRONT)
19	V		INT ROOM LAMP CONT

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



Terminal No.	Color	Wire	Signal Name [Specification]
34	SB		LUGGAGE ROOM ANTI-
35	V		LUGGAGE ROOM ANTI+
38	B		BACK DOOR ANTI-
39	W		BACK DOOR ANTI+
47	Y		IGN RELAY (IPRM F/B) CONT
52	SB		STARTER RELAY CONT
60	BR		PUSH SW
61	W		BACK DOOR OPENER REQUEST SW
64	V		THEY WARN BUZZER (ENG ROOM)
65	BG		REAR WIPER STOP POSITION
66	R		BACK DOOR SW
67	GR		REAR RH DOOR SW
68	BR		REAR LH DOOR SW
69	R		REAR LH DOOR SW

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
74	SB		PASSENGER DOOR ANTI-
75	GR		PASSENGER DOOR ANTI+
76	V		DRIVER DOOR ANTI-
77	LG		DRIVER DOOR ANTI+
78	Y		ROOM ANTI-
79	BR		ROOM ANTI+

80	GR		NATS ANT AMP.
81	W		NATS ANT AMP.
82	R		IGN RELAY (F/B) CONT
83	Y		KEYLESS ENTRY RECEIVER COMM
87	BR		COMBI SW INPUT 5
88	V		COMBI SW INPUT 3
90	P		CAN-L
91	L		CAN-H
92	LG		KEY SLOT ILL CONT
93	V		ON IND
94	Y		PIDDLE LAMP CONT
95	BG		ACC RELAY CONT
96	GR		AT SHIFT SELECTOR POWER SUPPLY
99	R		SHIFT P
100	G		PASSENGER DOOR REQUEST SW
101	SB		DRIVER DOOR REQUEST SW
102	BG		BLOWER FAN MOTOR RELAY CONT
103	LG		KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG		COMBI SW INPUT 1
108	R		COMBI SW INPUT 4
109	Y		COMBI SW INPUT 2
110	G		HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
113	P		OPTICAL SENSOR
116	SB		STOP LAMP SW 1
118	P		STOP LAMP SW 2
119	SB		DR DOOR UNLOCK SENSOR
121	BR		KEY SLOT SW
123	W		IGN F/B
124	LG		PASSENGER DOOR SW
132	BR		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGNITION SW ILL POWER
134	GR		LOCK IND
137	Y		RECEIVER SENSOR GND
138	Y		RECEIVER SENSOR POWER SUPPLY

JRLWD2337GB



AUTO LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

AUTO LIGHT SYSTEM

139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

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

JRLWD2338GB

**[HALOGEN TYPE]**

## DAYTIME RUNNING LIGHT SYSTEM

INFOID:0000000008289174

[illegible]

# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

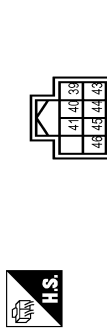
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E5
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

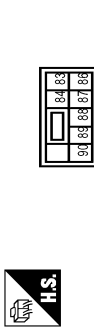
Connector No.	E6
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH10FW-NH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-

Connector No.	46
Connector Name	R

Connector No.	E8
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E34
Connector Name	FRONT FOG LAMP RH
Connector Type	FH202FB



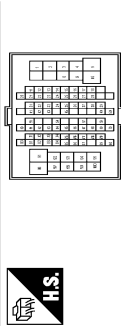
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BW	-

Connector No.	E64
Connector Name	FRONT FOG LAMP LH
Connector Type	FH202FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BW	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-

21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]

JRLWD2329GB

# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

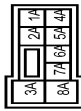
Connector No.	Signal Name [Specification]
78	BR - [Without ICC] - [With ICC]
79	L - [Without ICC] - [With ICC]
80	SB -
81	R -
82	SB -
83	EG -
84	G -
85	L -
86	P -
87	V -
89	GR -
90	SHIELD -
91	W -
92	Y -
93	V -
94	LG -
95	EG -
96	P -
97	R -
98	SHIELD -
99	L -
100	P -

Connector No.	Signal Name [Specification]
E107	PARKING BRAKE SWITCH
TB01FW	



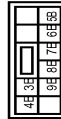
Terminal No.	Color Of Wire	Signal Name [Specification]
1	EG	-

Connector No.	Signal Name [Specification]
M1	FUSE BLOCK (J/B)
NS08FW-M2	



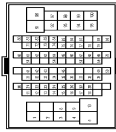
Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	Signal Name [Specification]
M2	FUSE BLOCK (J/B)
NS10FW-LCS	



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	EG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	Signal Name [Specification]
M6	WIRE TO WIRE
TH80MW-CS16-TM4	



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	LG	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	EG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	EG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	EG	-
39	BR	-
41	W	-
42	EG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	- [With ICC] - [Without ICC]
74	BR	- [With ICC] - [Without ICC]
75	G	- [With ICC] - [Without ICC]
76	GR	- [With ICC] - [Without ICC]
77	P	- [With ICC] - [Without ICC]
78	L	- [With ICC] - [Without ICC]
79	W	- [With ICC] - [Without ICC]
80	SB	- [With ICC] - [Without ICC]
81	SB	- [With ICC] - [Without ICC]
82	SB	- [With ICC] - [Without ICC]
83	V	- [With ICC] - [Without ICC]
84	G	- [With ICC] - [Without ICC]
85	L	- [With ICC] - [Without ICC]
86	P	- [With ICC] - [Without ICC]
87	W	- [With ICC] - [Without ICC]
89	GR	- [With ICC] - [Without ICC]
90	SHIELD	- [With ICC] - [Without ICC]
91	W	- [With ICC] - [Without ICC]
92	Y	- [With ICC] - [Without ICC]
93	BR	- [With ICC] - [Without ICC]
94	P	- [With ICC] - [Without ICC]
95	GR	- [With ICC] - [Without ICC]
96	W	- [With ICC] - [Without ICC]
97	L	- [With ICC] - [Without ICC]

JRLWD2330GB

# DAYTIME RUNNING LIGHT SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



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

Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER(O)
2	SB	OUTPUT 4
3	GR	FR WASHER(O)
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND

7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	R	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH40FW-NH



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	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER-AMP)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AIR RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (1)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (1)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH40FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
5	L	MANUAL MODE SHIFT UP SIGNAL
7	GR	COMMUNICATION SIGNAL (AMP-METER)
8	L	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	MANUAL MODE SIGNAL
11	G	NON-MANUAL MODE SIGNAL
14	BR	COMMUNICATION SIGNAL (LCD-AMP)
20	L	IGNITION OFF SIGNAL
23	Y	AT SNOW SWITCH SIGNAL
25	V	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	COMMUNICATION SIGNAL (METER-AMP)
28	R	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	PARKING BRAKE SWITCH SIGNAL
34	Y	COMMUNICATION SIGNAL (AMP-LCD)
38	P	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-NH



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

Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL

JRLWD2331GB

# DAYTIME RUNNING LIGHT SYSTEM

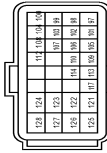
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Terminal No.	Color	Signal Name [Specification]
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GASE (FOR PRESSURE DETECTING) SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CAN/H
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	ACL/LAN SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CAN/L

Connector No.	M107
Connector Name	ECM
Connector Type	RICAFGY-R28-RLHZ



Terminal No.	Color	Signal Name [Specification]
97	R	ACCELERATOR PEDAL POSITION SENSOR 1
98	P	ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD)
99	G	ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD)
99	G	SENSOR POWER SUPPLY (ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD))
100	W	SENSOR GROUND (ACCELERATOR PEDAL POSITION SENSOR 2 (WITH ICD))
101	SB	ASD/ICC STEERING SWITCH
102	LG	EVAP CONTROL SYSTEM PRESS SENSOR
103	G	SENSOR POWER SUPPLY (EVAP CONTROL SYSTEM PRESS SENSOR)
103	L	SENSOR GROUND (EVAP CONTROL SYSTEM PRESS SENSOR)
104	BR	SENSOR POWER SUPPLY (REFRIGERANT PRESS SENSOR)
104	GR	SENSOR GROUND (REFRIGERANT PRESS SENSOR)
106	L	REFRIGERANT PRESS SENSOR
106	W	FUEL TANK TEMPERATURE SENSOR
107	RG	SENSOR POWER SUPPLY (PRESSURE SENSOR)
108	Y	SENSOR GROUND (ASD/ICC STEERING SWITCH)

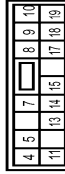
Terminal No.	Color	Signal Name [Specification]
109	G	PNP signal
110	R	ENGINE SPEED OUTPUT SIGNAL
112	V	SENSOR GROUND (EUP CONTROL SYSTEM PRESS SENSOR)
113	P	CAN COMMUNICATION LINE
114	L	CAN COMMUNICATION LINE
117	V	DATA LINK CONNECTOR
121	LG	EVAP CANISTER VENT CONTROL VALVE
122	P	STOP LAMP SWITCH
123	B	ECM GROUND
124	B	ECM GROUND
125	R	POWER SUPPLY FOR ECM
126	BR	ASD/ICC BRAKE SWITCH
127	B	ECM GROUND
128	B	ECM GROUND

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color	Signal Name [Specification]
1	W	BAT (F/L)
2	W	POWER WINDOW POWER SUPPLY (BAT)
3	Y	POWER WINDOW POWER SUPPLY (RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Signal Name [Specification]
4	LG	INTERIOR ROOM LAMP POWER SUPPLY
5	L	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP CONT
8	V	ALL DOOR FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	REAR DOOR UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GROUND
14	W	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT)
18	BG	TURN SIGNAL LH (FRONT)
19	V	INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Signal Name [Specification]
74	SB	PASSENGER DOOR ANT-
75	GR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1
79	BR	ROOM ANT1+
80	GR	NATS ANT AMP
81	W	NATS ANT AMP
82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN/L
91	L	CAN/H
92	LG	KEY SLOT ILL CONT
93	V	ON IND
94	Y	PUDDLE LAMP CONT
95	BG	ACC RELAY CONT
96	GR	AT SHIFT SELECTOR POWER SUPPLY

99	R	SHIFT P
100	G	PASSENGER DOOR REQUEST SW
101	SB	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH




Terminal No.	Color	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	BR	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
132	BR	POWER WINDOW SW COMM
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	BG	RECEIVER/SENSOR GND
138	Y	RECEIVER/SENSOR POWER SUPPLY
139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NIP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

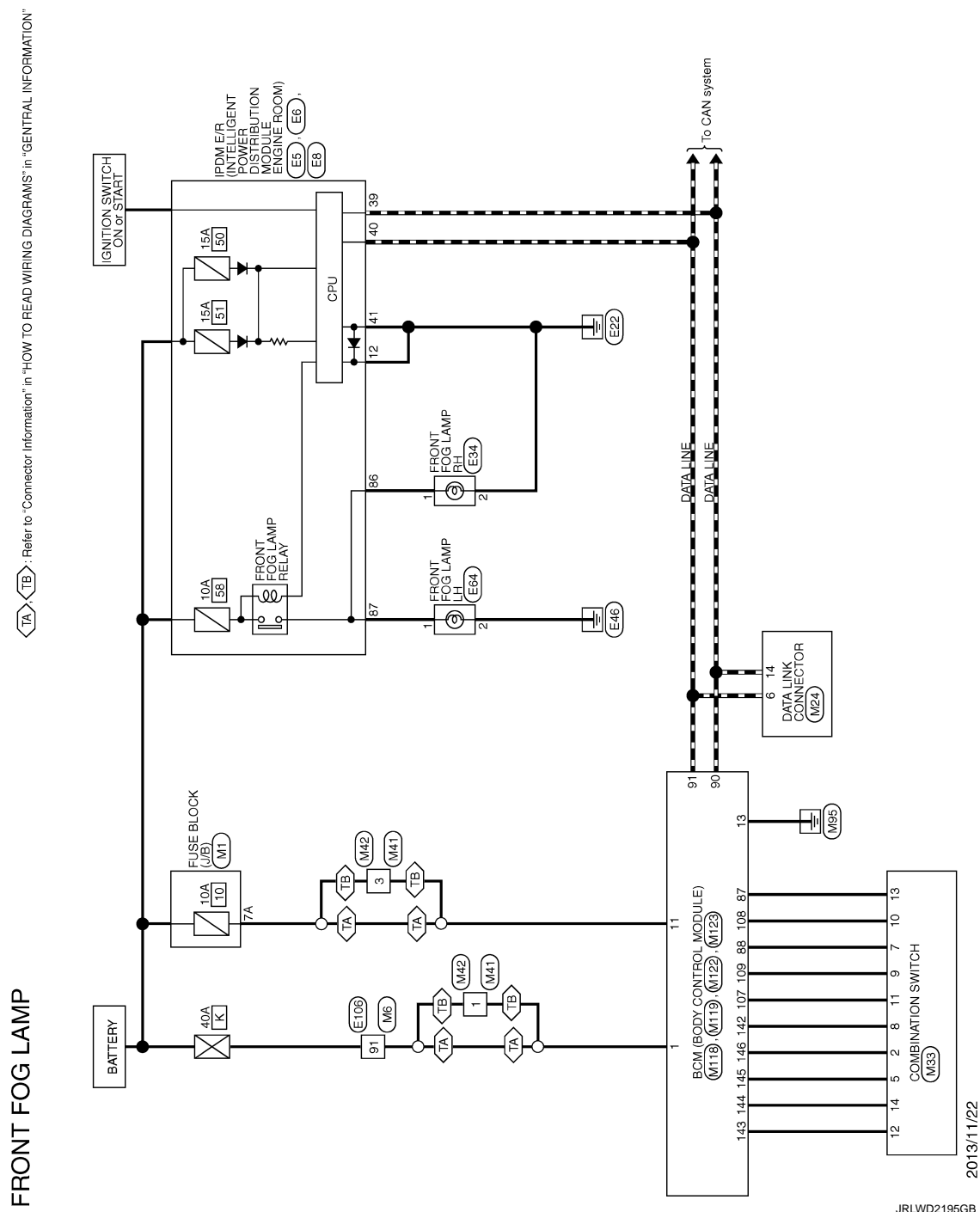
JRLWD2332GB

**[HALOGEN TYPE]**

## FRONT FOG LAMP SYSTEM

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For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



# FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP

Connector No.	E5
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

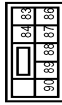
Connector No.	E6
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	TH10FW-NH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-

46	R	-
----	---	---

Connector No.	E8
Connector Name	(POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM))
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E34
Connector Name	FRONT FOG LAMP RH
Connector Type	FH20ZFB



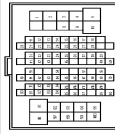
Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BW	-

Connector No.	E64
Connector Name	FRONT FOG LAMP LH
Connector Type	FH20ZFB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	BW	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH06FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-

21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]

JRLWD2345GB



# FRONT FOG LAMP SYSTEM

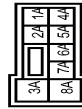
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP

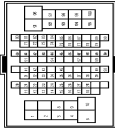
Terminal No.	Color Of Wire	Signal Name [Specification]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	Connector Name	Connector Type
M1	FUSE BLOCK (J/B)	INS06FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	Connector Name	Connector Type
M6	WIPE TO WIRE	TH06MW-CS16-TM4

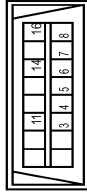


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

Terminal No.	Color Of Wire	Signal Name [Specification]
43	BG	-
45	W	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	V	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	-
76	GR	- [Without ICC]
76	W	- [With ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	L	-
78	R	- [Without ICC]
79	W	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-

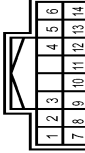
Terminal No.	Color Of Wire	Signal Name [Specification]
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	Connector Name	Connector Type
M24	DATA LINK CONNECTOR	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	Connector Name	Connector Type
M33	COMBINATION SWITCH	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER L
2	SB	OUTPUT 1
3	GR	FR WASHER L
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND

JRLW2346GB

# FRONT FOG LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP

7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



Terminal No.	Signal Name [Specification]
1	W
2	Y
3	R

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



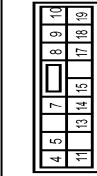
Terminal No.	Signal Name [Specification]
1	W
2	Y
3	R

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



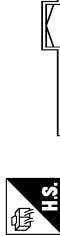
Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (E/L)
2	W		POWER WINDOW POWER SUPPLY (BAT)
3	Y		POWER WINDOW POWER SUPPLY (BAT)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FW-LC



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM LAMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
7	Y		STEP LAMP CONT
8	V		ALL DOOR FUEL LID LOCK OUTPUT
9	G		DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR		REAR DOOR UNLOCK OUTPUT
11	R		BAT (FUSE)
13	B		GROUND
14	W		PUSHBUTTON IGNITION SW ILL GND
15	Y		ACC IND
17	W		TURN SIGNAL RH (FRONT)
18	BG		TURN SIGNAL LH (FRONT)
19	V		INT ROOM LAMP CONT

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
74	SB		PASSENGER DOOR ANT-
75	GR		PASSENGER DOOR ANT+
76	V		DRIVER DOOR ANT-
77	LG		DRIVER DOOR ANT+
78	Y		ROOM ANT-
79	BR		ROOM ANT+
80	GR		NATS ANT AMP-
81	W		NATS ANT AMP+
82	R		IGN RELAY (P/B) CONT
83	Y		KEYLESS ENTRY RECEIVER COMM
87	BR		COMBI SW INPUT 5
88	V		COMBI SW INPUT 3
90	P		CANL
91	L		CANH
92	LG		KEY SLOT ILL CONT
93	V		ON IND
94	Y		Puddle LAMP CONT
95	BG		ACC RELAY CONT
96	GR		AUT SHIFT SELECTOR POWER SUPPLY
99	R		SHIFT P
100	G		PASSENGER DOOR REQUEST SW
101	SB		DRIVER DOOR REQUEST SW
102	BG		BLOWER FAN MOTOR RELAY CONT
103	LG		KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG		COMBI SW INPUT 1
108	R		COMBI SW INPUT 4
109	Y		COMBI SW INPUT 2
110	G		HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
113	P		OPTICAL SENSOR
116	SB		STOP LAMP SW 1
118	P		STOP LAMP SW 2
119	SB		DR DOOR UNLOCK SENSOR
121	BR		KEY SLOT SW
123	W		IGN FB
124	LG		PASSENGER DOOR SW
132	BR		POWER WINDOW SW COMM
133	W		PUSHBUTTON IGNITION SW ILL POWER
134	GR		LOCK IND
137	BG		RECEIVER SENSOR GND
138	Y		RECEIVER SENSOR POWER SUPPLY
139	L		TIRE PRESSURE RECEIVER COMM
140	GR		SHIFT NP
141	G		SECURITY IND LAMP CONT
142	BG		COMBI SW OUTPUT 5
143	P		COMBI SW OUTPUT 1
144	G		COMBI SW OUTPUT 2
146	L		COMBI SW OUTPUT 3
150	SB		COMBI SW OUTPUT 4
151	LG		DRIVER DOOR SW

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[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

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



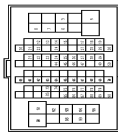
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

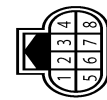
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CST6-TM4



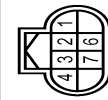
Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	Y	-
8	L	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

Connector No.	B68
Connector Name	WIRE TO WIRE
Connector Type	RH8MB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	SB	-
4	R	-
6	B	-
7	W	-

Connector No.	B255
Connector Name	WIRE TO WIRE
Connector Type	RH08FB



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-
3	V	-
4	W	-
6	B	-
7	R	-

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

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# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-PR



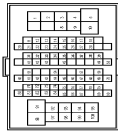
Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BAW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-PR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BAW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4

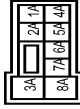


Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
6	Y	-
7	BR	-
8	BG	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-

43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	V	-
68	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	R	- [Without ICC]
78	BR	- [With ICC]
78	L	- [Without ICC]
79	L	- [With ICC]
79	Y	- [Without ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	V	-
93	V	-
94	LG	-
95	BG	-
96	P	-

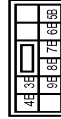
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS08FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-

JRLWD2349GB

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

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

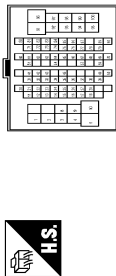
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

8B	R	-
9B	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4

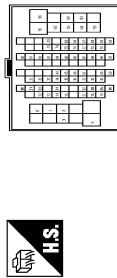


Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	BR	-
8	R	-
9	SB	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
19	BG	-
20	L	-
21	W	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
29	L	-
30	P	-
31	W	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-

38	BG	-
39	BR	-
40	W	-
41	W	-
42	BG	-
43	BG	-
44	L	-
45	W	-
46	W	-
47	L	-
48	P	-
49	BR	-
50	Y	-
51	Y	-
52	G	-
53	W	-
54	W	-
55	L	-
56	L	-
57	G	-
58	W	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
75	L	-
76	G	-
77	GR	-
78	W	-
79	P	-
80	Y	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
88	GR	-
89	SHIELD	-
90	Y	-
91	W	-
92	Y	-
93	BR	-

94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH60MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	SB	- [With automatic drive positioner]
2	SB	- [Without automatic drive positioner]
3	W	-
4	G	-
5	G	-
6	BG	-
7	W	-
8	B	-
9	SB	-
10	LG	-
11	LG	-
12	Y	-
13	G	-
14	W	-
15	W	-
16	SB	-
17	LG	-
18	BR	-
19	SHIELD	-
20	Y	-
21	Y	-
22	V	-
23	B	-
24	W	-
25	R	-
26	SHIELD	-
27	P	-
28	P	-
29	SB	-
30	SB	-
31	L	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-

37	P	-
38	BR	-
39	Y	-
40	L	-
41	GR	-
42	LG	-
43	SB	-
44	V	-
45	R	-
46	P	-
47	GR	-
48	LG	-
49	V	-
50	R	-
51	P	-
52	SHIELD	-
53	R	-
54	G	-
55	SHIELD	-
56	SB	-
57	V	-
58	LG	-
59	SHIELD	-
60	W	-
61	G	-
62	R	-
63	W	-
64	B	-
65	P	-
66	GR	-
67	GR	-
68	LG	-
69	Y	-
70	W	-
71	G	-
72	R	-
73	W	-
74	W	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
80	BG	-
81	LG	-
82	R	-
83	Y	-
84	W	-
85	BR	-
86	BR	-
87	G	-
88	BG	-
89	V	-
90	G	-
91	V	-
92	BR	-
93	G	-
94	V	-
95	G	-
96	Y	-
97	W	-
98	R	-
99	R	-

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



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

Connector No.	M41
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Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color	Off Wire	Signal Name [Specification]
3	LG	-	-
4	B	-	-
5	B	-	-
6	L	-	-
7	V	-	-
8	G	-	-
11	SB	-	-
14	P	-	-
16	Y	-	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14
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Terminal No.	Color	Off Wire	Signal Name [Specification]
1	P	-	FR WASHER(-)
2	SB	-	OUTPUT 4
3	GR	-	FR WASHER(+)
4	G	-	IGN
5	L	-	OUTPUT 3
6	B	-	GROUND
7	V	-	INPUT 3
8	BG	-	OUTPUT 5
9	Y	-	INPUT 2
10	R	-	INPUT 4
11	LG	-	INPUT 1

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M41
---------------	-----

Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



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

Terminal No.	Color	Off Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



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

Terminal No.	Color	Off Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color	Off Wire	Signal Name [Specification]
1	GR	-	BATTERY POWER SUPPLY
2	LG	-	COMMUNICATION SIGNAL (METER-AMP.)
3	GR	-	COMMUNICATION SIGNAL (AMP-METER)
5	B	-	GROUND
6	P	-	ALTERNATOR SIGNAL
7	BR	-	AIR BAG SIGNAL
10	G	-	SECURITY SIGNAL
15	B	-	GROUND
16	B	-	METER CONTROL SWITCH GROUND
19	B	-	ILL GND
20	R	-	ILL
21	BG	-	IGNITION SIGNAL
22	B	-	GROUND
24	BR	-	COMMUNICATION SIGNAL (LCD-AMP.)
25	Y	-	COMMUNICATION SIGNAL (AMP-LCD)
26	R	-	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	-	PARKING BRAKE SWITCH SIGNAL
28	W	-	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	-	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	-	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	-	WASHER LEVEL SWITCH SIGNAL
33	B	-	ILLUMINATION CONTROL SIGNAL
36	LG	-	SELECT SWITCH SIGNAL
37	SB	-	ENTER SWITCH SIGNAL
38	L	-	TRIP A/B RESET SWITCH SIGNAL
39	P	-	ILLUMINATION CONTROL SWITCH SIGNAL (-)
40	BG	-	ILLUMINATION CONTROL SWITCH SIGNAL (+)

Connector No.	M66
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color	Off Wire	Signal Name [Specification]
5	L	-	MANUAL MODE SHIFT UP SIGNAL
7	GR	-	COMMUNICATION SIGNAL (AMP-METER)
8	L	-	VEHICLE SPEED SIGNAL (2-PULSE)
9	SB	-	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
10	W	-	MANUAL MODE SIGNAL
11	G	-	NON-MANUAL MODE SIGNAL
14	BR	-	COMMUNICATION SIGNAL (LCD-AMP.)
20	L	-	IGNITION OFF SIGNAL
23	Y	-	AT SNOW SWITCH SIGNAL
25	V	-	MANUAL MODE SHIFT DOWN SIGNAL
27	LG	-	COMMUNICATION SIGNAL (METER-AMP.)
28	R	-	VEHICLE SPEED SIGNAL (8-PULSE)
30	V	-	PARKING BRAKE SWITCH SIGNAL
34	Y	-	COMMUNICATION SIGNAL (AMP-LCD)
38	P	-	BLOWER MOTOR CONTROL SIGNAL

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH16FW-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color	Off Wire	Signal Name [Specification]
41	V	-	ACC POWER SUPPLY
42	Y	-	FUEL LEVEL SENSOR SIGNAL
43	R	-	INTAKE SENSOR SIGNAL
44	LG	-	IN-VEHICLE SENSOR SIGNAL
45	P	-	AMBIENT SENSOR SIGNAL

JRLWD2351GB

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

Terminal No.	Color	Wire	Signal Name [Specification]
46	BG		SUNLOAD SENSOR SIGNAL
47	G		EXHAUST GAS (FOR REAR DOOR DETECTING SENSOR SIGNAL)
53	G		IGNITION POWER SUPPLY
54	Y		BATTERY POWER SUPPLY
55	B		GROUND
56	L		CAN-H
57	W		BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR		FUEL LEVEL SENSOR GROUND
59	GR		INTAKE SENSOR GROUND
60	L		IN-VEHICLE SENSOR GROUND
61	BR		AMBIENT SENSOR GROUND
62	SB		SUNLOAD SENSOR GROUND
63	R		-
65	BG		ECV SIGNAL
69	L		ACL/LAN SIGNAL
70	R		EACH DOOR MOTOR POWER SUPPLY
71	B		GROUND
72	P		CAN-L

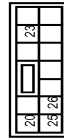


H.S.

Connector No.	Signal Name [Specification]
M118	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
INS12FW-CS	



H.S.



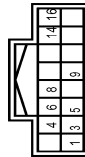
Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (E/L)
2	W		POWER WINDOW POWER SUPPLY (BAT)
3	Y		POWER WINDOW POWER SUPPLY (BAT)

Terminal No.	Color	Wire	Signal Name [Specification]
20	V		TURN SIGNAL RH (REAR)
23	G		BACK DOOR OPEN OUTPUT
25	G		TURN SIGNAL LH (REAR)
26	G		REAR WIPER OUTPUT

Connector No.	Signal Name [Specification]
M172	MULTIFUNCTION SWITCH
Connector Name	Connector Type
TH16FW-NH	



H.S.



Terminal No.	Color	Wire	Signal Name [Specification]
1	B		GROUND
3	V		ACC
4	R		ILL
5	Y		ILL CONT
6	SB		AV COMM (H)
8	LG		AV COMM (L)
9	B		SW GND
14	Y		DISK EJECT SIGNAL
16	G		HAZARD ON

Connector No.	Signal Name [Specification]
M122	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
TH40FB-NH	



H.S.



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM LAMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
7	Y		STEP LAMP CONT
8	V		ALL DOOR FUEL LID LOCK OUTPUT
9	G		DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR		REAR DOOR UNLOCK OUTPUT
11	R		GROUND
13	B		BAT (FUSE)
14	W		PUSH-BUTTON IGNITION SW ILL GND
15	Y		ACC IND
17	W		TURN SIGNAL RH (FRONT)
18	BG		TURN SIGNAL LH (FRONT)
19	V		INT ROOM LAMP CONT

Terminal No.	Color	Wire	Signal Name [Specification]
94	Y		Puddle LAMP CONT
95	BG		ACC RELAY CONT
96	GR		INT SHIFT SELECTOR POWER SUPPLY
99	R		SHIFT P
100	G		PASSENGER DOOR REQUEST SW
101	SB		DRIVER DOOR REQUEST SW
102	BG		BLOWER FAN MOTOR RELAY CONT
103	LG		KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG		COMBI SW INPUT 1
108	R		COMBI SW INPUT 4
109	Y		COMBI SW INPUT 2
110	G		HAZARD SW

Connector No.	Signal Name [Specification]
M123	BCM (BODY CONTROL MODULE)
Connector Name	Connector Type
TH40FG-NH	



H.S.



Terminal No.	Color	Wire	Signal Name [Specification]
113	P		OPTICAL SENSOR
116	SB		STOP LAMP SW 1
118	P		STOP LAMP SW 2
119	SB		DR DOOR UNLOCK SENSOR
121	BR		KEY SLOT SW
123	W		IGN F/B
124	LG		PASSENGER DOOR SW
132	BR		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGNITION SW ILL POWER
134	GR		LOCK IND
137	BG		RECEIVER SENSOR GND
138	Y		RECEIVER SENSOR POWER SUPPLY
139	L		TIRE PRESSURE RECEIVER COMM
140	GR		SHIFT NP
141	G		SECURITY IND LAMP CONT
142	BG		COMBI SW OUTPUT 5
143	P		COMBI SW OUTPUT 1
144	G		COMBI SW OUTPUT 2
145	L		COMBI SW OUTPUT 3
146	SB		COMBI SW OUTPUT 4
150	LG		DRIVER DOOR SW
151	G		REAR WINDOW DEFROSTER RELAY CONT

JRLWD2352GB



[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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A  
B  
C  
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G  
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XL  
M  
N  
O  
P



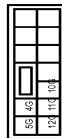
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FBRCS



Terminal No.	Color Of Wire	Signal Name [Specification]
10G	W	-
11G	W	-
12G	GR	-
4G	R	-
5G	LG	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	BG	-
13	BR	-
14	R	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	B	- [Without around view monitor]
15	Y	- [With around view monitor]
16	W	- [Without around view monitor]
17	L	- [With around view monitor]
17	R	- [Without around view monitor]
18	SHIELD	-

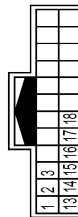
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	B	-
16	BR	-
17	LG	-
18	L	-

18	P	-
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Connector No.	B232
Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH24MW-NH



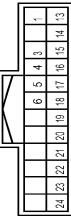
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	GR	-
16	BR	-
17	LG	-
18	L	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
13	R	-
14	L	- [With around view monitor]
14	SHIELD	- [Without around view monitor]
15	Y	-
16	G	- [With around view monitor]
16	L	- [Without around view monitor]
17	G	- [Without around view monitor]
17	W	- [With around view monitor]
18	SHIELD	-
19	LG	-
20	O	-
21	V	-
22	P	-
23	BR	-
24	R	-

JRLWLD2360GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	D112
Connector Name	LICENSE PLATE LAMP LH
Connector Type	TK02FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	B	-

Connector No.	D117
Connector Name	LICENSE PLATE LAMP RH
Connector Type	TK02FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-IM4-1V



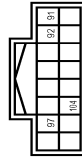
Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E9
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH16FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-FR



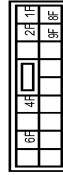
Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E58
Connector Name	FRONT COMBINATION LAMP LH
Connector Type	RS08FB-FR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	V	-
6	G	-
7	P	-
8	BG	-

Connector No.	E103
Connector Name	FUSE BLOCK (JB)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

JRLWD2361GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

[HALOGEN TYPE]

< DTC/CIRCUIT DIAGNOSIS >

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
6	Y	-
7	BR	-
8	GR	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-

43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	- [With ICC]
74	L	- [Without ICC]
75	G	- [With ICC]
75	W	- [Without ICC]
76	W	- [With ICC]
76	Y	- [Without ICC]
77	P	- [With ICC]
77	P	- [Without ICC]
77	R	- [With ICC]
78	BR	- [Without ICC]
78	L	- [With ICC]
79	L	- [Without ICC]
79	Y	- [With ICC]
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	P	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-

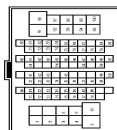
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	GR	-
2A	G	-
3A	L	-
4A	P	- [For push button]
4A	R	- [For key slot]
5A	V	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-

8	Y	-
9	BR	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-
43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	V	-
69	GR	-
70	LG	-

JRLW2362GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

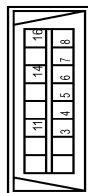
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

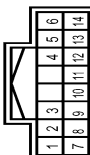
71	LG	-
72	Y	-
73	SB	-
74	BR	- [With ICC] - [Without ICC]
75	G	-
76	GR	- [Without ICC] - [With ICC]
77	P	- [Without ICC] - [With ICC]
78	R	- [Without ICC] - [With ICC]
79	W	- [Without ICC] - [With ICC]
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-
98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color	Wire	Signal Name [Specification]
3	LG	-	-
4	B	-	-
5	B	-	-
6	L	-	-
7	V	-	-
8	G	-	-
11	SB	-	-
14	P	-	-
16	Y	-	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-AH



Terminal No.	Color	Wire	Signal Name [Specification]
1	P	-	FR WASHER(-) OUTPUT 4
2	SB	-	IGN
3	GR	-	FR WASHER(+)
4	G	-	IGN
5	L	-	OUTPUT 3
6	B	-	GROUND
7	V	-	INPUT 3
8	RG	-	OUTPUT 5
9	Y	-	INPUT 2
10	R	-	INPUT 4
11	LG	-	INPUT 1

12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2



Connector No.	M41
Connector Name	WIRE TO WIRE
Connector Type	M03MW-LC



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M42
Connector Name	WIRE TO WIRE
Connector Type	M03FW-LC



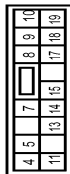
Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	-
2	Y	-	-
3	R	-	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FELC



Terminal No.	Color	Wire	Signal Name [Specification]
1	W	-	BAT (E/L)
2	W	-	POWER WINDOW POWER SUPPLY(BAT)
3	Y	-	POWER WINDOW POWER SUPPLY(IGND)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG	-	INTERIOR ROOM LAMP POWER SUPPLY
5	L	-	PASSENGER DOOR UNLOCK OUTPUT
7	Y	-	STEP LAMP CONT
8	V	-	ALL DOOR FUEL LID LOCK OUTPUT
9	G	-	DRIVER DOOR FUEL LID UNLOCK OUTPUT
10	BR	-	REAR DOOR UNLOCK OUTPUT
11	R	-	BAT (FUSE)
13	B	-	GROUND
14	W	-	PUSH BUTTON IGNITION SW ILL GND
15	Y	-	ACC IND
17	W	-	TURN SIGNAL RH (FRONT)
18	RG	-	TURN SIGNAL LH (FRONT)
19	V	-	INT ROOM LAMP CONT

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# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
74	SB	P	PASSENGER DOOR ANT-
75	GR	P	PASSENGER DOOR ANT+
76	V	P	DRIVER DOOR ANT-
77	LG	P	DRIVER DOOR ANT+
78	Y	P	ROOM ANT1
79	BR	P	ROOM ANT1+
80	GR	P	WATS ANT AMP-
81	W	P	WATS ANT AMP+
82	R	P	IGN RELAY (P/B) CONT
83	Y	P	KEYLESS ENTRY RECEIVER COMM
87	BR	P	COMBI SW INPUT 5
88	V	P	COMBI SW INPUT 3
90	P	P	CANL
91	L	P	CANH
92	LG	P	KEY SLOT ILL CONT
93	V	P	ON IND
94	Y	P	PIDDLE LAMP CONT
95	GR	P	ACC RELAY CONT
96	GR	P	A/T SHIFT SELECTOR POWER SUPPLY
99	R	P	SHIFT P
100	G	P	PASSENGER DOOR REQUEST SW
101	SB	P	DRIVER DOOR REQUEST SW
102	BG	P	BLOWER FAN MOTOR RELAY CONT
103	LG	P	KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG	P	COMBI SW INPUT 1
108	R	P	COMBI SW INPUT 4
109	Y	P	COMBI SW INPUT 2
110	G	P	HAZARD SW

Terminal No.	Color	Wire	Signal Name [Specification]
113	P	P	OPTICAL SENSOR
116	SB	P	STOP LAMP SW 1
118	P	P	STOP LAMP SW 2
119	SB	P	DR DOOR UNLOCK SENSOR
121	BR	P	KEY SLOT SW
123	W	P	IGN/FB
124	LG	P	PASSENGER DOOR SW
132	BR	P	POWER WINDOW SW COMM
133	W	P	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	P	LOCK IND
137	BG	P	RECEIVER/SENSOR GND
138	Y	P	RECEIVER/SENSOR POWER SUPPLY
139	L	P	TIRE PRESSURE RECEIVER COMM
140	GR	P	SHIFT NP
141	G	P	SECURITY IND LAMP CONT
142	BG	P	COMBI SW OUTPUT 5
143	P	P	COMBI SW OUTPUT 1
144	G	P	COMBI SW OUTPUT 2
145	L	P	COMBI SW OUTPUT 3
146	SB	P	COMBI SW OUTPUT 4
150	LG	P	DRIVER DOOR SW
151	G	P	REAR WINDOW DEFOGGER RELAY CONT

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# STOP LAMP

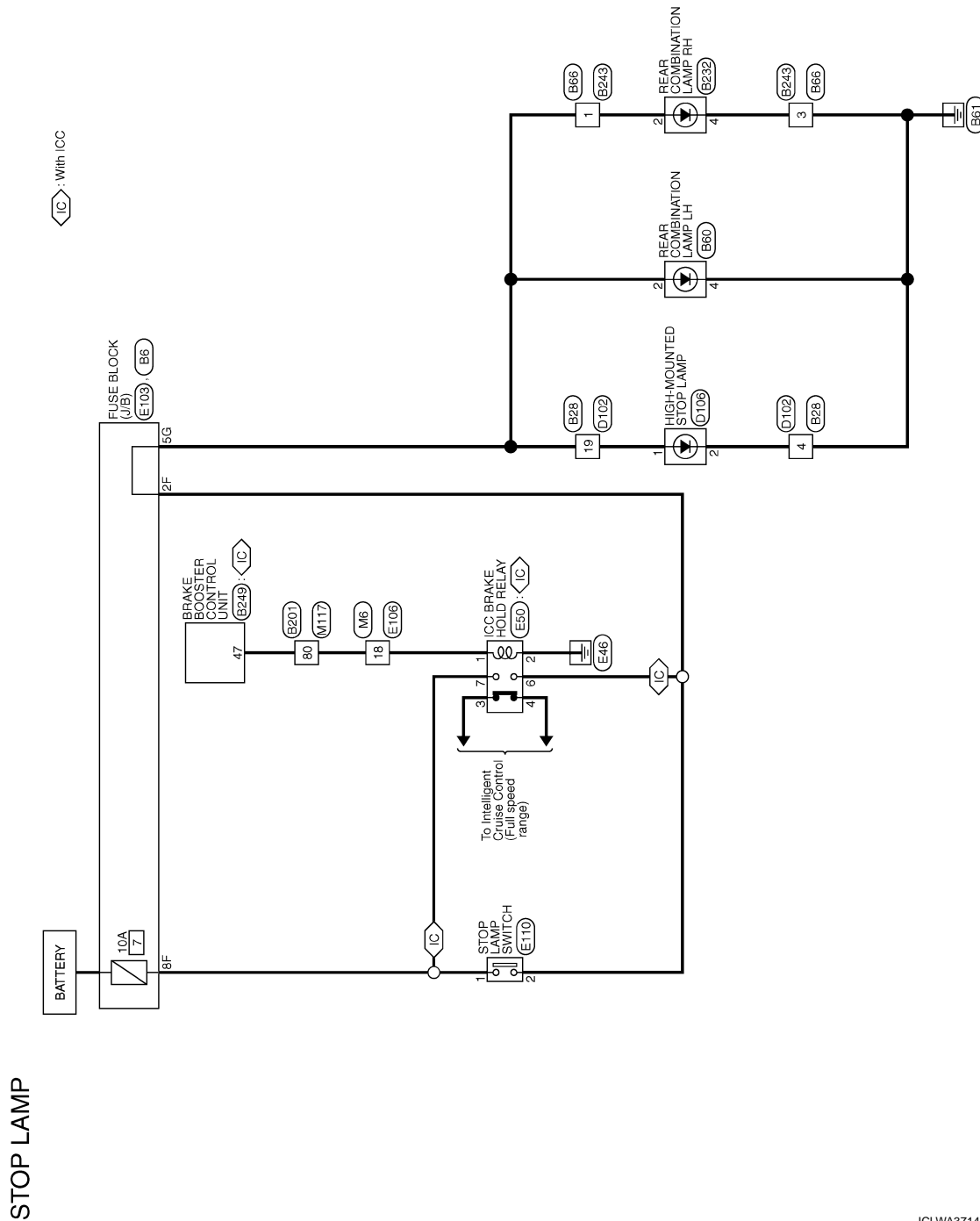
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[HALOGEN TYPE]

## STOP LAMP

### Wiring Diagram - STOP LAMP -

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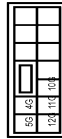
# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## STOP LAMP

Connector No.	B6
Connector Name	FUSE BLOCK (J/B)
Connector Type	INS12FBR-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10G	W	-
11G	W	-
12G	GR	-
4G	R	-
5G	LG	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	BG	-
13	BR	-
14	R	- [With around view monitor] - [Without around view monitor]
14	SHIELD	- [Without around view monitor]
15	B	- [With around view monitor] - [Without around view monitor]
15	Y	- [Without around view monitor]
16	W	-
17	L	- [With around view monitor] - [Without around view monitor]
17	R	- [Without around view monitor]
18	SHIELD	-

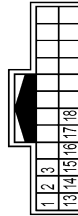
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	B60
Connector Name	REAR COMBINATION LAMP LH
Connector Type	TH44MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

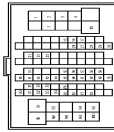
Connector No.	B66
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	R	-
3	B	-
13	L	-
14	W	-
15	B	-
16	BR	-
17	BG	-

18	P	-
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Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	GR	-
4	BG	-
7	LG	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	L	-
28	Y	-
29	Y	-
30	GR	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	G	-
56	R	-
57	W	-
58	B	-
59	SHIELD	-
60	LG	-
61	W	-
62	BR	-
63	P	-
64	L	-
65	G	-
66	P	-
67	L	-
68	SHIELD	-

69	V	-
70	Y	-
71	SB	-
72	W	-
73	BR	-
75	Y	-
80	V	-
81	SB	-
82	LG	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
91	V	-
92	R	-
94	R	-
95	SB	-
96	G	-
97	G	-
98	R	-
99	P	-
100	L	-

Connector No.	B232
Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH44MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	LG	-
4	B	-

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# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## STOP LAMP

Connector No.	B243
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-
3	B	-
13	L	-
14	W	-
15	GR	-
16	BR	-
17	LG	-
18	L	-

Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TH24FGY



Terminal No.	Color Of Wire	Signal Name [Specification]
33	BR	IGNITION
40	SB	IRA OFF SW
42	G	IGNITION
46	B	GROUND
47	V	BRAKE HOLD RLY DRIVE SIGNAL

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



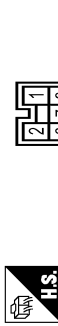
Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
13	R	-
14	L	- [With around view monitor]
15	SHIELD	- [Without around view monitor]
16	G	-
17	L	- [With around view monitor]
18	G	- [Without around view monitor]
19	W	- [With around view monitor]
20	SHIELD	- [Without around view monitor]
21	LG	-
22	O	-
23	V	-
24	P	-
25	BR	-
26	R	-

Connector No.	D106
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	TB02MW



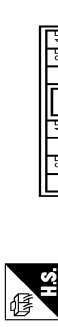
Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	B	-

Connector No.	E50
Connector Name	ICC BRAKE HOLD RELAY
Connector Type	MO6FGY-R-US



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-
3	P	-
4	SB	-
6	P	-
7	R	-

Connector No.	E103
Connector Name	FUSE BLOCK (JIB)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1F	SB	-
2F	W	-
4F	G	-
6F	BR	-
8F	L	-
9F	R	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	B	-
4	GR	-
5	GR	-
8	Y	-
9	BR	-
10	BG	-
11	SB	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-

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# STOP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## STOP LAMP

17	SB	-
18	V	-
20	BG	-
21	L	-
22	V	-
23	G	-
24	P	-
25	Y	-
26	V	-
27	W	-
28	G	-
31	BG	-
32	W	-
33	B	-
34	R	-
35	G	-
36	SHIELD	-
37	V	-
38	BR	-
39	BG	-
41	W	-
42	G	-
43	BR	-
45	W	-
49	L	-
50	P	-
51	L	-
54	BG	-
57	BR	-
59	W	-
60	LG	-
61	G	-
62	SB	-
63	W	-
64	B	-
65	G	-
66	R	-
67	SHIELD	-
68	Y	-
69	LG	-
70	W	-
71	R	-
72	Y	-
73	B	-
74	BR	-
75	G	-
76	W	-
76	Y	-

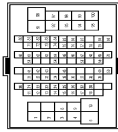
77	P	-
77	R	-
78	BR	-
78	L	-
79	L	-
79	Y	-
80	SB	-
81	R	-
82	SB	-
83	BG	-
84	G	-
85	L	-
86	P	-
87	V	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	V	-
94	LG	-
95	BG	-
96	P	-
97	R	-
98	SHIELD	-
99	L	-
100	P	-

Connector No.	E110
Connector Name	STOP LAMP SWITCH
Connector Type	M04FW-LC



Terminal No.	Wire	Signal Name [Specification]
1	L	-
2	W	-
3	Y	-
4	SB	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	R	-
3	B	-
4	SHIELD	-
5	G	-
6	Y	-
7	LG	-
8	BR	-
9	R	-
10	R	-
11	BR	-
12	BG	-
13	L	-
14	R	-
15	P	-
16	V	-
17	SB	-
18	V	-
20	BG	-
21	L	-
22	W	-
23	P	-
24	BR	-
25	Y	-
26	V	-
27	G	-
28	G	-
31	L	-
32	G	-
33	B	-
34	W	-
35	R	-
36	SHIELD	-
37	V	-
38	BG	-
39	BR	-
41	W	-
42	BG	-

43	BG	-
45	W	-
49	L	-
50	P	-
51	BR	-
54	Y	-
57	G	-
59	W	-
60	L	-
61	G	-
62	SB	-
63	G	-
64	B	-
65	W	-
66	R	-
67	SHIELD	-
68	Y	-
69	GR	-
70	LG	-
71	LG	-
72	Y	-
73	SB	-
74	BR	-
74	L	-
75	G	-
76	GR	-
76	W	-
77	P	-
77	R	-
78	L	-
78	R	-
79	W	-
79	Y	-
80	SB	-
81	SB	-
82	SB	-
83	V	-
84	G	-
85	L	-
86	P	-
87	W	-
89	GR	-
90	SHIELD	-
91	W	-
92	Y	-
93	BR	-
94	P	-
95	GR	-
96	W	-
97	L	-

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STOP LAMP

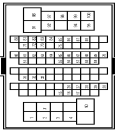
< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

STOP LAMP

98	SHIELD	-
99	V	-
100	SB	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	G	-
3	GR	-
4	SB	-
7	W	-
10	W	-
15	SB	-
16	V	-
17	BR	-
26	BR	-
27	LG	-
28	Y	-
29	Y	-
30	V	-
31	R	-
32	BR	-
33	G	-
51	R	-
55	W	-
56	B	-
57	R	-
58	G	-
59	SHIELD	-
60	V	-
61	LG	-
62	BR	-
63	L	-
64	LG	-
65	B	-
66	R	-
67	W	-

68	SHIELD	-
69	V	-
70	Y	-
71	SB	-
72	W	-
73	G	-
75	W	-
80	V	-
81	SB	-
82	V	-
83	P	-
84	R	-
85	L	-
86	BG	-
87	L	-
88	P	-
91	V	-
92	G	-
94	G	-
95	W	-
96	G	-
97	Y	-
98	BR	-
99	P	- [Without BOSE audio] - [With BOSE audio]
99	V	- [Without BOSE audio] - [With BOSE audio]
100	L	- [Without BOSE audio] - [With BOSE audio]
100	SB	-

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## BACK-UP LAMP

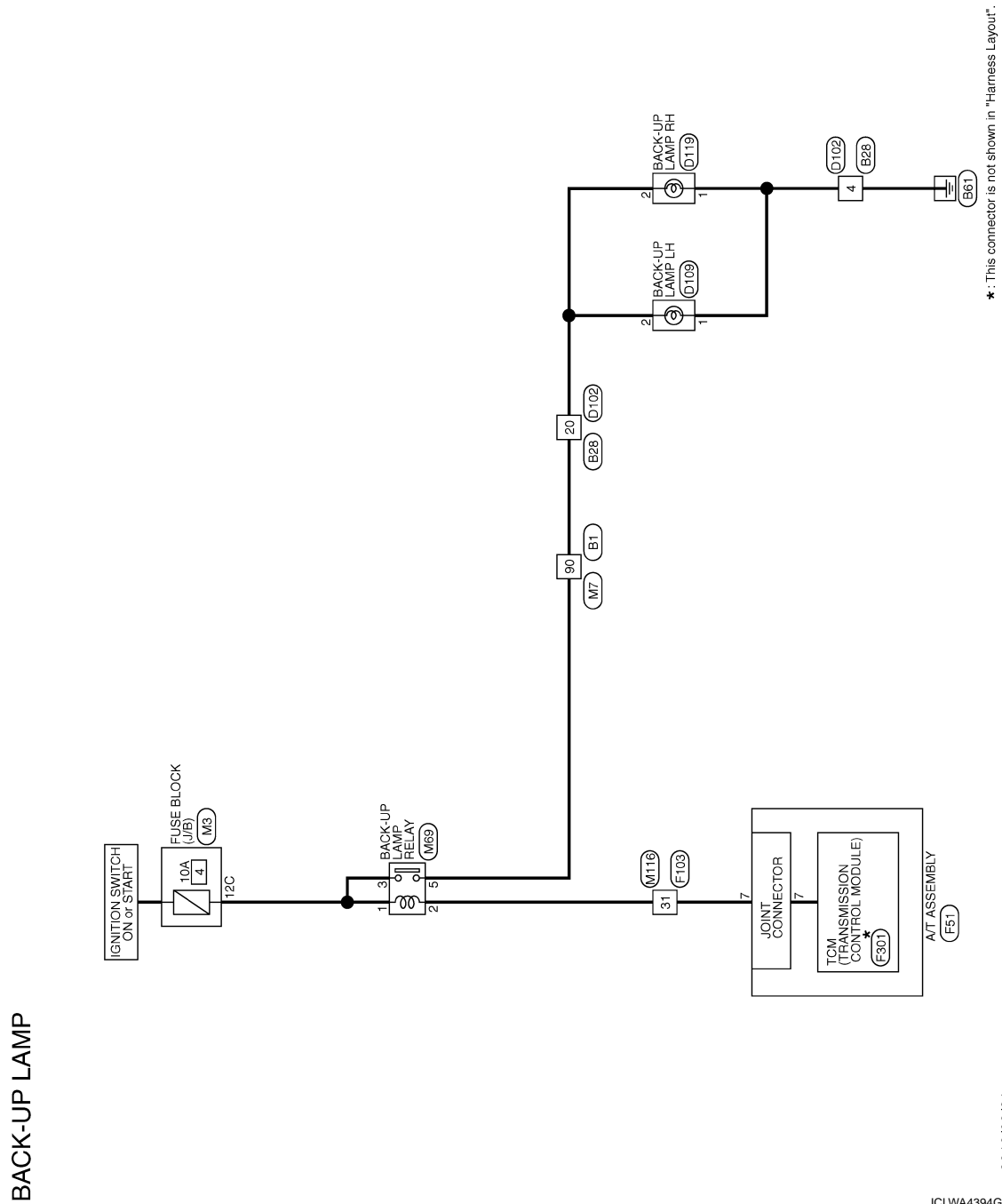
## < DTC/CIRCUIT DIAGNOSIS >

**[HALOGEN TYPE]**

## BACK-UP LAMP

## Wiring Diagram - BACK-UP LAMP -

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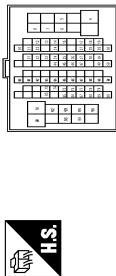
# BACK-UP LAMP

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[HALOGEN TYPE]

## BACK-UP LAMP

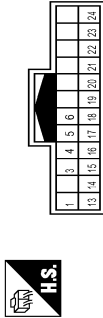
Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-C516-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	R	-
5	G	-
6	SB	-
7	V	-
8	L	-
9	SB	-
10	LG	-
11	BR	-
12	SB	-
13	LG	-
14	GR	-
15	LG	-
16	W	-
17	W	-
18	SB	-
19	LG	-
20	BR	-
21	SHIELD	-
22	Y	-
24	P	-
27	B	-
28	R	-
29	W	-
30	SHIELD	-
31	SHIELD	-
32	W	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	Y	-
45	GR	-
46	LG	-
47	SB	-
49	G	-
50	V	-

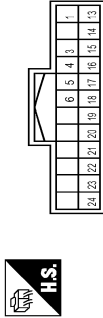
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	W	-
67	V	-
68	SB	-
69	SHIELD	-
70	W	-
73	SB	-
74	L	-
75	W	-
76	BR	-
77	R	-
78	P	-
79	GR	-
83	RG	-
85	V	-
86	LG	-
87	Y	-
88	R	-
89	B	-
90	BG	-
91	G	-
92	BR	-
93	G	-
94	SB	-
95	G	-
96	Y	-
98	W	-
99	GR	-

Connector No.	B28
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
7	R	-
8	R	-
9	L	-
10	L	-
11	W	-
12	SHIELD	-
13	LG	-
14	R	-
15	B	-
16	Y	-
17	L	-
18	SHIELD	-
19	LG	-
20	BG	-
21	B	-
22	P	-
23	BR	-
24	R	-

Connector No.	D102
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
3	W	-
4	B	-
5	R	-
6	O	-
7	R	-
8	R	-
9	L	-
10	L	-
11	W	-
12	SHIELD	-
13	LG	-
14	R	-
15	Y	-
16	G	-
17	L	-
18	SHIELD	-
19	LG	-
20	O	-
21	V	-
22	P	-
23	BR	-
24	R	-

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# BACK-UP LAMP

< DTC/CIRCUIT DIAGNOSIS >

[HALOGEN TYPE]

## BACK-UP LAMP

Connector No.	D109
Connector Name	BACK-UP LAMP LH
Connector Type	NS02MW-CS



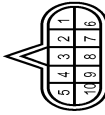
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	O	-

Connector No.	D119
Connector Name	BACK-UP LAMP RH
Connector Type	NS02MW-CS



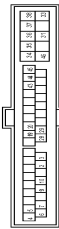
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	O	-

Connector No.	F51
Connector Name	A/T ASSEMBLY
Connector Type	RK10FG-DGY



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER SUPPLY
2	BR	POWER SUPPLY (MEMORY BACK-UP)
3	O	CAN-H
4	V	K LINE
5	B	GROUND
6	Y	POWER SUPPLY
7	R	BACK-UP LAMP RELAY
8	LG	CAN-L
9	GR	STARTER RELAY
10	B	GROUND

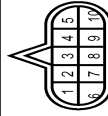
Connector No.	F103
Connector Name	WIRE TO WIRE
Connector Type	TK36FW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	-
3	W	-
4	R	-
5	B	-
9	Y	-
10	GR	-
19	BG	-
18	O	-
20	Y	-
28	B	-

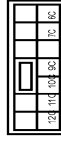
29	LG	-
31	R	-
33	GR	-
34	B	-
35	L	-
36	P	-
37	Y	-
38	G	-
43	LG	-
44	O	-
45	Y	-
46	V	-

Connector No.	F301
Connector Name	TCM (TRANSMISSION CONTROL MODULE)
Connector Type	SPT0FG



Terminal No.	Color Of Wire	Signal Name [Specification]
1	-	POWER SUPPLY
2	-	POWER SUPPLY (MEMORY BACK-UP)
3	-	CAN-H
4	-	K LINE
5	-	GROUND
6	-	POWER SUPPLY
7	-	BACK-UP LAMP RELAY
8	-	CAN-L
9	-	STARTER RELAY
10	-	GROUND

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FM-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color Of Wire	Signal Name [Specification]
3	SB	- [With automatic drive positioner]
3	W	- [Without automatic drive positioner]
5	G	-
6	BG	-
7	W	-
8	B	-
12	SB	-
13	LG	-
14	Y	-
15	G	-
17	W	-
18	SB	-
19	LG	-
20	BR	-

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**EXL-319**

Revision: 2013 December

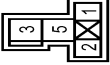
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## BACK-UP LAMP

21	SHIELD	-
22	Y	-
24	V	-
27	B	-
28	W	-
29	R	-
30	SHIELD	-
31	L	-
32	P	-
33	SB	-
34	L	-
35	P	-
36	L	-
37	P	-
38	BR	-
39	Y	-
44	L	-
45	GR	-
46	LG	-
47	SB	-
49	V	-
50	R	-
60	P	-
61	L	-
62	SHIELD	-
63	R	-
64	G	-
65	SHIELD	-
66	SB	-
67	V	-
68	LG	-
69	SHIELD	-
70	W	-
73	G	-
74	R	-
75	W	-
76	W	-
77	B	-
78	P	-
79	GR	-
83	BG	-
85	LG	-
86	R	-
87	Y	-
88	W	-
89	BR	-
90	BG	-
91	G	-
92	V	-
93	BR	-

94	V	-
95	G	-
96	Y	-
98	W	-
99	R	-

Connector No.	M69
Connector Name	BACK-UP LAMP RELAY
Connector Type	MS02FL-M2-LC



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
2	W	-
3	R	-
5	B/G	-

Connector No.	M116
Connector Name	WIRE TO WIRE
Connector Type	TK36MW-NS10



Terminal No.	Color Of Wire	Signal Name [Specification]
2	P	-
3	L	-
4	R	-
5	B	-
9	R	-
10	R	-
19	BG	-
20	Y	-
28	B	-

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## ECU DIAGNOSIS INFORMATION

### BCM (BODY CONTROL MODULE)

#### Reference Value

INFOID:000000008772667

#### VALUES ON THE DIAGNOSIS TOOL

##### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

##### CONSULT 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	Off
	Front wiper switch INT	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



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
FR FOG SW	Front fog lamp switch OFF	Off
	Front fog lamp switch ON	On
RR FOG SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
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
KEY CYL SW-TR	<b>NOTE:</b> The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TR CANCEL SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
TR/BD OPEN SW	Back door opener switch OFF	Off
	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	<b>NOTE:</b> The item is indicated, but not monitored.	Off
REVERSE SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
RKE-PANIC	PANIC button of the key is not pressed	Off
	PANIC button of the key is pressed	On
RKE-P/W OPEN	UNLOCK button of the key is not pressed	Off
	UNLOCK button of the key is pressed and held	On

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
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
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	Dark outside of the vehicle	Close to 0 V
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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
REQ SW -RL	<b>NOTE:</b> 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
IGN RLY2 -F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
ACC RLY -F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
CLUCH SW	<b>NOTE:</b> The item is indicated, but not monitored.	Off
BRAKE SW 1	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
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	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	<b>NOTE:</b> The item is indicated, but not monitored.	Off
S/L -UNLOCK	<b>NOTE:</b> The item is indicated, but not monitored.	Off
S/L RELAY-F/B	<b>NOTE:</b> The item is indicated, but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
SFT P -MET	Selector lever in any position other than P	Off	A
	Selector lever in P position	On	
SFT N -MET	Selector lever in any position other than N	Off	B
	Selector lever in N position	On	
ENGINE STATE	Engine stopped	Stop	C
	While the engine stalls	Stall	
	At engine cranking	Crank	
	Engine running	Run	D
S/L LOCK-IPDM	<b>NOTE:</b> The item is indicated, but not monitored.	Off	
S/L UNLK-IPDM	<b>NOTE:</b> The item is indicated, but not monitored.	Off	E
S/L RELAY-REQ	<b>NOTE:</b> The item is indicated, but not monitored.	Off	F
VEH SPEED 1	While driving	Equivalent to speedometer reading	
VEH SPEED 2	While driving	Equivalent to speedometer reading	G
DOOR STAT-DR	Driver door is locked	LOCK	
	Wait with selective UNLOCK operation (5 seconds)	READY	H
	Driver door is unlocked	UNLOCK	
DOOR STAT-AS	Passenger door is locked	LOCK	I
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door is unlocked	UNLOCK	
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset	J
	Ignition switch ON	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	K
	The engine start is permitted	Set	
PRMT RKE STRT	<b>NOTE:</b> The item is indicated, but not monitored.	Reset	EXL
KEY SW -SLOT	The key is not inserted into key slot	Off	
	The key is inserted into key slot	On	
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	M
RKE OPE COUN2	<b>NOTE:</b> The item is indicated, but not monitored.	—	N
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	O
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	P
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

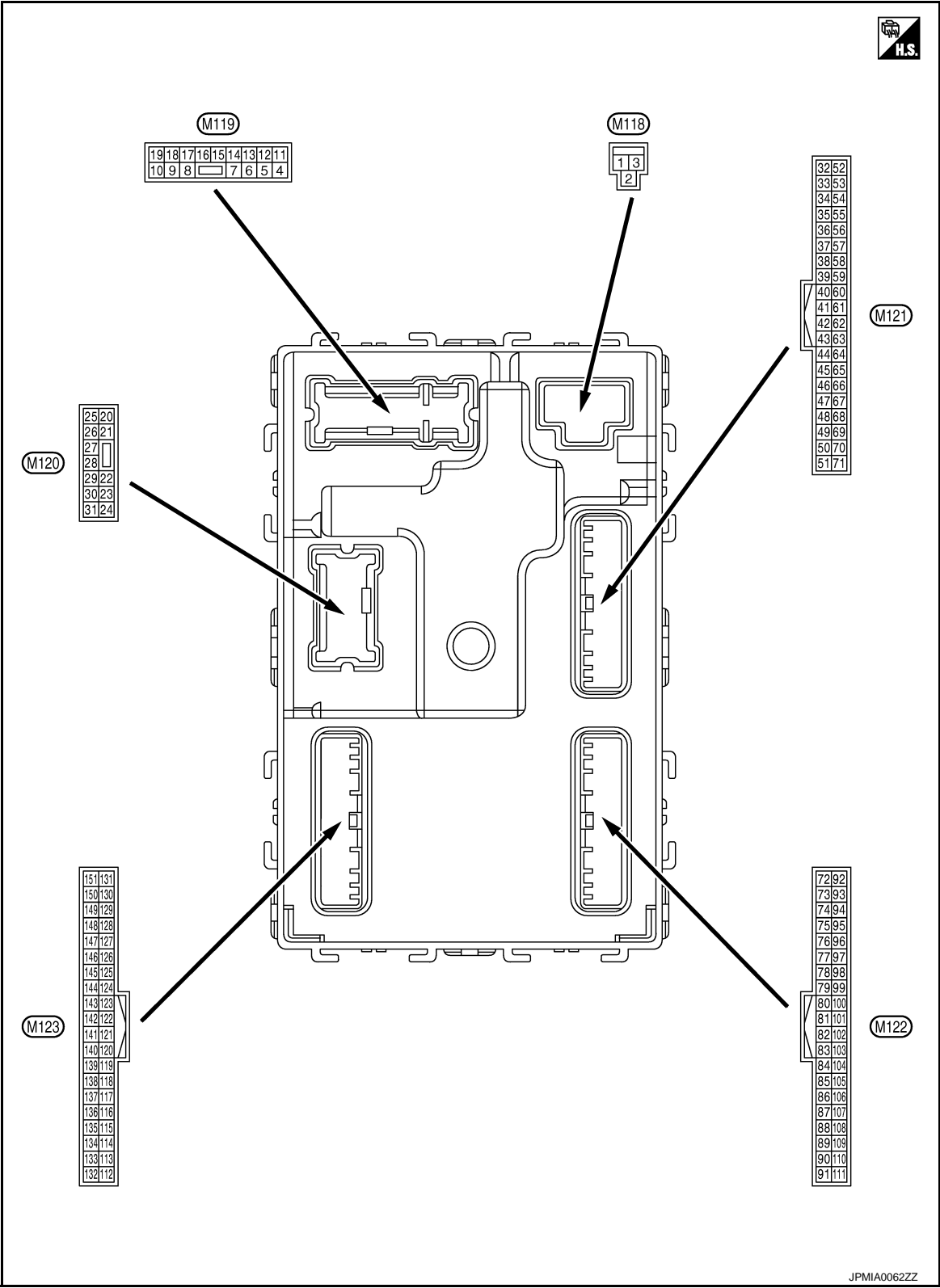
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done
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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

TERMINAL LAYOUT

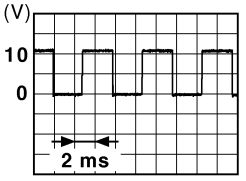


PHYSICAL VALUES

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

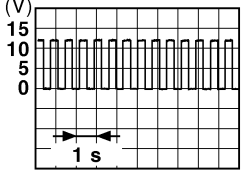
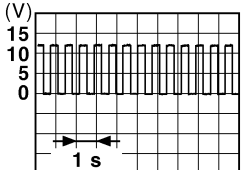
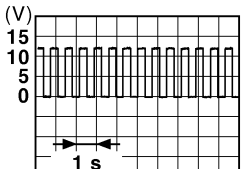
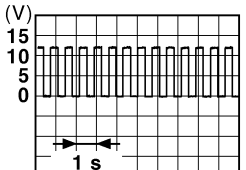
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (Y)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (LG)	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)		Battery voltage
5 (L)	Ground	Passenger door UN- LOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (BR)	Ground	Rear RH door and rear LH door UN- LOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	<p><b>NOTE:</b> When the illumination brightening/dimming level is in the neutral position</p>  <p>JSNIA0010GB</p>
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF or ON	Battery voltage
					ACC	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (G)	Ground	Back door open	Output	Back door	OPEN (Back door opener actuator is activated)	Battery voltage
					Other than OPEN (Back door opener actuator is not activated)	0 V
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
26 (G)	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V
					ON (Operated)	Battery voltage

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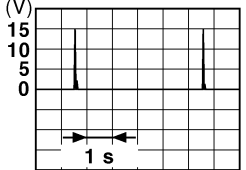
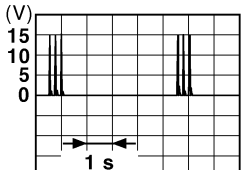
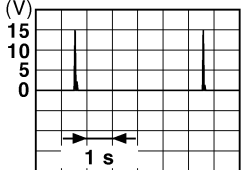
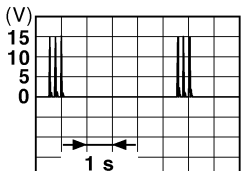
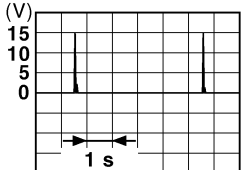
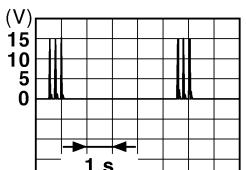
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

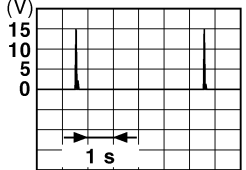
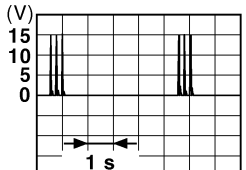
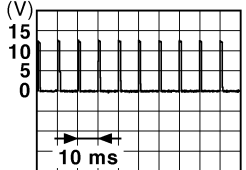
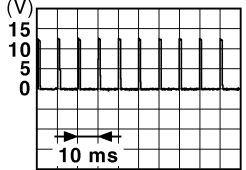
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
34 (SB)	Ground	Luggage room antenna (-)	Output	Ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
35 (V)	Ground	Luggage room antenna (+)	Output	Ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the passenger compartment	 <p>JMKIA0063GB</p>
38 (B)	Ground	Back door antenna (-)	Output	When the back door opener request switch is operated with ignition switch OFF	 <p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	 <p>JMKIA0063GB</p>



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

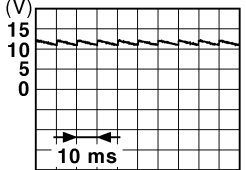
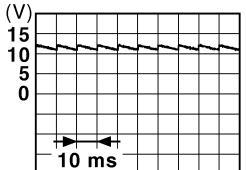
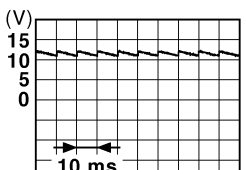
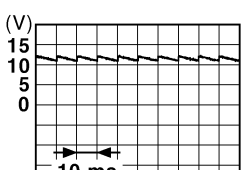
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (W)	Ground	Back door antenna (+)	Output	When the back door opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	
				When the back door opener request switch is operated with ignition switch ON	When Intelligent Key is not in the antenna detection area	
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
52 (SB)	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
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	
64 (V)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage
65 (BG)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	
					Not in stop position	0 V

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
67 (GR)	Ground	Back door opener switch	Input	Back door opener switch	Pressed	0 V
					Not pressed	 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	 11.8 V
					ON (Door open)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
74 (SB)	Ground	Passenger door antenna (-)	Output	When the passenger door request switch is operated with ignition switch OFF	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>
75 (GR)	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operated with ignition switch OFF	<p>JMKIA0062GB</p>
				When Intelligent Key is not in the antenna detection area	<p>JMKIA0063GB</p>

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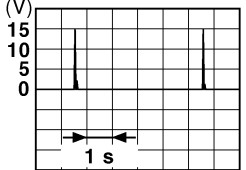
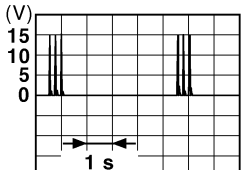
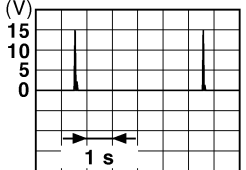
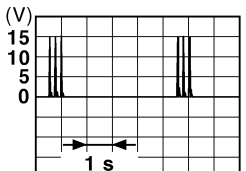
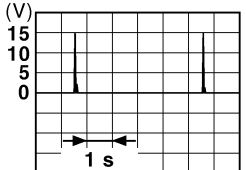
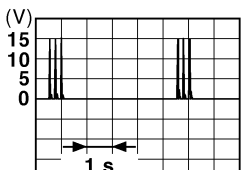
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# BCM (BODY CONTROL MODULE)

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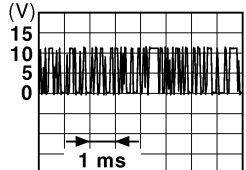
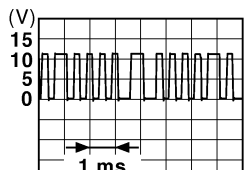
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (-) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compart- ment	 JMKIA0063GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
80 (GR)	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.
81 (W)	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.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		
				When operating either button on the key		

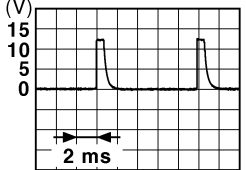

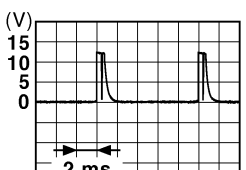
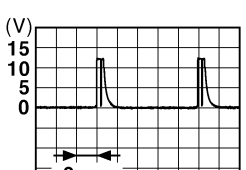
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

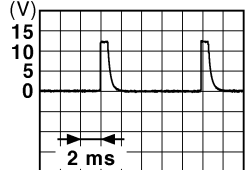
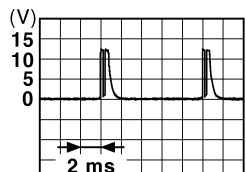
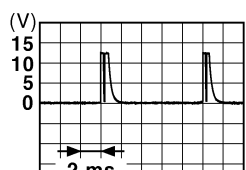
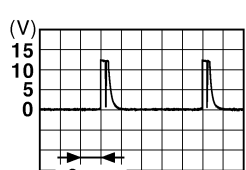
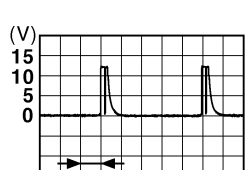
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	 <p>JPMIA0041GB</p> <p>1.4 V</p>
				Front fog lamp switch ON (Wiper intermittent dial 4)	 <p>JPMIA0037GB</p> <p>1.3 V</p>
				Rear wiper switch ON (Wiper intermittent dial 4)	 <p>JPMIA0039GB</p> <p>1.3 V</p>
				Any of the conditions below with all switches OFF <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	 <p>JPMIA0040GB</p> <p>1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

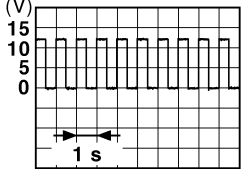
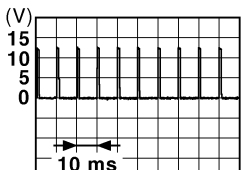
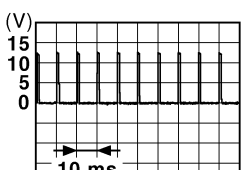
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)	
+	—	Signal name	Input/ Output				
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 1.4 V	A
					Lighting switch HI (Wiper intermittent dial 4)	 1.3 V	B
					Lighting switch 2ND (Wiper intermittent dial 4)	 1.3 V	C
					Rear washer switch ON (Wiper intermittent dial 4)	 1.3 V	D
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 1.3 V	E
90 (P)	Ground	CAN-L	Input/ Output	—		—	F
91 (L)	Ground	CAN-H	Input/ Output	—		—	G

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 <p>6.5 V</p>
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
94 (Y)	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage
					ON	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		Battery voltage
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>1.0 V</p>
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 <p>1.0 V</p>
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

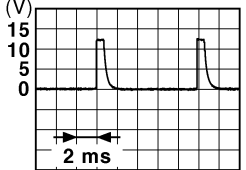
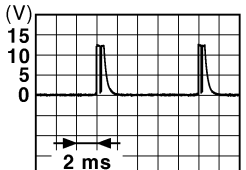
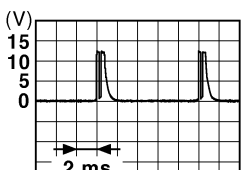
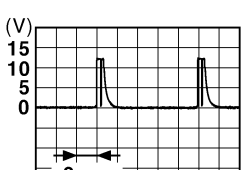
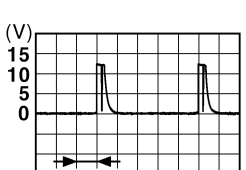
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	<div> <p>JPMIA0041GB</p> <p>1.4 V</p> </div>
				Turn signal switch LH	<div> <p>JPMIA0037GB</p> <p>1.3 V</p> </div>
				Turn signal switch RH	<div> <p>JPMIA0036GB</p> <p>1.3 V</p> </div>
				Front wiper switch LO	<div> <p>JPMIA0038GB</p> <p>1.3 V</p> </div>
				Front washer switch ON	<div> <p>JPMIA0039GB</p> <p>1.3 V</p> </div>

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

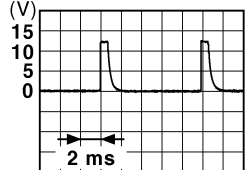
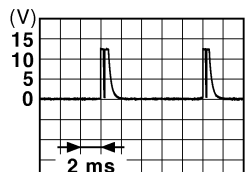
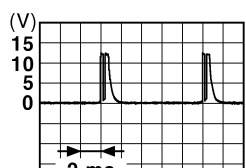
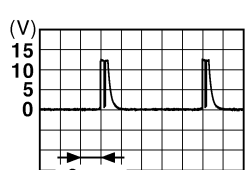
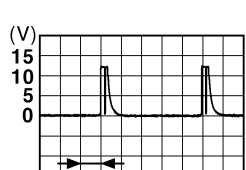
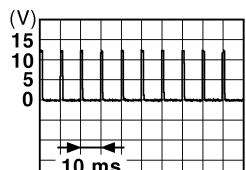
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	<p>All switches OFF (Wiper intermittent dial 4)</p>  <p>JPMIA0041GB</p> <p>1.4 V</p>
					<p>Lighting switch AUTO (Wiper intermittent dial 4)</p>  <p>JPMIA0038GB</p> <p>1.3 V</p>
					<p>Lighting switch 1ST (Wiper intermittent dial 4)</p>  <p>JPMIA0036GB</p> <p>1.3 V</p>
					<p>Rear wiper switch INT (Wiper intermittent dial 4)</p>  <p>JPMIA0040GB</p> <p>1.3 V</p>
					<p>Any of the conditions below with all switches OFF</p> <ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 5</li> <li>• Wiper intermittent dial 6</li> </ul>  <p>JPMIA0039GB</p> <p>1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

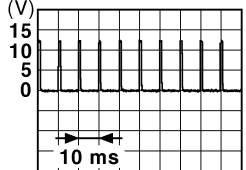
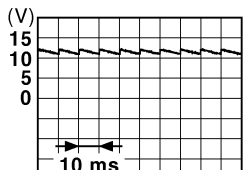
Terminal No. (Wire color)		Description				Value (Approx.)	
+	-	Signal name	Input/ Output	Condition			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	 1.4 V	A
					Lighting switch PASS	 1.3 V	B
					Lighting switch 2ND	 1.3 V	C
					Front wiper switch INT	 1.3 V	D
					Front wiper switch HI	 1.3 V	E
110 (G)	Ground	Hazard switch	Input	Hazard switch	ON	0 V	F
					OFF	 1.1 V	G

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

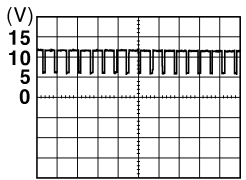
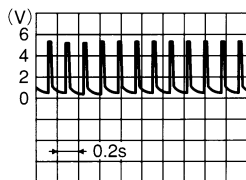
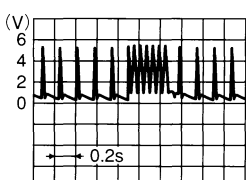
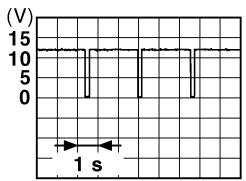
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
113 (P)	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
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not de- pressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
				121 (BR)	Ground	Key slot switch
				When the key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
				132 (BR)	Ground	Power window switch communication
Ignition switch OFF or ACC		Battery voltage				

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

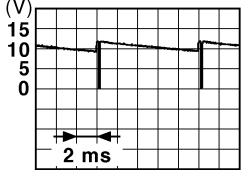
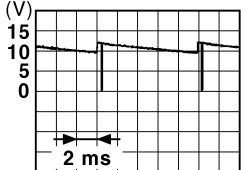
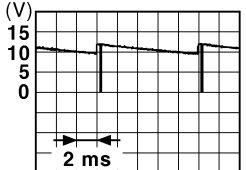
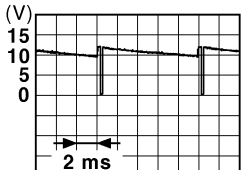
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	<b>NOTE:</b> The pulse width of this wave is varied by the illumination bright- ening/dimming level.  <small>JPMIA0159GB</small>
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	Ignition switch ON	Standby state	 <small>OCC3881D</small>
					When receiving the signal from the transmitter	 <small>OCC3880D</small>
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 <small>JPMIA0014GB</small> 11.3 V
					OFF	Battery voltage

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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

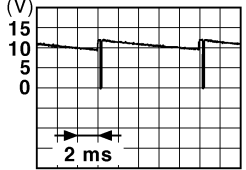
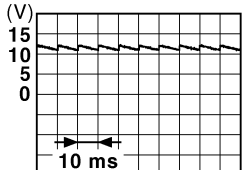
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
142 (BG)	Ground	Combination switch OUTPUT 5	Output	All switches OFF	0 V
				Lighting switch 1ST	
				Lighting switch HI	
				Lighting switch 2ND	
				Turn signal switch RH	
143 (P)	Ground	Combination switch OUTPUT 1	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front wiper switch HI (Wiper intermittent dial 4)	
				Rear wiper switch INT (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
				<ul style="list-style-type: none"> <li>• Wiper intermittent dial 1</li> <li>• Wiper intermittent dial 2</li> <li>• Wiper intermittent dial 3</li> <li>• Wiper intermittent dial 6</li> <li>• Wiper intermittent dial 7</li> </ul>	
144 (G)	Ground	Combination switch OUTPUT 2	Output	All switches OFF (Wiper intermittent dial 4)	0 V
				Front washer switch ON (Wiper intermittent dial 4)	
				Rear wiper switch ON (Wiper intermittent dial 4)	
				Rear washer switch ON (Wiper intermittent dial 4)	
				Any of the conditions below with all switches OFF	
145 (L)	Ground	Combination switch OUTPUT 3	Output	All switches OFF	0 V
				Front wiper switch INT	
				Front wiper switch LO	
				Lighting switch AUTO	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

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
# BCM (BODY CONTROL MODULE)

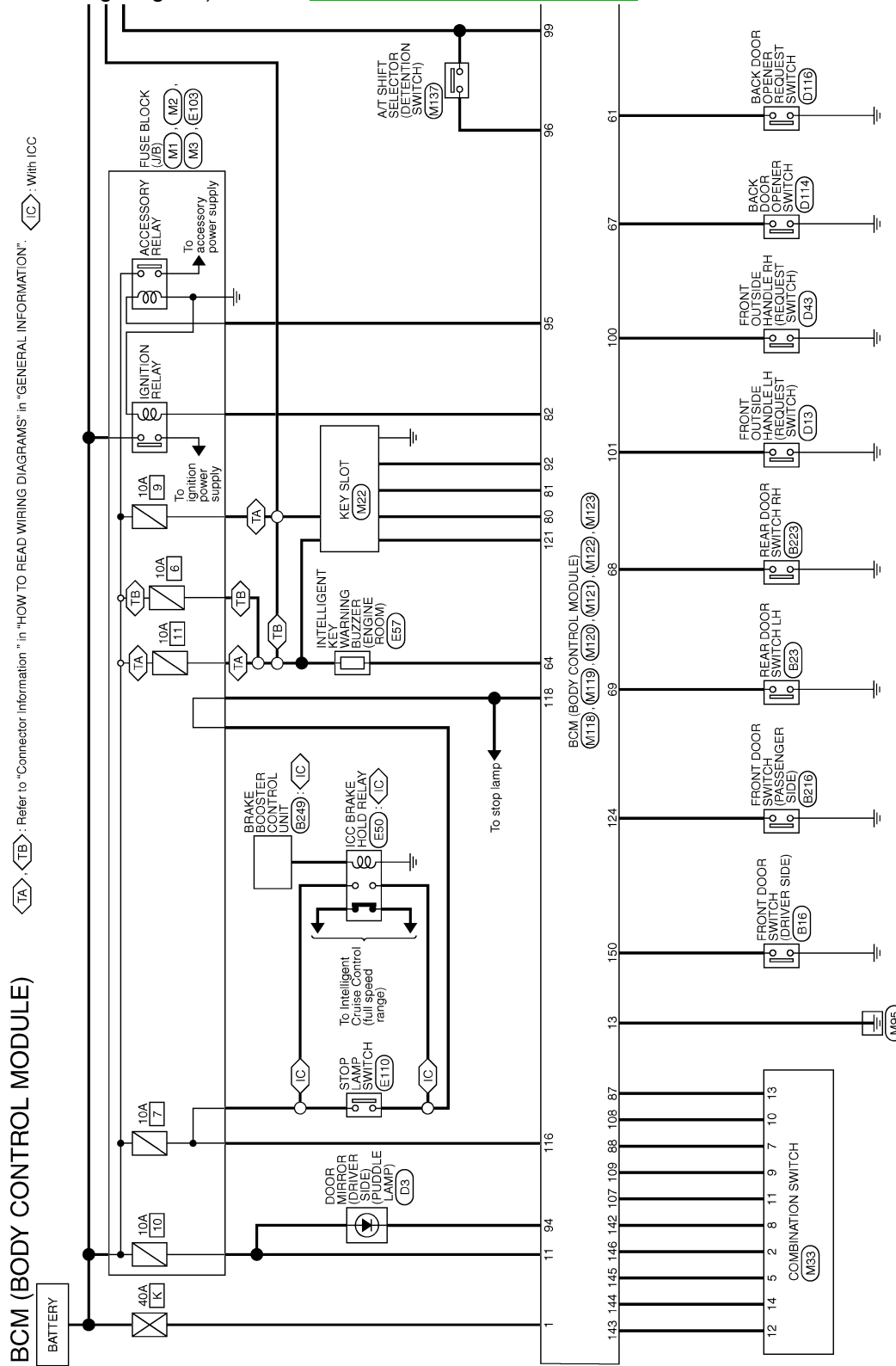
[HALOGEN TYPE]

< ECU DIAGNOSIS INFORMATION >

## Wiring Diagram - BCM -

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For connector terminal arrangements, harness layouts, and alphabets in a  (option abbreviation; if not described in wiring diagram), refer to [GI-12, "Connector Information"](#).



JRMWE9529GB

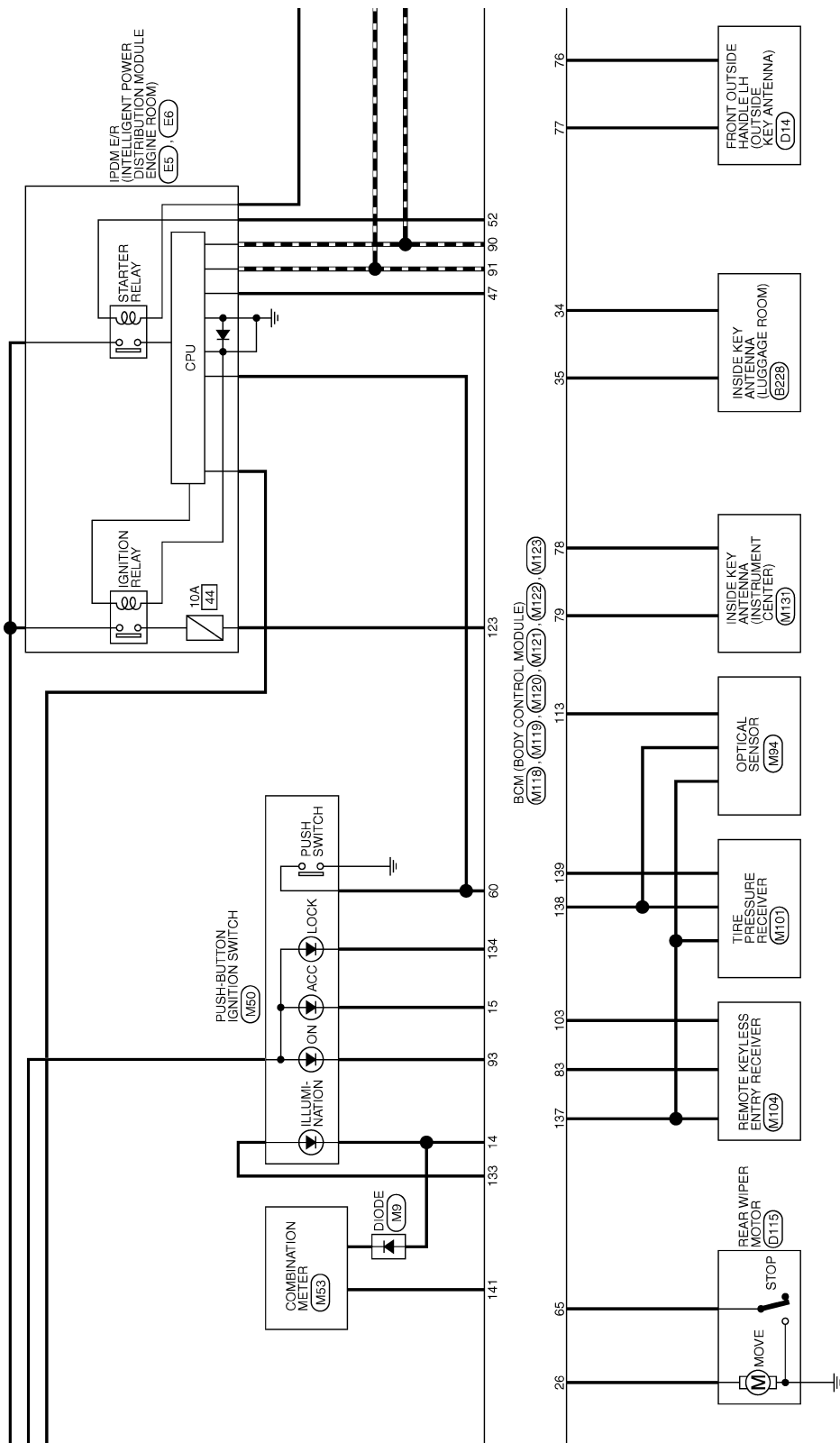
2013/11/22



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]



JRMWE9530GB

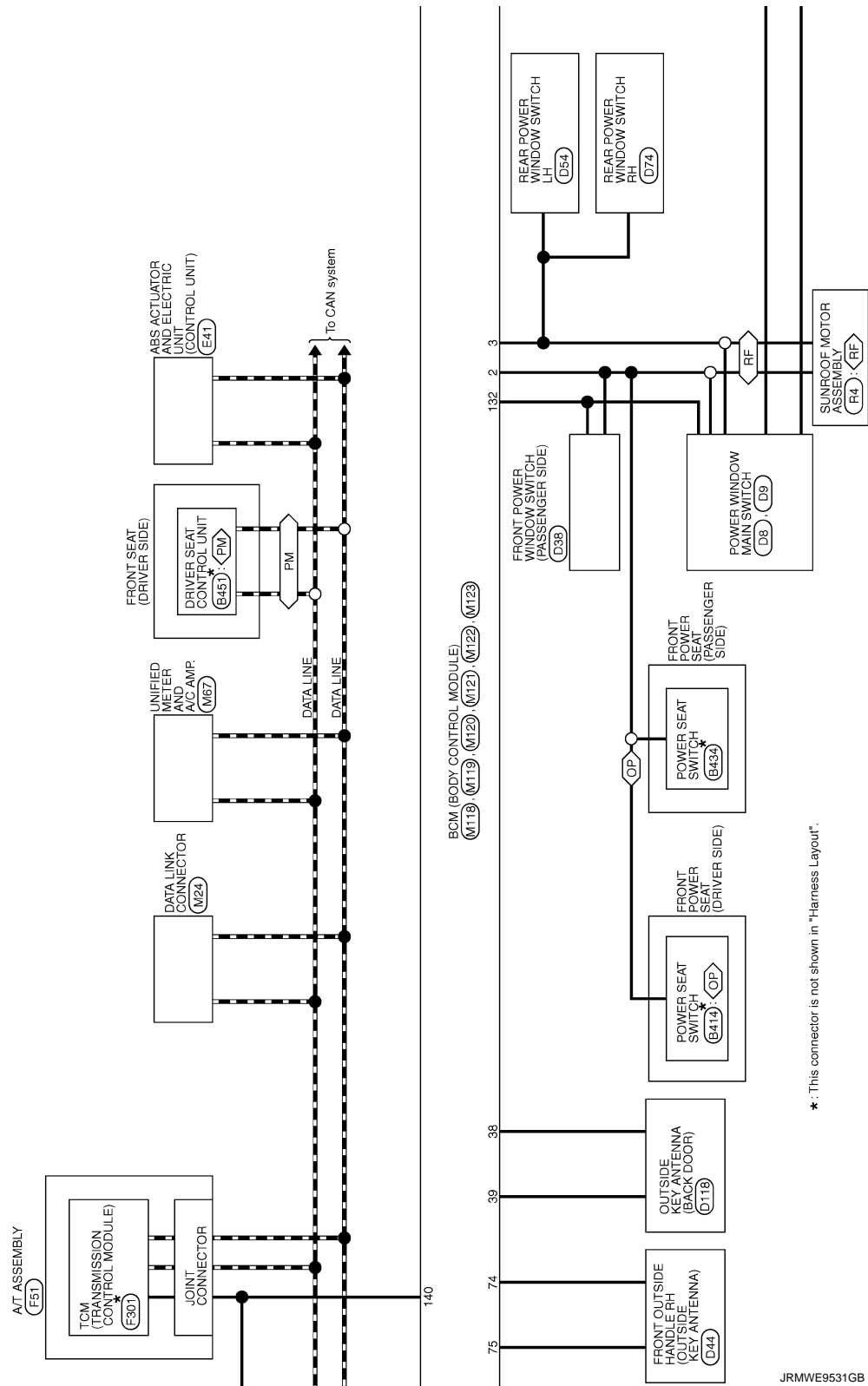
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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

RF : With sunroof  
PM : With automatic drive positioner  
OP : Without automatic drive positioner

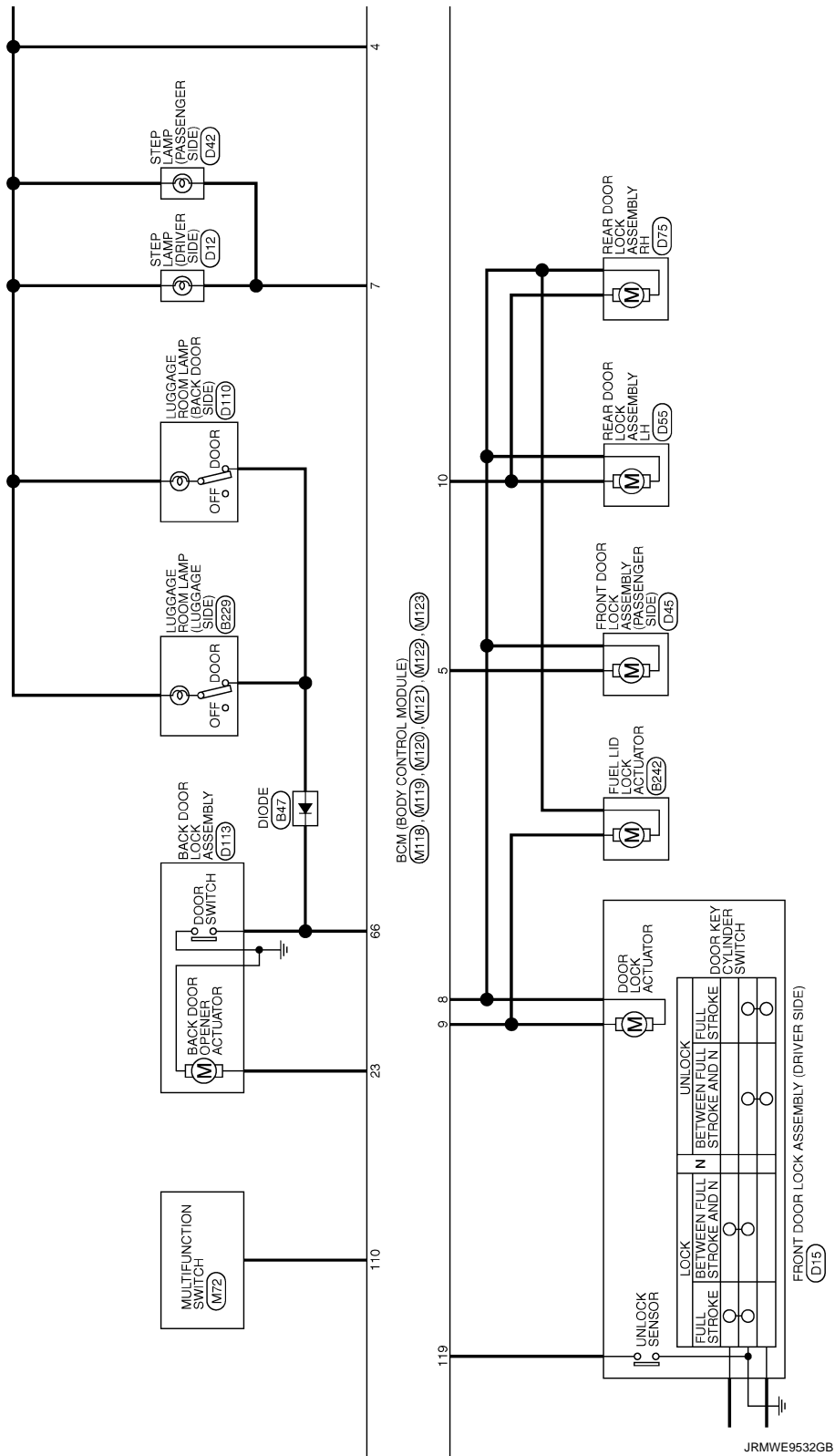


JRMWE9531GB

## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

**[HALOGEN TYPE]**

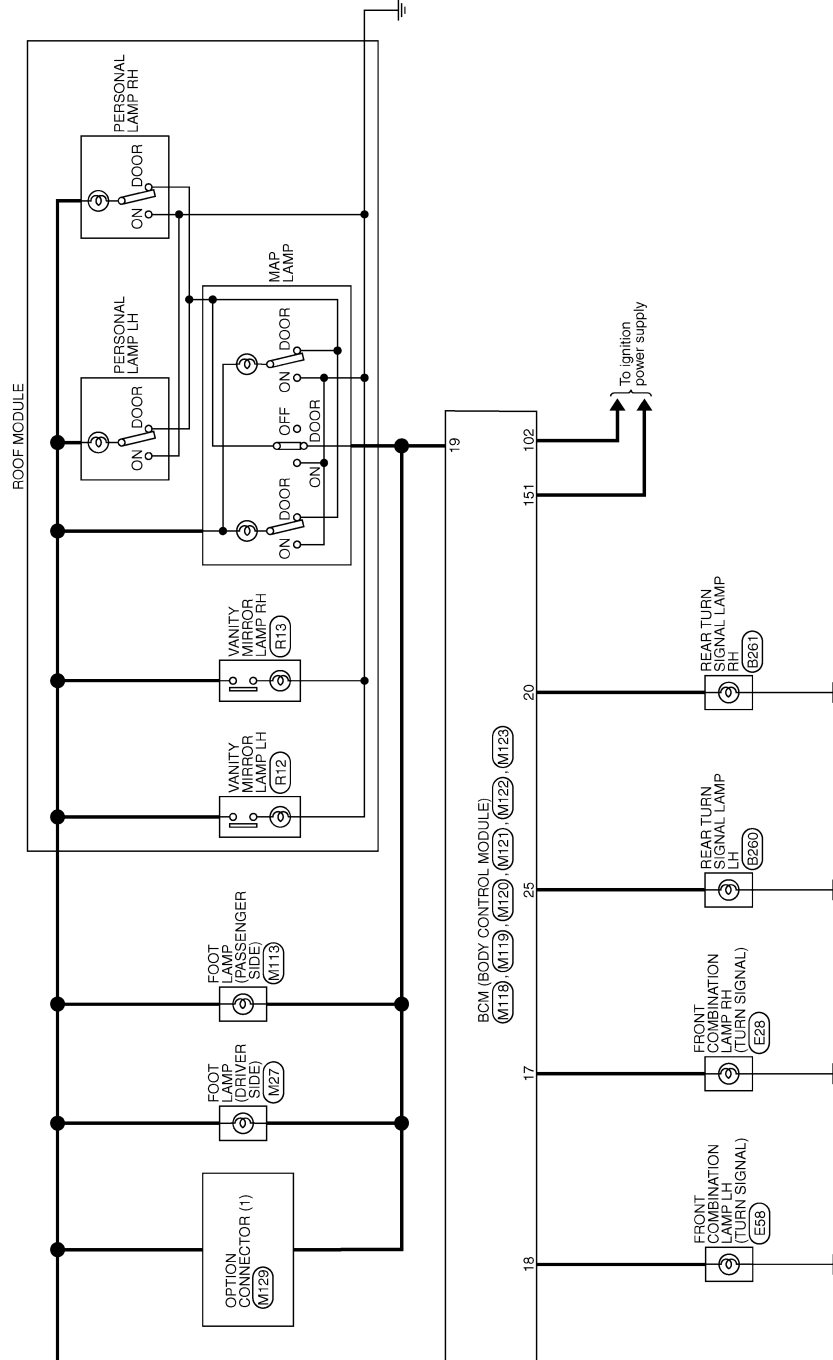


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# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]



JRMWE9533GB

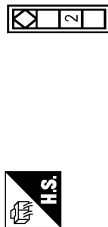
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	B16
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



Terminal Color Of No.	Wire	Signal Name [Specification]
2	V	-

Connector No.	B23
Connector Name	REAR DOOR SWITCH-LH
Connector Type	A03FW



Terminal Color Of No.	Wire	Signal Name [Specification]
2	LG	-

Connector No.	B47
Connector Name	DIODE
Connector Type	24335 CS900



Terminal Color Of No.	Wire	Signal Name [Specification]
1	B	-
2	L	-

Connector No.	B216
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



Terminal Color Of No.	Wire	Signal Name [Specification]
2	L	-

Connector No.	B223
Connector Name	REAR DOOR SWITCH-RH
Connector Type	A03FW



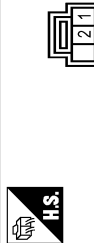
Terminal Color Of No.	Wire	Signal Name [Specification]
2	BR	-

Connector No.	B228
Connector Name	INSIDE KEY ANTENNA (LUGGAGE ROOM)
Connector Type	RK02GY



Terminal Color Of No.	Wire	Signal Name [Specification]
1	V	-
2	SB	-

Connector No.	B229
Connector Name	LUGGAGE ROOM LAMP (LUGGAGE SIDE)
Connector Type	TK03FW



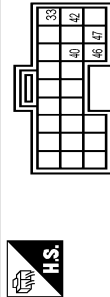
Terminal Color Of No.	Wire	Signal Name [Specification]
1	GR	-
2	L	-

Connector No.	B242
Connector Name	FUEL LID LOCK ACTUATOR
Connector Type	M04FW-LC



Terminal Color Of No.	Wire	Signal Name [Specification]
1	R	-
2	V	-

Connector No.	B249
Connector Name	BRAKE BOOSTER CONTROL UNIT
Connector Type	TK24FGY



Terminal Color Of No.	Wire	Signal Name [Specification]
33	BR	IGNITION
40	SB	IBA OFF SW
42	G	IGNITION
46	B	GROUND
47	V	BRAKE HOLD RLY DRIVE SIGNAL

JRMWE9716GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Connector No.	B260
Connector Name	REAR TURN SIGNAL LAMP LH
Connector Type	HS02FG-W



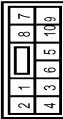
Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B261
Connector Name	REAR TURN SIGNAL LAMP RH
Connector Type	HS02FG-W



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	B	-

Connector No.	B414
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	GY	-
4	P	-
5	W	-
6	V	-
7	LY	-
8	L	-
9	L/R	-
10	GW	-

Connector No.	B434
Connector Name	POWER SEAT SWITCH
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	B	-
3	GY	-
4	-	-
5	P	-
6	W	-
7	V	-
8	LY	-
9	L	-
10	GW	-

Connector No.	B451
Connector Name	DRIVER SEAT CONTROL UNIT
Connector Type	TH32FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LW	RX
2	RY	CANH
3	W/G	PULSE (RECLINING)
4	P/B	PULSE (FR LIFTING)
5	BR	SLIDING SW (BACKWARD)
6	SB	RECLINING SW (BACKWARD)
7	LO/R	FRONT LIFTING SW (DOWNWARD)
8	G/B	REAR LIFTING SW (DOWNWARD)
9	O	VCC
10	Y/R	TX
11	V	CANL
12	L/Y	P RANGE SW
13	R	PULSE (SLIDING)
14	Y/B	PULSE (FR LIFTING)
15	Y	SLIDING SW (FORWARD)
16	R/G	RECLINING SW (FORWARD)
17	W/B	FRONT LIFTING SW (UPWARD)
18	P/L	REAR LIFTING SW (UPWARD)
19	GR	SENSOR GND
20	B/W	GND (SIGNAL)

Connector No.	D3
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH24MW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
2	O	-
3	B	SIDE CAMERA LH COMM
4	Y	SIDE CAMERA LH IMAGE SIGNAL
5	R	SIDE CAMERA LH POWER SUPPLY
6	W	-
7	G	-
8	P	-
9	O	-
10	LG	-
11	G	-
12	W	-
13	B	-
14	W	SIDE CAMERA LH IMAGE GND
15	B	SIDE CAMERA LH GND
16	GR	-
17	BR	-
18	Y	-
19	V	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	BR	-
3	GR	-
4	V	-

JRMWE9717GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	D13
Connector Name	FRONT OUTSIDE HANDLE LH (REQUEST SWITCH)
Connector Type	RK02FL



Connector No.	D9
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS09FW-CS



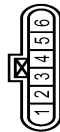
Terminal No.	Color Of Wire	Signal Name [Specification]
17	B	-
19	W	-

Connector No.	D12
Connector Name	STEP LAMP (DRIVER SIDE)
Connector Type	TB02FW



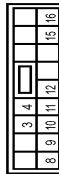
Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D15
Connector Name	FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE)
Connector Type	ED0FCY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	LG	-
2	P	-
3	L	-
4	B	-
5	Y	-
6	V	-

Connector No.	D38
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	NS16FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3	L	-
4	G	-
8	W	-
9	G	-
10	W	-
11	B	-
12	R	-
15	O	-
16	V	-

Connector No.	D42
Connector Name	STEP LAMP (PASSENGER SIDE)
Connector Type	TB02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	SB	-

Connector No.	D43
Connector Name	FRONT OUTSIDE HANDLE RH (REQUEST SWITCH)
Connector Type	RK02FL



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

JRMWE9718GB

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

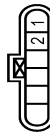
## BCM (BODY CONTROL MODULE)

Connector No.	D44
Connector Name	FRONT OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA)
Connector Type	RK02MGY



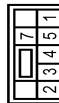
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	V	-

Connector No.	D45
Connector Name	FRONT DOOR LOCK ASSEMBLY (PASSENGER SIDE)
Connector Type	E06FGY-RS



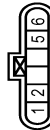
Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	-
2	LG	-

Connector No.	D54
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	V	-
3	G	-
4	L	-
5	W	-
7	B	-

Connector No.	D55
Connector Name	REAR DOOR LOCK ASSEMBLY LH
Connector Type	E06FGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	G	-
5	V	-
6	G	-

Connector No.	D74
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	V	-
3	G	-
4	P	-
5	O	-
7	B	-

Connector No.	D75
Connector Name	REAR DOOR LOCK ASSEMBLY RH
Connector Type	E06FGY-RS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	V	-
5	V	-
6	G	-

Connector No.	D110
Connector Name	LUGGAGE ROOM LAMP (BACK DOOR SIDE)
Connector Type	TK03FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
2	P	-

Connector No.	D113
Connector Name	BACK DOOR LOCK ASSEMBLY
Connector Type	NS04FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	-
2	B	-
3	V	-
4	B	-

JRMWE9719GB



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	D114
Connector Name	BACK DOOR OPENER SWITCH
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	-
2	B	-

Connector No.	D115
Connector Name	REAR WIPER MOTOR
Connector Type	CJ04FM-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
2	G	-
3	O	-
4	B	-

Connector No.	D116
Connector Name	BACK DOOR OPENER REQUEST SWITCH
Connector Type	TK02MBR-P



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	D118
Connector Name	OUTSIDE KEY ANTENNA (BACK DOOR)
Connector Type	RK02FGY



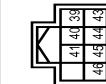
Terminal No.	Color Of Wire	Signal Name [Specification]
1	BR	-
2	R	-

Connector No.	E5
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CST2-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-

Connector No.	E6
Connector Name	POWER INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH08FW-AH1



Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BW	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E28
Connector Name	FRONT COMBINATION LAMP RH
Connector Type	RS08FB-FR



Terminal No.	Color Of Wire	Signal Name [Specification]
2	B	-
3	BY	-
4	BW	-
5	BG	-
6	V	-
7	BR	-
8	P	-

Connector No.	E41
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA42FB-AH24-LH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
2	G	LBWIR
3	R	LBVIR
4	B	GROUND
5	V	DS FL
6	BG	DP RL
7	BR	DP RR
9	B	DP FR
10	W	DS FR
12	L	VAC
14	P	CAN-L
15	SHIELD	GROUND
19	P	UST

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	Signal Name (Specification)
25 Y	BUS-L
26 LG	DP FL
27 GR	DS RL
28 G	UZ
29 LG	DS RR
30 SB	BLS
31 R	VDC OFF SW
35 L	CANH
45 B	BUS-H

Connector No.	Signal Name (Specification)
E50	ICC BRAKE HOLD RELAY
M06FGY-RUS	



Terminal No.	Color	Wire	Signal Name (Specification)
1	V	-	
2	B	-	
3	P	-	
4	SB	-	
6	P	-	
7	R	-	

Connector No.	Signal Name (Specification)
E57	INTELLIGENT KEY WARNING BUZZER (ENGINE ROOM)
RK03FBR	



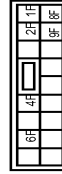
Terminal No.	Color	Wire	Signal Name (Specification)
1	V	-	
3	V	-	

Connector No.	Signal Name (Specification)
E58	FRONT COMBINATION LAMP LH
RS08FB-FR	



Terminal No.	Color	Wire	Signal Name (Specification)
2	B	-	
3	BY	-	
4	BW	-	
5	V	-	
6	G	-	
7	P	-	
8	BG	-	

Connector No.	Signal Name (Specification)
E103	FUSE BLOCK (J/B)
NS16FW-CS	



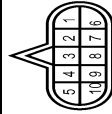
Terminal No.	Color	Wire	Signal Name (Specification)
1F	SB	-	
2F	W	-	
4F	G	-	
6F	BR	-	
8F	L	-	
9F	R	-	

Connector No.	Signal Name (Specification)
E110	STOP LAMP SWITCH
M04FW-LC	



Terminal No.	Color	Wire	Signal Name (Specification)
1	L	-	
2	W	-	
3	Y	-	
4	SB	-	

Connector No.	Signal Name (Specification)
F51	AT ASSEMBLY
RK0FG-DGY	



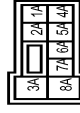
Terminal No.	Color	Wire	Signal Name (Specification)
1	Y	-	POWER SUPPLY
2	BR	-	POWER SUPPLY (MEMORY BACK-UP)
3	O	-	CANH
4	V	-	K LINE
5	B	-	GROUND
6	Y	-	POWER SUPPLY
7	R	-	BACK-UP LAMP RELAY
8	LG	-	CANH
9	GR	-	STARTER RELAY
10	B	-	GROUND

Connector No.	Signal Name (Specification)
F301	TCM (TRANSMISSION CONTROL MODULE)
SP10FG	



Terminal No.	Color	Wire	Signal Name (Specification)
1	-	-	POWER SUPPLY
2	-	-	POWER SUPPLY (MEMORY BACK-UP)
3	-	-	CANH
4	-	-	K LINE
6	-	-	GROUND
8	-	-	POWER SUPPLY
7	-	-	BACK-UP LAMP RELAY
9	-	-	CANH
10	-	-	GROUND

Connector No.	Signal Name (Specification)
M1	FUSE BLOCK (J/B)
NS06FW-M2	



Terminal No.	Color	Wire	Signal Name (Specification)
1A	GR	-	
2A	G	-	
3A	L	-	
4A	P	-	
5A	R	-	
6A	V	-	
7A	R	-	
8A	L	-	

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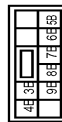
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

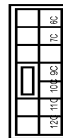
## BCM (BODY CONTROL MODULE)

Connector No.	M2
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS10FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
3B	P	-
4B	G	-
5B	BG	-
6B	Y	-
7B	P	-
8B	R	-
9B	SB	-

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FW-CS



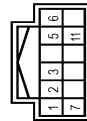
Terminal No.	Color Of Wire	Signal Name [Specification]
10C	L	-
11C	R	-
12C	BG	-
6C	R	-
7C	B	-
9C	BG	-

Connector No.	M9
Connector Name	DIODE
Connector Type	24335, C3900



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-

Connector No.	M22
Connector Name	KEY SLOT
Connector Type	TH12FW-MH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	BAT
2	GR	CLOCK
3	W	DATA
5	Y	ILL BAT
6	LG	ILL
7	B	GROUND
11	BR	KEY SWITCH SIGNAL

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color Of Wire	Signal Name [Specification]
3	LG	-
4	B	-
5	B	-
6	L	-
7	V	-
8	G	-
11	SB	-
14	P	-
16	Y	-

Connector No.	M27
Connector Name	FOOT LAMP (DRIVER SIDE)
Connector Type	A02FW



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	BR	-

Connector No.	M33
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-MH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	FR WASHER L
2	SB	OUTPUT 4
3	GR	FR WASHER R
4	G	IGN
5	L	OUTPUT 3
6	B	GROUND
7	V	INPUT 3
8	BG	OUTPUT 5
9	Y	INPUT 2
10	R	INPUT 4
11	LG	INPUT 1
12	P	OUTPUT 1
13	BR	INPUT 5
14	G	OUTPUT 2

Connector No.	M50
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR



Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	W	-
3	W	-
4	BR	-
6	Y	-

JRMWE9722GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

7	V	-
8	P	-

Connector No.	M53
Connector Name	COMBINATION METER
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
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	GR	BATTERY POWER SUPPLY
2	LG	COMMUNICATION SIGNAL (METER AMP.)
3	GR	COMMUNICATION SIGNAL (AMP-METER)
5	B	GROUND
6	P	ALTERNATOR SIGNAL
7	BR	AIR BAG SIGNAL
10	G	SECURITY SIGNAL
15	B	GROUND
16	B	METER CONTROL SWITCH GROUND
19	B	ILL GND
20	R	ILL
21	BG	IGNITION SIGNAL
22	B	GROUND
24	BR	COMMUNICATION SIGNAL (LCD-AMP.)
25	Y	COMMUNICATION SIGNAL (AMP-LCD)
26	R	VEHICLE SPEED SIGNAL (8-PULSE)
27	V	PARKING BRAKE SWITCH SIGNAL
28	W	BRAKE FLUID LEVEL SWITCH SIGNAL
29	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)
30	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
31	L	WASHER LEVEL SWITCH SIGNAL
33	B	ILLUMINATION CONTROL SIGNAL
36	LG	SELECT SWITCH SIGNAL
37	SB	ENTER SWITCH SIGNAL
38	L	TRIP AIR RESET SWITCH SIGNAL
39	P	ILLUMINATION CONTROL SWITCH SIGNAL (1)
40	BG	ILLUMINATION CONTROL SWITCH SIGNAL (2)

Connector No.	M67
Connector Name	UNIFIED METER AND A/C AMP.
Connector Type	TH32FW-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
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Terminal No.	Color Of Wire	Signal Name [Specification]
41	V	ACC POWER SUPPLY
42	Y	FUEL LEVEL SENSOR SIGNAL
43	R	INTAKE SENSOR SIGNAL
44	LG	IN-VEHICLE SENSOR SIGNAL
45	P	AMBIENT SENSOR SIGNAL
46	BG	SUNLOAD SENSOR SIGNAL
47	G	EXHAUST GAS OXIDE CONCENTRATION SENSOR SIGNAL
53	G	IGNITION POWER SUPPLY
54	Y	BATTERY POWER SUPPLY
55	B	GROUND
56	L	CANH
57	W	BRAKE FLUID LEVEL SWITCH SIGNAL
58	BR	FUEL LEVEL SENSOR GROUND
59	GR	INTAKE SENSOR GROUND
60	L	IN-VEHICLE SENSOR GROUND
61	BR	AMBIENT SENSOR GROUND
62	SB	SUNLOAD SENSOR GROUND
63	R	-
65	BG	ECV SIGNAL
69	L	A/C LAN SIGNAL
70	R	EACH DOOR MOTOR POWER SUPPLY
71	B	GROUND
72	P	CANH

Connector No.	M72
Connector Name	MULTIFUNCTION SWITCH
Connector Type	TH16FW-NH

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
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Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	GROUND
3	V	ACC
4	R	ILL
5	Y	ILL CONT
6	SB	AV COMM (H)
8	LG	AV COMM (L)
9	B	SW GND
14	Y	DISK EJECT SIGNAL
16	G	HAZARD ON

Connector No.	M94
Connector Name	OPTICAL SENSOR
Connector Type	TK03FW

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	Y	POWER
2	P	OUTPUT
3	B	GROUND

Connector No.	M101
Connector Name	TIRE PRESSURE RECEIVER
Connector Type	TK04FW

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	L	SIGNAL
4	Y	BATTERY

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER
Connector Type	JAB04FB

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

Terminal No.	Color Of Wire	Signal Name [Specification]
1	BG	GROUND
2	Y	SIGNAL OUTPUT
4	LG	BATTERY

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

Connector No.	M113
Connector Name	FOOT LAMP (PASSENGER SIDE)
Connector Type	A02FW



Terminal No.	Color	Wire	Signal Name [Specification]
1	R		
2	BR		

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color	Wire	Signal Name [Specification]
1	W		BAT (F/L)
2	W		POWER WINDOW POWER SUPPLY(BAT)
3	Y		POWER WINDOW POWER SUPPLY(RAP)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
4	LG		INTERIOR ROOM AMP POWER SUPPLY
5	L		PASSENGER DOOR UNLOCK OUTPUT
6	Y		STEP LAMP CONT
7	V		ALL DOOR FUEL LID LOCK OUTPUT
8	G		DRIVER DOOR FUEL LID LOCK OUTPUT
9	R		REAR DOOR UNLOCK OUTPUT
10	BR		BAT (FUSE)
11	B		GROUND
12	W		ACC IND
13	Y		TURN SIGNAL RH (FRONT)
14	W		TURN SIGNAL LH (FRONT)
15	BG		INT ROOM LAMP CONT
16	V		
17	W		
18	BG		
19	V		

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



Terminal No.	Color	Wire	Signal Name [Specification]
20	V		TURN SIGNAL RH (REAR)
21	G		BACK DOOR OPEN OUTPUT
22	G		TURN SIGNAL LH (REAR)
23	G		REAR WIPER OUTPUT
24	G		
25	G		
26	G		

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
34	SB		LUGGAGE ROOM ANTI-
35	V		LUGGAGE ROOM ANTI+
36	B		BACK DOOR ANTI-
37	W		BACK DOOR ANTI+
38	Y		IGN RELAY (PDM/EN) CONT
39	SB		STARTER RELAY CONT
40	BR		PUSH SW
41	W		BACK DOOR OPENER REQUEST SW
42	BG		THEY WARN BUZZER (ENG ROOM)
43	R		BACK DOOR SW
44	GR		BACK DOOR OPENER SW
45	BR		REAR RH DOOR SW
46	R		REAR LH DOOR SW
47	R		
48	R		
49	R		

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



Terminal No.	Color	Wire	Signal Name [Specification]
74	SB		PASSENGER DOOR ANTI-
75	GR		PASSENGER DOOR ANTI+
76	V		DRIVER DOOR ANTI-
77	LG		DRIVER DOOR ANTI+
78	Y		ROOM ANTI-
79	BR		ROOM ANTI+

80	GR		NATS ANT AMP.
81	W		NATS ANT AMP.
82	R		IGN RELAY (F/B) CONT
83	Y		KEYLESS ENTRY RECEIVER COMM
87	BR		COMBI SW INPUT 5
88	V		COMBI SW INPUT 3
90	P		CAN-L
91	L		CAN-H
92	LG		KEY SLOT ILL CONT
93	V		ON IND
94	Y		PIDDLE LAMP CONT
95	BG		ACC RELAY CONT
96	GR		AT SHIFT SELECTOR POWER SUPPLY
99	R		SHIFT P
100	G		PASSENGER DOOR REQUEST SW
101	SB		DRIVER DOOR REQUEST SW
102	BG		BLOWER FAN MOTOR RELAY CONT
103	LG		KEYLESS ENTRY RECEIVER POWER SUPPLY
107	LG		COMBI SW INPUT 1
108	R		COMBI SW INPUT 4
109	Y		COMBI SW INPUT 2
110	G		HAZARD SW

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color	Wire	Signal Name [Specification]
113	P		OPTICAL SENSOR
116	SB		STOP LAMP SW 1
118	P		STOP LAMP SW 2
119	SB		DR DOOR UNLOCK SENSOR
121	BR		KEY SLOT SW
123	W		IGN F/B
124	LG		PASSENGER DOOR SW
132	BR		POWER WINDOW SW COMM
133	W		PUSH-BUTTON IGN ON SW ILL POWER
134	GR		LOCK IND
137	Y		RECEIVER SENSOR GND
138	Y		RECEIVER SENSOR POWER SUPPLY

# BCM (BODY CONTROL MODULE)

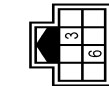
< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## BCM (BODY CONTROL MODULE)

139	L	TIRE PRESSURE RECEIVER COMM
140	GR	SHIFT NIP
141	G	SECURITY IND LAMP CONT
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	LG	DRIVER DOOR SW
151	G	REAR WINDOW DEFROGGER RELAY CONT

Connector No.	M129
Connector Name	OPTION CONNECTOR (1)
Connector Type	TH08MW-NH



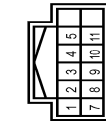
Terminal No.	Wire	Signal Name [Specification]
3	G	ROOM LAMP BAT SAVER(POWER)
6	R	ROOM LAMP OUTPUT

Connector No.	M131
Connector Name	INSIDE KEY ANTENNA (INSTRUMENT CENTER)
Connector Type	RK02FGY



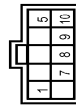
Terminal No.	Wire	Signal Name [Specification]
1	BR	-
2	Y	-

Connector No.	M137
Connector Name	A/T SHIFT SELECTOR
Connector Type	TH12FM-NH



Terminal No.	Wire	Signal Name [Specification]
1	W	-
2	V	-
3	L	-
4	B	-
5	G	-
7	R	-
8	SB	-
9	B	-
10	GR	-
11	R	-

Connector No.	R4
Connector Name	SUNROOF MOTOR ASSEMBLY
Connector Type	YEA10FGY



Terminal No.	Wire	Signal Name [Specification]
1	GR	SW-BIT1
5	P	SW-BIT-
7	BR	4B
8	L	SPEED SENSOR(2P)
9	Y	TIMER+IGN
10	G	GROUND

Connector No.	R12
Connector Name	VANITY MIRROR LAMP LH
Connector Type	MCA02FW



Terminal No.	Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	R13
Connector Name	VANITY MIRROR LAMP RH
Connector Type	MCA02FW



Terminal No.	Wire	Signal Name [Specification]
1	-	-
2	-	-

## Fail-safe

### FAIL-SAFE CONTROL BY DTC

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

JRMWE9725GB

INFOID:000000008772669

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent <ul style="list-style-type: none"> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled <ul style="list-style-type: none"> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled <ul style="list-style-type: none"> <li>Power position changes to ACC</li> <li>Receives engine status signal (CAN)</li> </ul>
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization

## 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

- More than 1 minute is passed after the rear wiper stops.
- Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

INFOID:000000008772670

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	<ul style="list-style-type: none"> <li>U1000: CAN COMM CIRCUIT</li> <li>U1010: CONTROL UNIT (CAN)</li> </ul>
3	<ul style="list-style-type: none"> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2195: ANTI SCANNING</li> </ul>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Priority	DTC
4	<ul style="list-style-type: none"> <li>• B2553: IGNITION RELAY</li> <li>• B2555: STOP LAMP</li> <li>• B2556: PUSH-BTN IGN SW</li> <li>• B2557: VEHICLE SPEED</li> <li>• B2560: STARTER CONT RELAY</li> <li>• B2601: SHIFT POSITION</li> <li>• B2602: SHIFT POSITION</li> <li>• B2603: SHIFT POSI STATUS</li> <li>• B2604: PNP SW</li> <li>• B2605: PNP SW</li> <li>• B2608: STARTER RELAY</li> <li>• B260A: IGNITION RELAY</li> <li>• B260F: ENG STATE SIG LOST</li> <li>• B2614: ACC RELAY CIRC</li> <li>• B2615: BLOWER RELAY CIRC</li> <li>• B2616: IGN RELAY CIRC</li> <li>• B2617: STARTER RELAY CIRC</li> <li>• B2618: BCM</li> <li>• B261A: PUSH-BTN IGN SW</li> <li>• B261E: VEHICLE TYPE</li> <li>• B26EA: KEY REGISTRATION</li> <li>• C1729: VHCL SPEED SIG ERR</li> <li>• U0415: VEHICLE SPEED SIG</li> </ul>
5	<ul style="list-style-type: none"> <li>• C1704: LOW PRESSURE FL</li> <li>• C1705: LOW PRESSURE FR</li> <li>• C1706: LOW PRESSURE RR</li> <li>• C1707: LOW PRESSURE RL</li> <li>• C1708: [NO DATA] FL</li> <li>• C1709: [NO DATA] FR</li> <li>• C1710: [NO DATA] RR</li> <li>• C1711: [NO DATA] RL</li> <li>• C1716: [PRESSDATA ERR] FL</li> <li>• C1717: [PRESSDATA ERR] FR</li> <li>• C1718: [PRESSDATA ERR] RR</li> <li>• C1719: [PRESSDATA ERR] RL</li> <li>• C1734: CONTROL UNIT</li> </ul>
6	<ul style="list-style-type: none"> <li>• B2621: INSIDE ANTENNA</li> <li>• B2623: INSIDE ANTENNA</li> </ul>

## DTC Index

INFOID:000000008772671

### 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 [INL-15, "COMMON ITEM : CONSULT 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 CIRCUIT	—	—	—	—	<a href="#">BCS-41</a>
U1010: CONTROL UNIT (CAN)	—	—	—	—	<a href="#">BCS-42</a>
U0415: VEHICLE SPEED SIG	—	—	—	—	<a href="#">BCS-43</a>
B2190: NATS ANTENNA AMP	×	—	—	—	<a href="#">SEC-40</a>



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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
B2191: DIFFERENCE OF KEY	×	—	—	—	<a href="#">SEC-43</a>
B2192: ID DISCORD BCM-ECM	×	—	—	—	<a href="#">SEC-44</a>
B2193: CHAIN OF BCM-ECM	×	—	—	—	<a href="#">SEC-45</a>
B2195: ANTI SCANNING	×	—	—	—	<a href="#">SEC-46</a>
B2553: IGNITION RELAY	—	×	—	—	<a href="#">PCS-50</a>
B2555: STOP LAMP	—	×	—	—	<a href="#">SEC-47</a>
B2556: PUSH-BTN IGN SW	—	×	×	—	<a href="#">SEC-49</a>
B2557: VEHICLE SPEED	×	×	×	—	<a href="#">SEC-51</a>
B2560: STARTER CONT RELAY	×	×	×	—	<a href="#">SEC-52</a>
B2562: LOW VOLTAGE	—	×	—	—	<a href="#">BCS-44</a>
B2601: SHIFT POSITION	×	×	×	—	<a href="#">SEC-53</a>
B2602: SHIFT POSITION	×	×	×	—	<a href="#">SEC-56</a>
B2603: SHIFT POSI STATUS	×	×	×	—	<a href="#">SEC-59</a>
B2604: PNP SW	×	×	×	—	<a href="#">SEC-62</a>
B2605: PNP SW	×	×	×	—	<a href="#">SEC-64</a>
B2608: STARTER RELAY	×	×	×	—	<a href="#">SEC-66</a>
B260A: IGNITION RELAY	×	×	×	—	<a href="#">PCS-52</a>
B260F: ENG STATE SIG LOST	×	×	×	—	<a href="#">SEC-68</a>
B2614: ACC RELAY CIRC	—	×	×	—	<a href="#">PCS-54</a>
B2615: BLOWER RELAY CIRC	—	×	×	—	<a href="#">PCS-57</a>
B2616: IGN RELAY CIRC	—	×	×	—	<a href="#">PCS-60</a>
B2617: STARTER RELAY CIRC	×	×	×	—	<a href="#">SEC-71</a>
B2618: BCM	×	×	×	—	<a href="#">PCS-63</a>
B261A: PUSH-BTN IGN SW	—	×	×	—	<a href="#">SEC-73</a>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-76</a>
B2621: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-58</a>
B2623: INSIDE ANTENNA	—	×	—	—	<a href="#">DLK-60</a>
B26E1: ENG STATE NO RES	×	×	×	—	<a href="#">SEC-69</a>
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	<a href="#">SEC-70</a>
C1704: LOW PRESSURE FL	—	—	—	×	<a href="#">WT-23</a>
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	<a href="#">WT-25</a>
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

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## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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
C1716: [PRESSDATA ERR] FL	—	—	—	×	<a href="#">WT-28</a>
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	<a href="#">WT-30</a>
C1734: CONTROL UNIT	—	—	—	×	<a href="#">WT-32</a>

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

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

### Reference Value

INFOID:000000008772701

### VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

Monitor Item	Condition		Value/Status
RAD FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	0 – 100 %
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 • Daytime running light activated (Only for Canada)	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	Off
		Selector lever in P or N position	On
ST RLY CONT	Ignition switch ON		Off
	At engine cranking		On

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

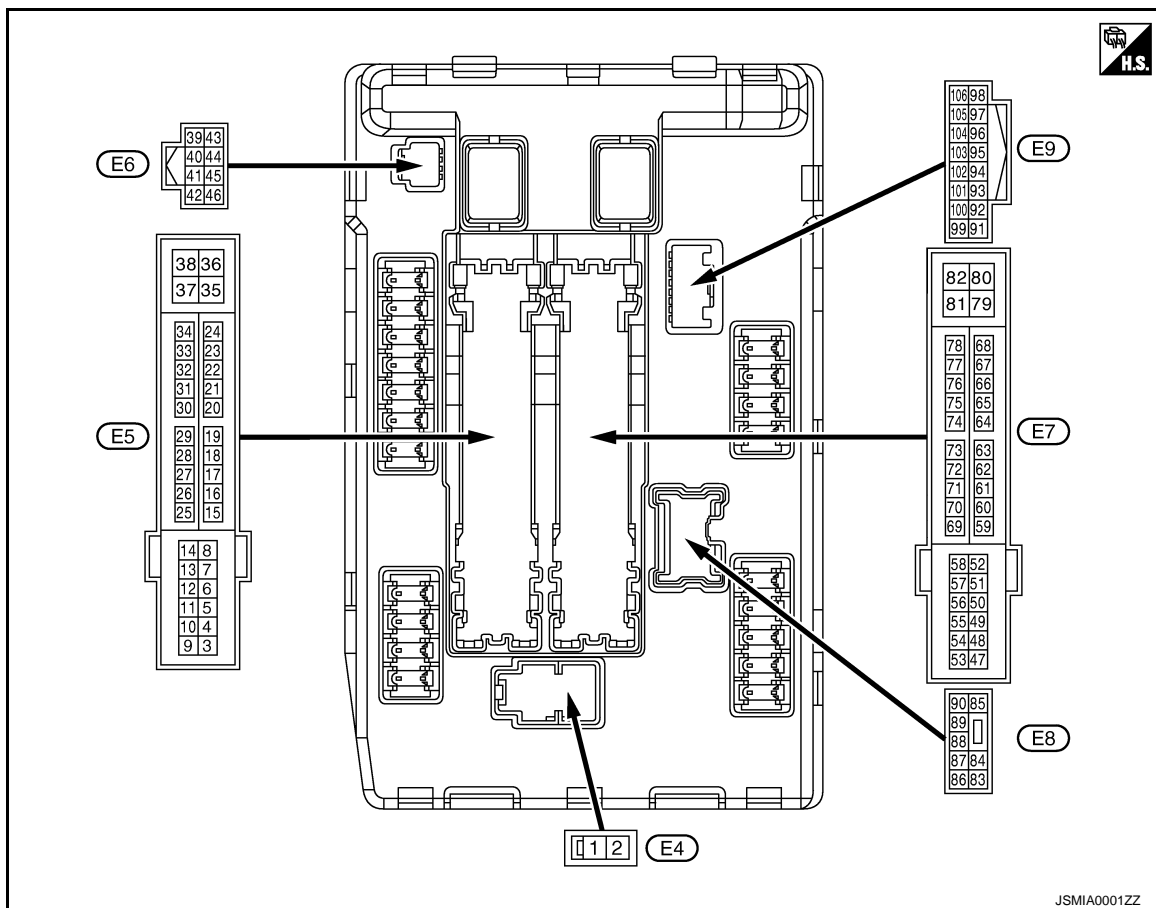
Monitor Item	Condition		Value/Status
IHBT RLY -REQ	Ignition switch ON		Off
	At engine cranking		On
ST/INHI RLY	Ignition switch ON		Off
	At engine cranking		INHI ON → ST ON
	The status of starter relay or starter control relay cannot be recognized by the battery voltage malfunction, etc. when the starter relay is ON and the starter control relay is OFF		UNKWN
DETENT SW	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button with selector lever in P position</li> <li>Selector lever in any position other than P</li> </ul>	Off
	Release the selector button with selector lever in P position		On
S/L RLY -REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
S/L STATE	<b>NOTE:</b> The item is indicated, but not monitored.		UNLOCK
DTRL REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close
HOOD SW	Close the hood		Off
	Open the hood		On
HL WASHER REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off
THFT HRN REQ	Not operation		Off
	<ul style="list-style-type: none"> <li>Panic alarm is activated</li> <li>Horn is activated with VEHICLE SECURITY (THEFT WARNING) SYSTEM</li> </ul>		On
HORN CHIRP	Not operating		Off
	Door locking with Intelligent Key (horn chirp mode)		On
CRNRNG LMP REQ	<b>NOTE:</b> The item is indicated, but not monitored.		Off

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## TERMINAL LAYOUT



## PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (L)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
4 (V)	Ground	Front wiper LO	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch LO	Battery voltage
5 (L)	Ground	Front wiper HI	Output	Ignition switch OFF	Front wiper switch OFF	0 V
				Ignition switch ON	Front wiper switch HI	Battery voltage
7 (R)	Ground	Tail, license plate lamps & interior lamps	Output	Ignition switch OFF	Lighting switch OFF	0 V
				Ignition switch ON	Lighting switch 1ST	Battery voltage
12 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
13 (Y)	Ground	Fuel pump power supply	Output	Approximately 1 second or more after turning the ignition switch ON		0 V
				<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		Battery voltage
16 (LG)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
				Ignition switch ON	Any position other than front wiper stop position	Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
19 (W)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
25 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
26* (R)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
27 (BG)	Ground	Ignition relay monitor	Input	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		0 V
28 (L)	Ground	Push-button ignition switch	Input	Press the push-button ignition switch		0 V
				Release the push-button ignition switch		Battery voltage
30 (GR)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
36 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
39 (P)	—	CAN-L	Input/ Output	—		—
40 (L)	—	CAN-H	Input/ Output	—		—
41 (B/W)	Ground	Ground	—	Ignition switch ON		0 V
42 (Y)	Ground	Cooling fan relay control	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		0.7 V
43 (SB)	Ground	A/T shift selector (Detention switch)	Input	Ignition switch ON	<ul style="list-style-type: none"> <li>Press the selector button (Selector lever P)</li> <li>Selector lever in any position other than P</li> </ul>	Battery voltage
					Release the selector button (selector lever P)	0 V
44 (BR)	Ground	Horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
45 (G)	Ground	Anti theft horn relay control	Input	The horn is deactivated		Battery voltage
				The horn is activated		0 V
46 (R)	Ground	Starter relay control	Input	Ignition switch ON	Selector lever in any position other than P or N	0 V
					Selector lever P or N	Battery voltage
48 (L)	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
49 (BG)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>Ignition switch OFF (For a few seconds after turning ignition switch OFF)</li> </ul>		Battery voltage

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
51 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
53 (W)	Ground	ECM relay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		Battery voltage
54 (P)	Ground	Throttle control motor re- lay power supply	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		0 V
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		Battery voltage
55 (SB)	Ground	ECM power supply	Output	Ignition switch OFF		Battery voltage
56 (LG)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
57 (G)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
58 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
69 (BR)	Ground	ECM relay control	Output	Ignition switch OFF (More than a few seconds after turning ignition switch OFF)		Battery voltage
				• Ignition switch ON • Ignition switch OFF (For a few seconds after turning igni- tion switch OFF)		0 – 1.5 V
70 (BG)	Ground	Throttle control motor re- lay control	Output	Ignition switch ON → OFF		0 – 1.0 V ↓ Battery voltage ↓ 0 V
				Ignition switch ON		0 – 1.0 V
74 (P)	Ground	Ignition relay power supply	Output	Ignition switch OFF		0 V
				Ignition switch ON		Battery voltage
75 (SB)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage

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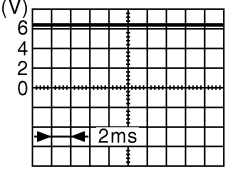
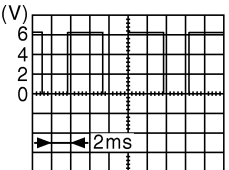
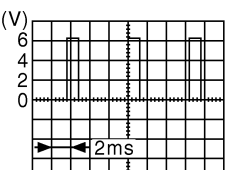
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P

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (Y)	Ground	Power generation command signal	Output	Ignition switch ON		 <p>JPMIA0001GB</p> <p>6.3 V</p>
				40% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0002GB</p> <p>3.8 V</p>
				80% is set on "ACTIVE TEST", "ALTERNATOR DUTY" of "ENGINE"		 <p>JPMIA0003GB</p> <p>1.4 V</p>
77 (R)	Ground	Fuel pump relay control	Output	<ul style="list-style-type: none"> <li>Approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>		0 – 1.0 V
				Approximately 1 second or more after turning the ignition switch ON		Battery voltage
80 (W)	Ground	Starter motor	Output	At engine cranking		Battery voltage
83 (BG)	Ground	Headlamp LO (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
84 (V)	Ground	Headlamp LO (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 2ND	Battery voltage
86 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> <li>Front fog lamp switch ON</li> <li>Daytime running light activated (Only for Canada)</li> </ul>	Battery voltage
87 (L)	Ground	Front fog lamp (LH)	Output	Lighting switch 2ND	Front fog lamp switch OFF	0 V
					<ul style="list-style-type: none"> <li>Front fog lamp switch ON</li> <li>Daytime running light activated (Only for Canada)</li> </ul>	Battery voltage
88 (GR)	Ground	Washer pump power supply	Output	Ignition switch ON		Battery voltage



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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
89 (BR)	Ground	Headlamp HI (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
90 (P)	Ground	Headlamp HI (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					• Lighting switch HI • Lighting switch PASS	Battery voltage
91 (P)	Ground	Parking lamp (RH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
92 (BG)	Ground	Parking lamp (LH)	Output	Ignition switch ON	Lighting switch OFF	0 V
					Lighting switch 1ST	Battery voltage
97 (V)	Ground	Cooling fan control	Output	Engine idling		0 – 5 V
104 (LG)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V

\*: Only for the models with ICC system

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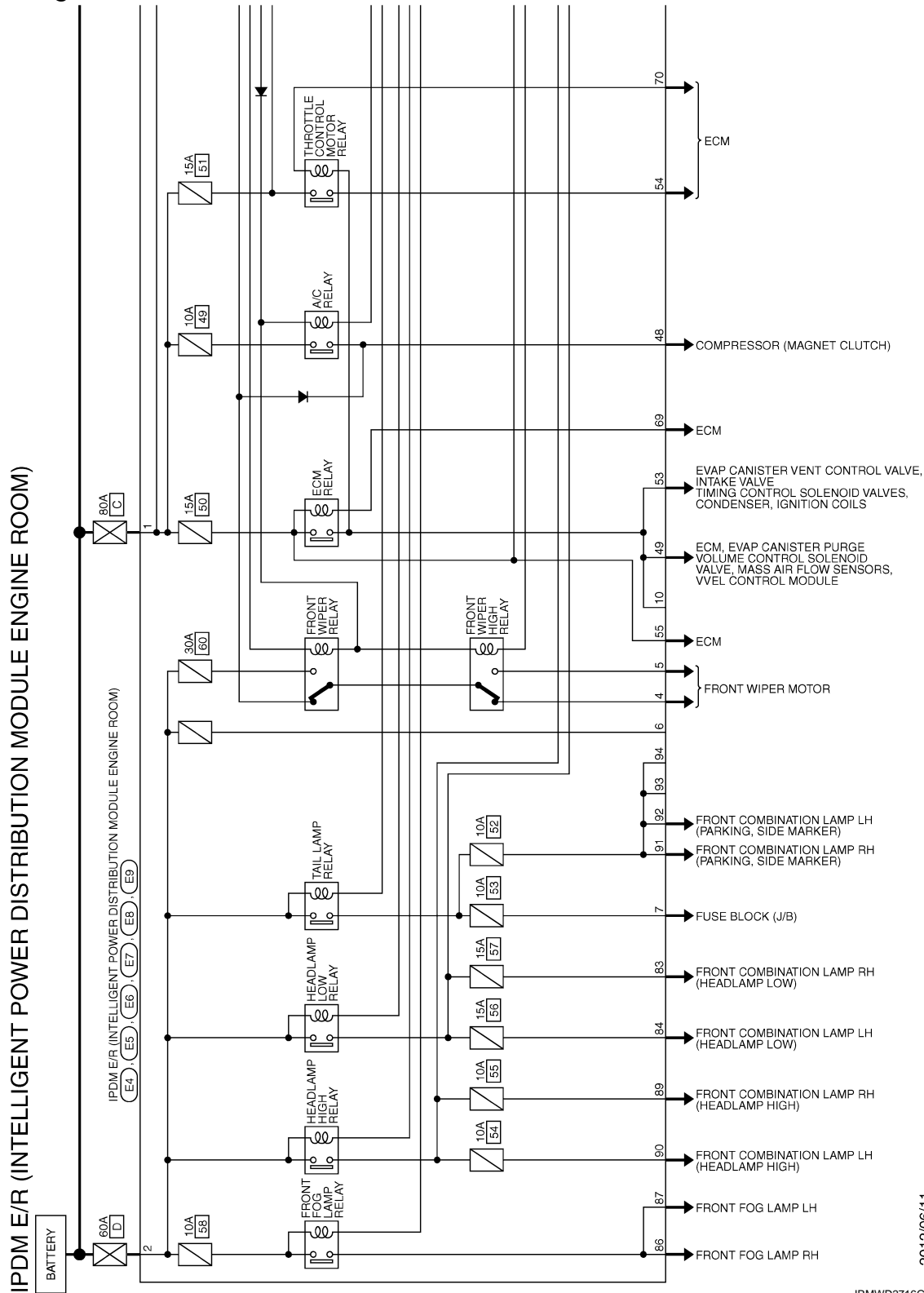
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## Wiring Diagram - IPDM E/R -

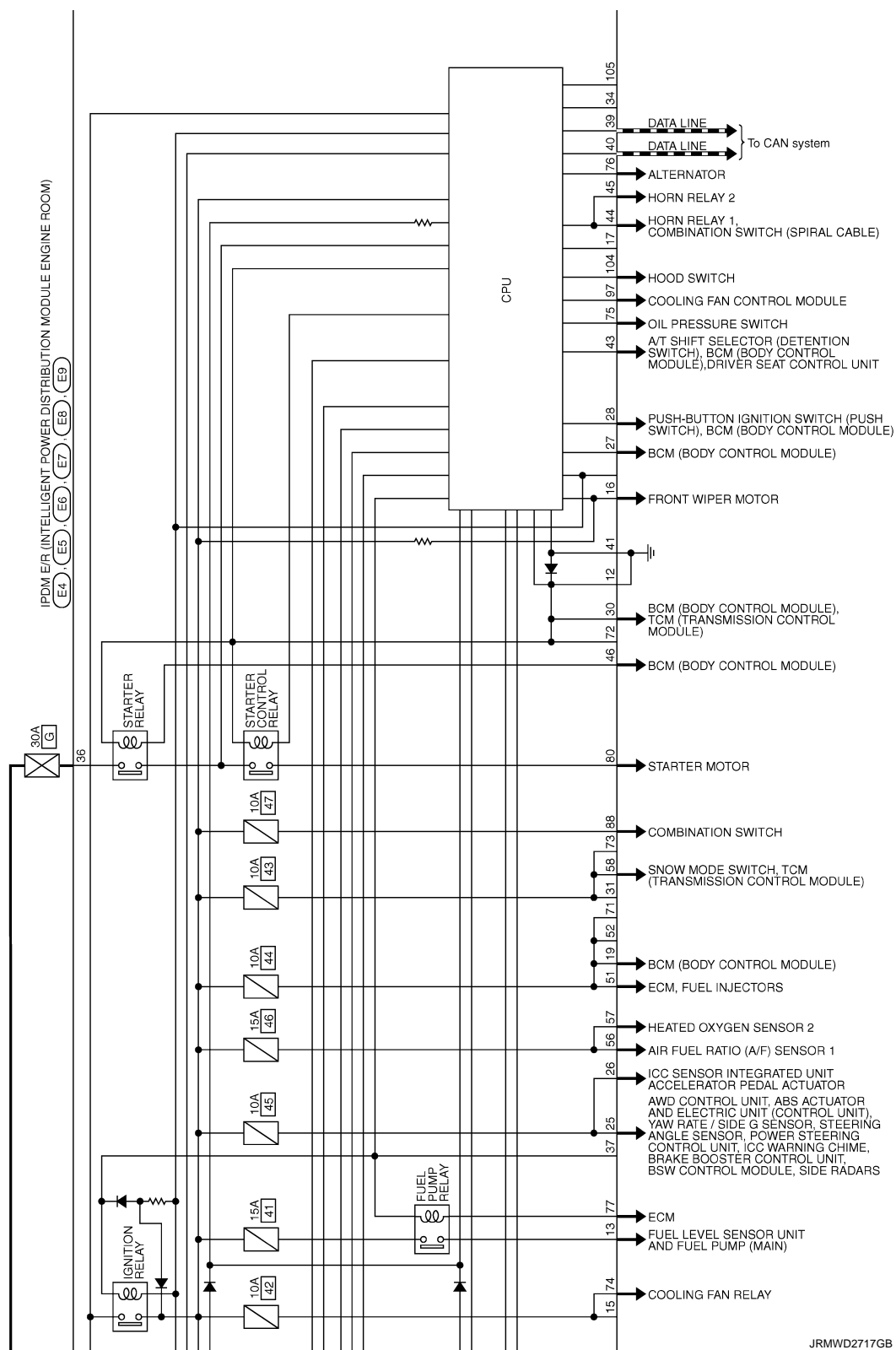
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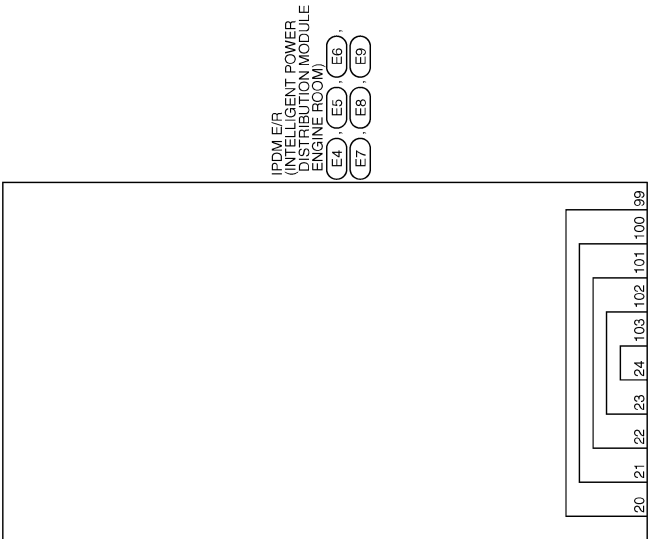
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JRMWD2716GB

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) < ECU DIAGNOSIS INFORMATION > [HALOGEN TYPE]



JRMWD2717GB



JRMWD2718GB

# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) < ECU DIAGNOSIS INFORMATION > [HALOGEN TYPE]

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

Connector No.	E4	E6	E8	E9
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	L02FB/MC	TH08FW-NH	NS08FW-CS	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	-
2	L	-

Connector No.	E5
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4-1V



Terminal No.	Color Of Wire	Signal Name [Specification]
4	V	-
5	L	-
7	R	-
12	BAW	-
13	Y	-
16	LG	-
19	W	-
25	G	-
26	R	-
27	BG	-
28	L	-
30	GR	-
36	G	-



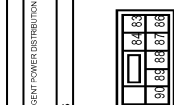
Terminal No.	Color Of Wire	Signal Name [Specification]
39	P	-
40	L	-
41	BAW	-
43	SB	-
44	BR	-
45	G	-
46	R	-

Connector No.	E7
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH20FW-CS12-M4



Terminal No.	Color Of Wire	Signal Name [Specification]
48	L	-
49	BG	-
51	Y	-
53	W	-
54	P	-
55	SB	-
56	LG	-
57	G	-
58	V	-
69	BR	-
70	BG	-
74	P	-

Terminal No.	Color Of Wire	Signal Name [Specification]
75	SB	-
76	Y	-
77	R	-
80	W	-

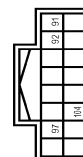


Connector No.	E8
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	NS08FW-CS



Terminal No.	Color Of Wire	Signal Name [Specification]
83	BG	-
84	V	-
86	W	-
87	L	-
88	GR	-
89	BR	-
90	P	-

Connector No.	E9
Connector Name	IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE (ENGINE ROOM)
Connector Type	TH16FW-NH



Terminal No.	Color Of Wire	Signal Name [Specification]
91	P	-
92	BG	-
97	V	-
104	LG	-

## Fail-safe

### 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

JRMWE9734GB

INFOID:000000008772703

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

Control part	Fail-safe operation
Cooling fan	<ul style="list-style-type: none"> <li>Outputs the pulse duty signal (PWM signal) 100% when the ignition switch is turned ON</li> <li>Outputs the pulse duty signal (PWM signal) 0% when the ignition switch is turned OFF</li> </ul>
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	<ul style="list-style-type: none"> <li>Turns ON the headlamp low relay when the ignition switch is turned ON</li> <li>Turns OFF the headlamp low relay when the ignition switch is turned OFF</li> <li>Headlamp high relay OFF</li> </ul>
<ul style="list-style-type: none"> <li>Parking lamps</li> <li>License plate lamps</li> <li>Side maker lamps</li> <li>Illuminations</li> <li>Tail lamps</li> </ul>	<ul style="list-style-type: none"> <li>Turns ON the tail lamp relay when the ignition switch is turned ON</li> <li>Turns OFF the tail lamp relay when the ignition switch is turned OFF</li> </ul>
Front wiper	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>
Front fog lamps	Front fog lamp relay OFF
Horn	Horn relay OFF
Ignition relay	The status just before activation of fail-safe is maintained.
Starter motor	Starter control relay OFF

## 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	<ul style="list-style-type: none"> <li>Detects DTC "B2098: IGN RELAY ON"</li> <li>Turns ON the tail lamp relay for 10 minutes</li> </ul>
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.

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

< ECU DIAGNOSIS INFORMATION >

[HALOGEN TYPE]

## 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.

## DTC Index

INFOID:000000008772704

## 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	Reference
No DTC is detected. further testing may be required.	—	—
U1000: CAN COMM CIRCUIT	×	<a href="#">PCS-14</a>
B2098: IGN RELAY ON CIRC	×	<a href="#">PCS-15</a>
B2099: IGN RELAY OFF CIRC	—	<a href="#">PCS-17</a>
B210B: STR CONT RLY ON CIRC	—	<a href="#">SEC-77</a>
B210C: STR CONT RLY OFF CIRC	—	<a href="#">SEC-78</a>
B210D: STARTER RLY ON CIRC	—	<a href="#">SEC-80</a>
B210E: STARTER RLY OFF CIRC	—	<a href="#">SEC-82</a>
B210F: INTRLCK/PNP SW ON	—	<a href="#">SEC-84</a>
B2110: INTRLCK/PNP SW OFF	—	<a href="#">SEC-86</a>

EXL

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## SYMPTOM DIAGNOSIS

### EXTERIOR LIGHTING SYSTEM SYMPTOMS

#### Symptom Table

INFOID:000000008289189

#### CAUTION:

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Halogen bulb (HI)</li> <li>Harness between IPDM E/R and the headlamp high</li> <li>Daytime running light relay (with daytime running light system)</li> <li>IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-260</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to <a href="#">EXL-379</a> .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.		
	When ignition switch is turned OFF.	IPDM E/R	—
High beam indicator lamp is not turned ON. [The headlamp (HI) is turned ON.]		Combination meter	<ul style="list-style-type: none"> <li>Combination meter</li> <li>Data monitor "HI-BEAM IND"</li> <li>BCM (HEAD LAMP)</li> <li>Active test "HEADLAMP"</li> </ul>
Headlamp (LO) is not turned ON.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Halogen bulb (LO)</li> <li>Harness between IPDM E/R and the headlamp low</li> <li>IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-262</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-380</a> .	
Headlamp (LO) 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.		<ul style="list-style-type: none"> <li>Combination switch</li> <li>Harness between the combination switch and BCM</li> <li>BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-93</a> .
		<ul style="list-style-type: none"> <li>Optical sensor</li> <li>Harness between the optical sensor and BCM</li> <li>BCM</li> </ul>	Optical sensor Refer to <a href="#">EXL-270</a> .
Front fog lamp is not turned ON.	One side	<ul style="list-style-type: none"> <li>Front fog lamp bulb</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp</li> <li>IPDM E/R</li> </ul>	Front fog lamp circuit Refer to <a href="#">EXL-264</a> .
	Both side	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-382</a> .	
Front fog lamp is not turned ON.			
Parking lamp is not turned ON.		<ul style="list-style-type: none"> <li>Fuse</li> <li>Parking lamp bulb</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp</li> <li>IPDM E/R</li> </ul>	Parking lamp circuit Refer to <a href="#">EXL-266</a> .



# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symptom		Possible cause	Inspection item
Tail lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between IPDM E/R and the rear combination lamp</li> <li>• Rear combination lamp</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-275</a> .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between IPDM E/R and the license plate lamp</li> <li>• License plate lamp</li> </ul>	License plate lamp circuit Refer to <a href="#">EXL-277</a> .
Tail lamp and the license plate lamp are not turned ON.		<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Harness between IPDM E/R and the rear combination lamp</li> <li>• IPDM E/R</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-275</a> .
<ul style="list-style-type: none"> <li>• Parking lamp, the tail lamp and the license plate lamp are not turned ON.</li> <li>• Parking lamp, the tail lamp and the license plate lamp are not turned OFF.</li> </ul> (Each illumination is turned ON/OFF.)		<b>Symptom diagnosis</b> "PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-381</a> .	
Turn signal lamp does not blink.	Indicator lamp is normal. (The applicable side performs the high flasher activation.)	<ul style="list-style-type: none"> <li>• Harness between BCM and each turn signal lamp</li> <li>• Turn signal lamp bulb</li> </ul>	Turn signal lamp circuit Refer to <a href="#">EXL-268</a> .
	Indicator lamp is included	<ul style="list-style-type: none"> <li>• Combination switch</li> <li>• Harness between the combination switch and BCM</li> <li>• BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-93</a> .
Turn signal indicator lamp does not blink. (The turn signal indicator lamp is normal.)	One side	Combination meter	—
	Both sides (Always)	<ul style="list-style-type: none"> <li>• Turn signal indicator lamp signal</li> <li>- Unified meter and A/C amp.</li> <li>- BCM</li> <li>• Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>• Unified meter and A/C amp.</li> <li>• Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>• Active test "FLASHER"</li> </ul>
	Both sides (Only when activating the hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• The combination meter power supply and the ground circuit</li> <li>• Combination meter</li> </ul>	Combination meter Power supply and the ground circuit Refer to <a href="#">MWI-55</a> .
<ul style="list-style-type: none"> <li>• Hazard warning lamp does not activate.</li> <li>• Hazard warning lamp continues activating.</li> </ul> (Turn signal is normal.)		<ul style="list-style-type: none"> <li>• Hazard switch</li> <li>• Harness between the hazard switch and BCM</li> <li>• BCM</li> </ul>	Hazard switch Refer to <a href="#">EXL-273</a> .

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## NORMAL OPERATING CONDITION

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### Description

INFOID:000000008289190

#### AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes for the control difference. This is normal.

# BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

### Description

INFOID:0000000008289191

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

### Diagnosis Procedure

INFOID:0000000008289192

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93. "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 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-96. "Exploded View"](#).

#### 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-260. "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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EXL

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

### Description

INFOID:000000008289193

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

### Diagnosis Procedure

INFOID:000000008289194

#### 1.CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-93, "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 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-96, "Exploded View"](#).

#### 3.HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-262, "Component Function Check"](#).

Is the headlamp (LO) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

# PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

### Description

INFOID:0000000008289195

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

### Diagnosis Procedure

INFOID:0000000008289196

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT DATA MONITOR

1. Select "TAIL & CLR REQ" 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.

#### 3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-275. "Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

EXL

# BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

### Description

INFOID:000000008289197

The front fog lamps are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000008289198

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-93, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

##### CONSULT DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status
FR FOG REQ	Front fog lamp switch (Lighting switch 2ND)	ON On
		OFF Off

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM.

#### 3.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-264, "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:000000008289199

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:**

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:**

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

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EXL

## PERIODIC MAINTENANCE

### HEADLAMP AIMING ADJUSTMENT

#### Description

INFOID:000000008289200

#### 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.

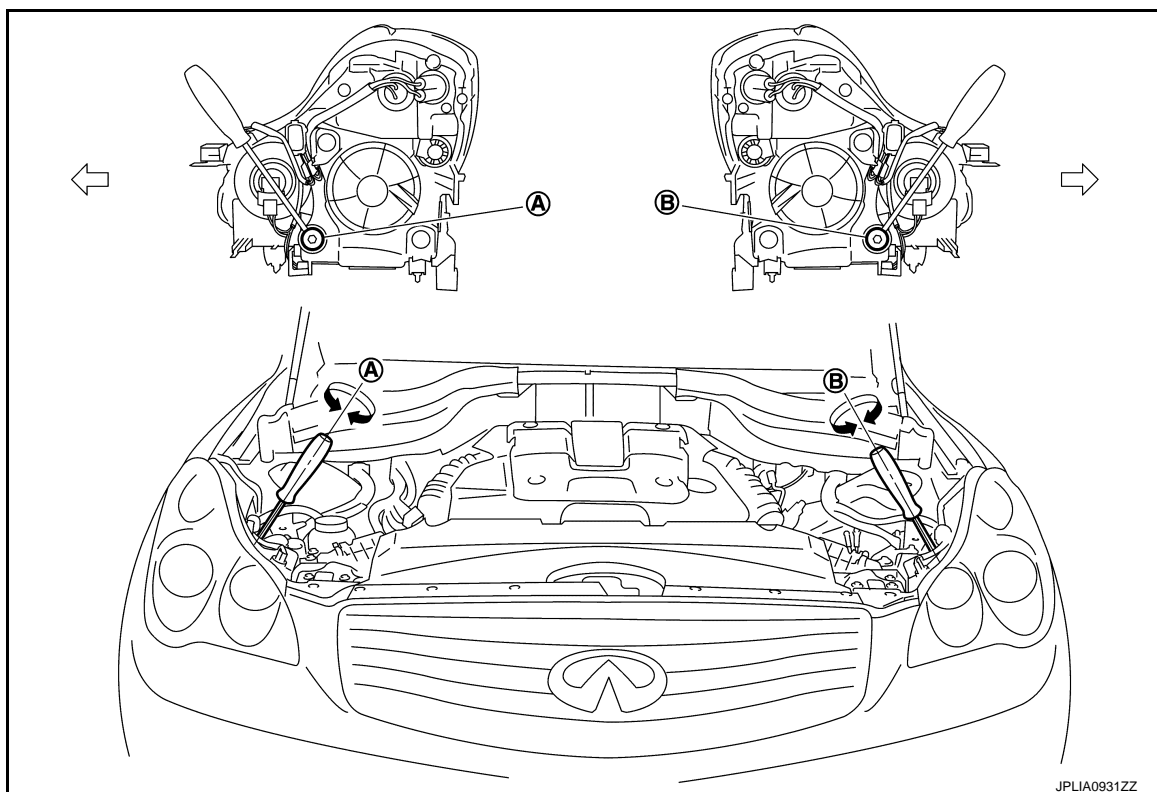
- Wipe out dirt on the headlamp.

##### 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

##### NOTE:

The figure is the vehicle without AFS. Each adjustment screw is applied to the vehicle with AFS.



# HEADLAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

Adjustment screw		Screw driver rotation	Facing direction
A	Headlamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Headlamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN

## Aiming Adjustment Procedure

INFOID:000000008289201

- Place the screen.

### NOTE:

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

- Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the headlamp center and the screen.
- Start the engine. Turn the headlamp (LO) ON.

### NOTE:

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

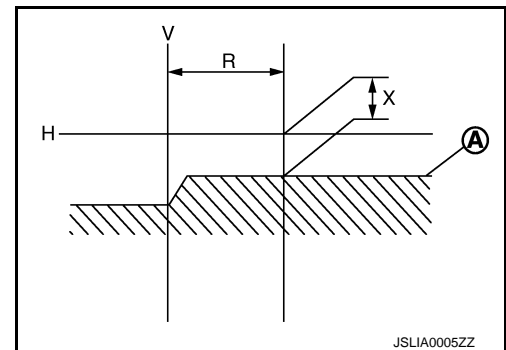
### CAUTION:

**Never cover the lens surface with a tape etc. The lens is made of resin.**

- 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

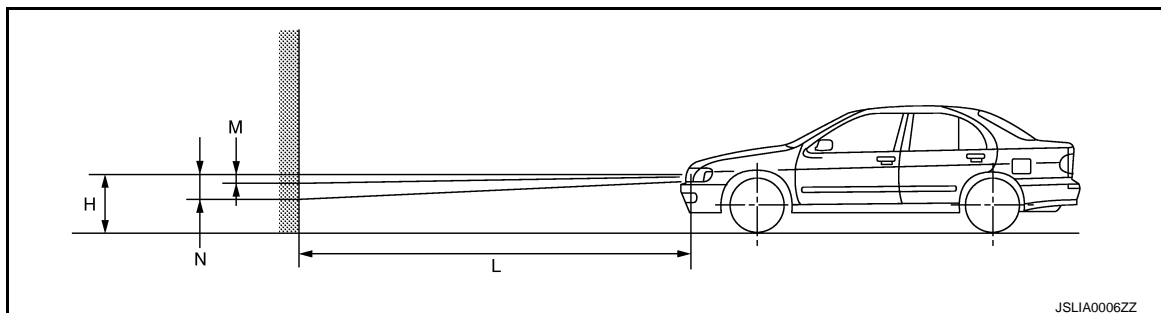


- Adjust the cutoff line height (X) with the aiming adjustment screw so as to enter in the adjustment range (M–N) according to the horizontal center line of headlamp (H).

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

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

## FRONT FOG LAMP AIMING ADJUSTMENT

### Description

INFOID:000000008289202

### 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

- Turn the aiming adjusting screw for adjustment.

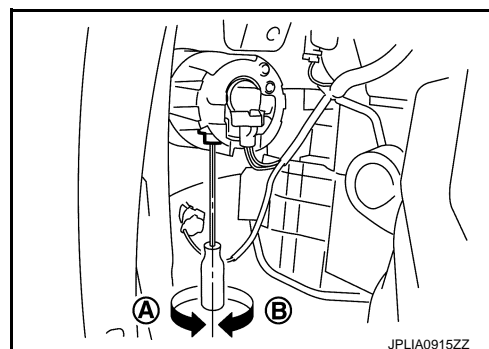
A: UP

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:000000008289203

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. Turn the front fog lamp 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.**

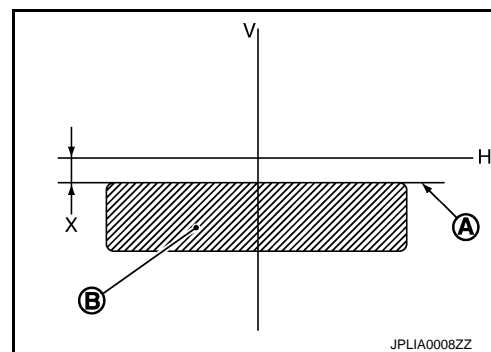
4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

# FRONT FOG LAMP AIMING ADJUSTMENT

< PERIODIC MAINTENANCE >

[HALOGEN TYPE]

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

EXL

# FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

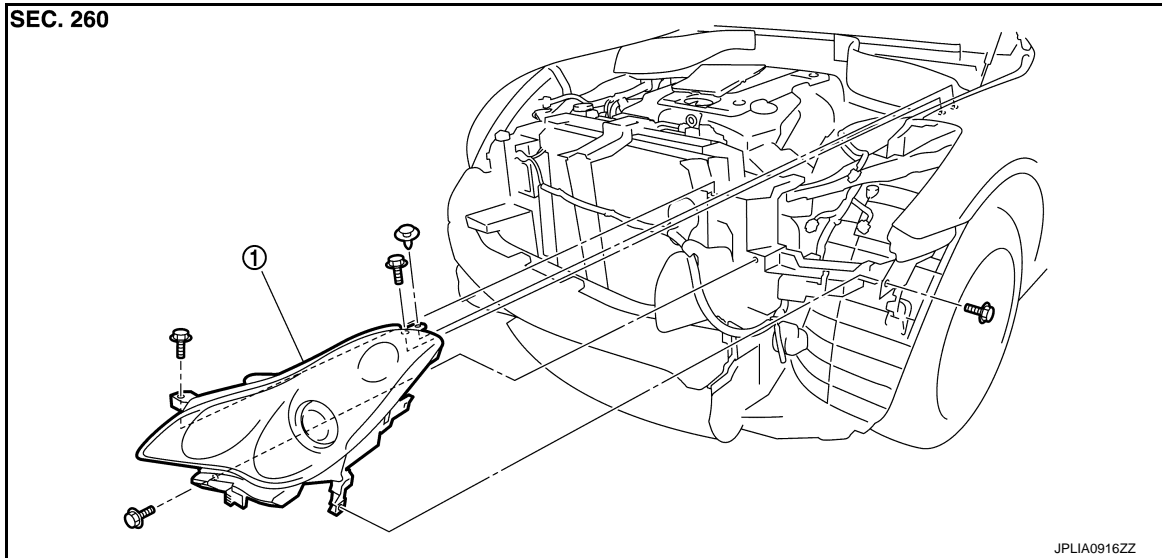
## REMOVAL AND INSTALLATION

### FRONT COMBINATION LAMP

Exploded View

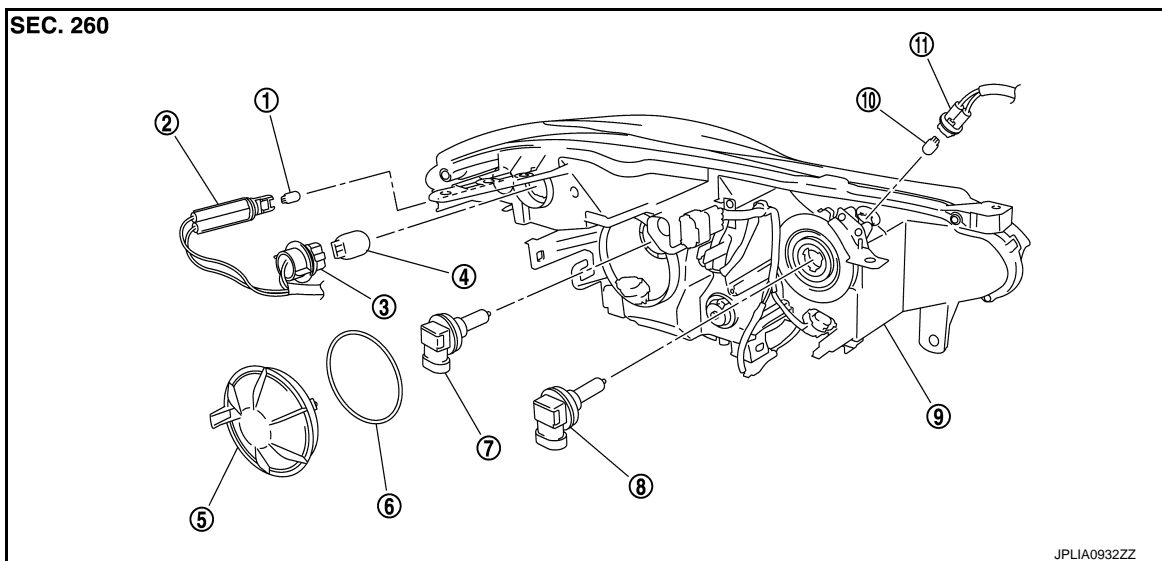
INFOID:000000008289204

#### REMOVAL



1. Front combination lamp

#### DISASSEMBLY



- |                                |                                       |                                       |
|--------------------------------|---------------------------------------|---------------------------------------|
| 1. Front side marker lamp bulb | 2. Front side marker lamp bulb socket | 3. Front turn signal lamp bulb socket |
| 4. Front turn signal lamp bulb | 5. Resin cap                          | 6. Seal packing                       |
| 7. Halogen bulb (LO)           | 8. Halogen bulb (HI)                  | 9. Headlamp housing assembly          |
| 10. Parking lamp bulb          | 11. Parking lamp bulb socket          |                                       |

#### Removal and Installation

INFOID:000000008289205

#### REMOVAL

**CAUTION:**

# FRONT COMBINATION LAMP

## < REMOVAL AND INSTALLATION >

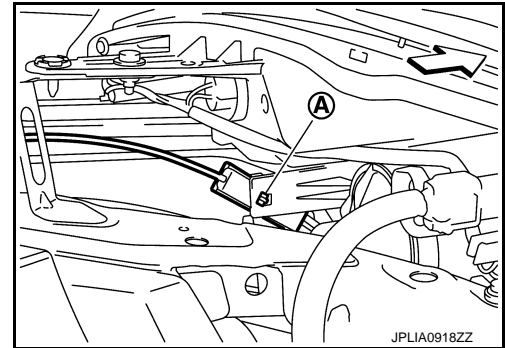
[HALOGEN TYPE]

**Disconnect the battery negative terminal or remove the fuse.**

1. Remove the front bumper fascia. Refer to [EXT-12, "Exploded View"](#).
  2. Remove the headlamp mounting bolts and clips.
  3. Remove the harness clip and the holding clip (A)\*.
- \*: Left side only.

↶ : Vehicle front

4. Pull out the headlamp assembly forward the vehicle.
5. 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-384, "Description"](#).

## Replacement

INFOID:000000008289206

### CAUTION:

- **Disconnect the battery negative terminal or remove 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 (LO)

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the resin cap counterclockwise and unlock it.
3. Disconnect the headlamp (LO) bulb connector.
4. Rotate the bulb counterclockwise and unlock it.
5. Remove the bulb from the headlamp housing assembly.

## HEADLAMP BULB (HI)

1. Remove the washer tank inlet\*. Refer to [WW-112, "Exploded View"](#).
- \*:When replace a right.
2. Disconnect the headlamp (HI) bulb connector.
  3. Rotate the bulb socket counterclockwise and unlock it.
  4. Remove the bulb socket from the headlamp housing assembly.

## PARKING LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

## FRONT TURN SIGNAL LAMP BULB

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

## FRONT SIDE MARKER LAMP BULB

1. Remove the fender rubber protector in the engine room. Keep a service area.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

# FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## Disassembly and Assembly

INFOID:000000008289207

### DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Disconnect the headlamp bulb (LO) connector.
3. Rotate the headlamp bulb (LO) counterclockwise and unlock it
4. Remove the bulb from the headlamp housing assembly.
5. Rotate the headlamp bulb (HI) counterclockwise and unlock it
6. Remove the bulb from the headlamp housing assembly.
7. Rotate the parking lamp bulb socket counterclockwise and unlock it.
8. Remove the bulb from the parking lamp bulb socket.
9. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
10. Remove the bulb from the front turn signal lamp bulb socket.
11. Rotate the front side marker lamp bulb socket counterclockwise and unlock it.
12. Remove the bulb from the front side marker lamp bulb socket.

### ASSEMBLY

Assemble in the reverse order of disassembly.

# FRONT FOG LAMP

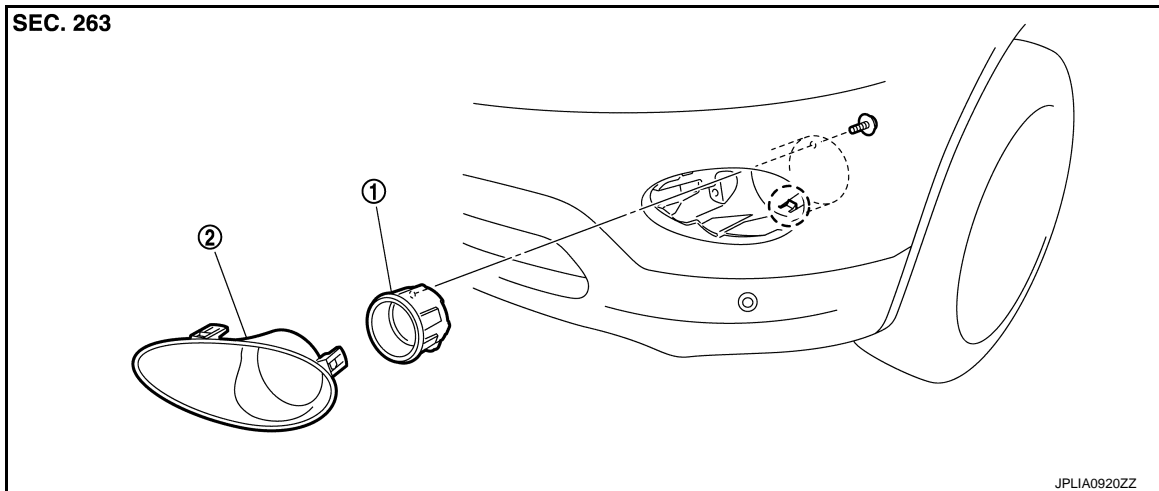
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## FRONT FOG LAMP

### Exploded View

INFOID:000000008289208



1. Front fog lamp
2. Front fog lamp finisher

○ : Pawl

### Removal and Installation

INFOID:000000008289209

#### CAUTION:

Disconnect the battery negative terminal or remove the fuse.

#### REMOVAL

1. Remove the front fender protector. Keep a service area. Refer to [EXT-25. "FENDER PROTECTOR : Exploded View"](#).
2. Remove the front fog lamp finisher.
3. Remove the front fog lamp connector.
4. Remove the screw.
5. Disengage the pawl. And then remove the front fog lamp.

#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

After installation, perform aiming adjustment. Refer to [EXL-386. "Description"](#)

### Replacement

INFOID:000000008289210

#### 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.

#### FRONT FOG LAMP BULB

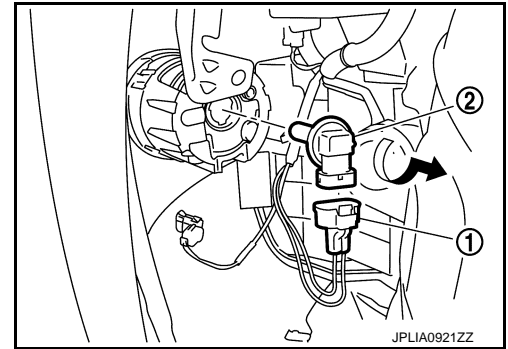
1. Remove the front fender protector. Keep the service area. Refer to [EXT-25. "FENDER PROTECTOR : Exploded View"](#).

## FRONT FOG LAMP

### < REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

2. Remove the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.

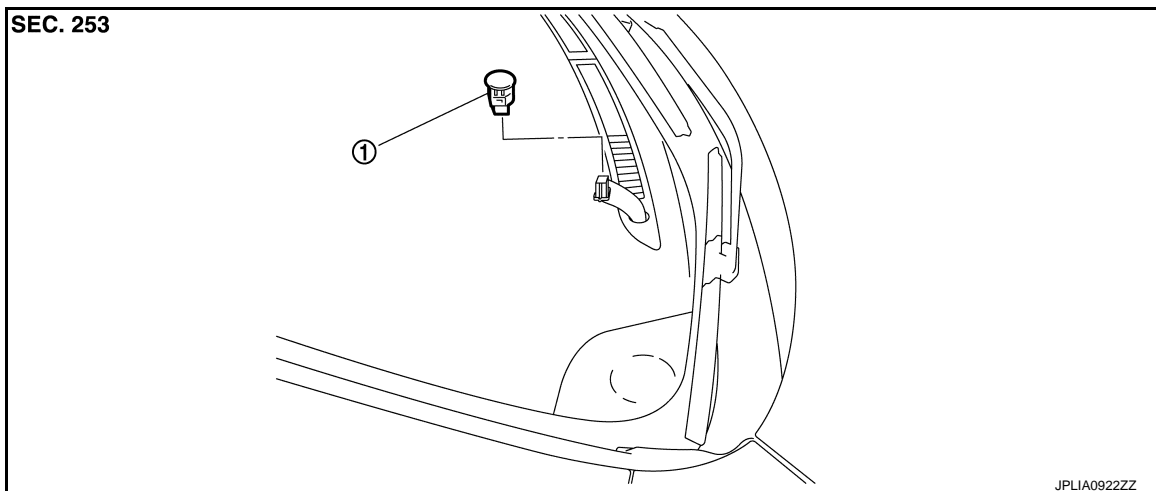




## OPTICAL SENSOR

## Exploded View

INFOID:000000008289211



1. Optical sensor

## Removal and Installation

INFOID:000000008289212

## REMOVAL

1. Insert an appropriate tool between the optical sensor and the instrument upper panel. Pull out the optical sensor upward.
2. Disconnect the optical sensor connector. And then remove the optical sensor.

## INSTALLATION

Install in the reverse order of removal.

EXL

## LIGHTING AND TURN SIGNAL SWITCH

< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

---

### LIGHTING AND TURN SIGNAL SWITCH

#### Exploded View

INFOID:000000008289213

Lighting and turn signal switch is integrated in the combination switch. [BCS-97. "Exploded View"](#).

HAZARD SWITCH

Exploded View

INFOID:0000000008289214

The hazard warning switch is integrated in the multifunction switch. Refer to [AV-138. "Exploded View"](#).

- A
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- D
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- H
- I
- J
- K
- EXL
- M
- N
- O
- P

## REAR COMBINATION LAMP

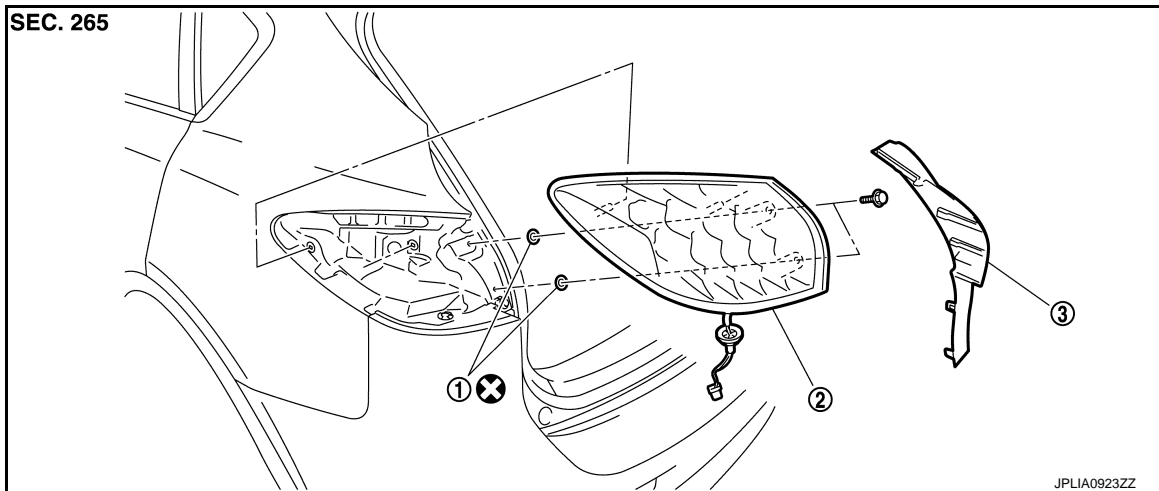
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

### REAR COMBINATION LAMP

#### Exploded View

INFOID:0000000082892.15



1. Seal packing
2. Rear combination lamp
3. Rear combination lamp finisher

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### Removal and Installation

INFOID:0000000082892.16

##### **CAUTION:**

**Disconnect the battery negative terminal or remove the fuse.**

##### REMOVAL

1. Remove the luggage side finisher lower. Refer to [INT-36, "Exploded View"](#).
2. Remove the rear combination lamp finisher.
3. Remove the rear combination lamp mounting bolts.
4. Disconnect the rear combination lamp connector.
5. Pull the rear combination lamp toward outside of the vehicle. Remove the rear combination lamp.

##### INSTALLATION

Install in the reverse order of removal.

##### **CAUTION:**

**Seal packing cannot be reused.**

# REAR TURN SIGNAL LAMP

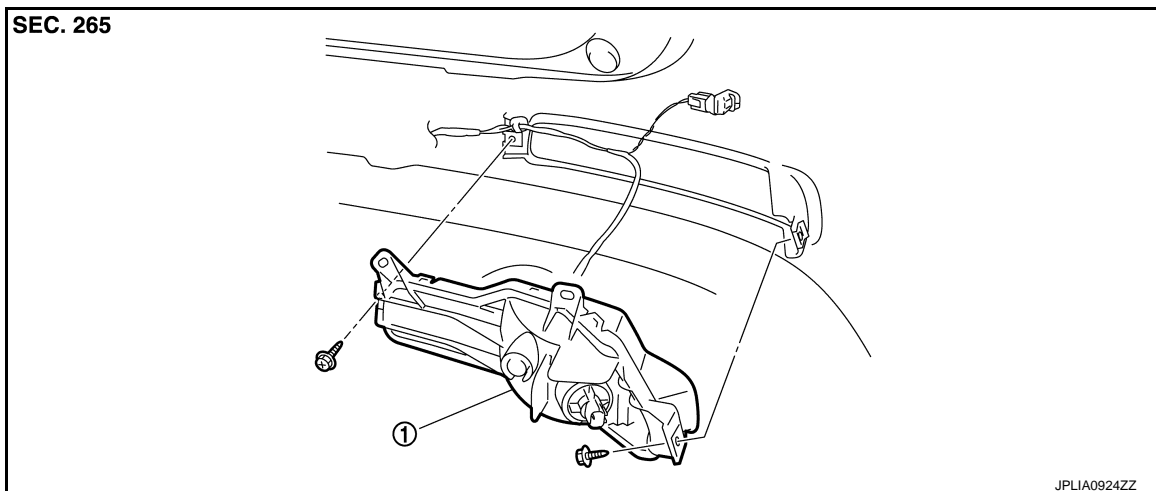
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## REAR TURN SIGNAL LAMP

### Exploded View

INFOID:000000008289217



1. Rear turn signal lamp

### Removal and Installation

INFOID:000000008289218

#### CAUTION:

Disconnect the battery negative terminal or remove the fuse.

#### REMOVAL

1. Remove the rear bumper fascia. Refer to [EXT-16, "Exploded View"](#).
2. Remove the rear turn signal lamp.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

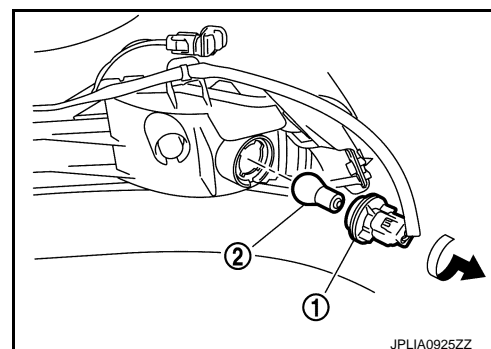
INFOID:000000008289219

#### 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.

### REAR TURN SIGNAL LAMP BULB

1. Turn the bulb socket (1) counterclockwise and unlock it.
2. Remove the bulb (2) from the socket.



# HIGH-MOUNTED STOP LAMP

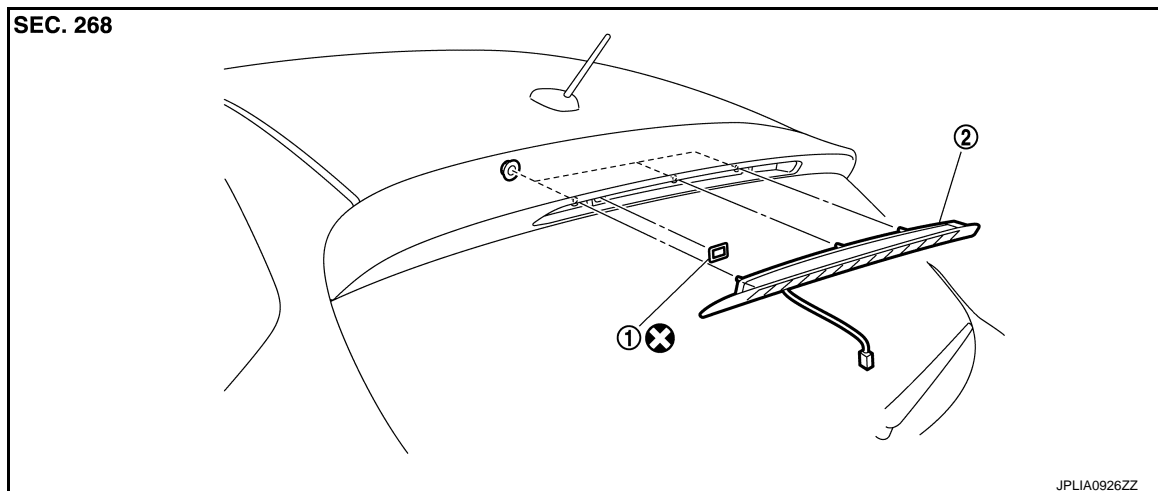
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## HIGH-MOUNTED STOP LAMP

### Exploded View

INFOID:000000008289220



1. Seal packing
2. High-mounted stop lamp

Refer to [GI-4, "Components"](#) for symbols in the figure.

### Removal and Installation

INFOID:000000008289221

#### REMOVAL

1. Remove the back door finisher inner. Refer to [INT-40, "Exploded View"](#).
2. Remove the high-mounted stop lamp mounting nuts.
3. Disconnect the high-mounted stop lamp connector. And then remove the rear washer tube.
4. Pull the high-mounted stop lamp toward rear of the vehicle.
5. Remove the high-mounted stop lamp.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**Seal packing cannot be reused.**

# BACK-UP LAMP

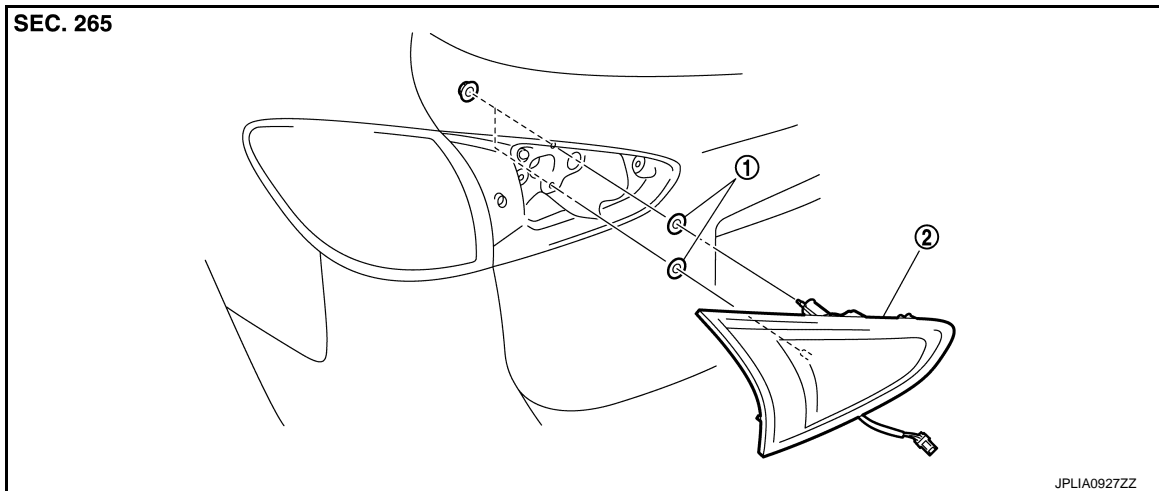
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## BACK-UP LAMP

### Exploded View

INFOID:000000008289222



1. Seal packing

2. Back-up lamp

### Removal and Installation

INFOID:000000008289223

#### CAUTION:

**Disconnect the battery negative terminal or remove the fuse.**

#### REMOVAL

1. Remove the back door finisher inner. Refer to [INT-40, "Exploded View"](#).
2. Remove the back-up lamp mounting nuts.
3. Disconnect the back-up lamp connector. And then remove the back-up lamp.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

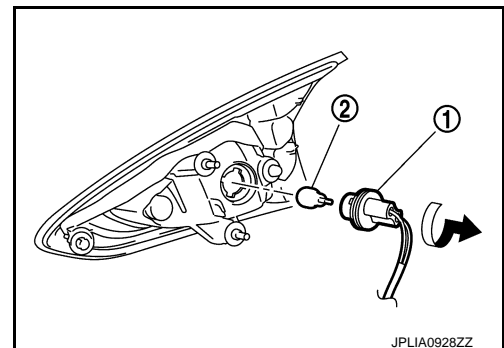
INFOID:000000008289224

#### 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.**

#### BACK-UP LAMP BULB

1. Remove the back-up lamp. Refer to [EXL-399, "Exploded View"](#).
2. Turn the bulb socket (1) counterclockwise and unlock it.
3. Remove the bulb (2) from the socket.



# LICENSE PLATE LAMP

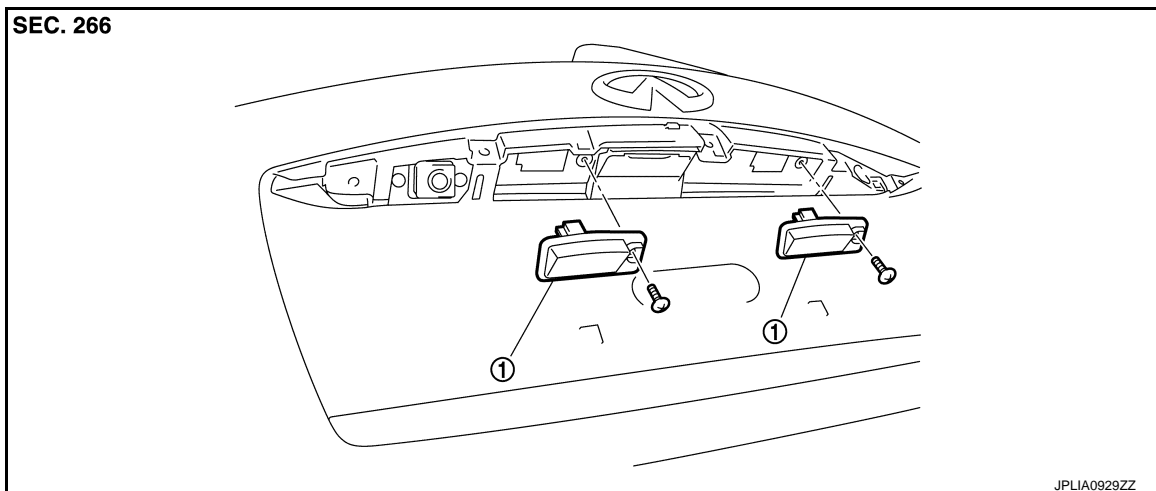
< REMOVAL AND INSTALLATION >

[HALOGEN TYPE]

## LICENSE PLATE LAMP

### Exploded View

INFOID:000000008289225



1. License plate lamp

### Removal and Installation

INFOID:000000008289226

#### CAUTION:

Disconnect the battery negative terminal or remove the fuse.

#### REMOVAL

1. Remove the door handle cover. Refer to [EXT-48, "Exploded View"](#).
2. Remove the screw. And then remove the license plate lamp.
3. Disconnect the license plate lamp connector.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

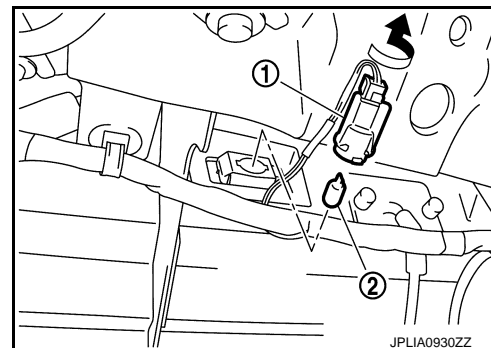
INFOID:000000008289227

#### 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 back door finisher inner. Refer to [INT-40, "Exploded View"](#).
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)

[HALOGEN TYPE]

## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Bulb Specifications

INFOID:0000000008289228

Item		Type	Wattage (W)
Front combination lamp	Headlamp (HI)	H9 (Halogen)	65
	Headlamp (LO)	H11 (Halogen)	55
	Front turn signal lamp	W21W	21
	Parking lamp	W5W	5
	Front side marker lamp	W5W	5
Front fog lamp		H8	35
Rear combination lamp	Stop lamp/Tail lamp	LED	—
	Rear side marker lamp	LED	—
Rear turn signal lamp		PY21W (Amber)	21
Back-up lamp		W16W	16
License plate lamp		W5W	5
High-mounted stop lamp		LED	—

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