

# SECTION **EXL**

## EXTERIOR LIGHTING SYSTEM

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

### CONTENTS

<b>XENON TYPE</b>	
<b>BASIC INSPECTION</b> .....	9
<b>DIAGNOSIS AND REPAIR WORKFLOW</b> .....	9
Work Flow .....	9
<b>INSPECTION AND ADJUSTMENT</b> .....	11
<b>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</b> .....	11
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description .....	11
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement .....	11
<b>CONFIGURATION (HEADLAMP LEVELIZER)</b> .....	11
CONFIGURATION (HEADLAMP LEVELIZER) : Description .....	11
CONFIGURATION (HEADLAMP LEVELIZER) : Special Repair Requirement .....	11
<b>SENSOR INITIALIZE</b> .....	11
SENSOR INITIALIZE : Description .....	11
SENSOR INITIALIZE : Special Repair Requirement .....	12
<b>FUNCTION DIAGNOSIS</b> .....	13
<b>HEADLAMP SYSTEM</b> .....	13
System Diagram .....	13
System Description .....	13
Component Parts Location .....	14
Component Description .....	15
<b>DAYTIME RUNNING LIGHT SYSTEM</b> .....	16
System Diagram .....	16
System Description .....	16
Component Parts Location .....	17
Component Description .....	17
<b>AUTO LIGHT SYSTEM</b> .....	19
System Diagram .....	19
System Description .....	19
Component Parts Location .....	20
Component Description .....	21
<b>HEADLAMP AIMING CONTROL SYSTEM (AUTO)</b> .....	22
System Diagram .....	22
System Description .....	22
Component Parts Location .....	23
Component Description .....	23
<b>FRONT FOG LAMP SYSTEM</b> .....	24
System Diagram .....	24
System Description .....	24
Component Parts Location .....	25
Component Description .....	25
<b>TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM</b> .....	26
System Diagram .....	26
System Description .....	26
Component Parts Location .....	27
Component Description .....	27
<b>PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM</b> .....	28
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b> .....	28
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Diagram .....	28
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Description .....	28
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Parts Location .....	29
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Description .....	29
<b>WITH DAYTIME RUNNING LIGHT SYSTEM</b> .....	29
WITH DAYTIME RUNNING LIGHT SYSTEM : System Diagram .....	30
WITH DAYTIME RUNNING LIGHT SYSTEM : System Description .....	30

WITH DAYTIME RUNNING LIGHT SYSTEM :	Description .....	51
Component Parts Location .....	DTC Logic .....	51
WITH DAYTIME RUNNING LIGHT SYSTEM :	Diagnosis Procedure .....	51
Component Description .....		
<b>REAR FOG LAMP SYSTEM .....</b>	<b>B2087 SHORT TO GROUND .....</b>	<b>53</b>
System Diagram .....	DTC Logic .....	53
System Description .....	Diagnosis Procedure .....	53
Component Parts Location .....	<b>B2088 SHORT TO BATTERY .....</b>	<b>54</b>
Component Description .....	DTC Logic .....	54
	Diagnosis Procedure .....	54
<b>DIAGNOSIS SYSTEM (BCM) .....</b>	<b>B2089 NO CAR TYPE SELECTED .....</b>	<b>55</b>
	DTC Logic .....	55
<b>COMMON ITEM .....</b>	Diagnosis Procedure .....	55
COMMON ITEM : CONSULT-III Function (BCM -		
COMMON ITEM) .....	<b>POWER SUPPLY AND GROUND CIRCUIT ....</b>	<b>56</b>
<b>HEADLAMP .....</b>	<b>BCM (BODY CONTROL MODULE) .....</b>	<b>56</b>
HEADLAMP : CONSULT-III Function (BCM -	BCM (BODY CONTROL MODULE) : Diagnosis	
HEAD LAMP) .....	Procedure .....	56
<b>FLASHER .....</b>	<b>IPDM E/R (INTELLIGENT POWER DISTRIBU-</b>	
FLASHER : CONSULT-III Function (BCM -	<b>TION MODULE ENGINE ROOM) .....</b>	<b>56</b>
FLASHER) .....	IPDM E/R (INTELLIGENT POWER DISTRIBU-	
	TION MODULE ENGINE ROOM) : Diagnosis Pro-	
<b>DIAGNOSIS SYSTEM (IPDM E/R) .....</b>	cedure .....	56
Diagnosis Description .....		
CONSULT-III Function (IPDM E/R) .....	<b>AUTO LEVELIZER CONTROL UNIT .....</b>	<b>57</b>
	AUTO LEVELIZER CONTROL UNIT : Diagnosis	
	Procedure .....	57
<b>DIAGNOSIS SYSTEM (HEADLAMP LEVEL-</b>		
<b>IZER) .....</b>	<b>EXTERIOR LAMP FUSE .....</b>	<b>59</b>
CONSULT-III Function (HEADLAMP LEVELIZ-		
ER) .....	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ...</b>	<b>59</b>
	WITHOUT DAYTIME RUNNING LIGHT SYSTEM	
	: Description .....	59
	WITHOUT DAYTIME RUNNING LIGHT SYSTEM	
	: Diagnosis Procedure .....	59
<b>COMPONENT DIAGNOSIS .....</b>		
	<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>59</b>
<b>B2080 ECU TROUBLE .....</b>	WITH DAYTIME RUNNING LIGHT SYSTEM : De-	
Description .....	scription .....	59
DTC Logic .....	WITH DAYTIME RUNNING LIGHT SYSTEM : Di-	
Diagnosis Procedure .....	agnosis Procedure .....	60
<b>B2081 INITIAL NOT DONE .....</b>	<b>HEADLAMP (HI) CIRCUIT .....</b>	<b>61</b>
DTC Logic .....	Description .....	61
Diagnosis Procedure .....	Component Function Check .....	61
	Diagnosis Procedure .....	61
<b>B2082 SENSOR OUT OF RANGE .....</b>	<b>HEADLAMP (LO) CIRCUIT .....</b>	<b>64</b>
DTC Logic .....	Description .....	64
Diagnosis Procedure .....	Component Function Check .....	64
	Diagnosis Procedure .....	64
<b>B2083 SEN SIG NOT PLAUSIBLE .....</b>	<b>XENON HEADLAMP .....</b>	<b>66</b>
DTC Logic .....	Description .....	66
Diagnosis Procedure .....	Diagnosis Procedure .....	66
<b>B2084 VOLTAGE UNDER LIMIT .....</b>	<b>HEADLAMP LEVELIZER CIRCUIT .....</b>	<b>68</b>
DTC Logic .....	Description .....	68
Diagnosis Procedure .....	Component Function Check .....	68
<b>B2085 LOWBEAM SIG OPEN LINE .....</b>		
Description .....		
DTC Logic .....		
Diagnosis Procedure .....		
<b>B2086 FRQ. OVER LIMIT .....</b>		

Diagnosis Procedure .....	68	
<b>FRONT FOG LAMP CIRCUIT .....</b>	<b>70</b>	
Component Function Check .....	70	
Diagnosis Procedure .....	70	
<b>DAYTIME RUNNING LIGHT RELAY CIRCUIT .....</b>	<b>72</b>	
Component Function Check .....	72	
Diagnosis Procedure .....	72	
Component Inspection .....	73	
<b>PARKING LAMP CIRCUIT .....</b>	<b>75</b>	
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ....</b>	<b>75</b>	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Component Function Check .....	75	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Diagnosis Procedure .....	75	
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>76</b>	
WITH DAYTIME RUNNING LIGHT SYSTEM :		
Component Function Check .....	76	
WITH DAYTIME RUNNING LIGHT SYSTEM : Di-		
agnosis Procedure .....	77	
<b>TURN SIGNAL LAMP CIRCUIT .....</b>	<b>78</b>	
Description .....	78	
Component Function Check .....	78	
Diagnosis Procedure .....	78	
<b>LIGHT &amp; RAIN SENSOR .....</b>	<b>81</b>	
Description .....	81	
Component Function Check .....	81	
Diagnosis Procedure .....	81	
<b>HAZARD SWITCH .....</b>	<b>84</b>	
Component Function Check .....	84	
Diagnosis Procedure .....	84	
<b>TAIL LAMP CIRCUIT .....</b>	<b>86</b>	
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ....</b>	<b>86</b>	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Component Function Check .....	86	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Diagnosis Procedure .....	86	
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>87</b>	
WITH DAYTIME RUNNING LIGHT SYSTEM :		
Component Function Check .....	87	
WITH DAYTIME RUNNING LIGHT SYSTEM : Di-		
agnosis Procedure .....	87	
<b>LICENSE PLATE LAMP CIRCUIT .....</b>	<b>89</b>	
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ....</b>	<b>89</b>	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Component Function Check .....	89	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
: Diagnosis Procedure .....	89	
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>90</b>	
WITH DAYTIME RUNNING LIGHT SYSTEM :		
Component Function Check .....	90	
WITH DAYTIME RUNNING LIGHT SYSTEM : Di-		
agnosis Procedure .....	90	
<b>REAR FOG LAMP CIRCUIT .....</b>	<b>92</b>	
Component Function Check .....	92	
Diagnosis Procedure .....	92	
<b>HEADLAMP SYSTEM .....</b>	<b>94</b>	
Wiring Diagram - HEADLAMP - .....	94	
<b>AUTO LIGHT SYSTEM .....</b>	<b>98</b>	
<b>LHD .....</b>	<b>98</b>	
LHD : Wiring Diagram - AUTO LIGHT SYSTEM - .....	98	
<b>RHD .....</b>	<b>103</b>	
RHD : Wiring Diagram - AUTO LIGHT SYSTEM - .....	104	
<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>110</b>	
Wiring Diagram - DAYTIME RUNNING LIGHT		
SYSTEM - .....	110	
<b>FRONT FOG LAMP SYSTEM .....</b>	<b>118</b>	
Wiring Diagram - FRONT FOG LAMP - .....	118	
<b>TURN SIGNAL AND HAZARD WARNING</b>		
<b>LAMP SYSTEM .....</b>	<b>121</b>	
Wiring Diagram - TURN AND HAZARD WARN-		
ING LAMPS - .....	121	
<b>PARKING, LICENSE PLATE AND TAIL</b>		
<b>LAMPS SYSTEM .....</b>	<b>125</b>	
Wiring Diagram - PARKING, LICENSE PLATE		
AND TAIL LAMPS - .....	125	
<b>DRIVING LAMP .....</b>	<b>132</b>	
Description .....	132	
Wiring Diagram - DRIVING LAMP - .....	133	
Component Inspection (Driving Lamp Switch) .....	137	
Component Inspection (Driving Lamp Relay-1) .....	138	
Component Inspection (Driving Lamp Relay-2) .....	138	
<b>STOP LAMP .....</b>	<b>139</b>	
Wiring Diagram - STOP LAMP - .....	139	
<b>BACK-UP LAMP .....</b>	<b>142</b>	
Wiring Diagram - BACK-UP LAMP - .....	142	
<b>REAR FOG LAMP SYSTEM .....</b>	<b>145</b>	
Wiring Diagram - REAR FOG LAMP - .....	145	
<b>ECU DIAGNOSIS .....</b>	<b>148</b>	
<b>BCM (BODY CONTROL MODULE) .....</b>	<b>148</b>	
Reference Value .....	148	
Wiring Diagram - BCM - .....	165	
Fail Safe .....	171	
DTC Inspection Priority Chart .....	172	
DTC Index .....	173	

<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>174</b>	<b>PRECAUTIONS .....</b>	<b>204</b>
Reference Value .....	174	Precautions For Xenon Headlamp Service .....	204
Wiring Diagram - IPDM E/R - .....	179	<b>ON-VEHICLE MAINTENANCE .....</b>	<b>205</b>
Fail Safe .....	182	<b>HEADLAMP AIMING ADJUSTMENT .....</b>	<b>205</b>
DTC Index .....	184	Description .....	205
<b>AUTO LEVELIZER CONTROL UNIT .....</b>	<b>185</b>	<b>LHD .....</b>	<b>206</b>
Reference Value .....	185	LHD : Aiming Adjustment Procedure .....	206
Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM - .....	187	<b>RHD .....</b>	<b>207</b>
Fail-safe .....	190	RHD : Aiming Adjustment Procedure .....	207
DTC Inspection Priority Chart .....	191	<b>FRONT FOG LAMP AIMING ADJUSTMENT .....</b>	<b>209</b>
DTC Index .....	192	Description .....	209
<b>SYMPTOM DIAGNOSIS .....</b>	<b>193</b>	Aiming Adjustment Procedure .....	209
<b>EXTERIOR LIGHTING SYSTEM SYMPTOMS .....</b>	<b>193</b>	<b>DRIVING LAMP AIMING ADJUSTMENT .....</b>	<b>211</b>
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>193</b>	Description .....	211
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Symptom Table .....	193	Aiming Adjustment Procedure .....	211
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>195</b>	<b>ON-VEHICLE REPAIR .....</b>	<b>213</b>
WITH DAYTIME RUNNING LIGHT SYSTEM : Symptom Table .....	195	<b>FRONT COMBINATION LAMP .....</b>	<b>213</b>
<b>NORMAL OPERATING CONDITION .....</b>	<b>198</b>	Exploded View .....	213
Description .....	198	Removal and Installation .....	213
<b>BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM .....</b>	<b>199</b>	Replacement .....	214
Description .....	199	Disassembly and Assembly .....	214
Diagnosis Procedure .....	199	<b>FRONT FOG LAMP .....</b>	<b>216</b>
<b>BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON .....</b>	<b>200</b>	Exploded View .....	216
Description .....	200	Removal and Installation .....	216
Diagnosis Procedure .....	200	Replacement .....	216
<b>PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON .....</b>	<b>201</b>	<b>DRIVING LAMP .....</b>	<b>217</b>
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>201</b>	Exploded View .....	217
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description .....	201	Removal and Installation .....	217
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	201	Replacement .....	217
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>201</b>	<b>LIGHT &amp; RAIN SENSOR .....</b>	<b>219</b>
WITH DAYTIME RUNNING LIGHT SYSTEM : Description .....	201	Exploded View .....	219
WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	201	Removal and Installation .....	220
<b>BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON .....</b>	<b>203</b>	<b>LIGHTING &amp; TURN SIGNAL SWITCH .....</b>	<b>221</b>
Description .....	203	Exploded View .....	221
Diagnosis Procedure .....	203	Removal and Installation .....	221
<b>PRECAUTION .....</b>	<b>204</b>	<b>SIDE TURN SIGNAL LAMP .....</b>	<b>222</b>
		Exploded View .....	222
		Removal and Installation .....	222
		Replacement .....	222
		<b>HAZARD SWITCH .....</b>	<b>223</b>
		Exploded View .....	223
		Removal and Installation .....	223
		<b>DRIVING LAMP SWITCH .....</b>	<b>224</b>
		Exploded View .....	224
		Removal and Installation .....	224
		<b>AUTO LEVELIZER CONTROL UNIT .....</b>	<b>225</b>
		Exploded View .....	225

Removal and Installation .....	225	Component Parts Location .....	246	
<b>REAR COMBINATION LAMP .....</b>	<b>226</b>	Component Description .....	246	A
Exploded View .....	226	<b>TURN SIGNAL AND HAZARD WARNING</b>		
Removal and Installation .....	226	<b>LAMP SYSTEM .....</b>	<b>247</b>	B
Replacement .....	227	System Diagram .....	247	
<b>HIGH-MOUNTED STOP LAMP .....</b>	<b>228</b>	System Description .....	247	
Exploded View .....	228	Component Parts Location .....	248	C
Removal and Installation .....	228	Component Description .....	248	
<b>BACK-UP LAMP .....</b>	<b>229</b>	<b>PARKING, LICENSE PLATE AND TAIL</b>		
Exploded View .....	229	<b>LAMPS SYSTEM .....</b>	<b>249</b>	D
Removal and Installation .....	229	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ..</b>	<b>249</b>	
Replacement .....	229	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b>		
<b>LICENSE PLATE LAMP .....</b>	<b>231</b>	: System Diagram .....	249	E
Exploded View .....	231	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b>		
Removal and Installation .....	231	: System Description .....	249	
Replacement .....	231	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b>		F
<b>REAR FOG LAMP .....</b>	<b>232</b>	: Component Parts Location .....	250	
Exploded View .....	232	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b>		G
Removal and Installation .....	232	: Component Description .....	250	
Replacement .....	232	<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>250</b>	
<b>SERVICE DATA AND SPECIFICATIONS</b>		<b>WITH DAYTIME RUNNING LIGHT SYSTEM :</b>		
<b>(SDS) .....</b>	<b>234</b>	System Diagram .....	251	H
<b>SERVICE DATA AND SPECIFICATIONS</b>		<b>WITH DAYTIME RUNNING LIGHT SYSTEM :</b>		
<b>(SDS) .....</b>	<b>234</b>	System Description .....	251	I
Bulb Specifications .....	234	<b>WITH DAYTIME RUNNING LIGHT SYSTEM :</b>		
<b>HALOGEN TYPE</b>		Component Parts Location .....	252	J
<b>BASIC INSPECTION .....</b>	<b>235</b>	Component Description .....	252	
<b>DIAGNOSIS AND REPAIR WORKFLOW .....</b>	<b>235</b>	<b>REAR FOG LAMP SYSTEM .....</b>	<b>253</b>	
Work Flow .....	235	System Diagram .....	253	K
<b>FUNCTION DIAGNOSIS .....</b>	<b>237</b>	System Description .....	253	
<b>HEADLAMP SYSTEM .....</b>	<b>237</b>	Component Parts Location .....	254	
System Diagram .....	237	Component Description .....	254	
System Description .....	237	<b>DIAGNOSIS SYSTEM (BCM) .....</b>	<b>255</b>	<b>EXL</b>
Component Parts Location .....	238	<b>COMMON ITEM .....</b>	<b>255</b>	
Component Description .....	238	<b>COMMON ITEM : CONSULT-III Function (BCM -</b>		
<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>239</b>	<b>COMMON ITEM) .....</b>	<b>255</b>	M
System Diagram .....	239	<b>HEADLAMP .....</b>	<b>255</b>	
System Description .....	239	<b>HEADLAMP : CONSULT-III Function (BCM -</b>		
Component Parts Location .....	240	<b>HEAD LAMP) .....</b>	<b>255</b>	N
Component Description .....	240	<b>FLASHER .....</b>	<b>257</b>	
<b>AUTO LIGHT SYSTEM .....</b>	<b>242</b>	<b>FLASHER : CONSULT-III Function (BCM -</b>		
System Diagram .....	242	<b>FLASHER) .....</b>	<b>257</b>	O
System Description .....	242	<b>DIAGNOSIS SYSTEM (IPDM E/R) .....</b>	<b>258</b>	
Component Parts Location .....	243	Diagnosis Description .....	258	P
Component Description .....	244	CONSULT-III Function (IPDM E/R) .....	260	
<b>FRONT FOG LAMP SYSTEM .....</b>	<b>245</b>	<b>COMPONENT DIAGNOSIS .....</b>	<b>263</b>	
System Diagram .....	245	<b>POWER SUPPLY AND GROUND CIRCUIT ..</b>	<b>263</b>	
System Description .....	245	<b>BCM (BODY CONTROL MODULE) .....</b>	<b>263</b>	

BCM (BODY CONTROL MODULE) : Diagnosis Procedure .....	263	<b>LIGHT &amp; RAIN SENSOR .....</b>	<b>283</b>
<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) .....</b>	<b>263</b>	Description .....	283
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) : Diagnosis Procedure .....	263	Component Function Check .....	283
<b>EXTERIOR LAMP FUSE .....</b>	<b>265</b>	Diagnosis Procedure .....	283
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ..</b>	<b>265</b>	<b>HAZARD SWITCH .....</b>	<b>286</b>
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description .....	265	Component Function Check .....	286
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	265	Diagnosis Procedure .....	286
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>265</b>	<b>TAIL LAMP CIRCUIT .....</b>	<b>288</b>
WITH DAYTIME RUNNING LIGHT SYSTEM : Description .....	265	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM .</b>	<b>288</b>
WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	266	WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	288
<b>HEADLAMP (HI) CIRCUIT .....</b>	<b>267</b>	WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	288
Component Function Check .....	267	<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>289</b>
Diagnosis Procedure .....	267	WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	289
<b>HEADLAMP (LO) CIRCUIT .....</b>	<b>269</b>	WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	289
Component Function Check .....	269	<b>LICENSE PLATE LAMP CIRCUIT .....</b>	<b>291</b>
Diagnosis Procedure .....	269	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM .</b>	<b>291</b>
<b>HEADLAMP GROUND CIRCUIT .....</b>	<b>271</b>	WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	291
Diagnosis Procedure .....	271	WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	291
<b>FRONT FOG LAMP CIRCUIT .....</b>	<b>272</b>	<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>292</b>
Component Function Check .....	272	WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	292
Diagnosis Procedure .....	272	WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	292
<b>DAYTIME RUNNING LIGHT RELAY CIRCUIT ..</b>	<b>274</b>	<b>REAR FOG LAMP CIRCUIT .....</b>	<b>294</b>
Component Function Check .....	274	Component Function Check .....	294
Diagnosis Procedure .....	274	Diagnosis Procedure .....	294
Component Inspection .....	275	<b>HEADLAMP SYSTEM .....</b>	<b>296</b>
<b>PARKING LAMP CIRCUIT .....</b>	<b>277</b>	Wiring Diagram - HEADLAMP - .....	296
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM ..</b>	<b>277</b>	<b>HEADLAMP AIMING CONTROL SYSTEM (MANUAL) .....</b>	<b>299</b>
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	277	Description .....	299
WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	277	Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (MANUAL) - .....	299
<b>WITH DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>278</b>	Component Inspection .....	300
WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check .....	278	<b>AUTO LIGHT SYSTEM .....</b>	<b>302</b>
WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	279	<b>LHD .....</b>	<b>302</b>
<b>TURN SIGNAL LAMP CIRCUIT .....</b>	<b>280</b>	LHD : Wiring Diagram - AUTO LIGHT SYSTEM - .	302
Description .....	280	<b>RHD .....</b>	<b>307</b>
Component Function Check .....	280	RHD : Wiring Diagram - AUTO LIGHT SYSTEM - .	308
Diagnosis Procedure .....	280	<b>DAYTIME RUNNING LIGHT SYSTEM .....</b>	<b>314</b>
		Wiring Diagram - DAYTIME RUNNING LIGHT SYSTEM - .....	314

<b>FRONT FOG LAMP SYSTEM</b> .....	<b>322</b>	Description .....	395	
Wiring Diagram - FRONT FOG LAMP - .....	322	Diagnosis Procedure .....	395	A
<b>TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM</b> .....	<b>325</b>	<b>BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON</b> .....	<b>396</b>	B
Wiring Diagram - TURN AND HAZARD WARNING LAMPS - .....	325	Description .....	396	
		Diagnosis Procedure .....	396	
<b>PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM</b> .....	<b>329</b>	<b>PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON</b> .....	<b>397</b>	C
Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS - .....	329	<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b> .....	<b>397</b>	D
		WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
<b>DRIVING LAMP</b> .....	<b>336</b>	: Description .....	397	
Description .....	336	WITHOUT DAYTIME RUNNING LIGHT SYSTEM		
Wiring Diagram - DRIVING LAMP - .....	337	: Diagnosis Procedure .....	397	E
Component Inspection (Driving Lamp Switch) .....	341	<b>WITH DAYTIME RUNNING LIGHT SYSTEM</b> .....	<b>397</b>	F
Component Inspection (Driving Lamp Relay-1) .....	342	WITH DAYTIME RUNNING LIGHT SYSTEM : Description .....	397	
Component Inspection (Driving Lamp Relay-2) .....	342	WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure .....	397	
<b>STOP LAMP</b> .....	<b>343</b>	<b>BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON</b> .....	<b>399</b>	G
Wiring Diagram - STOP LAMP - .....	343	Description .....	399	
		Diagnosis Procedure .....	399	H
<b>BACK-UP LAMP</b> .....	<b>346</b>	<b>PRECAUTION</b> .....	<b>400</b>	I
Wiring Diagram - BACK-UP LAMP - .....	346	<b>PRECAUTIONS</b> .....	<b>400</b>	J
		Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	400	
<b>REAR FOG LAMP SYSTEM</b> .....	<b>349</b>	<b>ON-VEHICLE MAINTENANCE</b> .....	<b>401</b>	K
Wiring Diagram - REAR FOG LAMP - .....	349	<b>HEADLAMP AIMING ADJUSTMENT</b> .....	<b>401</b>	
		Description .....	401	
<b>ECU DIAGNOSIS</b> .....	<b>352</b>	<b>LHD</b> .....	<b>402</b>	EXL
		LHD : Aiming Adjustment Procedure .....	402	
<b>BCM (BODY CONTROL MODULE)</b> .....	<b>352</b>	<b>RHD</b> .....	<b>403</b>	M
Reference Value .....	352	RHD : Aiming Adjustment Procedure .....	403	
Wiring Diagram - BCM - .....	369	<b>FRONT FOG LAMP AIMING ADJUSTMENT</b> .....	<b>405</b>	N
Fail Safe .....	375	Description .....	405	
DTC Inspection Priority Chart .....	376	Aiming Adjustment Procedure .....	405	
DTC Index .....	377	<b>DRIVING LAMP AIMING ADJUSTMENT</b> .....	<b>407</b>	O
<b>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</b> .....	<b>378</b>	Description .....	407	
Reference Value .....	378	Aiming Adjustment Procedure .....	407	
Wiring Diagram - IPDM E/R - .....	383	<b>ON-VEHICLE REPAIR</b> .....	<b>409</b>	P
Fail Safe .....	386	<b>FRONT COMBINATION LAMP</b> .....	<b>409</b>	
DTC Index .....	388	Exploded View .....	409	
<b>SYMPTOM DIAGNOSIS</b> .....	<b>389</b>	Removal and Installation .....	409	
<b>EXTERIOR LIGHTING SYSTEM SYMPTOMS.</b>	<b>389</b>	Replacement .....	410	
<b>WITHOUT DAYTIME RUNNING LIGHT SYSTEM</b> .....	<b>389</b>	Disassembly and Assembly .....	410	
WITHOUT DAYTIME RUNNING LIGHT SYSTEM		<b>FRONT FOG LAMP</b> .....	<b>411</b>	
: Symptom Table .....	389			
<b>WITH DAYTIME RUNNING LIGHT SYSTEM</b> .....	<b>391</b>			
WITH DAYTIME RUNNING LIGHT SYSTEM :				
Symptom Table .....	391			
<b>NORMAL OPERATING CONDITION</b> .....	<b>394</b>			
Description .....	394			
<b>BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON</b> .....	<b>395</b>			

Exploded View .....	411	<b>REAR COMBINATION LAMP .....</b>	<b>421</b>
Removal and Installation .....	411	Exploded View .....	421
Replacement .....	411	Removal and Installation .....	421
<b>DRIVING LAMP .....</b>	<b>412</b>	Replacement .....	422
Exploded View .....	412	<b>HIGH-MOUNTED STOP LAMP .....</b>	<b>423</b>
Removal and Installation .....	412	Exploded View .....	423
Replacement .....	412	Removal and Installation .....	423
<b>LIGHT &amp; RAIN SENSOR .....</b>	<b>414</b>	<b>BACK-UP LAMP .....</b>	<b>424</b>
Exploded View .....	414	Exploded View .....	424
Removal and Installation .....	415	Removal and Installation .....	424
<b>LIGHTING &amp; TURN SIGNAL SWITCH .....</b>	<b>416</b>	Replacement .....	424
Exploded View .....	416	<b>LICENSE PLATE LAMP .....</b>	<b>426</b>
Removal and Installation .....	416	Exploded View .....	426
<b>SIDE TURN SIGNAL LAMP .....</b>	<b>417</b>	Removal and Installation .....	426
Exploded View .....	417	Replacement .....	426
Removal and Installation .....	417	<b>REAR FOG LAMP .....</b>	<b>427</b>
Replacement .....	417	Exploded View .....	427
<b>HAZARD SWITCH .....</b>	<b>418</b>	Removal and Installation .....	427
Exploded View .....	418	Replacement .....	427
Removal and Installation .....	418	<b>SERVICE DATA AND SPECIFICATIONS</b>	
<b>DRIVING LAMP SWITCH .....</b>	<b>419</b>	<b>(SDS) .....</b>	<b>429</b>
Exploded View .....	419	<b>SERVICE DATA AND SPECIFICATIONS</b>	
Removal and Installation .....	419	<b>(SDS) .....</b>	<b>429</b>
<b>HEADLAMP AIMING SWITCH .....</b>	<b>420</b>	Bulb Specifications .....	429
Exploded View .....	420		
Removal and Installation .....	420		



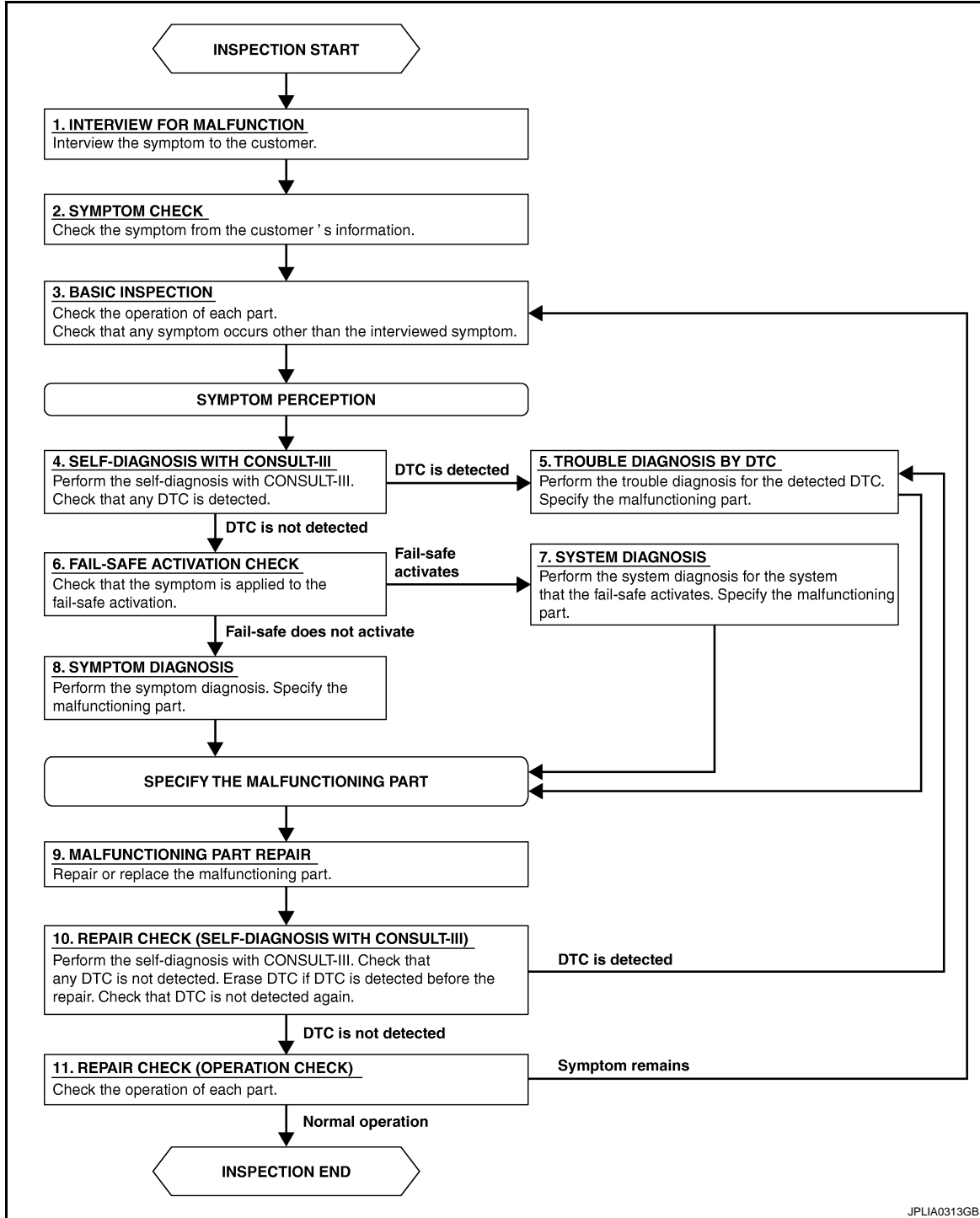
**BASIC INSPECTION**

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001208221

OVERALL SEQUENCE



DETAILED FLOW

**1. INTERVIEW FOR MALFUNCTION**

Interview the symptom to the customer.

# DIAGNOSIS AND REPAIR WORKFLOW

[XENON TYPE]

< BASIC INSPECTION >

---

>> GO TO 2.

## 2. SYMPTOM CHECK

---

Check the symptom from the customer's information.

>> GO TO 3.

## 3. BASIC INSPECTION

---

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

>> GO TO 4.

## 4. SELF-DIAGNOSIS WITH CONSULT-III

---

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

## 5. TROUBLE DIAGNOSIS BY DTC

---

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

>> GO TO 9.

## 6. FAIL-SAFE ACTIVATION CHECK

---

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

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

## 7. SYSTEM DIAGNOSIS

---

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

>> GO TO 9.

## 8. SYMPTOM DIAGNOSIS

---

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

## 9. MALFUNCTION PART REPAIR

---

Repair or replace the malfunctioning part.

>> GO TO 10.

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

---

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 11.

## 11. REPAIR CHECK (OPERATION CHECK)

---

Check the operation of each part.

Does it operate normally?

YES >> INSPECTION END

NO >> GO TO 3.

# INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[XENON TYPE]

## INSPECTION AND ADJUSTMENT

### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000001450510

#### **CAUTION:**

- When replacing the auto levelizer control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.
- Complete the procedure of “WRITE CONFIGURATION” in order.
- When replacing the auto levelizer control unit, perform “SENSOR INITIALIZE” with CONSULT-III.

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000001450511

### 1. WRITING VEHICLE SPECIFICATION

#### CONSULT-III Configuration

Perform “WRITE CONFIGURATION” to write vehicle specification. Refer to [EXL-11, "CONFIGURATION \(HEADLAMP LEVELIZER\) : Special Repair Requirement"](#).

>> GO TO 2.

### 2. SENSOR INITIALIZE

#### CONSULT-III WORK SUPPORT

Perform “SENSOR INITIALIZE”. Refer to [EXL-12, "SENSOR INITIALIZE : Special Repair Requirement"](#).

>> WORK END

## CONFIGURATION (HEADLAMP LEVELIZER)

### CONFIGURATION (HEADLAMP LEVELIZER) : Description

INFOID:000000001450512

Vehicle specification needs to be written with CONSULT-III because it is not written after replacing the auto levelizer control unit.

Function	Description
WRITE CONFIGURATION	Writes the vehicle configuration automatically.

#### **CAUTION:**

- When replacing the auto levelizer control unit, you must perform “WRITE CONFIGURATION” with CONSULT-III.
- Complete the procedure of “WRITE CONFIGURATION” in order.

### CONFIGURATION (HEADLAMP LEVELIZER) : Special Repair Requirement

INFOID:000000001450513

### 1. WRITE CONFIGURATION

#### CONSULT-III Configuration

1. Select “WRITE CONFIGURATION”.
2. Select “Setting change”.
3. When “COMMAND FINISHED”, select “END”.

>> WORK END

## SENSOR INITIALIZE

### SENSOR INITIALIZE : Description

INFOID:000000001278618

## HEADLAMP AIMING CONTROL SYSTEM

# INSPECTION AND ADJUSTMENT

[XENON TYPE]

< BASIC INSPECTION >

Perform the sensor initialize when installing, removing and replacing the auto levelizer control unit and suspension components.

## SENSOR INITIALIZE : Special Repair Requirement

INFOID:000000001278619

### 1. VEHICLE CONDITION CHECK

---

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

>> GO TO 2.

### 2. SENSOR INITIALIZE

---

#### Ⓢ CONSULT-III WORK SUPPORT

1. Select "SENSOR INITIALIZE" of HEADLAMP LEVELIZER work support item.
2. Select "START".
3. When "INITIALIZE COMPLETE", select "END".

#### **CAUTION:**

If "INITIALIZE NOT DONE" is indicated, auto levelizer control unit detects that the sensor lever signal changes. The sensor initialize is cancelled. In this case, turn the ignition switch OFF to prevent the vehicle from the height change. Perform the sensor initialize again.

Is the sensor initialize completed?

- YES >> GO TO 3.  
NO >> Perform the sensor initialize again.

### 3. SELF-DIAGNOSIS RESULT CHECK

---

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

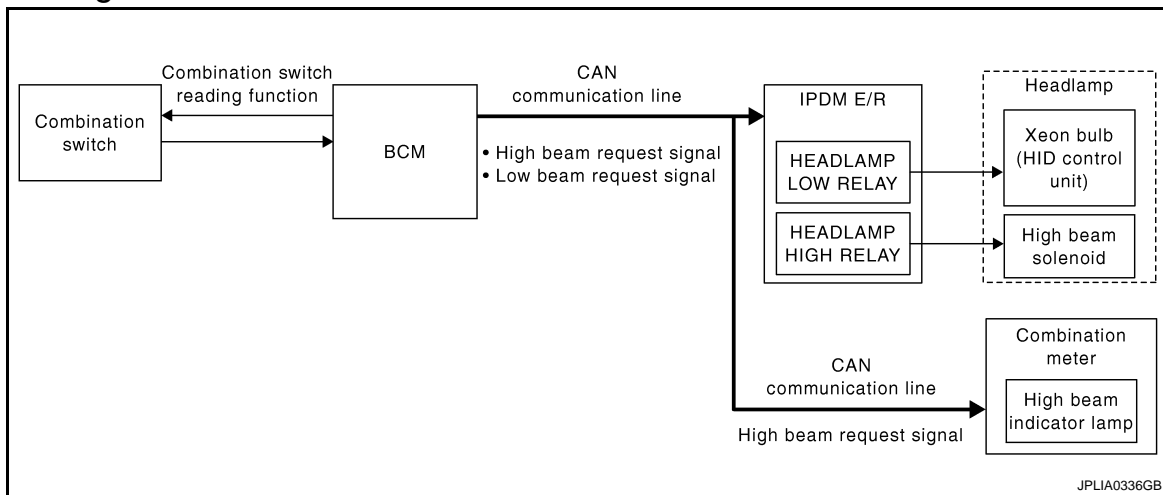
Is any DTC detected?

- YES >> GO TO 2.  
NO >> Sensor initialize completed.

## FUNCTION DIAGNOSIS

### HEADLAMP SYSTEM

#### System Diagram



#### System Description

INFOID:000000001208226

##### OUTLINE

- Mobile valve shade type is adopted. Xenon headlamp switches the high beam and the low beam with one xenon bulb each on right and left.
- Headlamp is controlled by combination switch reading function and headlamp control function of BCM, and relay control function of IPDM E/R.

##### HEADLAMP BASIC 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 ON condition.

##### Headlamp ON condition

- Lighting switch 2ND
- Lighting switch PASS
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- Daytime running light ON judgment (With daytime running light system)
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.

##### HEADLAMP HI/LO SWITCHING OPERATION

- BCM transmits the high beam request signal to IPDM E/R and the combination meter with CAN communication according to the high beam switching condition.

##### High beam switching condition

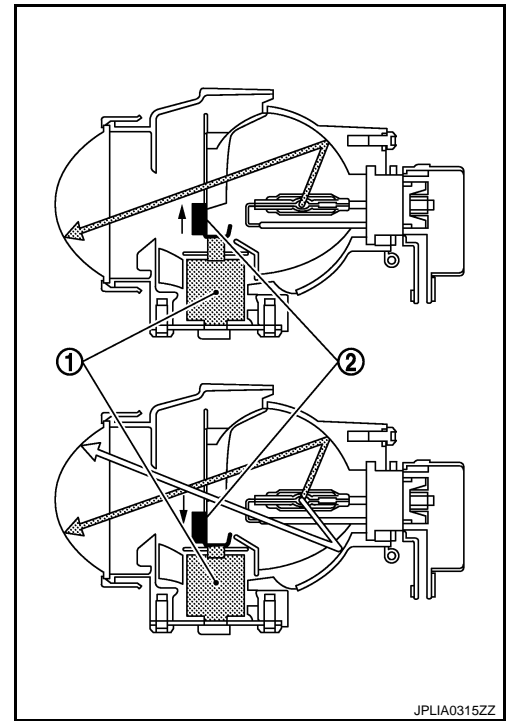
- Lighting switch HI with the lighting switch 2ND or AUTO (auto light function ON judgment)
- Lighting switch PASS
- Combination meter turns the high beam indicator lamp ON according to the high beam request signal.
- IPDM E/R turns the integrated headlamp high relay ON, and turns the headlamp ON according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

# HEADLAMP SYSTEM

[XENON TYPE]

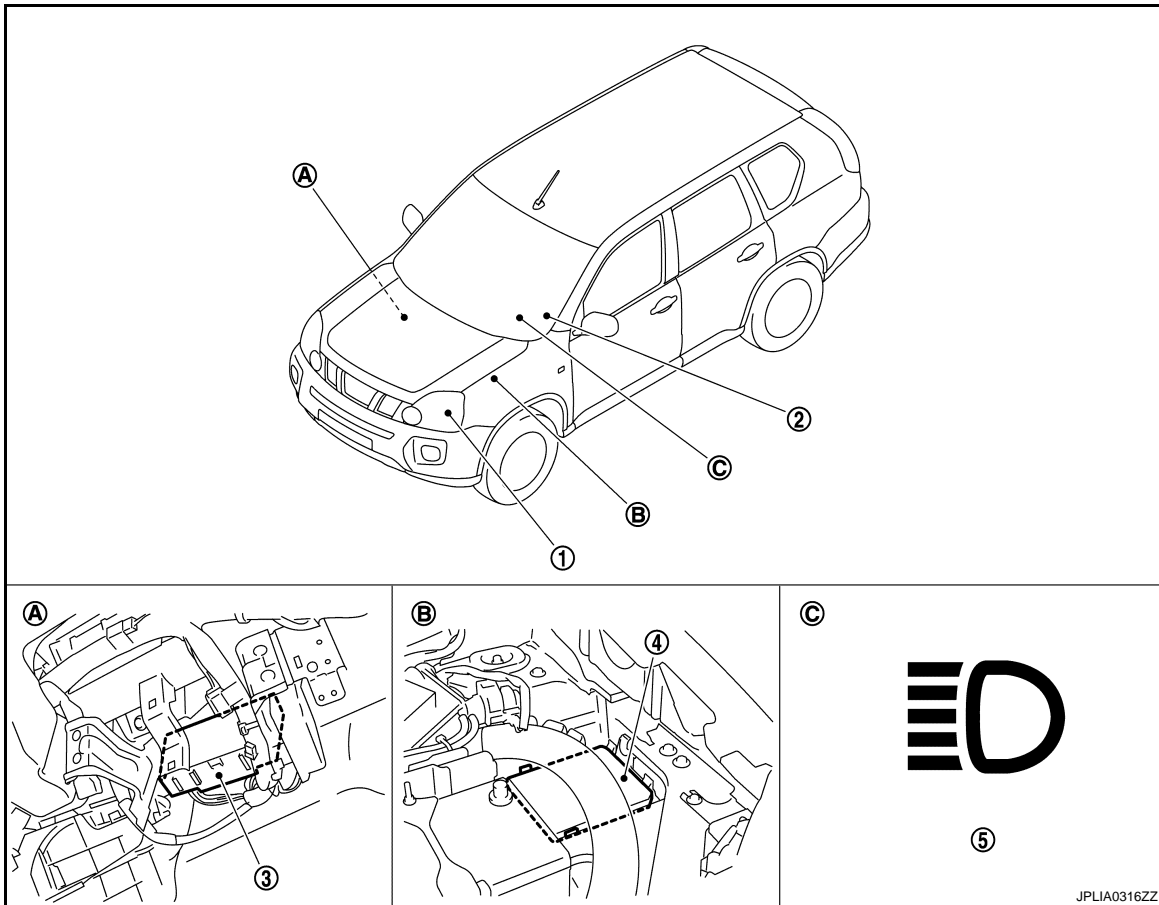
## < FUNCTION DIAGNOSIS >

- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (2) is switched to the high beam position.
- When the headlamp high relay is turned OFF, the current stops. The mobile valve shade returns to the low beam position automatically.



## Component Parts Location

INFOID:000000001160020



- |                       |                             |                             |
|-----------------------|-----------------------------|-----------------------------|
| 1. Headlamp           | 2. Combination switch       | 3. BCM                      |
| 4. IPDM E/R           | 5. High beam indicator lamp |                             |
| A. Over the glove box | B. Engine room (left side)  | C. On the combination meter |

# HEADLAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Description

INFOID:000000001160021

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-11, "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).	
Headlamp assembly	<ul style="list-style-type: none"> <li>• HID control unit</li> <li>• Xenon bulb</li> </ul>	Refer to <a href="#">EXL-64, "Description"</a> .
	High beam solenoid	Refer to <a href="#">EXL-61, "Description"</a> .

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

EXL

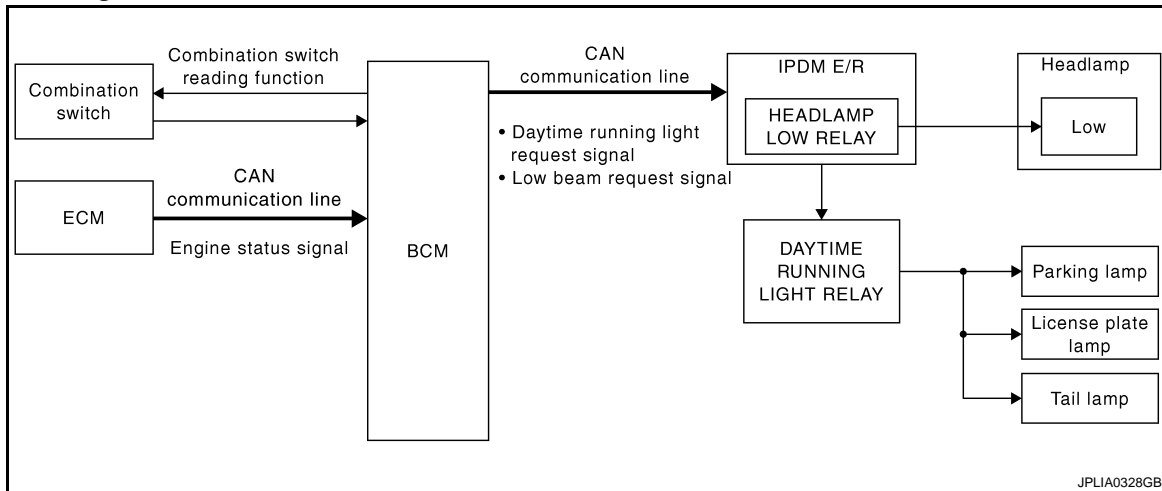
# DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000001160023

#### OUTLINE

- Turns the following exterior lamps ON as the daytime running light.
  - headlamp (LO)
  - Tail lamp, parking lamp and license plate lamp
- Daytime running light is controlled by daytime running light control function and combination switch reading function of BCM, and relay control function of IPDM E/R.

#### DAYTIME RUNNING LIGHT OPERATION

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

Daytime running light ON condition

- Engine running
- Lighting switch OFF or AUTO
- IPDM E/R turns the integrated headlamp low relay and daytime running light relay ON according to the daytime running light request signal and low beam request signal. And it turns each lamps ON.



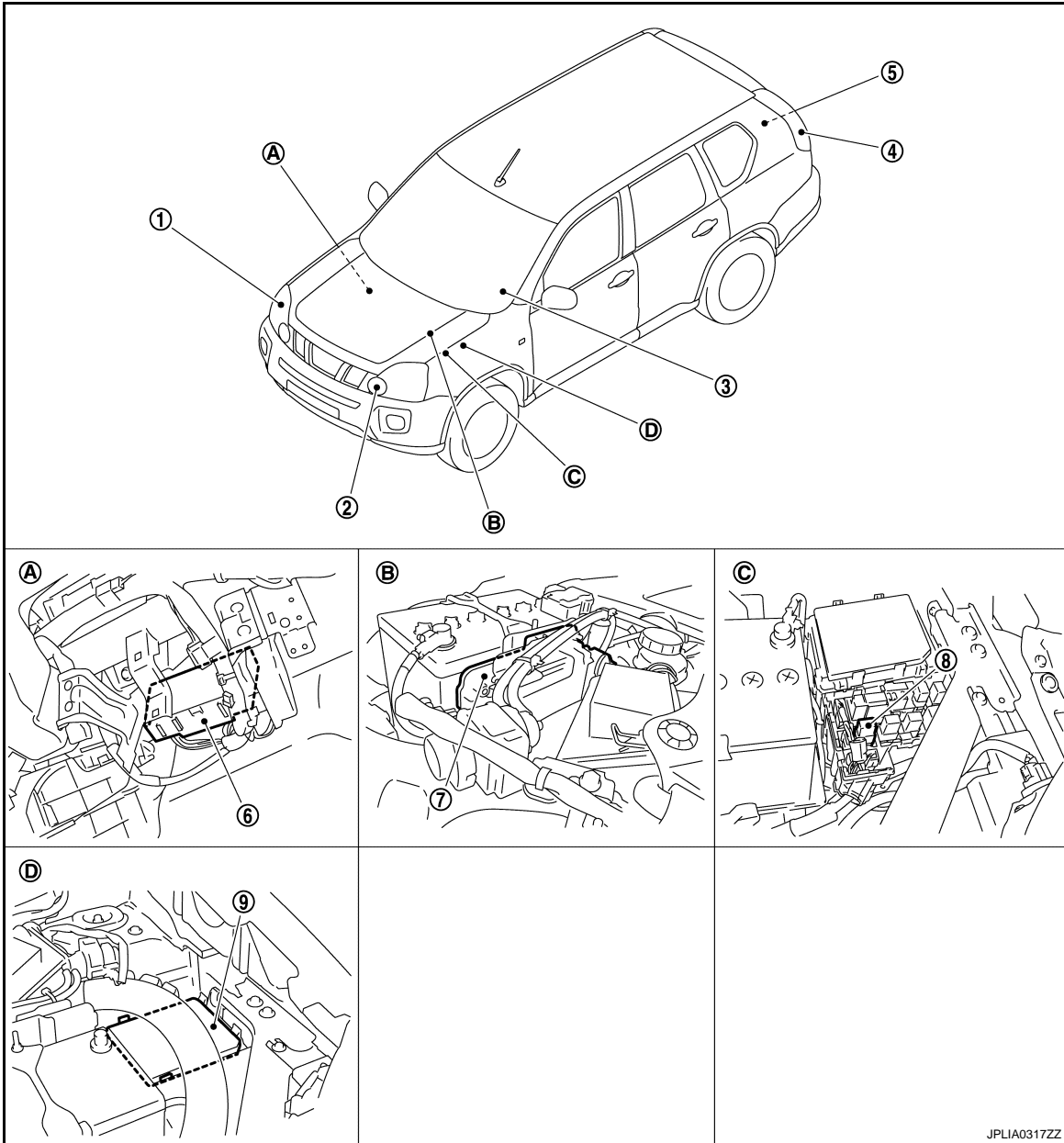
# DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001160024



- |                            |                                |                              |
|----------------------------|--------------------------------|------------------------------|
| 1. Headlamp (LO)           | 2. Parking lamp                | 3. Combination switch        |
| 4. Tail lamp               | 5. License plate lamp          | 6. BCM                       |
| 7. ECM                     | 8. Daytime running light relay | 9. IPDM E/R                  |
| A. Over the glove box      | B. Engine room (left side)     | C. Fuse and fusible link box |
| D. Engine room (left side) |                                |                              |

## Component Description

INFOID:000000001160025

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition with the combination switch reading function.</li> <li>• Judges each lamps ON/OFF condition according to the vehicle condition. Requests the each 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

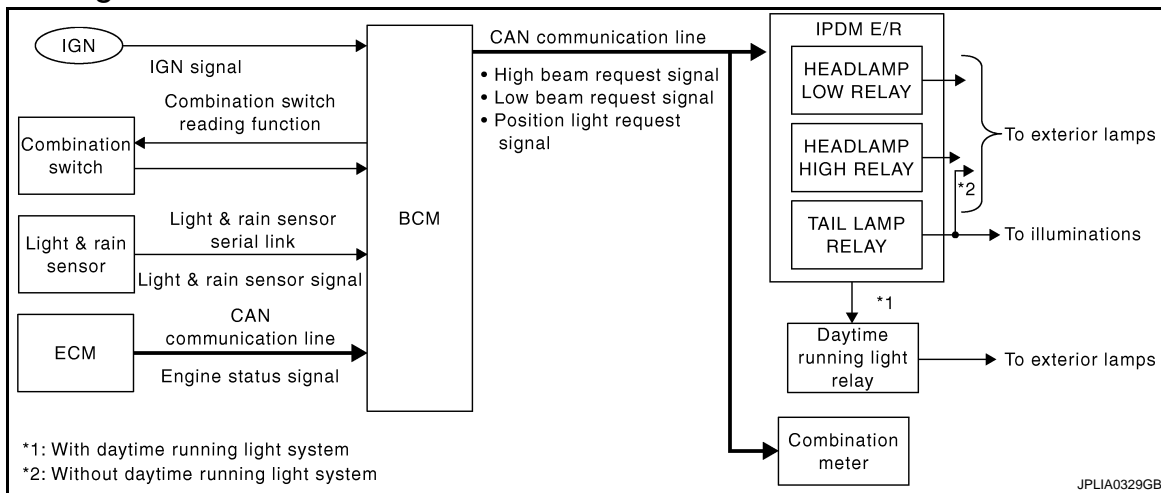
< FUNCTION DIAGNOSIS >

[XENON TYPE]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11</a> , " <a href="#">System Diagram</a> ".
ECM	Transmits the engine status signal to BCM with CAN communication.

## AUTO LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000001528639

#### 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

##### Control by IPDM E/R

- Relay control function
- Auto light function turns the exterior lamps\* ON/OFF automatically according to the outside brightness.  
\*: Headlamp (LO/HI), parking lamp, tail lamp (Headlamp HI depends on the combination switch condition.)

#### AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link.
- BCM judges the ON/OFF status of the exterior lamp according to ON/OFF requests from light & rain sensor and the vehicle condition.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

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

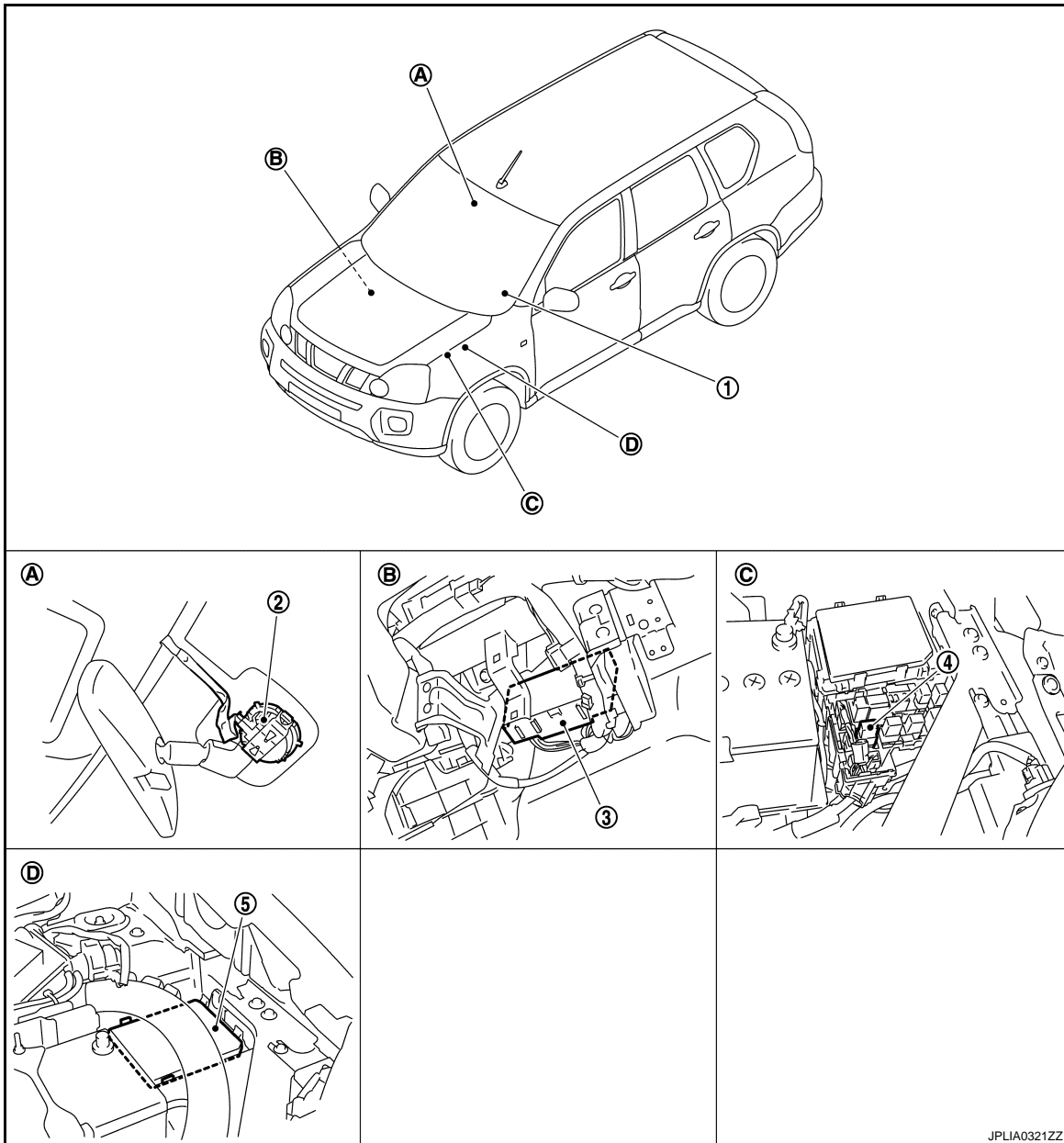
# AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001160028



- |   |                        |                              |
|---|------------------------|------------------------------|
| 1. Combination switch   | 2. Light & rain sensor | 3. BCM                       |
| 4. Daytime running light relay<br>(With daytime running light system) | 5. IPDM E/R            |                              |
| A. Windshield upper   | B. Over the glove box  | C. Fuse and fusible link box |
| D. Engine room (left side)  |                        |                              |

# AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Description

INFOID:000000001528636

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Receives exterior lamp ON/OFF requests from the light &amp; rain sensor by light &amp; rain sensor serial link.</li> <li>• Judges the ON/OFF status of the exterior lamp according to requests from light &amp; rain sensor and the vehicle condition.</li> <li>• Requests ON/OFF of each relay 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-11, "System Diagram"</a> .
Light & rain sensor	Refer to <a href="#">EXL-81, "Description"</a> .

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

EXL

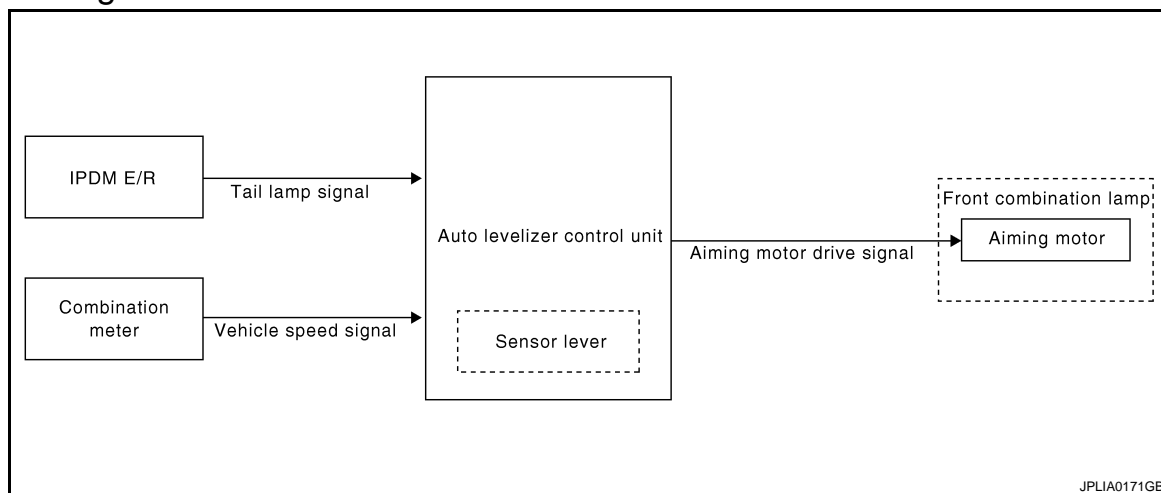
# HEADLAMP AIMING CONTROL SYSTEM (AUTO)

[XENON TYPE]

< FUNCTION DIAGNOSIS >

## HEADLAMP AIMING CONTROL SYSTEM (AUTO)

### System Diagram



### System Description

INFOID:000000001278621

#### OUTLINE

- Headlamp aiming control system is controlled by auto levelizer control unit.
- Auto levelizer control unit controls the headlamp light axis height appropriately depending on the vehicle rear height.
- Auto levelizer control unit detects the vehicle condition necessary for the aiming motor control with the following signals.
  - Sensor lever signal (detected by the sensor lever)
  - Tail lamp signal (inputted from IPDM E/R)
  - Vehicle speed signal (8-pulse) (inputted from combination meter)

#### HEADLAMP AUTO AIMING OPERATION

- Auto levelizer control unit calculates vehicle pitch angle from sensor lever signal and determines the necessary correction to compensate the deviation from standard light axis position.
- Auto levelizer control unit outputs aiming motor drive signal when operating conditions are satisfied.

#### Operating condition

- Ignition switch ON
- Tail lamp ON
- Auto levelizer control unit changes the aiming motor drive signal when any of the correcting condition is detected. Output is maintained if other condition is detected.

#### Correcting condition

- Tail lamp is turned ON.
- Vehicle posture becomes stable after the vehicle posture change is detected with the tail lamp ON and the vehicle stopped.
- Vehicle speed is maintained with the tail lamp ON and the vehicle driven.

#### **CAUTION:**

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

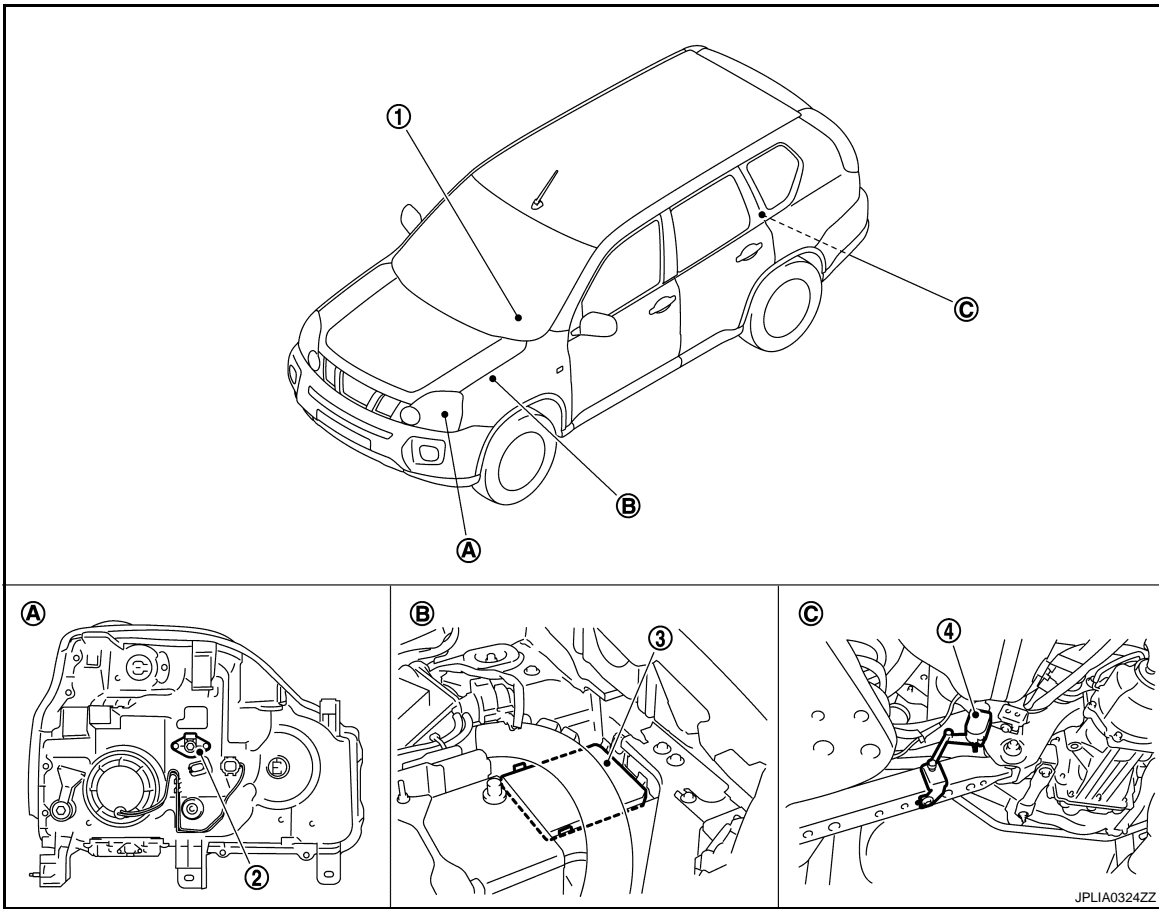
# HEADLAMP AIMING CONTROL SYSTEM (AUTO)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001278622



- |                                  |                            |                                 |
|----------------------------------|----------------------------|---------------------------------|
| 1. Combination meter             | 2. Aiming motor            | 3. IPDM E/R                     |
| 4. Auto levelizer control unit   |                            |                                 |
| A. Front combination lamp (back) | B. Engine room (left side) | C. Right rear suspension member |

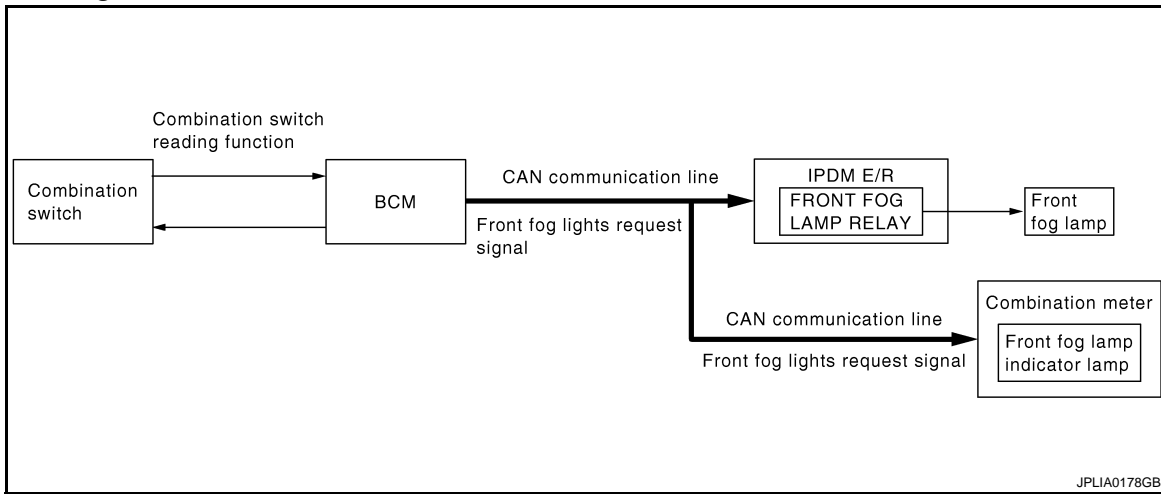
## Component Description

INFOID:000000001278623

Part	Description
Auto levelizer control unit	Refer to <a href="#">EXL-43, "Description"</a> .
Headlamp aiming motor	Refer to <a href="#">EXL-68, "Description"</a> .
IPDM E/R	Outputs the tail lamp signal to auto levelizer control unit.
Combination meter	Outputs the vehicle speed signal (8-pulse) to auto levelizer control unit.

## FRONT FOG LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001160031

#### OUTLINE

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

#### FRONT FOG LAMP OPERATION

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

#### Front fog lamp ON condition

- Front fog lamp switch ON
- Lighting switch 1ST, 2ND, or AUTO (ignition switch ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog lights request signal.
- Combination meter turns the front fog lamp indicator lamp ON according to the front fog lights request signal.



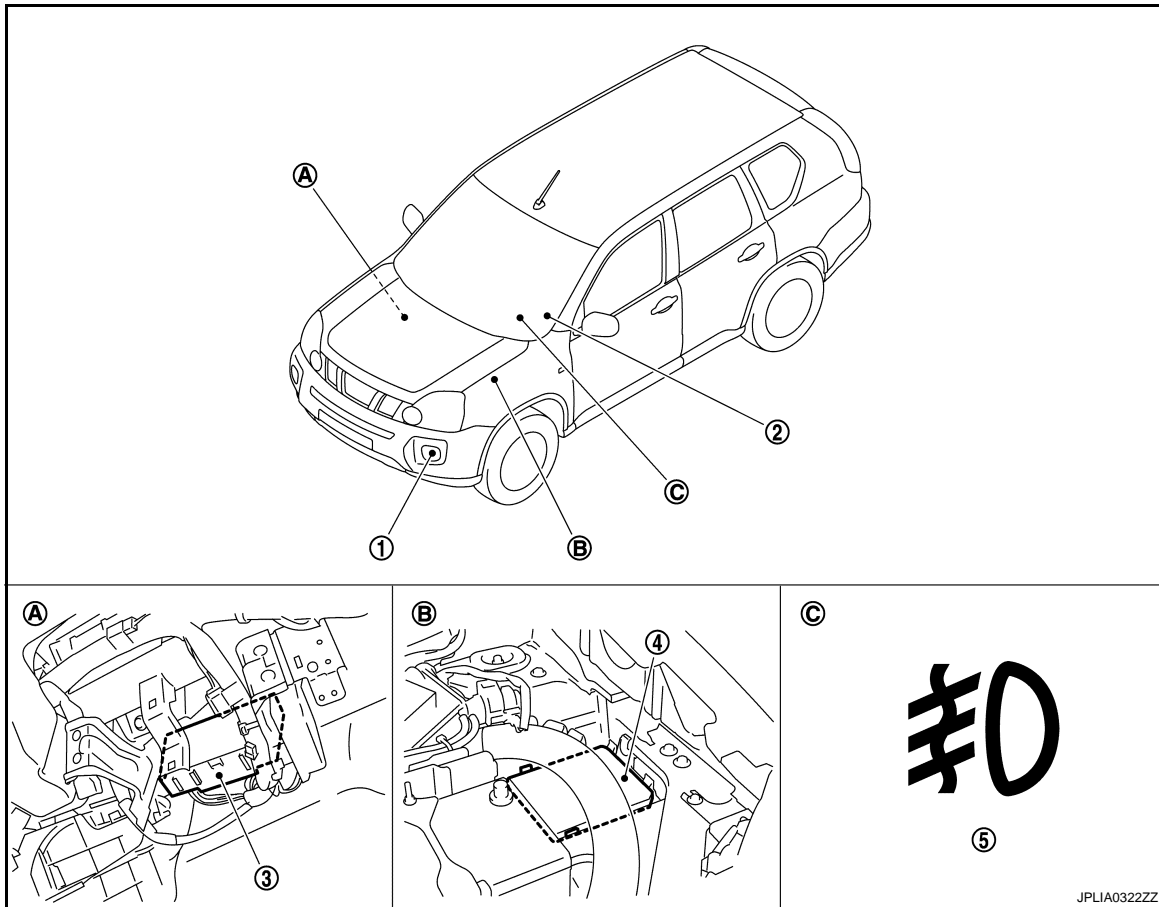
# FRONT FOG LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001160032



- |                       |                                  |                             |
|-----------------------|----------------------------------|-----------------------------|
| 1. Front fog lamp     | 2. Combination switch            | 3. BCM                      |
| 4. IPDM E/R           | 5. Front fog lamp indicator lamp |                             |
| A. Over the glove box | B. Engine room (left side)       | C. On the combination meter |

## Component Description

INFOID:000000001160033

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

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects 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> <li>- Requests the front fog lamp 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-11, "System Diagram"</a> .
Combination meter (Front fog lamp indicator lamp)	Turns the front fog lamp indicator lamp ON according to the request from BCM.

EXL

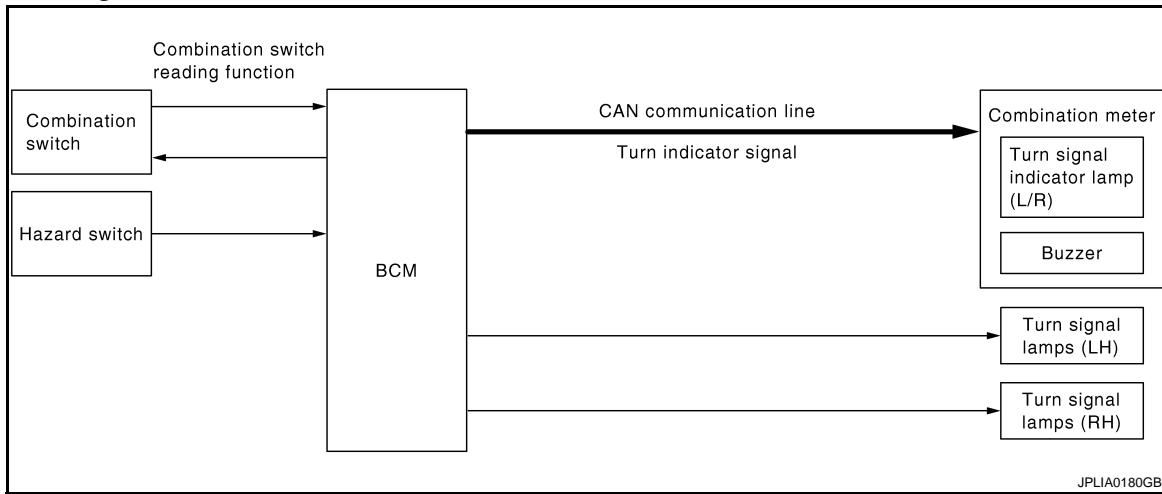
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001160039

#### OUTLINE

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

#### TURN SIGNAL LAMP OPERATION

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

#### HAZARD WARNING LAMP OPERATION

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

#### TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

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

#### 3-TIME FLASHER FUNCTION

By a short touch of the turn signal lever, BCM flashes 3 times the turn signal lamps in the selected direction.

#### HIGH FLASHER OPERATION (FAIL-SAFE)

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

#### NOTE:

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

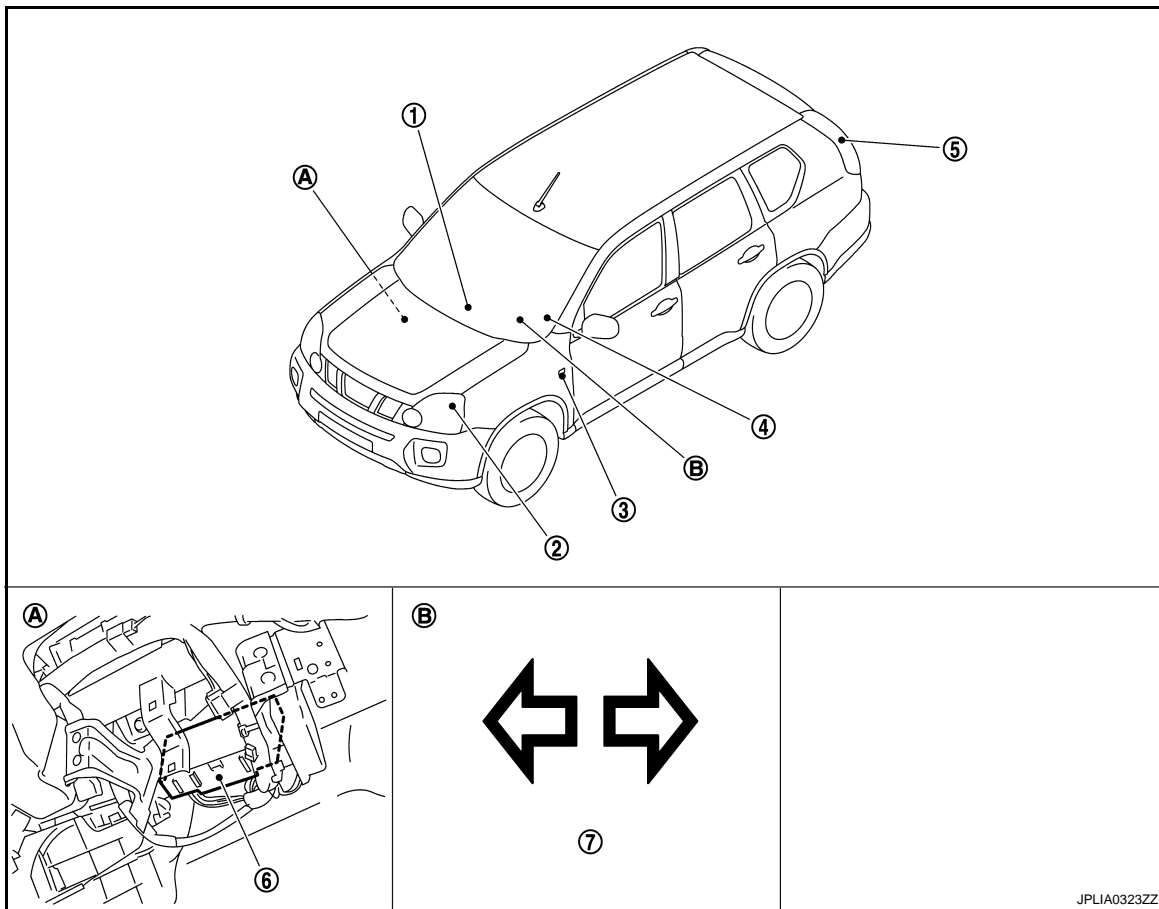
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001160040



- |                               |                             |                          |
|-------------------------------|-----------------------------|--------------------------|
| 1. Hazard switch              | 2. Front turn signal lamp   | 3. Side turn signal lamp |
| 4. Combination switch         | 5. Rear turn signal lamp    | 6. BCM                   |
| 7. Turn signal indicator lamp |                             |                          |
| A. Over the glove box         | B. On the combination meter |                          |

## Component Description

INFOID:000000001160041

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects 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> <li>• Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).</li> </ul>
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11, "System Diagram"</a> .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
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).

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

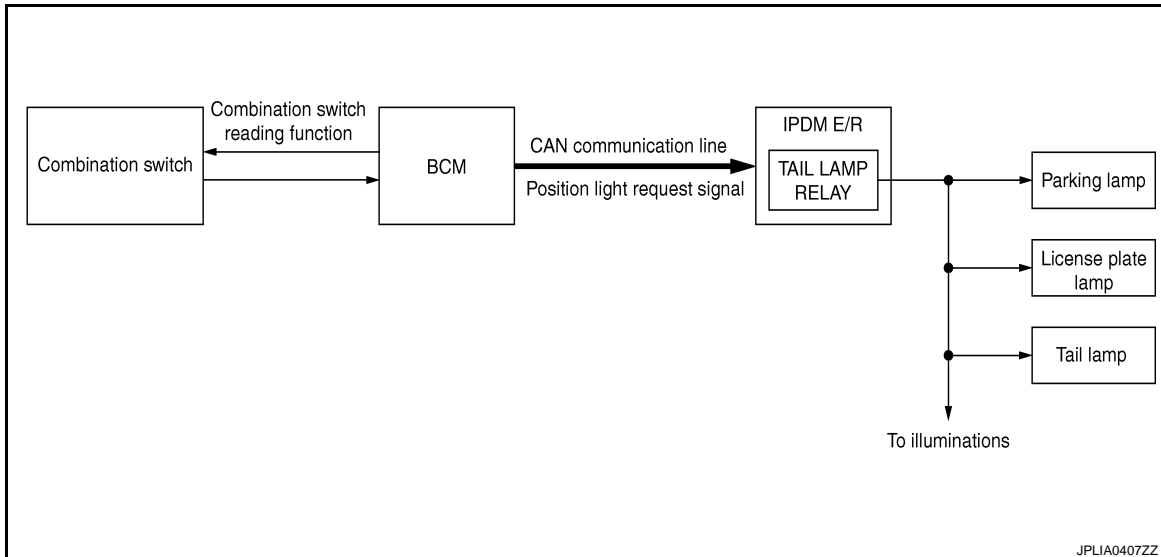
< FUNCTION DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Diagram

INFOID:000000001160042



### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:000000001160043

#### OUTLINE

Parking, license plate 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 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 and the combination meter with CAN communication according to the ON/OFF condition of the parking, license plate and tail lamps.

Parking, license plate 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)
- Lighting switch AUTO, with front fog lamp switch or rear fog lamp switch is turned ON
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate and tail lamps ON according to the position light request signal.

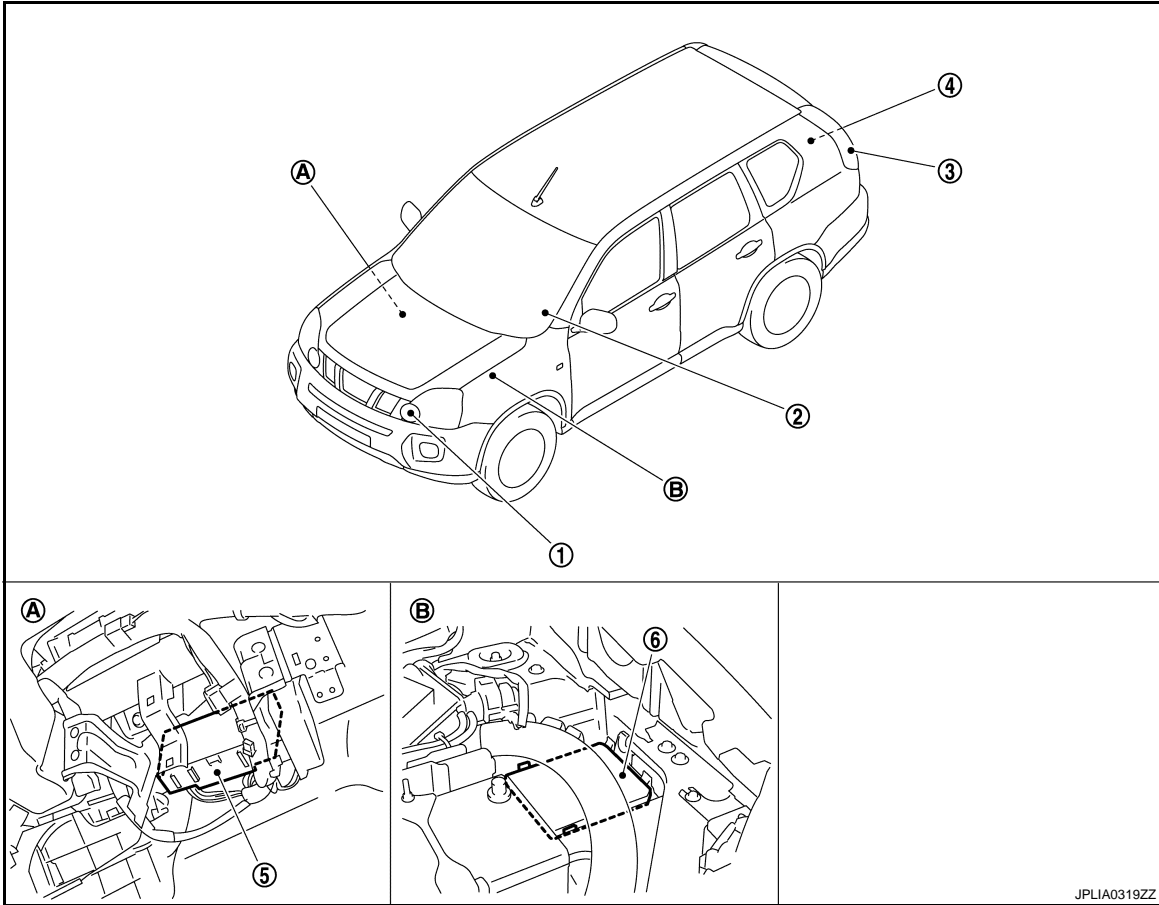
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Parts Location

INFOID:000000001160044



- |                       |                            |              |
|-----------------------|----------------------------|--------------|
| 1. Parking lamp       | 2. Combination switch      | 3. Tail lamp |
| 4. License plate lamp | 5. BCM                     | 6. IPDM E/R  |
| A. Over the glove box | B. Engine room (left side) |              |

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Description

INFOID:000000001160045

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition.</li> <li>- 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-11. "System Diagram"</a> .

## WITH DAYTIME RUNNING LIGHT SYSTEM

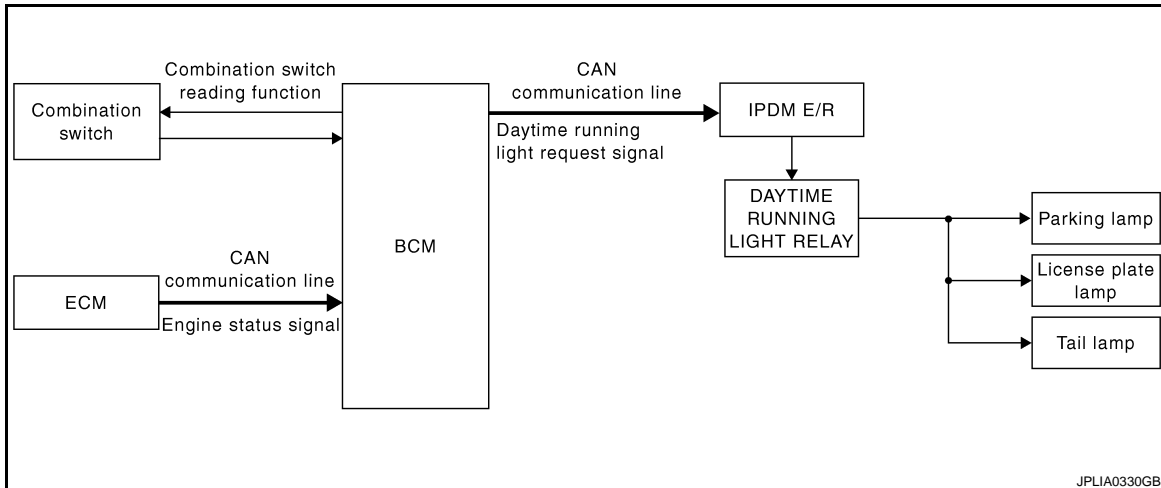
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## WITH DAYTIME RUNNING LIGHT SYSTEM : System Diagram

INFOID:000000001278659



## WITH DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:000000001278660

### OUTLINE

Parking, license plate 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 AND TAIL LAMPS OPERATION

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

Parking, license plate 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)
- Lighting switch AUTO, with front fog lamp switch or rear fog lamp switch is turned ON
- Daytime running light ON judgment
- IPDM E/R turns the daytime running light relay ON according to the daytime running light request signal. And turns the parking lamp, the license plate and tail lamps ON

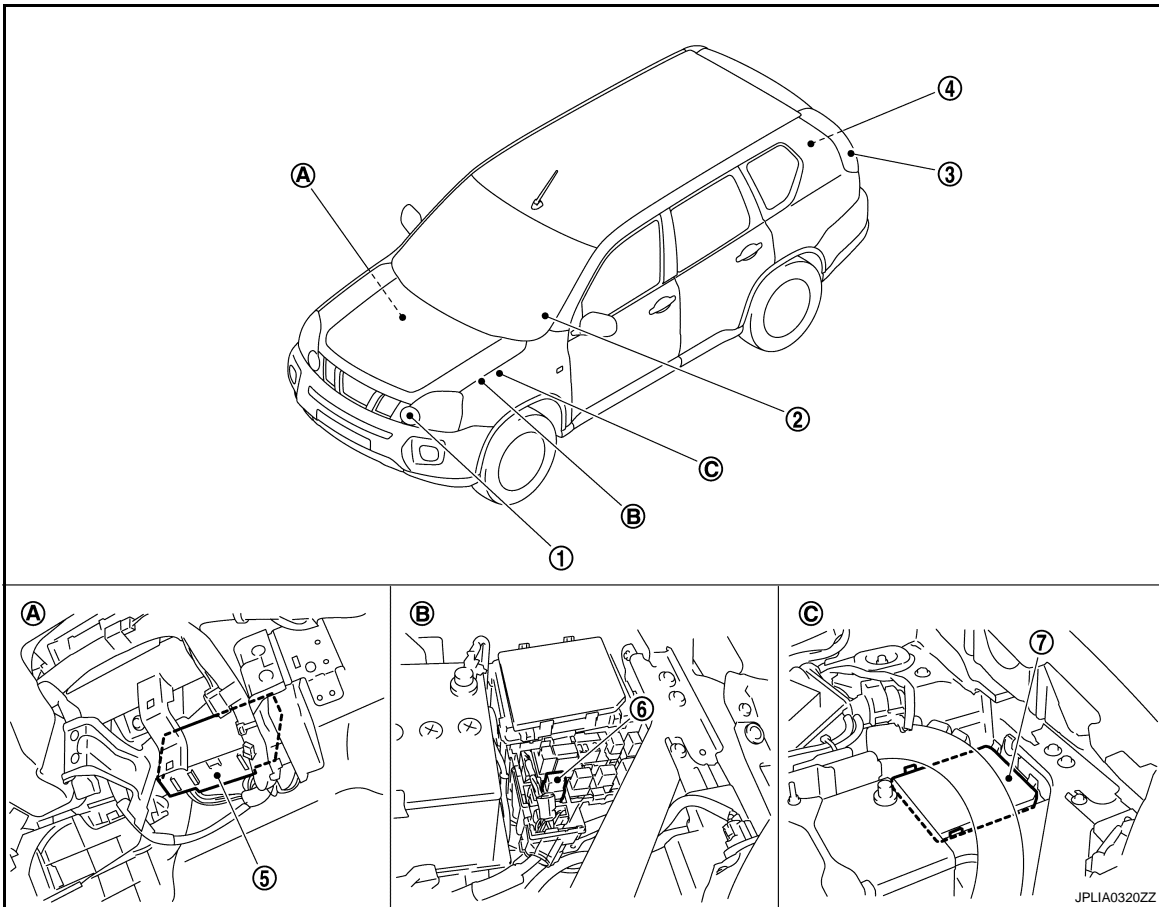
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Parts Location

INFOID:000000001278661



- |                       |                              |                                |
|-----------------------|------------------------------|--------------------------------|
| 1. Parking lamp       | 2. Combination switch        | 3. Tail lamp                   |
| 4. License plate lamp | 5. BCM                       | 6. Daytime running light relay |
| 7. IPDM E/R           |                              |                                |
| A. Over the glove box | B. Fuse and fusible link box | C. Engine room (left side)     |

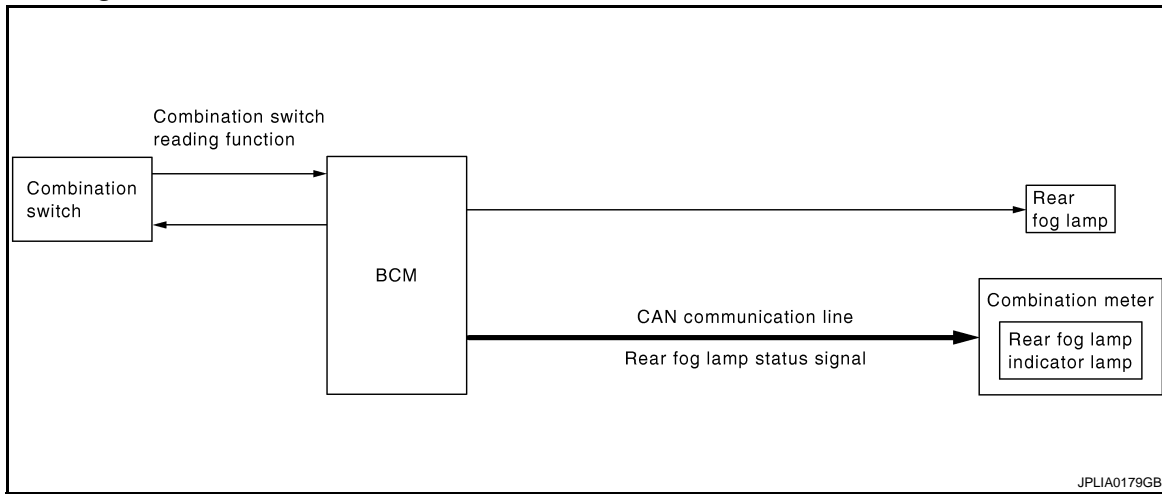
## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Description

INFOID:000000001278662

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition.</li> <li>- Requests the daytime running light relay ON to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the daytime running light 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-11, "System Diagram"</a> .

## REAR FOG LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001160047

#### OUTLINE

Rear fog lamp is controlled with the combination switch reading function and the rear fog lamp control function of BCM.

#### REAR FOG LAMP OPERATION

- BCM detects the condition of the combination switch by the combination switch reading function.
- BCM supplies voltage to rear fog lamp according to the rear fog lamp ON condition.

Rear fog lamp ON condition

- Rear fog lamp switch signal is input with front fog lamp ON and rear fog lamp OFF

Rear fog lamp switch ON with any of following condition.

- Lighting switch 2ND
- Lighting switch 1ST, and front fog lamp switch ON
- Lighting switch AUTO, and ignition switch ON
- BCM transmits the rear fog lamp status signal to the combination meter with CAN communication.
- Combination meter turns the rear fog lamp indicator lamp ON according to the rear fog lamp status signal.



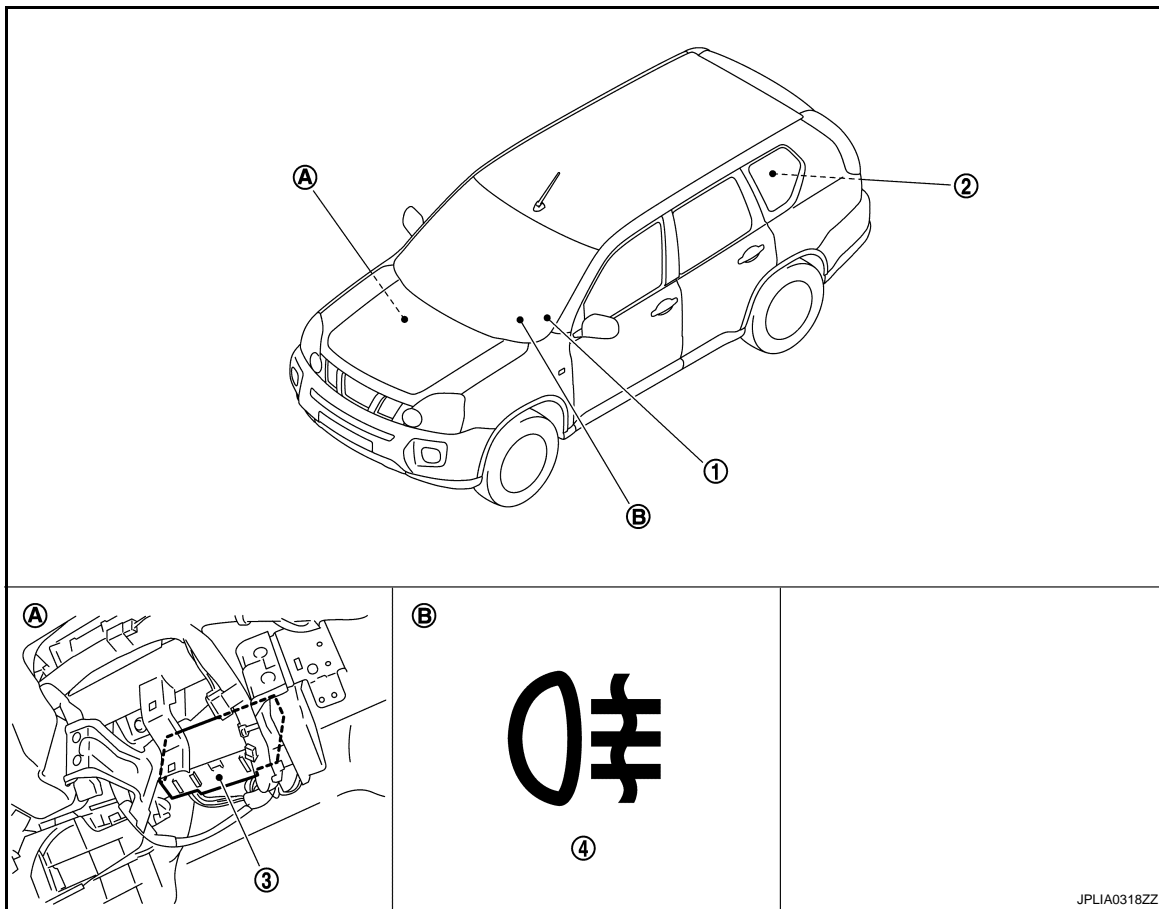
# REAR FOG LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## Component Parts Location

INFOID:000000001160048



- 1. Combination switch
- 2. Rear fog lamp
- 3. BCM
- 4. Rear fog lamp indicator lamp
- A. Over the glove box
- B. On the combination meter

## Component Description

INFOID:000000001160049

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 rear fog lamp is turned ON according to the vehicle status</li> <li>- Supplies voltage to the rear fog lamp</li> <li>- Requests the rear fog lamp indicator lamp ON to the combination meter (with CAN communication).</li> </ul>
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11, "System Diagram"</a> .
Combination meter (Rear fog lamp indicator lamp)	Turns the rear fog lamp indicator lamp ON according to the request from BCM (with CAN communication).

# DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000001527860

#### APPLICATION ITEM

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

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to <a href="#">EXL-173, "DTC Index"</a> .
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
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>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

×: Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
—	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
—	PTC HEATER*			

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

## HEADLAMP

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

INFOID:000000001160051

### WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Service item	Setting item	Setting	
HEAD LIGHT TIMER	MODE 1	10 sec.	Sets follow me home function activating time.
	MODE 2*	30 sec.	

\*: Initial setting

## DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
TAIL LAMP SW [On/Off]	
AUTO LIGHT SW [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
ENGINE RUNNING [On/Off]	The engine status received from ECM with CAN communication
LIT-SEN FAIL [OK/NOTOK]	<ul style="list-style-type: none"> <li>The sensor status received from light &amp; rain sensor with serial link</li> <li>The serial link condition that BCM judges</li> </ul>
AUT LIGHT SYS [On/Off]	Auto light system status received from light & rain sensor with serial link
HD LIGHT TIME [Sec]	Setting time of the follow me home function set by the work support

## ACTIVE TEST

# DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.
RR FOG LAMP	On	<ul style="list-style-type: none"> <li>Outputs the voltage to turn the rear fog lamp ON.</li> <li>Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.</li> </ul>
	Off	<ul style="list-style-type: none"> <li>Stops the voltage to turn the rear fog lamp OFF.</li> <li>Stops the rear fog lamp status signal transmission.</li> </ul>
DAYTIME RUNNING LIGHT	On	Transmits the day time running light request signal to IPDM E/R with CAN communication to turn the each lamps ON.
	Off	Stops the day time running light request signal transmission.

## FLASHER

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

INFOID:000000001160052

## DATA MONITOR

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

## ACTIVE TEST

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

## DIAGNOSIS SYSTEM (IPDM E/R)

## Diagnosis Description

INFOID:000000001527861

## Auto active test

## Description

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

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

## 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 ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 20 times. Then turn the ignition switch OFF.

**CAUTION:**

**Close passenger door.**

4. Turn the ignition switch ON within 10 seconds. Then the horn sounds once and the auto active test starts.  
**NOTE:**  
Only a vehicle with the vehicle security system, the horn sounds.
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:**

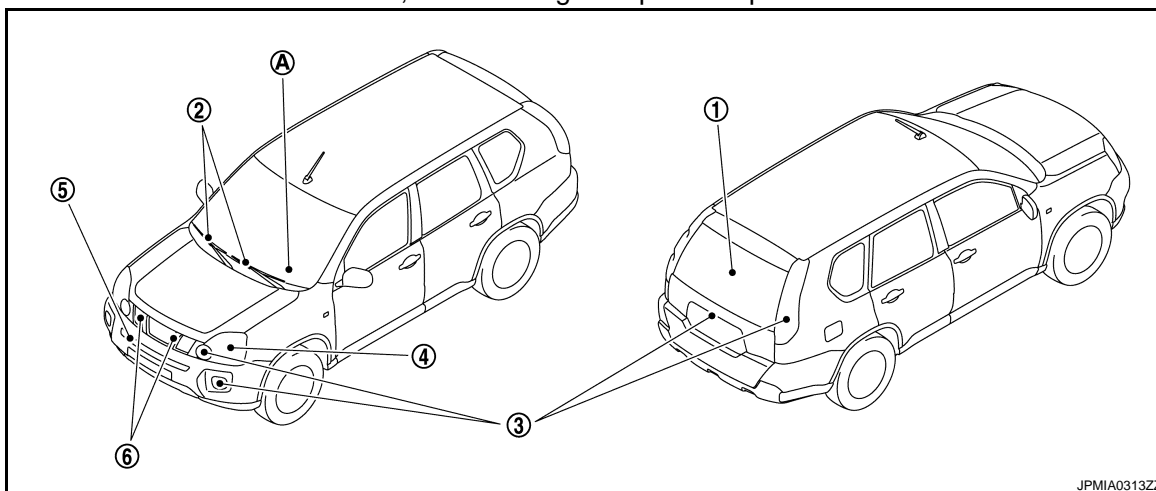
When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.

**CAUTION:**

- If auto active test mode cannot be actuated, check door switch system.
- Never start the engine.

## Inspection in auto active test mode

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



JPMIA0313ZZ

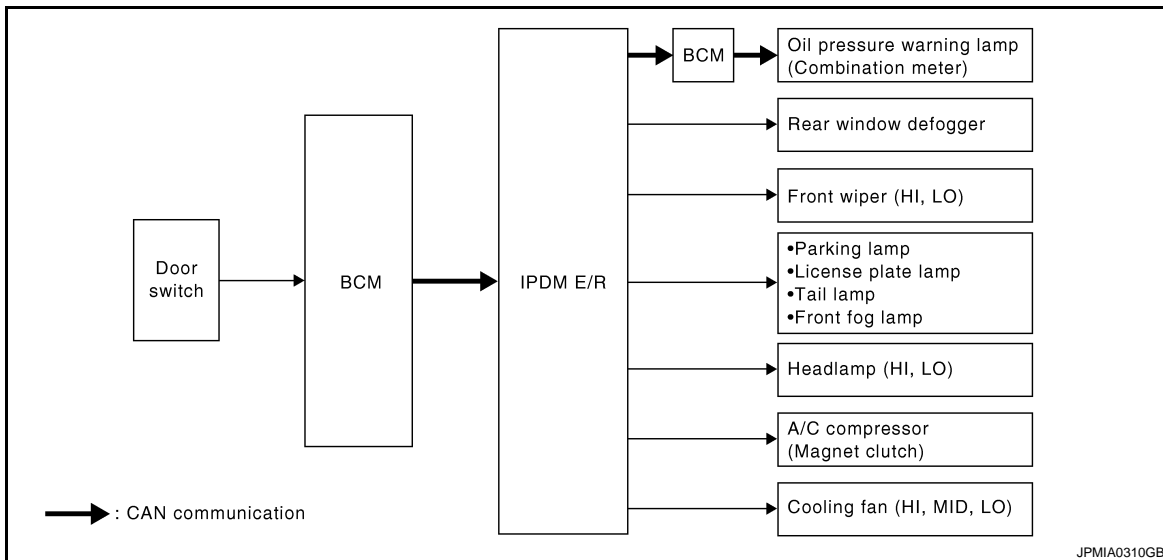
# DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Operation sequence	Inspection location	Operation
A	Oil pressure warning lamp	Blinks continuously during operation of auto active test.
1	Rear window defogger	10 seconds
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> </ul>	10 seconds
4	Headlamps	LO ↔ HI 5 times
5	A/C compressor (magnet clutch)	ON ↔ OFF 5 times
6	Cooling fan	LO for 5 seconds → MID for 3 seconds → HI for 2 seconds

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate	Perform auto active test. Does the rear window defogger operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> <li>• Rear window defogger</li> <li>• Rear window defogger ground circuit</li> <li>• Harness or connector between IPDM E/R and rear window defogger</li> <li>• IPDM E/R</li> </ul>
Any of the following components do not operate <ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> <li>• Headlamps (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>

# DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Symptom	Inspection contents		Possible cause
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES	<ul style="list-style-type: none"> <li>• Communication signal between BCM and auto amp.</li> <li>• BCM</li> <li>• CAN communication signal between BCM 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 combination meter</li> <li>• Combination meter</li> </ul>
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 motor-2 power supply circuit</li> <li>• Cooling fan motor-1 ground circuit</li> <li>• Cooling fan relay-4 or cooling fan relay-5 power supply circuit</li> <li>• Cooling fan relay-5 ground circuit</li> <li>• Harness or connector between IPDM E/R and cooling fan motor</li> <li>• Harness or connector between IPDM E/R, and cooling fan relay-4 or cooling fan relay-5</li> <li>• Harness or connector between cooling fan motor-2, and cooling fan relay-4 or cooling fan relay-5</li> <li>• Cooling fan relay-4 or cooling fan relay-5</li> <li>• Cooling fan motor</li> <li>• IPDM E/R</li> </ul>

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL

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

INFOID:000000001527862

### APPLICATION ITEM

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

Diagnosis mode	Description
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 MNTR	The results of transmit/receive diagnosis of CAN communication can be read.

M  
N  
O  
P

### SELF DIAGNOSTIC

Refer to [EXL-184, "DTC Index"](#).

### DATA MONITOR

Monitor item

# DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Monitor Item [Unit]	MAIN SIGNALS	Description
MOTOR FAN REQ [1 - 4]	×	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. <b>NOTE:</b> This item is monitored only the vehicle with front fog lamp system.
HL WASHER REQ [Off/On]		Displays the status of the headlamp washer request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with headlamp washer system.
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.
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.
ST RLY REQ [Off/On]		Displays the status of the ignition and starter request signal received from BCM via CAN communication.
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.
RR DEF REQ [Off/On]	×	Displays the status of the rear defogger request signal received from BCM via CAN communication.
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.
REV SW [Off/On]		<b>NOTE:</b> This item is indicated, but not monitored.
DTRL REQ [Off/On]		Displays the status of the daytime running light request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with daytime running light system.
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R. <b>NOTE:</b> This item is monitored only the vehicle with the vehicle security system.
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with the vehicle security system.
HORN CHIRP [Off/On]		<b>NOTE:</b> This item is indicated, but not monitored.

## ACTIVE TEST

Test item



# DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

Test item	Operation	Description
REAR DEFOGGER	Off	OFF
	On	Operates the rear window defogger relay.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay (LO operation).
	3	Operates the cooling fan relay (MID operation).
	4	Operates the cooling fan relay (HI operation).
HEAD LAMP WASHER	On	Operates the headlamp washer relay for 1 second.
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay and the daytime running light relay. <b>NOTE:</b> Daytime running light relay is with daytime running light system only.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 4 seconds intervals.
	Fog	Operates the front fog lamp relay. <b>NOTE:</b> This item can test only the vehicle with front fog lamp system.
HORN	On	Operates horn relay for 20 ms. <b>NOTE:</b> This item can test only the vehicle with vehicle security system.

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

EXL

# DIAGNOSIS SYSTEM (HEADLAMP LEVELIZER)

< FUNCTION DIAGNOSIS >

[XENON TYPE]

## DIAGNOSIS SYSTEM (HEADLAMP LEVELIZER)

### CONSULT-III Function (HEADLAMP LEVELIZER)

INFOID:000000001278624

#### APPLICATION ITEM

CONSULT-III performs the following functions via DDL2 communication line with auto levelizer control unit.

Diagnosis mode	Description
ECU IDENTIFICATION	Allows confirmation of auto levelizer control unit part number.
SELF DIAGNOSTIC RESULT	Displays the diagnosis results judged by auto levelizer control unit.
WORK SUPPORT	Performs settings on sensors.
DATA MONITOR	Displays input data for auto levelizer control unit in real time.
ACTIVE TEST	Transmits a drive signal to the load to check their operation.
CONFIGURATION	Writes the vehicle specification when replacing auto levelizer control unit.

#### WORK SUPPORT

Work item	Setting details
SENSOR INITIALIZE	Adjusts sensor lever signal output under unladen conditions.

#### DATA MONITOR

Monitor item [Unit]	Display item
INT SEN VALUE [%]	Displays the sensor lever angle corresponding to the maximum value of sensor lever angle that is recognized with auto levelizer control unit by ratio.
ACT OUTPUT [%]	Displays the control value of aiming motor drive signal that is calculated by auto levelizer control unit with the ratio corresponding to the ignition power supply.
ACT MEASURED [%]	Displays the measured value of aiming motor drive signal that is output from auto levelizer control unit with the ratio corresponding to ignition power supply.
VEHICLE SPEED SIGNAL [km/h]	Displays the vehicle speed judged from vehicle speed signal (8-pulse) that is input to auto levelizer control unit.
LIGHT SIGNAL [V]	Displays the status judged from tail lamp signal that is input to auto levelizer control unit.
INT SEN VOLT [V]	Displays the ignition power supply status that is input to auto levelizer control unit.
EXT SEN VOLT [V]	<b>NOTE:</b> The item is indicated, but not monitored.
EXT SEN SIG [V]	<b>NOTE:</b> The item is indicated, but not monitored.

#### ACTIVE TEST

Test item	Operation item	Operation status
LAMP TEST	MIN	Moves the light axis to the initial position.
	MID	Moves the light axis to a low position.
	MAX	Moves the light axis to the lowest position.

# COMPONENT DIAGNOSIS

## B2080 ECU TROUBLE

### Description

INFOID:000000001278625

- Auto levelizer control unit is installed in rear suspension member.
- Auto levelizer control unit detects vehicle rear height.
- Auto levelizer control unit controls headlamp light axis appropriately depending on the vehicle height.

### DTC Logic

INFOID:000000001278626

### DTC DETECTION LOGIC [B2080] ECU TROUBLE

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit internal malfunction.	Ignition switch OFF	Auto levelizer control unit

### Diagnosis Procedure

INFOID:000000001278627

#### 1.ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

Is the memory erased?

- YES >> INSPECTION END
- NO >> Replace the auto levelizer control unit.

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

EXL

# B2081 INITIAL NOT DONE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2081 INITIAL NOT DONE

### DTC Logic

INFOID:000000001529821

### DTC DETECTION LOGIC [B2081] INITIAL NOT DONE

DTC detection condition	DTC erase conditions	Possible causes
Sensor initialization is not completed.	Sensor initialization is completed	<ul style="list-style-type: none"><li>• Sensor initialization is not completed.</li><li>• Auto levelizer control unit</li></ul>

### Diagnosis Procedure

INFOID:000000001278629

#### 1. SENSOR INITIALIZE

ⓂCONSULT-III WORK SUPPORT  
Perform the sensor initialize.

>> Refer to [EXL-12. "SENSOR INITIALIZE : Special Repair Requirement"](#).

# B2082 SENSOR OUT OF RANGE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2082 SENSOR OUT OF RANGE

### DTC Logic

INFOID:000000001529827

### DTC DETECTION LOGIC

[B2082] SENSOR OUT OF RANGE

DTC detection condition	DTC erase conditions	Possible cause
Auto levelizer control unit detected that the sensor lever angle is out of range, continually for 20 ms or more.	When sensor lever returns to normal range	<ul style="list-style-type: none"><li>Auto levelizer control unit installation condition</li><li>Sensor initialize is not appropriate.</li><li>Auto levelizer control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1. ERASE DTC

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

#### 2. DTC CONFIRMATION

Perform of self-diagnosis CONSULT-III.

Is B2082 detected?

YES >> Refer to [EXL-45, "Diagnosis Procedure"](#).

NO >> Refer to [GI-39, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000001278631

#### 1. CHECK SENSOR INITIALIZATION VALUE

##### CONSULT-III DATA MONITOR

- Turn ignition switch ON.
- Switches the lighting switch 1ST.
- Select "INT SEN VALUE" of HEADLAMP LEVELIZER data monitor item.
- Check the monitor status under unladen conditions.

Monitor item	Standard value (Approx.)
INT SEN VALUE	49.8 %*

\*: Sensor initialize position (reference)

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> GO TO 2.

#### 2. CHECK AUTO LEVELIZER CONTROL UNIT INSTALLATION CONDITION

Check the mounting part of auto levelizer control unit and its link for looseness and deformation.

Is it properly installed?

YES >> GO TO 3.

NO >> Install auto levelizer control unit properly.

#### 3. SENSOR INITIALIZATION

##### CONSULT-III WORK SUPPORT

Perform the sensor initialize. Refer to [EXL-12, "SENSOR INITIALIZE : Special Repair Requirement"](#).

Is sensor initialize completed?

## B2082 SENSOR OUT OF RANGE

[XENON TYPE]

< COMPONENT DIAGNOSIS >

---

- YES >> GO TO 4.
- NO >> Replace the auto levelizer control unit.

### 4.ERASE DTC

---

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

Is the memory erased?

- YES >> INSPECTION END
- NO >> Replace the auto levelizer control unit.

# B2083 SEN SIG NOT PLAUSIBLE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2083 SEN SIG NOT PLAUSIBLE

### DTC Logic

INFOID:000000001278632

### DTC DETECTION LOGIC

[B2083] SEN SIG NOT PLAUSIBLE

DTC detection condition	DTC erase conditions	Possible causes
When vehicle speed is 5 km/h or more, the auto levelizer control unit cannot detect any changes of the sensor lever angle for 5 minutes or more.	Ignition switch OFF	Auto levelizer control unit

### DTC CONFIRMATION PROCEDURE

#### 1. ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

#### 2. DTC CONFIRMATION

1. Start the engine.
2. Drive the vehicle for 5 minutes or more.
3. Perform self-diagnosis of CONSULT-III.

Is B2083 detected?

- YES >> Refer to [EXL-47. "Diagnosis Procedure"](#).  
NO >> Refer to [GI-39. "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000001278633

#### 1. CHECK AUTO LEVELIZER CONTROL UNIT INSTALLATION CONDITION

Check the mounting part of auto levelizer control unit and its link for looseness and deformation.

Is it properly installed?

- YES >> Replace the auto levelizer control unit.  
NO >> Install auto levelizer control unit properly.

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

# B2084 VOLTAGE UNDER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2084 VOLTAGE UNDER LIMIT

### DTC Logic

INFOID:000000001278634

#### DTC DETECTION LOGIC

[B2084] VOLTAGE UNDER LIMIT

DTC detection condition	DTC erase conditions	Possible causes
Ignition power supply to auto levelizer control unit is 9 V or less for 1.5 seconds or more.	Ignition switch OFF	<ul style="list-style-type: none"><li>• Harness or connector</li><li>• Auto levelizer control unit</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1. ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

##### 2. DTC CONFIRMATION

1. Turn the ignition switch ON.
2. Perform self-diagnosis of CONSULT-III.

Is B2084 detected?

- YES >> Refer to [EXL-48, "Diagnosis Procedure"](#).  
NO >> Refer to [GI-39, "Intermittent Incident"](#).

#### Diagnosis Procedure

INFOID:000000001278635

##### 1. CHECK POWER SUPPLY WITH CONSULT-III

###### CONSULT-III DATA MONITOR

1. Turn ignition switch ON.
2. Switch the lighting switch 1ST.
3. Select "INT SEN VOLT" of HEADLAMP LEVELIZER data monitor item.
4. Check the monitor status.

Monitor item	Standard value (Approx.)
INT SEN VOLT	Battery voltage

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.  
NO >> GO TO 2.

##### 2. CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit of auto levelizer control unit. Refer to [EXL-57, "AUTO LEVELIZER CONTROL UNIT : Diagnosis Procedure"](#).

Is power supply and ground circuit normal?

- YES >> Replace the auto levelizer control unit.  
NO >> Repair or replace the malfunctioning part.



# B2085 LOWBEAM SIG OPEN LINE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2085 LOWBEAM SIG OPEN LINE

### Description

INFOID:000000001278636

- Auto levelizer control unit inputs tail lamp signal from IPDM E/R.
- Auto levelizer control unit always outputs the voltage to detect the DTC.

### DTC Logic

INFOID:000000001278637

#### DTC DETECTION LOGIC

[B2085] LOWBEAM SIG OPEN LINE

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit detected that the tail lamp signal is the following condition: 2 V < tail lamp signal < 6 V	Ignition switch OFF	<ul style="list-style-type: none"> <li>• Harness or connector</li> <li>• IPDM E/R</li> <li>• Auto levelizer control unit</li> </ul>

#### DTC CONFIRMATION PROCEDURE

##### 1. ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

##### 2. DTC CONFIRMATION

1. Turn the ignition switch ON.
2. Switch the lighting switch 1ST.
3. Perform self-diagnosis of CONSULT-III.

##### Is B2085 detected?

- YES >> Refer to [EXL-49, "Diagnosis Procedure"](#).
- NO >> Refer to [GI-39, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000001278638

##### 1. CHECK TAIL LAMP SIGNAL INPUT WITH CONSULT-III

###### CONSULT-III DATA MONITOR

1. Turn ignition switch ON.
2. Select "LIGHT SIGNAL" of HEADLAMP LEVELIZER data monitor item.
3. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Standard value (Approx.)
	Lighting switch	
LIGHT SIGNAL	OFF	0 V
	1ST	Battery voltage

##### Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.
- NO >> GO TO 2.

##### 2. CHECK TAIL LAMP SIGNAL INPUT

1. Turn ignition switch OFF.
2. Disconnect the auto levelizer control unit connector.
3. Turn ignition switch ON.
4. With operating the lighting switch, check the voltage between the auto levelizer control unit harness connector and the ground.

# B2085 LOWBEAM SIG OPEN LINE

[XENON TYPE]

< COMPONENT DIAGNOSIS >

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Auto levelizer control unit		Lighting switch	0 V
Connector	Terminal		
B43	2	OFF	0 V
		1ST	Battery voltage

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> Repair the harnesses between auto levelizer control unit and IPDM E/R.

# B2086 FRQ. OVER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2086 FRQ. OVER LIMIT

### Description

INFOID:000000001278639

Auto levelizer control unit inputs vehicle speed signal (8-pulse) from combination meter.

### DTC Logic

INFOID:000000001529888

### DTC DETECTION LOGIC

[B2086] FRQ. OVER LIMIT

DTC detection condition	DTC erase conditions	Possible causes
Auto levelizer control unit detected that vehicle speed signal is abnormal. (The vehicle speed is 340 km/h or more for 1.5 seconds or more.)	Headlamp (LO) OFF	<ul style="list-style-type: none"> <li>Frequency of vehicle speed signal is abnormal</li> <li>Harness or connector</li> <li>Auto levelizer control unit</li> </ul>

### DTC CONFIRMATION PROCEDURE

#### 1. ERASE DTC

- Turn the headlamp (LO) ON.
- Connect the CONSULT-III.
- Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

#### 2. DTC CONFIRMATION

- Start the engine.
- Drive the vehicle at 40 km/h.
- Perform self-diagnosis of CONSULT-III.

Is B2086 detected?

- YES >> Refer to [EXL-51, "Diagnosis Procedure"](#).  
 NO >> Refer to [GI-39, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000001278641

#### 1. CHECK VEHICLE SPEED SIGNAL INPUT WITH CONSULT-III

 CONSULT-III DATA MONITOR

- Turn ignition switch ON.
- Select "VEHICLE SPEED SIGNAL" of HEADLAMP LEVELIZER data monitor item.
- While driving at 40 km/h, check the monitor status.

Monitor item	Condition	Standard value (Approx.)
VEHICLE SPEED SIGNAL	While driving at 40 km/h	40 km/h

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.  
 NO >> GO TO 2.

#### 2. CHECK VEHICLE SPEED SIGNAL INPUT

- Turn ignition switch OFF.
- Disconnect the auto levelizer control unit connector.
- Turn ignition switch ON.
- While driving at 40 km/h, check the voltage between the auto levelizer control unit harness connector and the ground.

# B2086 FRQ. OVER LIMIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Terminals		Condition	Voltage (Approx.)
(+)	(-)		
Auto levelizer control unit			
Connector	Terminal		
B43	3	Ground	PKIA1935E

Is the measurement value normal?

- YES    >> Replace the auto levelizer control unit.
- NO     >> Repair the harnesses between auto levelizer control unit and combination meter.

# B2087 SHORT TO GROUND

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2087 SHORT TO GROUND

### DTC Logic

INFOID:000000001278642

### DTC DETECTION LOGIC

[B2087] SHORT TO GROUND

DTC detection condition	DTC erase conditions	Possible causes
Headlamp levelizer circuit is shorted to the ground for 1.5 seconds or more.	Ignition switch OFF	<ul style="list-style-type: none"><li>• Harness or connector</li><li>• Auto levelizer control unit</li></ul>

### DTC CONFIRMATION PROCEDURE

#### 1. ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

#### 2. DTC CONFIRMATION

1. Turn the ignition switch ON.
2. Perform self-diagnosis of CONSULT-III.

YES >> Refer to [EXL-53, "Diagnosis Procedure"](#).

NO >> Refer to [GI-39, "Intermittent Incident"](#).

### Diagnosis Procedure

INFOID:000000001278643

#### 1. CHECK HEADLAMP LEVELIZER CIRCUIT OF CONSULT-III

##### ⓂCONSULT-III DATA MONITOR

1. Turn ignition switch ON.
2. Switch the lighting switch 1ST.
3. Select "ACT MEASURED" and "ACT OUTPUT" of HEADLAMP LEVELIZER data monitor item.
4. Check that ACT MEASURED value is within approximately  $\pm 3\%$  to ACT OUTPUT value.

##### NOTE:

ACT MEASURED value is approximately 0% when shorted to the ground.

Is the measurement value normal?

YES >> Replace the auto levelizer control unit.

NO >> GO TO 2.

#### 2. HEADLAMP LEVELIZER CIRCUIT INSPECTION

Check the headlamp levelizer circuit for short to ground. Refer to [EXL-68, "Component Function Check"](#).

Is the headlamp levelizer circuit normal?

YES >> Replace the auto levelizer control unit.

NO >> Repair or replace the malfunctioning part.

# B2088 SHORT TO BATTERY

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2088 SHORT TO BATTERY

### DTC Logic

INFOID:000000001278644

#### DTC DETECTION LOGIC

[B2088] SHORT TO BATTERY

DTC detection condition	DTC erase conditions	Possible causes
Headlamp levelizer circuit is shorted to the battery for 1.5 seconds or more.	Ignition switch OFF	<ul style="list-style-type: none"><li>• Harness or connector</li><li>• Auto levelizer control unit</li></ul>

#### DTC CONFIRMATION PROCEDURE

##### 1. ERASE DTC

Erase DTC memory of HEADLAMP LEVELIZER with self-diagnosis of CONSULT-III.

>> GO TO 2.

##### 2. DTC CONFIRMATION

1. Turn the ignition switch ON.
2. Perform self-diagnosis of CONSULT-III.

Is B2088 detected?

- YES >> Refer to [EXL-54, "Diagnosis Procedure"](#).  
NO >> Refer to [GI-39, "Intermittent Incident"](#).

#### Diagnosis Procedure

INFOID:000000001278645

##### 1. CHECK HEADLAMP LEVELIZER CIRCUIT OF CONSULT-III

###### Ⓟ CONSULT-III DATA MONITOR

1. Turn ignition switch ON.
2. Switch the lighting switch 1ST.
3. Select "ACT MEASURED" and "ACT OUTPUT" of HEADLAMP LEVELIZER data monitor item.
4. Check that ACT MEASURED value is within approximately  $\pm 3\%$  to ACT OUTPUT value.

###### NOTE:

ACT MEASURED value is approximately 100% when shorted to the battery.

Is the measurement value normal?

- YES >> Replace the auto levelizer control unit.  
NO >> GO TO 2.

##### 2. HEADLAMP LEVELIZER CIRCUIT INSPECTION

Check the headlamp levelizer circuit for short to battery. Refer to [EXL-68, "Component Function Check"](#).

Is the headlamp levelizer circuit normal?

- YES >> Replace the auto levelizer control unit.  
NO >> Repair or replace the malfunctioning part.

# B2089 NO CAR TYPE SELECTED

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## B2089 NO CAR TYPE SELECTED

### DTC Logic

INFOID:000000001278646

### DTC DETECTION LOGIC

[B2089] NO CAR TYPE SELECTED

DTC detection condition	DTC erase conditions	Possible causes
Vehicle specification is not written.	Vehicle specification is written.	Configuration is not completed.

### Diagnosis Procedure

INFOID:000000001278647

#### 1.PERFORM CONFIGURATION

Perform "WRITE CONFIGURATION".

>> Refer to [EXL-11, "CONFIGURATION \(HEADLAMP LEVELIZER\) : Special Repair Requirement"](#).

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

EXL

# POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## POWER SUPPLY AND GROUND CIRCUIT

### BCM (BODY CONTROL MODULE)

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

INFOID:000000001528578

### 1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	10
57		J
4	ACC power supply	20
3	Ignition power supply	1

#### Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

### 2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		(-)	Ignition switch position		
(+)	BCM		OFF	ACC	ON
Connector	Terminal	Ground			
M67	57		Battery voltage	Battery voltage	Battery voltage
M66	41		Approx. 0 V	Battery voltage	Battery voltage
M65	4		Approx. 0 V	Approx. 0 V	Battery voltage
	3				

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	55		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) : Di-



# POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## agnosis Procedure

INFOID:000000001528580

### 1.CHECK FUSIBLE LINK

Check that the following IPDM E/R fusible link is not blown.

Terminal No.	Signal name	Fusible link No.
1	Battery power supply	C
2		E
6		K

Is the fusible link fusing?

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

### 2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E9	1	
	2	
E10	6	

Is the measurement value normal?

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

### 3.CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		Exist
E11	11		Exist
E13	25		

Does continuity exist?

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

## AUTO LEVELIZER CONTROL UNIT

### AUTO LEVELIZER CONTROL UNIT : Diagnosis Procedure

INFOID:0000000001160081

#### 1.CHECK FUSE

Check that the following fuse is fusing.

Signal name	Location	Fuse No.	Capacity
Ignition power supply	FUSE BLOCK (J/B)	#1	10A

Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.  
NO >> GO TO 2.

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

# POWER SUPPLY AND GROUND CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

## 2. CHECK POWER SUPPLY CIRCUIT

1. Turn the ignition switch ON.
2. Disconnect auto levelizer control unit connector.
3. Check voltage between auto levelizer control unit harness connector and ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Auto levelizer control unit		Ground
Connector	Terminal	
B43	4	
		Battery voltage

Is the measurement value normal?

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

## 3. CHECK GROUND CIRCUIT

Check for continuity between auto levelizer control unit harness connector and ground.

Auto levelizer control unit		Ground	Continuity
Connector	Terminal		
B43	8		Existed

Does continuity exist?

- YES >> Power supply and ground circuit are normal.  
NO >> Repair the harnesses or connectors.

# EXTERIOR LAMP FUSE

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## EXTERIOR LAMP FUSE

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001160082

##### Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
Parking lamp	IPDM E/R	#46	10 A
<ul style="list-style-type: none"><li>Tail lamp</li><li>License plate lamp</li><li>Each illumination</li></ul>	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001160083

### 1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
Parking lamp	IPDM E/R	#46	10 A
<ul style="list-style-type: none"><li>Tail lamp</li><li>License plate lamp</li><li>Each illumination</li></ul>	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

#### Is the fuse fusing?

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

NO >> The fuse is normal.

### WITH DAYTIME RUNNING LIGHT SYSTEM

#### WITH DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001298520

##### Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A

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

EXL

# EXTERIOR LAMP FUSE

**[XENON TYPE]**

**< COMPONENT DIAGNOSIS >**

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• Tail lamp</li> <li>• License plate lamp</li> </ul>	FUZE BLOCK (J/B)	#33	10 A
Each illumination	IPDM E/R	#45	10 A
Stop lamp	FUZE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

**WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure**

INFOID:000000001298521

## 1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• Tail lamp</li> <li>• License plate lamp</li> </ul>	FUZE BLOCK (J/B)	#33	10 A
Each illumination	IPDM E/R	#45	10 A
Stop lamp	FUZE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

**Is the fuse fusing?**

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

# HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

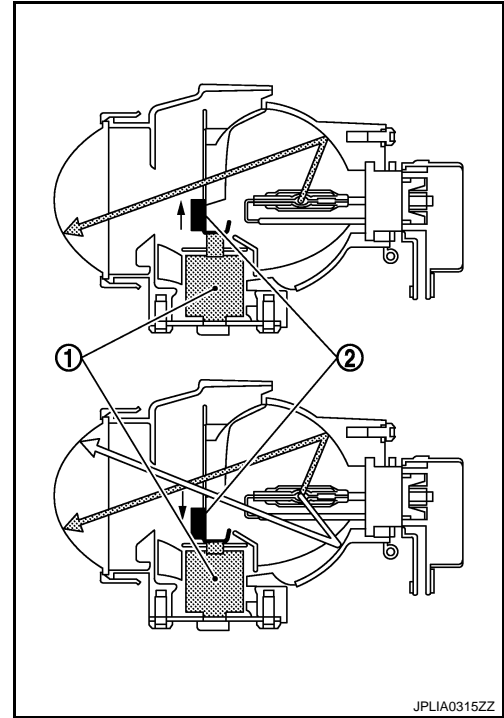
## HEADLAMP (HI) CIRCUIT

### Description

INFOID:000000001208227

The high beam solenoid drives the mobile valve shade. And the mobile valve shade switches the high beam and low beam of headlamp.

- When the headlamp high relay is turned ON, magnetic force is applied to the high beam solenoid (1) by a current. The mobile valve shade (2) is switched to the high beam position.
- When the headlamp high relay is turned OFF, the current stops. The mobile valve shade returns to the low beam position automatically.



### Component Function Check

INFOID:000000001208228

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

##### IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the headlamp switches to the high beam.

##### CONSULT-III ACTIVE TEST

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

**Hi** : Headlamp switches to the high beam.

**Off** : Headlamp OFF

#### NOTE:

HI/LO is repeated 1 second each.

Does the headlamp switch to the high beam?

- YES >> Headlamp (HI) circuit is normal.  
NO >> Refer to [EXL-61, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001208229

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

##### CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the high beam solenoid connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" 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.

# HEADLAMP (HI) CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
IPDM E/R			External lamp	Battery voltage
Connector	Terminal			
RH	E12	22	Ground	Hi
LH		21		Off

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 high beam solenoid harness connector.

IPDM E/R			High beam solenoid		Continuity
Connector	Terminal		Connector	Terminal	
RH	E12	22	E75	1	Existed
LH		21	E72	1	

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	#43	10 A
Headlamp HI (LH)	IPDM E/R	#44	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	E12	22	Ground	Not existed
LH		21		

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if the fuse is fusing again.)

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

Check continuity between the high beam solenoid harness connector and the ground.

# HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

High beam solenoid			Ground	Continuity
Connector		Terminal		Existed
RH	E75	2		
LH	E72	2		

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

**EXL**

M  
N  
O  
P

# HEADLAMP (LO) CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (LO) CIRCUIT

### Description

INFOID:000000001160086

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-66, "Description"](#).

### Component Function Check

INFOID:000000001160087

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

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the headlamp is turned ON.

##### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-64, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160088

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

##### Ⓟ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" 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	Battery voltage
Connector	Terminal			
RH	E12	20	Lo	0 V
LH		18	Off	

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

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

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

IPDM E/R		Headlamp		Continuity
Connector	Terminal	Connector	Terminal	



# HEADLAMP (LO) CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

RH	E12	20	E74	1	Existed
LH		18	E71	1	

### Does continuity exist?

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

### 3.CHECK HEADLAMP (LO) FUSE

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

Unit	Lotion	Fuse No.	Capacity
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A

### Is the fuse fusing?

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

### 4.CHECK HEADLAMP (LO) SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E12	20	Not existed
LH		18	

### Does continuity exist?

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

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

Check continuity between the headlamp harness connector and the ground.

Headlamp		Ground	Continuity
Connector	Terminal		
RH	E74	2	Existed
LH	E71	2	

### Does continuity exist?

- YES >> Perform the xenon headlamp diagnosis. Refer to [EXL-66. "Description"](#).  
 NO >> Repair the harnesses or connectors.

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

EXL

## XENON HEADLAMP

### Description

INFOID:000000001160090

#### OUTLINE

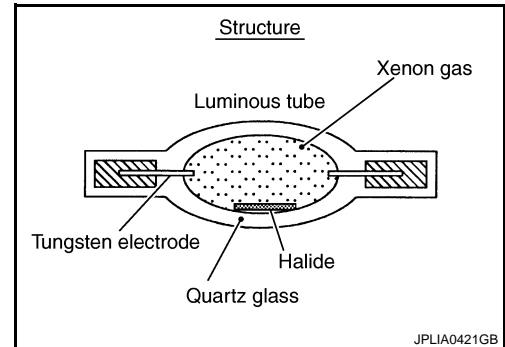
- The lamp light source is by the arch discharge by applying high voltage into the xenon gas-filled bulb instead of the halogen bulb filament.
- Sight becomes more natural and brighter because the amount of light are gained adequately and the color of light is sunshine-like white.
- The xenon bulb drops 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 lighting switch.**
- **Never work with wet hands.**

#### CAUTION:

- **Never perform HID control unit circuit diagnosis with a circuit tester or an equivalent.**
- **Temporarily install the headlamps 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:000000001160091

#### 1. CHECK XENON BULB

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

Is the headlamp turned ON?

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

#### 2. CHECK HID CONTROL UNIT

Install the normal HID control unit to the applicable headlamp. Check that the lighting switch is turned ON.

Is the headlamp turned ON?

# XENON HEADLAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

YES >> Replace HID control unit.  
NO >> Xenon headlamp is normal.

A

B

C

D

E

F

G

H

I

J

K

**EXL**

M

N

O

P

# HEADLAMP LEVELIZER CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP LEVELIZER CIRCUIT

### Description

INFOID:000000001278648

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:000000001278649

#### 1. CHECK HEADLAMP LEVELIZER OPERATION

##### CONSULT-III ACTIVE TEST

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

Test item	Light axis operation
LAMP TEST	
MIN	Moves the light axis to the initial position.
MID	Moves the light axis to a low position.
MAX	Moves the light axis to the lowest position.

##### Is the operation normal?

- YES >> Headlamp levelizer circuit is normal.  
NO >> Refer to [EXL-68, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001278650

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

##### CONSULT-III ACTIVE TEST

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

Terminals		Test item	Voltage (Approx.)
(+)	(-)		
Auto levelizer control unit		LAMP TEST	
Connector	Terminal		
B43	5		
Ground		MIN	10.01 V
		MID	6.3 V
		MAX	3.6 V

##### Is the measurement value normal?

- YES >> GO TO 2.  
Fixed at 0 V >> GO TO 3.  
Fixed at battery voltage >> GO TO 4.

#### 2. CHECK AIMING MOTOR DRIVE OPEN CIRCUIT

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

# HEADLAMP LEVELIZER CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Auto levelizer control unit		headlamp aiming motor		Continuity	
Connector	Terminal	Connector	Terminal		
RH	B43	5	E76	2	Existed
LH			E73		

A

B

Does continuity exist?

C

YES >> Replace the headlamp aiming motor.

NO >> Repair the harnesses and connectors.

### 3. CHECK AIMING MOTOR DRIVE SHORT CIRCUIT (SHORT TO GROUND)

D

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

E

Auto levelizer control unit		Ground	Continuity
Connector	Terminal		
B43	5		Not existed

F

G

Does continuity exist?

YES >> Repair the harness and connectors.

NO >> Replace auto levelizer control unit.

H

### 4. CHECK AIMING MOTOR DRIVE SHORT CIRCUIT (SHORT TO BATTERY)

1. Turn the ignition switch OFF.
2. Disconnect auto levelizer control unit connector and headlamp aiming motor connector.
3. Check voltage between auto levelizer control unit harness connector and ground.

I

J

Auto levelizer control unit		Ground	Voltage (Approx.)
Connector	Terminal		
B43	5		0 V

K

Is the measurement value normal?

YES >> Replace auto levelizer control unit.

NO >> Repair the harness and connectors.

EXL

M

N

O

P

# FRONT FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000001160095

#### 1. CHECK FRONT FOG LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the front fog lamp is turned ON.

##### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-70, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160096

#### 1. CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#65	15 A

##### Is the fuse fusing?

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

#### 2. CHECK FRONT FOG LAMP SHORT CIRCUIT

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

IPDM E/R			Ground	Continuity
Connector	Terminal			
RH	E12	17	Ground	Not existed
LH		16		

##### Does continuity exist?

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

#### 3. CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

##### Is the bulb normal?

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

#### 4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

##### Ⓟ CONSULT-III ACTIVE TEST

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

# FRONT FOG LAMP CIRCUIT

**[XENON TYPE]**

## < COMPONENT 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			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E12	17	Fog	0 V
LH		16		
			Ground	

Is the measurement value normal?

YES >> GO TO 5.

NO >> Replace IPDM E/R.

## 5. CHECK FRONT FOG LAMP OPEN CIRCUIT

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

IPDM E/R			Front fog lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E12	17	E48	1	Existed
LH		16	E30	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

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

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

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

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

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

EXL

# DAYTIME RUNNING LIGHT RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT RELAY CIRCUIT

### Component Function Check

INFOID:000000001298633

#### 1.CHECK DAYTIME RUNNING LIGHT OPERATION

##### ⊗IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the parking lamp and tail lamp are turned ON.

##### ⓅCONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test item, check that parking lamp and tail lamp are turned ON.

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

#### Are parking lamp and tail lamp turned ON?

- YES >> Daytime running light relay circuit is normal.  
 NO >> Refer to [EXL-72, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001298634

#### 1.CHECK DAYTIME RUNNING LIGHT RELAY FUSE

Check that the following fuse is not fusing.

Unit	Location	Fuse No.	Capacity
Daytime running light relay	Fuse and fusible link box	#33	10A

#### Is the fuse fusing?

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

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

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

Terminals		Voltage (Approx.)
(+)	(-)	
Daytime running light relay		Ground
Connector	Terminal	
E65	1	
	3	
		Battery voltage

#### Is the measurement value normal?

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

#### 3.CHECK DAYTIME RUNNING LIGHT RELAY

Check daytime running light relay. Refer to [EXL-73, "Component Inspection"](#).

#### Is the daytime running light relay normal?

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

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

##### ⓅCONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.



# DAYTIME RUNNING LIGHT RELAY CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

2. Install daytime running light relay.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test item, check voltage between IPDM E/R harness connector and ground.

Terminals		Test item	Voltage (Approx.)
(+)	(-)		
IPDM E/R		EXTERNAL LAMP	0 V
Connector	Terminal		
E12	15	TAIL	0 V
		Off	Battery voltage

Is the measurement value normal?

YES >> Check parking lamp circuit. Refer to [EXL-77. "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

Fixed at 0 V >> GO TO 5.

Fixed at battery voltage >> Replace IPDM E/R.

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

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

IPDM E/R		Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	
E12	15	E65	2	Existed

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

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

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E12	15		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace IPDM E/R.

## Component Inspection

INFOID:000000001298635

## 1. CHECK DAYTIME RUNNING LIGHT RELAY

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

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

## DAYTIME RUNNING LIGHT RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

---

Does continuity exist?

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

# PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## PARKING LAMP CIRCUIT

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001160097

#### 1.CHECK PARKING LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

##### Ⓜ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-75, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001160098

#### 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	#46	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

#### 2.CHECK PARKING LAMP SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E14	39	Not existed
LH		38	

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

#### 3.CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

#### 4.CHECK PARKING LAMP OUTPUT VOLTAGE

##### Ⓜ CONSULT-III ACTIVE TEST

1. Disconnect the parking lamp connector.
2. Turn the ignition switch ON.

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

# PARKING LAMP CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

3. Select "EXTERNAL LAMP" 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			
RH	E14	39	TAIL	0 V
LH		38	OFF	

Is the measurement value normal?

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

## 5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R			Parking lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E14	39	E43	1	Existed
LH		38	E24	1	

Does continuity exist?

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

## 6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

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

Does continuity exist?

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001298640

### NOTE:

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-72. "Component Function Check"](#).

## 1. CHECK PARKING LAMP OPERATION

### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8. "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

# PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

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

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.

NO >> Refer to [EXL-77, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001298641

### 1. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

### 2. CHECK PARKING LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Remove daytime running light relay.
3. Disconnect the parking lamp connector.
4. Check continuity between the daytime running light relay harness connector and the parking lamp harness connector.

Daytime running light relay		Parking lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E65	5	E43	1
LH			E24	

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

### 3. CHECK PARKING LAMP SHORT CIRCUIT

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

Daytime running light relay		Ground	Continuity
Connector	Terminal		
E65	5		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

### 4. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

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

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

# TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## TURN SIGNAL LAMP CIRCUIT

### Description

INFOID:0000000001160099

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

**NOTE:**

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

### Component Function Check

INFOID:0000000001160100

#### 1. CHECK TURN SIGNAL LAMP

ⓐ CONSULT-III ACTIVE TEST

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

- LH** : Turn signal lamps (LH) blink
- RH** : Turn signal lamps (RH) blink
- Off** : Turn signal lamps OFF

Does the turn signal lamps blink?

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

### Diagnosis Procedure

INFOID:0000000001160101

#### 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

1. Turn the ignition switch OFF.
2. Disconnect the front turn signal lamp connector, side turn signal lamp connector, or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
BCM			Turn signal switch	
Connector	Terminal			
RH	M66	48	LH or RH	PKID0926E
LH		47		
Ground			OFF	0 V

Is the measurement value normal?

- YES >> GO TO 3.
- NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

# TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

## 3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

Front turn signal lamp

BCM		Front turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E46	Existed
LH		47	E27	

Side turn signal lamp

BCM		Side turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E40	Existed
LH		47	E23	

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	B59	Existed
LH		47	B80	

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		Ground	Continuity
Connector	Terminal		
RH	M66	48	Not existed
LH		47	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

## 5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front turn signal lamp

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

Side turn signal lamp

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

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# TURN SIGNAL LAMP CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

Rear turn signal lamp

Rear combination lamp		Terminal	Ground	Continuity
Connector				Existed
RH	B59	4		Existed
LH	B80			

### Does continuity exist?

- YES >> Replace the front combination lamp, the side turn signal lamp or the rear combination lamp.
- NO >> Repair the harnesses or connectors.

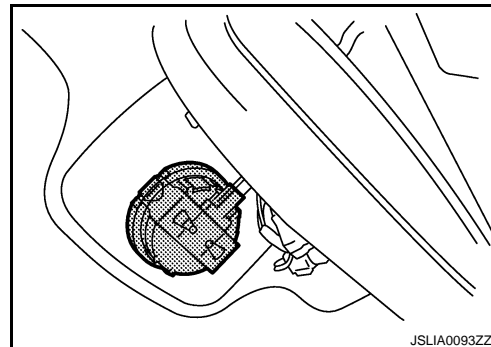


## LIGHT & RAIN SENSOR

### Description

INFOID:000000001528644

- The light & rain sensor detects the outside ambient light level, forward light level, rain level and sensor conditions.
- Based on ambient light level (day/night detection), forward light level (tunnel detection), rain level (poor visibility detection) and sensor conditions it judges ON/OFF condition for exterior lamps.
- And it transmits exterior lamp ON/OFF request to the BCM by the light & rain sensor serial link.
- BCM controls each function depending on the signals. And it detects the light & rain sensor serial link error and the light & rain sensor malfunction.



### Component Function Check

INFOID:000000001160103

#### 1. CHECK LIGHT & RAIN SENSOR BY CONSULT-III

##### CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "LIT-SEN FAIL" of BCM (HEADLAMP) data monitor item.
3. Turn the lighting switch AUTO.
4. Start the engine.
5. Check the monitor status.

Monitor item	Condition	Status
LIT-SEN FAIL	Light & rain sensor is normal	OK
	<ul style="list-style-type: none"> <li>• Light &amp; rain sensor inside abnormality</li> <li>• Light &amp; rain sensor serial link error</li> </ul>	NOTOK

##### Is it displayed with "OK"?

- YES >> Light & rain sensor is normal.  
 NO >> Refer to [EXL-81, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160104

#### 1. CHECK LIGHT & RAIN SENSOR FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Light & rain sensor	Fuse block	#8	10 A

##### Is the fuse fusing?

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

#### 2. CHECK LIGHT & RAIN SENSOR POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect the light & rain sensor connector.
3. Check the voltage between the light & rain sensor harness connector and the ground.

# LIGHT & RAIN SENSOR

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		
Connector	Terminal	Ground
R12*1 R13*2	1	
		Battery voltage

\*1: With theft warning system

\*2: Without theft warning system

### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

## 3. CHECK LIGHT & RAIN SENSOR SIGNAL VOLTAGE

Check the voltage between the light & rain sensor harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		
Connector	Terminal	Ground
R12*1 R13*2	2	
		12 V

\*1: With theft warning system

\*2: Without theft warning system

### Is the measurement value normal?

YES >> GO TO 6.

NO >> GO TO 4.

## 4. CHECK LIGHT & RAIN SENSOR SIGNAL CIRCUIT FOR OPEN

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R12*1 R13*2	2	M65	24	Existed

\*1: With theft warning system

\*2: Without theft warning system

### Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

## 5. CHECK LIGHT & RAIN SENSOR SIGNAL CIRCUIT FOR SHORT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R12*1 R13*2	2		Not existed

\*1: With theft warning system

\*2: Without theft warning system

# LIGHT & RAIN SENSOR

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

### Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

## 6. CHECK LIGHT & RAIN SENSOR GROUND CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Check continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R12 <sup>*1</sup> R13 <sup>*2</sup>	3		Existed

\*1: With theft warning system

\*2: Without theft warning system

### Does continuity exist?

YES >> Replace the light & rain sensor.

NO >> Repair the harnesses or connectors.

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

EXL

# HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## HAZARD SWITCH

### Component Function Check

INFOID:000000001160105

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

##### CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "HAZARD SW" of BCM (FLASHER) data monitor item.
3. With operating the hazard switch, check the monitor status.

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

Is the item status normal?

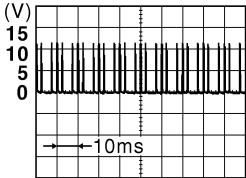
- YES >> Hazard switch circuit is normal.  
 NO >> Refer to [EXL-84, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160106

#### 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		
M65	33	ON	
		OFF	
	Ground		

JPMIA0154GB

Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).  
 NO >> GO TO 2.

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

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

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	4	M65	33	Existed

Does continuity exist?

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

#### 3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

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

# HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	4		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

## 4.CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

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

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	6		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

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

# TAIL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## TAIL LAMP CIRCUIT

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001160107

#### 1.CHECK TAIL LAMP OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

##### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-86, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001160108

#### 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>• License plate lamp</li></ul>	IPDM E/R	#45	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-III ACTIVE TEST

1. Disconnect the rear combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" 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		
E14	37	TAIL	Battery voltage
		Off	0 V

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.

# TAIL LAMP CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the rear combination lamp harness connector.

IPDM E/R		Rear combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E14	37	B59	1	Existed
LH			B80	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	B59	4	Ground	Existed
LH	B80	4		

### Does continuity exist?

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001298638

### **NOTE:**

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-72, "Component Function Check"](#).

## 1.CHECK TAIL LAMP OPERATION

### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-87, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure INFOID:000000001298639

## 1.CHECK TAIL LAMP BULB

Check the applicable lamp bulb.

### Is the bulb normal?

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

## 2.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.

# TAIL LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

2. Remove daytime running light relay.
3. Disconnect the rear combination lamp connector.
4. Check continuity between the daytime running light relay harness connector and the rear combination lamp harness connector.

Daytime running light relay		Rear combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E65	5	B59	1	Existed
LH			B80		

Does continuity exist?

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

### 3. CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

Rear combination lamp			Ground	Continuity
Connector	Terminal			
RH	B59	4		Existed
LH	B80	4		

Does continuity exist?

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



# LICENSE PLATE LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## LICENSE PLATE LAMP CIRCUIT WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001160109

#### NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-86, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check"](#).

#### 1. CHECK LICENSE PLATE LAMP OPERATION

##### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-89, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001160110

#### 1. CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

#### 2. CHECK LICENSE PLATE LAMP OPEN CIRCUIT

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

IPDM E/R		License plate lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E14	37	D201	1	Existed
LH			D200	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	D201	2	Existed	
LH	D200	2		

Does continuity exist?

# LICENSE PLATE LAMP CIRCUIT

[XENON TYPE]

## < COMPONENT DIAGNOSIS >

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

### WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001298636

#### NOTE:

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-72, "Component Function Check"](#).

#### 1. CHECK LICENSE PLATE LAMP OPERATION

##### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-90, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure INFOID:000000001298637

#### 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. Remove daytime running light relay.
3. Disconnect the license plate lamp connector.
4. Check continuity between the daytime running light relay harness connector and the license plate lamp harness connector.

Daytime running light relay		License plate lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E65	5	D201	Existed
LH			D200	

#### 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	D201	2	Existed	
LH	D200	2		

#### Does continuity exist?

# LICENSE PLATE LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

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

A

B

C

D

E

F

G

H

I

J

K

**EXL**

M

N

O

P

# REAR FOG LAMP CIRCUIT

[XENON TYPE]

< COMPONENT DIAGNOSIS >

## REAR FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000001160111

#### 1. CHECK REAR FOG LAMP OPERATION

##### CONSULT-III ACTIVE TEST

1. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
2. With operating the test items, check that the rear fog lamp is turned ON.

**On : Rear fog lamp ON**

**Off : Rear fog lamp OFF**

##### Is rear fog lamp turned ON?

- YES >> Rear fog lamp circuit is normal.  
NO >> Refer to [EXL-92. "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160112

#### 1. CHECK REAR FOG LAMP BULB

Check the applicable lamp bulb.

##### Is the bulb normal?

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

#### 2. CHECK REAR FOG LAMP OUTPUT VOLTAGE

##### CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the rear fog lamp connector.
3. Turn the ignition switch ON.
4. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
5. With operating the test items, check voltage between BCM harness connector and ground.

Terminals		Test item	Voltage (approx.)
(+)	(-)		
BCM		RR FOG LAMP	
Connector	Terminal		
M66	49	On	12 V
		Off	0 V

##### Is the measurement value normal?

- YES >> GO TO 3.  
NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#).

#### 3. CHECK REAR FOG LAMP OPEN CIRCUIT

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

BCM		Rear fog lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	49	B202	1	Existed

##### Does continuity exist?

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

# REAR FOG LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## 4. CHECK REAR FOG LAMP SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	49		Not existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

## 5. CHECK REAR FOG LAMP GROUND OPEN CIRCUIT

Check continuity between rear fog lamp harness connector and ground.

Rear fog lamp		Ground	Continuity
Connector	Terminal		
B202	2		Existed

Does continuity exist?

YES >> Replace the rear fog lamp.

NO >> Repair the harnesses or connectors.

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



# HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## HEADLAMP (WITH XENON HEADLAMP)

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	-
20	SB	-
21	G	-
22	LG	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E17
Connector Name	HEADLAMP LH
Connector Type	E02FGY-RS



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

Connector No.	E72
Connector Name	HIGH BEAM SOLENOID LH
Connector Type	RS02FB



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

Connector No.	E74
Connector Name	HEADLAMP RH
Connector Type	E02FGY-RS



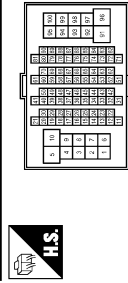
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	B	-

Connector No.	E75
Connector Name	HIGH BEAM SOLENOID RH
Connector Type	RS02FB



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

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

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

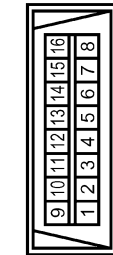
# HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

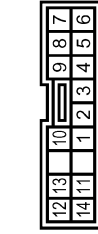
## HEADLAMP (WITH XENON HEADLAMP)

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



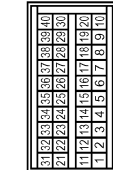
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M7
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	B	INPUT 2[LHD models]
4	L	INPUT 3
5	GR	INPUT 4
9	O	INPUT 5[RHD models]
10	BR	INPUT 5[LHD models]
11	P	OUTPUT 1
12	R	OUTPUT 2
13	G	OUTPUT 5
14	Y	OUTPUT 4

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
10	B	COMBI SW INPUT 2[LHD models]
11	O	COMBI SW 5 IN[RHD models]
12	BR	COMBI SW 5 IN[LHD models]
21	P	CAN-L
22	L	CAN-H

10	W	OUTPUT 3
----	---	----------

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAE4DFW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

JCLWA0428GB



# HEADLAMP SYSTEM

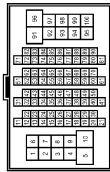
< COMPONENT DIAGNOSIS >

[XENON TYPE]

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

**HEADLAMP (WITH XENON HEADLAMP)**

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	THROW-CSI6-TM4



Terminal No.	Color of Wire	Signal Name (Specification)
5	Y	-
12	P	-
22	L	-

JCLWA0429GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

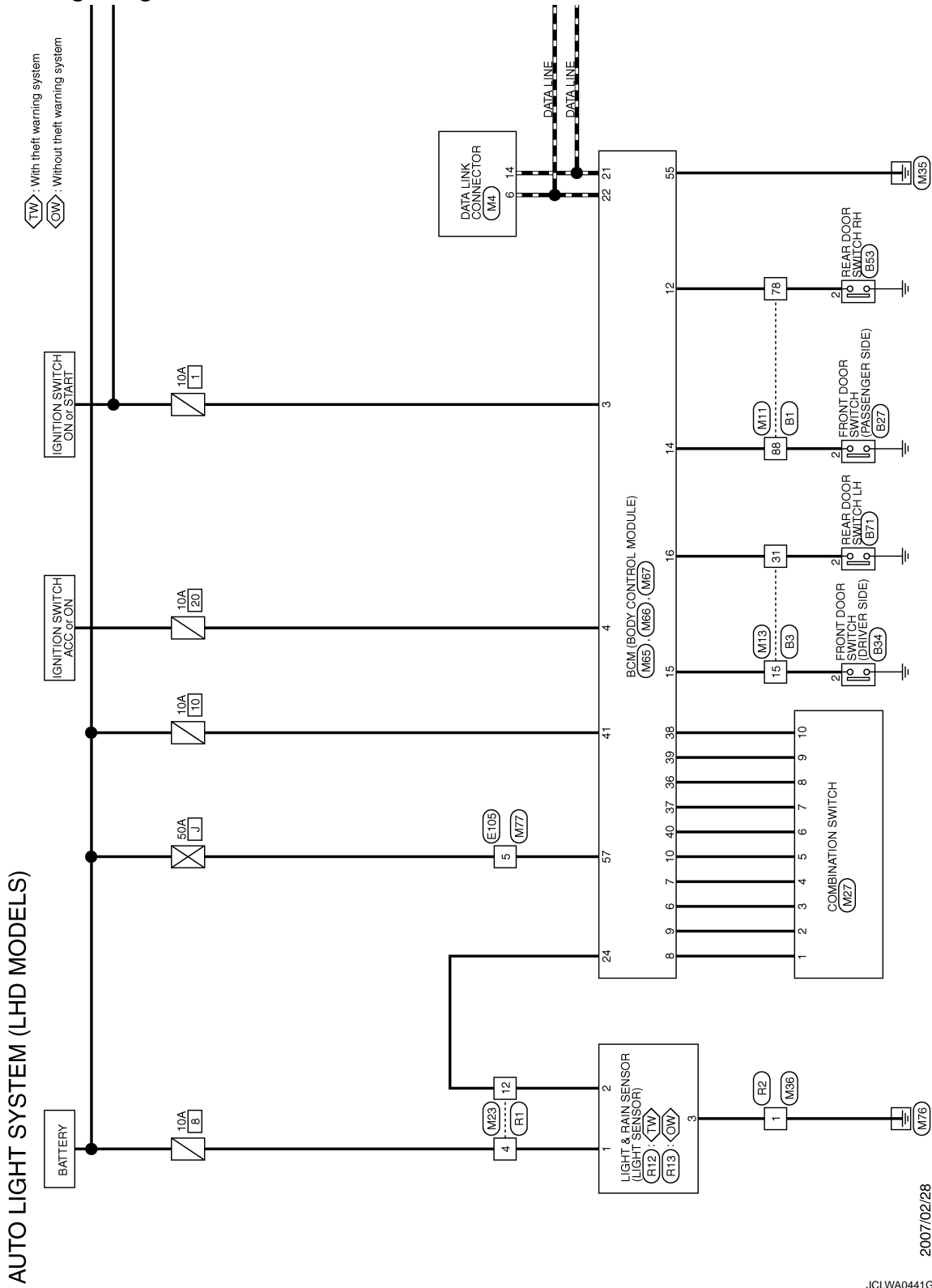
[XENON TYPE]

## AUTO LIGHT SYSTEM

LHD

### LHD : Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:000000001160114



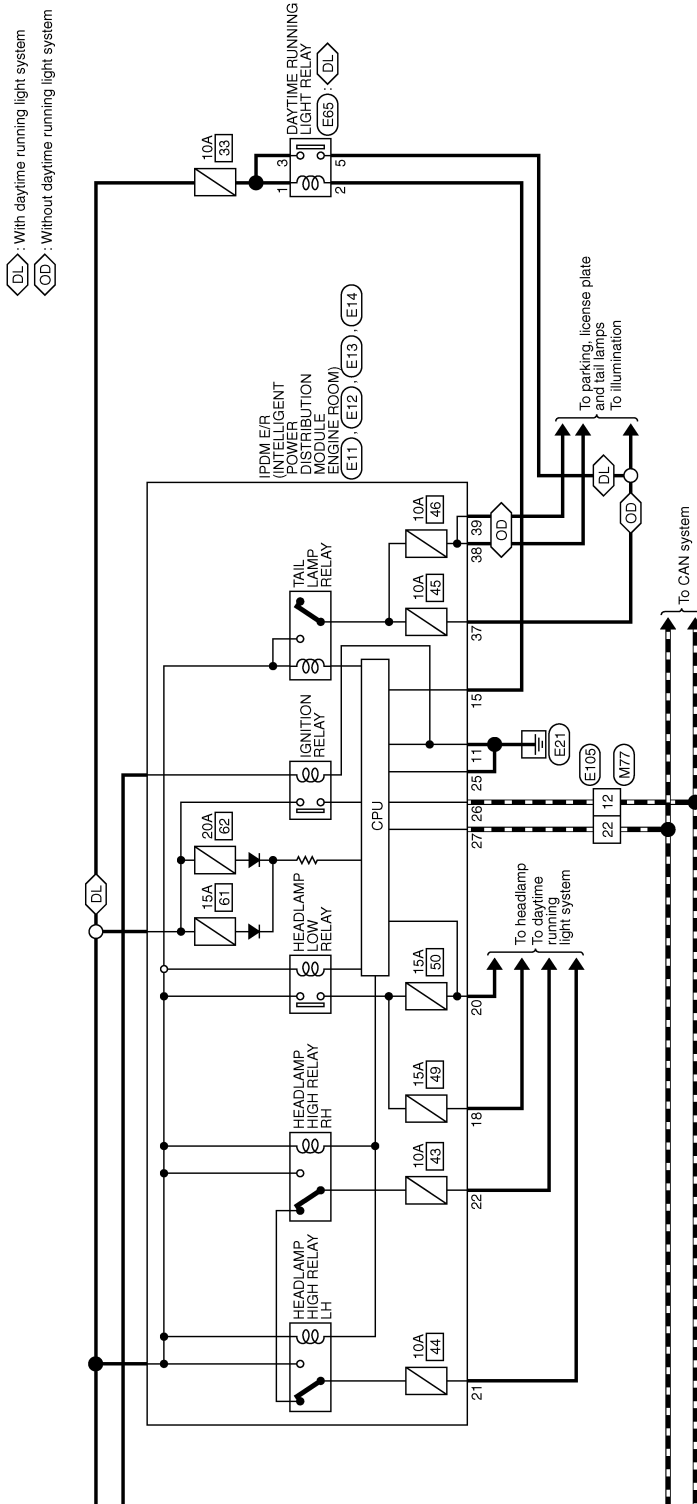
2007/02/28

JCLWA0441GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



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

JCLWA0442GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM (LHD MODELS)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
78	Y	-
88	BR	-

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	GR	-

Connector No.	B7
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	BR	- [LHD models]

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	P	- [LHD models]

Connector No.	B53
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-

Connector No.	B71
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	-

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

Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FB-CS

Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-
18	L	-
20	SB	-
21	G	-
22	LG	-

JCLWA0443GB

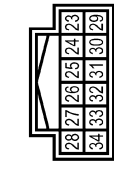
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

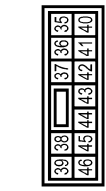
## AUTO LIGHT SYSTEM (LHD MODELS)

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



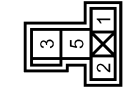
Terminal No.	Color of Wire	Signal Name [Specification]
23	B	-
26	P	-
27	L	-

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



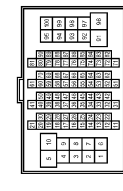
Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



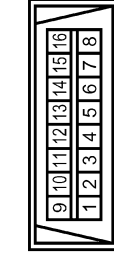
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

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



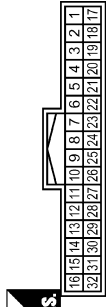
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



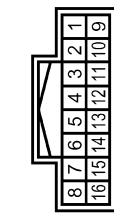
Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-
88	BR	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	GR	-[LHD models]

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	GR	-

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

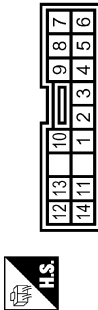
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

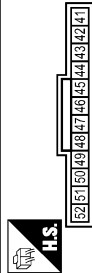
## AUTO LIGHT SYSTEM (LHD MODELS)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4
10	W	OUTPUT 3

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



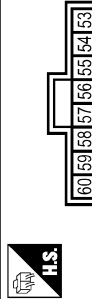
Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BATT(FUSE)

Connector No.	M38
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



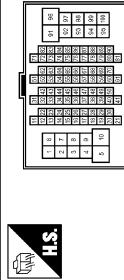
Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	B	COMBI SW INPUT 2[LHD models]
10	BR	COMBI SW 3 (LHD models)
12	LG	DOOR SW (RR)
14	BR	DOOR SW (AS)[LHD models]
15	P	DOOR SW (DR)[LHD models]
16	GR	DOOR SW (RL)[LHD models]

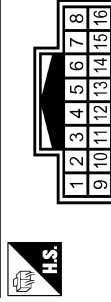
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS(6-TM4)



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

21	P	CAN-L
22	L	CAN-H
24	GR	LIGHT & RAIN SEN
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH

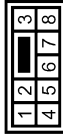


Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	R	-

RHD

AUTO LIGHT SYSTEM (LHD MODELS)

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	NS28MW-CS



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

Connector No.	R12
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

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

JCLWA0446GB

# AUTO LIGHT SYSTEM

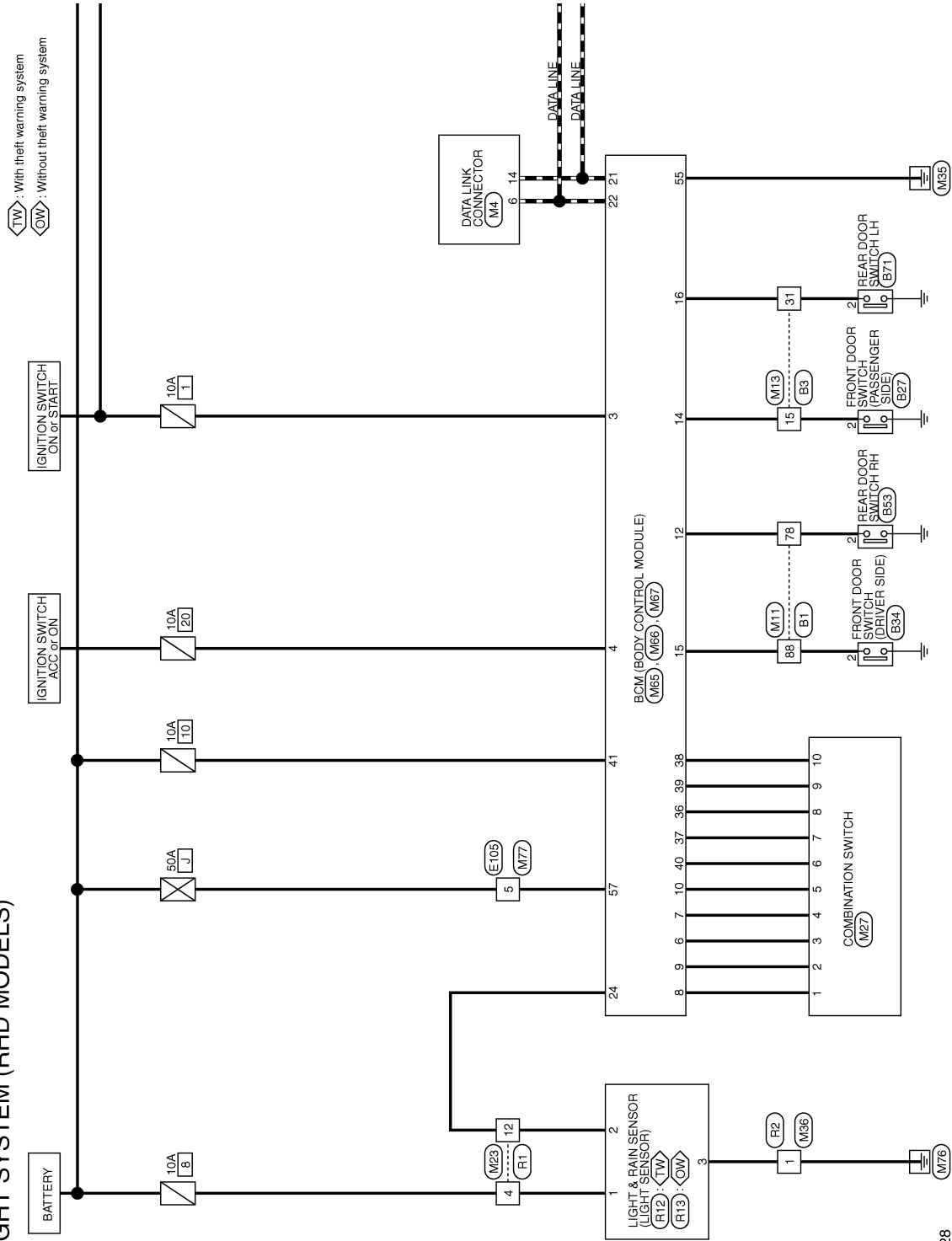
< COMPONENT DIAGNOSIS >

[XENON TYPE]

## RHD : Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:000000001208534

### AUTO LIGHT SYSTEM (RHD MODELS)



TW With theft warning system  
OW Without theft warning system

2007/02/28

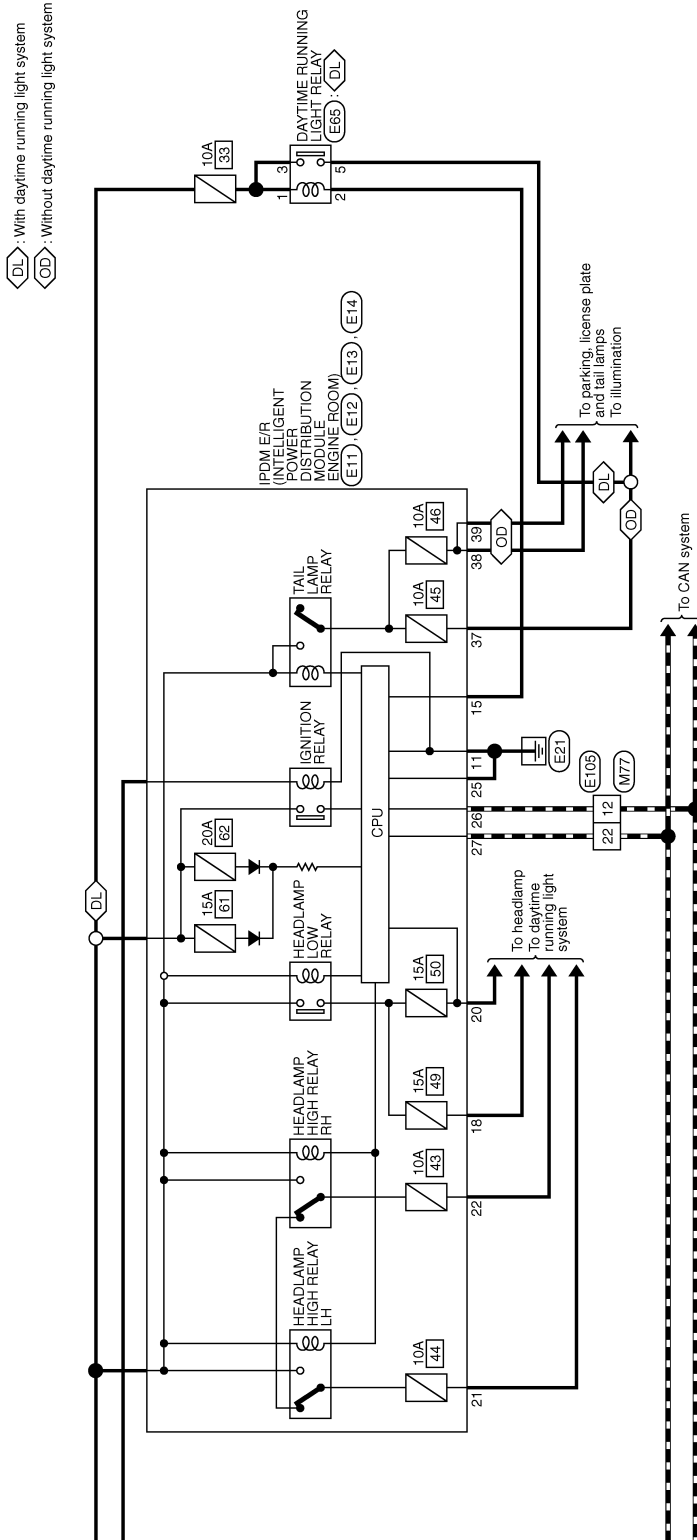
JCLWA0447GB



# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



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

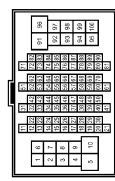

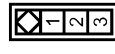
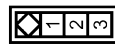

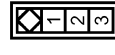


JCLWA0448GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## AUTO LIGHT SYSTEM (RHD MODELS)

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B1</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH80MW-CS16-TM4</td></tr> </table>	Connector No.	B1	Connector Name	WIRE TO WIRE	Connector Type	TH80MW-CS16-TM4		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>78</td></tr> <tr><td>Color of Wire</td><td>Y</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>88</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	78	Color of Wire	Y	Signal Name [Specification]	-	Terminal No.	88	Color of Wire	BR	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>Y</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	2	Color of Wire	Y	Signal Name [Specification]	-																																										
Connector No.	B1																																																																				
Connector Name	WIRE TO WIRE																																																																				
Connector Type	TH80MW-CS16-TM4																																																																				
Terminal No.	78																																																																				
Color of Wire	Y																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	88																																																																				
Color of Wire	BR																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	2																																																																				
Color of Wire	Y																																																																				
Signal Name [Specification]	-																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B3</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH32MW-NH</td></tr> </table>	Connector No.	B3	Connector Name	WIRE TO WIRE	Connector Type	TH32MW-NH		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>P</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>31</td></tr> <tr><td>Color of Wire</td><td>GR</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	15	Color of Wire	P	Signal Name [Specification]	-	Terminal No.	31	Color of Wire	GR	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>P</td></tr> <tr><td>Signal Name [Specification]</td><td>- [RHD models]</td></tr> </table>	Terminal No.	2	Color of Wire	P	Signal Name [Specification]	- [RHD models]																																										
Connector No.	B3																																																																				
Connector Name	WIRE TO WIRE																																																																				
Connector Type	TH32MW-NH																																																																				
Terminal No.	15																																																																				
Color of Wire	P																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	31																																																																				
Color of Wire	GR																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	2																																																																				
Color of Wire	P																																																																				
Signal Name [Specification]	- [RHD models]																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B7</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (PASSENGER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B7	Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>P</td></tr> <tr><td>Signal Name [Specification]</td><td>- [RHD models]</td></tr> </table>	Terminal No.	2	Color of Wire	P	Signal Name [Specification]	- [RHD models]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> <tr><td>Signal Name [Specification]</td><td>- [RHD models]</td></tr> </table>	Terminal No.	2	Color of Wire	BR	Signal Name [Specification]	- [RHD models]																																																
Connector No.	B7																																																																				
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)																																																																				
Connector Type	A03FW																																																																				
Terminal No.	2																																																																				
Color of Wire	P																																																																				
Signal Name [Specification]	- [RHD models]																																																																				
Terminal No.	2																																																																				
Color of Wire	BR																																																																				
Signal Name [Specification]	- [RHD models]																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B34</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (DRIVER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B34	Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> <tr><td>Signal Name [Specification]</td><td>- [RHD models]</td></tr> </table>	Terminal No.	2	Color of Wire	BR	Signal Name [Specification]	- [RHD models]	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> <tr><td>Signal Name [Specification]</td><td>- [RHD models]</td></tr> </table>	Terminal No.	2	Color of Wire	BR	Signal Name [Specification]	- [RHD models]																																																
Connector No.	B34																																																																				
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)																																																																				
Connector Type	A03FW																																																																				
Terminal No.	2																																																																				
Color of Wire	BR																																																																				
Signal Name [Specification]	- [RHD models]																																																																				
Terminal No.	2																																																																				
Color of Wire	BR																																																																				
Signal Name [Specification]	- [RHD models]																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B53</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH RH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B53	Connector Name	REAR DOOR SWITCH RH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>Y</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	2	Color of Wire	Y	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>18</td></tr> <tr><td>Color of Wire</td><td>L</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>20</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>21</td></tr> <tr><td>Color of Wire</td><td>G</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	15	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	18	Color of Wire	L	Signal Name [Specification]	-	Terminal No.	20	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	21	Color of Wire	G	Signal Name [Specification]	-	Terminal No.	22	Color of Wire	LG	Signal Name [Specification]	-																								
Connector No.	B53																																																																				
Connector Name	REAR DOOR SWITCH RH																																																																				
Connector Type	A03FW																																																																				
Terminal No.	2																																																																				
Color of Wire	Y																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	15																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	18																																																																				
Color of Wire	L																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	20																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	21																																																																				
Color of Wire	G																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	22																																																																				
Color of Wire	LG																																																																				
Signal Name [Specification]	-																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B71</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH LH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B71	Connector Name	REAR DOOR SWITCH LH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>GR</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	2	Color of Wire	GR	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>11</td></tr> <tr><td>Color of Wire</td><td>B</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	11	Color of Wire	B	Signal Name [Specification]	-																																																
Connector No.	B71																																																																				
Connector Name	REAR DOOR SWITCH LH																																																																				
Connector Type	A03FW																																																																				
Terminal No.	2																																																																				
Color of Wire	GR																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	11																																																																				
Color of Wire	B																																																																				
Signal Name [Specification]	-																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E11</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>M06FB-LC</td></tr> </table>	Connector No.	E11	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	M06FB-LC		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>11</td></tr> <tr><td>Color of Wire</td><td>B</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	11	Color of Wire	B	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>17</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	17	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	22	Color of Wire	LG	Signal Name [Specification]	-																																										
Connector No.	E11																																																																				
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																																																				
Connector Type	M06FB-LC																																																																				
Terminal No.	11																																																																				
Color of Wire	B																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	17																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	22																																																																				
Color of Wire	LG																																																																				
Signal Name [Specification]	-																																																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E12</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS08FB-CS</td></tr> </table>	Connector No.	E12	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS08FB-CS		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>18</td></tr> <tr><td>Color of Wire</td><td>L</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>20</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>21</td></tr> <tr><td>Color of Wire</td><td>G</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	15	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	18	Color of Wire	L	Signal Name [Specification]	-	Terminal No.	20	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	21	Color of Wire	G	Signal Name [Specification]	-	Terminal No.	22	Color of Wire	LG	Signal Name [Specification]	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>18</td></tr> <tr><td>Color of Wire</td><td>L</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>20</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>21</td></tr> <tr><td>Color of Wire</td><td>G</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> <tr><td>Signal Name [Specification]</td><td>-</td></tr> </table>	Terminal No.	15	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	18	Color of Wire	L	Signal Name [Specification]	-	Terminal No.	20	Color of Wire	SB	Signal Name [Specification]	-	Terminal No.	21	Color of Wire	G	Signal Name [Specification]	-	Terminal No.	22	Color of Wire	LG	Signal Name [Specification]	-
Connector No.	E12																																																																				
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																																																				
Connector Type	NS08FB-CS																																																																				
Terminal No.	15																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	18																																																																				
Color of Wire	L																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	20																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	21																																																																				
Color of Wire	G																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	22																																																																				
Color of Wire	LG																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	15																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	18																																																																				
Color of Wire	L																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	20																																																																				
Color of Wire	SB																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	21																																																																				
Color of Wire	G																																																																				
Signal Name [Specification]	-																																																																				
Terminal No.	22																																																																				
Color of Wire	LG																																																																				
Signal Name [Specification]	-																																																																				

JCLWA0449GB

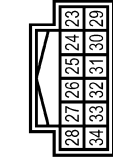
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

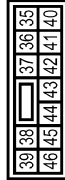
[XENON TYPE]

## AUTO LIGHT SYSTEM (RHD MODELS)

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



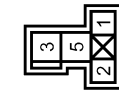
Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



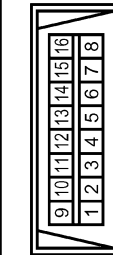
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



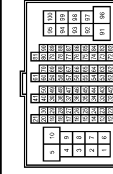
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



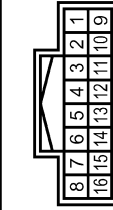
Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-
88	BR	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	R	-[RHD models]

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	GR	-

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

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

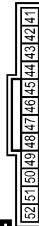
## AUTO LIGHT SYSTEM (RHD MODELS)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4
10	W	OUTPUT 5

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BATT(FUSE)

Connector No.	M68
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



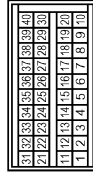
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



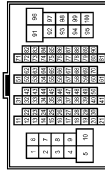
Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
10	O	COMBI SW 3 INPUT models]
12	LG	DOOR SW (RR)
14	P	DOOR SW (AS)[RHD models]
15	BR	DOOR SW (DR)[RHD models]
16	R	DOOR SW (RL)[RHD models]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS(6-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

21	P	CAN-L
22	L	CAN-H
24	GR	LIGHT & RAIN SEN
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

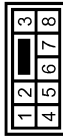
Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	R	-

AUTO LIGHT SYSTEM (RHD MODELS)

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	NS28MW-CS



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

Connector No.	R12
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

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

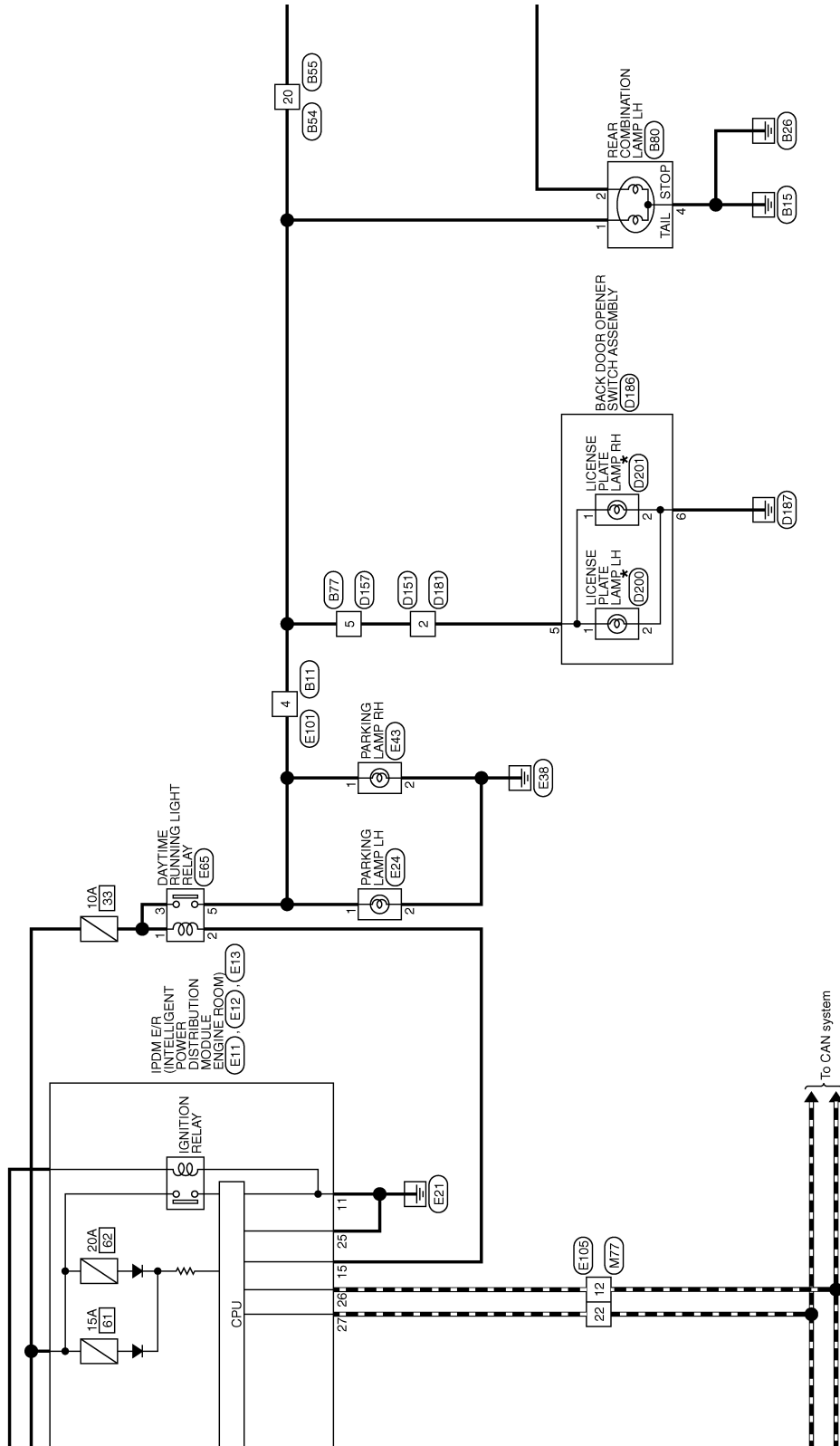
JCLWA0452GB



# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



\* : This connector is not shown in "Harness Layout".

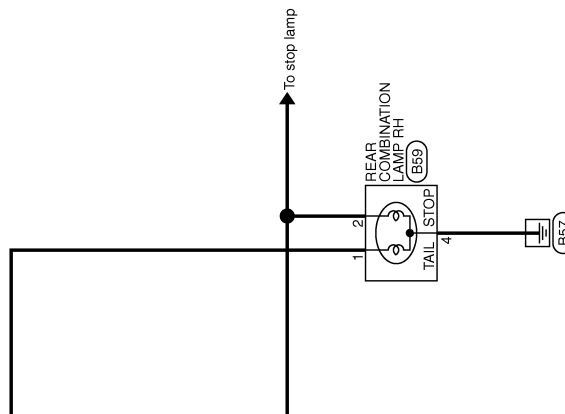
JCLWA0434GB

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

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



JCLWA0435GB



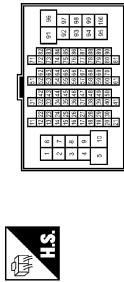
# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

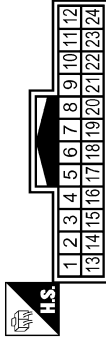
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



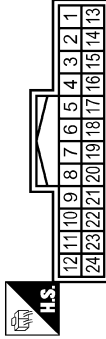
Terminal No.	4	Color of Wire	R	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

Connector No.	B34
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



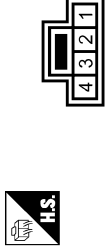
Terminal No.	20	Color of Wire	R	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	B35
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



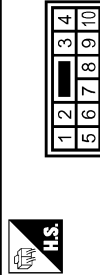
Terminal No.	20	Color of Wire	R	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS24MW-CS



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

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	5	Color of Wire	R	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS24MW-CS



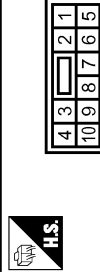
Terminal No.	1	Color of Wire	R	Signal Name [Specification]	-
	2	Color of Wire	Y	Signal Name [Specification]	-
	4	Color of Wire	B	Signal Name [Specification]	-

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	NS08FB-R-CS



Terminal No.	2	Color of Wire	R	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	5	Color of Wire	R	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

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

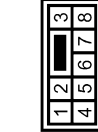
# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	NS30MBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D186
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TK08MW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	LIC LAMP
6	B	EARTH

Connector No.	D200
Connector Name	LICENSE PLATE LAMP LH
Connector Type	STL02FW



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

Connector No.	D201
Connector Name	LICENSE PLATE LAMP RH
Connector Type	STL02FW



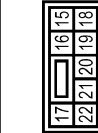
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



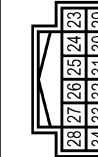
Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS30FBR-CS



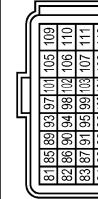
Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-
18	L	-
20	SB	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
28	P	-
27	L	-

Connector No.	E16
Connector Name	ECM
Connector Type	M4A2/FEB-ME4B-LH



Terminal No.	Color of Wire	Signal Name [Specification]
83	P	CAN-L1
84	L	CAN-H1

JCLWA0437GB

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E19
Connector Name	ECM
Connector Type	BA32FE-AHY8

Terminal No.	Color of Wire	Signal Name [Specification]
82	L	VEHICAN-H
90	P	VEHICAN-L

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	T02FB

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

Connector No.	E26
Connector Name	HEADLAMP LH
Connector Type	N003FB

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

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	T02FB

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

Connector No.	E45
Connector Name	HEADLAMP RH
Connector Type	N003FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	B	-
3	SB	-

Connector No.	E60
Connector Name	ECM
Connector Type	MAA24FB-3EA8-LH

Terminal No.	Color of Wire	Signal Name [Specification]
99	P	MAIN CAN-L(BODY)
100	L	MAIN CAN-H(BODY)

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E71
Connector Name	HEADLAMP LH
Connector Type	E02FGY-RS

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

JCLWA0438GB

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

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

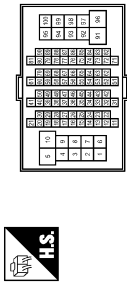
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E74
Connector Name	HEADLAMP RH
Connector Type	E02FGY-RS



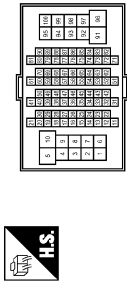
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	B	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	T180FW-CS1E-TM4



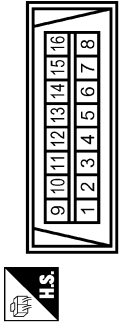
Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	T180FW-CS1E-TM4



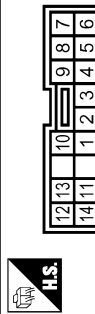
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
20	P	-
22	L	-
30	L	-

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



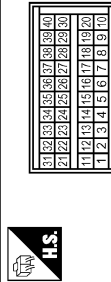
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3

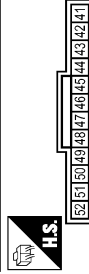
Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AA840FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	B	COMBI SW INPUT 2[LHD models]
10	BR	COMBI SW 5 [LHD models]
21	P	GAN-L
22	L	GAN-H
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2

38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

JCLWA0439GB

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

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

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT1F/L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TR80MW-C51B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
20	P	-
22	L	-
30	L	-

JCLWA0440GB

# FRONT FOG LAMP SYSTEM

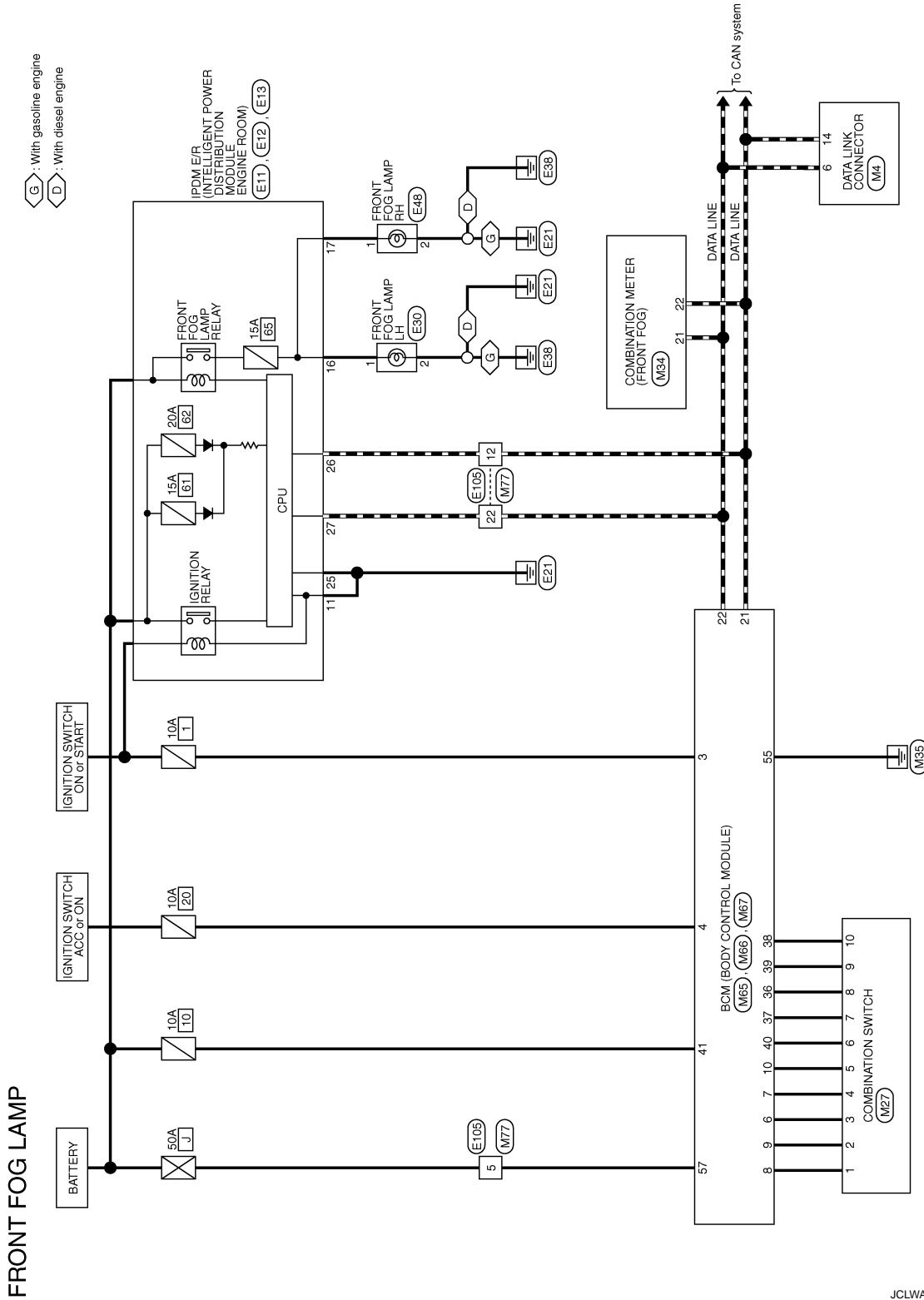
< COMPONENT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP SYSTEM

### Wiring Diagram - FRONT FOG LAMP -

INFOID:000000001160116



2007/02/28

JCLWA0459GB

# FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
16	Y	-
17	W	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E30
Connector Name	FRONT FOG LAMP LH
Connector Type	FHZ202FB



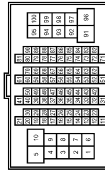
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	B	-

Connector No.	E48
Connector Name	FRONT FOG LAMP RH
Connector Type	FHZ202FB



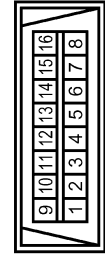
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3

JCLWA0460GB

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

EXL

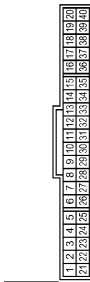
# FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## FRONT FOG LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



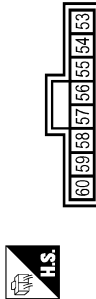
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAAB40FB



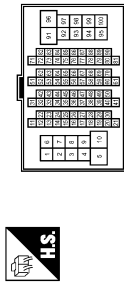
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 2 (RHD models)
10	O	COMBI SW 2 (LHD models)
10	BR	COMBI SW 5 (RHD models)
21	P	CAN-L
22	L	CAN-H

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA80FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

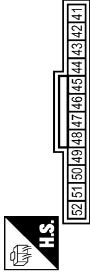
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA1ZFBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

JCLWA0461 GB



# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

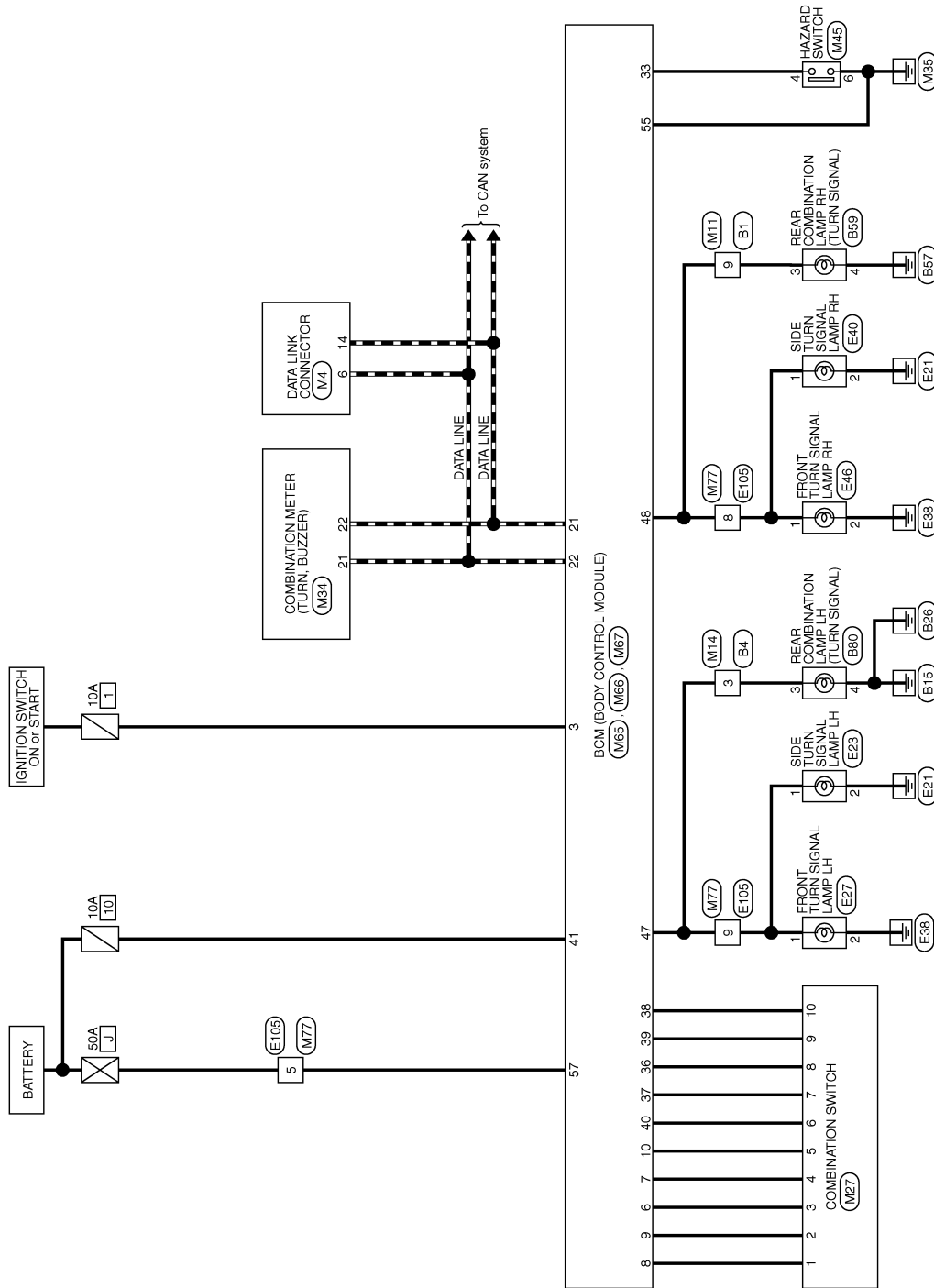
[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

INFOID:000000001160117

### TURN SIGNAL AND HAZARD WARNING LAMPS



2007/02/28

JCLWA0465GB

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

EXL

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

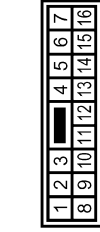
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	9	GR	Signal Name [Specification]	-
--------------	---	----	-----------------------------	---

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	3	BR	Signal Name [Specification]	-
--------------	---	----	-----------------------------	---

Connector No.	B9
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NSD4MW-CS



Terminal No.	3	GR	Signal Name [Specification]	-
Terminal No.	4	B	Signal Name [Specification]	-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NSD4MW-CS



Terminal No.	3	BR	Signal Name [Specification]	-
Terminal No.	4	B	Signal Name [Specification]	-

Connector No.	E23
Connector Name	SIDE TURN SIGNAL LAMP LH
Connector Type	STL02FW



Terminal No.	1	BR	Signal Name [Specification]	-
Terminal No.	2	B	Signal Name [Specification]	-

Connector No.	E27
Connector Name	FRONT TURN SIGNAL LAMP LH
Connector Type	HS02FGY-TV



Terminal No.	1	BR	Signal Name [Specification]	-
Terminal No.	2	B	Signal Name [Specification]	-

Connector No.	E40
Connector Name	SIDE TURN SIGNAL LAMP RH
Connector Type	STL02FW



Terminal No.	1	GR	Signal Name [Specification]	-
Terminal No.	2	B	Signal Name [Specification]	-

Connector No.	E46
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	HS02FGY-TV



Terminal No.	1	GR	Signal Name [Specification]	-
Terminal No.	2	B	Signal Name [Specification]	-

JCLWA0466GB

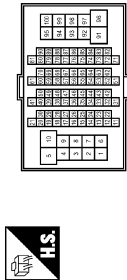
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

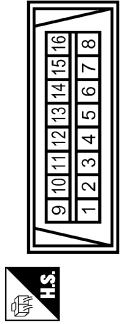
[XENON TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

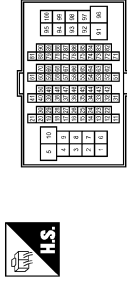
Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



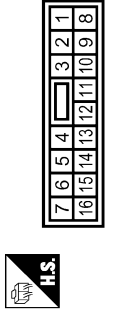
Connector No.	IM4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



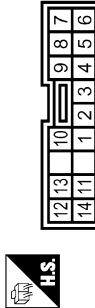
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
8	GR	-
9	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
9	GR	-

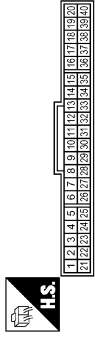
Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



10	W	OUTPUT 3
----	---	----------

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Connector No.	M45
Connector Name	HAZARD SWITCH
Connector Type	NS80FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	B	INPUT 2[LHD models]
4	GR	INPUT 3
5	O	INPUT 4
6	BR	INPUT 5[RHD models]
7	P	INPUT 5[LHD models]
8	G	OUTPUT 1
9	Y	OUTPUT 2
		OUTPUT 3
		OUTPUT 4

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
6	B	-

JCLWA0467GB

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

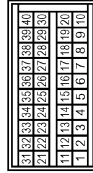
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

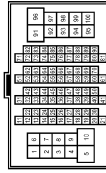
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AABA0FE



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2(RHD models)
9	B	COMBI SW INPUT 2(LHD models)
10	O	COMBI SW 5 IN(RHD models)
10	BR	COMBI SW 5 IN(LHD models)
21	P	CAN-L
22	L	CAN-H

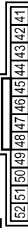
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	THBDMW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
8	GR	-
9	BR	-

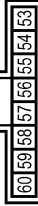
Terminal No.	Color of Wire	Signal Name [Specification]
33	W	HAZARD SW(With xenon headlamp and daytime light system)
33	Y	HAZARD SW(Except with xenon headlamp and daytime light system)
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)
47	BR	FRASHER OUTPUT (LH)
48	GR	FRASHER OUTPUT (RH)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

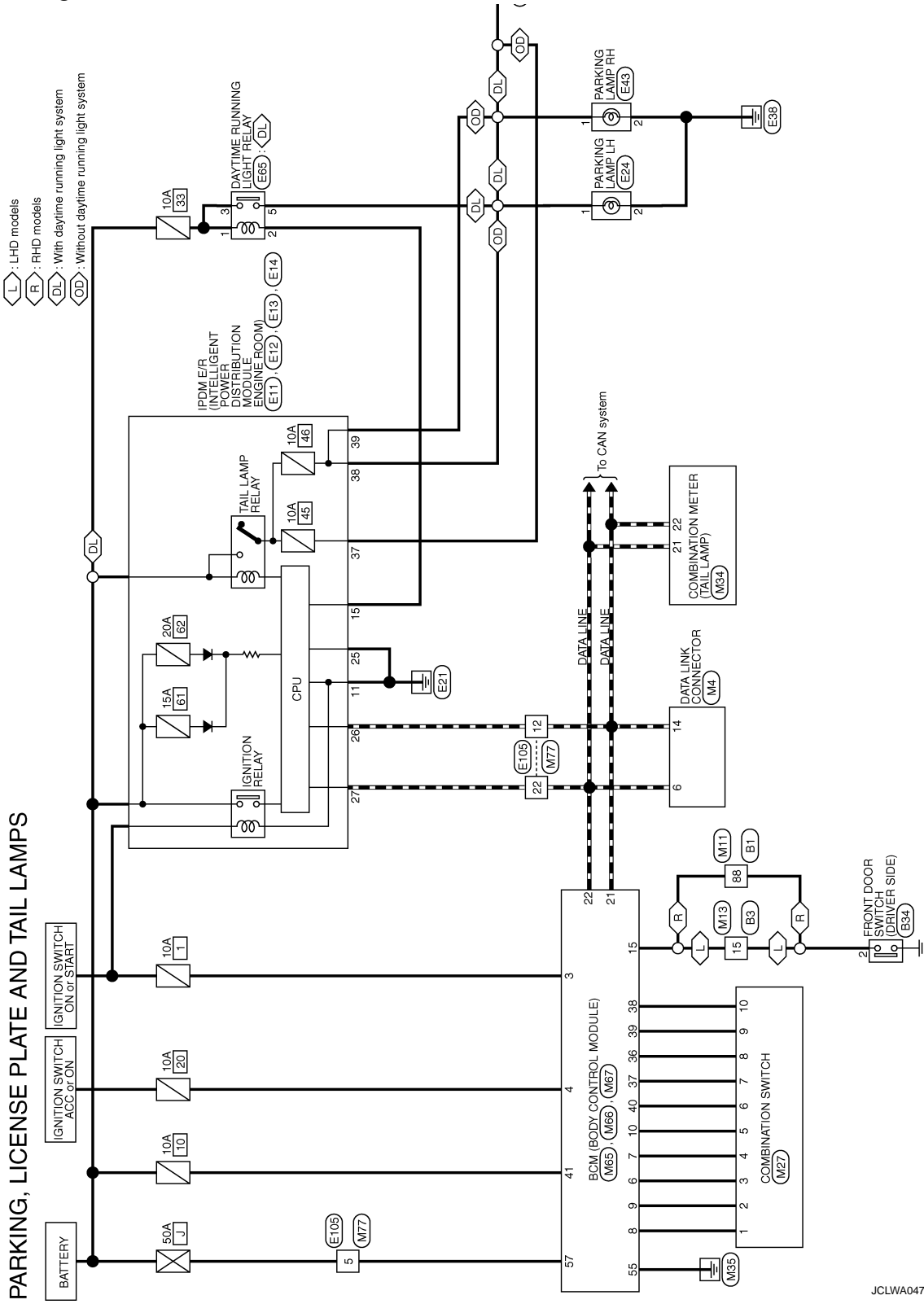
< COMPONENT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

Wiring Diagram - PARKING, LICENSE PLATE AND TAIL LAMPS -

INFOID:000000001160118



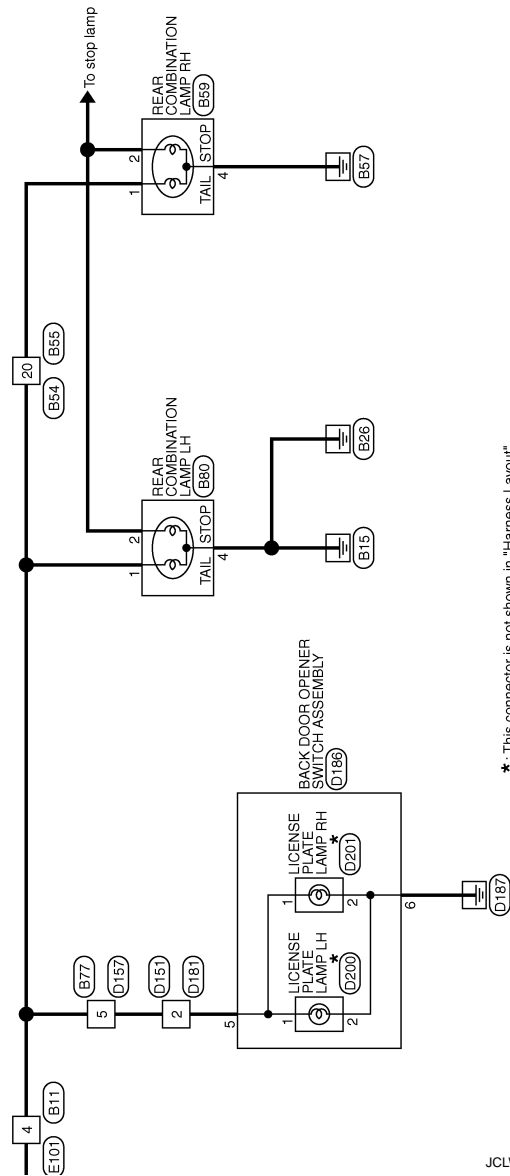
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]



JCLWA0476GB

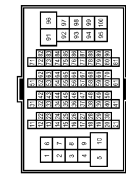
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



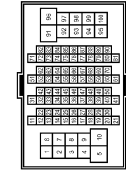
Terminal No.	88	BR	P
Color of Wire			
Signal Name [Specification]			

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH42AW-NH



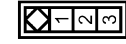
Terminal No.	15	P
Color of Wire		
Signal Name [Specification]		

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	4	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



Terminal No.	2	BR	P
Color of Wire			
Signal Name [Specification]		[RHD models]	[LHD models]

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



Terminal No.	20	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



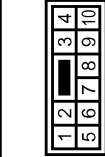
Terminal No.	20	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS04MW-CS



Terminal No.	1	R
Color of Wire		
Signal Name [Specification]		
Terminal No.	2	Y
Color of Wire		
Signal Name [Specification]		
Terminal No.	4	B
Color of Wire		
Signal Name [Specification]		

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	5	R
Color of Wire		
Signal Name [Specification]		

JCLWA0477GB

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

EXL

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS24MW-CS



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

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	NS38FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



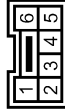
Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	NS38MBF-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D186
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TK68MW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	LLC LAMP
6	B	EARTH

Connector No.	D200
Connector Name	LICENSE PLATE LAMP LH
Connector Type	STL02FW



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

Connector No.	D201
Connector Name	LICENSE PLATE LAMP RH
Connector Type	STL02FW



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

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

JCLWA0478GB



# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

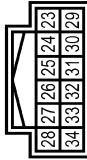
## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FER-CS



Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FER-CS



Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	T02FB



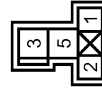
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	-
2	B	-

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	T02FB



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

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SR	-
3	Y	-
5	GR	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

JCLWA0479GB

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

EXL

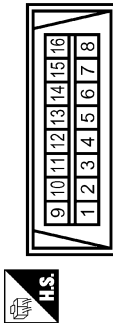
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

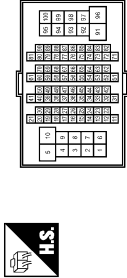
## PARKING, LICENSE PLATE AND TAIL LAMPS

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



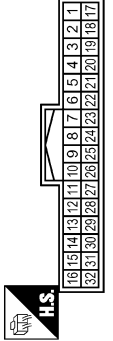
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1E-TM4



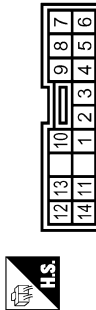
Terminal No.	Color of Wire	Signal Name [Specification]
88	BR	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-

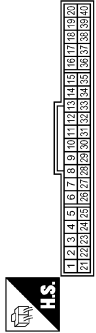
Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4

10	W	OUTPUT 3
----	---	----------

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

JCLWA0480BG

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4WFE



31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
1	2	3	4	5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
9	B	COMBI SW INPUT 2[LHD models]
10	O	COMBI SW 5 IN[RHD models]
10	BR	COMBI SW 5 IN[LHD models]
15	BR	DOOR SW (DR)[RHD models]
15	P	DOOR SW (DR)[LHD models]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



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]
5	Y	-
12	P	-
22	L	-

21	P	GAN-L
22	L	GAN-H
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



52	51	50	49	48	47	46	45	44	43	42	41
----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



60	59	58	57	56	55	54	53
----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GNL
57	Y	BAT(F/L)

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

EXL

## DRIVING LAMP

### Description

INFOID:000000001526966

- Driving lamp relay-2 is turned ON when the driving lamp switch ON is pressed at the time of headlamp (HI) ON.
- Driving lamp relay-1 is turned ON by the driving lamp relay-2. And then driving lamp is turned ON.
- Driving lamp relay-2 maintains ON till headlamp (HI) becomes OFF or driving lamp switch OFF is pressed.

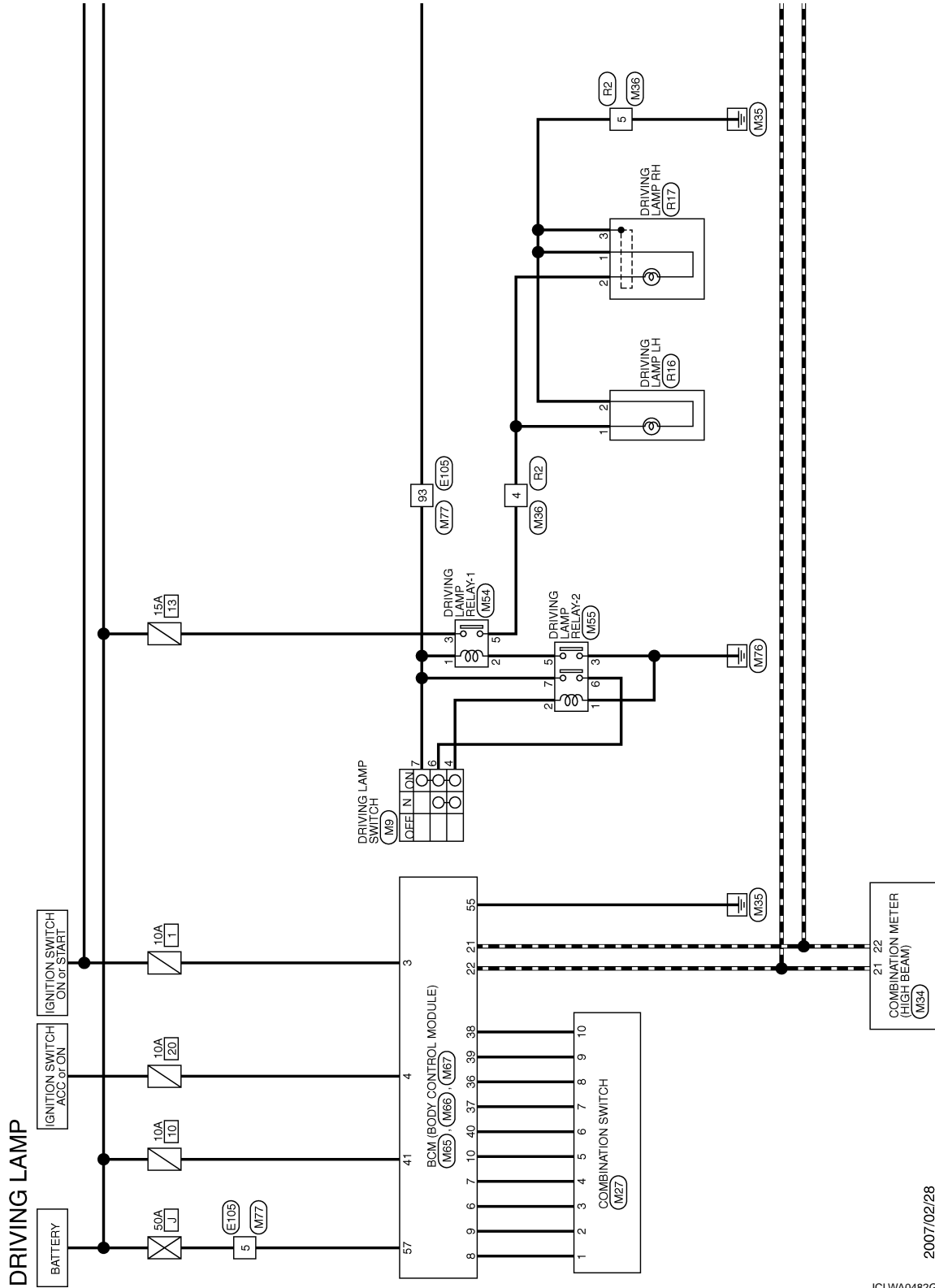
# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## Wiring Diagram - DRIVING LAMP -

INFOID:000000001168392



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

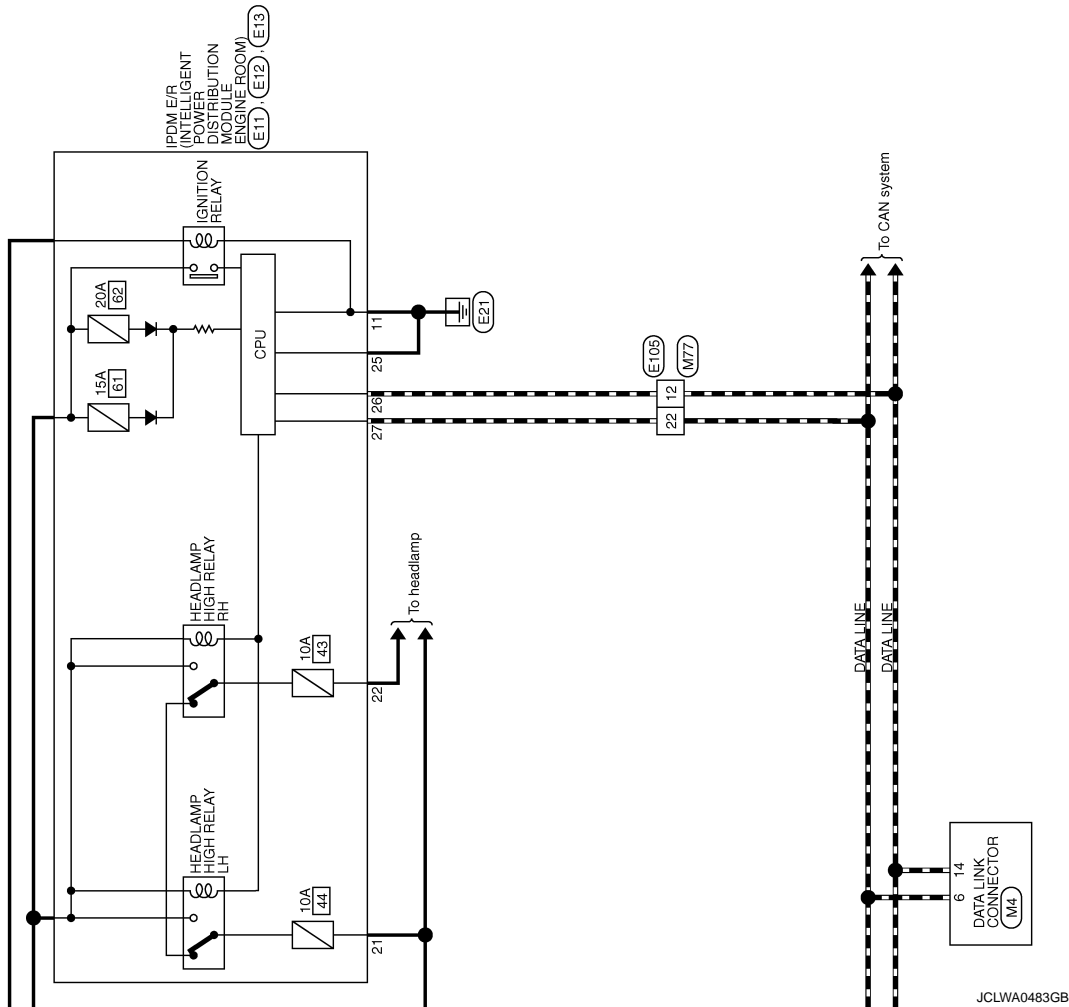
2007/02/28

JCLWA0482GB

# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]



# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## DRIVING LAMP

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
21	G	-
22	LG	-

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



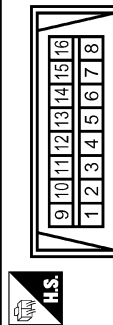
Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH8JFW-CS16-TM4



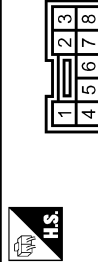
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-
33	L	-

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



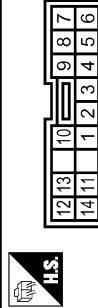
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M9
Connector Name	DRIVING LAMP SWITCH
Connector Type	TK08FW



Terminal No.	Color of Wire	Signal Name [Specification]
4	SB	RELAY COIL
6	W	RELAY CONTACT
7	P	COMB SW/H

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2(RHD models)
2	B	INPUT 3(LHD models)
3	L	INPUT 4
4	GR	INPUT 3
5	O	INPUT 5(RHD models)
5	BR	INPUT 5(LHD models)
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4

10	W	OUTPUT 3
----	---	----------

JCLWA0484GB

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

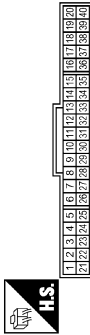
# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## DRIVING LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M38
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	W	-
5	B	-

Connector No.	M54
Connector Name	DRIVING LAMP RELAY-1
Connector Type	MS02FL-M2-LC



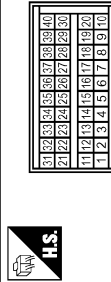
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	Y	-
3	O	-
5	W	-

Connector No.	M55
Connector Name	DRIVING LAMP RELAY-2
Connector Type	M06FBR-R-LC



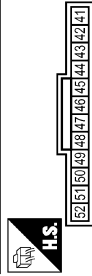
Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	SB	-
3	B	-
5	Y	-
6	W	-
7	P	-

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



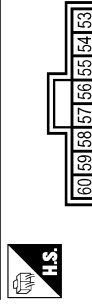
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
9	B	COMBI SW INPUT 2[LHD models]
10	O	COMBI SW 5 [RHD models]
10	BR	COMBI SW 5 [LHD models]
21	P	CAN-L
22	L	CAN-H

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

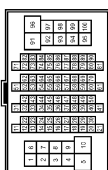







Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

JCLWA0485GB



DRIVING LAMP					
Connector No.	M77		Terminal No.	Color of Wire	Signal Name [Specification]
Connector Name	WIRE TO WIRE		5	Y	-
Connector Type	TH80W-CS16-TM4		12	P	-
			22	L	-
			32	P	-
					
Connector No.	R2		Terminal No.	Color of Wire	Signal Name [Specification]
Connector Name	WIRE TO WIRE		4	W	-
Connector Type	NSJ08MW-CS		5	B	-
					
Connector No.	R16		Terminal No.	Color of Wire	Signal Name [Specification]
Connector Name	DRIVING LAMP LH		1	W	-
Connector Type	CJC2MGY		2	B	-
					
Connector No.	R17		Terminal No.	Color of Wire	Signal Name [Specification]
Connector Name	DRIVING LAMP RH		1	B	-
Connector Type	NSJ03MW-CS		2	W	-
			3	B	-

## Component Inspection (Driving Lamp Switch)

### 1. CHECK DRIVING LAMP SWITCH

1. Remove the driving lamp switch.
2. Check continuity between the driving lamp switch.

JCLWA0486GB

INFOID:000000001526969

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

# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

Driving lamp switch		Condition	Continuity
Terminal			
4	6	ON	Existed
	7		
	6	Neutral	

Does continuity exist?

- YES >> Driving lamp switch is normal.  
NO >> Replace the driving lamp switch.

## Component Inspection (Driving Lamp Relay-1)

INFOID:000000001526967

### 1.CHECK DRIVING LAMP RELAY-1

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

Driving lamp relay-1		Condition	Continuity
Terminal		Voltage	
3	5	Apply	Existed
		Not Apply	Not existed

Does continuity exist?

- YES >> Driving lamp relay-1 is normal.  
NO >> Replace Driving lamp relay-1.

## Component Inspection (Driving Lamp Relay-2)

INFOID:000000001526968

### 1.CHECK DRIVING LAMP RELAY-2

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

Driving lamp relay-2		Condition	Continuity
Terminal		Voltage	
3	5	Apply	Existed
		Not Apply	Not existed
6	7	Apply	Existed
		Not Apply	Not existed

Does continuity exist?

- YES >> Driving lamp relay-2 is normal.  
NO >> Replace driving lamp relay-2.

# STOP LAMP

< COMPONENT DIAGNOSIS >

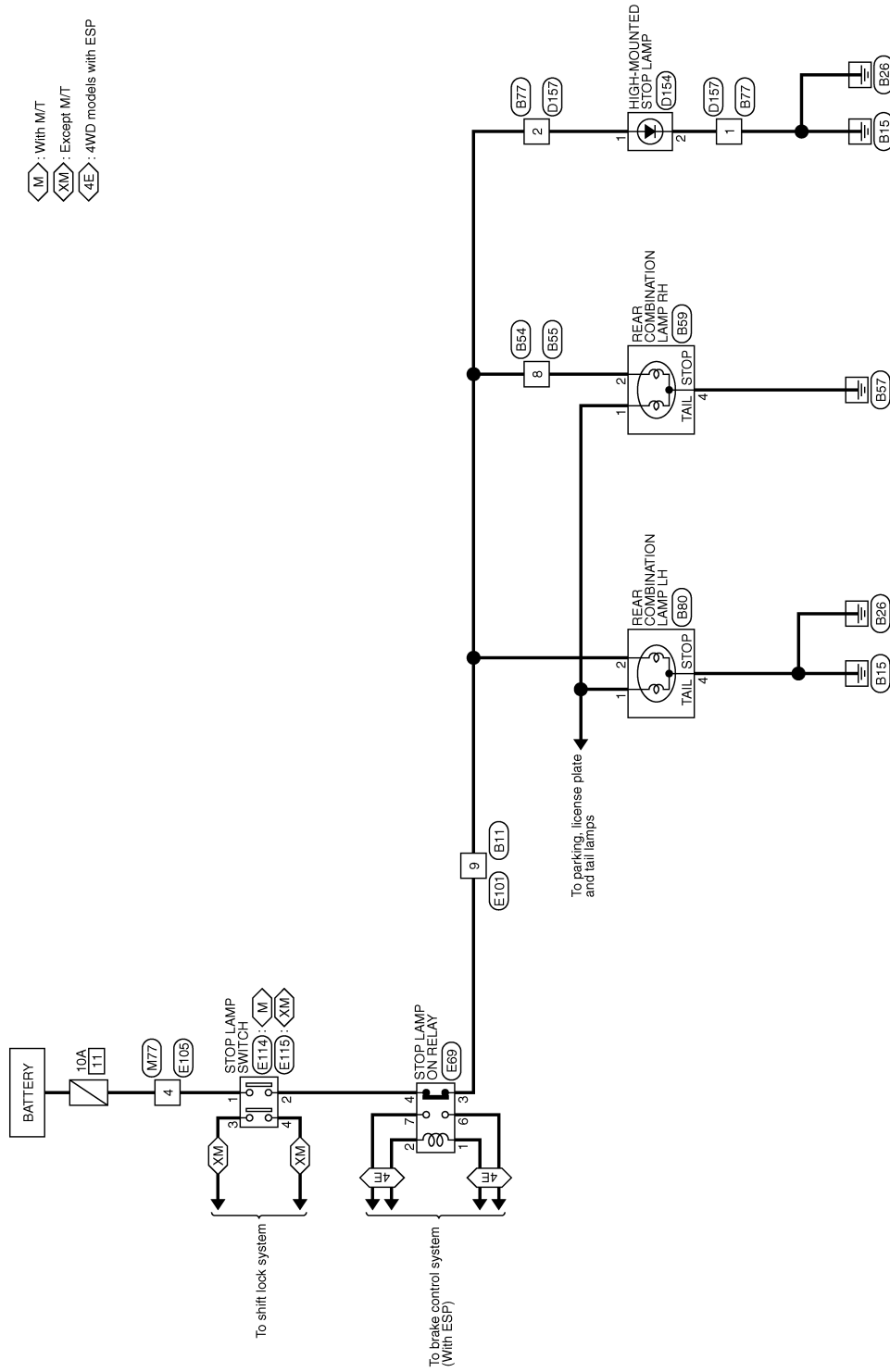
[XENON TYPE]

## STOP LAMP

### Wiring Diagram - STOP LAMP -

INFOID:000000001160119

#### STOP LAMP



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

2007/02/28

JCLWA0469GB

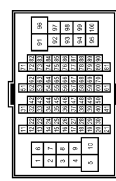
# STOP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

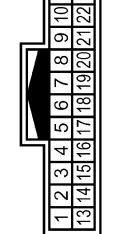
## STOP LAMP

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



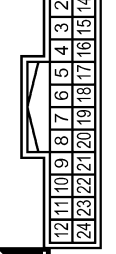
Terminal No.	Color of Wire	Signal Name [Specification]
9	Y	-

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



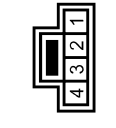
Terminal No.	Color of Wire	Signal Name [Specification]
8	Y	-

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



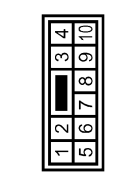
Terminal No.	Color of Wire	Signal Name [Specification]
8	Y	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS04MW-CS



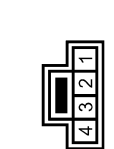
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	Y	-
4	B	-

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS




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

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS04MW-CS



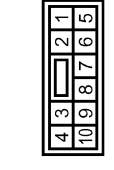
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	Y	-
4	B	-

Connector No.	D154
Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	TK02FW



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

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



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

JCLWA0470GB

# STOP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

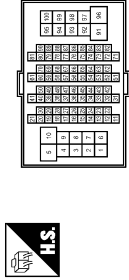
## STOP LAMP

Connector No.	E105
Connector Name	STOP LAMP ON RELAY
Connector Type	M08FGY-R-JS



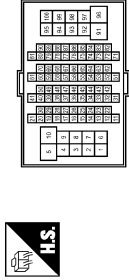
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-
3	R	-
4	P	-
6	LG	-
7	BR	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	V	-

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



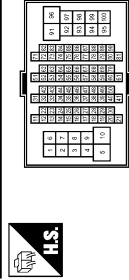
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	P	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	P	-
3	O	-
4	LG	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	V	-

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

EXL

# BACK-UP LAMP

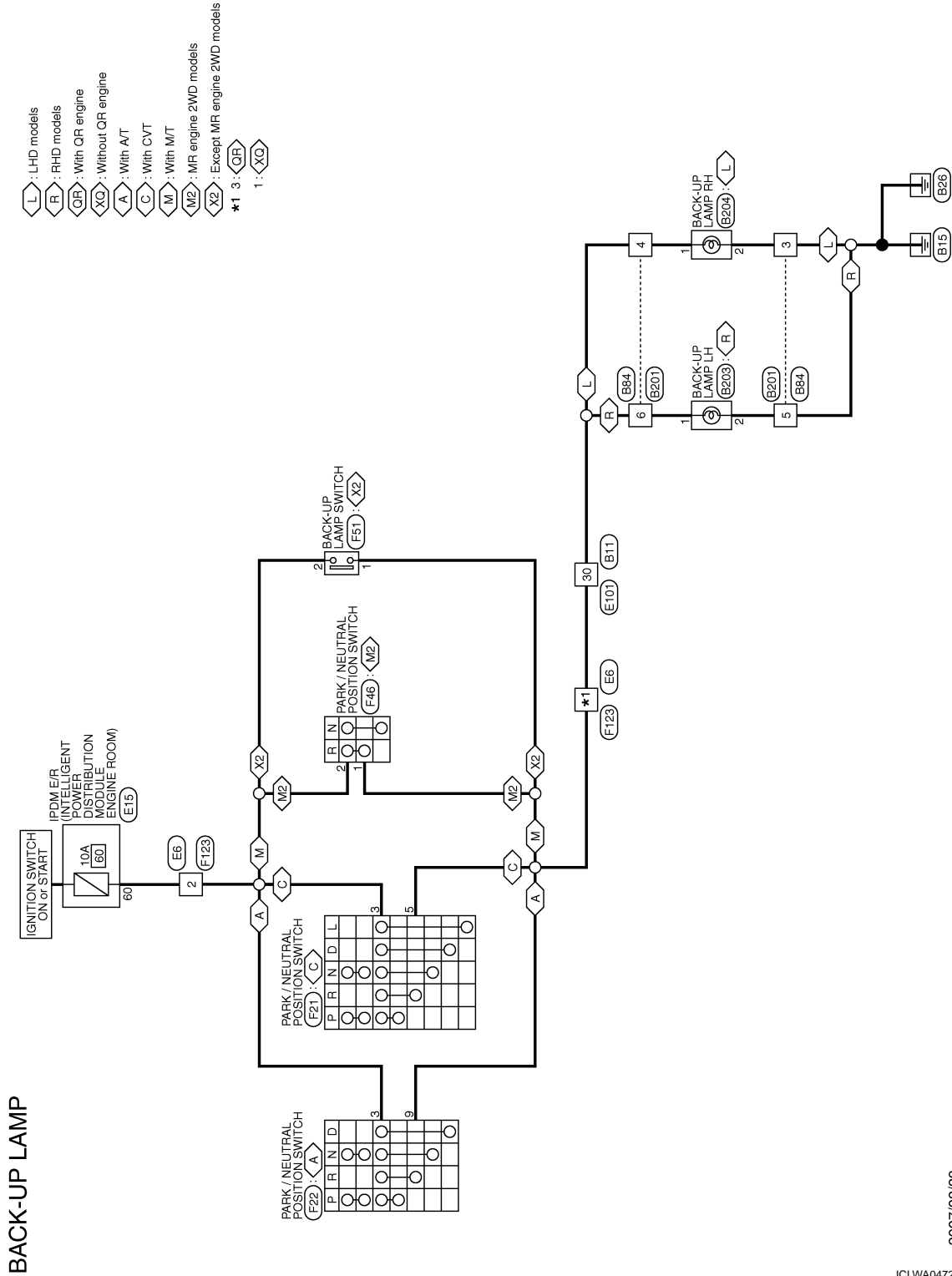
< COMPONENT DIAGNOSIS >

[XENON TYPE]

## BACK-UP LAMP

### Wiring Diagram - BACK-UP LAMP -

INFOID:000000001160120



2007/02/28

JCLWA0472GB

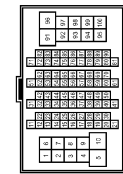
# BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

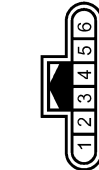
## BACK-UP LAMP

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80W-CS16-TM4



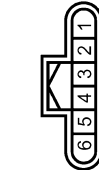
Terminal No.	Color of Wire	Signal Name [Specification]
30	G	-

Connector No.	B84
Connector Name	WIRE TO WIRE
Connector Type	FR06MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
4	G	-
5	B	-
6	G	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	RH06FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
4	G	-
5	B	-
6	G	-

Connector No.	B203
Connector Name	BACK-UP LAMP LH
Connector Type	RS02FGY



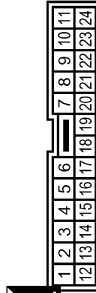
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B204
Connector Name	BACK-UP LAMP RH
Connector Type	RS02FGY



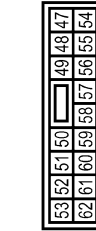
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK2MM-1V



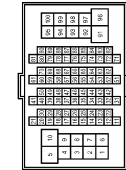
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	- [Without QR engine]
3	G	- [With QR engine]

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
60	SB	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
30	G	-

JCLWA0473GB

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

# BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[XENON TYPE]

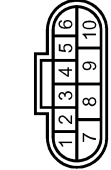
## BACK-UP LAMP

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEAD3FG



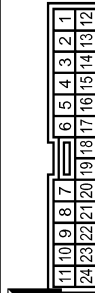
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	- [Without QR engine]
2	SB	-
3	G	- [With QR engine]

JCLWA0474GB





# REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## REAR FOG LAMP

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



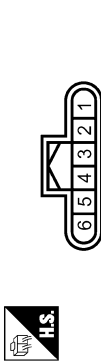
Terminal No.	19	Color of Wire	O	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	FR06MB



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

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	RH06FB



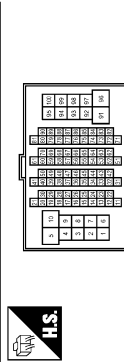
Terminal No.	1	Color of Wire	B	Signal Name [Specification]	-
2	O	-	-	-	-

Connector No.	B202
Connector Name	REAR FOG LAMP
Connector Type	RSC2F3Y



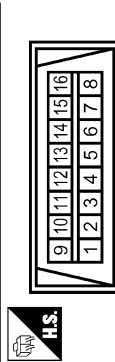
Terminal No.	1	Color of Wire	O	Signal Name [Specification]	-
2	B	-	-	-	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



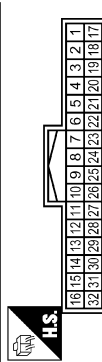
Terminal No.	5	Color of Wire	Y	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

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



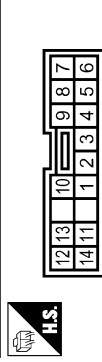
Terminal No.	6	Color of Wire	L	Signal Name [Specification]	-
14	P	-	-	-	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	19	Color of Wire	Y	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	1	Color of Wire	V	Signal Name [Specification]	INPUT 1
2	LG	-	-	-	INPUT 2[RHD models]
3	B	-	-	-	INPUT 2[LHD models]
4	GR	-	-	-	INPUT 3
5	O	-	-	-	INPUT 4
6	P	-	-	-	INPUT 5[RHD models]
7	R	-	-	-	INPUT 5[LHD models]
8	G	-	-	-	OUTPUT 1
9	Y	-	-	-	OUTPUT 2
10	W	-	-	-	OUTPUT 3

JCLWA0463GB

# REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[XENON TYPE]

## REAR FOG LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4FW



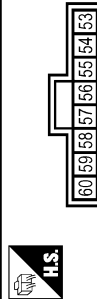
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAAB4FB



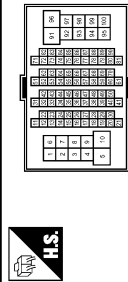
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SE	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 5 (RHD models)
10	BR	COMBI SW 5 (LHD models)
21	P	CAN-L
22	L	CAN-H

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA3FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

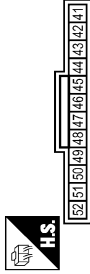
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS1B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-

36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)
49	Y	REAR FOG LAMP

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

## ECU DIAGNOSIS

### BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001527863

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
PUSH SW	Return to ignition switch to "LOCK" position	Off
	Press ignition switch	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	On
SHOCK SENSOR	Ignition switch ON	NOMAL
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
UNLOCK SHOCK	Other than the following	Off
	During the unlock operation interlocked with air bag	On

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Monitor Item	Condition	Value/Status	
UNLOCK WITH DR	<b>NOTE:</b> The item is indicated, but not monitored	On	A
		Off	
LOCK WITH SPEED	Vehicle speed sensing auto door lock function does not operate	Off	B
	Vehicle speed sensing auto door lock function is operating	On	
ACC ON SW	Ignition switch OFF	Off	C
	Ignition switch ACC or ON	On	
REAR DEF SW	Rear window defogger switch OFF	Off	D
	Rear window defogger switch ON	On	
TAIL LAMP SW	Lighting switch OFF	Off	E
	Lighting switch 1ST	On	
TURN SIGNAL R	Turn signal switch OFF	Off	F
	Turn signal switch RH	On	
TURN SIGNAL L	Turn signal switch OFF	Off	G
	Turn signal switch LH	On	
HI BEAM SW	Lighting switch OFF	Off	H
	Lighting switch HI	On	
HEAD LAMP SW 1	Lighting switch OFF	Off	I
	Lighting switch 2ND	On	
HEAD LAMP SW 2	Lighting switch OFF	Off	J
	Lighting switch 2ND	On	
PASSING SW	Other than lighting switch PASS	Off	K
	Lighting switch PASS	On	
AUTO LIGHT SW	Lighting switch OFF	Off	EXL
	Lighting switch AUTO	On	
FR FOG SW	Front fog lamp switch OFF	Off	M
	Front fog lamp switch ON	On	
RR FOG SW	Rear fog lamp switch OFF	Off	N
	Rear fog lamp switch ON	On	
ENGINE RUN	Engine stopped	Off	O
	Engine running	On	
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK	P
	Light & rain sensor is with error	NOTOK	
AUT LIGHT SYS	Outside of the room is dark	On	
	Outside of the room is bright	Off	
HD LIGHT TIME	—	Displays a setting time of the follow me home function set by the work support	
IGN SW CAN	Ignition switch OFF or ACC	Off	
	Ignition switch ON	On	
FR WIPER HI	Front wiper switch OFF	Off	
	Front wiper switch HI	On	
FR WIPER LOW	Front wiper switch OFF	Off	
	Front wiper switch LO	On	
FR WIPER INT	Front wiper switch OFF	Off	
	Front wiper switch INT	On	

## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

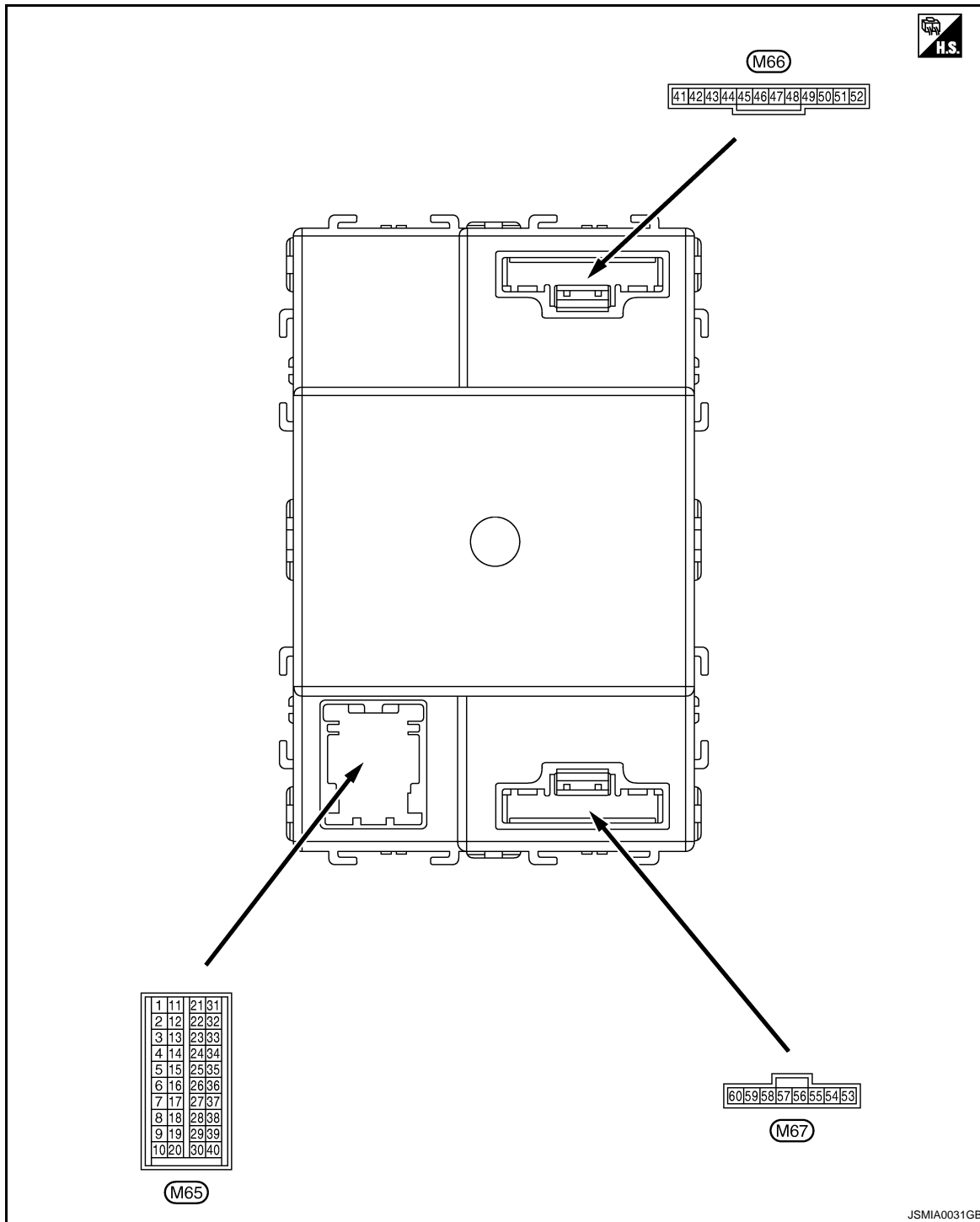
Monitor Item	Condition	Value/Status
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
REVERSE SW CAN	<b>NOTE:</b> The item is indicated, but not monitored	Off
		On
H/L WASH SW	When headlamp washer switch is not pressed	Off
	When headlamp washer switch is pressed	On
FAN ON SIG	Blower fan motor switch OFF	Off
	Blower fan motor switch ON (other than OFF)	On
AIR COND SW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
TRNK OPNR SW	When back door opener switch is not pressed	Off
	When back door opener switch is pressed	On
HOOD SW	Close the hood <b>NOTE:</b> Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
AUTO RELOCK	Auto lock function does not operate	Off
	Auto lock function is operating	On
GLS BREAK SEN	The vehicle without glass break sensor	Off
	The vehicle with glass break sensor	On
OIL PRESS SW	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• Engine running</li> </ul>	Off
	Ignition switch ON	On

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

## TERMINAL LAYOUT



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

EXL

M  
N

O  
P

### PHYSICAL VALUES

#### CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to [BCS-28, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-9, "System Description"](#).

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

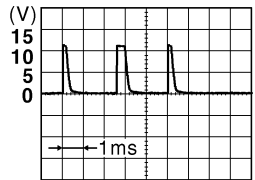
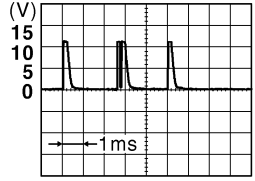
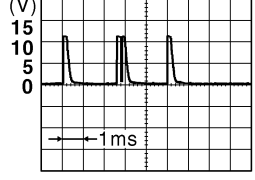
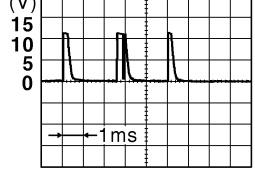
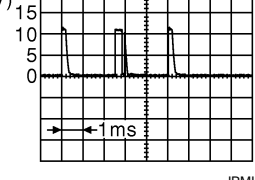
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
3 (W)	Ground	Ignition power supply	Input	Ignition switch OFF or ACC	0 V
				Ignition switch ON or START	Battery voltage
4 (SB)	Ground	ACC power supply	Input	Ignition switch OFF	0 V
				Ignition switch ON or ACC	Battery voltage
5 (LG) <sup>*1</sup> (R) <sup>*2</sup>	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage
				Remove mechanical key from ignition key cylinder	0 V



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

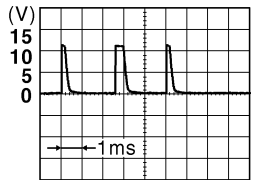
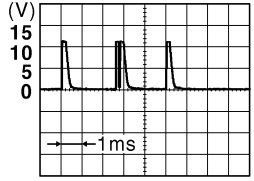
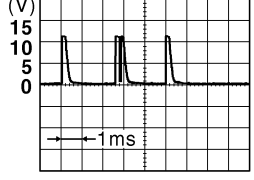
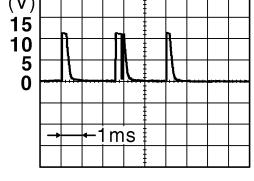
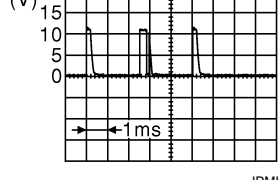
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
6 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.4 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Rear washer switch ON	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Any of the condition below with all switch 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> </ul>  <p style="text-align: right; margin-right: 50px;">1.3 V</p>

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

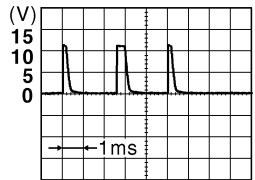
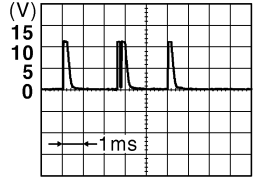
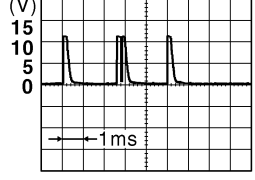
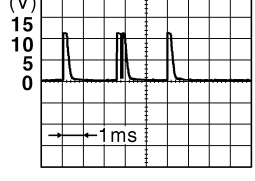
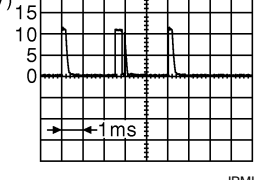
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 6	 <p style="text-align: right; font-size: small;">JPMIA0169GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper INT (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

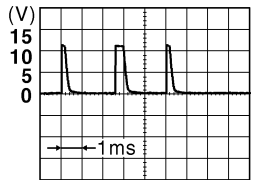
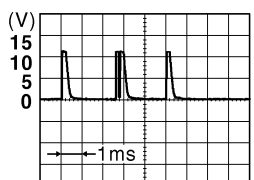
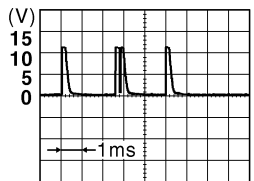
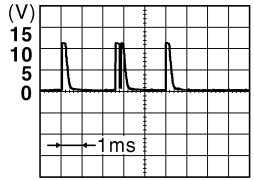
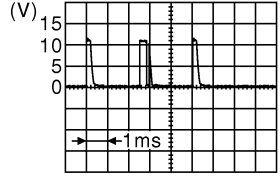
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
8 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch LO	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Front washer switch ON	 <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

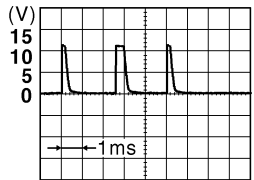
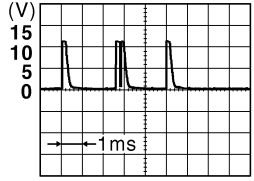
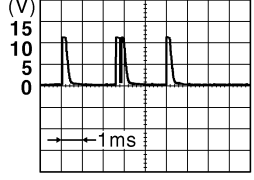
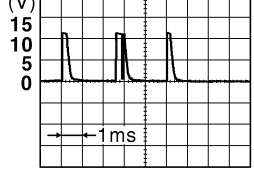
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
9 (G) <sup>*3</sup> (B) <sup>*4</sup>	Ground	Combination switch INPUT 2	Input	All switch OFF	 <p style="text-align: right; margin-right: 50px;">JPMIA0165GB 1.4 V</p>
				Lighting switch 2ND	 <p style="text-align: right; margin-right: 50px;">JPMIA0166GB 1.3 V</p>
				Lighting switch PASS	 <p style="text-align: right; margin-right: 50px;">JPMIA0167GB 1.3 V</p>
				Front wiper switch INT	 <p style="text-align: right; margin-right: 50px;">JPMIA0168GB 1.3 V</p>
				Front wiper switch HI	 <p style="text-align: right; margin-right: 50px;">JPMIA0196GB 1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

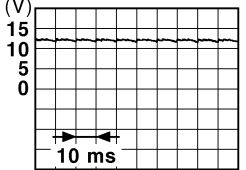
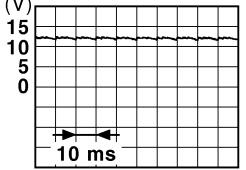
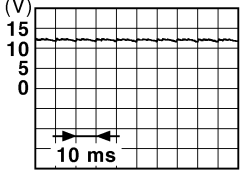
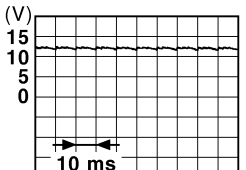
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.3 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0169GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch 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>
11 (B)	Ground	Audio link	Input/ Output	—	—	

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

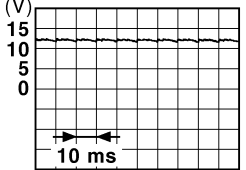
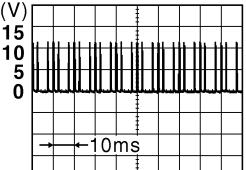
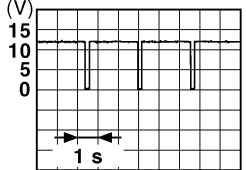
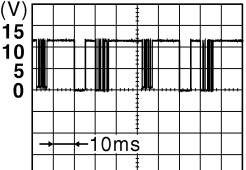
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					ON (When rear door RH opened)	0 V
13 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					ON (When back door opened)	0 V
14 (P) <sup>*3</sup> (BR) <sup>*4</sup>	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					ON (When passenger door opened)	0 V
15 (BR) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					ON (When driver door opened)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)   PKID0924E 11.2 V
				ON (When rear door LH opened)	0 V
17 (L)	Ground	Door lock status indicator	Output	Door lock status indicator	ON OFF 12 V 0 V
20 (SB)	Ground	Rear window defogger switch	Input	Rear window defogger switch	Not pressed   JPMIA0154GB 1.1 V
				While pressing	0 V
21 (P)	—	CAN-L	Input/ Output	—	—
22 (L)	—	CAN-H	Input/ Output	—	—
23 (V)	Ground	Security indicator	Output	Security indicator	ON OFF 0 V 12 V
				Blinking	 JPMIA0014GB 10.3 V
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch OFF or ACC	12 V
				Ignition switch ON	 JPMIA0156GB 8.7 V
25 (G)	Ground	Alarm link	Output	—	—

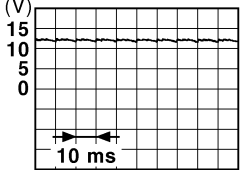
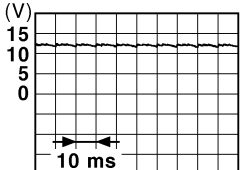
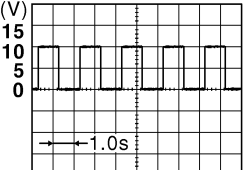
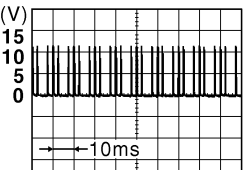
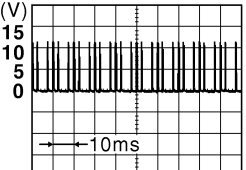
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

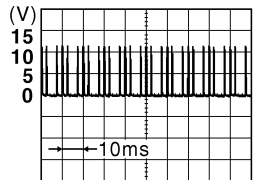
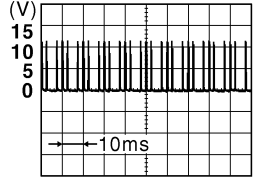
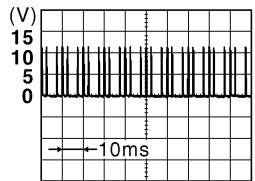
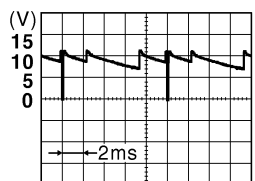
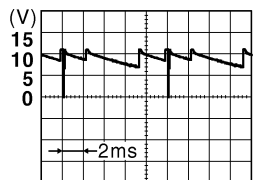
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
26 (GR) <sup>*5</sup> (LG) <sup>*6</sup>	Ground	Blower fan motor switch	Input	Blower fan mo- tor switch	OFF	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					ON (other than OFF)	0 V
27 (P) <sup>*5</sup> (Y) <sup>*6</sup>	Ground	A/C switch	Input	Ignition switch ON	Compressor ON is not re- quested from auto amp. (A/C indicator OFF, blow- er fan motor switch OFF or etc.)	 <p style="text-align: right; font-size: small;">PKID0924E</p> <p style="text-align: center;">11.2 V</p>
					Compressor ON is re- quested from auto amp. (A/C indicator ON and blower fan motor switch ON).	0 V
28 (LG) <sup>*7</sup> (R) <sup>*8</sup>	Ground	Shock detect sensor	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	 <p style="text-align: right; font-size: small;">JPMIA0155GB</p> <p style="text-align: center;">6.0 V</p>	
29 (LG) <sup>*3</sup> (O) <sup>*4</sup>	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p> <p style="text-align: center;">1.2 V</p>
					Pressed	0 V
32 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/un- lock switch	Not pressed	 <p style="text-align: right; font-size: small;">JPMIA0154GB</p> <p style="text-align: center;">1.2 V</p>
					Pressed to the unlock side	0 V



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	 <p style="text-align: center;">1.3 V</p>
					ON	0 V
34 (SB) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	 <p style="text-align: center;">1.2 V</p>
					Pressed to the lock side	0 V
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	 <p style="text-align: center;">1.2 V</p>
					Pressed to the lock side	0 V
36 (G)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch RH	 <p style="text-align: center;">9.1 V</p>
					Lighting switch 2ND	
					Lighting switch HI	
Lighting switch 1ST	0 V					
37 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 <p style="text-align: center;">9.1 V</p>
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	
Rear wiper switch ON (Wiper intermittent dial 4)	0 V					

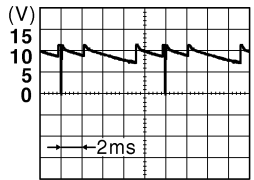
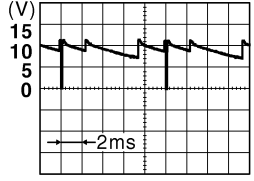
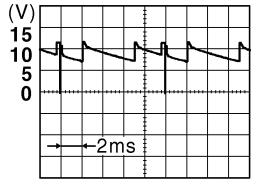
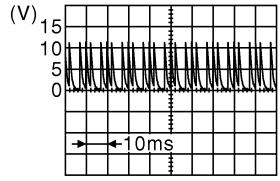
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

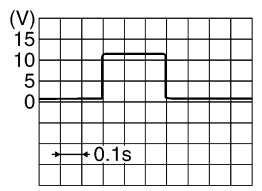
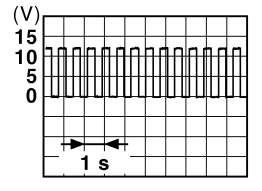
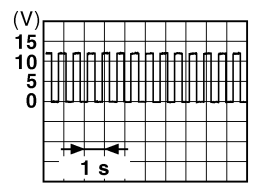
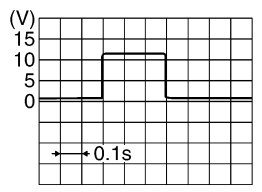
[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
38 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front wiper switch LO	
					Front wiper switch MIST	
					Front wiper switch INT	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
39 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch LH	
					Lighting switch PASS	
					Lighting switch 2ND	
					Front fog lamp switch ON	
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	
Rear wiper switch INT (Wiper intermittent dial 4)	9.1 V					
41 (LG)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	
42 (V)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver activation	0 V	
				Interior room lamp battery saver no activation	12 V	
43 (SB)	Ground	Rear wiper motor	Output	Rear wiper switch OFF	0 V	
				Rear wiper switch ON	12 V	
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	
					Any position other than rear wiper stop position	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	
				Not pressed	0 V	
47 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch LH		
48 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH		
49 (Y)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
50 (G)	Ground	Unlock sensor	Input	Driver's door	Unlock	5 V
					lock	0 V
51 (R)	Ground	Stop lamp switch	Input	Depress the brake pedal		Battery voltage
				Release the brake pedal		0 V
52 (R)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	12 V
					ON	0 V
53 (L)	Ground	Power window power supply (IGN)	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
54 (O)	Ground	Door unlock (All other than driver's door)	Output	Door lock/unlock switch	Pressed to the unlock side	
				Not pressed	0 V	
55 (B)	Ground	Ground	—	Ignition switch ON		0 V

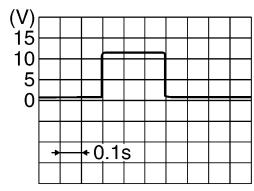
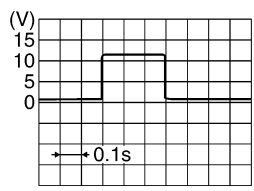
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un- lock switch	Not pressed	0 V
					Pressed to the lock side	 <p style="text-align: right; font-size: small;">SKIA9232E</p>
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch OFF		12 V
59 (R)	Ground	Super lock	Output	When lock button of key fob or Intelligent Key is not pressed		0 V
				When lock button of key fob or Intelligent Key is pressed		12 V
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	 <p style="text-align: right; font-size: small;">SKIA9232E</p>
					Not pressed	0 V

- \*1: With Intelligent Key
- \*2: Without Intelligent Key
- \*3: RHD models
- \*4: LHD models
- \*5: With gasoline engine
- \*6: With diesel engine
- \*7: RHD models with side air bag
- \*8: LHD models with side air bag
- \*9: With xenon headlamp and daytime light system
- \*10: Except with xenon headlamp and daytime light system

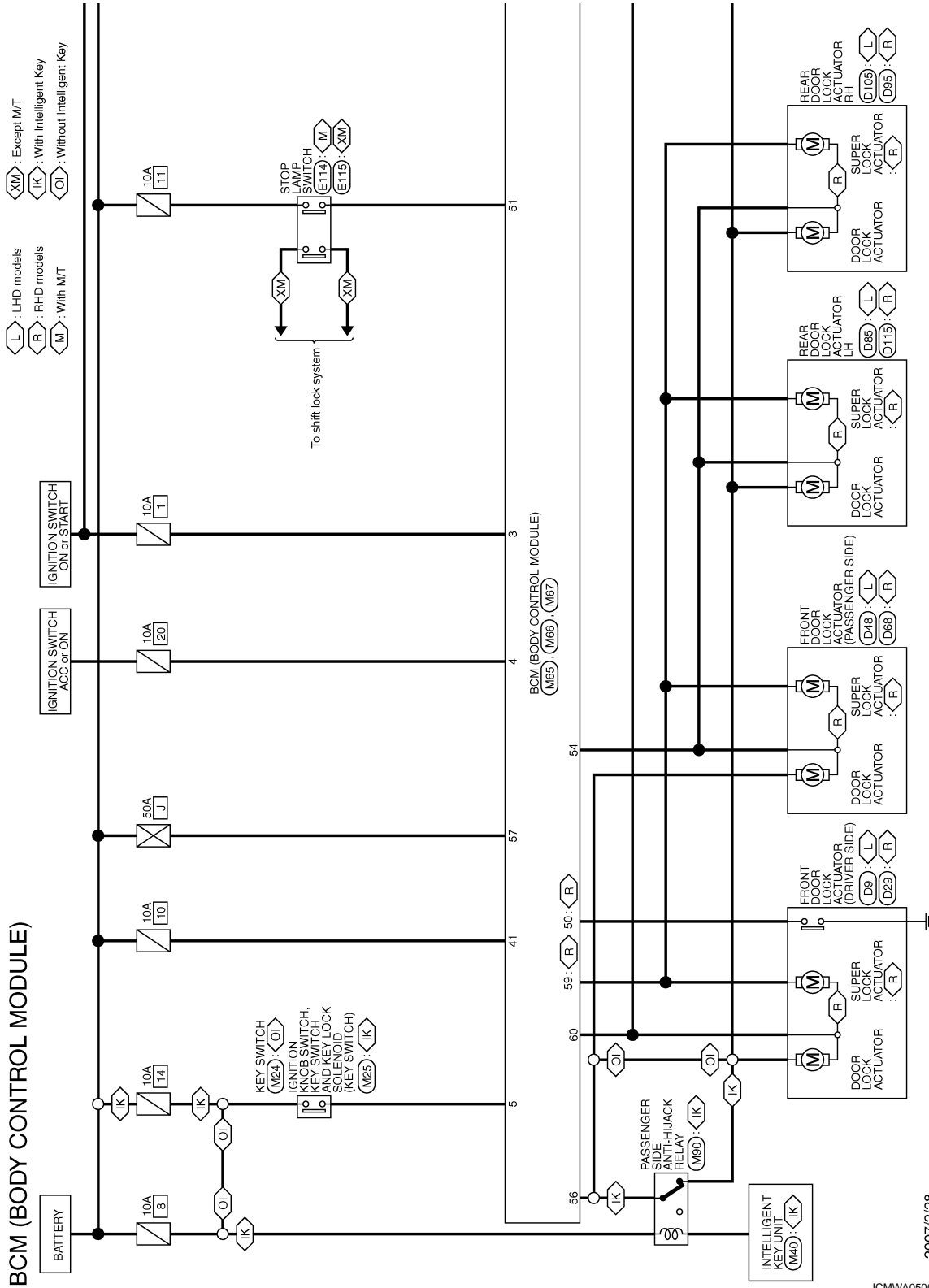
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

## Wiring Diagram - BCM -

INFOID:000000001527864



2007/2/28

JCMWA0500GE

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

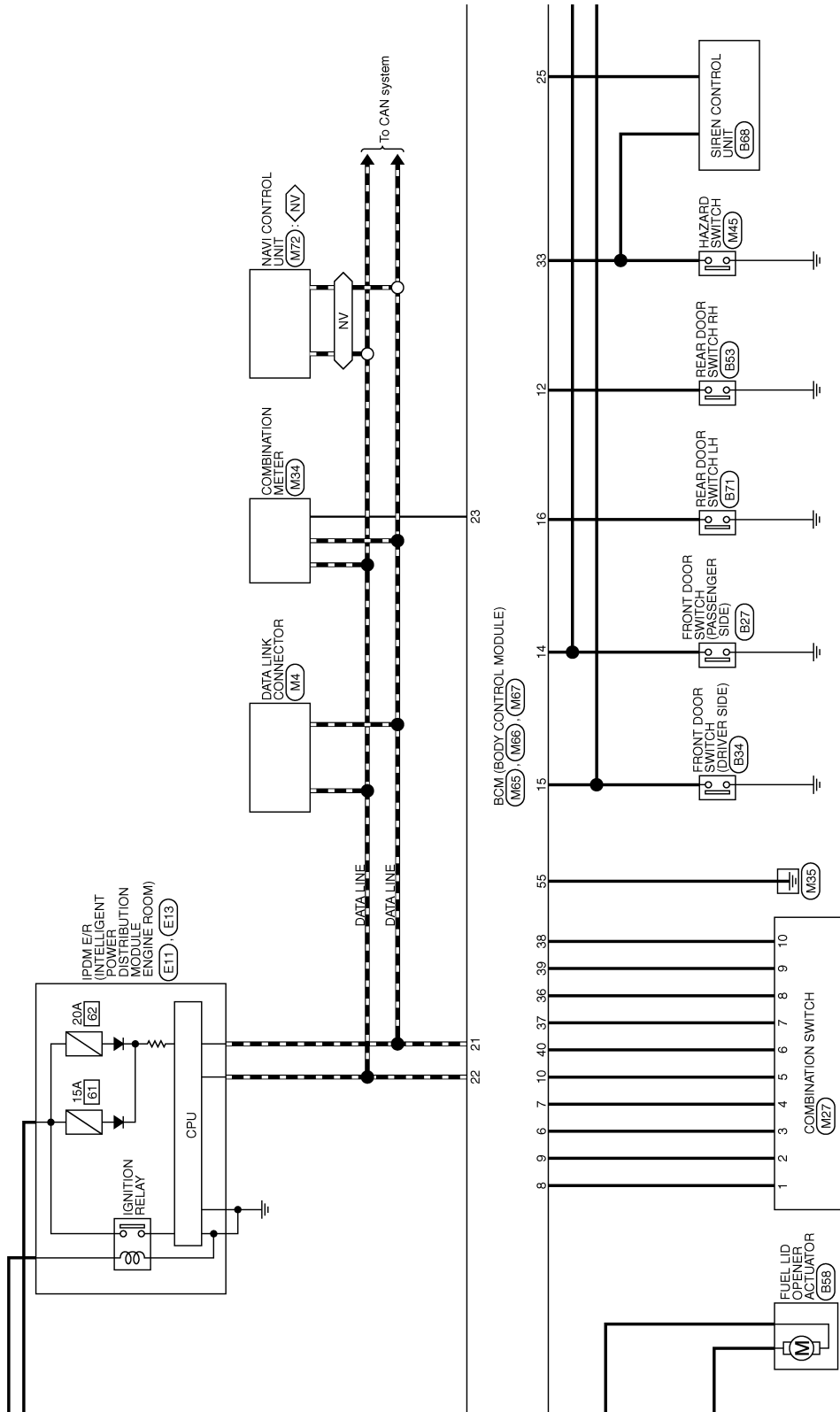
EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

With navigation system



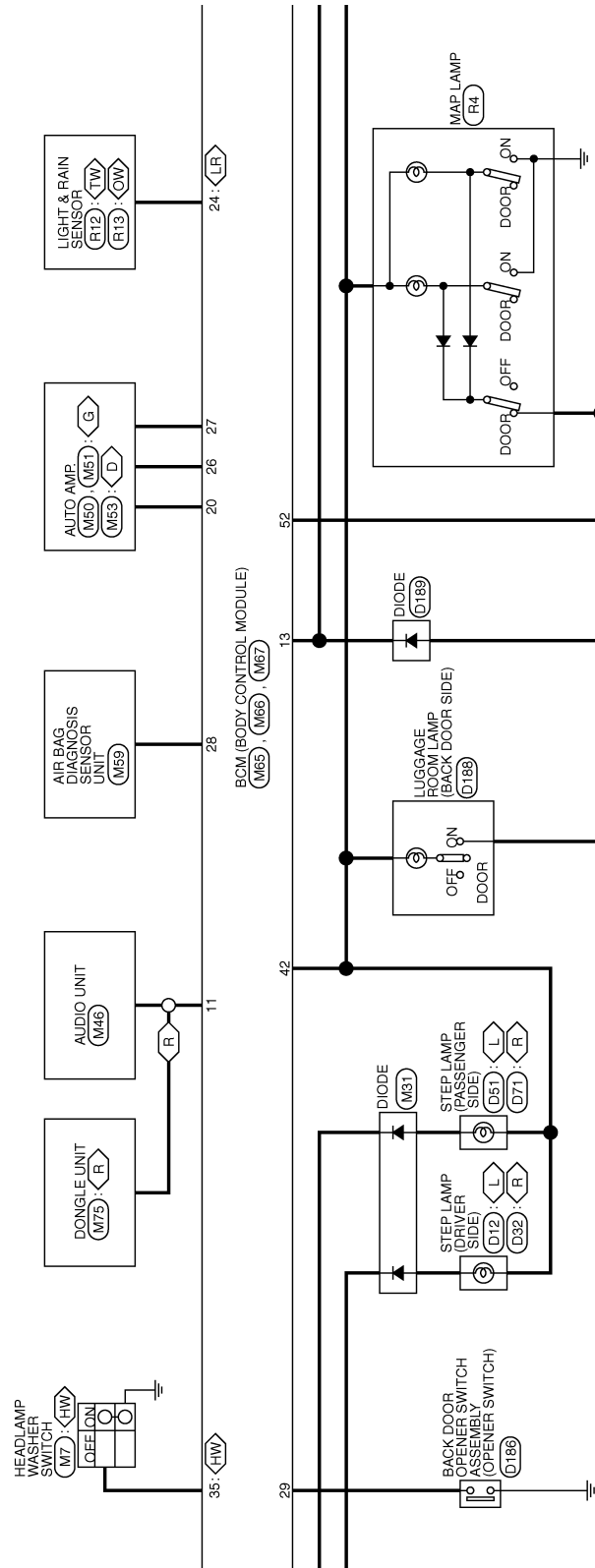
JCMWA0501GE

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

- L : LHD models
- R : RHD models
- G : With gasoline engine
- D : With diesel engine
- HW : With headlamp washer
- LR : With light & rain sensor
- TW : With theft warning system
- OW : Without theft warning system



JCMWA0502GE

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

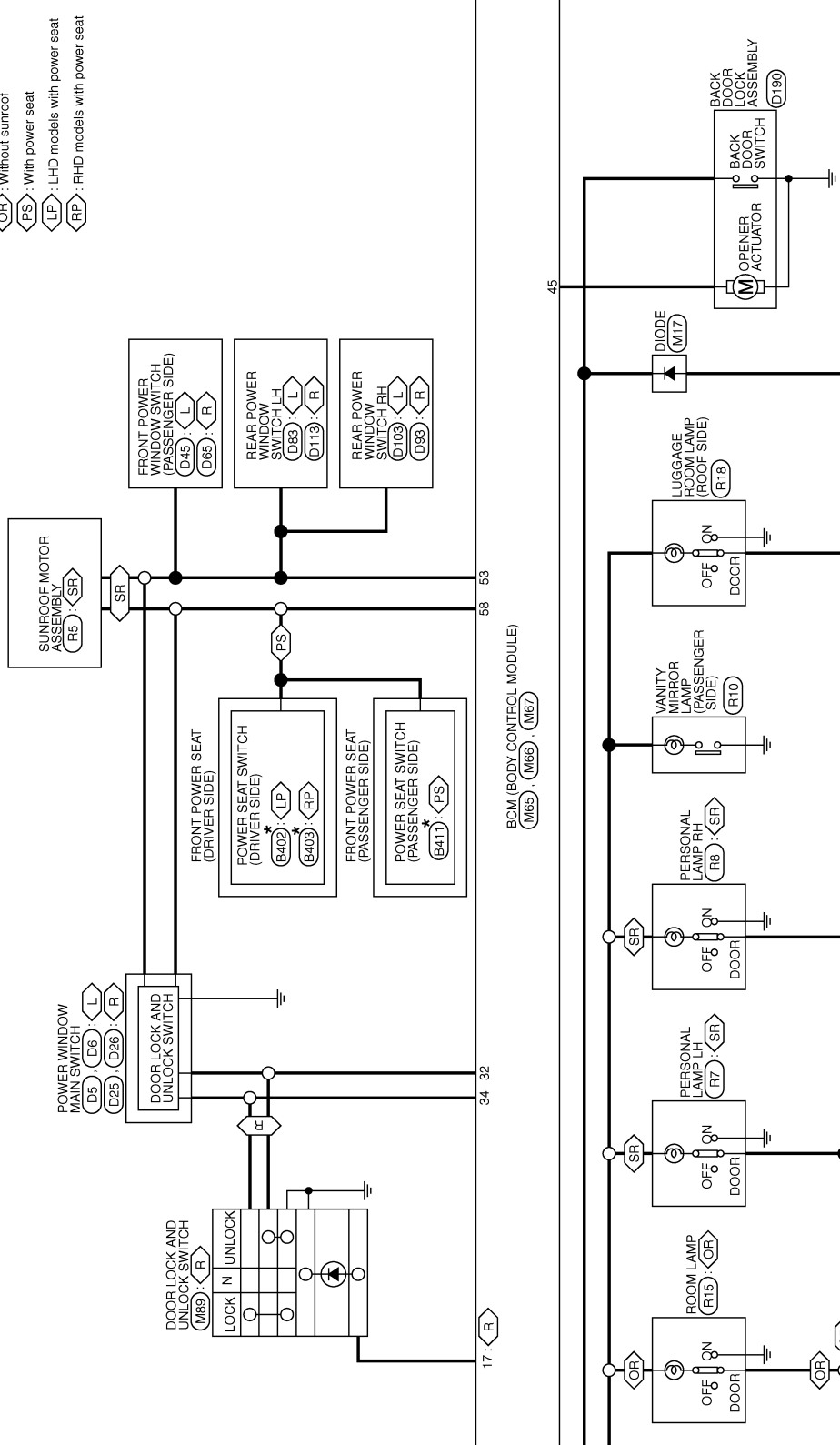
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

- ◊ L : LHD models
- ◊ R : RHD models
- ◊ SR : With sunroof
- ◊ OR : Without sunroof
- ◊ PS : With power seat
- ◊ LP : LHD models with power seat
- ◊ RP : RHD models with power seat

\*: This connector is not shown in "Harness Layout".



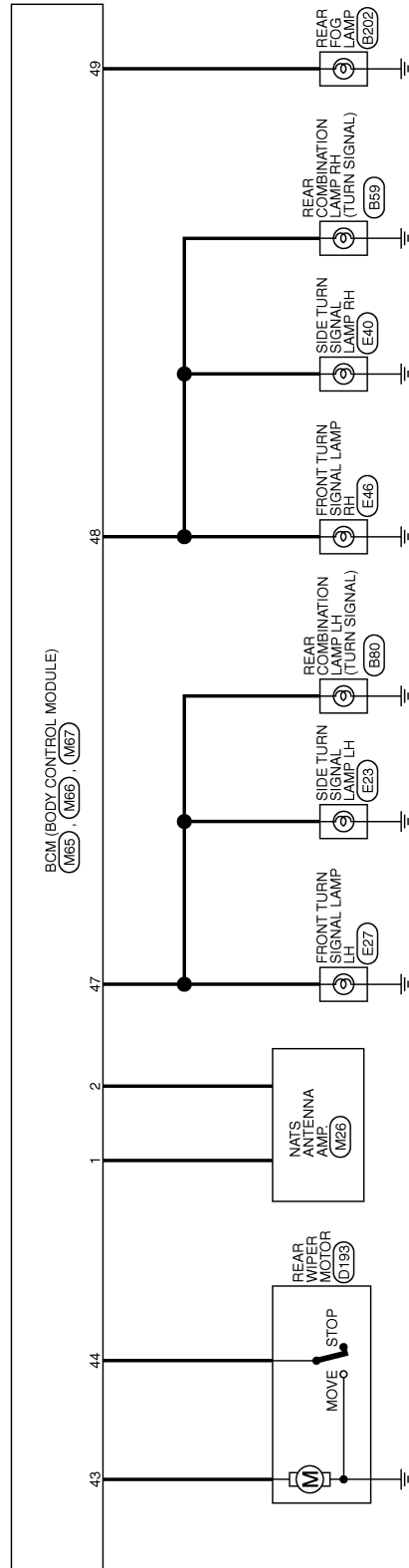
JCMWA0503GE



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]



JCMWA0504GE

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

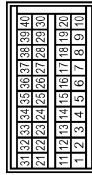
## BCM (BODY CONTROL MODULE)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAS4QFB



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	NATS ANTENNA AMP.
2	G	NATS ANTENNA AMP.
3	W	IGN SW
4	SB	ACC SW
5	LG	KEY SW[With Intelligent Key]
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
10	O	COMBI SW 5 [RHD models]

10	W	OUTPUT 3
----	---	----------

39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

11	B	AUDIO DONGLE LINK(SIGNAL)
12	LG	DOORS SW (R)
13	V	DOOR SW (BACK)[LHD models]
14	P	DOOR SW (AS)[RHD models]
15	BR	DOOR SW (DR)[RHD models]
16	GR	DOOR SW (RL)[LHD models]
17	L	DOOR LOCK INDICATOR
20	SB	RR DEF SW
21	P	CAN-L
22	L	CAN-H
23	V	SECURITY INDICATOR[LHD models]
24	GR	LIGHT & RAIN SEN
25	G	ALARM LINK
26	GR	BLOWER FAN SW
27	P	AIRCON SW[With gasoline engine]
28	LG	SHOCK DETECT SW[RHD models with air bag]
29	O	BACK DOOR OPEN SW
32	BR	LOCK UNLOCK SW (UNLOCK)
33	W	HAZARD SW[With second headlamp and daytime light system]
34	SB	LOCK UNLOCK SW (LOCK)[RHD models]
35	G	HEAD LAMP WASSHER SW
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3

JCMWA0505G1

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
53	L	P/W POWER SUPPLY(IGN)
54	O	DOOR UNLOCK OUTPUT (OTHER[LHD models])
55	B	GND
56	V	DOOR LOCK OUTPUT (ALL)
57	Y	BAT(F/L)
58	P	P/W POWER SUPPLY(BAT)
59	R	SUPER LOCK SET OUTPUT
60	G	DOORUNLOCK/RELEASE OUTPUT(R/LHD models)

52	R	ROOM LAMP CONTROL
----	---	-------------------

## BCM (BODY CONTROL MODULE)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(F/USE)
42	V	ROOM LAMP POWER SUPPLY
43	SB	REAR WIPER MOTOR OUTPUT
44	B	REAR WIPER AUTO STOP
45	V	BACK DOOR OPEN OUTPUT(LHD models)
47	BR	FRASHER OUTPUT (LH)
48	GR	FRASHER OUTPUT (RH)
49	Y	REAR FOG LAMP
50	G	EXTRA INPUT (RHD models with Intelligent Key)
51	R	STOP LAMP SW(LHD models)

## Fail Safe

### FAIL-SAFE CONTROL BY DTC

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

JCMWA0506GE

INFOID:000000001527865

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2191: DIFFERENCE OF KEY	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2195: ANTI SCANNING	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2196: DONGLE NG	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC

## REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

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

Condition of cancellation

1. Turn ignition switch OFF.
2. Pass more than 1 minute after the rear wiper stop.
3. Turn ignition switch ON.
4. Operate the rear wiper switch.

## HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

### NOTE:

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

## FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

## DTC Inspection Priority Chart

INFOID:000000001527866

Priority	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>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>B2194: DISCORD BCM-I-KEY</li> <li>B2195: ANTI SCANNING</li> <li>B2196: DONGLE NG</li> </ul>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[XENON TYPE]

## DTC Index

INFOID:000000001527867

### NOTE:

Details of time display

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

DTC	TIME		Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	—	<a href="#">BCS-33</a>
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	<a href="#">BCS-34</a>
B2190: NATS ANTENNA AMP	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-41</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-254</a></li> </ul>
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-43</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-256</a></li> </ul>
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-38</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-251</a></li> </ul>
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-40</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-253</a></li> </ul>
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	<a href="#">SEC-53</a>
B2195: ANTI SCANNING	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-54</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-264</a></li> </ul>
B2196: DONGLE NG	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-55</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-265</a></li> </ul>

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 >

[XENON TYPE]

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

Reference Value

INFOID:000000001527868

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 4
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
HL WASHER REQ <b>NOTE:</b> This item is monitored only on the vehicle with headlamp washer.	Ignition switch ON, and low beam headlamp is ON	Front washer switch OFF	Off
		Front washer switch ON (When headlamp washer is operating)	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
ST RLY REQ <b>NOTE:</b> Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close

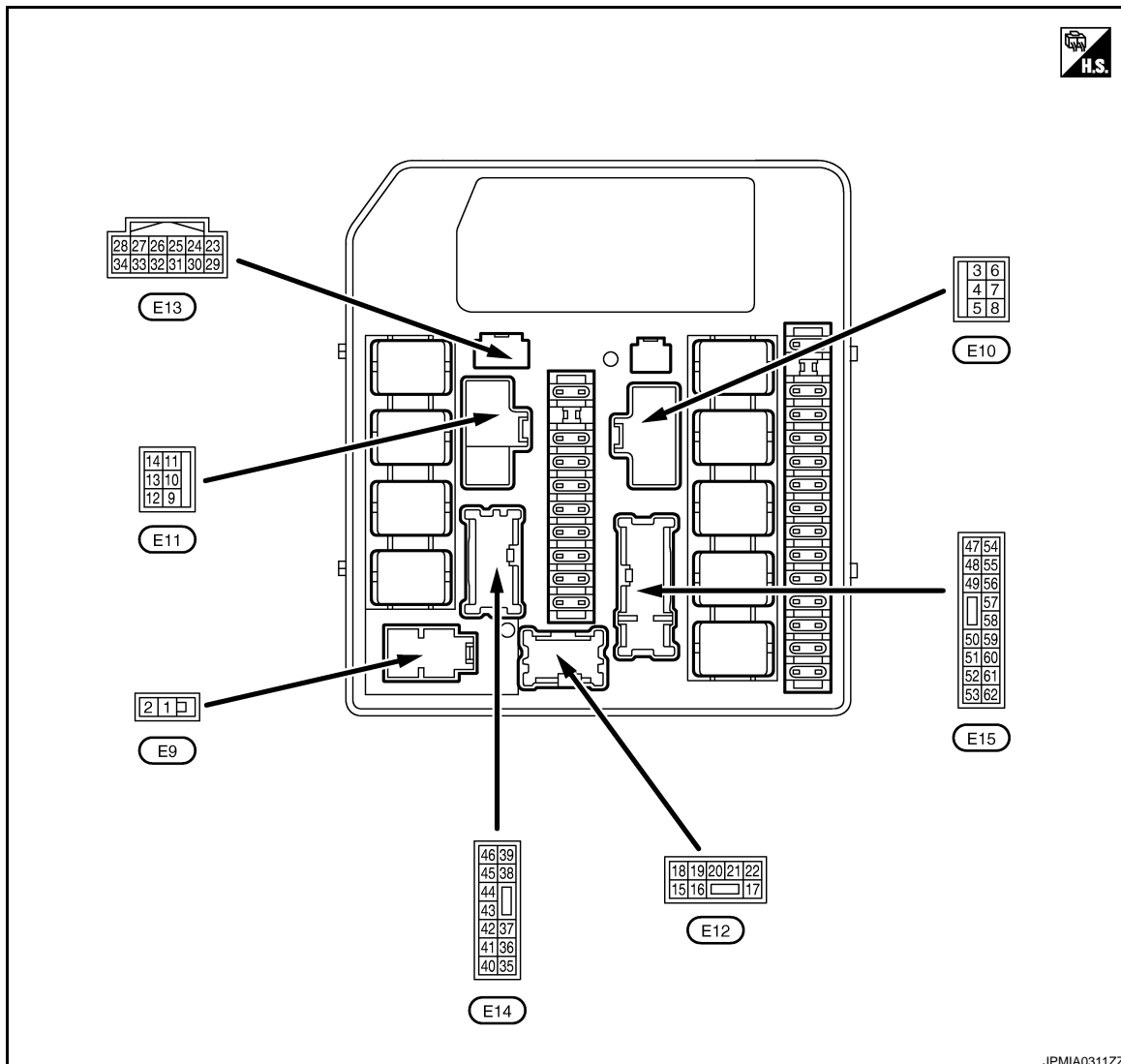
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[XENON TYPE]

Monitor Item	Condition	Value/Status
REV SW	<b>NOTE:</b> This item is indicated, but not monitored.	Off
DTRL REQ <b>NOTE:</b> This item is monitored only on the vehicle with the daytime running light system.	Daytime running light system is not operated with lighting switch OFF.	Off
	Any of the condition below • Daytime running light system is operated. • Lighting switch 1ST, 2ND or AUTO (Light is illuminated)	On
HOOD SW <b>NOTE:</b> This item is monitored only on the vehicle with the vehicle security system.	Close the hood	Off
	Open the hood	On
THFT HRN REQ <b>NOTE:</b> This item is monitored only on the vehicle with the vehicle security system.	Not operation	Off
	Horn is activated with vehicle security system.	On
HORN CHIRP	<b>NOTE:</b> This item is indicated, but not monitored.	Off

## TERMINAL LAYOUT



## PHYSICAL VALUES

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

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
1 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
3 (O)*1 (BR)*2	Ground	Starter relay power supply	Output	When engine is clanking		Battery voltage
				When engine is not clanking		0 V
4 (W)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan operation	OFF	0 V
					MID or HI	Battery voltage
5 (R)	Ground	Ignition switch START	Input	Ignition switch OFF, ACC or ON		0 V
				Ignition switch START		Battery voltage
6 (BR)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF		Battery voltage
7 (P)	Ground	Cooling fan motor-2 (HI) ground	—	Cooling fan operation	OFF	Battery voltage
					HI	0 V
8 (G)	Ground	Cooling fan relay-2 power supply	Output	Cooling fan operation	OFF	0 V
					HI	Battery voltage
11 (B)	Ground	Ground	—	Ignition switch ON		0 V
12 (O)*3 (G)*4	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch OFF	0 V
					Rear window defogger switch ON	Battery voltage
15*5 (SB)	Ground	Daytime running light relay control	Output	<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• License plate lamp</li> <li>• Tail lamp</li> </ul>	Turn off	Battery voltage
					Turn on	0 V
16*6 (Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 1ST	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
17*6 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 1ST	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
18 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
19*7 (R)	Ground	Headlamp aiming motor power supply	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
20 (SB)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
21 (G)	Ground	Headlamp HI (LH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• lighting switch PASS</li> </ul>		Battery voltage
22 (LG)	Ground	Headlamp HI (RH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• lighting switch PASS</li> </ul>		Battery voltage
23 (W)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage



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

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	-					
24 (Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
25 (B)	Ground	Ground	—	Ignition switch ON		0 V
26 (P)	—	CAN-L	Input/ Output	—		—
27 (L)	—	CAN-H	Input/ Output	—		—
31 (V)	Ground	Cooling fan relay-4 control	Output	Cooling fan operation	OFF	Battery voltage
					LO	0 V
32*1 (LG)	Ground	ETC relay control	Input	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>		0 V
33*1 (GR)	Ground	Fuel pump relay control	Input	Ignition switch OFF		0 V
				Ignition switch ON	Engine stopped	Battery voltage
					Engine running	0.8 V
34*8 (Y)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V
35*9 (W)	Ground	Headlamp washer relay control	Output	Ignition switch ON	When headlamp washer is not operating	Battery voltage
					When headlamp washer is operating	0 V
37 (R)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
38*10 (O)*1 (GR)*2	Ground	Parking lamp (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
39*10 (GR)	Ground	Parking lamp (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
40 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (O)*1 (L)*2	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
42 (L)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
43 (G)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
45 (Y)	Ground	Starter relay power supply	Input	Ignition switch ON (Except M/T models)	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
				Ignition switch ON (M/T models)		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 >

[XENON TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
46*1 (W)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• After passing approximately 1 second or more after turning the ignition switch ON</li> </ul>	0 V	
				<ul style="list-style-type: none"> <li>• For approximately 1 second after turning the ignition switch ON</li> <li>• Engine running</li> </ul>	Battery voltage	
47 (BR)*1 (G)*2	Ground	ECM relay power supply	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
48 (R)*1 (V)*2	Ground	ECM relay power supply	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
50 (G)	Ground	Cooling fan relay-5 control	Output	Cooling fan operation	OFF	
					MID or HI	0 V
51 (W)	Ground	ECM relay control	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	Battery voltage	
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	0 V	
52*1 (P)	Ground	ETC relay power supply	Output	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
55 (O)	Ground	A/C relay power supply	Output	Engine stopped	0 V	
				Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
56 (L)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
57*8 (V)	Ground	Horn relay control	Output	The horn is not activated	Battery voltage	
				The horn is activated	0 V	
58 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
59 (GR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
60 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
61 (O)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage	

\*1: MR engine and QR engine models

\*2: M9R engine models

\*3: MR engine models

\*4: QR engine and M9R engine models

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

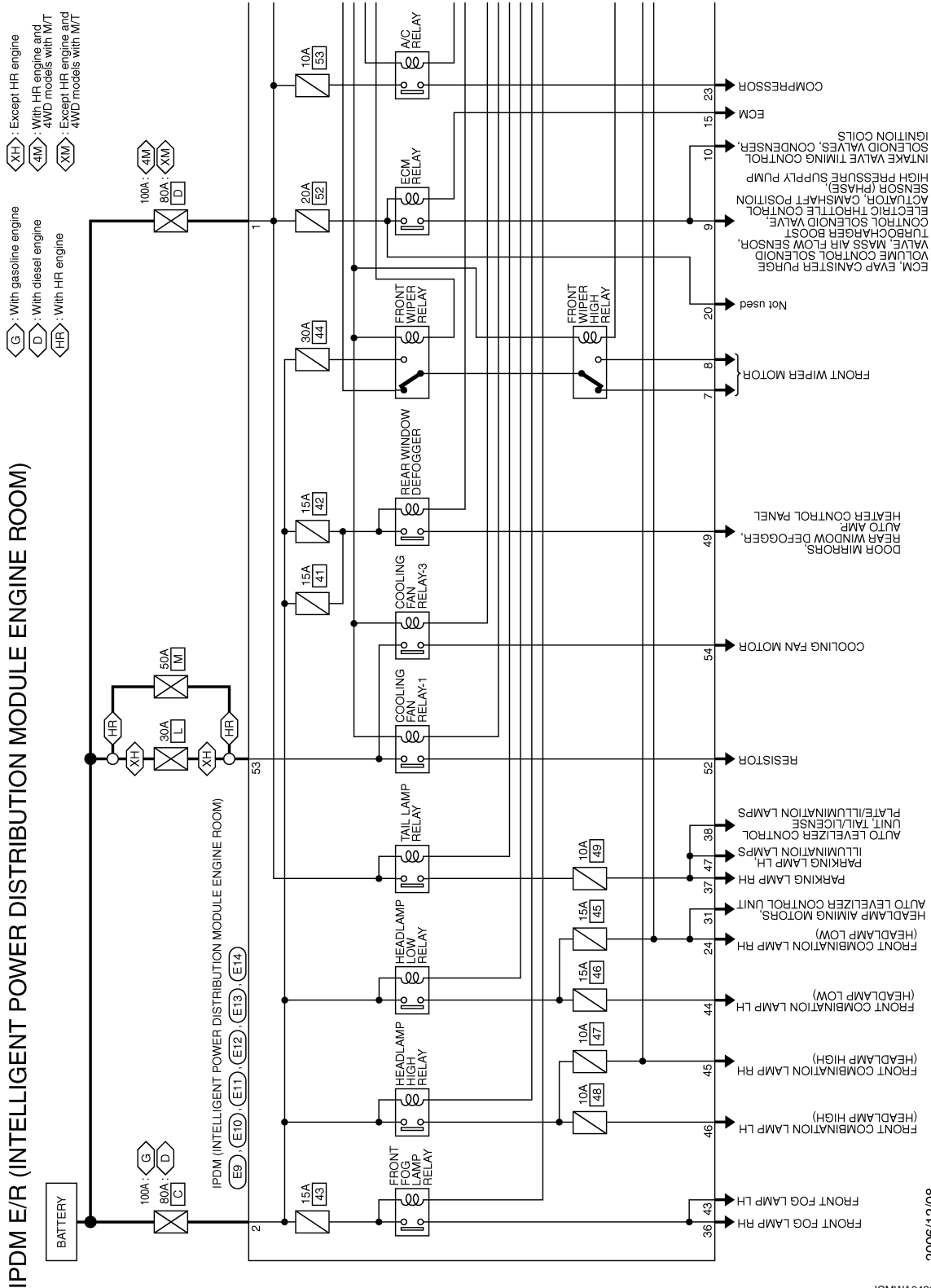
[XENON TYPE]

## < ECU DIAGNOSIS >

- \*5: With daytime running light system
- \*6: With front fog lamp system
- \*7: Halogen type headlamp
- \*8: With vehicle security system
- \*9: With headlamp washer system
- \*10: Without daytime running light system

## Wiring Diagram - IPDM E/R -

INFOID:000000001527869



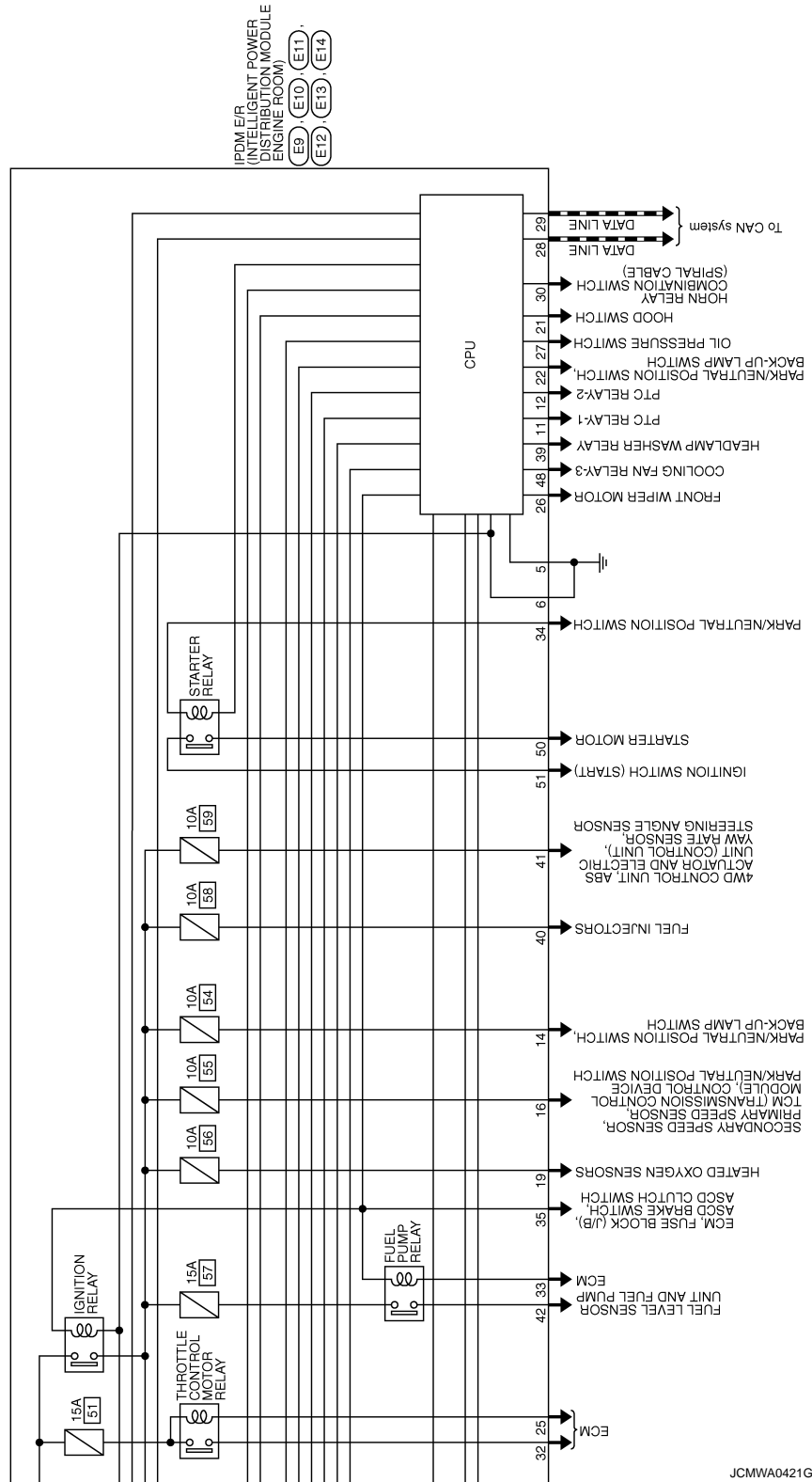
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

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

< ECU DIAGNOSIS >

[XENON TYPE]



JCMWA0421G1

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

< ECU DIAGNOSIS >

[XENON TYPE]

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

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	LOZFB-MC



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MO8FB-LC



5	4	3
8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	
6	B	
7	Y	
8	Y/R	

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS1ZFBR-CS



13	12	11	10	9
20	19	18	17	16
15	14			

Terminal No.	Color of Wire	Signal Name [Specification]
9	G	
10	L/R	
11	O	
12	G/Y	
14	R/B	
15	Y/L	-(With gasoline engine)
15	B/R	-(With diesel engine)
16	Y/R	
19	R/O	
20	-	

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS1ZFW-CS



25	24	23	22	21
32	31	30	29	28
27	26			

Terminal No.	Color of Wire	Signal Name [Specification]
21	GR	
22	Y/G	
23	Y/B	
24	R/Y	
25	G/L	
26	O	
27	W	
28	L	
29	P	
30	L	
31	R	

32	R/Y
----	-----

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



39	38	37	36	35	34	33
48	47	46	45	44	43	42
41	40					

Terminal No.	Color of Wire	Signal Name [Specification]
33	B/O	
34	R/B	
35	W/L	
36	W	
37	R/W	
38	R/L	
39	GR	
40	SB	-(With MFR engine)
40	BR/Y	-(With HR engine)
41	P	
42	B/Y	

43	W/B
44	L
45	L/W
46	G
47	R/L
48	Y

JCMWA0422GE

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

EXL

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

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	YZK 7283-5391-40-F



Terminal No.	Color of Wire	Signal Name (Specification)
48	B	-
50	B/R	-
51	P	-
52	W	-
53	W/B	-
54	R	-

## 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

JCMWA0423GE

INFOID:000000001527870

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

< ECU DIAGNOSIS >

[XENON TYPE]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn ON when the ignition switch is turned ON</li> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn OFF when the ignition switch is turned OFF</li> <li>Cooling fan relay-4 OFF</li> </ul>
A/C compressor	A/C relay OFF

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>The headlamp low relay turns ON when the ignition switch is turned ON</li> <li>The headlamp low relay turns OFF 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>Tail lamps</li> <li>Illuminations</li> </ul>	<ul style="list-style-type: none"> <li>The tail lamp relay and the daytime running light relay*<sup>1</sup> turn ON when the ignition switch is turned ON</li> <li>The tail lamp relay and the daytime running light relay*<sup>1</sup> turn OFF 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 front 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
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Headlamp washer* <sup>2</sup>	Headlamp washer relay OFF
Horn* <sup>3</sup>	Horn relay OFF

**NOTE:**

- \*1: With daytime running light system
- \*2: With headlamp washer system
- \*3: With vehicle security system

### Ignition relay malfunction detection function

- IPDM E/R monitors status of ignition relay by the voltage at ignition relay contact circuit inside it.
- IPDM E/R judges that the ignition relay is error, if status of the ignition relay and ignition switch ON signal (CAN) \*.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay and daytime running light relay\* for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

EXL

DTC	Ignition switch	Ignition relay	Tail lamp relay and daytime running light relay*
—	ON	ON	—
—	OFF	OFF	—
—	OFF	ON	ON (10 minutes)
B2099: IGN RLY OFF	ON	OFF	—

**NOTE:**

- The tail lamp relay and the daytime running light relay\* are turned OFF when the ignition switch is turned ON.
- \*: With daytime running light system

### Front wiper control

IPDM E/R detects the front wiper stop position with the front wiper auto stop signal.

When the front wiper auto stop signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop five times.

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

< ECU DIAGNOSIS >

[XENON TYPE]

Ignition switch	Front wiper switch	Front wiper auto stop signal
ON	OFF	The front wiper auto stop signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper auto stop signal does not change for 10 seconds.

**NOTE:**

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

## DTC Index

INFOID:000000001527871

CONSULT display	Fail-safe	Timing <sup>NOTE</sup>		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	<a href="#">PCS-13</a>
B2099: IGN RELAY OFF	—	CRNT	PAST	<a href="#">PCS-14</a>

**NOTE:**

The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.



# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

## AUTO LEVELIZER CONTROL UNIT

### Reference Value

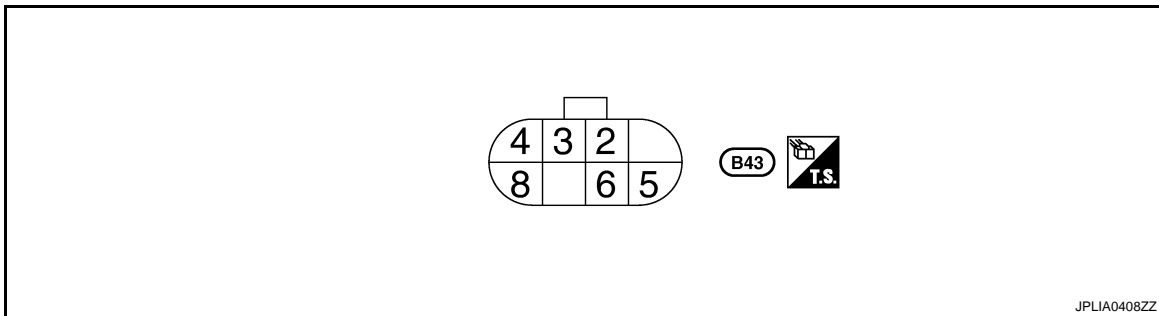
INFOID:000000001278654

### VALUES ON THE DIAGNOSIS TOOL

Monitor item	Operating condition		Display item (Approx.)
INT SEN VALUE	Rear vehicle height	Detection upper limit	0 %
		Detection lower limit	100 %
ACT OUTPUT	Headlamp light axis	Control upper limit	79.7 %
		Control lower limit	33.6 %
ACT MEASURED	Headlamp light axis	Detection upper limit	79.7 %
		Detection lower limit	33.6 %
VEHICLE SPEED SIGNAL	Vehicle running at approx. 40 km/h		40 km/h
LIGHT SIGNAL	Tail lamp	ON	Battery voltage
		OFF	Less than 2 V*
INT SEN VOLT	Ignition switch	ON	Battery voltage
		Other than ON	0 V
EXT SEN VOLT	<b>NOTE:</b> This item is indicated, but not monitored.		
EXT SEN SIG	<b>NOTE:</b> This item is indicated, but not monitored.		

\*: Auto levelizer control unit always outputs the voltage to detect the DTC.

### TERMINAL LAYOUT



### PHYSICAL VALUES

Terminal No. (Wire color)		Description		Operating condition		Standard (Approx.)
+	-	Signal name	Input/Output			
2 (R)	Ground	Tail lamp signal	Input	Tail lamp	ON	Battery voltage
					OFF	Less than 2 V*
3 (Y)	Ground	Vehicle speed signal (8-pulse)	Input	Vehicle running at approx. 40 km/h		

PKIA1935E

# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

Terminal No. (Wire color)		Description		Operating condition		Standard (Approx.)
+	-	Signal name	Input/ Output			
4 (W)	Ground	Ignition power supply	Input	Ignition switch	ON	Battery voltage
					OFF	0 V
5 (SB)	Ground	Headlamp aiming motor drive signal	Output	Headlamp aiming	Under un-laden conditions	9.96 V
					At aiming operation lower limit	4.2 V
6 (G)	Ground	K-LINE	—	—	—	—
8 (B)	Ground	Ground	—	—	—	0 V

\*: Auto levelizer control unit always outputs the voltage to detect the DTC.

# AUTO LEVELIZER CONTROL UNIT

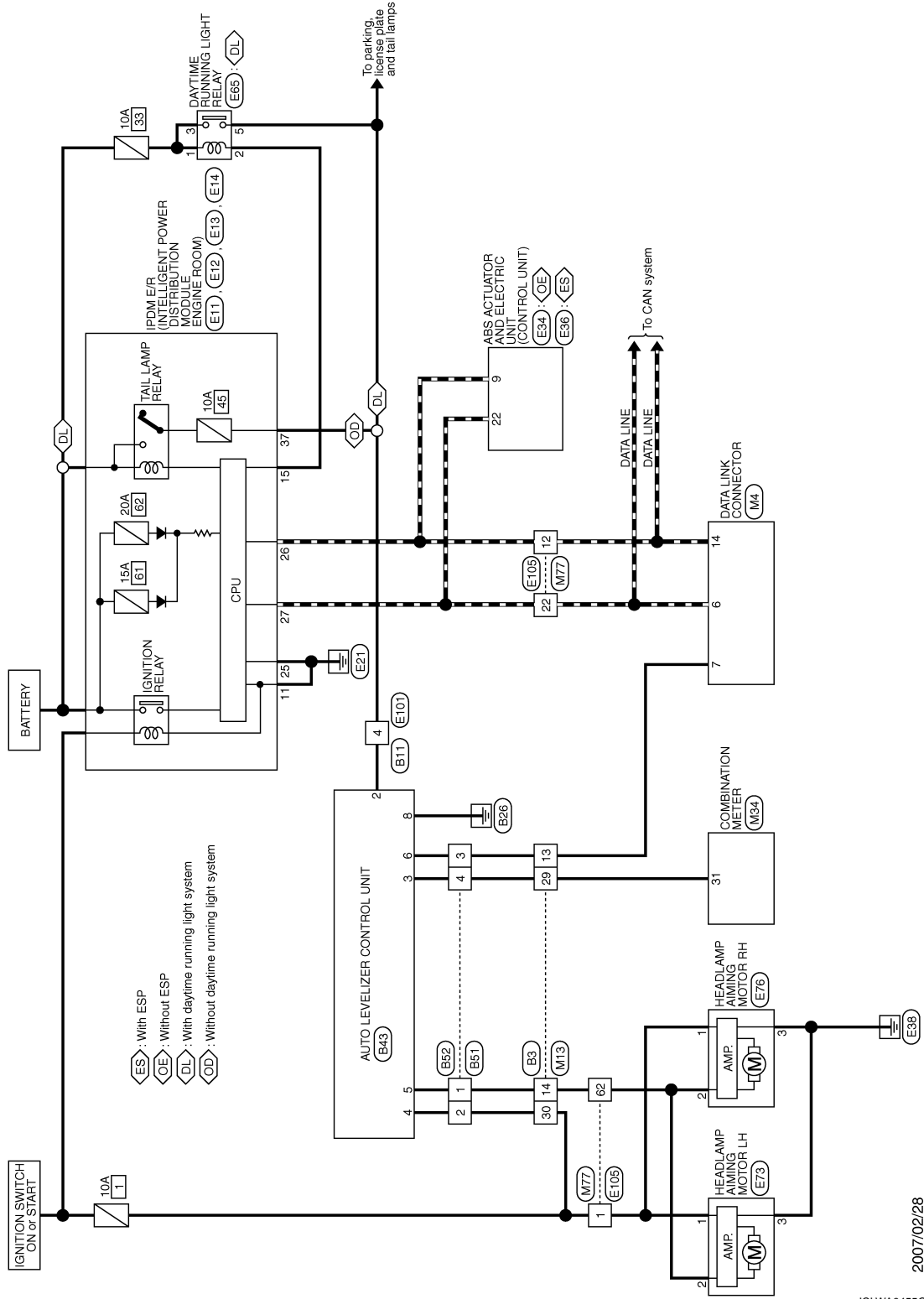
< ECU DIAGNOSIS >

[XENON TYPE]

## Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM -

INFOID:000000001278655

### HEADLAMP AIMING CONTROL (AUTO)



2007/02/28

JCLWA0455GB

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

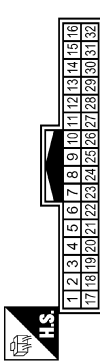
# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

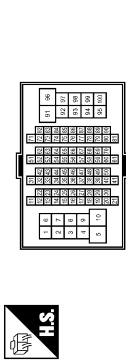
## HEADLAMP AIMING CONTROL (AUTO)

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
13	G	-
14	SB	-
29	Y	-
30	W	-

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	B43
Connector Name	AUTO LEVELIZER CONTROL UNIT
Connector Type	AEX08FB



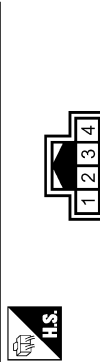
Terminal No.	Color of Wire	Signal Name [Specification]
2	R	LIGHT ON
3	Y	VEHICLE SPEED (8-PULSE)
4	W	IGN
5	SB	AIMER SIGNAL
6	G	K-LINE
8	B	GND

Connector No.	B51
Connector Name	WIRE TO WIRE
Connector Type	TH04FW-NH



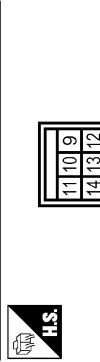
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	W	-
3	G	-
4	Y	-

Connector No.	B52
Connector Name	WIRE TO WIRE
Connector Type	TH04MW-NH



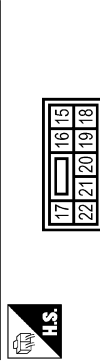
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	W	-
3	G	-
4	Y	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	IM08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FB-CS



Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

JCLWA0456GB

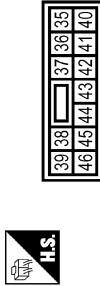
# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

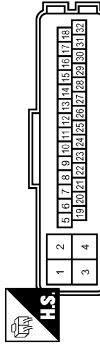
## HEADLAMP AIMING CONTROL (AUTO)

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FBE-CS



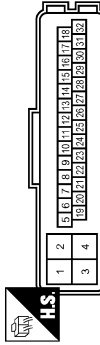
Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-

Connector No.	E34
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	RH28FB-NJ4-DH



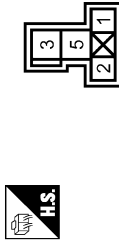
Terminal No.	Color of Wire	Signal Name [Specification]
9	P	CAN-L
22	L	CAN-H

Connector No.	E38
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	RH28FB-NJ4-DH



Terminal No.	Color of Wire	Signal Name [Specification]
9	P	CAN-L
22	L	CAN-H

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E73
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	RK03FB



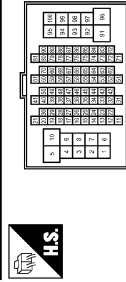
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	V	-
3	B	-

Connector No.	E76
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	RK03FB



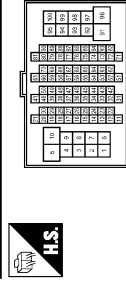
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	V	-
3	B	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
12	P	-
22	L	-
62	V	-

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

# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

## HEADLAMP AIMING CONTROL (AUTO)

Connector No.	M4	Connector No.	M13	Connector No.	M34	Connector No.	M77
Connector Name	DATA LINK CONNECTOR	Connector Name	WIRE TO WIRE	Connector Name	COMBINATION METER	Connector Name	WIRE TO WIRE
Connector Type	BD16FW	Connector Type	T1432FW-NH	Connector Type	SAB40FW	Connector Type	TR80MW-CS16-TM4

--	--	--	--

Terminal No.	Color of Wire	Signal Name [Specification]	Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-	1	W	-
7	O	-	12	P	-
14	P	-	22	L	-
			62	V	-

## Fail-safe

JCLWA0458GB

INFOID:000000001278656

DTC	Fail-safe	Cancellation
B2080: ECU TROUBLE	Fix aiming motor drive signal to approximately 0 V	Ignition switch OFF
B2081: INITIAL NOT DONE	Fix with the light axis facing downward	Sensor initialization is completed

# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

DTC	Fail-safe	Cancellation
B2082: SENSOR OUT OF RANGE	After engine start (Less than 5 seconds after ignition switch ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward
	While driving (5 seconds or more after ignition switch ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection
B2083: SEN SIG NOT PLAUSIBLE	<ul style="list-style-type: none"> <li>• Maintain the aiming motor drive signal output at the time of DTC detection</li> <li>• Maintain the light axis at the time of DTC detection</li> </ul>	Ignition switch OFF
B2084: VOLTAGE UNDER LIMIT	After engine start (Less than 5 seconds after ignition switch ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward
	While driving (5 seconds or more after ignition switch ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection
B2085: LOWBEAM SIG OPEN LINE	After engine start (Less than 5 seconds after ignition switch ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward
	While driving (5 seconds or more after ignition switch ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection
B2086: FRQ. OVER LIMIT	After engine start (Less than 5 seconds after ignition switch ON and vehicle speed less than 4 km/h)	Fix with the light axis facing downward
	While driving (5 seconds or more after ignition switch ON or vehicle speed 4 km/h or more)	Maintain the light axis at the time of DTC detection
B2087: SHORT TO GROUND	Maintain the light axis at the time of DTC detection	Ignition switch OFF
B2088: SHORT TO BATTERY	Maintain the light axis at the time of DTC detection	Ignition switch OFF
B2089: NO CAR TYPE SELECTED	Fix aiming motor drive signal output to approximately 0 V	Write configuration is completed

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

EXL

## DTC Inspection Priority Chart

INFOID:000000001278657

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

Priority	DTC
1	<ul style="list-style-type: none"> <li>• B2080: ECU TROUBLE</li> <li>• B2089: NO CAR TYPE SELECTED</li> </ul>
2	<ul style="list-style-type: none"> <li>• B2081: INITIAL NOT DONE</li> </ul>
3	<ul style="list-style-type: none"> <li>• B2082: SENSOR OUT OF RANGE</li> <li>• B2083: SEN SIG NOT PLAUSIBLE</li> <li>• B2084: VOLTAGE UNDER LIMIT</li> <li>• B2085: LOWBEAM SIG OPEN LINE</li> <li>• B2086: FRQ. OVER LIMIT</li> <li>• B2087: SHORT TO GROUND</li> <li>• B2088: SHORT TO BATTERY</li> </ul>

M  
N  
O  
P

# AUTO LEVELIZER CONTROL UNIT

< ECU DIAGNOSIS >

[XENON TYPE]

## DTC Index

INFOID:000000001278658

DTC	Fail-safe	Reference
B2080: ECU TROUBLE	×	<a href="#">EXL-43, "Description"</a>
B2081: INITIAL NOT DONE	×	<a href="#">EXL-44, "DTC Logic"</a>
B2082: SENSOR OUT OF RANGE	×	<a href="#">EXL-45, "DTC Logic"</a>
B2083: SEN SIG NOT PLAUSIBLE	×	<a href="#">EXL-47, "DTC Logic"</a>
B2084: VOLTAGE UNDER LIMIT	×	<a href="#">EXL-48, "DTC Logic"</a>
B2085: LOWBEAM SIG OPEN LINE	×	<a href="#">EXL-49, "Description"</a>
B2086: FRQ. OVER LIMIT	×	<a href="#">EXL-51, "Description"</a>
B2087: SHORT TO GROUND	×	<a href="#">EXL-53, "DTC Logic"</a>
B2088: SHORT TO BATTERY	×	<a href="#">EXL-54, "DTC Logic"</a>
B2089: NO CAR TYPE SELECTED	×	<a href="#">EXL-55, "DTC Logic"</a>



# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## SYMPTOM DIAGNOSIS

### EXTERIOR LIGHTING SYSTEM SYMPTOMS WITHOUT DAYTIME RUNNING LIGHT SYSTEM

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:000000001160136

**CAUTION:**

Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp (High beam solenoid)</li> <li>IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-61</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to <a href="#">EXL-199</a> .	
High beam indicator lamp is not turned ON. (The headlamp switches to the high beam.)		Combination meter	<ul style="list-style-type: none"> <li>Combination meter Data monitor "HI-BEAM IND"</li> <li>BCM (HEAD LAMP) Active test "HEADLAMP"</li> </ul>
Headlamp does not switch to the low beam.	One side	Front combination lamp (High beam solenoid)	—
	Both sides	<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-67</a> .
		High beam request signal <ul style="list-style-type: none"> <li>BCM</li> <li>IPDM E/R</li> </ul>	IPDM E/R Data monitor "HL HI REQ"
Headlamp is not turned ON.	One side	<ul style="list-style-type: none"> <li>Fuse</li> <li>Xenon bulb</li> <li>Harness between IPDM E/R and the front combination lamp</li> <li>Front combination lamp (xenon headlamp)</li> <li>IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-64</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-199</a> .	
Headlamp is not turned OFF.	When ignition switch is turned ON	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-199</a> .	
	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-67</a> .
	<ul style="list-style-type: none"> <li>Light &amp; rain sensor</li> <li>Harness between the light &amp; rain sensor and BCM</li> <li>BCM</li> </ul>		Light & rain sensor Refer to <a href="#">EXL-81</a> .

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

EXL

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

[XENON TYPE]

## < SYMPTOM DIAGNOSIS >

Symptom		Possible cause	Inspection item
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-70</a> .
	Both side	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-203</a> .	
Front fog lamp is not turned ON.			
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)		Combination meter	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "FR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>• Active test "FR FOG LAMP"</li> </ul>
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-201</a> .
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-86</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-89</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-89</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-201</a> .	
Turn signal lamp does not blink.	Indicator lamp is normal. (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-67</a> .
Turn signal indicator lamp does not blink. (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>- Combination meter</li> <li>- BCM</li> <li>• Combination meter (LED)</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>• Active test "FLASHER"</li> </ul>
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• 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-35</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-84</a> .

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> <li>• Harness between BCM and rear fog lamp</li> <li>• Rear fog lamp bulb</li> <li>• BCM</li> </ul>	Rear fog lamp circuit Refer to <a href="#">EXL-92</a> .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> <li>• Combination switch</li> <li>• Harness between combination switch and BCM</li> <li>• BCM</li> </ul>	Combination switch circuit Refer to <a href="#">BCS-67</a> .
Rear fog lamp indicator lamp is not turned ON. (Rear fog lamp is turned ON.)		<ul style="list-style-type: none"> <li>• Rear fog lamp status signal</li> <li>- Combination meter</li> <li>- BCM</li> <li>• Combination meter (LED)</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>Data monitor "REAR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>Active test "RR FOG LAMP"</li> </ul>
Headlamp auto aiming does not activate.		<ul style="list-style-type: none"> <li>• Harness between auto levelizer control unit and aiming motor.</li> <li>• Front combination lamp (Aiming motor)</li> <li>• Auto levelizer control unit</li> </ul>	Headlamp levelizer circuit Refer to <a href="#">EXL-68</a> .

## WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:000000001208230

**CAUTION:**

Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp does not switch to the high beam.	One side	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Harness between IPDM E/R and the front combination lamp</li> <li>• Front combination lamp (High beam solenoid)</li> <li>• IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-61</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM" Refer to <a href="#">EXL-199</a> .	
High beam indicator lamp is not turned ON. (The headlamp switches to the high beam.)		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 does not switch to the low beam.	One side	Front combination lamp (High beam solenoid)	—
	Both sides	<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-67</a> .
		<ul style="list-style-type: none"> <li>• High beam request signal</li> <li>• BCM</li> <li>• IPDM E/R</li> </ul>	IPDM E/R Data monitor "HL HI REQ"
		IPDM E/R	—

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Headlamp is not turned ON.	One side	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Xenon bulb</li> <li>• Harness between IPDM E/R and the front combination lamp</li> <li>• Front combination lamp (xenon headlamp)</li> <li>• IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-64</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-200</a> .	
Headlamp is not turned OFF.	When ignition switch is turned ON	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-200</a> .	
	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-67</a> .
		<ul style="list-style-type: none"> <li>• Light &amp; rain sensor</li> <li>• Harness between the light &amp; rain sensor and BCM</li> <li>• BCM</li> </ul>	Light & rain sensor Refer to <a href="#">EXL-81</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-70</a> .
	Both side	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-203</a> .	
Front fog lamp is not turned ON.			
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)		Combination meter	<ul style="list-style-type: none"> <li>• Combination meter Data monitor "FR FOG IND"</li> <li>• BCM (HEAD LAMP) Active test "FR FOG LAMP"</li> </ul>
Parking lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Parking lamp bulb</li> <li>• Harness between daytime running light relay and the front combination lamp</li> <li>• Front combination lamp</li> </ul>	Parking lamp circuit Refer to <a href="#">EXL-76</a> .
Tail lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between daytime running light relay and the rear combination lamp</li> <li>• Rear combination lamp</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-87</a> .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between daytime running light relay and the license plate lamp</li> <li>• License plate lamp</li> </ul>	License plate lamp circuit Refer to <a href="#">EXL-90</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-201</a> .	

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

Symptom		Possible cause	Inspection item
Turn signal lamp does not blink.	Indicator lamp is normal. (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-67</a> .
Turn signal indicator lamp does not blink. (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>- Combination meter</li> <li>- BCM</li> <li>• Combination meter (LED)</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>• Active test "FLASHER"</li> </ul>
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• 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-35</a> .
<ul style="list-style-type: none"> <li>• Hazard warning lamp does not activate.</li> <li>• Hazard warning lamp continues activating. (Turn signal is normal.)</li> </ul>		<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-84</a> .
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> <li>• Harness between BCM and rear fog lamp</li> <li>• Rear fog lamp bulb</li> <li>• BCM</li> </ul>	Rear fog lamp circuit Refer to <a href="#">EXL-92</a> .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> <li>• Combination switch</li> <li>• Harness between combination switch and BCM</li> <li>• BCM</li> </ul>	Combination switch circuit Refer to <a href="#">BCS-67</a> .
Rear fog lamp indicator lamp is not turned ON. (Rear fog lamp is turned ON.)		<ul style="list-style-type: none"> <li>• Rear fog lamp status signal</li> <li>- Combination meter</li> <li>- BCM</li> <li>• Combination meter (LED)</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "REAR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>• Active test "RR FOG LAMP"</li> </ul>
Headlamp auto aiming does not activate.		<ul style="list-style-type: none"> <li>• Harness between auto levelizer control unit and aiming motor.</li> <li>• Front combination lamp (Aiming motor)</li> <li>• Auto levelizer control unit</li> </ul>	Headlamp levelizer circuit Refer to <a href="#">EXL-68</a> .

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

## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

---

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000001160137

#### 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 the control difference. This is normal.

# BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## BOTH SIDE HEADLAMPS DO NOT SWITCH TO HIGH BEAM

### Description

INFOID:000000001208231

The headlamp (both sides) does not switch to the high beam when setting to the lighting switch HI or PASS.

### Diagnosis Procedure

INFOID:000000001208232

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK HEDLAMP (HI) REQUEST SIGNAL INPUT

 CONSULT-III DATA MONITOR

1. Select "HL HI REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2ND)	HI or PASS	ON
		Except for HI or PASS	OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#)

#### 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-61, "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

EXL

M  
N  
O  
P

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

## BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

### Description

INFOID:000000001160140

Both side headlamps (LO) are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000001160141

#### 1. CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-67, "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2. CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

##### ⓂCONSULT-III DATA MONITOR

1. Select "HL LO REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status	
HL LO REQ	Lighting switch	2ND	ON
		OFF	OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

#### 3. HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-64, "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 >

[XENON TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001160142

The parking, license plate, tail lamps and each illumination are not turned ON in any condition.

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001160143

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

1. Select "TAIL & CLR REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status
TAIL & CLR REQ	Lighting switch	1ST ON
		OFF OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#).

#### 3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-86. "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

## WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001278665

The parking, license plate and tail lamps are not turned ON in any condition.

### WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001278666

#### 1.SYMPTOM CONFIRMATION

Turn lighting switch 1ST.

Are each illuminations turned ON?

YES >> GO TO 4.

NO >> GO TO 2.

#### 2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

#### 3.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[XENON TYPE]

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 >> Replace IPDM E/R.  
NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

## 4. DAYTIME RUNNING LIGHT RELAY CIRCUIT INSPECTION

Check the daytime running light relay circuit. Refer to [EXL-72, "Component Function Check"](#).

Is the tail lamp circuit normal?

- YES >> Check the parking lamp circuit. Refer to [EXL-77, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).  
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:000000001160144

The front fog lamps are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000001160145

#### 1.CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#65	15 A

##### Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
- NO >> GO TO 2.

#### 2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

##### Is the combination switch normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning part.

#### 3.CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status	
FR FOG REQ	Front fog lamp switch (With lighting switch 1ST)	ON	ON
		OFF	OFF

##### Is the item status normal?

- YES >> GO TO 4.
- NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#).

#### 4.FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-70. "Component Function Check"](#).

##### Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
- NO >> Repair or replace the malfunctioning part.

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

## PRECAUTION

### PRECAUTIONS

#### Precautions For Xenon Headlamp Service

INFOID:000000001569486

#### **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

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

## ON-VEHICLE MAINTENANCE

### HEADLAMP AIMING ADJUSTMENT

#### Description

INFOID:000000001160148

#### 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 luggage room.)

##### NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

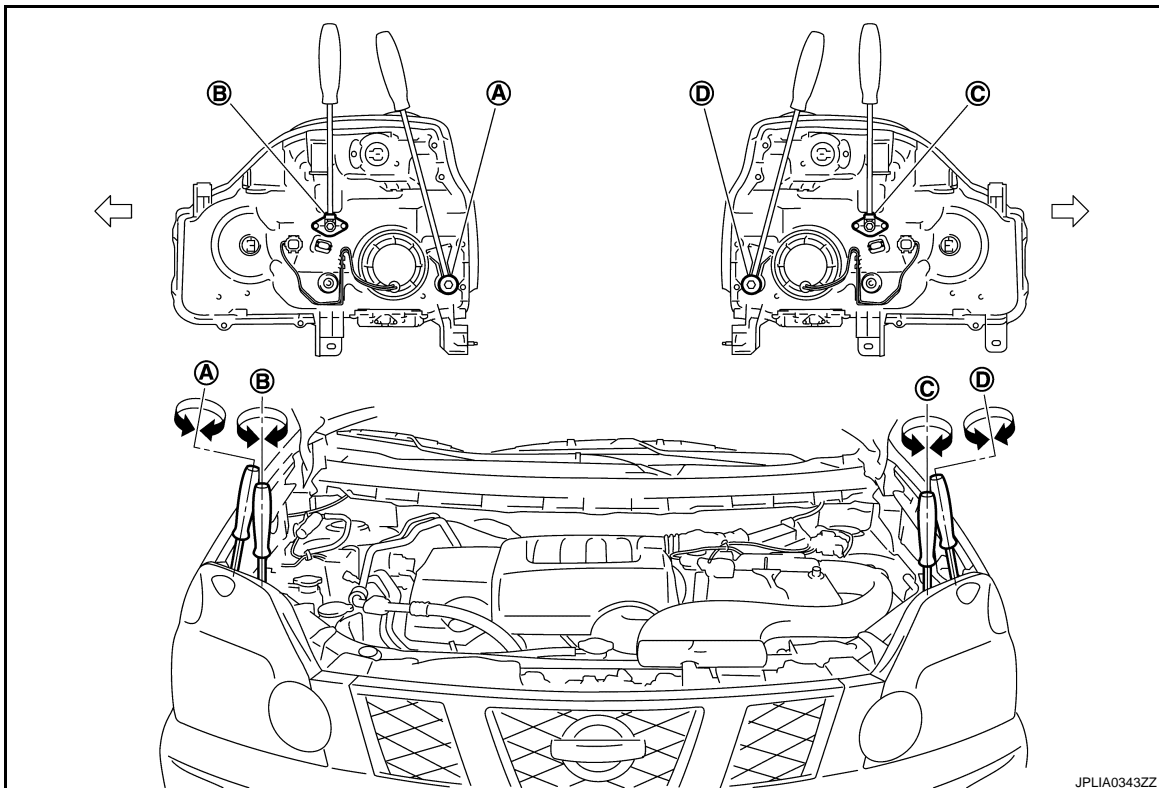
- Wipe out dirt on the headlamp.

##### CAUTION:

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.

#### AIMING ADJUSTMENT SCREW



A. Headlamp RH (INSIDE/OUTSIDE) adjustment screw

B. Headlamp RH (UP/DOWN) adjustment screw

C. Headlamp LH (UP/DOWN) adjustment screw

D. Headlamp LH (INSIDE/OUTSIDE) adjustment screw

↔ Vehicle center

# HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

	Adjustment screw	Screw driver rotation	Facing direction
A	Headlamp RH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE
B	Headlamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
C	Headlamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
D	Headlamp LH (INSIDE/OUTSIDE)	Clockwise	INSIDE
		Counterclockwise	OUTSIDE

## LHD

### LHD : Aiming Adjustment Procedure

INFOID:000000001160149

- Place the screen.

**NOTE:**

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

- Face the vehicle squarely toward the screen and make the distance between the headlamp bulb center and the screen 10 m (32.8 ft).

- Start the engine and illuminate the headlamp (LO).

**NOTE:**

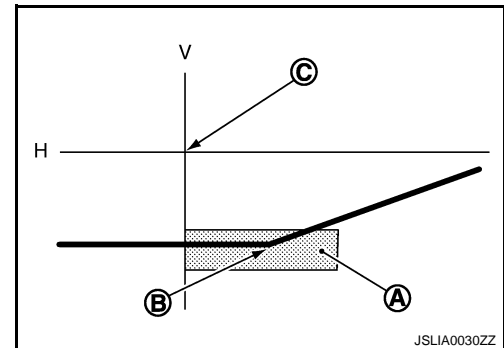
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

- Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area
- B. Elbow point
- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

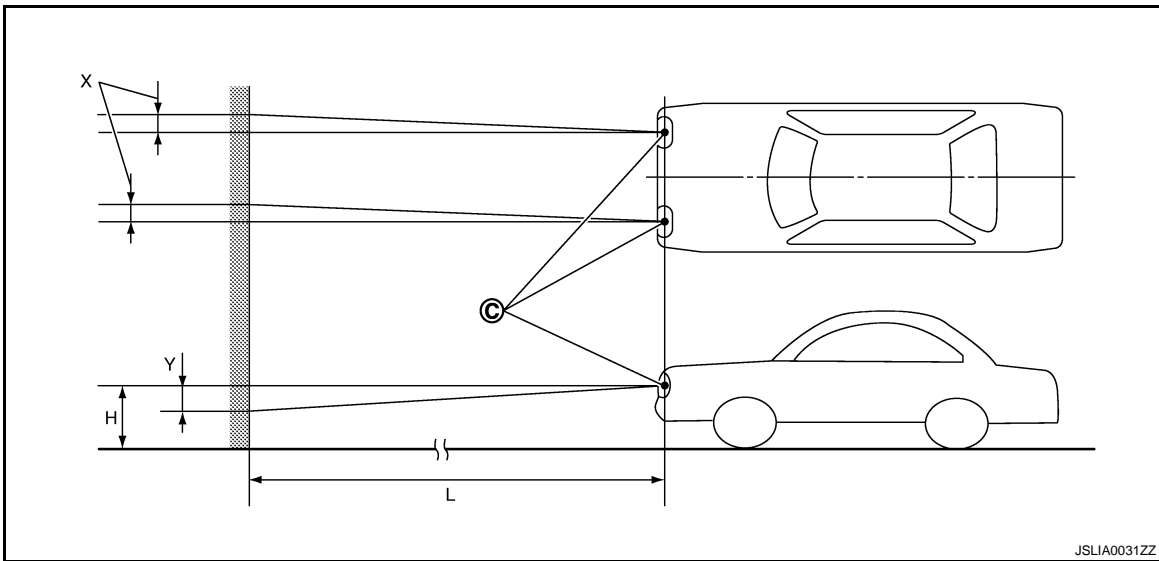
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Right side from headlamp centerline)
105 – 135 (4.13 – 5.31)	Within 100 (3.94)

# HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]



- C. Vertical center line of headlamp    H. Horizontal center line of headlamp    L. Distance from headlamp center to screen  
X. Aiming adjustment area (lateral)    Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

RHD

## RHD : Aiming Adjustment Procedure

INFOID:000000001160150

1. Place the screen.

**NOTE:**

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the headlamp bulb center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the headlamp (LO).

**NOTE:**

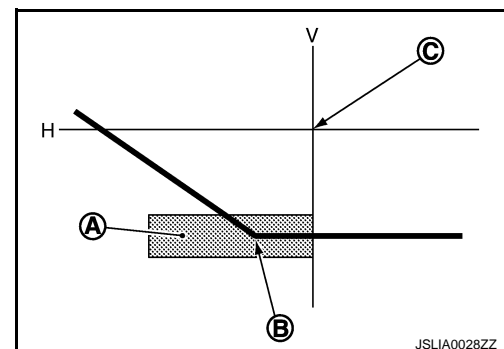
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

4. Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area  
B. Elbow point

# HEADLAMP AIMING ADJUSTMENT

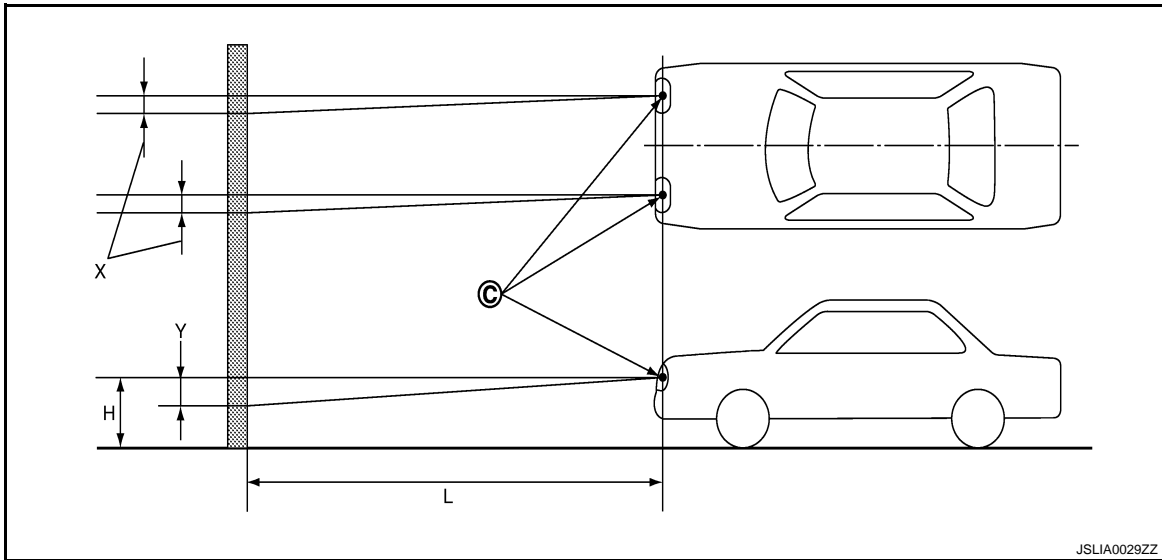
< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Left side from headlamp centerline)
105 – 135 (4.13 – 5.31)	Within 100 (3.94)



JSLIA0029ZZ

- C. Vertical center line of headlamp
- H. Horizontal center line of headlamp
- L. Distance from headlamp center to screen
- X. Aiming adjustment area (lateral)
- Y. Aiming adjustment area (Vertical)

**Distance from headlamp center to screen (L) : 10 m (32.8 ft)**



# FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

## FRONT FOG LAMP AIMING ADJUSTMENT

### Description

INFOID:000000001160151

### PREPARATION BEFORE ADJUSTING

#### NOTE:

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

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

#### NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

- Wipe out dirt on the headlamp.

#### CAUTION:

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.

### AIMING ADJUSTMENT SCREW

- Turn the aiming adjusting screw for adjustment.

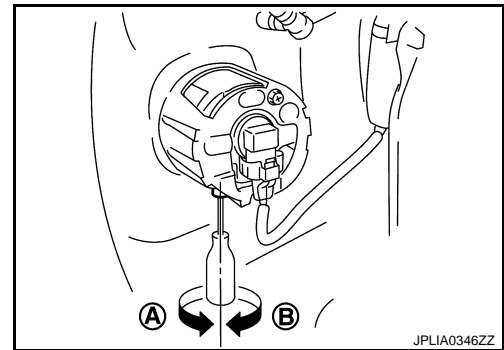
A: DOWN

B: UP

- 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:000000001303732

- 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 front fog lamp center and the screen.

- Start the engine. Illuminate the front fog lamp.

#### CAUTION:

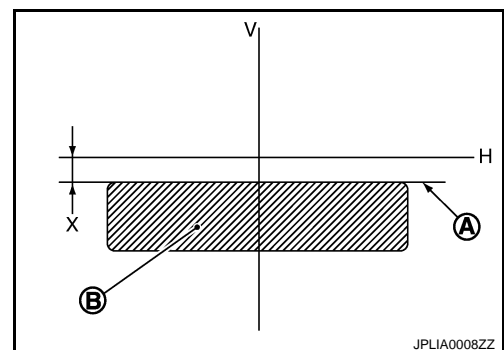
**Never cover the lens surface with a tape etc. The lens is made of resin.**

#### NOTE:

Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

- Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

Front fog lamp light distribution on the screen



# FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

---

- 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

# DRIVING LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

## DRIVING LAMP AIMING ADJUSTMENT

### Description

INFOID:000000001171120

### 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 driving lamp 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 luggage room.)

**NOTE:**

Do not remove the temporary tire, jack and on-vehicle tool.

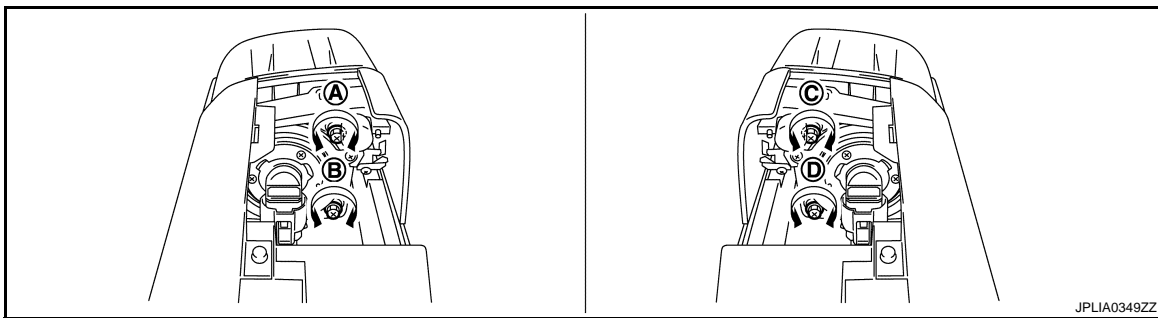
- Wipe out dirt on the driving lamp.

**CAUTION:**

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.

### AIMING ADJUSTMENT SCREW



- A. Driving lamp RH (UP/DOWN) adjustment screw
- B. Driving lamp RH (INSIDE-DOWN/OUTSIDE-UP) adjustment screw
- C. Driving lamp LH (UP/DOWN) adjustment screw
- D. Driving lamp LH (INSIDE-DOWN/OUTSIDE-UP) adjustment screw

	Adjustment screw	Screw driver rotation	Facing direction
A	Driving lamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Driving lamp RH (INSIDE-DOWN/OUTSIDE-UP)	Clockwise	INSIDE-DOWN
		Counterclockwise	OUTSIDE-UP
C	Driving lamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
D	Driving lamp LH (INSIDE-DOWN/OUTSIDE-UP)	Clockwise	INSIDE-DOWN
		Counterclockwise	OUTSIDE-UP

### Aiming Adjustment Procedure

INFOID:000000001171121

- Place the screen.
  - NOTE:**
  - Stop the vehicle at the perpendicular angle to the wall.
  - Set the screen perpendicularly to the ground.
- Face the vehicle squarely toward the screen and make the distance between the driving lamp center and the screen 10 m (32.8 ft).

# DRIVING LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[XENON TYPE]

3. Start the engine and turn the lighting switch 2ND & HI and driving lamp switch ON.

**NOTE:**

Block light from the driving lamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

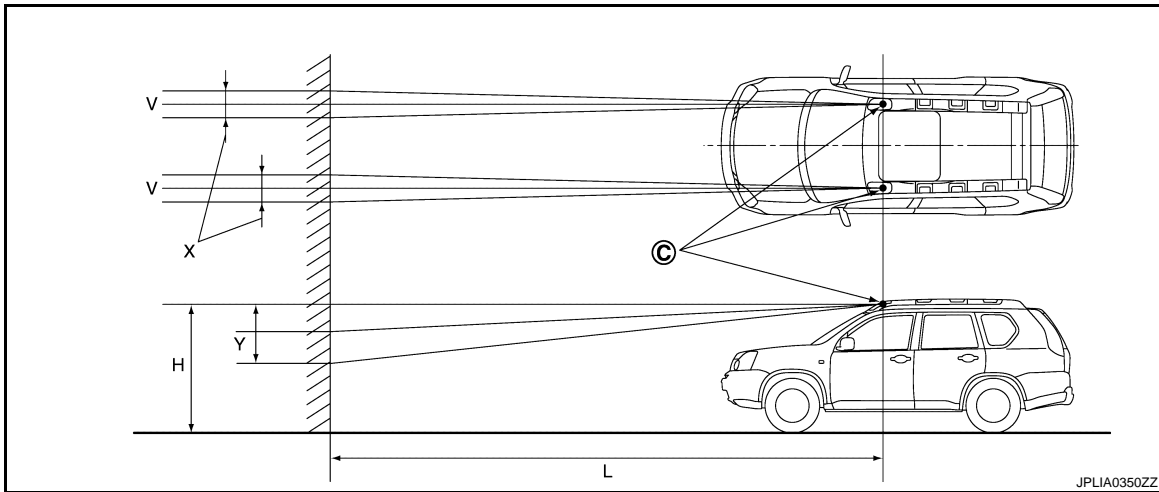
**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

4. Use the aiming adjustment screw to adjust the maximum illuminance zone center point on the screen, so that it is within the aiming adjustment area.

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from driving lamp center height)	Lateral direction (X) (Right/left side from driving lamp center line)
0 – 174 (0 – 6.85)	Within 174 (6.85)



- C. Driving lamp center
- X. Aiming adjustment area (lateral)
- V. Vertical center line of driving lamp
- Y. Aiming adjustment area (Vertical)
- H. Horizontal center line of driving lamp

**Distance from driving lamp center to screen (L) : 10 m (32.8 ft)**

# FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

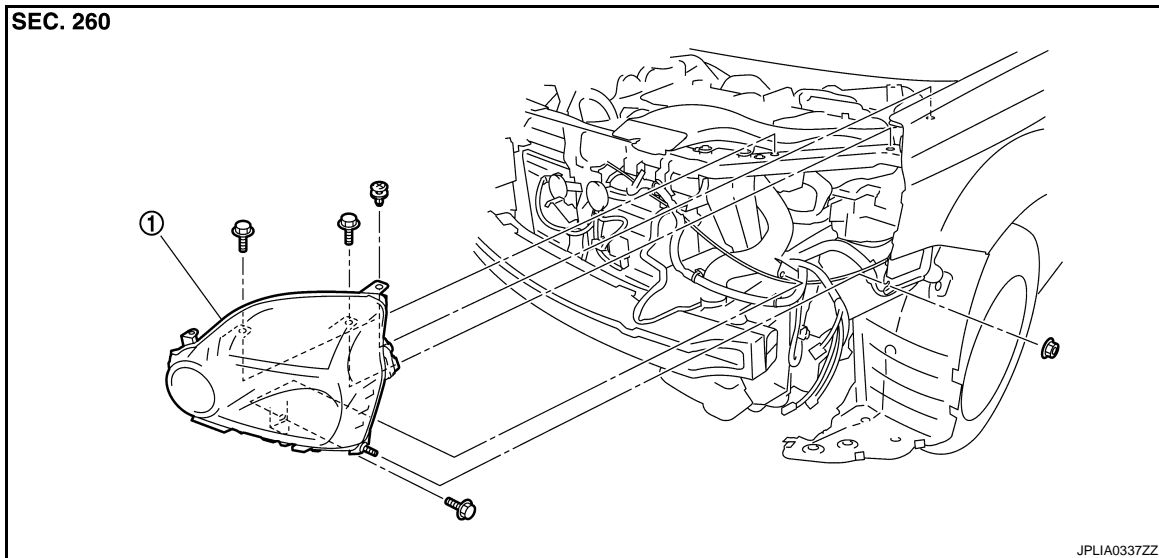
## ON-VEHICLE REPAIR

### FRONT COMBINATION LAMP

Exploded View

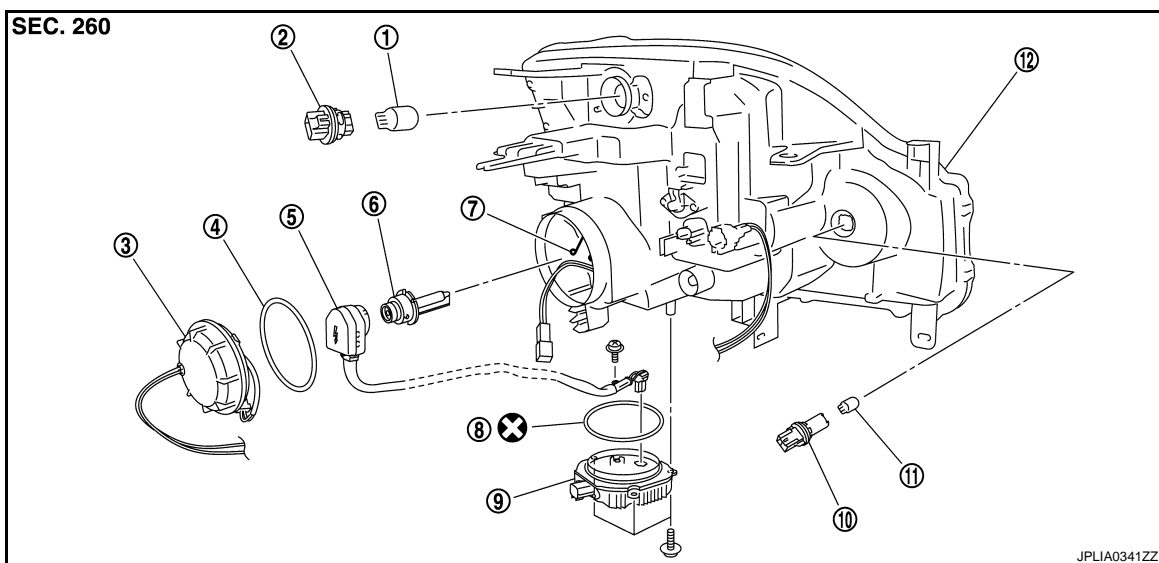
INFOID:000000001160153

#### REMOVAL



1. Front combination lamp

#### DISASSEMBLY



- |                                |                                       |                               |
|--------------------------------|---------------------------------------|-------------------------------|
| 1. Front turn signal lamp bulb | 2. Front turn signal lamp bulb socket | 3. Resin cap                  |
| 4. Seal packing                | 5. Xenon bulb socket                  | 6. Xenon bulb                 |
| 7. Retaining spring            | 8. Seal packing                       | 9. HID control unit           |
| 10. Parking lamp bulb socket   | 11. Parking lamp bulb                 | 12. Headlamp housing assembly |

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### Removal and Installation

INFOID:000000001160154

#### REMOVAL

# FRONT COMBINATION LAMP

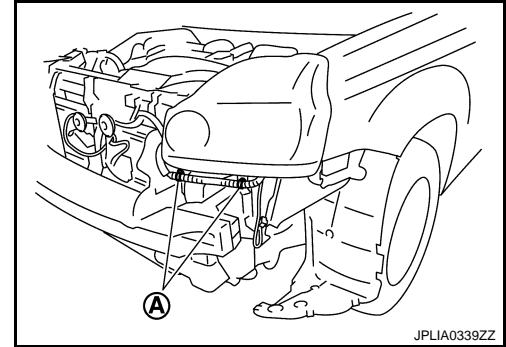
< ON-VEHICLE REPAIR >

[XENON TYPE]

## CAUTION:

Disconnect the battery negative terminal or the fuse.

1. Remove front bumper fascia. Refer to [EXT-12, "Exploded View"](#).
2. Remove the harness clips (A)\*.  
\*: When replace a left.
3. Remove the headlamp mounting bolts, nuts and clips.
4. Pull out the headlamp assembly forward the vehicle.
5. Disconnect the connector before removing the headlamp assembly.



JPLIA0339ZZ

## INSTALLATION

Install in the reverse order of removal.

## NOTE:

After installation, perform aiming adjustment. Refer to [EXL-205, "Description"](#).

## Replacement

INFOID:000000001160155

## CAUTION:

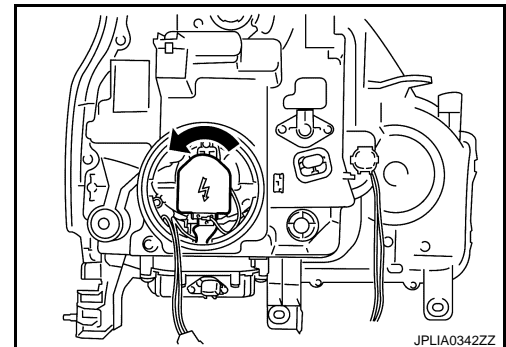
- Disconnect the battery negative terminal or the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.

## HEADLAMP BULB

1. Remove the air duct\*. Keep a service area.  
\*When replace a left.
2. Rotate the resin cap counterclockwise and unlock it.
3. Remove the ground harness of bulb socket.
4. Rotate the bulb socket counterclockwise and unlock it.
5. Remove the retaining spring lock. Remove the bulb from the headlamp housing assembly.

## CAUTION:

Never break the xenon bulb ceramic tube when replacing the bulb.



JPLIA0342ZZ

## PARKING LAMP BULB

1. Remove the air duct\*. Keep a service area.  
\*When replace a left.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

## FRONT TURN SIGNAL LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

## Disassembly and Assembly

INFOID:000000001160156

## DISASSEMBLY

1. Rotate the resin cap counterclockwise and unlock it.
2. Remove the ground harness of bulb socket.

# FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

3. Rotate the xenon bulb socket counterclockwise and unlock it.
4. Remove the retaining spring lock. Remove the xenon bulb.
5. Remove the HID control unit installation screw.
6. Remove the screw. Disconnect the connector from HID control unit.
7. Remove xenon bulb socket from headlamp housing assembly.
8. Rotate the parking lamp bulb socket counterclockwise and unlock it.
9. Remove the bulb from the parking lamp bulb socket.
10. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
11. Remove the bulb from the front turn signal lamp bulb socket.

## ASSEMBLY

Assemble in the reverse order of disassembly.

### **CAUTION:**

- **Install HID control unit securely.**
- **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  
M  
N  
O  
P

EXL

# FRONT FOG LAMP

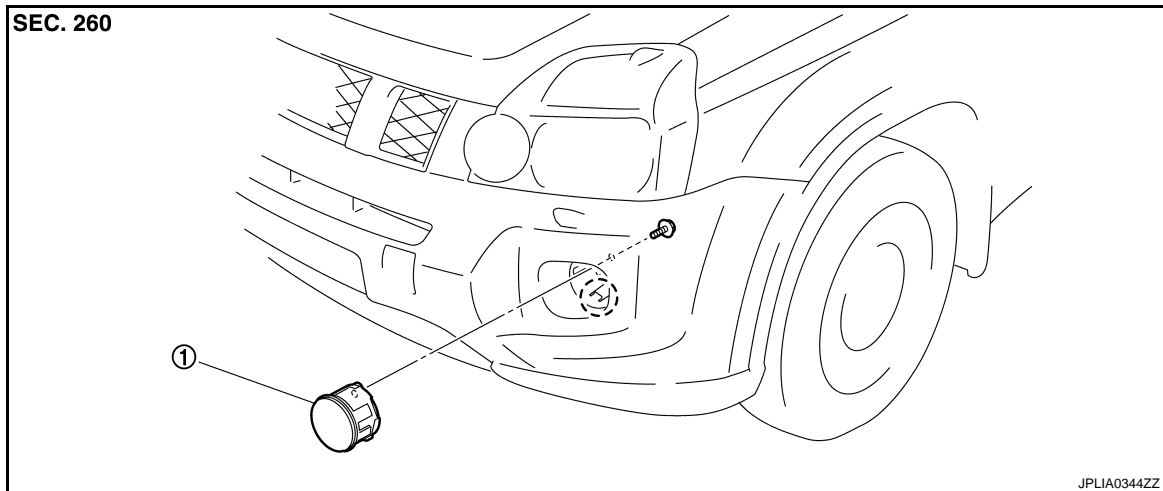
< ON-VEHICLE REPAIR >

[XENON TYPE]

## FRONT FOG LAMP

### Exploded View

INFOID:000000001160157



- 1. Front fog lamp
- 2. Fog lamp stopper

### Removal and Installation

INFOID:000000001160158

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### REMOVAL

1. Remove the inner fender protector. Keep a service area. Refer to [EXT-21, "Exploded View"](#).
2. Remove the front fog lamp connector.
3. Unlock the fog lamp stopper.
4. Remove the screw. Remove the front fog lamp.

#### INSTALLATION

Installation is the reverse order of removal.

**NOTE:**

After installation, perform aiming adjustment. Refer to [EXL-209, "Description"](#)

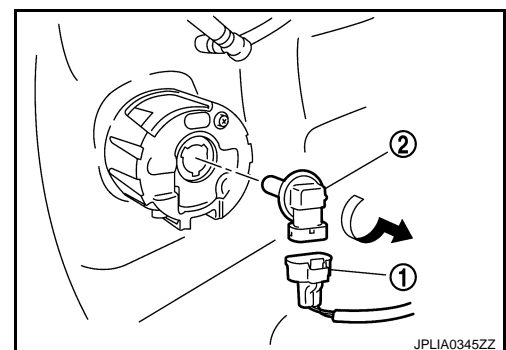
### Replacement

INFOID:000000001160159

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### FRONT FOG LAMP BULB

1. Remove the fender protector. Keep the service area.
2. Remove the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.





# DRIVING LAMP

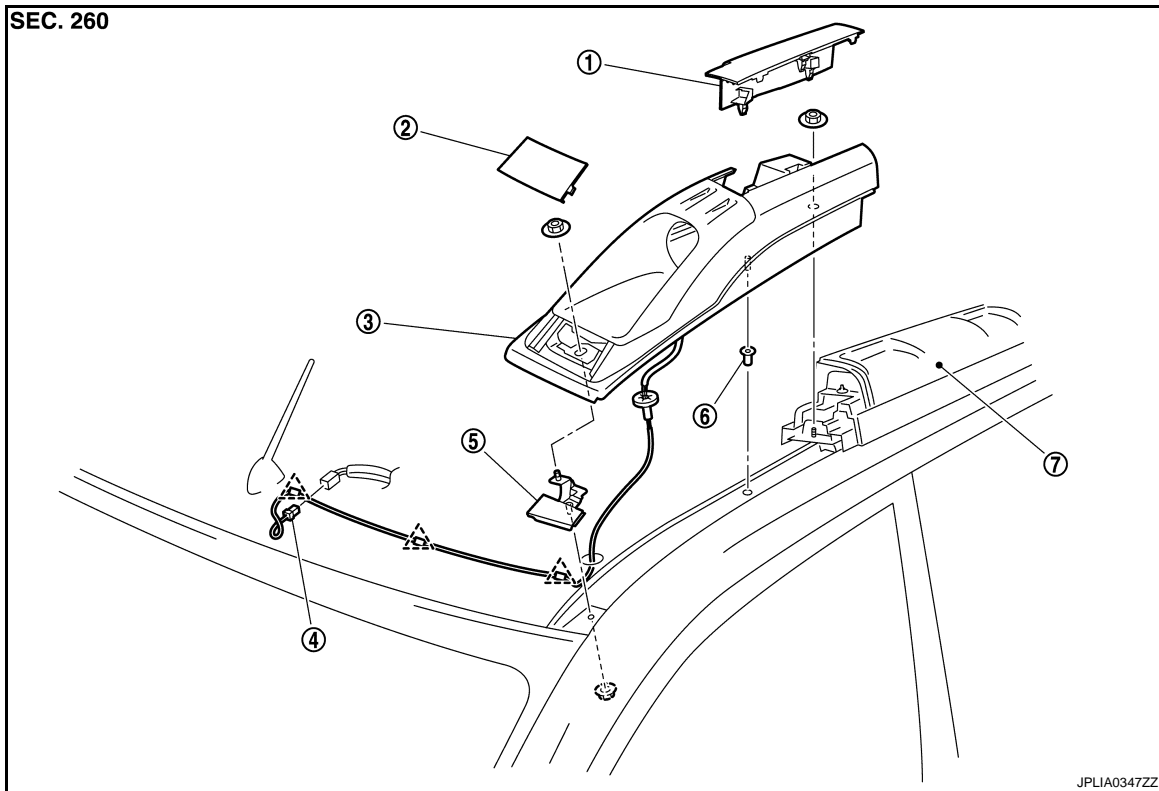
< ON-VEHICLE REPAIR >

[XENON TYPE]


## DRIVING LAMP

### Exploded View

INFOID:000000001168938



- |                                   |                         |                          |
|-----------------------------------|-------------------------|--------------------------|
| 1. Rear cover                     | 2. Front cover          | 3. Driving lamp assembly |
| 4. Driving lamp harness connector | 5. Driving lamp bracket | 6. Grommet               |
| 7. Roof rail                      |                         |                          |

 : Harness clip

### Removal and Installation

INFOID:000000001168939

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### REMOVAL

1. Remove the headlining (front side). Keep a service area. Refer to [INT-22. "NORMAL ROOF : Exploded View"](#).
2. Remove the harness clips and disconnect the driving lamp connector.
3. Remove the front cover and the rear cover.
4. Remove the mounting nuts.
5. Remove the driving lamp assembly.

#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

After installation, perform aiming adjustment. Refer to [EXL-211. "Description"](#)

### Replacement

INFOID:000000001168940

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### DRIVING LAMP BULB

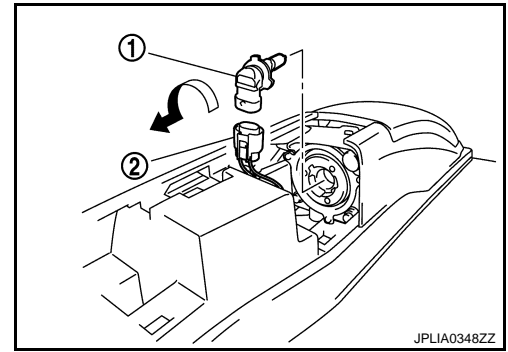
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL  
M  
N  
O  
P

## DRIVING LAMP

[XENON TYPE]

### < ON-VEHICLE REPAIR >

1. Remove the rear cover.
2. Rotate the bulb (1) counterclockwise and unlock it.
3. Remove the bulb.
4. Remove the driving lamp connector (2).



# LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[XENON TYPE]

## LIGHT & RAIN SENSOR

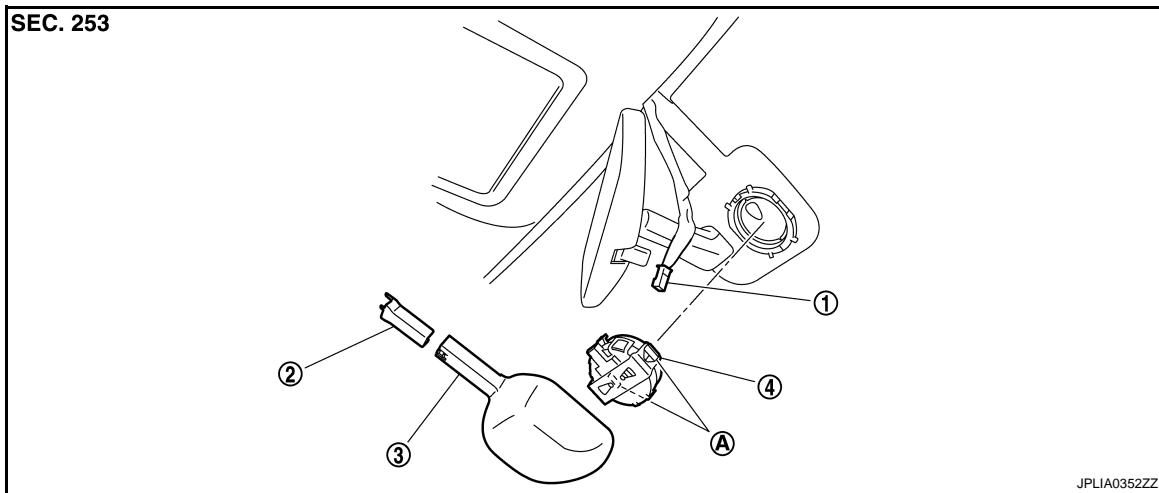
### Exploded View

INFOID:000000001160160

#### CAUTION:

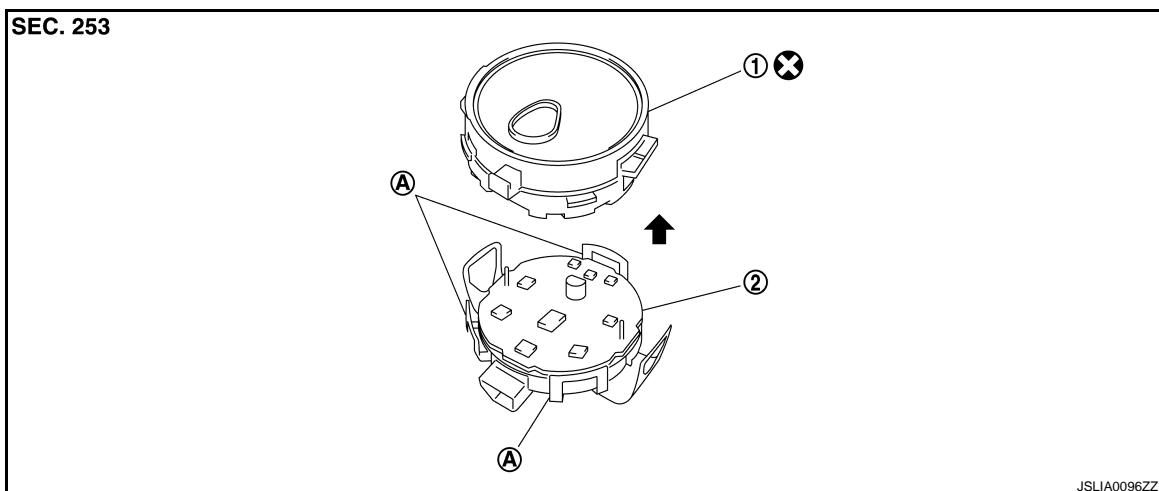
- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

### REMOVAL



1. Light & rain sensor connector
2. Inside mirror cover (upper)
3. Inside mirror cover (lower)
4. Light & rain sensor
- A. Metal spring clip

### DISASSEMBLY



1. Light & rain sensor housing
2. Light & rain sensor
- A. Pawl

Refer to [Gl-4, "Components"](#) for symbols in the figure.

#### CAUTION:

Never touch the electronic circuit board.

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

# LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[XENON TYPE]

## Removal and Installation

INFOID:000000001160161

### **CAUTION:**

- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

### REMOVAL

1. Remove the inside mirror cover (upper and lower). Refer to [MIR-23, "Exploded View"](#).
2. Disengage the both sides of metal spring clips, and remove the light & rain sensor from the windshield.
3. Disconnect light & rain sensor connector.

### **NOTE:**

When replacing the light & rain sensor housing;  
Disengage the pawls, and remove the light & rain sensor housing from the light & rain sensor.

### **CAUTION:**

**Never touch the electronic circuit board.**

### INSTALLATION

Install in the reverse order of removal.

### **CAUTION:**

- Surface of windshield should be cleaned.
- Never touch gel/adhesive of new part.

# LIGHTING & TURN SIGNAL SWITCH

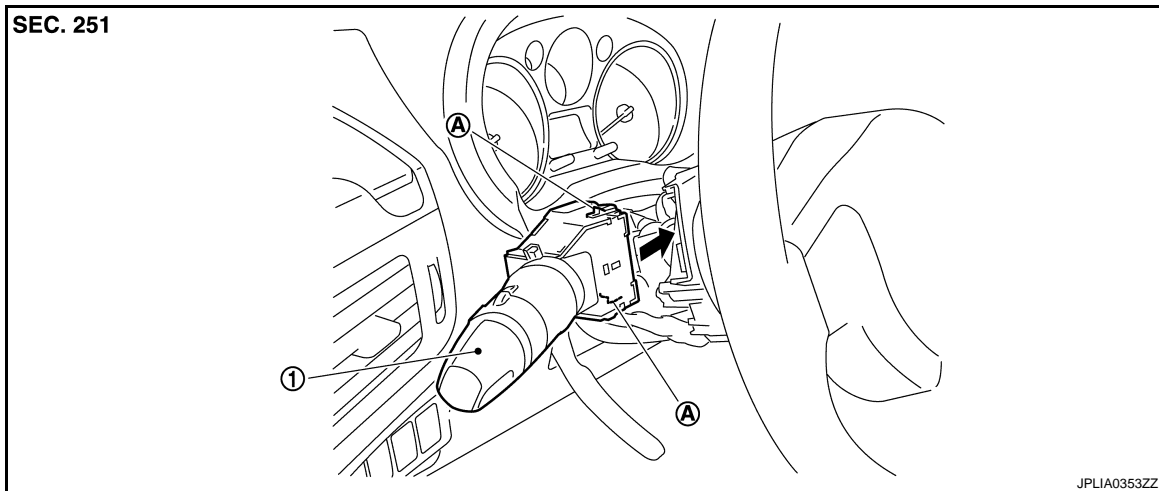
< ON-VEHICLE REPAIR >

[XENON TYPE]

## LIGHTING & TURN SIGNAL SWITCH

### Exploded View

INFOID:000000001160162



- 1. Lighting & turn signal switch
- A. Pawl

### Removal and Installation

INFOID:000000001160163

#### REMOVAL

1. Remove steering column cover. Refer to [IP-11. "Exploded View"](#).
2. While pressing pawls, pull the lighting & turn signal switch. And disconnect from the switch base.

#### INSTALLATION

Installation is the reverse order of removal.

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

EXL

# SIDE TURN SIGNAL LAMP

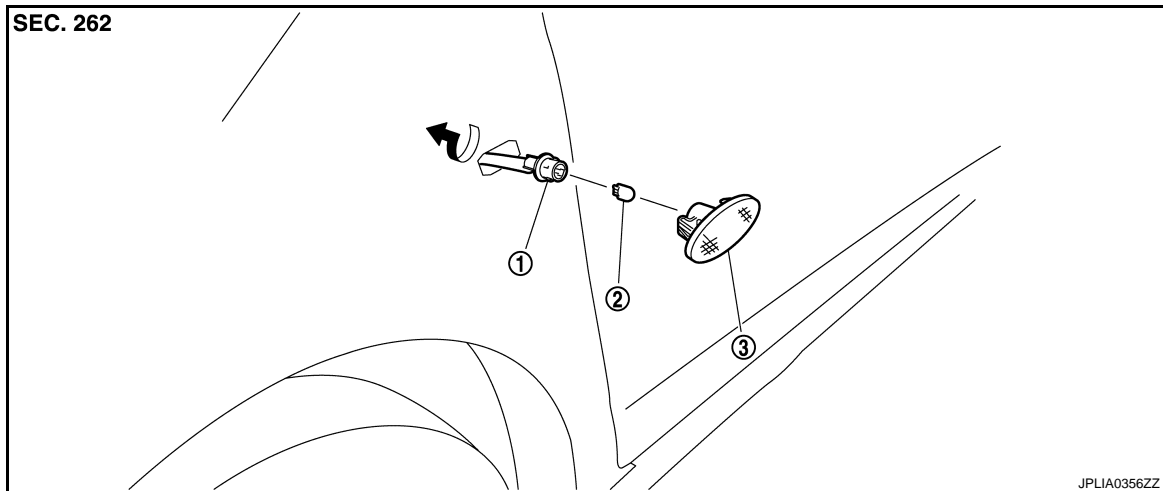
< ON-VEHICLE REPAIR >

[XENON TYPE]

## SIDE TURN SIGNAL LAMP

Exploded View

INFOID:000000001160164



1. Side turn signal lamp bulb socket
2. Side turn signal lamp bulb
3. Side turn signal lamp housing

## Removal and Installation

INFOID:000000001160165

### CAUTION:

Disconnect battery negative terminal or remove the fuse.

### REMOVAL

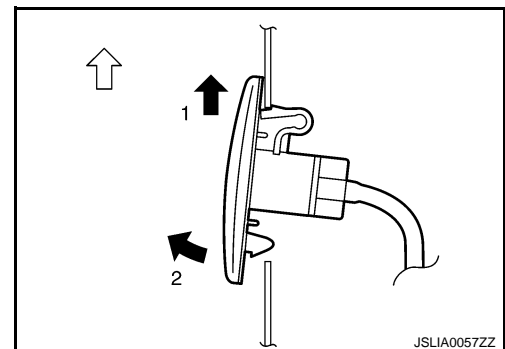
1. Remove the side turn signal lamp in numerical order shown in the figure.

↔ : Installable both direction

2. Rotate the bulb socket counterclockwise and unlock it.

### NOTE:

Support side turn signal lamp harness with tape so that it won't fall into the front fender.



### INSTALLATION

1. Rotate the bulb socket clockwise and lock it.
2. Fix the pawl-side behind the side turn signal lamp housing first, then push the resin clip-side.

## Replacement

INFOID:000000001160166

### CAUTION:

Disconnect battery negative terminal or remove the fuse.

### SIDE TURN SIGNAL LAMP BULB

1. Remove the side turn signal lamp.
2. Rotate the bulb socket counterclockwise and unlock it.

### NOTE:

Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.

3. Remove the bulb from the bulb socket.

# HAZARD SWITCH

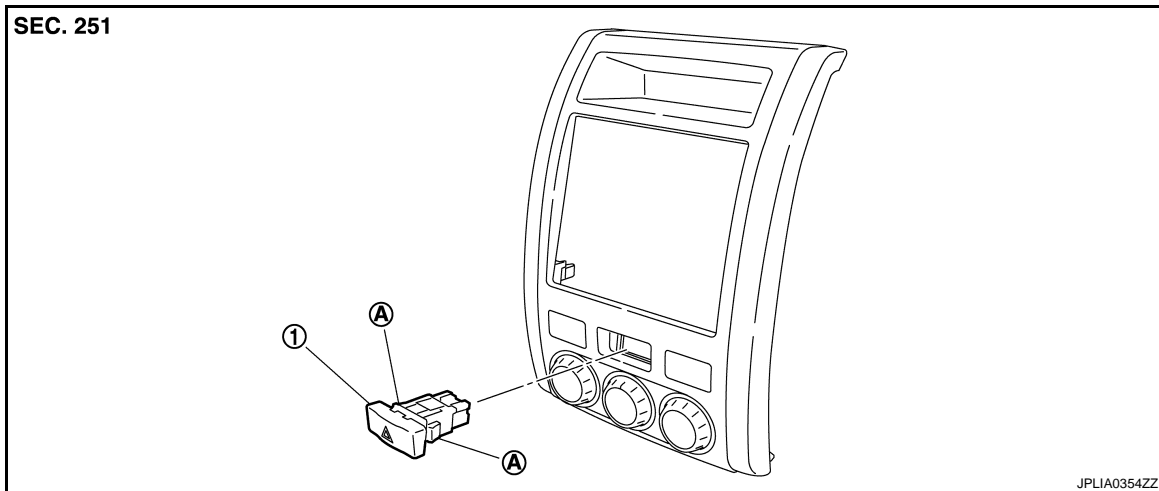
< ON-VEHICLE REPAIR >

[XENON TYPE]

## HAZARD SWITCH

### Exploded View

INFOID:000000001160167



- 1. Hazard switch
- A. Pawl

### Removal and Installation

INFOID:000000001160168

#### REMOVAL

1. Remove the cluster lid C. Refer to [IP-11, "Exploded View"](#).
2. While pressing pawls, push the hazard switch. And remove it.

#### INSTALLATION

Install in the reverse order of removal.

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

EXL

# DRIVING LAMP SWITCH

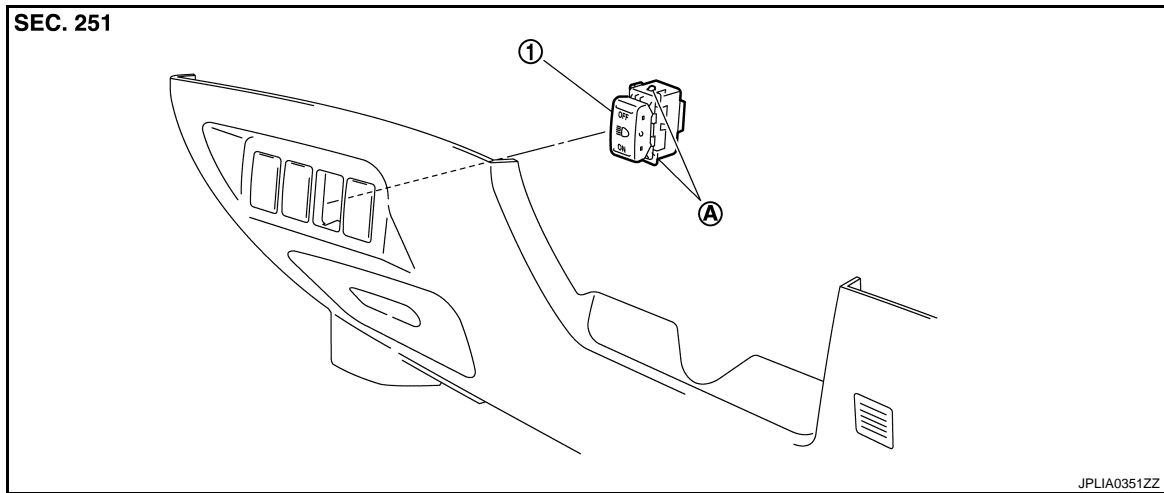
< ON-VEHICLE REPAIR >

[XENON TYPE]

## DRIVING LAMP SWITCH

Exploded View

INFOID:000000001168941



- 1. Driving lamp switch
- A. Pawl

## Removal and Installation

INFOID:000000001168942

### REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-11, "Exploded View"](#).
2. Widen the pawl. Remove driving lamp switch.

### INSTALLATION

Install in the reverse order of removal.



# AUTO LEVELIZER CONTROL UNIT

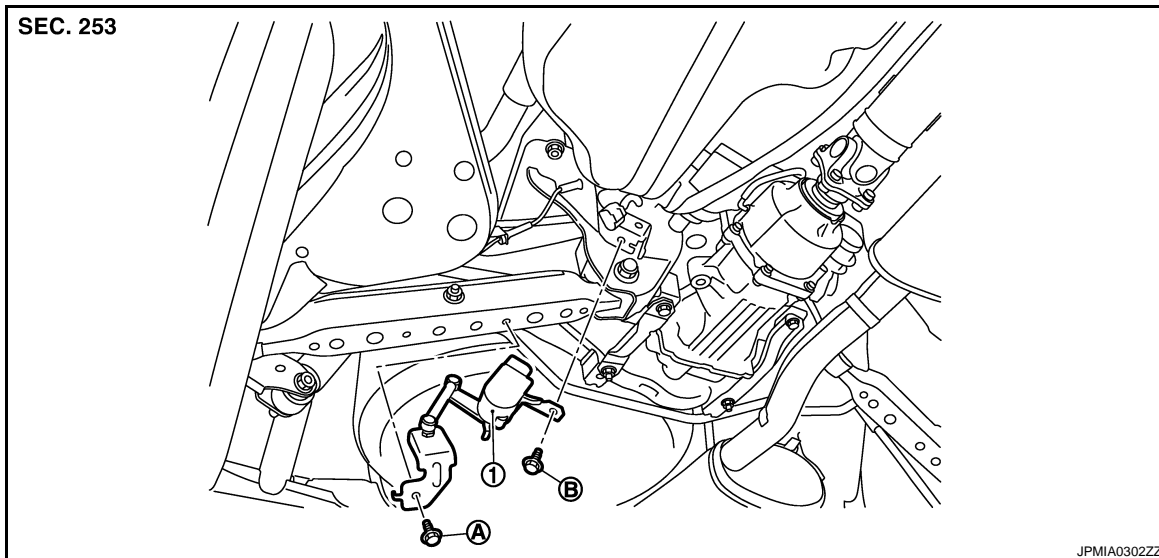
< ON-VEHICLE REPAIR >

[XENON TYPE]

## AUTO LEVELIZER CONTROL UNIT

### Exploded View

INFOID:000000001160169



1. Auto levelizer control unit
- A. Sensor lever link bracket bolt      B. Auto levelizer control unit mounting bolt

### Removal and Installation

INFOID:000000001160170

#### Removal

1. Remove auto levelizer control unit mounting bolt.
2. Remove sensor lever link bracket bolt.
3. Disconnect auto levelizer control unit connector.
4. Remove auto levelizer control unit.

#### Installation

Install in the reverse order of removal.

#### **CAUTION:**

- Be sure to perform "SENSOR INITIALIZE" with CONSULT-III if auto levelizer control unit is removed.
- Be sure to perform "WRITE CONFIGURATION" with CONSULT-III when replacing the auto levelizer control unit.

Refer to [EXL-11, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description"](#).

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

EXL

# REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

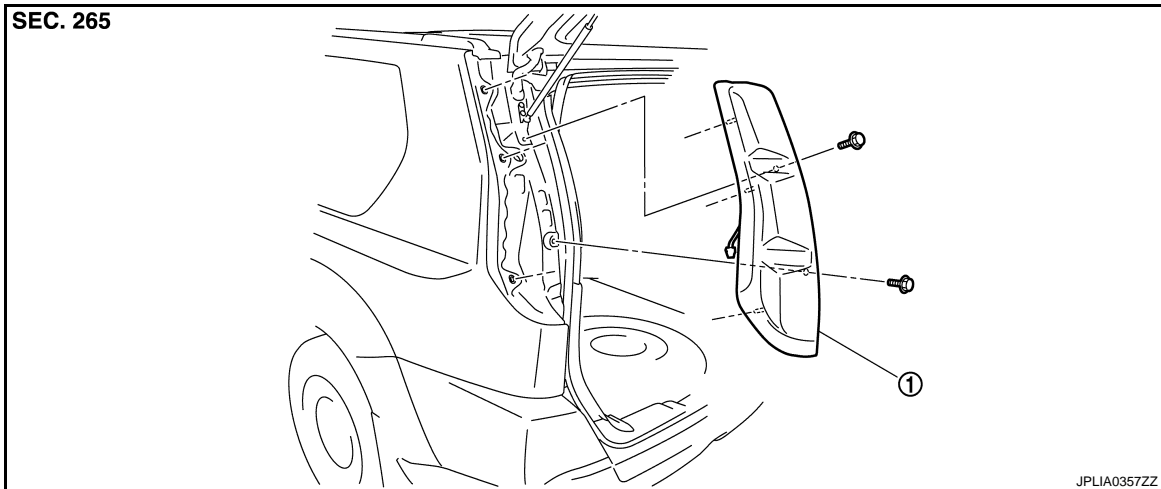
[XENON TYPE]

## REAR COMBINATION LAMP

Exploded View

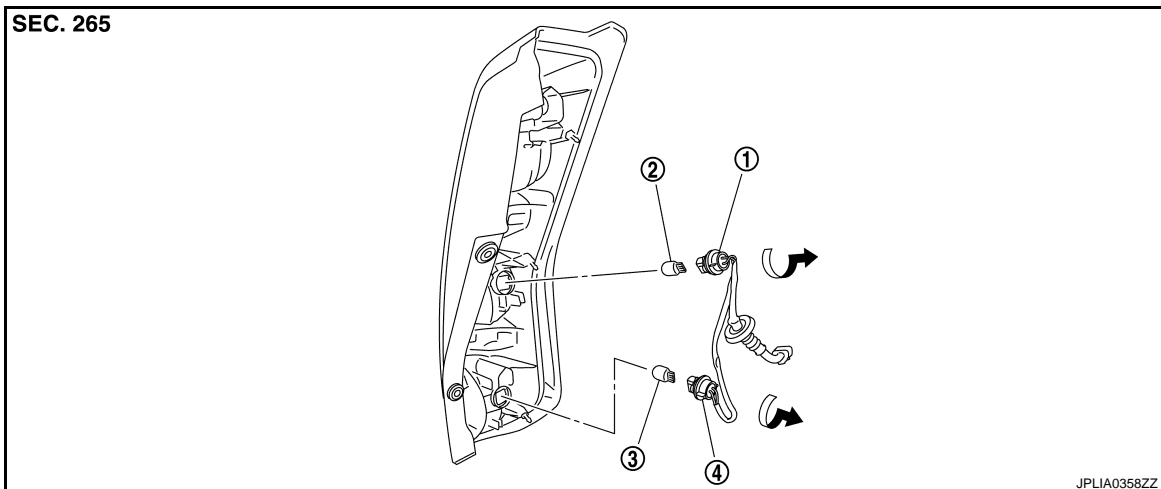
INFOID:000000001160171

### REMOVAL



1. Rear combination lamp

### DISASSEMBLY



1. Rear turn signal lamp bulb socket
2. Rear turn signal lamp bulb
3. Stop/tail lamp bulb
4. Stop/tail lamp bulb socket

### Removal and Installation

INFOID:000000001160172

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

### REMOVAL

1. Remove the rear pillar finisher. Refer to [INT-28, "Exploded View"](#).
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting bolts.
4. Pull the rear combination lamp toward rear of the vehicle. Remove the rear combination lamp.

### INSTALLATION

Install in the reverse order of removal.

# REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

## Replacement

INFOID:000000001160173

### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

### STOP/TAIL LAMP BULB

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Keep a service area.
3. Rotate the stop/tail lamp bulb socket counterclockwise, and unlock it.
4. Remove bulb from the bulb socket.

### REAR TURN SIGNAL LAMP BULB

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Keep a service area.
3. Rotate the rear turn signal lamp bulb socket counterclockwise, and unlock it.
4. Remove bulb from the bulb socket.

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# HIGH-MOUNTED STOP LAMP

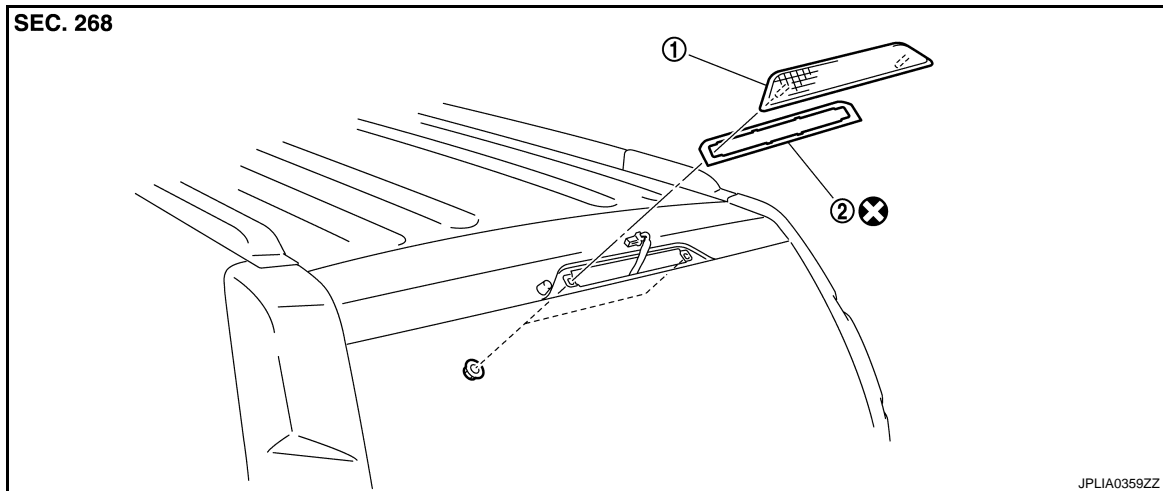
< ON-VEHICLE REPAIR >

[XENON TYPE]

## HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000001160174



1. High-mounted stop lamp
2. Seal packing

Refer to [GI-4, "Components"](#) for symbols in the figure.

## Removal and Installation

INFOID:000000001160175

### CAUTION:

**Disconnect battery negative terminal or remove the fuse.**

### REMOVAL

1. Remove the back door trim finisher upper. Refer to [INT-31, "Exploded View"](#).
2. Remove the mounting nuts.
3. Cut the seal packing by the thin plate.
4. While pressing pawls, remove the high-mounted stop lamp.
5. Disconnect the high-mounted stop lamp connector.

### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

**Seal packing cannot be reused.**

# BACK-UP LAMP

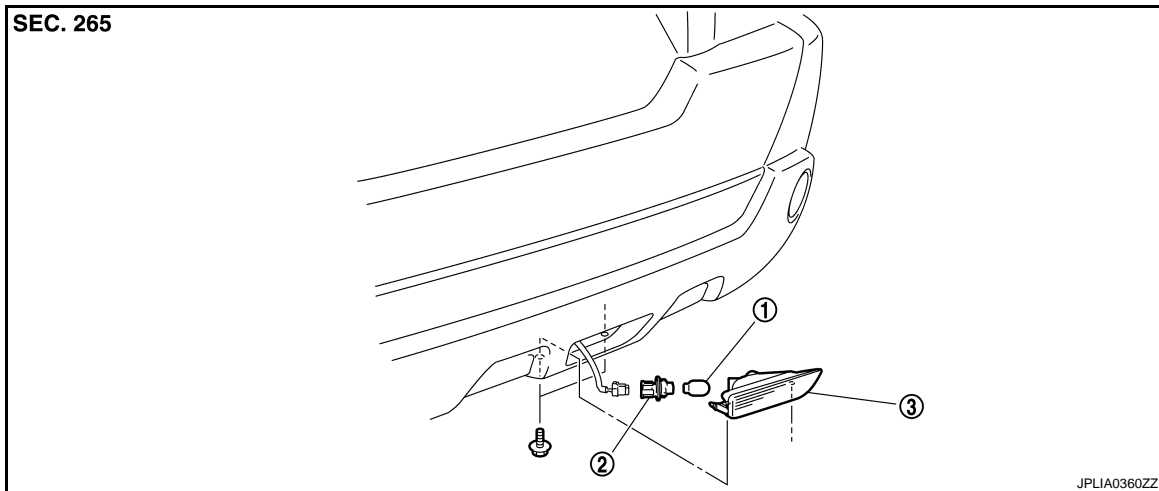
< ON-VEHICLE REPAIR >

[XENON TYPE]

## BACK-UP LAMP

### Exploded View

INFOID:000000001160176



1. Back-up lamp bulb
2. Back-up lamp bulb socket
3. Back-up lamp housing

### Removal and Installation

INFOID:000000001160177

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### REMOVAL

1. Remove back-up lamp mounting bolts.
2. Insert any appropriate tool into the gap between the back-up lamp and rear bumper fascia. And then remove the back-up lamp.
3. Disconnect back-up lamp connector.

#### INSTALLATION

Install in the reverse order of removal.

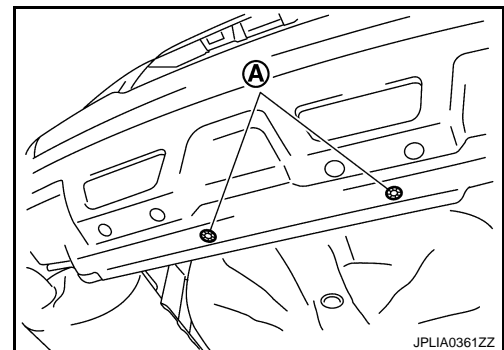
### Replacement

INFOID:000000001160178

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### BACK-UP LAMP BULB

1. Remove the clips (A).
2. Widen the rear bumper fascia. Keep a service area.



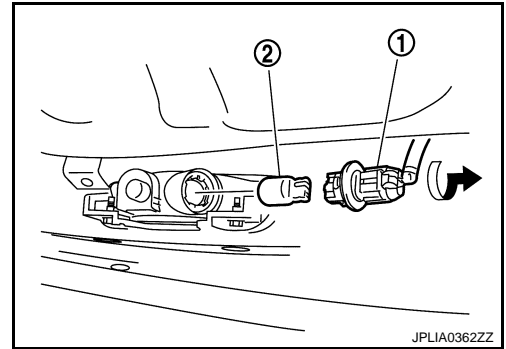
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL  
M  
N  
O  
P

## BACK-UP LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

3. Rotate the bulb socket (1) counterclockwise and unlock it.
4. Remove the bulb (2) from the socket.



# LICENSE PLATE LAMP

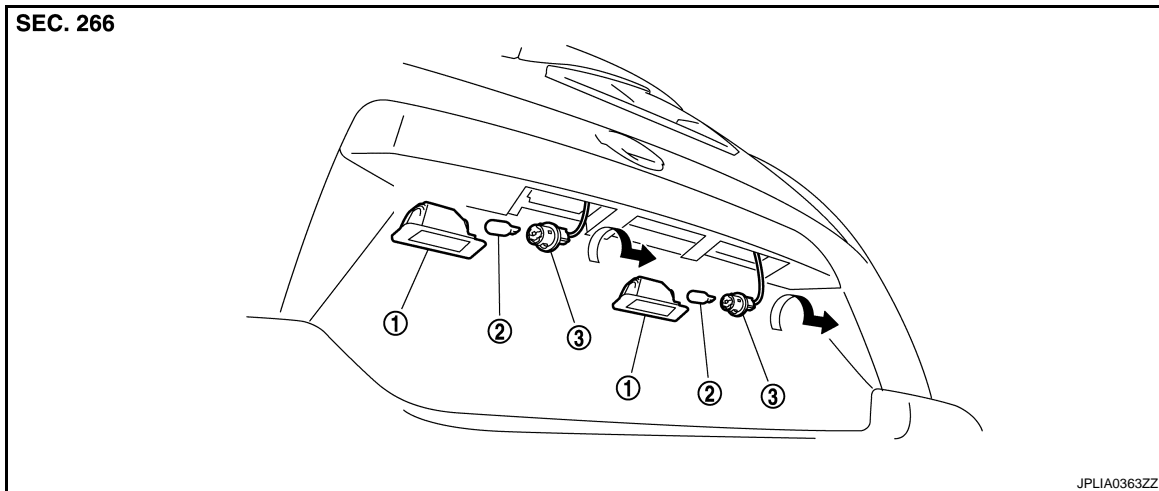
< ON-VEHICLE REPAIR >

[XENON TYPE]

## LICENSE PLATE LAMP

### Exploded View

INFOID:000000001160179



1. License plate lamp housing
2. License plate lamp bulb
3. License plate lamp bulb socket

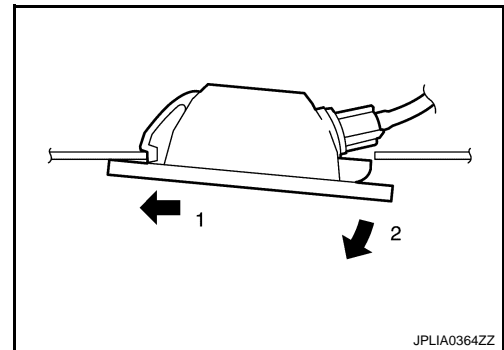
### Removal and Installation

INFOID:000000001160180

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### REMOVAL

1. Remove the license plate lamp in numerical order shown in the figure.
2. Rotate the bulb socket counterclockwise and unlock it.



#### INSTALLATION

1. Rotate the bulb socket clockwise and lock it.
2. Fix the pawl-side behind the license plate lamp housing first, then push the resin clip-side.

#### Replacement

INFOID:000000001160181

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

#### LICENSE PLATE LAMP BULB

1. Remove license plate lamp.
2. Turn the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the socket.

# REAR FOG LAMP

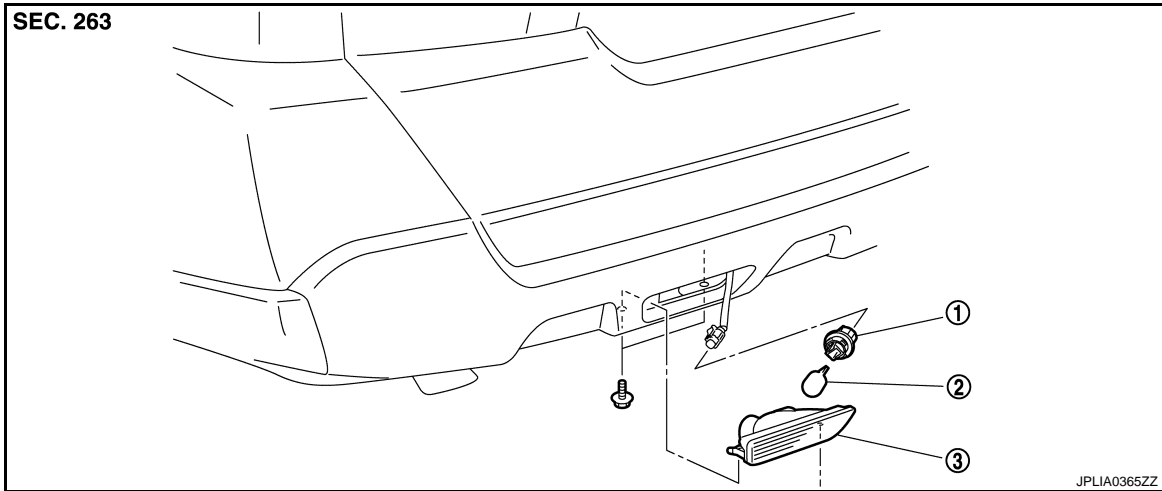
< ON-VEHICLE REPAIR >

[XENON TYPE]

## REAR FOG LAMP

### Exploded View

INFOID:000000001160182



1. Rear fog lamp bulb socket

2. Rear fog lamp bulb

3. Rear fog lamp housing

### Removal and Installation

INFOID:000000001160183

#### **CAUTION:**

**Disconnect battery negative terminal or remove the fuse.**

#### REMOVAL

1. Remove rear fog lamp mounting bolts.
2. Insert any appropriate tool into the gap between the rear fog lamp and rear bumper fascia. And then remove the rear fog lamp.
3. Disconnect rear fog lamp connector.

#### INSTALLATION

Installation is the reverse order of removal.

### Replacement

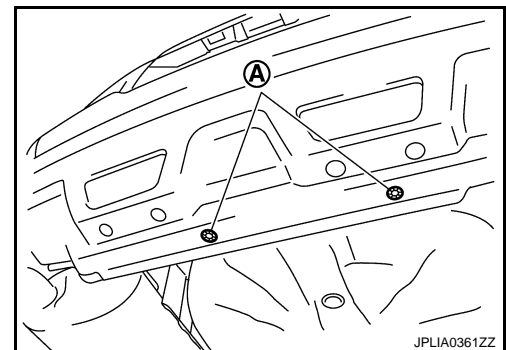
INFOID:000000001160184

#### **CAUTION:**

**Disconnect battery negative terminal or remove the fuse.**

#### REAR FOG LAMP BULB

1. Remove the clips (A).
2. Widen the rear bumper fascia. Keep a service area.



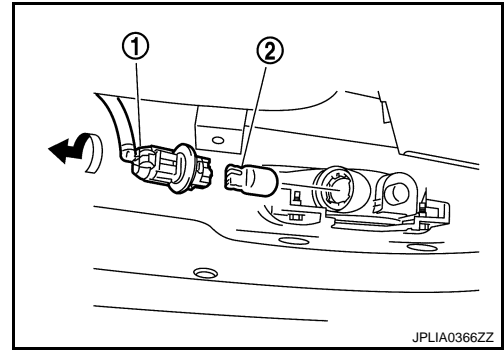


# REAR FOG LAMP

< ON-VEHICLE REPAIR >

[XENON TYPE]

3. Rotate the bulb socket (1) counterclockwise and unlock it.
4. Remove the bulb (2) from the socket.



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

# 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:000000001160185

Item	Type	Wattage (W)	
Front combination lamp	Headlamp (HI/LO)	D2S (XENON)	35
	Front turn signal lamp	WY21W (Amber)	21
	Parking lamp	W5W	5
Front fog lamp	H8	35	
Driving lamp	HB3	60	
Side turn signal lamp	W5W (Amber)	5	
Rear combination lamp	Stop lamp/Tail lamp	W21/5W	21/5
	Rear turn signal lamp	W21W	21
Back-up lamp	W21W	21	
License plate lamp	W5W	5	
High-mounted stop lamp	LED	—	
Rear fog lamp	W21W	21	

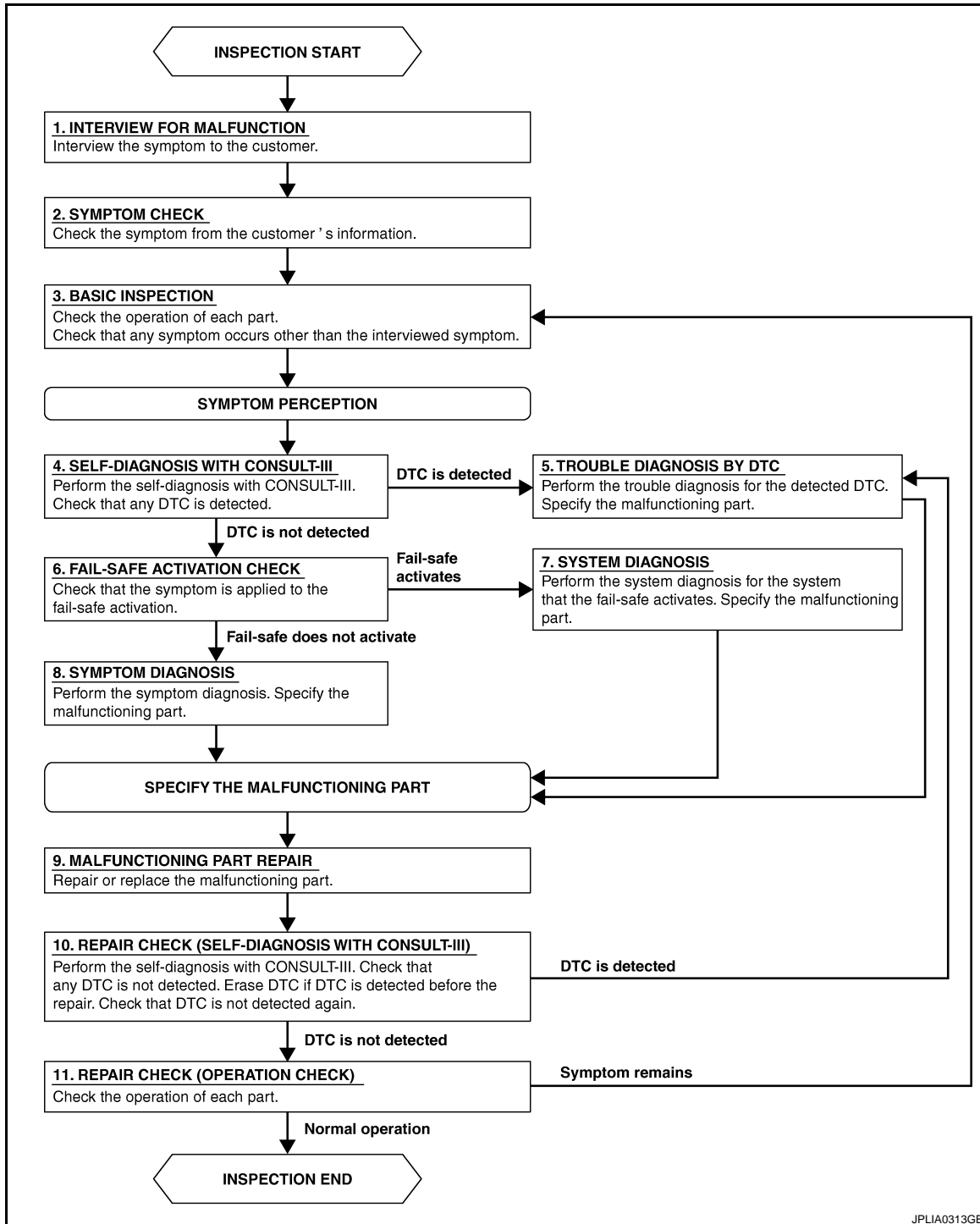
**BASIC INSPECTION**

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000001208547

OVERALL SEQUENCE



DETAILED FLOW

**1. INTERVIEW FOR MALFUNCTION**

Interview the symptom to the customer.

# DIAGNOSIS AND REPAIR WORKFLOW

[HALOGEN TYPE]

< BASIC INSPECTION >

---

>> GO TO 2.

## 2. SYMPTOM CHECK

---

Check the symptom from the customer's information.

>> GO TO 3.

## 3. BASIC INSPECTION

---

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

>> GO TO 4.

## 4. SELF-DIAGNOSIS WITH CONSULT-III

---

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 6.

## 5. TROUBLE DIAGNOSIS BY DTC

---

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

>> GO TO 9.

## 6. FAIL-SAFE ACTIVATION CHECK

---

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

Does the fail-safe activate?

YES >> GO TO 7.

NO >> GO TO 8.

## 7. SYSTEM DIAGNOSIS

---

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

>> GO TO 9.

## 8. SYMPTOM DIAGNOSIS

---

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9.

## 9. MALFUNCTION PART REPAIR

---

Repair or replace the malfunctioning part.

>> GO TO 10.

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

---

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

Is any DTC detected?

YES >> GO TO 5.

NO >> GO TO 11.

## 11. REPAIR CHECK (OPERATION CHECK)

---

Check the operation of each part.

Does it operate normally?

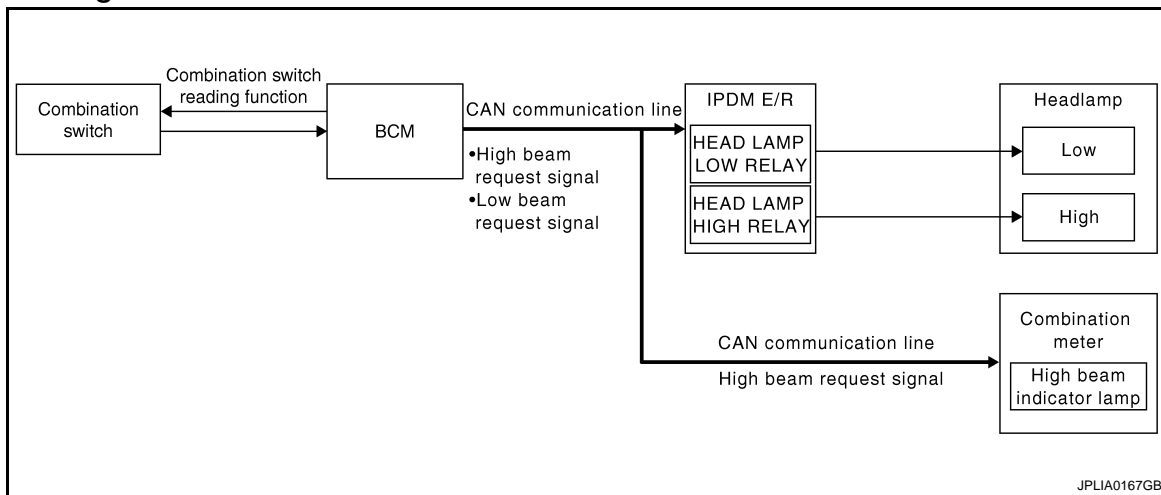
YES >> INSPECTION END

NO >> GO TO 3.

## FUNCTION DIAGNOSIS

### HEADLAMP SYSTEM

#### System Diagram



#### System Description

INFOID:000000001160188

#### OUTLINE

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

#### HEADLAMP (LO) OPERATION

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

Headlamp (LO) ON condition

- Lighting switch 2ND
- Lighting switch AUTO, and the auto light function ON judgment (With auto light system)
- Daytime running light ON judgment (With daytime running light system)
- 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 with CAN communication according to the headlamp (HI) ON condition.

Headlamp (HI) ON condition

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

#### FOLLOW ME HOME FUNCTION

When the driver is moving to the house entrance from the own vehicle, headlamp is kept still ON by the follow me home function of BCM.

- When BCM detects the input of lighting switch PASS with all of following condition, it transmits the low beam request signal for a period of time to IPDM E/R through CAN communication.
- IPDM E/R turns the integrated headlamp low relay ON, and turns the headlamp ON according to the low beam request signal.
- Ignition switch OFF
- Lighting switch OFF or AUTO

**NOTE:**

# HEADLAMP SYSTEM

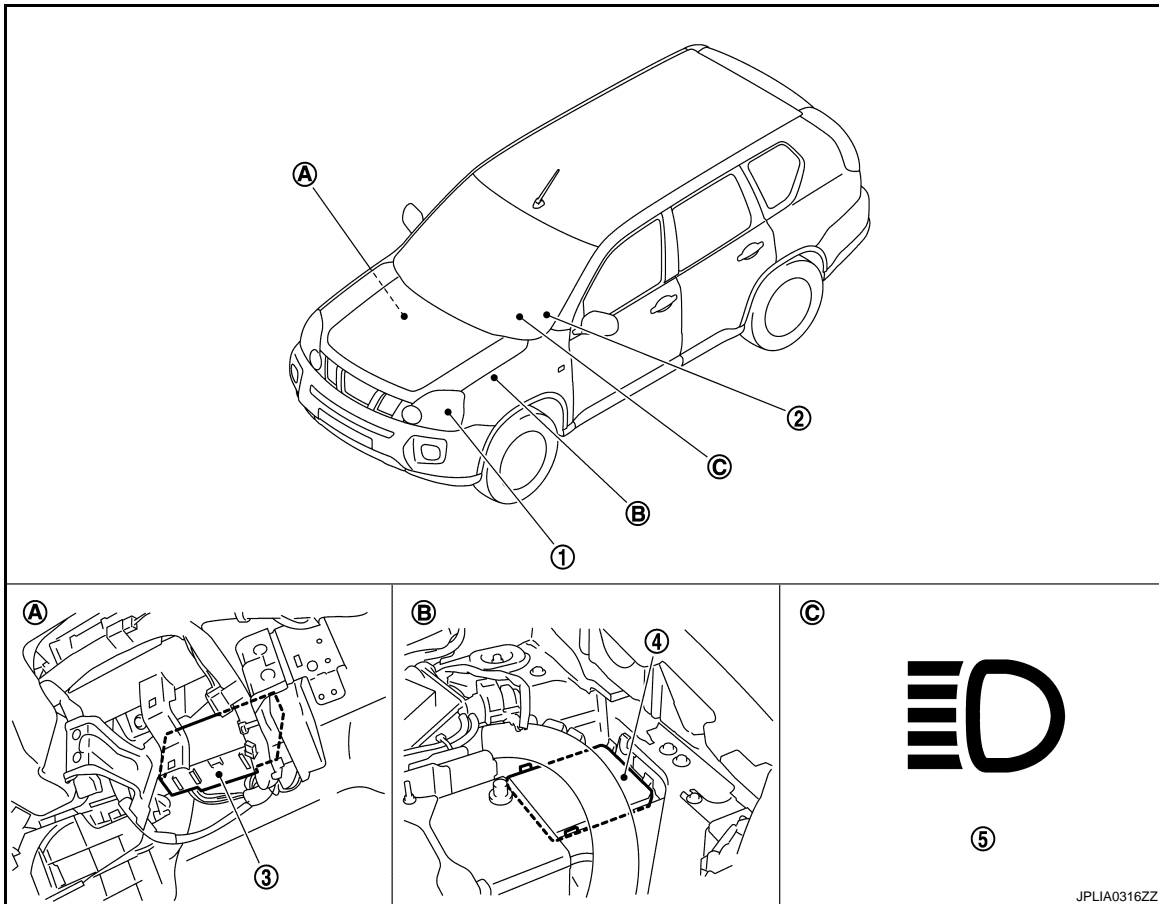
[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Follow me home function activating time can be set by CONSULT-III. Refer to [EXL-255. "HEADLAMP : CONSULT-III Function \(BCM - HEAD LAMP\)"](#).

## Component Parts Location

INFOID:000000001160189



- |                       |                             |                             |
|-----------------------|-----------------------------|-----------------------------|
| 1. Headlamp           | 2. Combination switch       | 3. BCM                      |
| 4. IPDM E/R           | 5. High beam indicator lamp | C. On the combination meter |
| A. Over the glove box | B. Engine room (left side)  |                             |

## Component Description

INFOID:000000001160190

Part	Description
BCM	<ul style="list-style-type: none"> <li>Judges 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-11. "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).

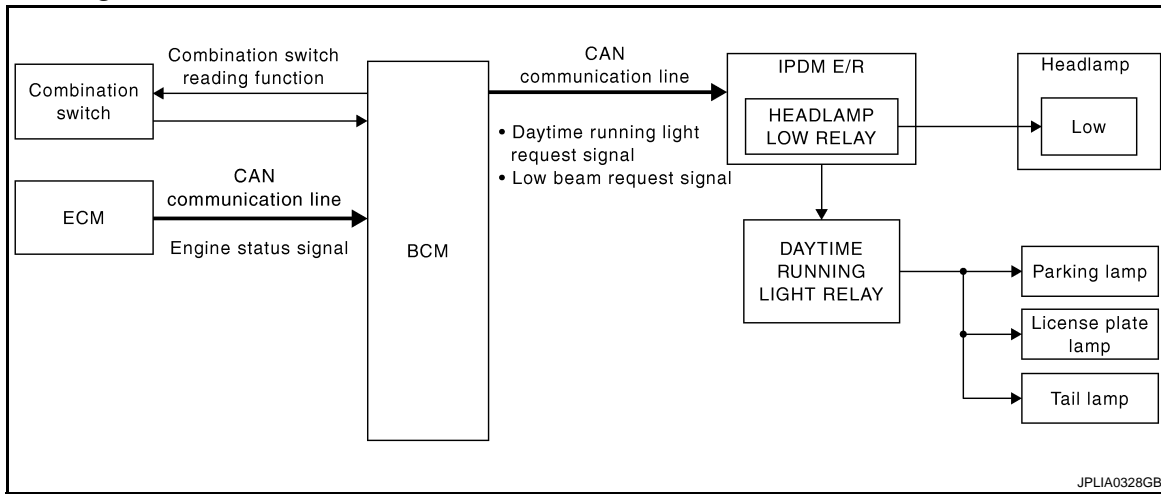
# DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000001527830

#### OUTLINE

- Turns the following exterior lamps ON as the daytime running light.
  - headlamp (LO)
  - Tail lamp, parking lamp and license plate lamp
- Daytime running light is controlled by daytime running light control function and combination switch reading function of BCM, and relay control function of IPDM E/R.

#### DAYTIME RUNNING LIGHT OPERATION

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

Daytime running light ON condition

- Engine running
- Lighting switch OFF or AUTO
- IPDM E/R turns the integrated headlamp low relay and daytime running light relay ON according to the daytime running light request signal and low beam request signal. And it turns each lamps ON.

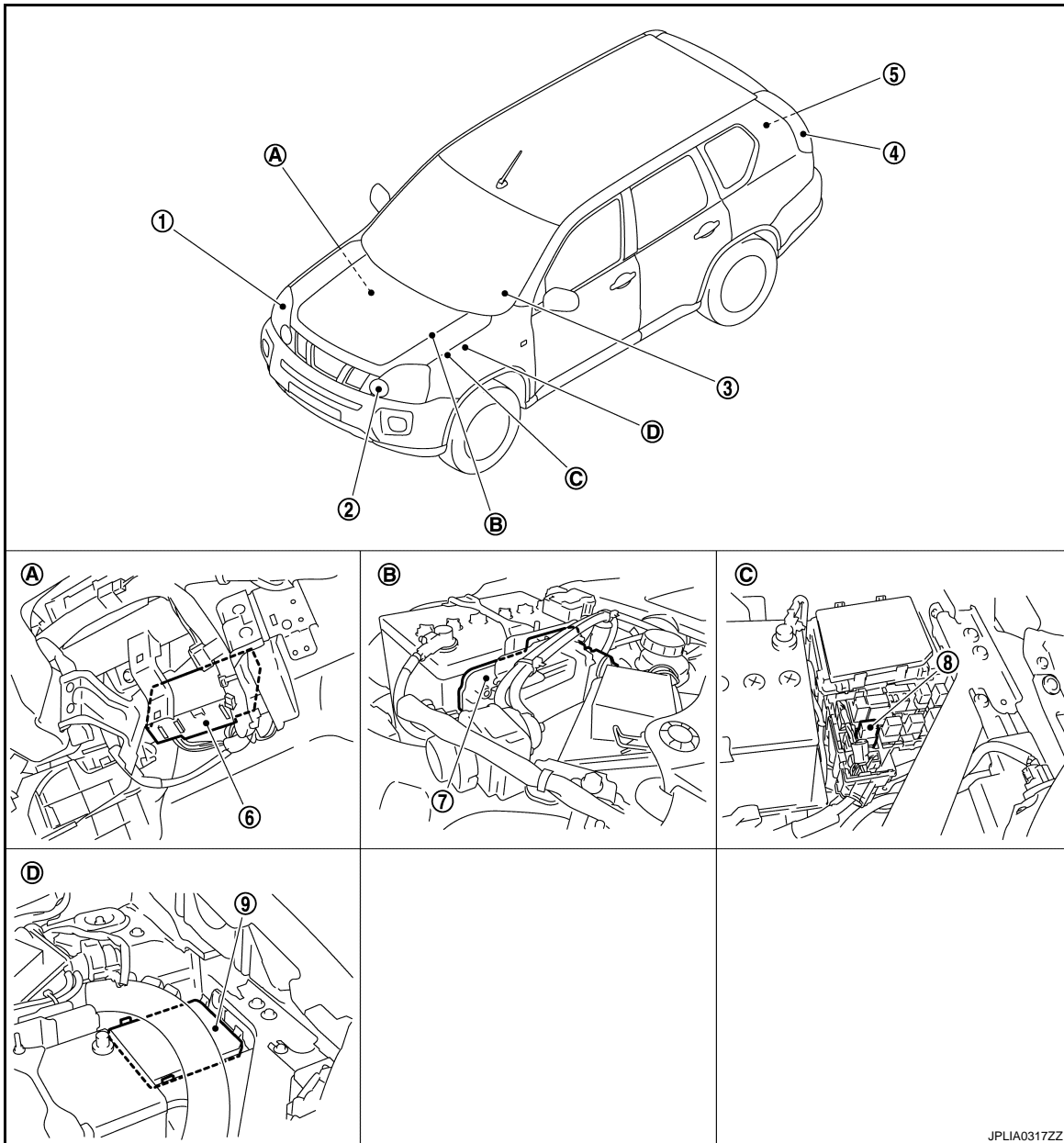
# DAYTIME RUNNING LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## Component Parts Location

INFOID:000000001527831



JPLIA0317ZZ

- |                            |                                |                              |
|----------------------------|--------------------------------|------------------------------|
| 1. Headlamp (LO)           | 2. Parking lamp                | 3. Combination switch        |
| 4. Tail lamp               | 5. License plate lamp          | 6. BCM                       |
| 7. ECM                     | 8. Daytime running light relay | 9. IPDM E/R                  |
| A. Over the glove box      | B. Engine room (left side)     | C. Fuse and fusible link box |
| D. Engine room (left side) |                                |                              |

## Component Description

INFOID:000000001527832

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition with the combination switch reading function.</li> <li>• Judges each lamps ON/OFF condition according to the vehicle condition. Requests the each 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

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Part	Description
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11, "System Diagram"</a> .
ECM	Transmits the engine status signal to BCM with CAN communication.

A

B

C

D

E

F

G

H

I

J

K

EXL

M

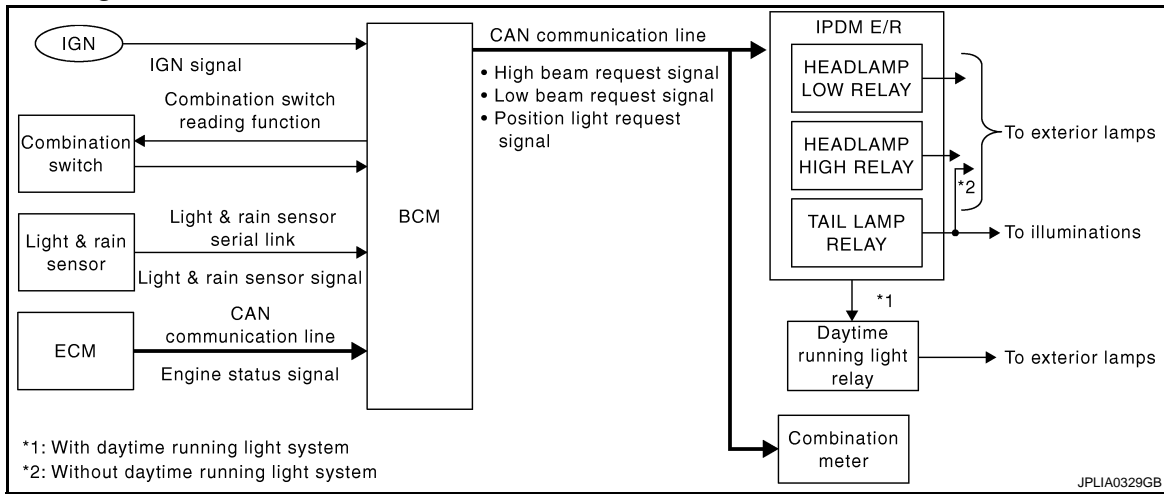
N

O

P

## AUTO LIGHT SYSTEM

### System Diagram



### System Description

INFOID:000000001528647

#### 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

#### Control by IPDM E/R

- Relay control function
- Auto light function turns the exterior lamps\* ON/OFF automatically according to the outside brightness.  
\*: Headlamp (LO/HI), parking lamp, tail lamp (Headlamp HI depends on the combination switch condition.)

#### AUTO LIGHT FUNCTION

- BCM detects the combination switch condition with the combination switch reading function.
- BCM detects the engine condition by the engine status signal received from ECM with CAN communication.
- BCM receives exterior lamp ON/OFF requests from the light & rain sensor by light & rain sensor serial link.
- BCM judges the ON/OFF status of the exterior lamp according to ON/OFF requests from light & rain sensor and the vehicle condition.
- BCM transmits each request signal to IPDM E/R with CAN communication according to ON/OFF condition by the auto light function.

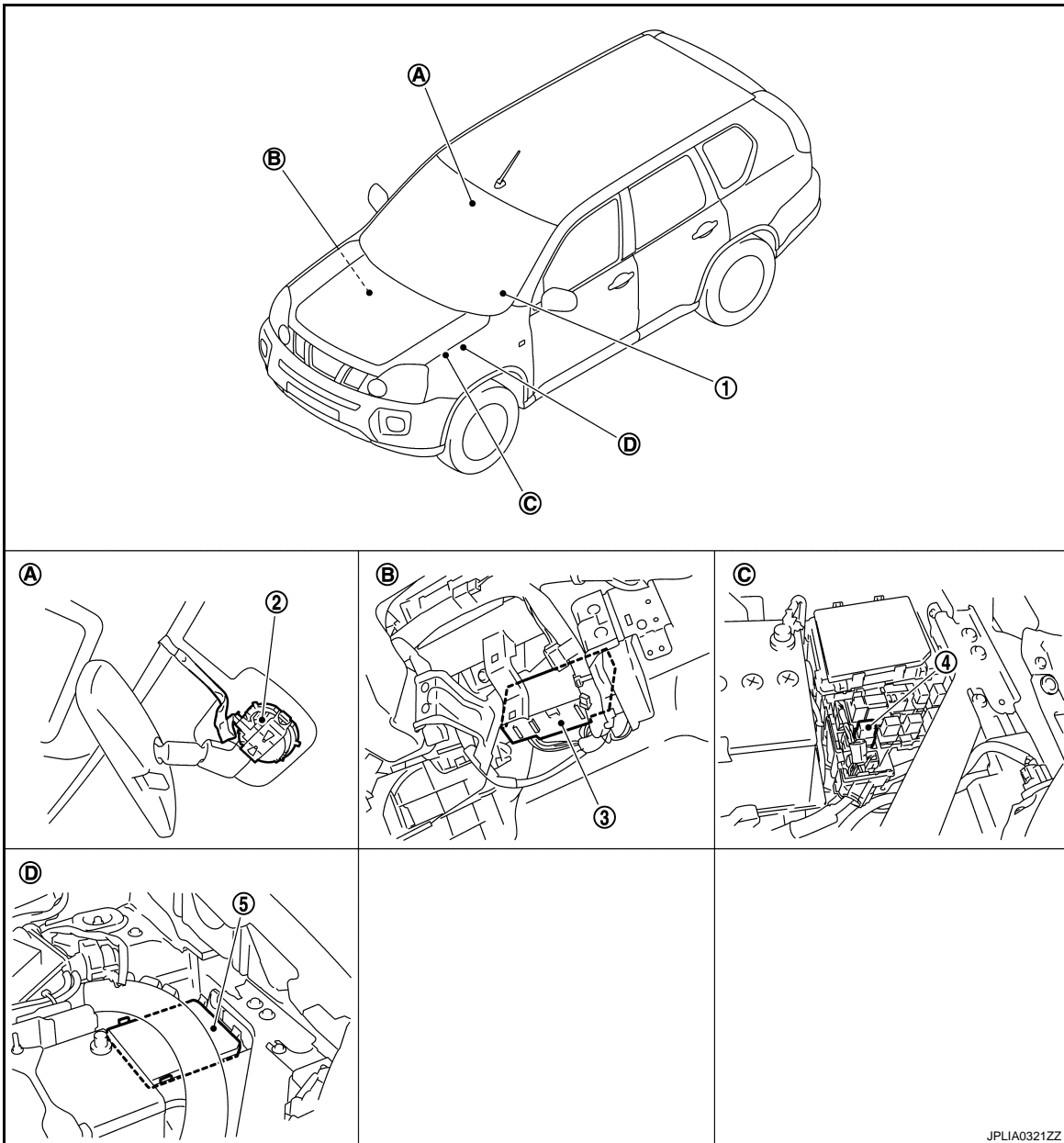
# AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## Component Parts Location

INFOID:000000001528648



- |   |                        |                              |
|---|------------------------|------------------------------|
| 1. Combination switch   | 2. Light & rain sensor | 3. BCM                       |
| 4. Daytime running light relay<br>(With daytime running light system) | 5. IPDM E/R            |                              |
| A. Windshield upper   | B. Over the glove box  | C. Fuse and fusible link box |
| D. Engine room (left side)  |                        |                              |

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

EXL

# AUTO LIGHT SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

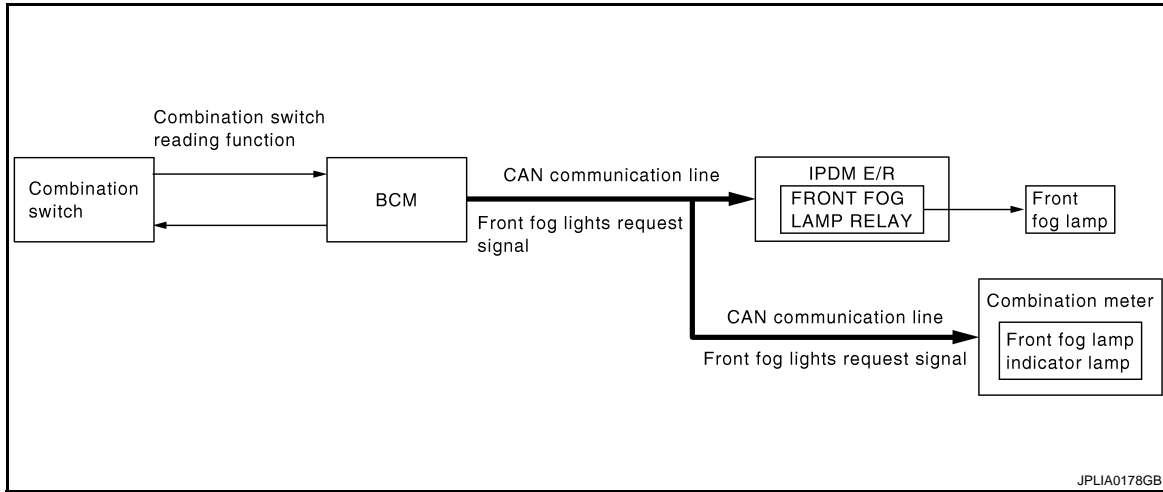
## Component Description

INFOID:000000001528649

Part	Description
BCM	<ul style="list-style-type: none"><li>• Detects each switch condition by the combination switch reading function.</li><li>• Receives exterior lamp ON/OFF requests from the light &amp; rain sensor by light &amp; rain sensor serial link.</li><li>• Judges the ON/OFF status of the exterior lamp according to requests from light &amp; rain sensor and the vehicle condition.</li><li>• Requests ON/OFF of each relay 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-11, "System Diagram"</a> .
Light & rain sensor	Refer to <a href="#">EXL-283, "Description"</a> .

## FRONT FOG LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001527838

#### OUTLINE

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

#### FRONT FOG LAMP OPERATION

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

#### Front fog lamp ON condition

- Front fog lamp switch ON
- Lighting switch 1ST, 2ND, or AUTO (ignition switch ON)
- IPDM E/R turns the integrated front fog lamp relay ON, and turns the front fog lamp ON according to the front fog lights request signal.
- Combination meter turns the front fog lamp indicator lamp ON according to the front fog lights request signal.

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
P

EXL

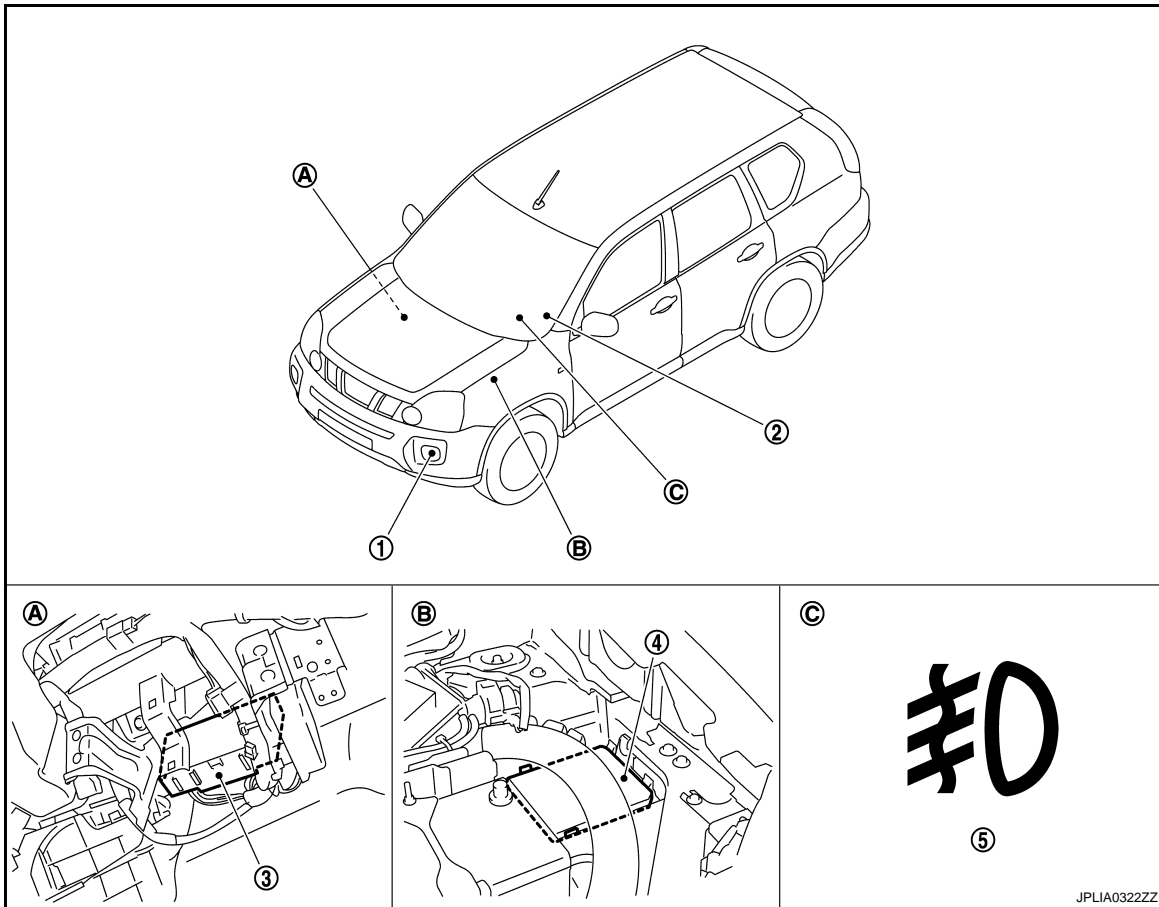
# FRONT FOG LAMP SYSTEM

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

## Component Parts Location

INFOID:000000001527839



- |                       |                                  |                             |
|-----------------------|----------------------------------|-----------------------------|
| 1. Front fog lamp     | 2. Combination switch            | 3. BCM                      |
| 4. IPDM E/R           | 5. Front fog lamp indicator lamp |                             |
| A. Over the glove box | B. Engine room (left side)       | C. On the combination meter |

## Component Description

INFOID:000000001527840

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects 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> <li>- Requests the front fog lamp 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-11, "System Diagram"</a> .
Combination meter (Front fog lamp indicator lamp)	Turns the front fog lamp indicator lamp ON according to the request from BCM.

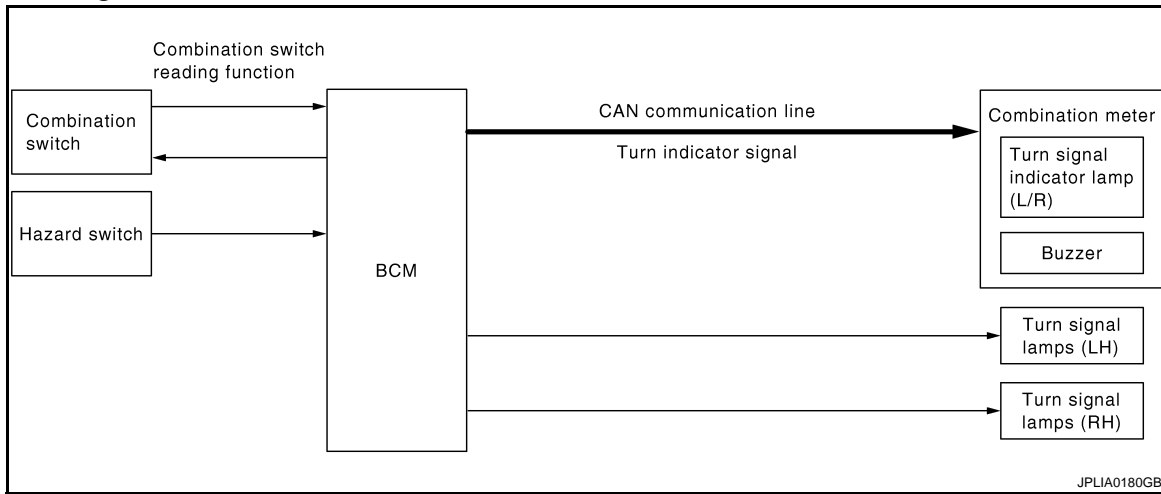
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001527842

#### OUTLINE

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

#### TURN SIGNAL LAMP OPERATION

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

#### HAZARD WARNING LAMP OPERATION

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

#### TURN SIGNAL INDICATOR LAMP AND TURN SIGNAL OPERATION

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

#### 3-TIME FLASHER FUNCTION

By a short touch of the turn signal lever, BCM flashes 3 times the turn signal lamps in the selected direction.

#### HIGH FLASHER OPERATION (FAIL-SAFE)

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

#### NOTE:

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

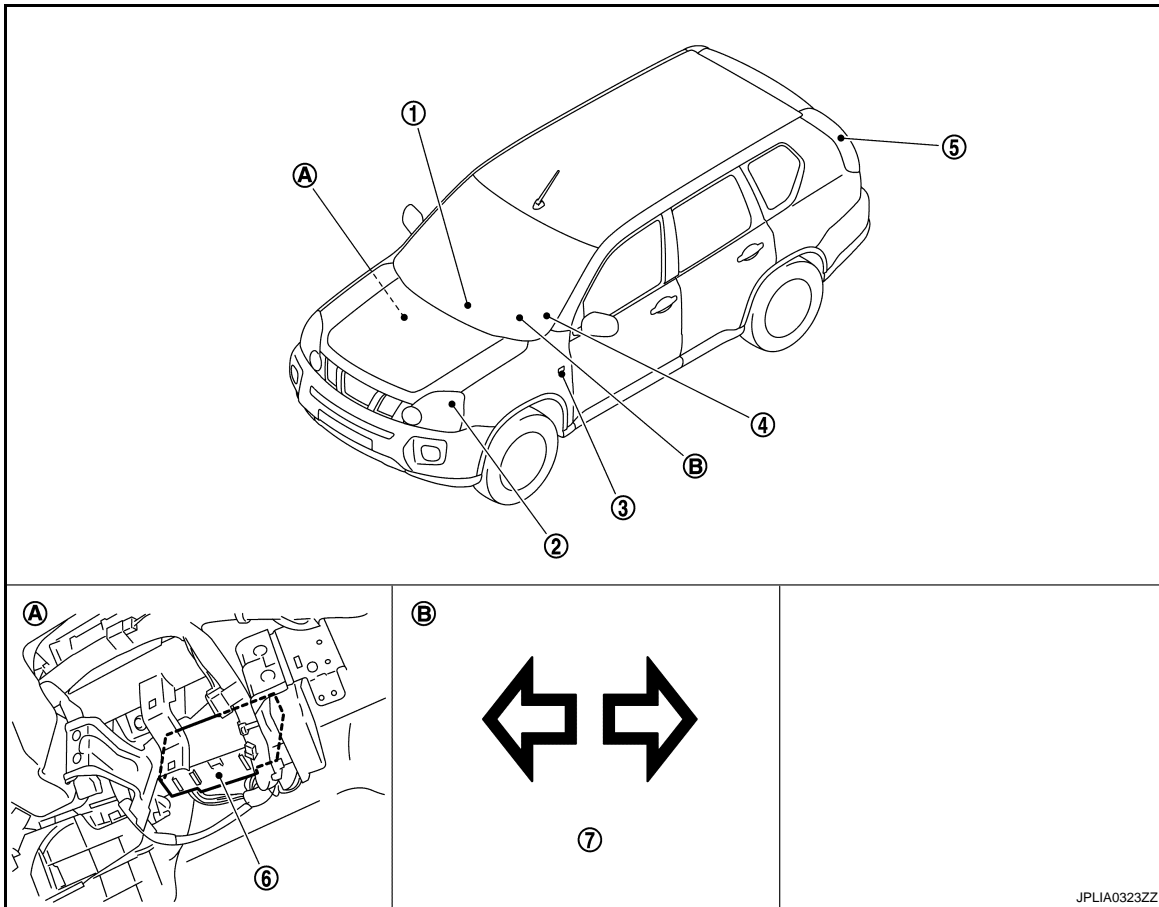
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## Component Parts Location

INFOID:000000001527843



- |                               |                             |                          |
|-------------------------------|-----------------------------|--------------------------|
| 1. Hazard switch              | 2. Front turn signal lamp   | 3. Side turn signal lamp |
| 4. Combination switch         | 5. Rear turn signal lamp    | 6. BCM                   |
| 7. Turn signal indicator lamp |                             |                          |
| A. Over the glove box         | B. On the combination meter |                          |

## Component Description

INFOID:000000001527844

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects 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> <li>• Requests the turn signal indicator lamp blink to the combination meter (with CAN communication).</li> </ul>
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11, "System Diagram"</a> .
Hazard switch	Inputs the hazard switch ON/OFF signal to BCM.
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).



# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

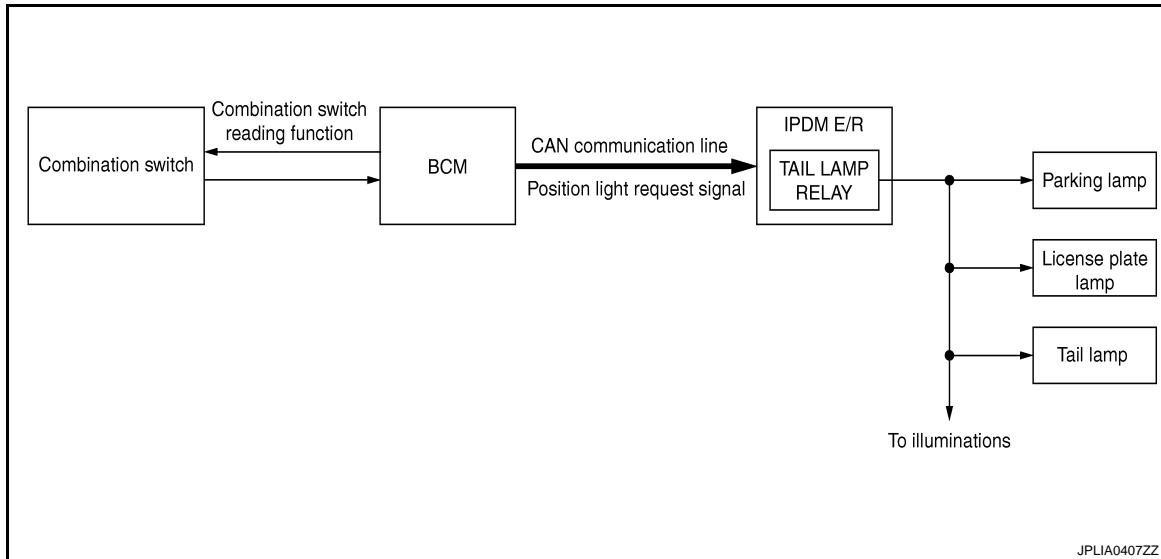
< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Diagram

INFOID:000000001527845



JPLIA0407ZZ

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:000000001527846

#### OUTLINE

Parking, license plate 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 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 and the combination meter with CAN communication according to the ON/OFF condition of the parking, license plate and tail lamps.

Parking, license plate 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)
- Lighting switch AUTO, with front fog lamp switch or rear fog lamp switch is turned ON
- IPDM E/R turns the integrated tail lamp relay ON and turns the parking lamp, the license plate and tail lamps ON according to the position light request signal.

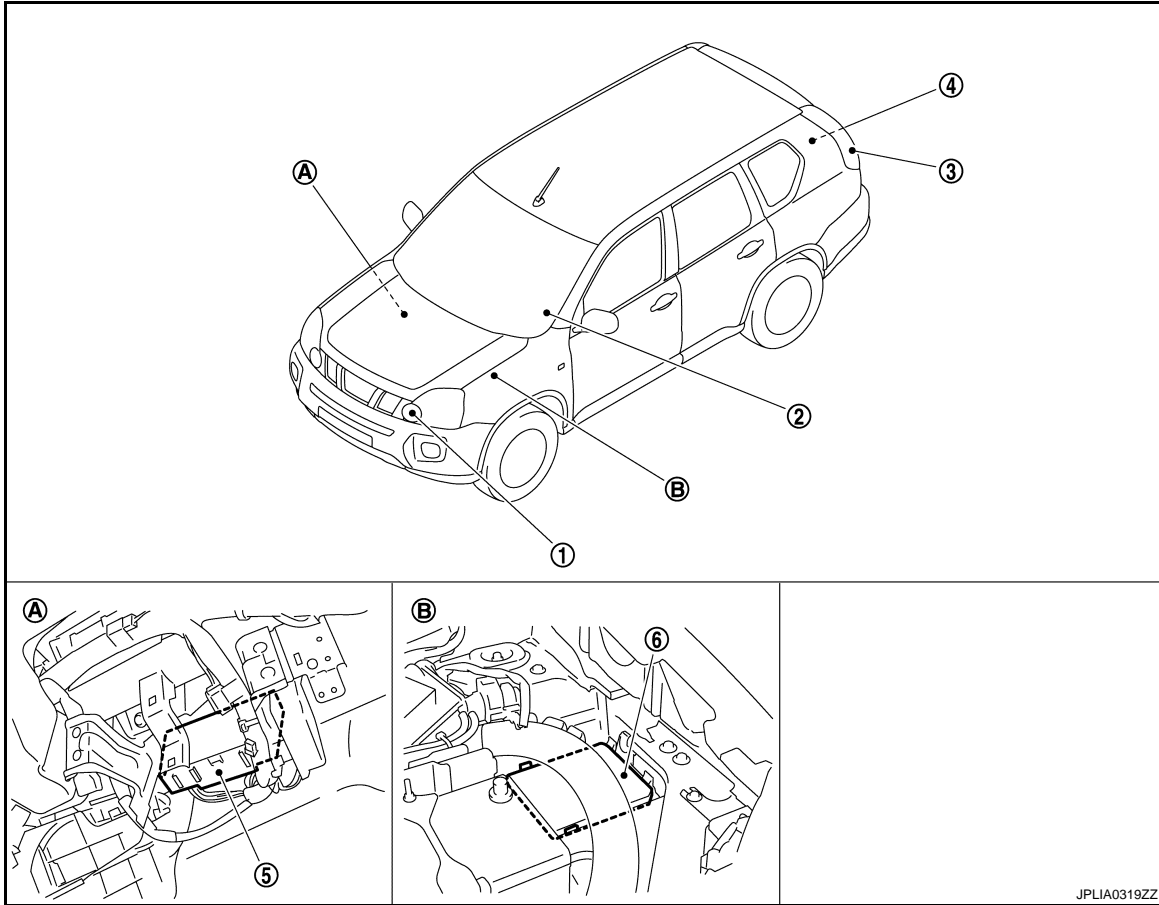
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Parts Location

INFOID:000000001527847



- |                       |                            |              |
|-----------------------|----------------------------|--------------|
| 1. Parking lamp       | 2. Combination switch      | 3. Tail lamp |
| 4. License plate lamp | 5. BCM                     | 6. IPDM E/R  |
| A. Over the glove box | B. Engine room (left side) |              |

## WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Description

INFOID:000000001527848

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition.</li> <li>- 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-11. "System Diagram"</a> .

## WITH DAYTIME RUNNING LIGHT SYSTEM

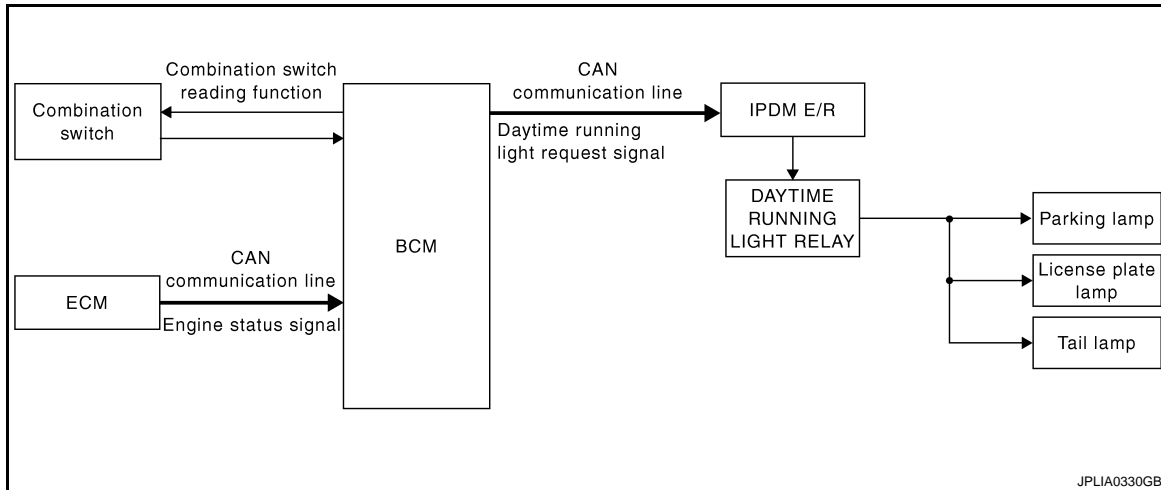
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## WITH DAYTIME RUNNING LIGHT SYSTEM : System Diagram

INFOID:000000001527849



## WITH DAYTIME RUNNING LIGHT SYSTEM : System Description

INFOID:000000001527850

### OUTLINE

Parking, license plate 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 AND TAIL LAMPS OPERATION

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

Parking, license plate 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)
- Lighting switch AUTO, with front fog lamp switch or rear fog lamp switch is turned ON
- Daytime running light ON judgment
- IPDM E/R turns the daytime running light relay ON according to the daytime running light request signal. And turns the parking lamp, the license plate and tail lamps ON

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

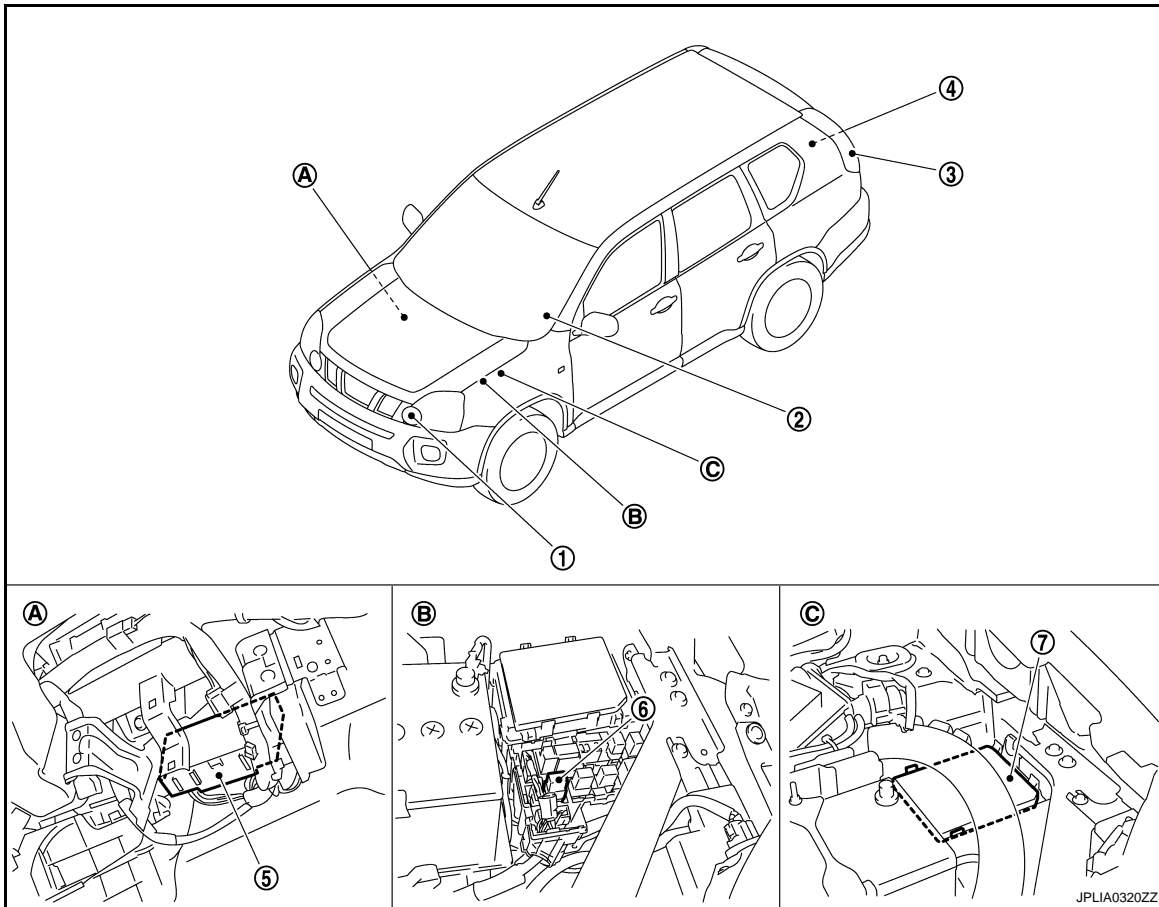
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Parts Location

INFOID:000000001527851



- |                       |                              |                                |
|-----------------------|------------------------------|--------------------------------|
| 1. Parking lamp       | 2. Combination switch        | 3. Tail lamp                   |
| 4. License plate lamp | 5. BCM                       | 6. Daytime running light relay |
| 7. IPDM E/R           |                              |                                |
| A. Over the glove box | B. Fuse and fusible link box | C. Engine room (left side)     |

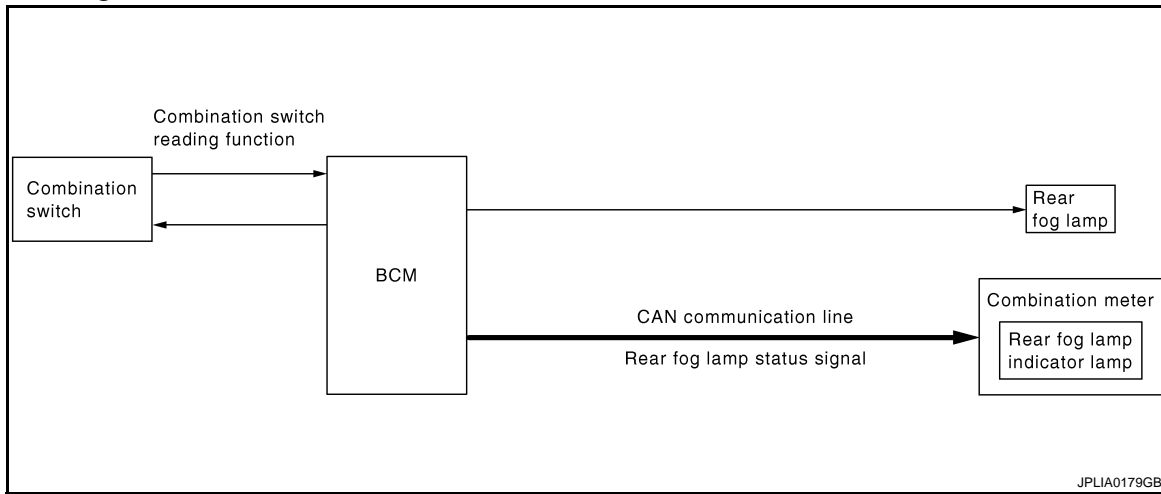
## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Description

INFOID:000000001527852

Part	Description
BCM	<ul style="list-style-type: none"> <li>• Detects each switch condition by the combination switch reading function.</li> <li>• Judges the ON/OFF status of the parking, license plate and tail lamps according to the vehicle condition.</li> <li>- Requests the daytime running light relay ON to IPDM E/R (with CAN communication).</li> </ul>
IPDM E/R	Controls the daytime running light 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-11, "System Diagram"</a> .

## REAR FOG LAMP SYSTEM

### System Diagram



### System Description

INFOID:000000001527854

#### OUTLINE

Rear fog lamp is controlled with the combination switch reading function and the rear fog lamp control function of BCM.

#### REAR FOG LAMP OPERATION

- BCM detects the condition of the combination switch by the combination switch reading function.
- BCM supplies voltage to rear fog lamp according to the rear fog lamp ON condition.

Rear fog lamp ON condition

- Rear fog lamp switch signal is input with front fog lamp ON and rear fog lamp OFF

Rear fog lamp switch ON with any of following condition.

- Lighting switch 2ND
- Lighting switch 1ST, and front fog lamp switch ON
- Lighting switch AUTO, and ignition switch ON
- BCM transmits the rear fog lamp status signal to the combination meter with CAN communication.
- Combination meter turns the rear fog lamp indicator lamp ON according to the rear fog lamp status signal.

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

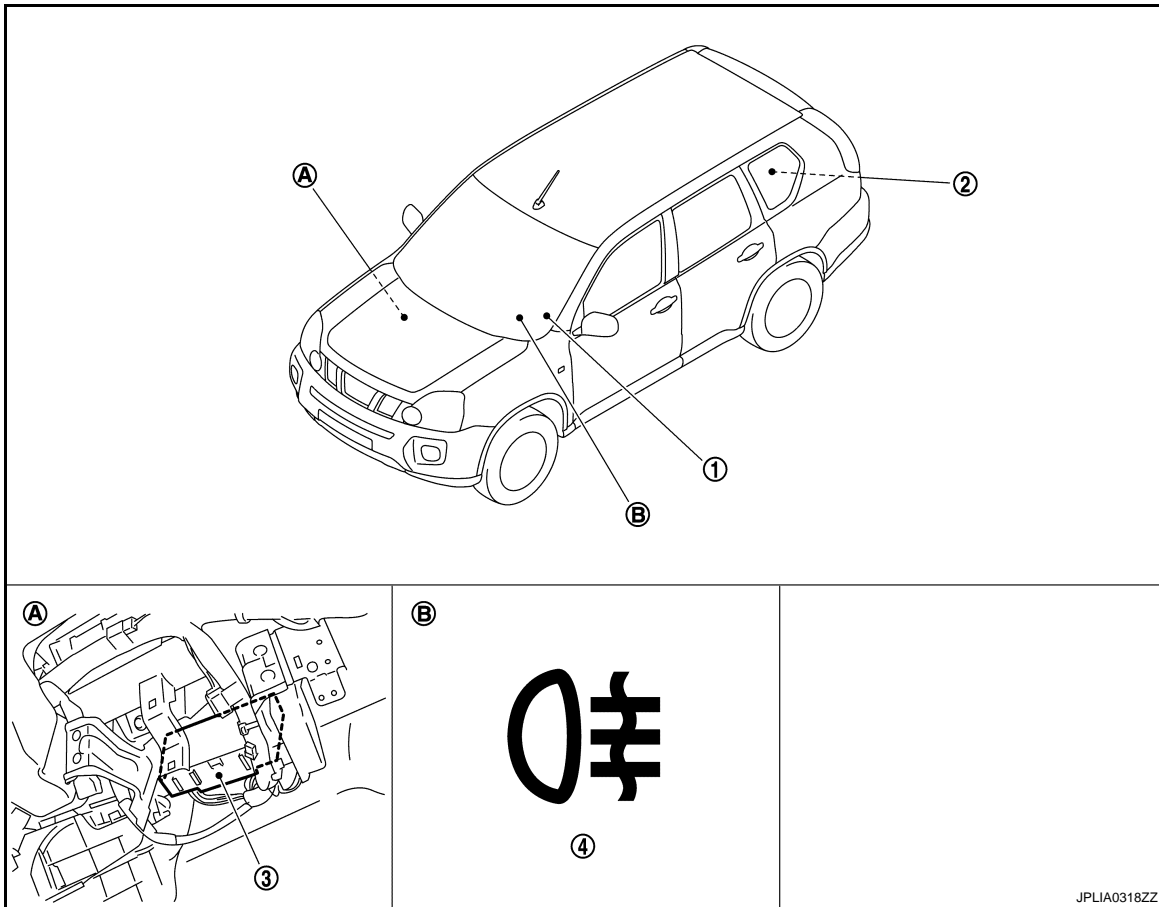
# REAR FOG LAMP SYSTEM

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

## Component Parts Location

INFOID:000000001527855



- |                                 |                             |        |
|---------------------------------|-----------------------------|--------|
| 1. Combination switch           | 2. Rear fog lamp            | 3. BCM |
| 4. Rear fog lamp indicator lamp |                             |        |
| A. Over the glove box           | B. On the combination meter |        |

## Component Description

INFOID:000000001527856

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 rear fog lamp is turned ON according to the vehicle status</li> <li>- Supplies voltage to the rear fog lamp</li> <li>- Requests the rear fog lamp indicator lamp ON to the combination meter (with CAN communication).</li> </ul>
Combination switch (Lighting & turn signal switch)	Refer to <a href="#">BCS-11, "System Diagram"</a> .
Combination meter (Rear fog lamp indicator lamp)	Turns the rear fog lamp indicator lamp ON according to the request from BCM (with CAN communication).

# DIAGNOSIS SYSTEM (BCM)

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

## DIAGNOSIS SYSTEM (BCM)

### COMMON ITEM

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

INFOID:000000001527857

#### APPLICATION ITEM

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

Diagnosis mode	Function description
ECU Identification	BCM part number is displayed.
Self-Diagnostic Results	Displays the diagnosis results judged by BCM. Refer to <a href="#">BCS-65, "DTC Index"</a> .
Data Monitor	BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Work Support	Changes the setting for each system function.
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>
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM.

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

×: Applicable item

System	CONSULT-III sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
—	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER	×	×	×
Warning chime	BUZZER		×	×
Interior room lamp control	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
—	PTC HEATER*			

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

## HEADLAMP

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

INFOID:000000001527858

#### WORK SUPPORT

# DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Service item	Setting item	Setting	
HEAD LIGHT TIMER	MODE 1	10 sec.	Sets follow me home function activating time.
	MODE 2*	30 sec.	

\*: Initial setting

## DATA MONITOR

Monitor item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged from IGN signal (ignition power supply)
ACC SW [On/Off]	Ignition switch (ACC) status judged from ACC signal (ACC power supply)
HI BEAM SW [On/Off]	Each switch status that BCM judges from the combination switch reading function
HEAD LAMP SW1 [On/Off]	
HEAD LAMP SW2 [On/Off]	
TAIL LAMP SW [On/Off]	
AUTO LIGHT SW [On/Off]	
PASSING SW [On/Off]	
FR FOG SW [On/Off]	
RR FOG SW [On/Off]	
DOOR SW-DR [On/Off]	
DOOR SW-AS [On/Off]	The switch status input from front door switch (passenger side)
DOOR SW-RR [On/Off]	The switch status input from rear door switch RH
DOOR SW- RL [On/Off]	The switch status input from rear door switch LH
BACK DOOR SW [On/Off]	The switch status input from back door switch
TURN SIGNAL R [On/Off]	Each switch status that BCM judges from the combination switch reading function
TURN SIGNAL L [On/Off]	
ENGINE RUNNING [On/Off]	The engine status received from ECM with CAN communication
LIT-SEN FAIL [OK/NOTOK]	<ul style="list-style-type: none"> <li>The sensor status received from light &amp; rain sensor with serial link</li> <li>The serial link condition that BCM judges</li> </ul>
AUT LIGHT SYS [On/Off]	Auto light system status received from light & rain sensor with serial link
HD LIGHT TIME [Sec]	Setting time of the follow me home function set by the work support

## ACTIVE TEST



# DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Test item	Operation	Description
TAIL LAMP	On	Transmits the position light request signal to IPDM E/R with CAN communication to turn the tail lamp ON.
	Off	Stops the tail lamp request signal transmission.
HEAD LAMP	Hi	Transmits the high beam request signal with CAN communication to turn the headlamp (HI).
	Lo	Transmits the low beam request signal with CAN communication to turn the headlamp (LO).
	Off	Stops the high & low beam request signal transmission.
FR FOG LAMP	On	Transmits the front fog lights request signal to IPDM E/R with CAN communication to turn the front fog lamp ON.
	Off	Stops the front fog lights request signal transmission.
RR FOG LAMP	On	<ul style="list-style-type: none"> <li>Outputs the voltage to turn the rear fog lamp ON.</li> <li>Transmits the rear fog lamp status signal to the combination meter with CAN communication to turn the rear fog lamp indicator lamp ON.</li> </ul>
	Off	<ul style="list-style-type: none"> <li>Stops the voltage to turn the rear fog lamp OFF.</li> <li>Stops the rear fog lamp status signal transmission.</li> </ul>
DAYTIME RUNNING LIGHT	On	Transmits the day time running light request signal to IPDM E/R with CAN communication to turn the each lamps ON.
	Off	Stops the day time running light request signal transmission.

## FLASHER

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

INFOID:000000001527859

### DATA MONITOR

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

### ACTIVE TEST

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

## DIAGNOSIS SYSTEM (IPDM E/R)

### Diagnosis Description

INFOID:000000001527960

#### Auto active test

##### Description

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

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

##### 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 ignition switch OFF.
3. Turn the ignition switch ON, and within 20 seconds, press the driver door switch 20 times. Then turn the ignition switch OFF.

**CAUTION:**

**Close passenger door.**

4. Turn the ignition switch ON within 10 seconds. Then the horn sounds once and the auto active test starts.

**NOTE:**

Only a vehicle with the vehicle security system, the horn sounds.

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:**

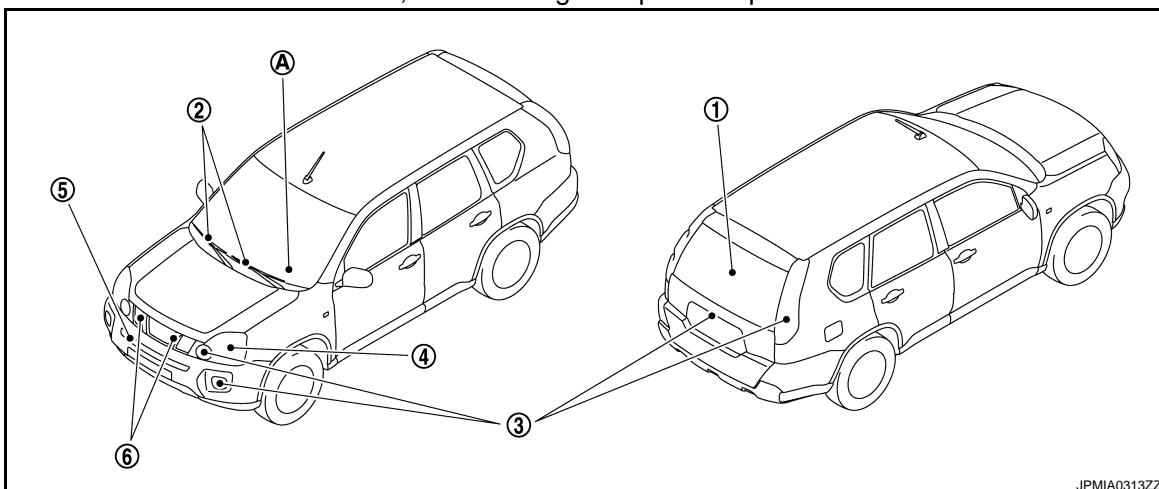
When auto active test mode has to be cancelled halfway through test, turn ignition switch OFF.

**CAUTION:**

- **If auto active test mode cannot be actuated, check door switch system.**
- **Never start the engine.**

##### Inspection in auto active test mode

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



JPMIA0313ZZ

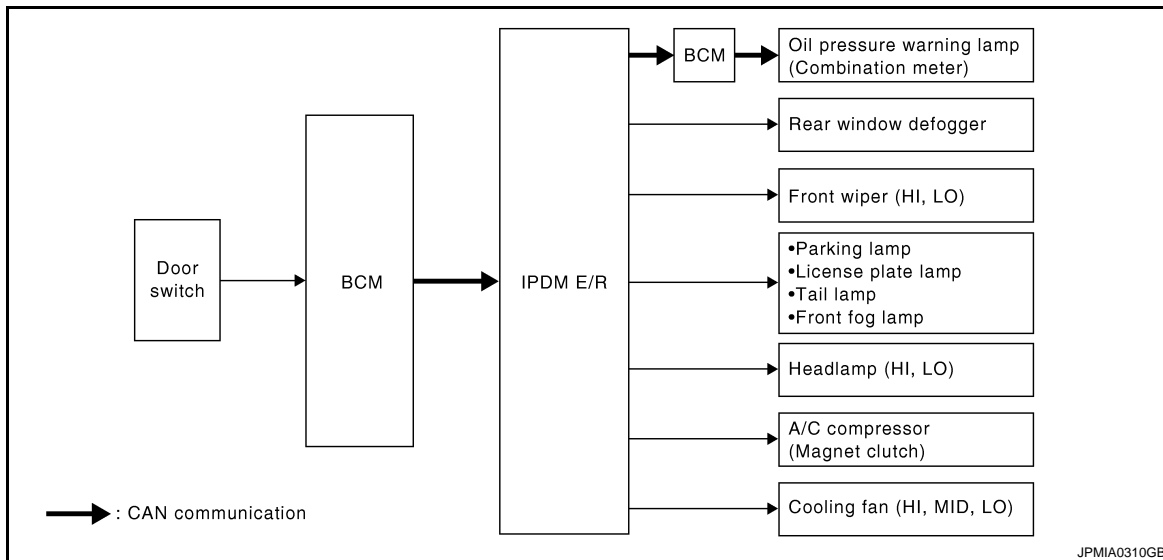
# DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Operation sequence	Inspection location	Operation
A	Oil pressure warning lamp	Blinks continuously during operation of auto active test.
1	Rear window defogger	10 seconds
2	Front wiper	LO for 5 seconds → HI for 5 seconds
3	<ul style="list-style-type: none"> <li>• Parking lamps</li> <li>• License plate lamps</li> <li>• Tail lamps</li> <li>• Front fog lamps</li> </ul>	10 seconds
4	Headlamps	LO ↔ HI 5 times
5	A/C compressor (magnet clutch)	ON ↔ OFF 5 times
6	Cooling fan	LO for 5 seconds → MID for 3 seconds → HI for 2 seconds

Concept of auto active test



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

Diagnosis chart in auto active test mode

Symptom	Inspection contents	Possible cause
Rear window defogger does not operate	Perform auto active test. Does the rear window defogger operate?	YES BCM signal input circuit
		NO <ul style="list-style-type: none"> <li>• Rear window defogger</li> <li>• Rear window defogger ground circuit</li> <li>• Harness or connector between IPDM E/R and rear window defogger</li> <li>• IPDM E/R</li> </ul>
Any of the following components do not operate • Parking lamps • License plate lamps • Tail lamps • Front fog lamps • Headlamps (HI, LO) • Front wiper (HI, LO)	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>

# DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Symptom	Inspection contents	Possible cause
A/C compressor does not operate	Perform auto active test. Does the magnet clutch operate?	YES <ul style="list-style-type: none"> <li>• Communication signal between BCM and auto amp.</li> <li>• BCM</li> <li>• CAN communication signal between BCM 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 combination meter</li> <li>• Combination meter</li> </ul>
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 motor-2 power supply circuit</li> <li>• Cooling fan motor-1 ground circuit</li> <li>• Cooling fan relay-4 or cooling fan relay-5 power supply circuit</li> <li>• Cooling fan relay-5 ground circuit</li> <li>• Harness or connector between IPDM E/R and cooling fan motor</li> <li>• Harness or connector between IPDM E/R, and cooling fan relay-4 or cooling fan relay-5</li> <li>• Harness or connector between cooling fan motor-2, and cooling fan relay-4 or cooling fan relay-5</li> <li>• Cooling fan relay-4 or cooling fan relay-5</li> <li>• Cooling fan motor</li> <li>• IPDM E/R</li> </ul>

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

INFOID:000000001527961

### APPLICATION ITEM

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

Diagnosis mode	Description
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 MNTR	The results of transmit/receive diagnosis of CAN communication can be read.

### SELF DIAGNOSTIC

Refer to [EXL-388, "DTC Index"](#).

### DATA MONITOR

Monitor item

# DIAGNOSIS SYSTEM (IPDM E/R)

[HALOGEN TYPE]

< FUNCTION DIAGNOSIS >

Monitor Item [Unit]	MAIN SIGNALS	Description	A
MOTOR FAN REQ [1 - 4]	×	Displays the value of the cooling fan speed signal received from ECM via CAN communication.	B
AC COMP REQ [Off/On]	×	Displays the status of the A/C compressor request signal received from ECM via CAN communication.	C
TAIL&CLR REQ [Off/On]	×	Displays the status of the position light request signal received from BCM via CAN communication.	D
HL LO REQ [Off/On]	×	Displays the status of the low beam request signal received from BCM via CAN communication.	E
HL HI REQ [Off/On]	×	Displays the status of the high beam request signal received from BCM via CAN communication.	F
FR FOG REQ [Off/On]	×	Displays the status of the front fog light request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with front fog lamp system.	G
HL WASHER REQ [Off/On]		Displays the status of the headlamp washer request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with headlamp washer system.	H
FR WIP REQ [Stop/1LOW/Low/Hi]	×	Displays the status of the front wiper request signal received from BCM via CAN communication.	I
WIP AUTO STOP [STOP P/ACT P]	×	Displays the status of the front wiper auto stop signal judged by IPDM E/R.	J
WIP PROT [Off/BLOCK]	×	Displays the status of the front wiper fail-safe operation judged by IPDM E/R.	K
ST RLY REQ [Off/On]		Displays the status of the ignition and starter request signal received from BCM via CAN communication.	EXL
IGN RLY [Off/On]	×	Displays the status of the ignition relay judged by IPDM E/R.	M
RR DEF REQ [Off/On]	×	Displays the status of the rear defogger request signal received from BCM via CAN communication.	N
OIL P SW [Open/Close]		Displays the status of the oil pressure switch judged by IPDM E/R.	O
REV SW [Off/On]		<b>NOTE:</b> This item is indicated, but not monitored.	P
DTRL REQ [Off/On]		Displays the status of the daytime running light request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with daytime running light system.	
HOOD SW [Off/On]		Displays the status of the hood switch judged by IPDM E/R. <b>NOTE:</b> This item is monitored only the vehicle with the vehicle security system.	
THFT HRN REQ [Off/On]		Displays the status of the theft warning horn request signal received from BCM via CAN communication. <b>NOTE:</b> This item is monitored only the vehicle with the vehicle security system.	
HORN CHIRP [Off/On]		<b>NOTE:</b> This item is indicated, but not monitored.	

## ACTIVE TEST

Test item

## DIAGNOSIS SYSTEM (IPDM E/R)

< FUNCTION DIAGNOSIS >

[HALOGEN TYPE]

Test item	Operation	Description
REAR DEFOGGER	Off	OFF
	On	Operates the rear window defogger relay.
FRONT WIPER	Off	OFF
	Lo	Operates the front wiper relay.
	Hi	Operates the front wiper relay and front wiper high relay.
MOTOR FAN	1	OFF
	2	Operates the cooling fan relay (LO operation).
	3	Operates the cooling fan relay (MID operation).
	4	Operates the cooling fan relay (HI operation).
HEAD LAMP WASHER	On	Operates the headlamp washer relay for 1 second.
EXTERNAL LAMPS	Off	OFF
	TAIL	Operates the tail lamp relay and the daytime running light relay. <b>NOTE:</b> Daytime running light relay is with daytime running light system only.
	Lo	Operates the headlamp low relay.
	Hi	Operates the headlamp low relay and ON/OFF the headlamp high relay at 4 seconds intervals.
	Fog	Operates the front fog lamp relay. <b>NOTE:</b> This item can test only the vehicle with front fog lamp system.
HORN	On	Operates horn relay for 20 ms. <b>NOTE:</b> This item can test only the vehicle with vehicle security system.

# POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## COMPONENT DIAGNOSIS

### POWER SUPPLY AND GROUND CIRCUIT

#### BCM (BODY CONTROL MODULE)

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

INFOID:000000001528581

#### 1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	10
57		J
4	ACC power supply	20
3	Ignition power supply	1

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.

NO >> GO TO 2.

#### 2. CHECK POWER SUPPLY CIRCUIT

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

Terminals		(-)	Ignition switch position		
(+)	BCM		OFF	ACC	ON
Connector	Terminal	Ground			
M67	57		Battery voltage	Battery voltage	Battery voltage
M66	41		Approx. 0 V	Battery voltage	Battery voltage
M65	4		Approx. 0 V	Approx. 0 V	Battery voltage
	3				

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

#### 3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M67	55		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) : Di-

# POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## agnosis Procedure

INFOID:000000001528582

### 1.CHECK FUSIBLE LINK

Check that the following IPDM E/R fusible link is not blown.

Terminal No.	Signal name	Fusible link No.
1	Battery power supply	C
2		E
6		K

Is the fusible link fusing?

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

### 2.CHECK POWER SUPPLY CIRCUIT

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

Terminals		Voltage (Approx.)
(+)	(-)	
IPDM E/R		Battery voltage
Connector	Terminal	
E9	1	
	2	
E10	6	

Is the measurement value normal?

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

### 3.CHECK GROUND CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E11	11		Exist
E13	25		

Does continuity exist?

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



# EXTERIOR LAMP FUSE

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## EXTERIOR LAMP FUSE

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001534734

Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
Parking lamp	IPDM E/R	#46	10 A
<ul style="list-style-type: none"><li>Tail lamp</li><li>License plate lamp</li><li>Each illumination</li></ul>	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001534735

### 1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
Parking lamp	IPDM E/R	#46	10 A
<ul style="list-style-type: none"><li>Tail lamp</li><li>License plate lamp</li><li>Each illumination</li></ul>	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

#### Is the fuse fusing?

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

NO >> The fuse is normal.

### WITH DAYTIME RUNNING LIGHT SYSTEM

#### WITH DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001534736

Fuse list

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A

# EXTERIOR LAMP FUSE

**[HALOGEN TYPE]**

< COMPONENT DIAGNOSIS >

Unit	Location	Fuse No.	Capacity
<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• Tail lamp</li> <li>• License plate lamp</li> </ul>	FUSE BLOCK (J/B)	#33	10 A
Each illumination	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001534737

### 1. CHECK FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	10 A
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	15 A
Front fog lamp	IPDM E/R	#65	15 A
<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• Tail lamp</li> <li>• License plate lamp</li> </ul>	FUSE BLOCK (J/B)	#33	10 A
Each illumination	IPDM E/R	#45	10 A
Stop lamp	FUSE BLOCK (J/B)	#11	10 A
Back-up lamp	IPDM E/R	#60	10 A

**Is the fuse fusing?**

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

# HEADLAMP (HI) CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (HI) CIRCUIT

### Component Function Check

INFOID:000000001160224

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

##### IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#)
2. Check that the headlamp switches to the high beam.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-267, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160225

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

##### CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" 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	E12	22		Hi	Battery voltage
LH		21		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 headlamp harness connector.

IPDM E/R			Headlamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E12	22	E45	1	Existed
LH		21	E26	1	

Does continuity exist?

YES >> Replace the front combination lamp.

# HEADLAMP (HI) CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

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 (LH)	IPDM E/R	#44	10 A
Headlamp HI (RH)	IPDM E/R	#43	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	E12	22	Not existed
LH		21	

#### 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.)

# HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## HEADLAMP (LO) CIRCUIT

### Component Function Check

INFOID:000000001160226

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

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Start IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#)
2. Check that the headlamp is turned ON.

##### Ⓜ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-269, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001160227

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

##### Ⓜ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the headlamp connector.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" 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	Battery voltage
Connector	Terminal			
RH	E12	20	Lo	0 V
LH		18	Off	

Is the measurement value normal?

YES >> GO TO 2.

NO >> GO TO 3.

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

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

IPDM E/R			Headlamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E12	20	E45	3	Existed
LH		18	E26	3	

Does continuity exist?

YES >> Replace the front combination lamp (headlamp housing assembly).

NO >> Repair the harnesses or connectors.

# HEADLAMP (LO) CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## 3. CHECK HEADLAMP (LO) FUSE

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

Unit	Location	Fuse No.	Capacity
Headlamp LO (LH)	IPDM E/R	#49	15 A
Headlamp LO (RH)	IPDM E/R	#50	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	E12	20	Not existed
LH		18	

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.)

# HEADLAMP GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP GROUND CIRCUIT

### Diagnosis Procedure

INFOID:000000001160228

#### 1. CHECK HEADLAMP 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	E45	2	Existed	
LH	E26	2		

#### Does continuity exist?

- YES >> Headlamp ground circuit is normal.  
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

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## FRONT FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000001527962

#### 1. CHECK FRONT FOG LAMP OPERATION

##### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the front fog lamp is turned ON.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-272, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001527963

#### 1. CHECK FRONT FOG LAMP FUSE

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

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#65	15 A

##### Is the fuse fusing?

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

#### 2. CHECK FRONT FOG LAMP SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E12	17	Not existed
LH		16	

##### Does continuity exist?

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

#### 3. CHECK FRONT FOG LAMP BULB

Check the applicable lamp bulb.

##### Is the bulb normal?

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

#### 4. CHECK FRONT FOG LAMP OUTPUT VOLTAGE

##### CONSULT-III ACTIVE TEST

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



# FRONT FOG LAMP CIRCUIT

[HALOGEN TYPE]

## < COMPONENT 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			EXTERNAL LAMP	Battery voltage
Connector	Terminal			
RH	E12	17	Fog	0 V
LH		16		
			Ground	

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	E12	17	E48	1	Existed
LH		16	E30	1	

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

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

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

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

Does continuity exist?

YES >> Replace the front fog lamp.

NO >> Repair the harnesses or connectors.

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

# DAYTIME RUNNING LIGHT RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT RELAY CIRCUIT

### Component Function Check

INFOID:000000001527964

#### 1. CHECK DAYTIME RUNNING LIGHT OPERATION

##### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the parking lamp and tail lamp are turned ON.

##### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test item, check that parking lamp and tail lamp are turned ON.

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

#### Are parking lamp and tail lamp turned ON?

- YES >> Daytime running light relay circuit is normal.  
NO >> Refer to [EXL-274, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001527965

#### 1. CHECK DAYTIME RUNNING LIGHT RELAY FUSE

Check that the following fuse is not fusing.

Unit	Location	Fuse No.	Capacity
Daytime running light relay	Fuse and fusible link box	#33	10A

#### Is the fuse fusing?

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

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

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

Terminals		Voltage (Approx.)
(+)	(-)	
Daytime running light relay		Battery voltage
Connector	Terminal	
E65	1	
	3	

#### Is the measurement value normal?

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

#### 3. CHECK DAYTIME RUNNING LIGHT RELAY

Check daytime running light relay. Refer to [EXL-275, "Component Inspection"](#).

#### Is the daytime running light relay normal?

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

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

##### Ⓟ CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.

# DAYTIME RUNNING LIGHT RELAY CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

2. Install daytime running light relay.
3. Turn the ignition switch ON.
4. Select "EXTERNAL LAMP" of IPDM E/R active test item.
5. With operating the test item, check voltage between IPDM E/R harness connector and ground.

Terminals		Test item	Voltage (Approx.)
(+)	(-)		
IPDM E/R		EXTERNAL LAMP	0 V
Connector	Terminal		
E12	15	TAIL	0 V
		Off	Battery voltage

Is the measurement value normal?

YES >> Check parking lamp circuit. Refer to [EXL-279. "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

Fixed at 0 V >> GO TO 5.

Fixed at battery voltage >> Replace IPDM E/R.

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

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

IPDM E/R		Daytime running light relay		Continuity
Connector	Terminal	Connector	Terminal	
E12	15	E65	2	Existed

Does continuity exist?

YES >> GO TO 6.

NO >> Repair the harnesses or connectors.

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

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
E12	15		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace IPDM E/R.

## Component Inspection

INFOID:000000001527966

## 1. CHECK DAYTIME RUNNING LIGHT RELAY

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

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

## DAYTIME RUNNING LIGHT RELAY CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

---

Does continuity exist?

YES >> Daytime running light relay is normal.

NO >> Replace daytime running light relay.

# PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING LAMP CIRCUIT

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001527967

#### 1.CHECK PARKING LAMP OPERATION

##### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-277, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001527968

#### 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	#46	10 A

Is the fuse fusing?

YES >> GO TO 2.

NO >> GO TO 3.

#### 2.CHECK PARKING LAMP SHORT CIRCUIT

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

IPDM E/R		Ground	Continuity
Connector	Terminal		
RH	E14	39	Not existed
LH		38	

Does continuity exist?

YES >> Repair the harnesses or connectors. And then replace the fuse.

NO >> Replace the fuse. (Replace IPDM E/R if fusing is found again.)

#### 3.CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 4.

NO >> Replace the bulb.

#### 4.CHECK PARKING LAMP OUTPUT VOLTAGE

##### CONSULT-III ACTIVE TEST

1. Disconnect the parking lamp connector.
2. Turn the ignition switch ON.

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

EXL

# PARKING LAMP CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

3. Select "EXTERNAL LAMP" 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			
RH	E14	39	TAIL	0 V
LH		38	OFF	

Is the measurement value normal?

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

## 5. CHECK PARKING LAMP OPEN CIRCUIT

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

IPDM E/R			Parking lamp		Continuity
Connector	Terminal		Connector	Terminal	
RH	E14	39	E43	1	Existed
LH		38	E24	1	

Does continuity exist?

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

## 6. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

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

Does continuity exist?

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001527969

### NOTE:

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-274. "Component Function Check"](#).

## 1. CHECK PARKING LAMP OPERATION

### ⊗ IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8. "Diagnosis Description"](#).
2. Check that the parking lamp is turned ON.

### Ⓟ CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" of IPDM E/R active test item.
2. With operating the test items, check that the parking lamp is turned ON.

# PARKING LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

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

Is the parking lamp turned ON?

YES >> Parking lamp circuit is normal.

NO >> Refer to [EXL-279, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001527970

### 1. CHECK PARKING LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

### 2. CHECK PARKING LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.
2. Remove daytime running light relay.
3. Disconnect the parking lamp connector.
4. Check continuity between the daytime running light relay harness connector and the parking lamp harness connector.

Daytime running light relay		Parking lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E65	5	E43	1
LH			E24	

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

### 3. CHECK PARKING LAMP SHORT CIRCUIT

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

Daytime running light relay		Ground	Continuity
Connector	Terminal		
E65	5		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

### 4. CHECK PARKING LAMP GROUND OPEN CIRCUIT

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

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

Does continuity exist?

YES >> Replace the front combination lamp.

NO >> Repair the harnesses or connectors.

# TURN SIGNAL LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL LAMP CIRCUIT

### Description

INFOID:000000001527971

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

**NOTE:**

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

### Component Function Check

INFOID:000000001527972

#### 1. CHECK TURN SIGNAL LAMP

ⓐ CONSULT-III ACTIVE TEST

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

- LH** : Turn signal lamps (LH) blink
- RH** : Turn signal lamps (RH) blink
- Off** : Turn signal lamps OFF

Does the turn signal lamps blink?

- YES >> Turn signal lamp circuit is normal.
- NO >> Refer to [EXL-280, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001527973

#### 1. CHECK TURN SIGNAL LAMP BULB

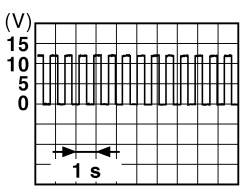
Check the applicable lamp bulb.

Is the bulb normal?

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

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

1. Turn the ignition switch OFF.
2. Disconnect the front turn signal lamp connector, side turn signal lamp connector, or the rear combination lamp connector.
3. Turn the ignition switch ON.
4. With operating the turn signal switch, check the voltage between the BCM harness connector and the ground.

Terminals			Condition	Voltage (Approx.)
(+)	(-)			
BCM			Turn signal switch	
Connector	Terminal			
RH	M66	48	LH or RH	
LH		47		
Ground			OFF	0 V

Is the measurement value normal?

- YES >> GO TO 3.
- NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).



# TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## 3. CHECK TURN SIGNAL LAMP OPEN CIRCUIT

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

Front turn signal lamp

BCM		Front turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E46	Existed
LH		47	E27	

Side turn signal lamp

BCM		Side turn signal lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	E40	Existed
LH		47	E23	

Rear turn signal lamp

BCM		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	M66	48	B59	Existed
LH		47	B80	

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		Ground	Continuity
Connector	Terminal		
RH	M66	48	Not existed
LH		47	

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 5.

## 5. CHECK TURN SIGNAL LAMP GROUND OPEN CIRCUIT

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

Front turn signal lamp

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

Side turn signal lamp

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

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# TURN SIGNAL LAMP CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

Rear turn signal lamp

Rear combination lamp		Terminal	Ground	Continuity
Connector				Existed
RH	B59	4		Existed
LH	B80			

### Does continuity exist?

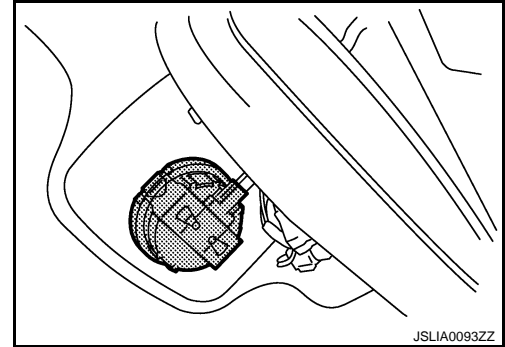
- YES >> Replace the front combination lamp, the side turn signal lamp or the rear combination lamp.
- NO >> Repair the harnesses or connectors.

## LIGHT & RAIN SENSOR

### Description

INFOID:000000001528650

- The light & rain sensor detects the outside ambient light level, forward light level, rain level and sensor conditions.
- Based on ambient light level (day/night detection), forward light level (tunnel detection), rain level (poor visibility detection) and sensor conditions it judges ON/OFF condition for exterior lamps.
- And it transmits exterior lamp ON/OFF request to the BCM by the light & rain sensor serial link.
- BCM controls each function depending on the signals. And it detects the light & rain sensor serial link error and the light & rain sensor malfunction.



### Component Function Check

INFOID:000000001528651

#### 1. CHECK LIGHT & RAIN SENSOR BY CONSULT-III

##### CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "LIT-SEN FAIL" of BCM (HEADLAMP) data monitor item.
3. Turn the lighting switch AUTO.
4. Start the engine.
5. Check the monitor status.

Monitor item	Condition	Status
LIT-SEN FAIL	Light & rain sensor is normal	OK
	<ul style="list-style-type: none"> <li>• Light &amp; rain sensor inside abnormality</li> <li>• Light &amp; rain sensor serial link error</li> </ul>	NOTOK

##### Is it displayed with "OK"?

- YES >> Light & rain sensor is normal.  
 NO >> Refer to [EXL-283, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001528652

#### 1. CHECK LIGHT & RAIN SENSOR FUSE

Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Light & rain sensor	Fuse block	#8	10 A

##### Is the fuse fusing?

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

#### 2. CHECK LIGHT & RAIN SENSOR POWER SUPPLY

1. Turn the ignition switch OFF.
2. Disconnect the light & rain sensor connector.
3. Check the voltage between the light & rain sensor harness connector and the ground.

# LIGHT & RAIN SENSOR

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		
Connector	Terminal	Ground
R12*1 R13*2	1	
		Battery voltage

\*1: With theft warning system

\*2: Without theft warning system

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair the harness or connector.

### 3. CHECK LIGHT & RAIN SENSOR SIGNAL VOLTAGE

Check the voltage between the light & rain sensor harness connector and the ground.

Terminals		Voltage (Approx.)
(+)	(-)	
Light & rain sensor		
Connector	Terminal	Ground
R12*1 R13*2	2	
		12 V

\*1: With theft warning system

\*2: Without theft warning system

Is the measurement value normal?

YES >> GO TO 6.

NO >> GO TO 4.

### 4. CHECK LIGHT & RAIN SENSOR SIGNAL CIRCUIT FOR OPEN

1. Disconnect BCM connector.
2. Check continuity between the light & rain sensor harness connector and the BCM harness connector.

Light & rain sensor		BCM		Continuity
Connector	Terminal	Connector	Terminal	
R12*1 R13*2	2	M65	24	Existed

\*1: With theft warning system

\*2: Without theft warning system

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

### 5. CHECK LIGHT & RAIN SENSOR SIGNAL CIRCUIT FOR SHORT

Check the continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R12*1 R13*2	2		Not existed

\*1: With theft warning system

\*2: Without theft warning system

# LIGHT & RAIN SENSOR

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

## 6. CHECK LIGHT & RAIN SENSOR GROUND CIRCUIT FOR OPEN

1. Turn the ignition switch OFF.
2. Check continuity between the light & rain sensor harness connector and the ground.

Light & rain sensor		Ground	Continuity
Connector	Terminal		
R12 <sup>*1</sup> R13 <sup>*2</sup>	3		Existed

\*1: With theft warning system

\*2: Without theft warning system

Does continuity exist?

YES >> Replace the light & rain sensor.

NO >> Repair the harnesses or connectors.

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

# HAZARD SWITCH

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## HAZARD SWITCH

### Component Function Check

INFOID:000000001527977

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

##### CONSULT-III DATA MONITOR

1. Turn the ignition switch ON.
2. Select "HAZARD SW" of BCM (FLASHER) data monitor item.
3. With operating the hazard switch, check the monitor status.

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

Is the item status normal?

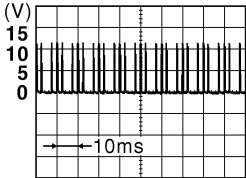
- YES >> Hazard switch circuit is normal.  
NO >> Refer to [EXL-286, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001527978

#### 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		
M65	33	ON	
		OFF	
	Ground		

JPMIA0154GB

Is the measurement value normal?

- YES >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).  
NO >> GO TO 2.

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

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

Hazard switch		BCM		Continuity
Connector	Terminal	Connector	Terminal	
M45	4	M65	33	Existed

Does continuity exist?

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

#### 3.CHECK HAZARD SWITCH SIGNAL SHORT CIRCUIT

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

# HAZARD SWITCH

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	4		Not existed

Does continuity exist?

YES >> Repair the harnesses or connectors.

NO >> GO TO 4.

## 4.CHECK HAZARD SWITCH GROUND OPEN CIRCUIT

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

Hazard switch		Ground	Continuity
Connector	Terminal		
M45	6		Existed

Does continuity exist?

YES >> Replace the hazard switch.

NO >> Repair the harnesses or connectors.

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

EXL

# TAIL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## TAIL LAMP CIRCUIT

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001527979

#### 1.CHECK TAIL LAMP OPERATION

##### ⊗IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

##### ⓅCONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-288, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001527980

#### 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>• License plate lamp</li></ul>	IPDM E/R	#45	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-III ACTIVE TEST

1. Disconnect the rear combination lamp connector.
2. Turn the ignition switch ON.
3. Select "EXTERNAL LAMP" 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		
E14	37	TAIL	0 V
		Off	0 V

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.



# TAIL LAMP CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

2. Disconnect IPDM E/R connector.
3. Check continuity between the IPDM E/R harness connector and the rear combination lamp harness connector.

IPDM E/R		Rear combination lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E14	37	B59	Existed
LH			B80	

### 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	B59	4	Existed	
LH	B80	4		

### Does continuity exist?

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001527981

### NOTE:

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-274, "Component Function Check"](#).

## 1.CHECK TAIL LAMP OPERATION

### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the tail lamp is turned ON.

### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-289, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure INFOID:000000001527982

## 1.CHECK TAIL LAMP BULB

Check the applicable lamp bulb.

### Is the bulb normal?

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

## 2.CHECK TAIL LAMP OPEN CIRCUIT

1. Turn the ignition switch OFF.

# TAIL LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

2. Remove daytime running light relay.
3. Disconnect the rear combination lamp connector.
4. Check continuity between the daytime running light relay harness connector and the rear combination lamp harness connector.

Daytime running light relay		Rear combination lamp		Continuity	
Connector	Terminal	Connector	Terminal		
RH	E65	5	B59	1	Existed
LH			B80		

Does continuity exist?

YES >> GO TO 3.

NO >> Repair the harnesses or connectors.

### 3. CHECK TAIL LAMP GROUND OPEN CIRCUIT

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

Rear combination lamp			Ground	Continuity
Connector	Terminal			
RH	B59	4		Existed
LH	B80	4		

Does continuity exist?

YES >> Replace the rear combination lamp.

NO >> Repair the harnesses or connectors.

# LICENSE PLATE LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## LICENSE PLATE LAMP CIRCUIT WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check

INFOID:000000001527983

#### NOTE:

Check the tail lamp circuit if the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-288, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check"](#).

#### 1. CHECK LICENSE PLATE LAMP OPERATION

##### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

##### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-291, "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001527984

#### 1. CHECK LICENSE PLATE LAMP BULB

Check the applicable lamp bulb.

Is the bulb normal?

YES >> GO TO 2.

NO >> Replace the bulb.

#### 2. CHECK LICENSE PLATE LAMP OPEN CIRCUIT

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

IPDM E/R		License plate lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E14	D201	1	Existed
LH		D200	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	D201	2	Existed	
LH	D200	2		

Does continuity exist?

# LICENSE PLATE LAMP CIRCUIT

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

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

## WITH DAYTIME RUNNING LIGHT SYSTEM

## WITH DAYTIME RUNNING LIGHT SYSTEM : Component Function Check INFOID:000000001527985

### NOTE:

Check the daytime running light relay circuit first if the parking lamp, the tail lamp and the license plate lamp are not turned ON. Refer to [EXL-274, "Component Function Check"](#).

### 1. CHECK LICENSE PLATE LAMP OPERATION

#### IPDM E/R AUTO ACTIVE TEST

1. Activate IPDM E/R auto active test. Refer to [PCS-8, "Diagnosis Description"](#).
2. Check that the license plate lamp is turned ON.

#### CONSULT-III ACTIVE TEST

1. Select "EXTERNAL LAMP" 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-292, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).

## WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure INFOID:000000001527986

### 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. Remove daytime running light relay.
3. Disconnect the license plate lamp connector.
4. Check continuity between the daytime running light relay harness connector and the license plate lamp harness connector.

Daytime running light relay		License plate lamp		Continuity
Connector	Terminal	Connector	Terminal	
RH	E65	5	D201	Existed
LH			D200	

#### 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	D201	2	Existed	
LH	D200	2		

#### Does continuity exist?

# LICENSE PLATE LAMP CIRCUIT

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

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

A

B

C

D

E

F

G

H

I

J

K

**EXL**

M

N

O

P

# REAR FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## REAR FOG LAMP CIRCUIT

### Component Function Check

INFOID:000000001527987

#### 1. CHECK REAR FOG LAMP OPERATION

##### CONSULT-III ACTIVE TEST

1. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
2. With operating the test items, check that the rear fog lamp is turned ON.

**On** : Rear fog lamp ON

**Off** : Rear fog lamp OFF

##### Is rear fog lamp turned ON?

- YES >> Rear fog lamp circuit is normal.  
NO >> Refer to [EXL-294, "Diagnosis Procedure"](#).

### Diagnosis Procedure

INFOID:000000001527988

#### 1. CHECK REAR FOG LAMP BULB

Check the applicable lamp bulb.

##### Is the bulb normal?

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

#### 2. CHECK REAR FOG LAMP OUTPUT VOLTAGE

##### CONSULT-III ACTIVE TEST

1. Turn the ignition switch OFF.
2. Disconnect the rear fog lamp connector.
3. Turn the ignition switch ON.
4. Select "RR FOG LAMP" of BCM (HEAD LAMP) active test item.
5. With operating the test items, check voltage between BCM harness connector and ground.

Terminals		Test item	Voltage (approx.)	
(+)	(-)			
BCM		RR FOG LAMP		
Connector	Terminal			
M66	49	Ground	On	12 V
			Off	0 V

##### Is the measurement value normal?

- YES >> GO TO 3.  
NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

#### 3. CHECK REAR FOG LAMP OPEN CIRCUIT

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

BCM		Rear fog lamp		Continuity
Connector	Terminal	Connector	Terminal	
M66	49	B202	1	Existed

##### Does continuity exist?

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

# REAR FOG LAMP CIRCUIT

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## 4. CHECK REAR FOG LAMP SHORT CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M66	49		Not existed

Does continuity exist?

YES >> GO TO 5.

NO >> Repair the harnesses or connectors.

## 5. CHECK REAR FOG LAMP GROUND OPEN CIRCUIT

Check continuity between rear fog lamp harness connector and ground.

Rear fog lamp		Ground	Continuity
Connector	Terminal		
B202	2		Existed

Does continuity exist?

YES >> Replace the rear fog lamp.

NO >> Repair the harnesses or connectors.

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





# HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



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



Connector No.	E28
Connector Name	HEADLAMP LH
Connector Type	NQ03FB



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	-
20	SB	-
21	G	-
22	LG	-

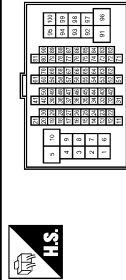
Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

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

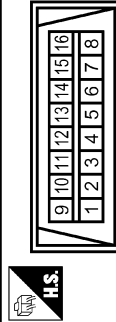
Connector No.	E45
Connector Name	HEADLAMP RH
Connector Type	NQ03FB



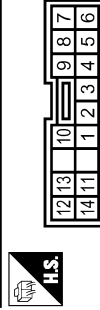
Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	B	-
3	SB	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3

JCLWA0431GB

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

EXL

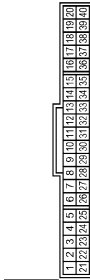
# HEADLAMP SYSTEM

< COMPONENT DIAGNOSIS >

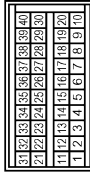
[HALOGEN TYPE]

## HEADLAMP (WITH HALOGEN HEADLAMP)

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW

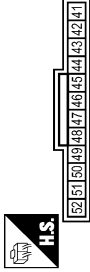


Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAAB40FB



36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

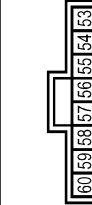
Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



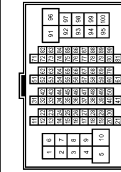
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 2 (RHD models)
10	O	COMBI SW 2 (LHD models)
10	BR	COMBI SW 5 (RHD models)
21	P	CAN-L
22	L	CAN-H

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA80FB



Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT1(F/L)

Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

JCLWA0432GB

# HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

### Description

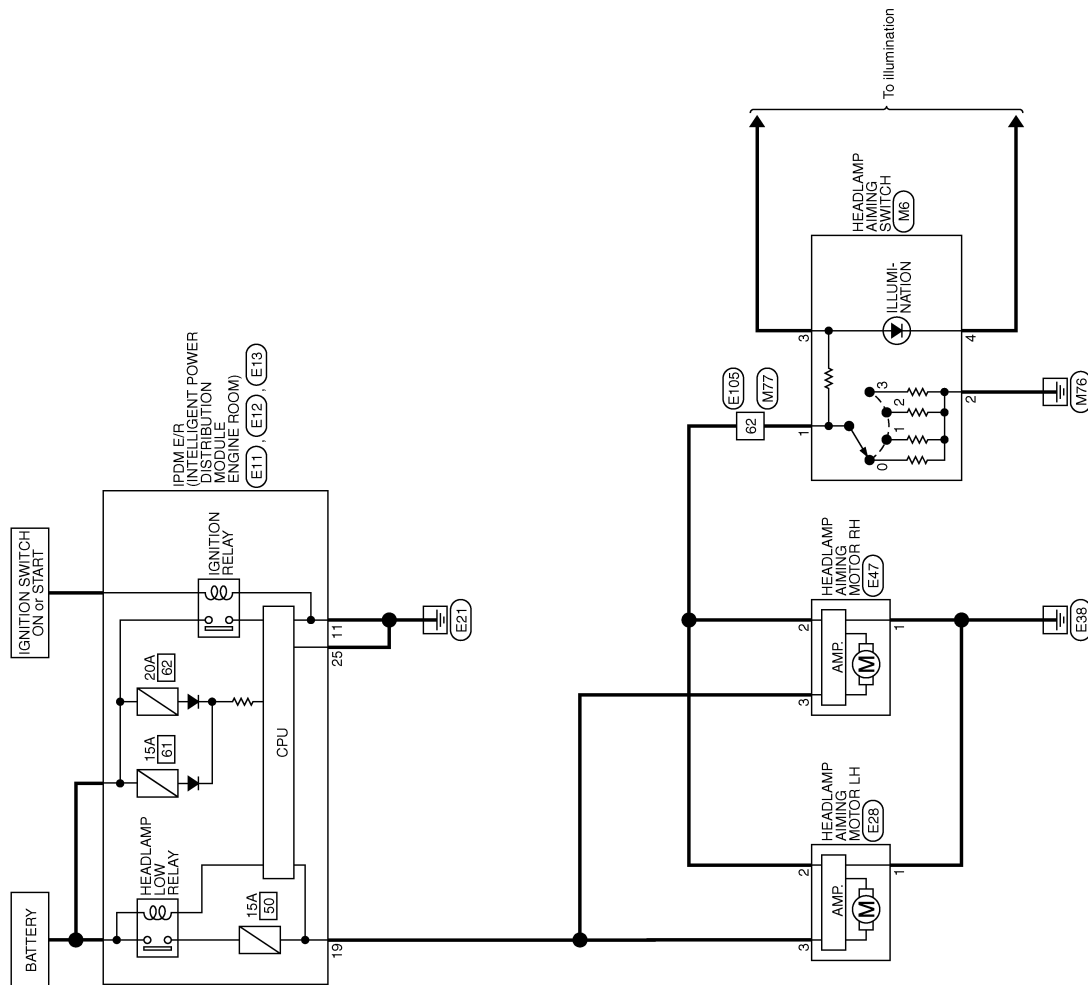
INFOID:000000001160248

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

### Wiring Diagram - HEADLAMP AIMING CONTROL SYSTEM (MANUAL) -

INFOID:000000001160249

### HEADLAMP AIMING CONTROL (MANUAL)



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

EXL

2007/02/28

JCLWA0453GB

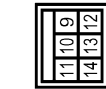
# HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

< COMPONENT DIAGNOSIS >

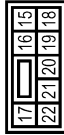
[HALOGEN TYPE]

## HEADLAMP AIMING CONTROL (MANUAL)

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FEB-LC



Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FEBR-CS



Terminal No.	11	Color of Wire	B	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Terminal No.	19	Color of Wire	P	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

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



Terminal No.	25	Color of Wire	B	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	E28
Connector Name	HEADLAMP AIMING MOTOR LH
Connector Type	RS03FB



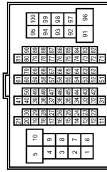
Terminal No.	1	Color of Wire	B	Signal Name [Specification]	-
	2	V	-	-	-
	3	P	-	-	-

Connector No.	E17
Connector Name	HEADLAMP AIMING MOTOR RH
Connector Type	RS03FB



Terminal No.	1	Color of Wire	B	Signal Name [Specification]	-
	2	V	-	GND	-
	3	P	-	SIG	-1B

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



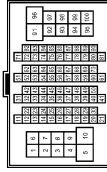
Terminal No.	62	Color of Wire	V	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	M6
Connector Name	HEADLAMP AIMING SWITCH
Connector Type	A04FW



Terminal No.	1	Color of Wire	V	Signal Name [Specification]	-
	2	B	-	-	-
	3	R	-	-	-
	4	B	-	-	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	62	Color of Wire	V	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

## Component Inspection

### 1. CHECK HEADLAMP AIMING SWITCH

1. Remove the headlamp aiming switch.

JCLWA0454GB

INFOID:000000001160250

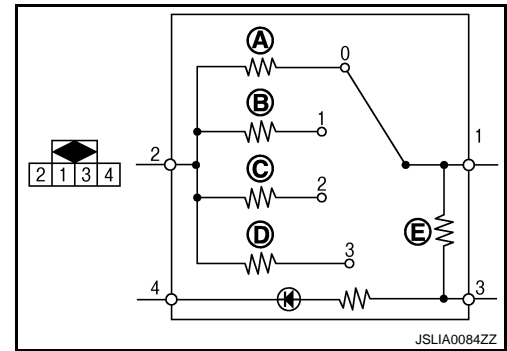
# HEADLAMP AIMING CONTROL SYSTEM (MANUAL)

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

2. Check the resistance among each headlamp aiming switch terminal.

Headlamp aiming switch		Condition	Resistance (Approx.)
Terminal		Switch position	
1	2	0	A: 160 Ω
		1	B: 240 Ω
		2	C: 330 Ω
		3	D: 470 Ω
	3	—	E: 390 Ω



Is the measurement value normal?

- YES >> Headlamp aiming switch is normal.
- NO >> Replace the headlamp aiming switch.

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

EXL

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

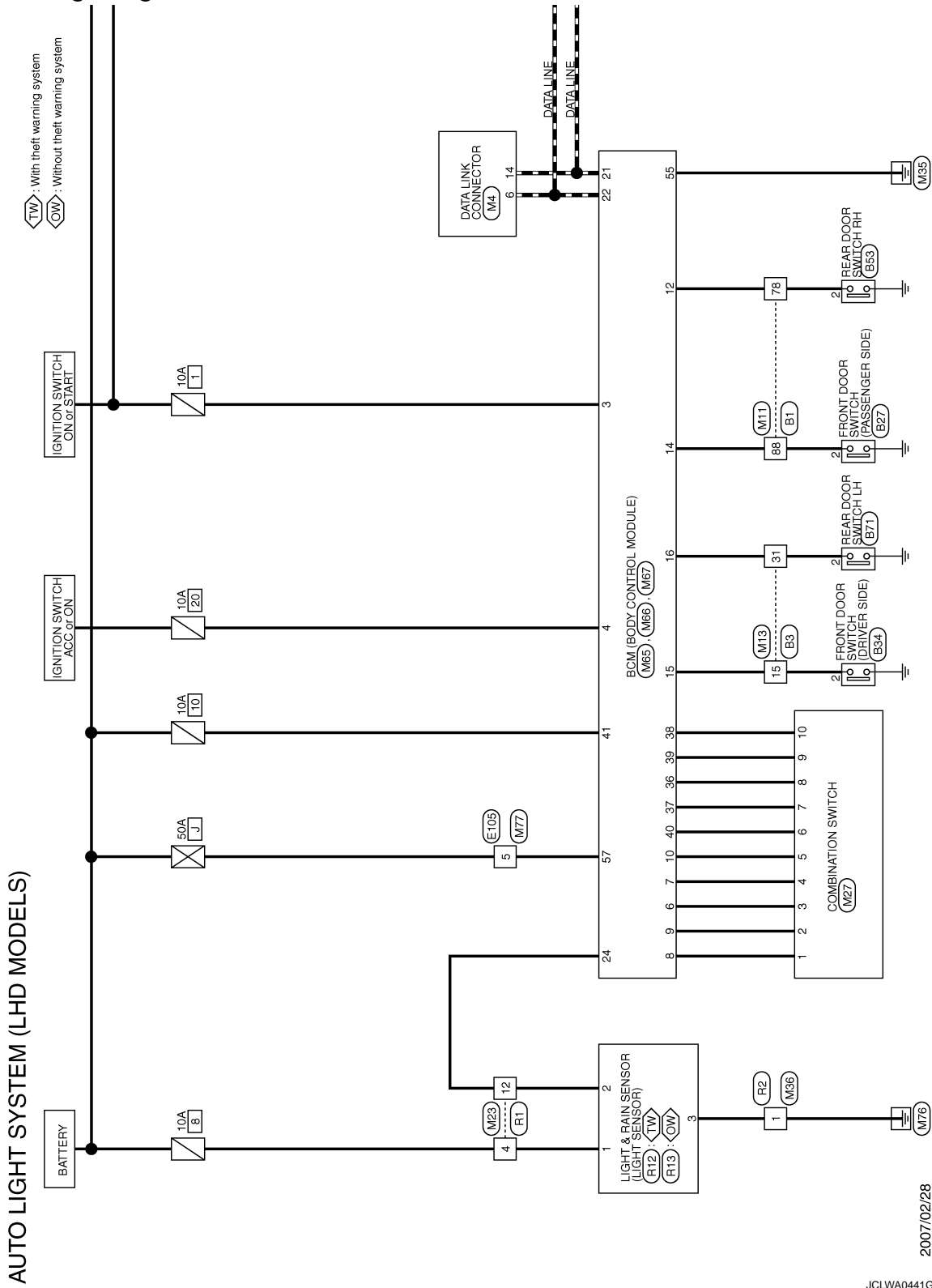
[HALOGEN TYPE]

## AUTO LIGHT SYSTEM

LHD

### LHD : Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:000000001527992



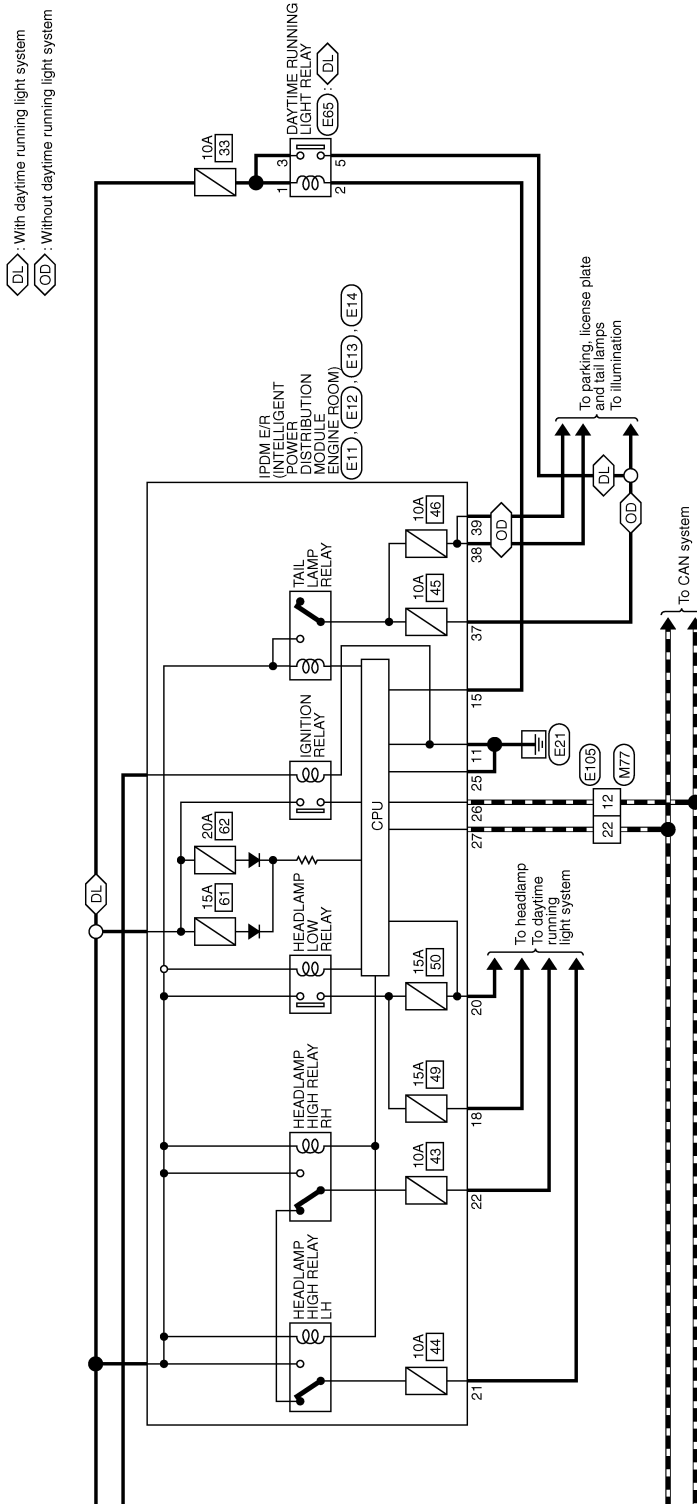
2007/02/28

JCLWA0441GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]



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

EXL

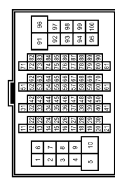

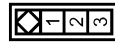
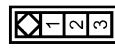

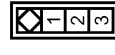


JCLWA0442GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM (LHD MODELS)

<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B1</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH80MW-CS16-TM4</td></tr> </table>	Connector No.	B1	Connector Name	WIRE TO WIRE	Connector Type	TH80MW-CS16-TM4		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>78</td></tr> <tr><td>Color of Wire</td><td>Y</td></tr> <tr><td>Terminal No.</td><td>88</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> </table>	Terminal No.	78	Color of Wire	Y	Terminal No.	88	Color of Wire	BR	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																					
Connector No.	B1																																																
Connector Name	WIRE TO WIRE																																																
Connector Type	TH80MW-CS16-TM4																																																
Terminal No.	78																																																
Color of Wire	Y																																																
Terminal No.	88																																																
Color of Wire	BR																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B3</td></tr> <tr><td>Connector Name</td><td>WIRE TO WIRE</td></tr> <tr><td>Connector Type</td><td>TH32MW-NH</td></tr> </table>	Connector No.	B3	Connector Name	WIRE TO WIRE	Connector Type	TH32MW-NH		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>P</td></tr> <tr><td>Terminal No.</td><td>31</td></tr> <tr><td>Color of Wire</td><td>GR</td></tr> </table>	Terminal No.	15	Color of Wire	P	Terminal No.	31	Color of Wire	GR	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																					
Connector No.	B3																																																
Connector Name	WIRE TO WIRE																																																
Connector Type	TH32MW-NH																																																
Terminal No.	15																																																
Color of Wire	P																																																
Terminal No.	31																																																
Color of Wire	GR																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B7</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (PASSENGER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B7	Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>BR</td></tr> </table>	Terminal No.	2	Color of Wire	BR	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																									
Connector No.	B7																																																
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)																																																
Connector Type	A03FW																																																
Terminal No.	2																																																
Color of Wire	BR																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B34</td></tr> <tr><td>Connector Name</td><td>FRONT DOOR SWITCH (DRIVER SIDE)</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B34	Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>P</td></tr> </table>	Terminal No.	2	Color of Wire	P	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																									
Connector No.	B34																																																
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)																																																
Connector Type	A03FW																																																
Terminal No.	2																																																
Color of Wire	P																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B53</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH RH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B53	Connector Name	REAR DOOR SWITCH RH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>Y</td></tr> </table>	Terminal No.	2	Color of Wire	Y	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																									
Connector No.	B53																																																
Connector Name	REAR DOOR SWITCH RH																																																
Connector Type	A03FW																																																
Terminal No.	2																																																
Color of Wire	Y																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>B71</td></tr> <tr><td>Connector Name</td><td>REAR DOOR SWITCH LH</td></tr> <tr><td>Connector Type</td><td>A03FW</td></tr> </table>	Connector No.	B71	Connector Name	REAR DOOR SWITCH LH	Connector Type	A03FW		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Color of Wire</td><td>GR</td></tr> </table>	Terminal No.	2	Color of Wire	GR	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>1</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>2</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>3</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	1	Signal Name [Specification]		Terminal No.	2	Signal Name [Specification]		Terminal No.	3	Signal Name [Specification]																									
Connector No.	B71																																																
Connector Name	REAR DOOR SWITCH LH																																																
Connector Type	A03FW																																																
Terminal No.	2																																																
Color of Wire	GR																																																
Terminal No.	1																																																
Signal Name [Specification]																																																	
Terminal No.	2																																																
Signal Name [Specification]																																																	
Terminal No.	3																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E11</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>M06FB-LC</td></tr> </table>	Connector No.	E11	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	M06FB-LC		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>11</td></tr> <tr><td>Color of Wire</td><td>B</td></tr> </table>	Terminal No.	11	Color of Wire	B	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>11</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	11	Signal Name [Specification]																																	
Connector No.	E11																																																
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																																
Connector Type	M06FB-LC																																																
Terminal No.	11																																																
Color of Wire	B																																																
Terminal No.	11																																																
Signal Name [Specification]																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Connector No.</td><td>E12</td></tr> <tr><td>Connector Name</td><td>IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)</td></tr> <tr><td>Connector Type</td><td>NS08FB-CS</td></tr> </table>	Connector No.	E12	Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)	Connector Type	NS08FB-CS		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Terminal No.</td><td>18</td></tr> <tr><td>Color of Wire</td><td>L</td></tr> <tr><td>Terminal No.</td><td>20</td></tr> <tr><td>Color of Wire</td><td>SB</td></tr> <tr><td>Terminal No.</td><td>21</td></tr> <tr><td>Color of Wire</td><td>G</td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Color of Wire</td><td>LG</td></tr> </table>	Terminal No.	15	Color of Wire	SB	Terminal No.	18	Color of Wire	L	Terminal No.	20	Color of Wire	SB	Terminal No.	21	Color of Wire	G	Terminal No.	22	Color of Wire	LG	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Terminal No.</td><td>15</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>18</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>20</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>21</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> <tr><td>Terminal No.</td><td>22</td></tr> <tr><td>Signal Name [Specification]</td><td></td></tr> </table>	Terminal No.	15	Signal Name [Specification]		Terminal No.	18	Signal Name [Specification]		Terminal No.	20	Signal Name [Specification]		Terminal No.	21	Signal Name [Specification]		Terminal No.	22	Signal Name [Specification]	
Connector No.	E12																																																
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)																																																
Connector Type	NS08FB-CS																																																
Terminal No.	15																																																
Color of Wire	SB																																																
Terminal No.	18																																																
Color of Wire	L																																																
Terminal No.	20																																																
Color of Wire	SB																																																
Terminal No.	21																																																
Color of Wire	G																																																
Terminal No.	22																																																
Color of Wire	LG																																																
Terminal No.	15																																																
Signal Name [Specification]																																																	
Terminal No.	18																																																
Signal Name [Specification]																																																	
Terminal No.	20																																																
Signal Name [Specification]																																																	
Terminal No.	21																																																
Signal Name [Specification]																																																	
Terminal No.	22																																																
Signal Name [Specification]																																																	

JCLWA0443GB



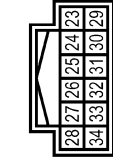
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

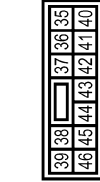
## AUTO LIGHT SYSTEM (LHD MODELS)

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



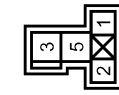
Terminal No.	Color of Wire	Signal Name [Specification]
23	B	-
26	P	-
27	L	-

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



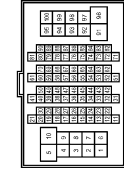
Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



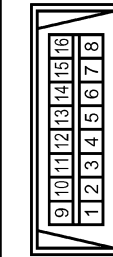
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



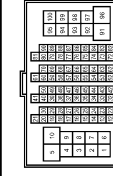
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

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



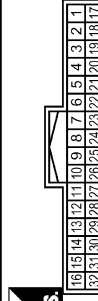
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



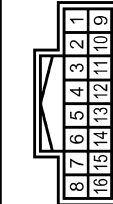
Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-
88	BR	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	GR	-[LHD models]

Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	GR	-

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

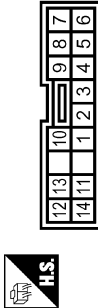
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

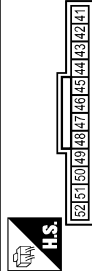
## AUTO LIGHT SYSTEM (LHD MODELS)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	B	INPUT 2(LHD models)
3	L	INPUT 3
4	GR	INPUT 4
5	BR	INPUT 5(LHD models)
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4
10	W	OUTPUT 3

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



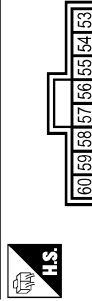
Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BATT(FUSE)

Connector No.	M68
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



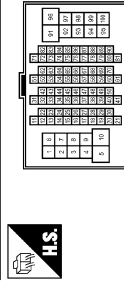
Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	B	COMBI SW INPUT 2(LHD models)
10	BR	COMBI SW 3 (LHD models)
12	LG	DOOR SW (RR)
14	BR	DOOR SW (AS)(LHD models)
15	P	DOOR SW (DR)(LHD models)
16	GR	DOOR SW (RL)(LHD models)

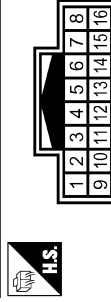
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS(6-TM4)



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

21	P	CAN-L
22	L	CAN-H
24	GR	LIGHT & RAIN SEN
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	R	-

# AUTO LIGHT SYSTEM

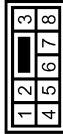
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

RHD

**AUTO LIGHT SYSTEM (LHD MODELS)**

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	NS28MW-CS



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

Connector No.	R12
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

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

JCLWA0446GB

# AUTO LIGHT SYSTEM

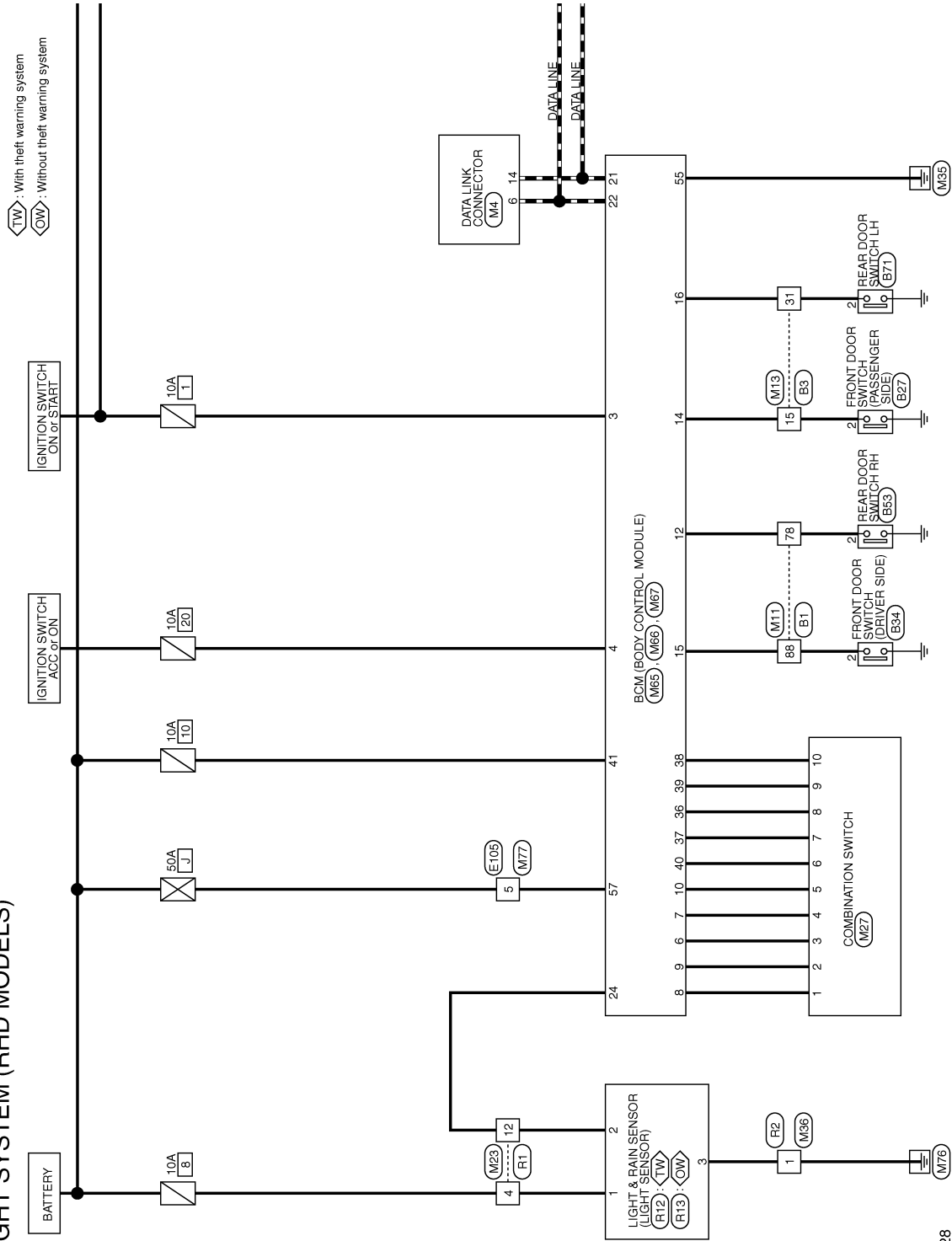
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## RHD : Wiring Diagram - AUTO LIGHT SYSTEM -

INFOID:000000001527993

### AUTO LIGHT SYSTEM (RHD MODELS)



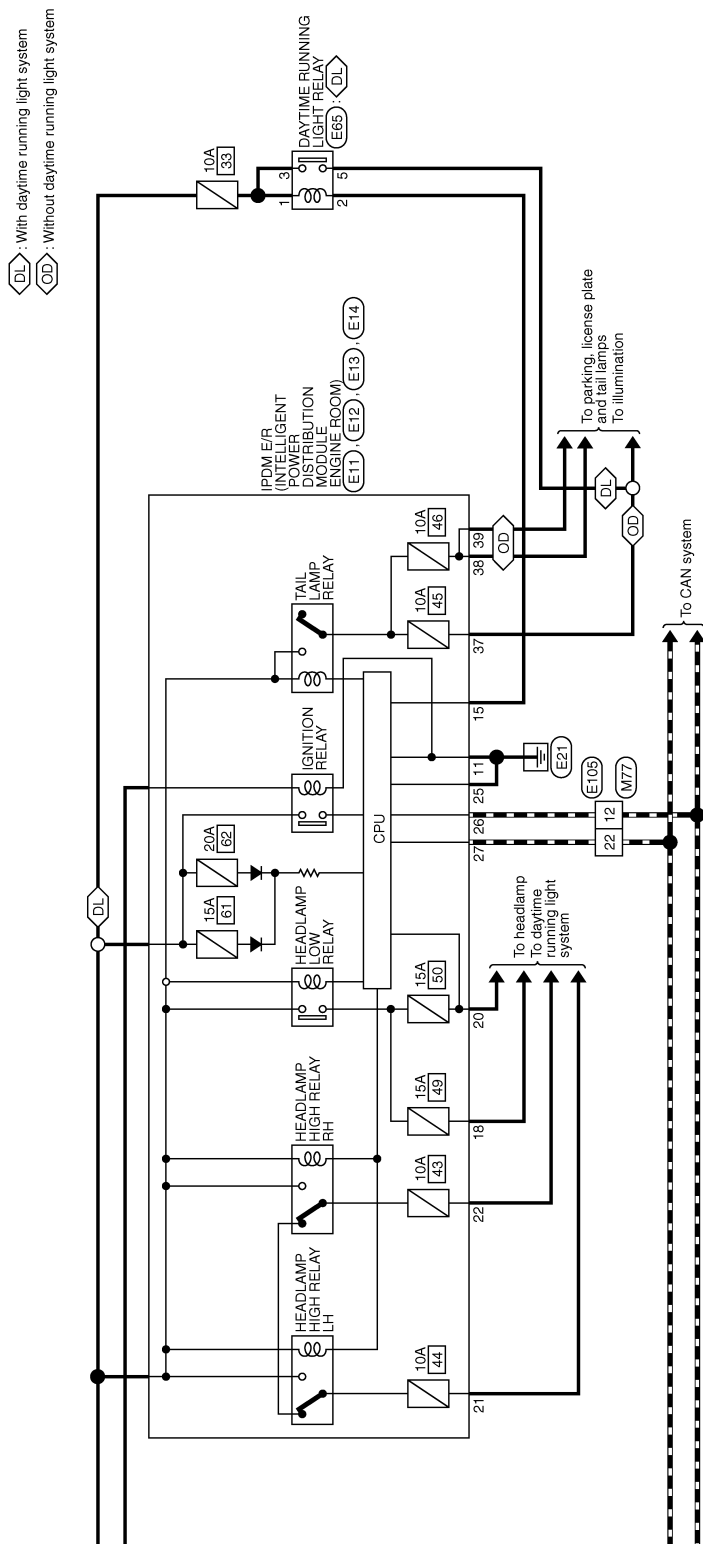
2007/02/28

JCLWA0447GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]



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

JCLWA0448GB

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM (RHD MODELS)

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

Terminal No.	Color of Wire	Signal Name [Specification]
78	Y	-
88	BR	-

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH

Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	GR	-

Connector No.	B7
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	P	- [RHD models]

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	BR	- [RHD models]

Connector No.	B53
Connector Name	REAR DOOR SWITCH RH
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	Y	-

Connector No.	B71
Connector Name	REAR DOOR SWITCH LH
Connector Type	A03FW

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	-

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

Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS08FB-CS

Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-
18	L	-
20	SB	-
21	G	-
22	LG	-

JCLWA0449GB

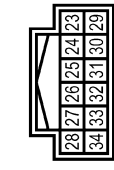
# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## AUTO LIGHT SYSTEM (RHD MODELS)

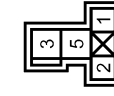
Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	TH12FW-NH



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



Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



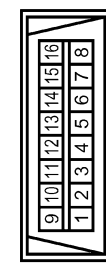
Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

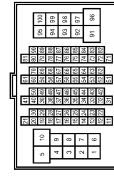
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

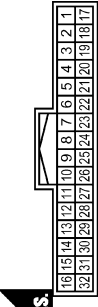
Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



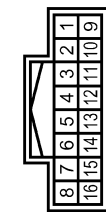
Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Connector No.	M23
Connector Name	WIRE TO WIRE
Connector Type	TH18FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
78	LG	-
88	BR	-

Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-
31	R	-[RHD models]

Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	GR	-

JCLWA0450GB

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

EXL

# AUTO LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

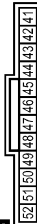
## AUTO LIGHT SYSTEM (RHD MODELS)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



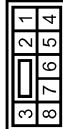
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4
10	W	OUTPUT 5

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BATT(FUSE)

Connector No.	M68
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



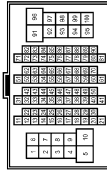
Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BATT(L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
10	O	COMBI SW 3 INPUT models]
12	LG	DOOR SW (RR)
14	P	DOOR SW (AS)[RHD models]
15	BR	DOOR SW (DL)[RHD models]
16	R	DOOR SW (RL)[RHD models]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

21	P	CAN-L
22	L	CAN-H
24	GR	LIGHT & RAIN SEN
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	R1
Connector Name	WIRE TO WIRE
Connector Type	TH18MW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
12	R	-



**AUTO LIGHT SYSTEM (RHD MODELS)**

Connector No.	R2
Connector Name	WIRE TO WIRE
Connector Type	NS28MW-CS



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

Connector No.	R12
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

Connector No.	R13
Connector Name	LIGHT & RAIN SENSOR
Connector Type	AA4B3FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+B
2	R	SIG
3	B	GND

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

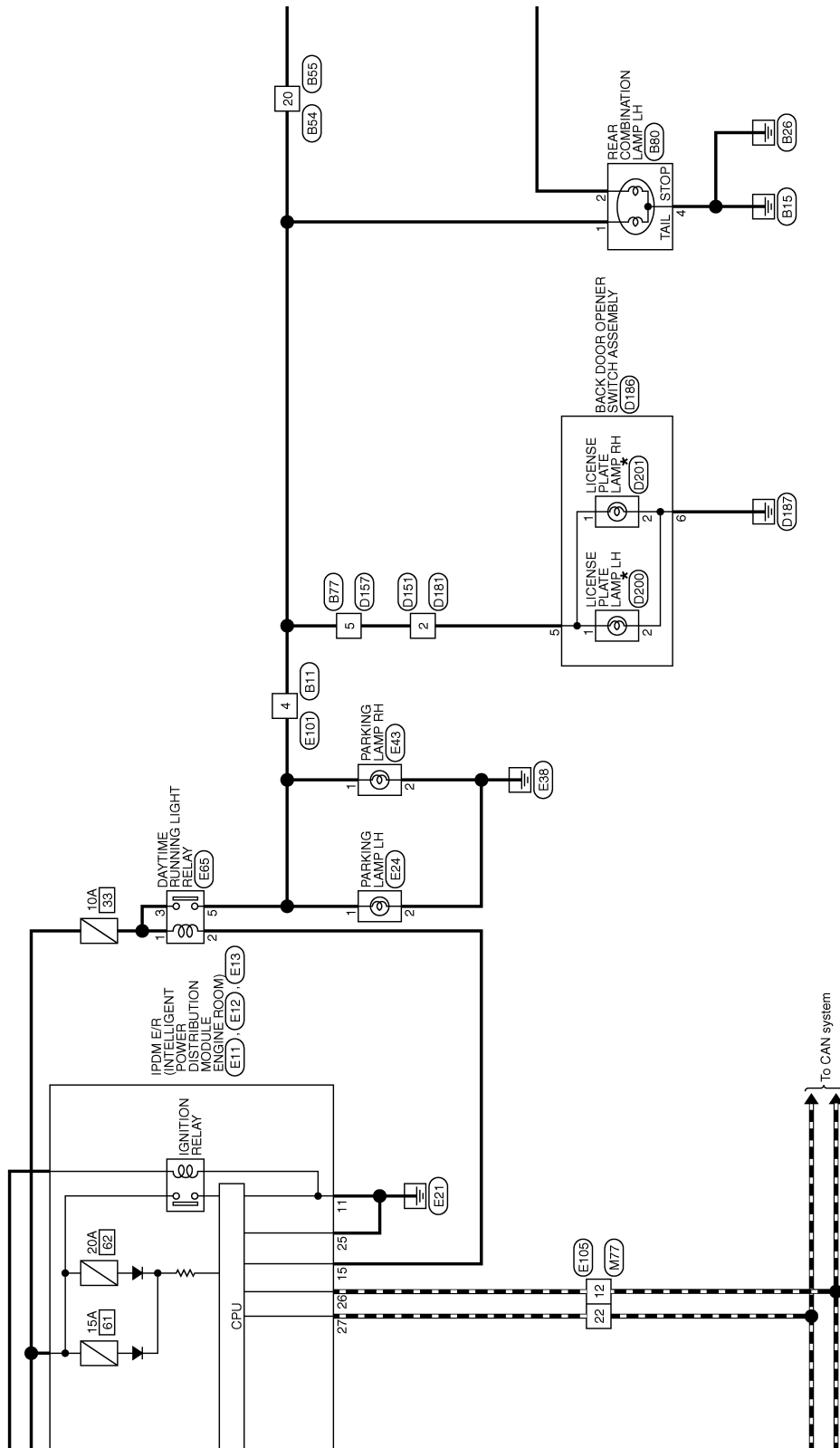
JCLWA0452GB



# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]



\*: This connector is not shown in "Harness Layout".

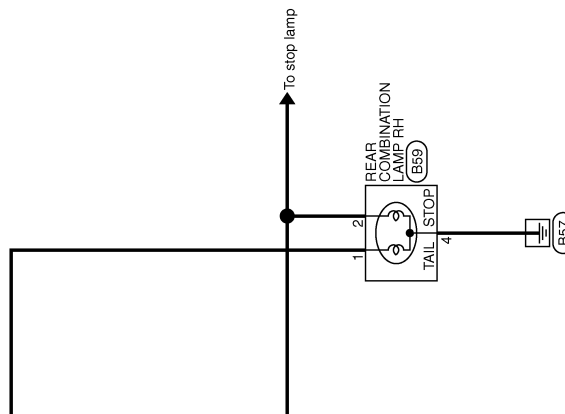
JCLWA0434GB

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

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]



JCLWA0435GB

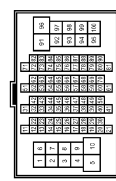
# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

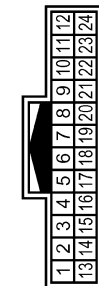
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



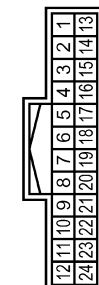
Terminal No.	Color of Wire	Signal Name [Specification]
4	R	-

Connector No.	B34
Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH



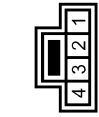
Terminal No.	Color of Wire	Signal Name [Specification]
20	R	-

Connector No.	B35
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



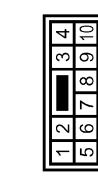
Terminal No.	Color of Wire	Signal Name [Specification]
20	R	-

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS24MW-CS




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

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS




Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS24MW-CS



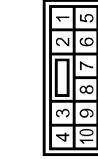
Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	Y	-
4	B	-

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	NS08FB-R-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-

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

JCLWA0436GB

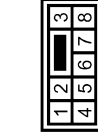
# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	NS33MBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D186
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TK08MW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	LIC LAMP
6	B	EARTH

Connector No.	D200
Connector Name	LICENSE PLATE LAMP LH
Connector Type	STL02FW



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

Connector No.	D201
Connector Name	LICENSE PLATE LAMP RH
Connector Type	STL02FW



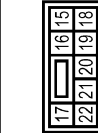
Terminal No.	Color of Wire	Signal Name [Specification]
1	-	-
2	-	-

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



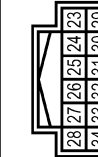
Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS30FBR-CS



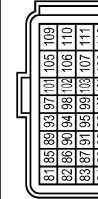
Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-
18	L	-
20	SB	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
28	P	-
27	L	-

Connector No.	E16
Connector Name	ECM
Connector Type	M4A2/FEB-MEAB-LH



Terminal No.	Color of Wire	Signal Name [Specification]
83	P	CAN-L1
84	L	CAN-H1

JCLWA0437GB

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E19
Connector Name	ECM
Connector Type	BAA3ZFE-AHY8

Terminal No.	Color of Wire	Signal Name [Specification]
82	L	VEHCAN-H
90	P	VEHCAN-L

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	T02FB

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

Connector No.	E26
Connector Name	HEADLAMP LH
Connector Type	N003FB

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

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	T02FB

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

Connector No.	E45
Connector Name	HEADLAMP RH
Connector Type	N003FB

Terminal No.	Color of Wire	Signal Name [Specification]
1	LG	-
2	B	-
3	SB	-

Connector No.	E60
Connector Name	ECM
Connector Type	MAA4ZFB-3EA8-LH

Terminal No.	Color of Wire	Signal Name [Specification]
99	P	MAIN CAN-L(BODY)
100	L	MAIN CAN-H(BODY)

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SB	-
3	Y	-
5	GR	-

Connector No.	E71
Connector Name	HEADLAMP LH
Connector Type	E02FGY-RS

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

JCLWA0438GB

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

# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

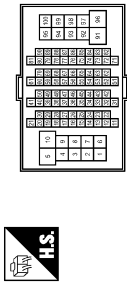
## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	E74
Connector Name	HEADLAMP RH
Connector Type	E02FGY-RS



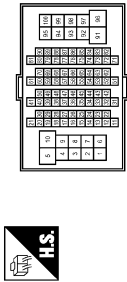
Terminal No.	Color of Wire	Signal Name [Specification]
1	SB	-
2	B	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	T180FW-CS1E-TM4



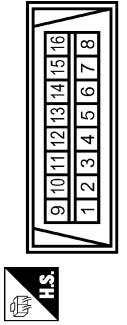
Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	T180FW-CS1E-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
20	P	-
22	L	-
30	L	-

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



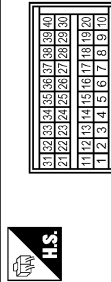
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3

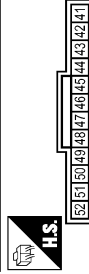
Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	A4A80FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	B	COMBI SW INPUT 2[LHD models]
10	BR	COMBI SW 5 [LHD models]
21	P	GAN-L
22	L	GAN-H
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2

38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

JCLWA0439GB



# DAYTIME RUNNING LIGHT SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

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

## DAYTIME RUNNING LIGHT SYSTEM

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT1F/L

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TF180MW-C51B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
20	P	-
22	L	-
30	L	-

JCLWA0440GB

# FRONT FOG LAMP SYSTEM

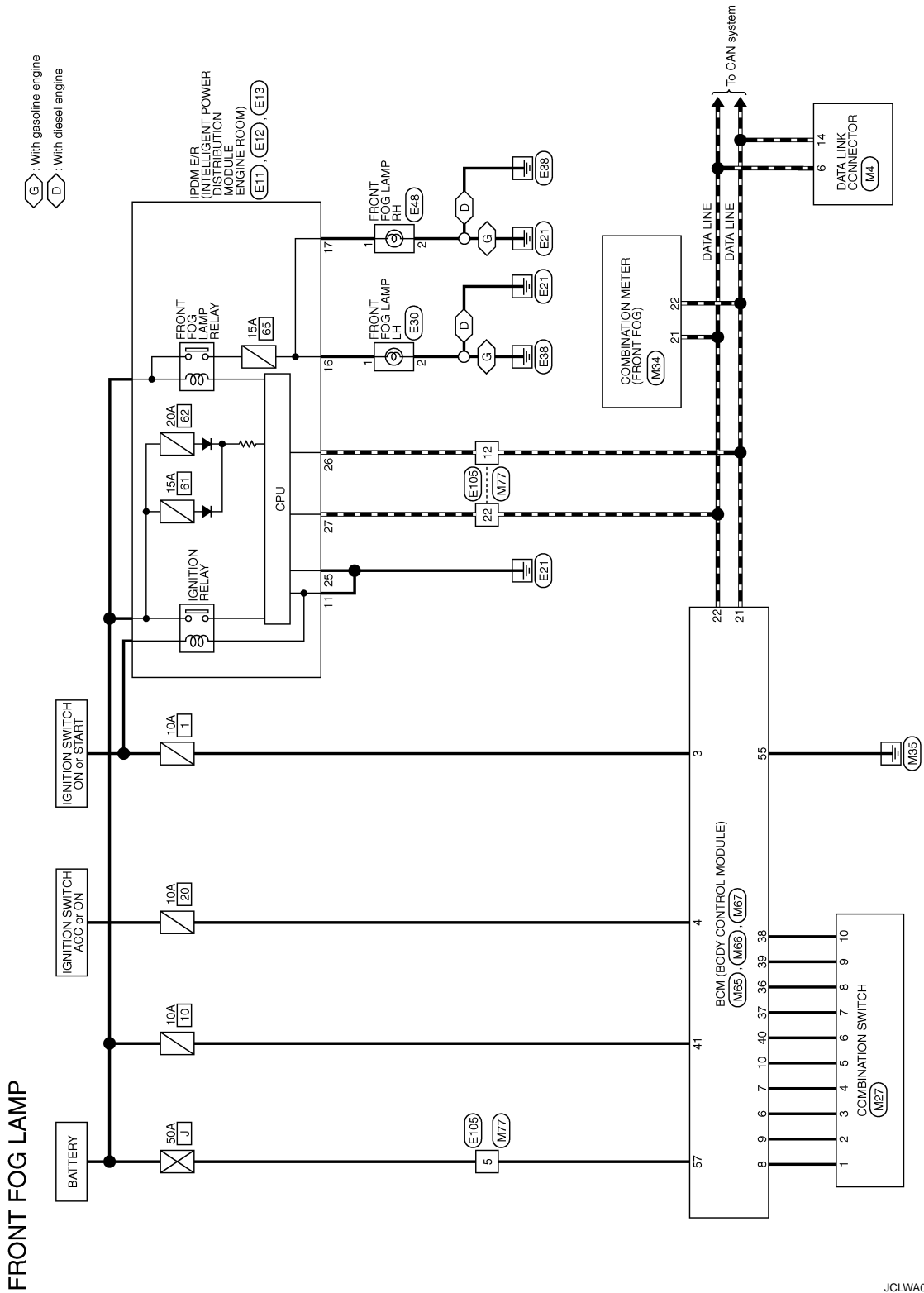
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP SYSTEM

### Wiring Diagram - FRONT FOG LAMP -

INFOID:000000001527995



2007/02/28

JCLWA0459GB

# FRONT FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## FRONT FOG LAMP

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
16	Y	-
17	W	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E30
Connector Name	FRONT FOG LAMP LH
Connector Type	FHZ202FB



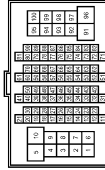
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	B	-

Connector No.	E48
Connector Name	FRONT FOG LAMP RH
Connector Type	FHZ202FB



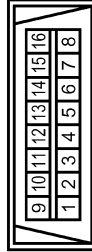
Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	B	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4
10	W	OUTPUT 3

JCLWA0460GB

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

EXL

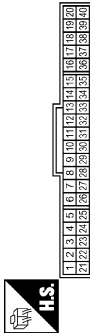
# FRONT FOG LAMP SYSTEM

[HALOGEN TYPE]

< COMPONENT DIAGNOSIS >

## FRONT FOG LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



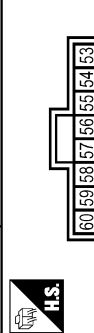
Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAAB40FB



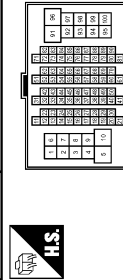
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 2 (RHD models)
10	O	COMBI SW 2 (LHD models)
10	BR	COMBI SW 5 (RHD models)
21	P	CAN-L
22	L	CAN-H

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA80FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT1F/L

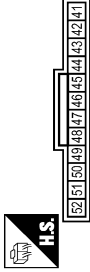
Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS1B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

JCLWA0461 GB

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

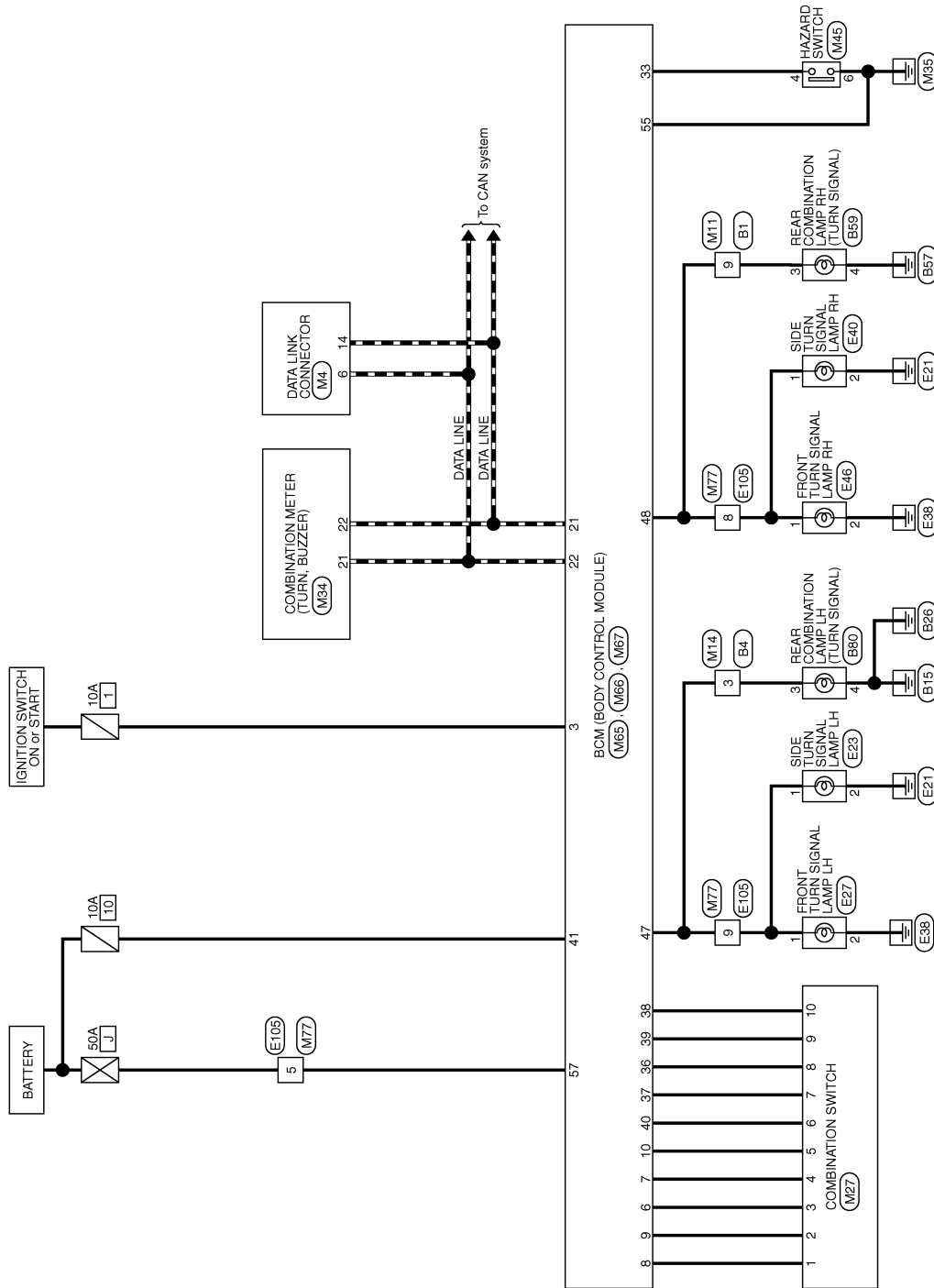
[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

Wiring Diagram - TURN AND HAZARD WARNING LAMPS -

INFOID:000000001527996

### TURN SIGNAL AND HAZARD WARNING LAMPS



2007/02/28

JCLWA0465GB

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

EXL

# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

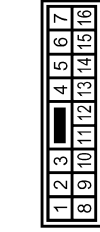
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	9	Color of Wire	GR	Signal Name [Specification]	-
--------------	---	---------------	----	-----------------------------	---

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	3	Color of Wire	BR	Signal Name [Specification]	-
--------------	---	---------------	----	-----------------------------	---

Connector No.	B9
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NSD4MW-CS



Terminal No.	3	Color of Wire	GR	Signal Name [Specification]	-
Terminal No.	4	Color of Wire	B	Signal Name [Specification]	-

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NSD4MW-CS



Terminal No.	3	Color of Wire	BR	Signal Name [Specification]	-
Terminal No.	4	Color of Wire	B	Signal Name [Specification]	-

Connector No.	E23
Connector Name	SIDE TURN SIGNAL LAMP LH
Connector Type	STL02FW



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

Connector No.	E27
Connector Name	FRONT TURN SIGNAL LAMP LH
Connector Type	HS02FY-TV



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

Connector No.	E40
Connector Name	SIDE TURN SIGNAL LAMP RH
Connector Type	STL02FW



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

Connector No.	E46
Connector Name	FRONT TURN SIGNAL LAMP RH
Connector Type	HS02FY-TV



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

JCLWA0466GB

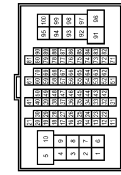
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

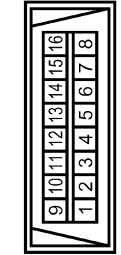
## TURN SIGNAL AND HAZARD WARNING LAMPS

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



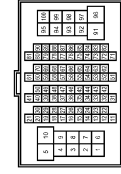
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
8	GR	-
9	BR	-

Connector No.	IM4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



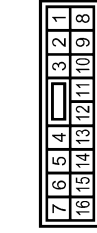
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



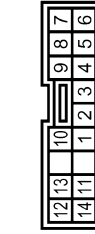
Terminal No.	Color of Wire	Signal Name [Specification]
9	GR	-

Connector No.	M14
Connector Name	WIRE TO WIRE
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
3	BR	-

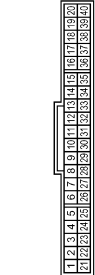
Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	B	INPUT 2[LHD models]
4	L	INPUT 3
5	O	INPUT 4
6	GR	INPUT 5[RHD models]
7	BR	INPUT 5[LHD models]
8	P	OUTPUT 1
9	R	OUTPUT 2
10	G	OUTPUT 3
11	Y	OUTPUT 4

10	W	OUTPUT 3
----	---	----------

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M45
Connector Name	HAZARD SWITCH
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	Y	-
6	B	-

JCLWA0467GB

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

EXL

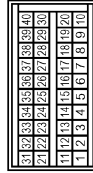
# TURN SIGNAL AND HAZARD WARNING LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## TURN SIGNAL AND HAZARD WARNING LAMPS

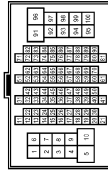
Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AABA0FE



33	W	HAZARD SW (With xenon headlamp and daytime light system)
33	Y	HAZARD SW (Except with xenon headlamp and daytime light system)
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

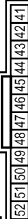
Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 5 (RHD models)
10	BR	COMBI SW 5 (LHD models)
21	P	CAN-L
22	L	CAN-H

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	THBDMW-CS16-TM4



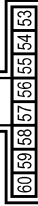
Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
8	GR	-
9	BR	-

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)
47	BR	FRASHER OUTPUT (LH)
48	GR	FRASHER OUTPUT (RH)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



Terminal No.	Color of Wire	Signal Name [Specification]
35	B	GND
57	Y	BAT(F/L)



# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

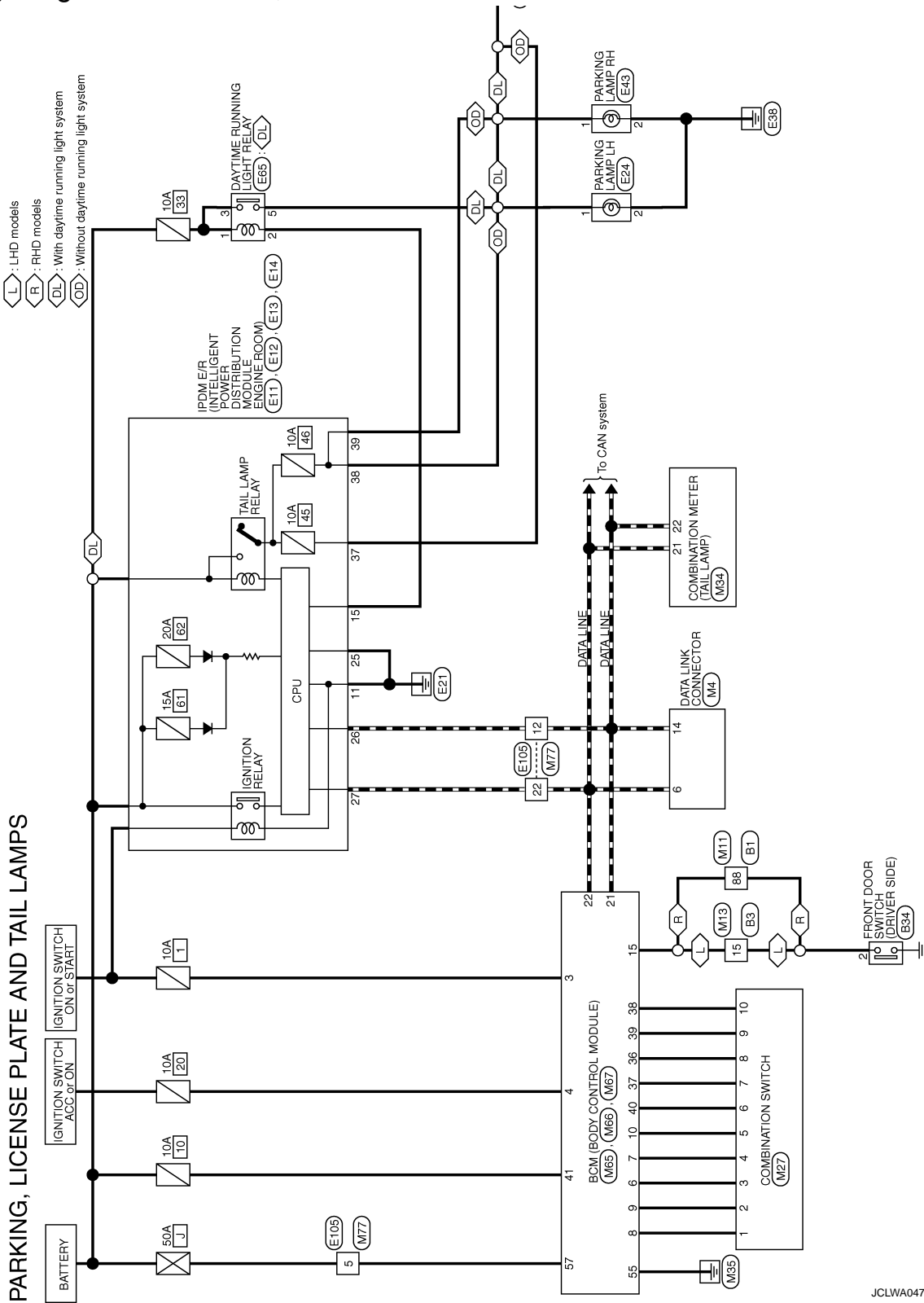
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

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

INFOID:000000001527997



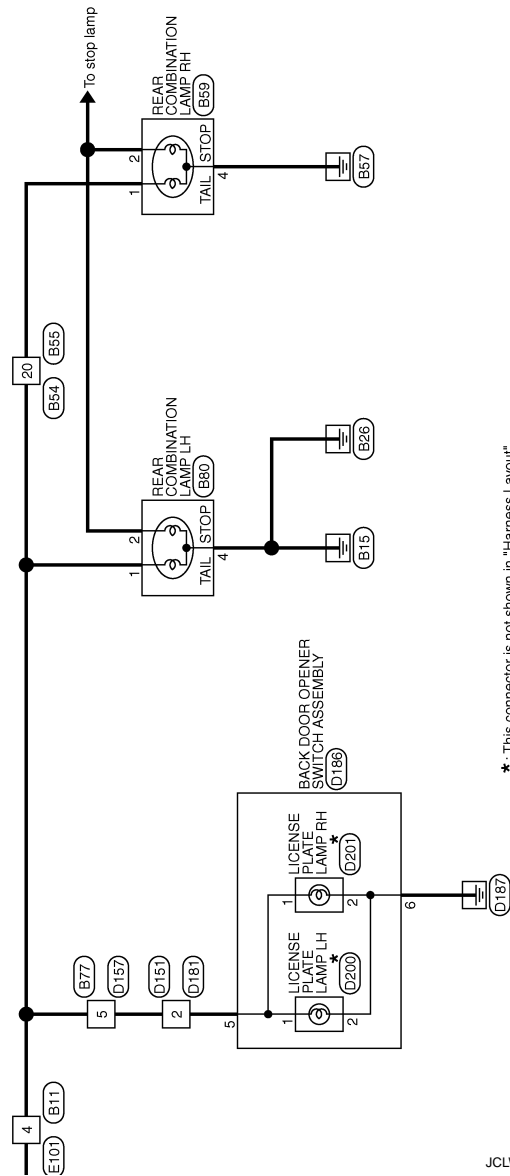
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]



JCLWA0476GB

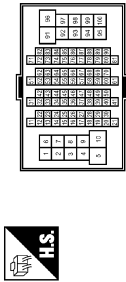
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

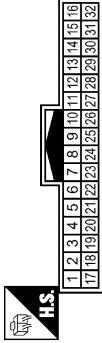
## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80W-CS16-TM4



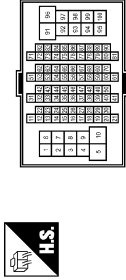
Terminal No.	88	BR	P
Color of Wire			
Signal Name [Specification]			

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32AW-NH



Terminal No.	15	P
Color of Wire		
Signal Name [Specification]		

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80W-CS16-TM4



Terminal No.	4	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



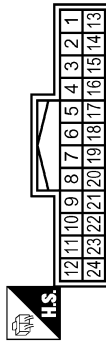
Terminal No.	2	BR	P
Color of Wire			
Signal Name [Specification]			[LHD models]

Connector No.	B54
Connector Name	WIRE TO WIRE
Connector Type	TH24W-NH



Terminal No.	20	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B55
Connector Name	WIRE TO WIRE
Connector Type	TH24FW-NH



Terminal No.	20	R
Color of Wire		
Signal Name [Specification]		

Connector No.	B59
Connector Name	REAR COMBINATION LAMP RH
Connector Type	NS04MW-CS



Terminal No.	1	R
Color of Wire		
Signal Name [Specification]		
Terminal No.	2	Y
Color of Wire		
Signal Name [Specification]		
Terminal No.	4	B
Color of Wire		
Signal Name [Specification]		

Connector No.	B77
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



Terminal No.	5	R
Color of Wire		
Signal Name [Specification]		

JCLWA0477GB

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

EXL

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	B80
Connector Name	REAR COMBINATION LAMP LH
Connector Type	NS24MW-CS



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

Connector No.	D151
Connector Name	WIRE TO WIRE
Connector Type	NS38FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D157
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



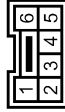
Terminal No.	Color of Wire	Signal Name [Specification]
5	R	-

Connector No.	D181
Connector Name	WIRE TO WIRE
Connector Type	NS38MBF-CS



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Connector No.	D186
Connector Name	BACK DOOR OPENER SWITCH ASSEMBLY
Connector Type	TK68MW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
5	R	LIC LAMP
6	B	EARTH

Connector No.	D200
Connector Name	LICENSE PLATE LAMP LH
Connector Type	STL02FW



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

Connector No.	D201
Connector Name	LICENSE PLATE LAMP RH
Connector Type	STL02FW



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

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

JCLWA0478GB

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FER-CS



Terminal No.	Color of Wire	Signal Name [Specification]
15	SB	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12FER-CS



Terminal No.	Color of Wire	Signal Name [Specification]
37	R	-
38	O	-
39	GR	-

Connector No.	E24
Connector Name	PARKING LAMP LH
Connector Type	T02FB



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

Connector No.	E43
Connector Name	PARKING LAMP RH
Connector Type	T02FB



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

Connector No.	E65
Connector Name	DAYTIME RUNNING LIGHT RELAY
Connector Type	MS02FL-M2



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	SR	-
3	Y	-
5	GR	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	GR	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FY-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-

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

EXL

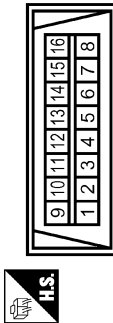
# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

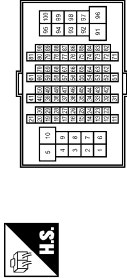
## PARKING, LICENSE PLATE AND TAIL LAMPS

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



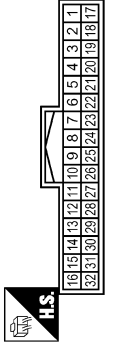
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1E-TM4



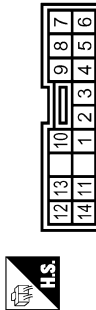
Terminal No.	Color of Wire	Signal Name [Specification]
88	BR	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	-

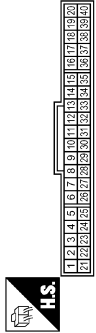
Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
2	B	INPUT 2[LHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
5	BR	INPUT 5[LHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4

10	W	OUTPUT 3
----	---	----------

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

JCLWA0480BG

# PARKING, LICENSE PLATE AND TAIL LAMPS SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## PARKING, LICENSE PLATE AND TAIL LAMPS

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4WFE



31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
1	2	3	4	5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
9	B	COMBI SW INPUT 2[LHD models]
10	O	COMBI SW 5 IN[RHD models]
10	BR	COMBI SW 5 IN[LHD models]
15	BR	DOOR SW (DR)[RHD models]
15	P	DOOR SW (DR)[LHD models]

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



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]
5	Y	-
12	P	-
22	L	-

21	P	GAN-L
22	L	GAN-H
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



52	51	50	49	48	47	46	45	44	43	42	41
----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FEB



60	59	58	57	56	55	54	53
----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GNL
57	Y	BAT(F/L)

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

EXL

## DRIVING LAMP

### Description

INFOID:000000001527998

- Driving lamp relay-2 is turned ON when the driving lamp switch ON is pressed at the time of headlamp (HI) ON.
- Driving lamp relay-1 is turned ON by the driving lamp relay-2. And then driving lamp is turned ON.
- Driving lamp relay-2 maintains ON till headlamp (HI) becomes OFF or driving lamp switch OFF is pressed.







# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## DRIVING LAMP

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	M08FE-LC



Terminal No.	Color of Wire	Signal Name [Specification]
11	B	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NSJ08FBR-CS



Terminal No.	Color of Wire	Signal Name [Specification]
21	G	-
22	LG	-

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



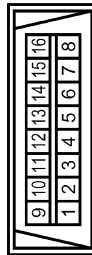
Terminal No.	Color of Wire	Signal Name [Specification]
25	B	-
26	P	-
27	L	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH8JFW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-
12	P	-
22	L	-
33	L	-

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD18FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M9
Connector Name	DRIVING LAMP SWITCH
Connector Type	TK08FW



Terminal No.	Color of Wire	Signal Name [Specification]
4	SB	RELAY COIL
6	W	RELAY CONTACT
7	P	COMB SW/H

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2(RHD models)
2	B	INPUT 3(LHD models)
3	L	INPUT 4
4	GR	INPUT 3
5	O	INPUT 5(RHD models)
5	BR	INPUT 5(LHD models)
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 3
9	Y	OUTPUT 4

10	W	OUTPUT 3
----	---	----------

JCLWA0484GB

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

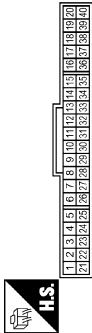
# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## DRIVING LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

Connector No.	M38
Connector Name	WIRE TO WIRE
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	W	-
5	B	-

Connector No.	M54
Connector Name	DRIVING LAMP RELAY-1
Connector Type	MS02FL-M2-LC



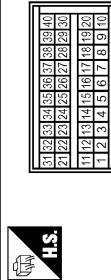
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	Y	-
3	O	-
5	W	-

Connector No.	M55
Connector Name	DRIVING LAMP RELAY-2
Connector Type	M06FBR-R-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	SB	-
3	B	-
5	Y	-
6	W	-
7	P	-

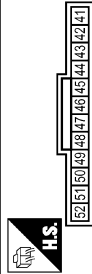
Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB40FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SB	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2(RHD models)
10	O	COMBI SW INPUT 2(LHD models)
10	BR	COMBI SW 5 (RHD models)
21	P	CAN-L
22	L	CAN-H

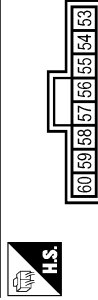
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR



Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

JCLWA0485GB



# DRIVING LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

Driving lamp switch		Condition	Continuity
Terminal			
4	6	ON	Existed
	7		
	6	Neutral	

Does continuity exist?

- YES >> Driving lamp switch is normal.  
NO >> Replace the driving lamp switch.

## Component Inspection (Driving Lamp Relay-1)

INFOID:000000001528001

### 1.CHECK DRIVING LAMP RELAY-1

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

Driving lamp relay-1		Condition	Continuity
Terminal		Voltage	
3	5	Apply	Existed
		Not Apply	Not existed

Does continuity exist?

- YES >> Driving lamp relay-1 is normal.  
NO >> Replace Driving lamp relay-1.

## Component Inspection (Driving Lamp Relay-2)

INFOID:000000001528002

### 1.CHECK DRIVING LAMP RELAY-2

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

Driving lamp relay-2		Condition	Continuity
Terminal		Voltage	
3	5	Apply	Existed
		Not Apply	Not existed
6	7	Apply	Existed
		Not Apply	Not existed

Does continuity exist?

- YES >> Driving lamp relay-2 is normal.  
NO >> Replace driving lamp relay-2.



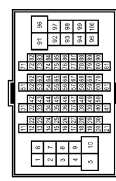

# STOP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## STOP LAMP

Connector No.	B11	Connector No.	B59
Connector Name	WIRE TO WIRE	Connector Name	REAR COMBINATION LAMP RH
Connector Type	TH80MW-CS16-TM4	Connector Type	NS04MW-CS

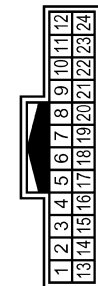




Terminal No.	9	Color of Wire	Y	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

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



Connector No.	B54	Connector No.	B55
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE
Connector Type	TH24MW-NH	Connector Type	TH24FW-NH

Terminal No.	8	Color of Wire	Y	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---



Terminal No.	8	Color of Wire	Y	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

Connector No.	B77	Connector No.	D157
Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS	Connector Type	NS10FW-CS

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

Connector No.	B80	Connector No.	D154
Connector Name	REAR COMBINATION LAMP LH	Connector Name	HIGH-MOUNTED STOP LAMP
Connector Type	NS04MW-CS	Connector Type	TK02FW

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

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

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

JCLWA0470GB



# STOP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

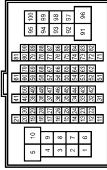
## STOP LAMP

Connector No.	E169
Connector Name	STOP LAMP ON RELAY
Connector Type	M08FGY-R-JS



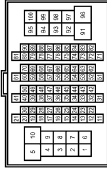
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	GR	-
3	R	-
4	P	-
6	LG	-
7	BR	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
9	R	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	V	-

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



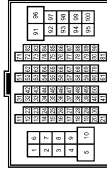
Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	P	-

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



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	-
2	P	-
3	O	-
4	LG	-

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS1F-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
4	V	-

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

EXL

# BACK-UP LAMP

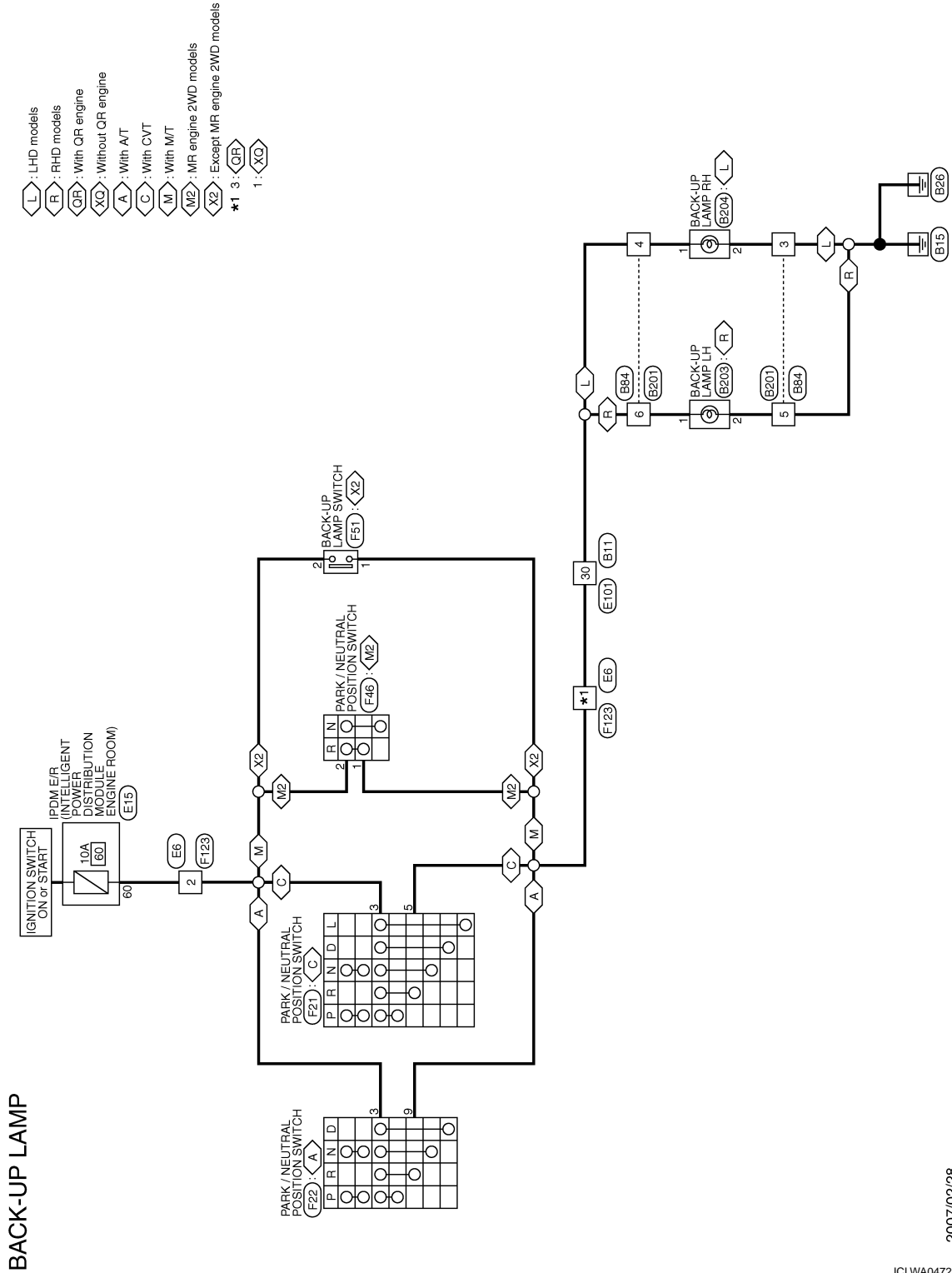
< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## BACK-UP LAMP

### Wiring Diagram - BACK-UP LAMP -

INFOID:000000001528004



2007/02/28

JCLWA0472GB

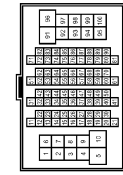
# BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## BACK-UP LAMP

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH80W-CS16-TM4



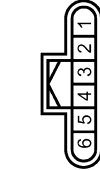
Terminal No.	Color of Wire	Signal Name [Specification]
30	G	-

Connector No.	B84
Connector Name	WIRE TO WIRE
Connector Type	FR106MB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
4	G	-
5	B	-
6	G	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	RH06FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
4	G	-
5	B	-
6	G	-

Connector No.	B203
Connector Name	BACK-UP LAMP LH
Connector Type	RS22FGY



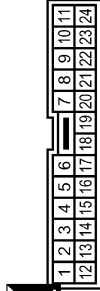
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	B204
Connector Name	BACK-UP LAMP RH
Connector Type	RS22FGY



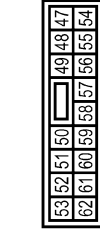
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	B	-

Connector No.	E6
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V



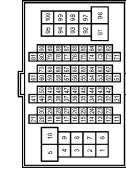
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-
3	G	-

Connector No.	E15
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS18FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
60	SB	-

Connector No.	E101
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
30	G	-

JCLWA0473GB

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

# BACK-UP LAMP

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

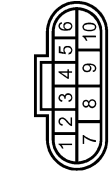
## BACK-UP LAMP

Connector No.	F21
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	RK08FG



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
5	G	R RANGE SWITCH

Connector No.	F22
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	YAZAKI 7283-8700-30



Terminal No.	Color of Wire	Signal Name [Specification]
3	SB	VIGN
9	G	R RANGE SWITCH

Connector No.	F46
Connector Name	PARK / NEUTRAL POSITION SWITCH
Connector Type	FEAD3FG



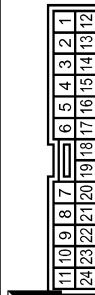
Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-

Connector No.	F51
Connector Name	BACK-UP LAMP SWITCH
Connector Type	RK02FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	SB	-

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	- [Without QR engine]
2	SB	-
3	G	- [With QR engine]

JCLWA0474GB

# REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

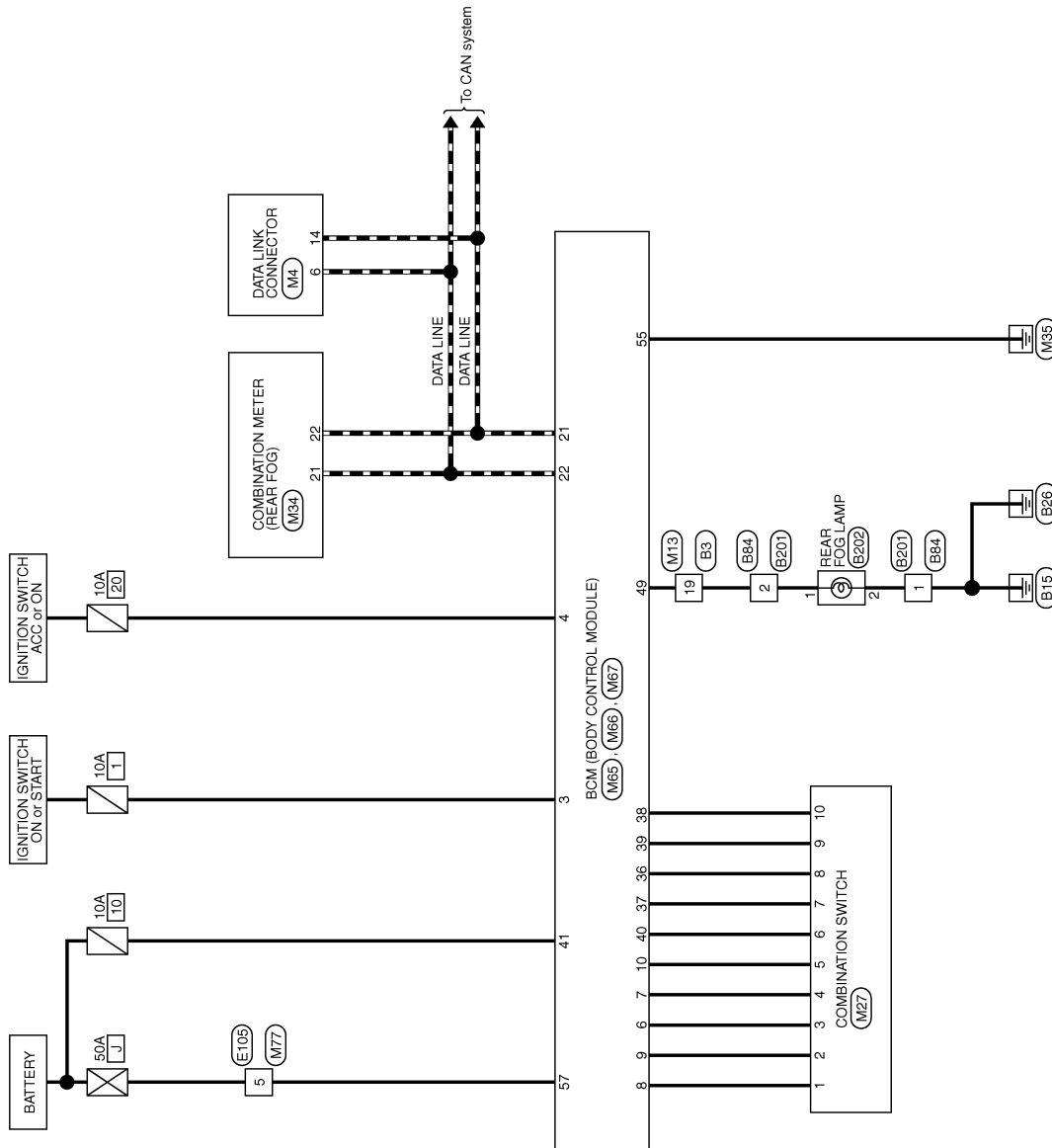
[HALOGEN TYPE]

## REAR FOG LAMP SYSTEM

### Wiring Diagram - REAR FOG LAMP -

INFOID:000000001528005

#### REAR FOG LAMP



2007/02/28

JCLWA0462GB

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

# REAR FOG LAMP SYSTEM

< COMPONENT DIAGNOSIS >

[HALOGEN TYPE]

## REAR FOG LAMP

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH32MW-NH



Terminal No.	19	Color of Wire	O	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	B4
Connector Name	WIRE TO WIRE
Connector Type	FR06MB



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

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	RH06FB



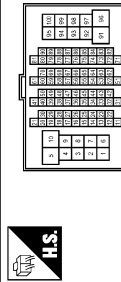
Terminal No.	1	Color of Wire	B	Signal Name [Specification]	-
2	O	-	-	-	-

Connector No.	B202
Connector Name	REAR FOG LAMP
Connector Type	RSC2F3Y



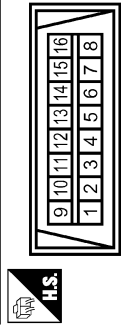
Terminal No.	1	Color of Wire	O	Signal Name [Specification]	-
2	B	-	-	-	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	THB0FW-CS16-TM4



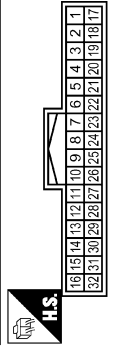
Terminal No.	5	Color of Wire	Y	Signal Name [Specification]	-
--------------	---	---------------	---	-----------------------------	---

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



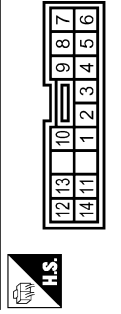
Terminal No.	6	Color of Wire	L	Signal Name [Specification]	-
14	P	-	-	-	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH32FW-NH



Terminal No.	19	Color of Wire	Y	Signal Name [Specification]	-
--------------	----	---------------	---	-----------------------------	---

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	1	Color of Wire	V	Signal Name [Specification]	INPUT 1
2	LG	-	-	-	INPUT 2[RHD models]
3	B	-	-	-	INPUT 2[LHD models]
4	GR	-	-	-	INPUT 3
5	O	-	-	-	INPUT 4
6	P	-	-	-	INPUT 5[RHD models]
7	R	-	-	-	INPUT 5[LHD models]
8	G	-	-	-	OUTPUT 1
9	Y	-	-	-	OUTPUT 2
10	W	-	-	-	OUTPUT 3

JCLWA0463GB

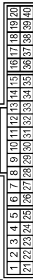
# REAR FOG LAMP SYSTEM

[HALOGEN TYPE]

## < COMPONENT DIAGNOSIS >

### REAR FOG LAMP

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4FW



Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L

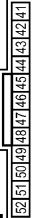
Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAAB4FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	W	IGN SW
4	SE	ACC SW
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2 (RHD models)
9	B	COMBI SW INPUT 2 (LHD models)
10	O	COMBI SW 5 (RHD models)
10	BR	COMBI SW 5 (LHD models)
21	P	CAN-L
22	L	CAN-H

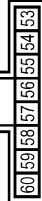
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3
39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEAL2FBR



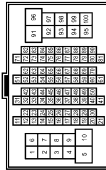
Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(FUSE)
49	Y	REAR FOG LAMP

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA3FB



Terminal No.	Color of Wire	Signal Name [Specification]
55	B	GND
57	Y	BAT(F/L)

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH80MM-CS1B-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
5	Y	-

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

JCLWA0464GB

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

## ECU DIAGNOSIS

### BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001528006

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
VEHICLE SPEED	While driving	Equivalent to speedometer reading
IGN ON SW	Ignition switch OFF or ACC	Off
	Ignition switch ON	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
	Mechanical key is inserted to key cylinder	On
CDL LOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the lock side	On
CDL UNLOCK SW	Door lock/unlock switch does not operate	Off
	Press door lock/unlock switch to the unlock side	On
DOOR SW-DR	Driver's door closed	Off
	Driver's door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On
DOOR SW-RR	Rear RH door closed	Off
	Rear RH door opened	On
DOOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
BACK DOOR SW	Back door closed	Off
	Back door opened	On
I-KEY LOCK	"LOCK" button of Intelligent Key or door request switch are not pressed	Off
	"LOCK" button of Intelligent Key or door request switch are pressed	On
I-KEY UNLOCK	"UNLOCK" button of Intelligent Key or door request switch are not pressed	Off
	"UNLOCK" button of Intelligent Key or door request switch are pressed	On
PUSH SW	Return to ignition switch to "LOCK" position	Off
	Press ignition switch	On
KEYLESS LOCK	"LOCK" button of key fob is not pressed	Off
	"LOCK" button of key fob is pressed	On
KEYLESS UNLOCK	"UNLOCK" button of key fob is not pressed	Off
	"UNLOCK" button of key fob is pressed	On
SHOCK SENSOR	Ignition switch ON	NOMAL
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	Off
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	On
UNLOCK SHOCK	Other than the following	Off
	During the unlock operation interlocked with air bag	On



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status	
UNLOCK WITH DR	<b>NOTE:</b> The item is indicated, but not monitored	On	A
		Off	
LOCK WITH SPEED	Vehicle speed sensing auto door lock function does not operate	Off	B
	Vehicle speed sensing auto door lock function is operating	On	
ACC ON SW	Ignition switch OFF	Off	C
	Ignition switch ACC or ON	On	
REAR DEF SW	Rear window defogger switch OFF	Off	D
	Rear window defogger switch ON	On	
TAIL LAMP SW	Lighting switch OFF	Off	E
	Lighting switch 1ST	On	
TURN SIGNAL R	Turn signal switch OFF	Off	F
	Turn signal switch RH	On	
TURN SIGNAL L	Turn signal switch OFF	Off	G
	Turn signal switch LH	On	
HI BEAM SW	Lighting switch OFF	Off	H
	Lighting switch HI	On	
HEAD LAMP SW 1	Lighting switch OFF	Off	I
	Lighting switch 2ND	On	
HEAD LAMP SW 2	Lighting switch OFF	Off	J
	Lighting switch 2ND	On	
PASSING SW	Other than lighting switch PASS	Off	K
	Lighting switch PASS	On	
AUTO LIGHT SW	Lighting switch OFF	Off	EXL
	Lighting switch AUTO	On	
FR FOG SW	Front fog lamp switch OFF	Off	M
	Front fog lamp switch ON	On	
RR FOG SW	Rear fog lamp switch OFF	Off	N
	Rear fog lamp switch ON	On	
ENGINE RUN	Engine stopped	Off	O
	Engine running	On	
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK	P
	Light & rain sensor is with error	NOTOK	
AUT LIGHT SYS	Outside of the room is dark	On	
	Outside of the room is bright	Off	
HD LIGHT TIME	—	Displays a setting time of the follow me home function set by the work support	
IGN SW CAN	Ignition switch OFF or ACC	Off	
	Ignition switch ON	On	
FR WIPER HI	Front wiper switch OFF	Off	
	Front wiper switch HI	On	
FR WIPER LOW	Front wiper switch OFF	Off	
	Front wiper switch LO	On	
FR WIPER INT	Front wiper switch OFF	Off	
	Front wiper switch INT	On	

## BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

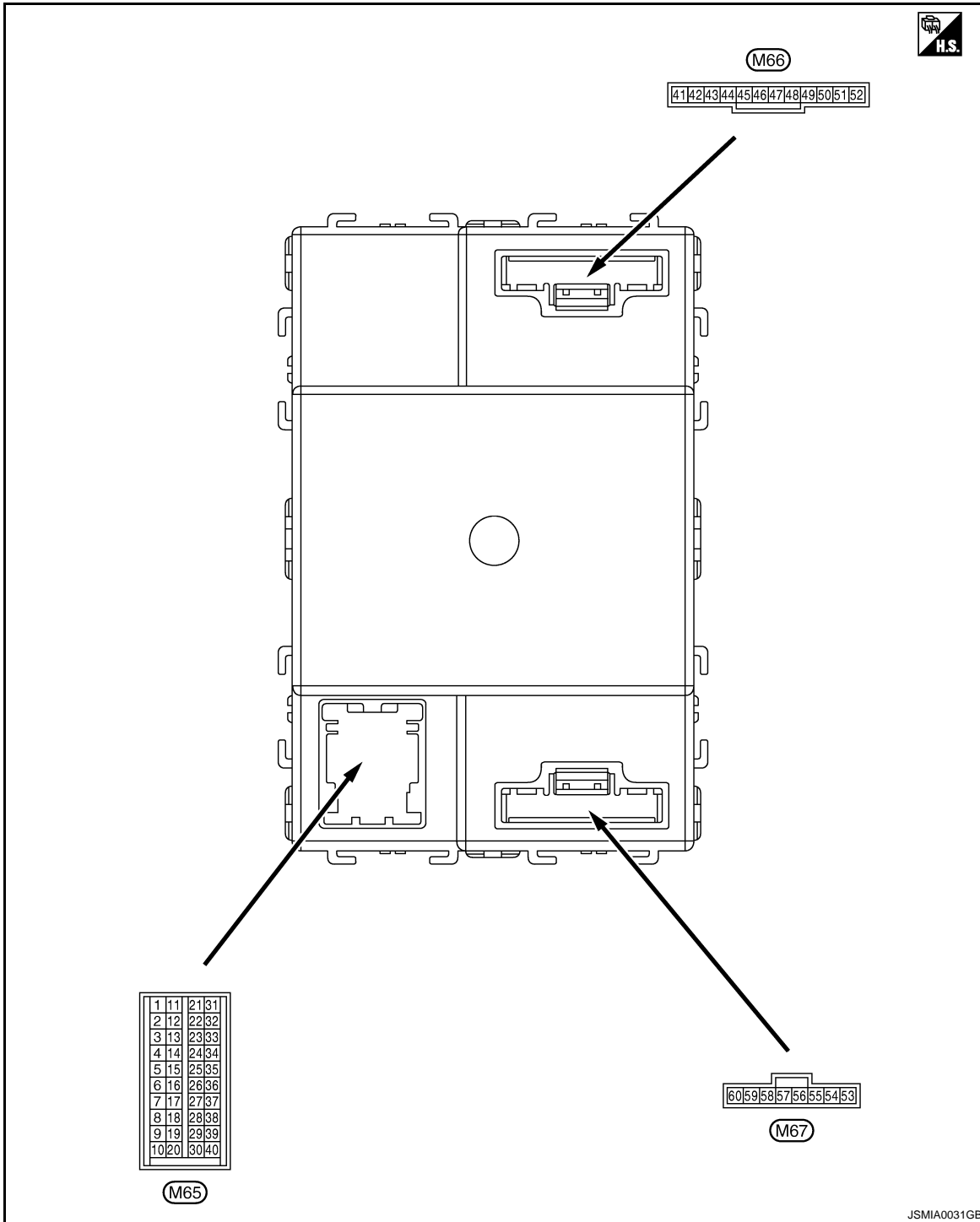
Monitor Item	Condition	Value/Status
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
FR WIPER STOP	Any position other than front wiper stop position	Off
	Front wiper stop position	On
RR WIPER ON	Rear wiper switch OFF	Off
	Rear wiper switch ON	On
RR WIPER INT	Rear wiper switch OFF	Off
	Rear wiper switch INT	On
RR WIPER STOP	Rear wiper stop position	Off
	Other than rear wiper stop position	On
RR WASHER SW	Rear washer switch OFF	Off
	Rear washer switch ON	On
REVERSE SW CAN	<b>NOTE:</b> The item is indicated, but not monitored	Off
		On
H/L WASH SW	When headlamp washer switch is not pressed	Off
	When headlamp washer switch is pressed	On
FAN ON SIG	Blower fan motor switch OFF	Off
	Blower fan motor switch ON (other than OFF)	On
AIR COND SW	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	Off
	Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	On
HAZARD SW	Hazard switch OFF	Off
	Hazard switch ON	On
BRAKE SW	Brake pedal is not depressed	Off
	Brake pedal is depressed	On
TRNK OPNR SW	When back door opener switch is not pressed	Off
	When back door opener switch is pressed	On
HOOD SW	Close the hood <b>NOTE:</b> Vehicles without theft warning system are OFF-fixed	Off
	Open the hood	On
AUTO RELOCK	Auto lock function does not operate	Off
	Auto lock function is operating	On
GLS BREAK SEN	The vehicle without glass break sensor	Off
	The vehicle with glass break sensor	On
OIL PRESS SW	<ul style="list-style-type: none"> <li>• Ignition switch OFF or ACC</li> <li>• Engine running</li> </ul>	Off
	Ignition switch ON	On

# BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

## TERMINAL LAYOUT



A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

EXL

M  
N

O  
P

### PHYSICAL VALUES

**CAUTION:**

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT-III. Refer to [BCS-28, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-9, "System Description"](#).

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

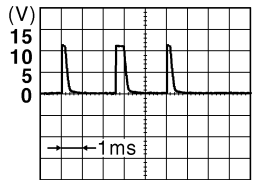
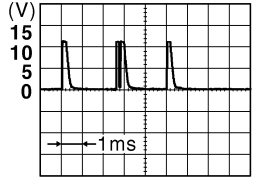
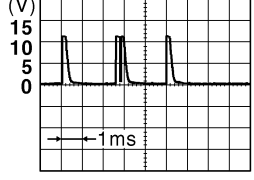
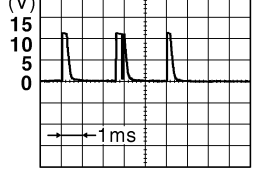
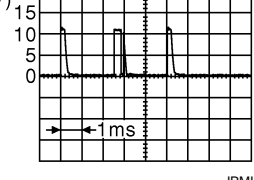
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
		Signal name	Input/ Output		
+	-				
1 (W)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
2 (G)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder	Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
3 (W)	Ground	Ignition power supply	Input	Ignition switch OFF or ACC	0 V
				Ignition switch ON or START	Battery voltage
4 (SB)	Ground	ACC power supply	Input	Ignition switch OFF	0 V
				Ignition switch ON or ACC	Battery voltage
5 (LG) <sup>*1</sup> (R) <sup>*2</sup>	Ground	Key switch	Input	Insert mechanical key into ignition key cylinder	Battery voltage
				Remove mechanical key from ignition key cylinder	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

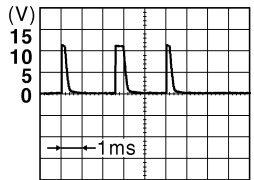
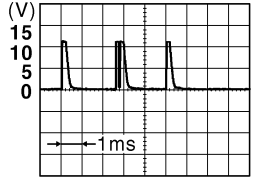
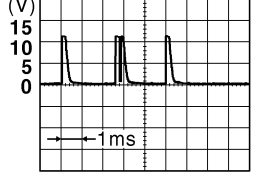
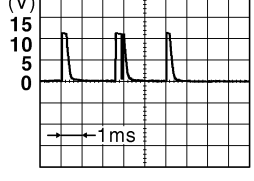
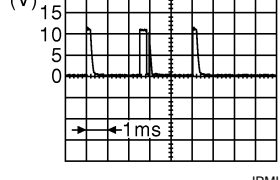
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
6 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.4 V</p>
					Lighting switch HI (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Lighting switch 2ND (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Rear washer switch ON	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Any of the condition below with all switch 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> </ul>  <p style="text-align: right; margin-right: 50px;">1.3 V</p>

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

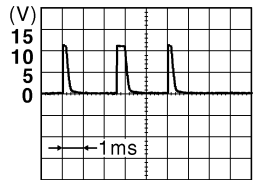
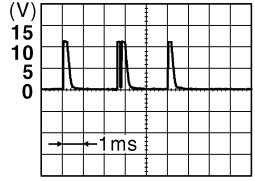
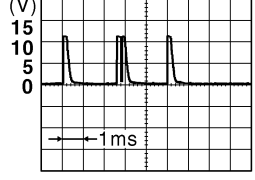
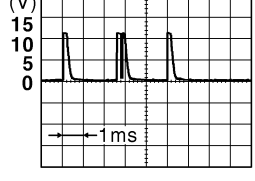
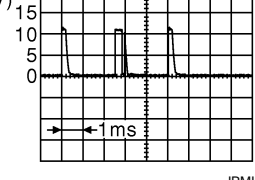
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
7 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.4 V</p>
					Lighting switch 1ST (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Lighting switch AUTO (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 6	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>
					Rear wiper INT (Wiper intermittent dial 4)	 <p style="text-align: right; margin-right: 50px;">1.3 V</p>

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

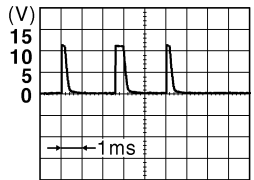
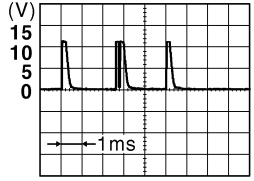
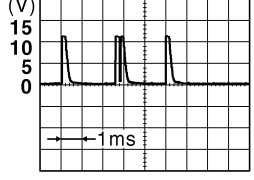
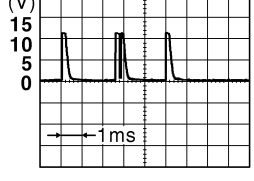
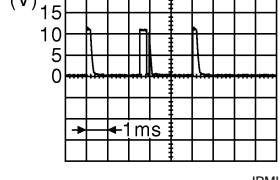
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
8 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.4 V</p>
					Turn signal switch RH	 <p style="text-align: right; font-size: small;">JPMIA0166GB</p> <p style="text-align: center;">1.3 V</p>
					Turn signal switch LH	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Front wiper switch LO	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Front washer switch ON	 <p style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

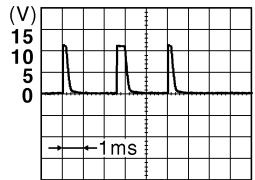
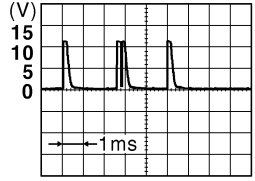
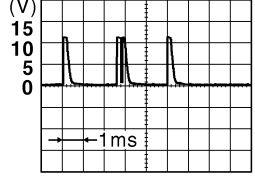
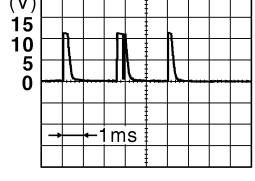
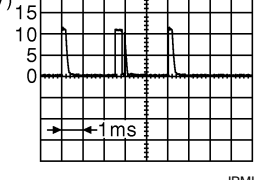
Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
9 (G) <sup>*3</sup> (B) <sup>*4</sup>	Ground	Combination switch INPUT 2	Input	All switch OFF	 <p style="text-align: right; margin-right: 50px;">JPMIA0165GB</p> <p style="text-align: right;">1.4 V</p>
				Lighting switch 2ND	 <p style="text-align: right; margin-right: 50px;">JPMIA0166GB</p> <p style="text-align: right;">1.3 V</p>
				Lighting switch PASS	 <p style="text-align: right; margin-right: 50px;">JPMIA0167GB</p> <p style="text-align: right;">1.3 V</p>
				Front wiper switch INT	 <p style="text-align: right; margin-right: 50px;">JPMIA0168GB</p> <p style="text-align: right;">1.3 V</p>
				Front wiper switch HI	 <p style="text-align: right; margin-right: 50px;">JPMIA0196GB</p> <p style="text-align: right;">1.3 V</p>



# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

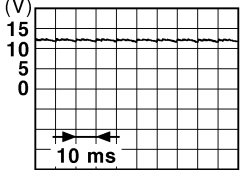
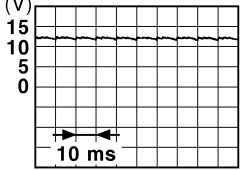
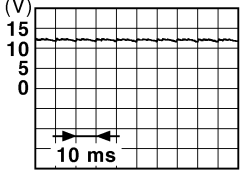
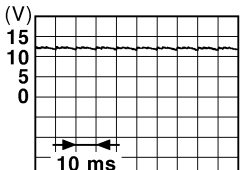
Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
10 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0165GB</p> <p style="text-align: center;">1.3 V</p>
					Front fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0167GB</p> <p style="text-align: center;">1.3 V</p>
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0168GB</p> <p style="text-align: center;">1.3 V</p>
					Rear wiper switch ON (Wiper intermittent dial 4)	 <p style="text-align: right; font-size: small;">JPMIA0169GB</p> <p style="text-align: center;">1.3 V</p>
					Any of the condition below with all switch 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 style="text-align: right; font-size: small;">JPMIA0196GB</p> <p style="text-align: center;">1.3 V</p>
11 (B)	Ground	Audio link	Input/ Output	—	—	

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

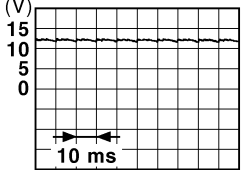
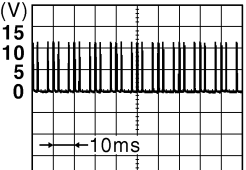
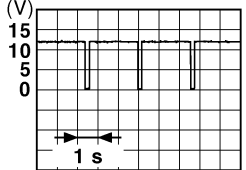
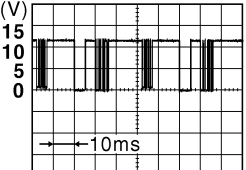
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
12 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 11.2 V
				Rear door switch RH	ON (When rear door RH opened)	0 V
13 (V)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	 11.2 V
				Back door switch	ON (When back door opened)	0 V
14 (P) <sup>*3</sup> (BR) <sup>*4</sup>	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 11.2 V
				Passenger door switch	ON (When passenger door opened)	0 V
15 (BR) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 11.2 V
				Driver door switch	ON (When driver door opened)	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
16 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 11.2 V
					ON (When rear door LH opened)	0 V
17 (L)	Ground	Door lock status indicator	Output	Door lock status indicator	ON	12 V
					OFF	0 V
20 (SB)	Ground	Rear window defogger switch	Input	Rear window defogger switch	Not pressed	 1.1 V
					While pressing	0 V
21 (P)	—	CAN-L	Input/ Output	—	—	
22 (L)	—	CAN-H	Input/ Output	—	—	
23 (V)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 10.3 V
					OFF	12 V
24 (GR)	Ground	Light & rain sensor serial link	Input/ Output	Ignition switch OFF or ACC	—	12 V
				Ignition switch ON	 8.7 V	
25 (G)	Ground	Alarm link	Output	—	—	

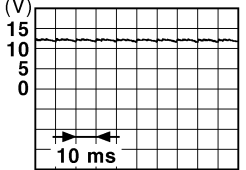
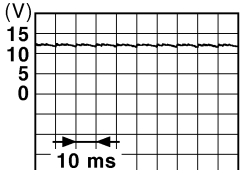
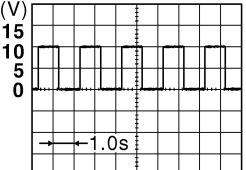
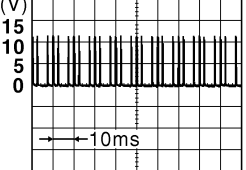
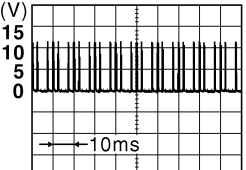
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

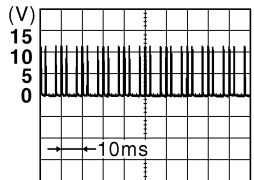
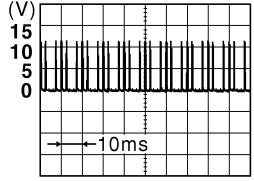
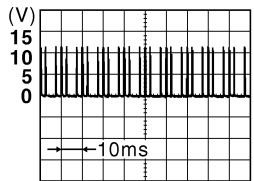
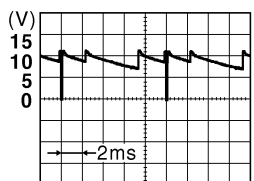
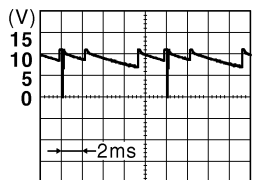
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
26 (GR) <sup>*5</sup> (LG) <sup>*6</sup>	Ground	Blower fan motor switch	Input	Blower fan motor switch	OFF	 <small>PKID0924E</small> 11.2 V
					ON (other than OFF)	0 V
27 (P) <sup>*5</sup> (Y) <sup>*6</sup>	Ground	A/C switch	Input	Ignition switch ON	Compressor ON is not requested from auto amp. (A/C indicator OFF, blower fan motor switch OFF or etc.)	 <small>PKID0924E</small> 11.2 V
					Compressor ON is requested from auto amp. (A/C indicator ON and blower fan motor switch ON).	0 V
28 (LG) <sup>*7</sup> (R) <sup>*8</sup>	Ground	Shock detect sensor	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	 <small>JPMIA0155GB</small> 6.0 V	
29 (LG) <sup>*3</sup> (O) <sup>*4</sup>	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	 <small>JPMIA0154GB</small> 1.2 V
					Pressed	0 V
32 (BR)	Ground	Door lock/unlock switch (Unlock)	Input	Door lock/unlock switch	Not pressed	 <small>JPMIA0154GB</small> 1.2 V
					Pressed to the unlock side	0 V

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
33 (W) <sup>*9</sup> (Y) <sup>*10</sup>	Ground	Hazard switch	Input	Hazard switch	OFF	 <p style="text-align: center;">1.3 V</p>
					ON	0 V
34 (SB) <sup>*3</sup> (P) <sup>*4</sup>	Ground	Door lock/unlock switch (Lock)	Input	Door lock/un- lock switch	Not pressed	 <p style="text-align: center;">1.2 V</p>
					Pressed to the lock side	0 V
35 (G)	Ground	Headlamp washer switch	Input	Headlamp washer switch	Not pressed	 <p style="text-align: center;">1.2 V</p>
					Pressed to the lock side	0 V
36 (G)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch RH	 <p style="text-align: center;">9.1 V</p>
					Lighting switch 2ND	
					Lighting switch HI	
Lighting switch 1ST	0 V					
37 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 <p style="text-align: center;">9.1 V</p>
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	
Rear wiper switch ON (Wiper intermittent dial 4)	0 V					

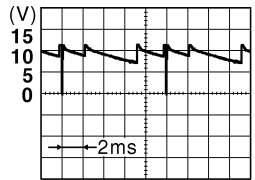
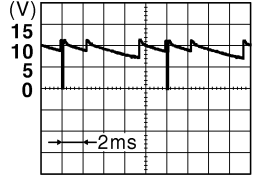
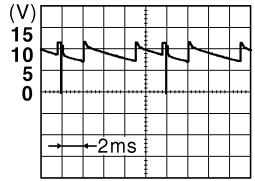
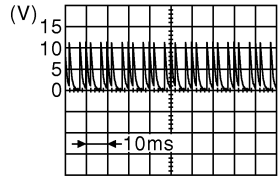
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

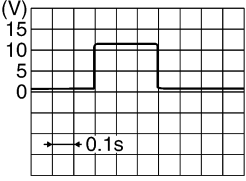
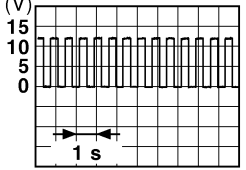
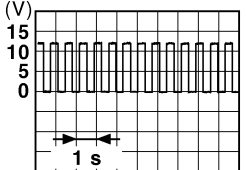
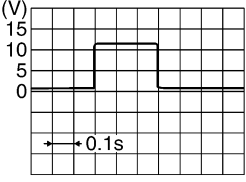
[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
38 (W)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front wiper switch LO	
					Front wiper switch MIST	
					Front wiper switch INT	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
39 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Turn signal switch LH	
					Lighting switch PASS	
					Lighting switch 2ND	
					Front fog lamp switch ON	
40 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	
Rear wiper switch INT (Wiper intermittent dial 4)	9.1 V					
41 (LG)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage	
42 (V)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver activation	0 V	
				Interior room lamp battery saver no activation	12 V	
43 (SB)	Ground	Rear wiper motor	Output	Rear wiper switch OFF	0 V	
				Rear wiper switch ON	12 V	
44 (B)	Ground	Rear wiper auto stop	Input	Ignition switch ON	Rear wiper stop position	
					Any position other than rear wiper stop position	

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
+	-	Signal name	Input/ Output			
45 (V)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	
				Not pressed	0 V	
47 (BR)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch LH		
48 (GR)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
				Turn signal switch RH		
49 (Y)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
50 (G)	Ground	Unlock sensor	Input	Driver's door	Unlock	5 V
					lock	0 V
51 (R)	Ground	Stop lamp switch	Input	Depress the brake pedal		Battery voltage
				Release the brake pedal		0 V
52 (R)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	12 V
					ON	0 V
53 (L)	Ground	Power window power supply (IGN)	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
54 (O)	Ground	Door unlock (All other than driver's door)	Output	Door lock/unlock switch	Pressed to the unlock side	
				Not pressed	0 V	
55 (B)	Ground	Ground	—	Ignition switch ON		0 V

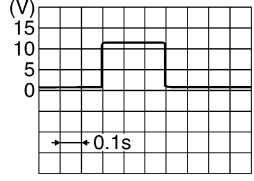
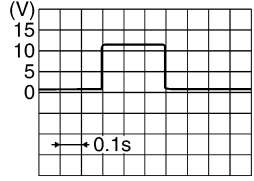
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
M  
N  
O  
P

EXL

# BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
56 (V)	Ground	Door lock (All) and fuel lid lock	Output	Door lock/un- lock switch	Not pressed	0 V
					Pressed to the lock side	
57 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
58 (P)	Ground	Power window pow- er supply (BAT)	Output	Ignition switch OFF		12 V
59 (R)	Ground	Super lock	Output	When lock button of key fob or Intelligent Key is not pressed		0 V
				When lock button of key fob or Intelligent Key is pressed		12 V
60 (G)	Ground	Driver's door unlock and fuel lid unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	
					Not pressed	0 V

- \*1: With Intelligent Key
- \*2: Without Intelligent Key
- \*3: RHD models
- \*4: LHD models
- \*5: With gasoline engine
- \*6: With diesel engine
- \*7: RHD models with side air bag
- \*8: LHD models with side air bag
- \*9: With xenon headlamp and daytime light system
- \*10: Except with xenon headlamp and daytime light system



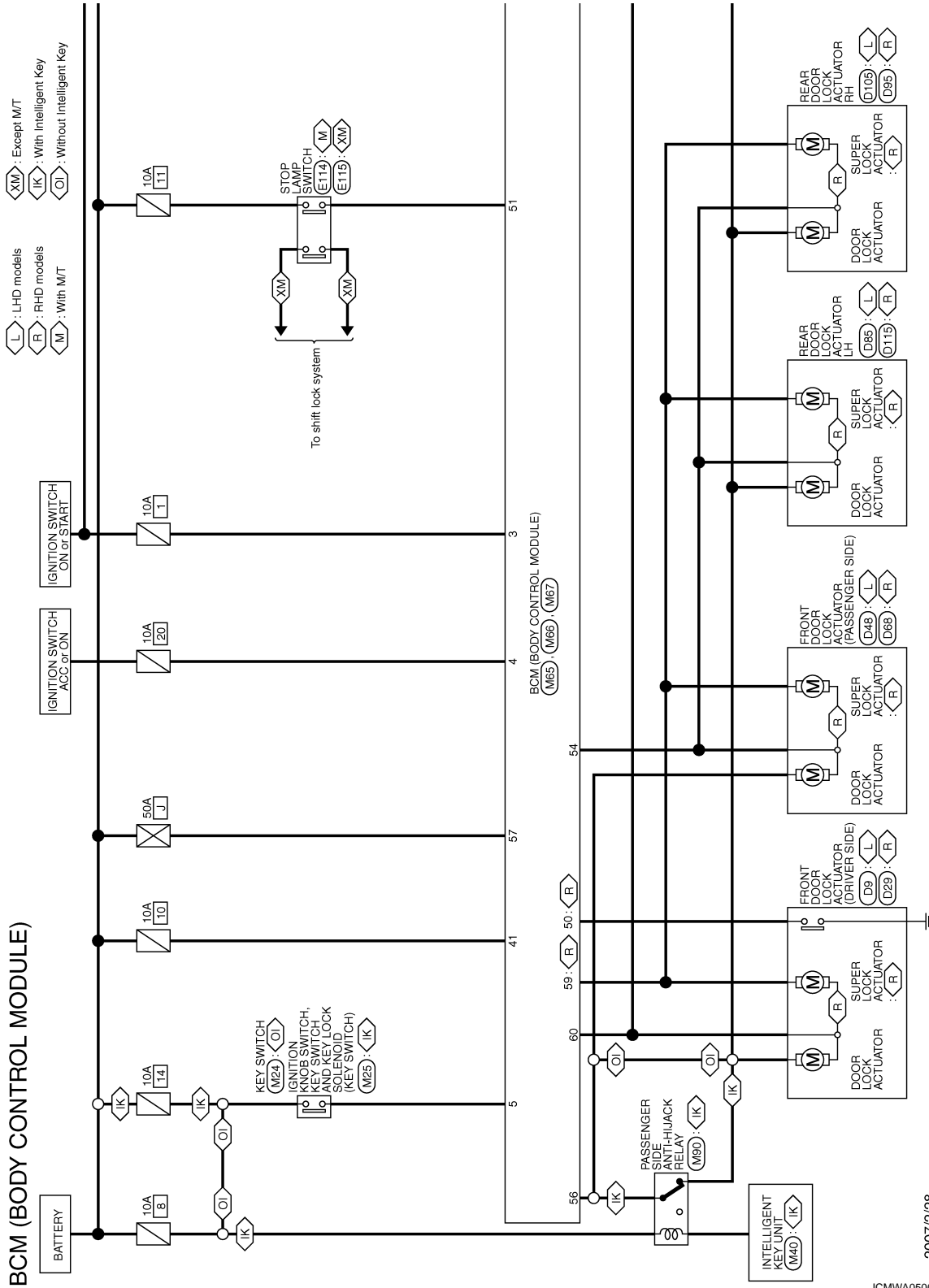
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

## Wiring Diagram - BCM -

INFOID:000000001528007



2007/2/28

JCMWA0500GE

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

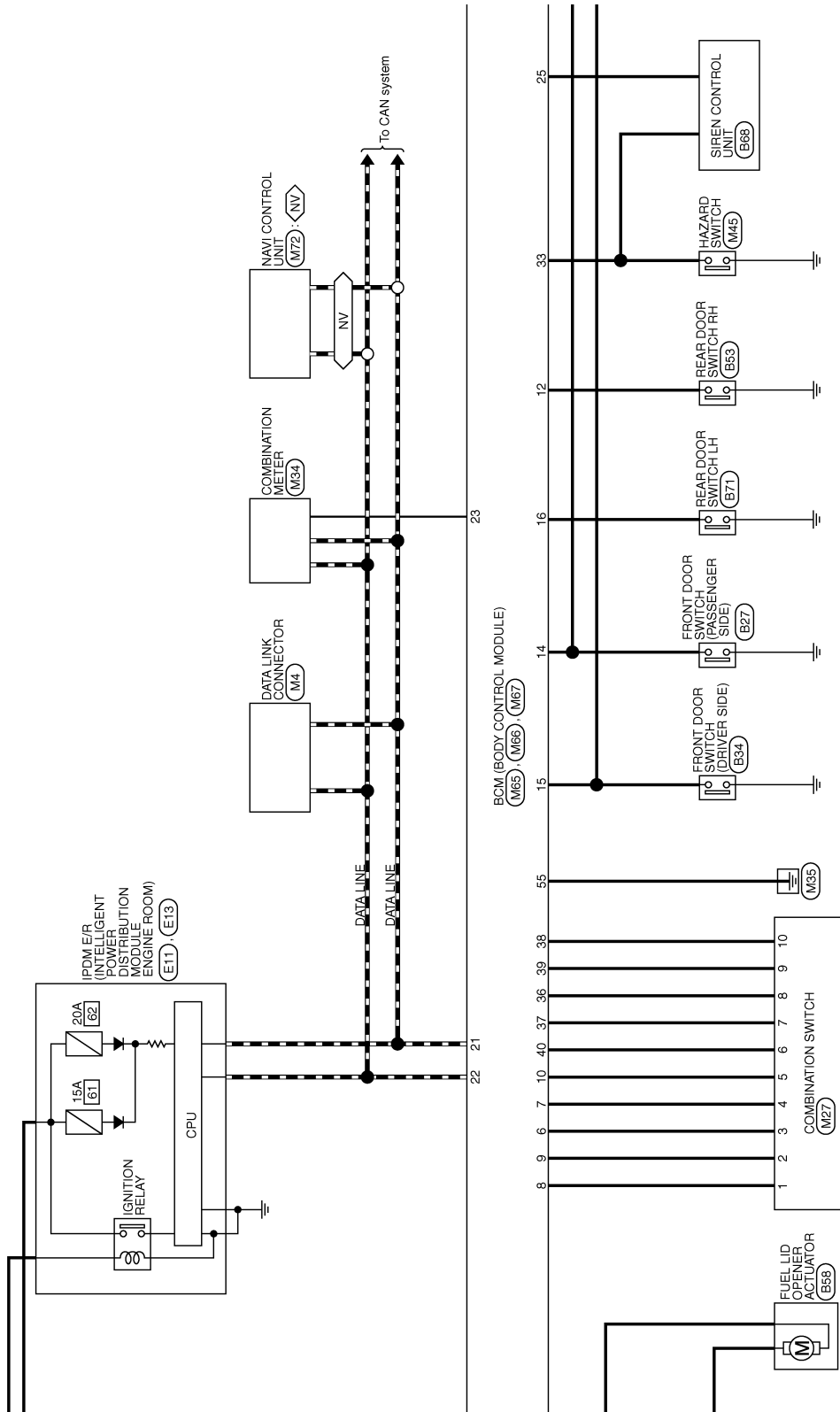
EXL

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

 With navigation system



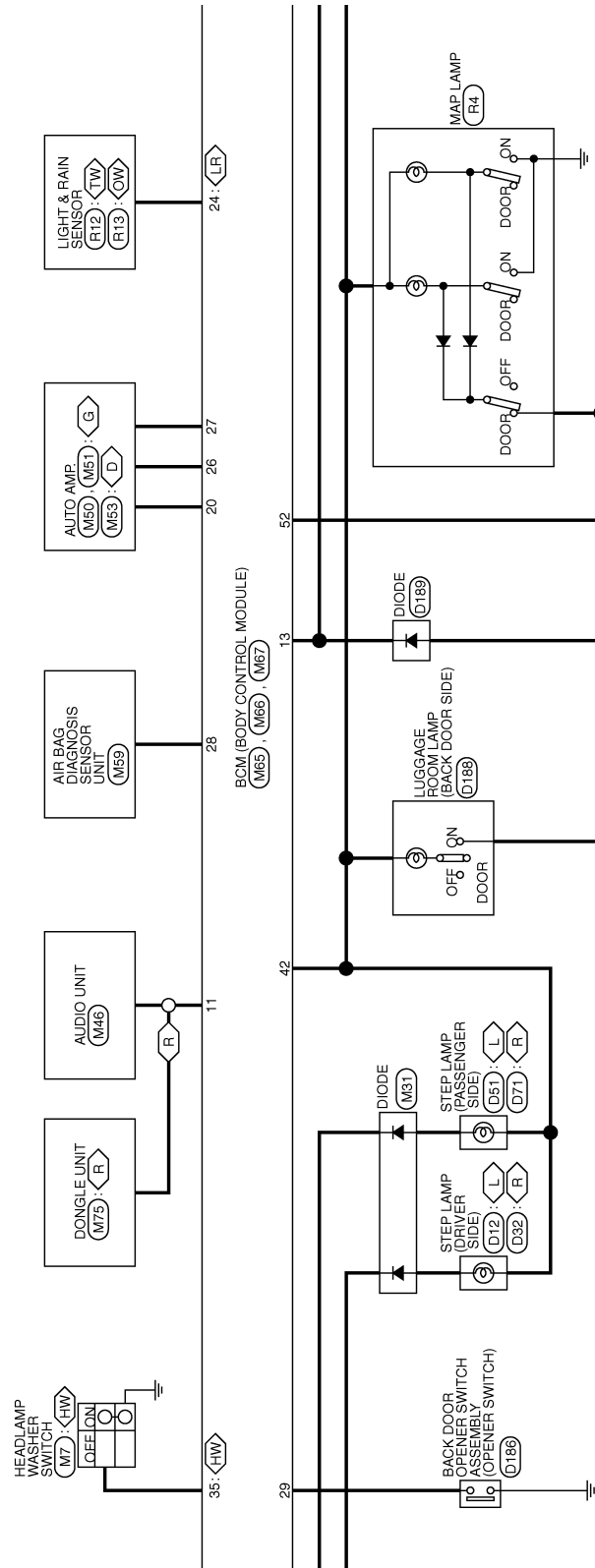
JCMWA0501GE

# BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

- L : LHD models
- R : RHD models
- G : With gasoline engine
- D : With diesel engine
- HW : With headlamp washer
- LR : With light & rain sensor
- TW : With theft warning system
- OW : Without theft warning system



JCMWA0502GE

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

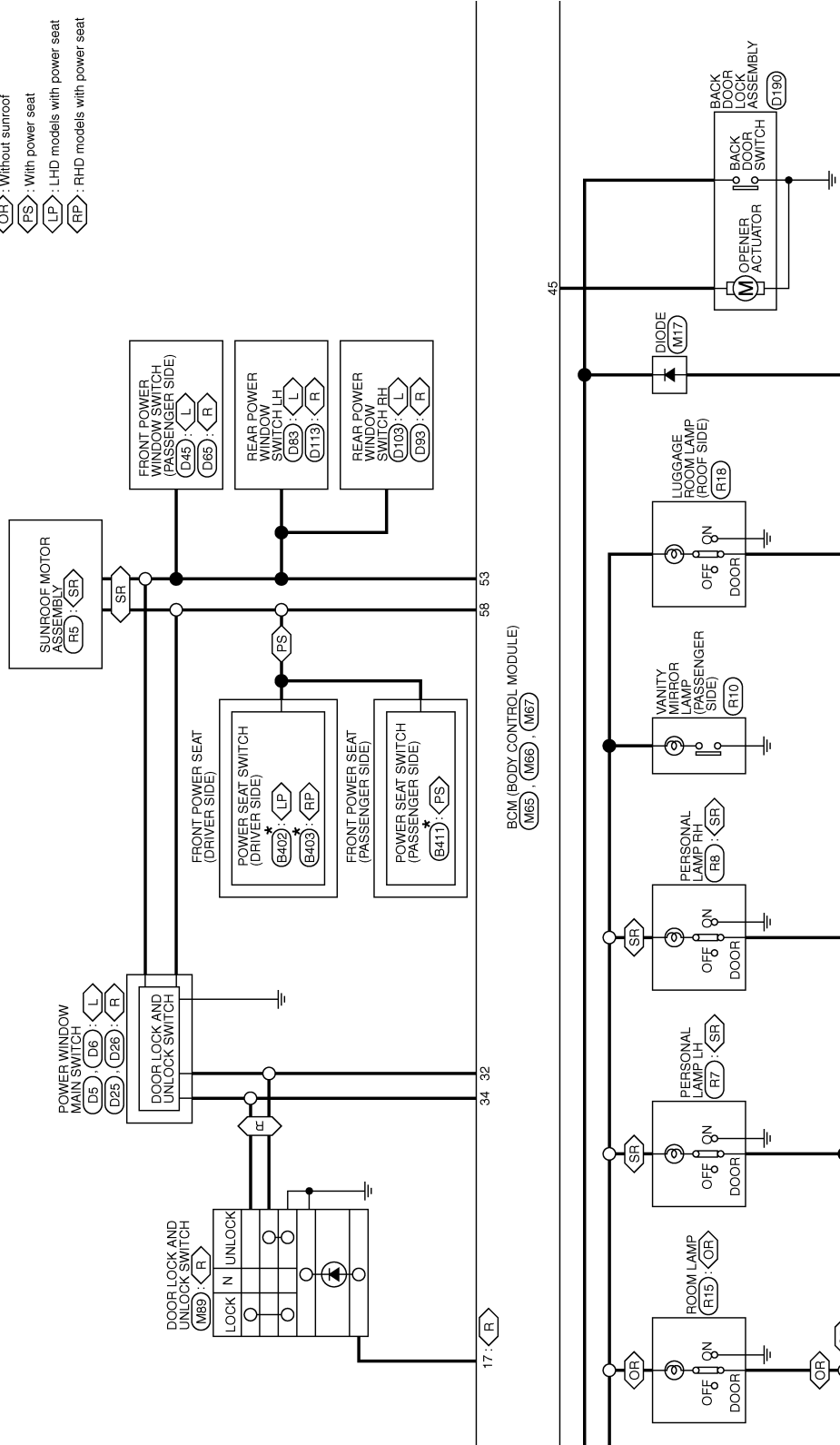
# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

- ◊ L ◊ : LHD models
- ◊ R ◊ : RHD models
- ◊ SR ◊ : With sunroof
- ◊ OR ◊ : Without sunroof
- ◊ PS ◊ : With power seat
- ◊ LP ◊ : LHD models with power seat
- ◊ RP ◊ : RHD models with power seat

\*: This connector is not shown in "Harness Layout".

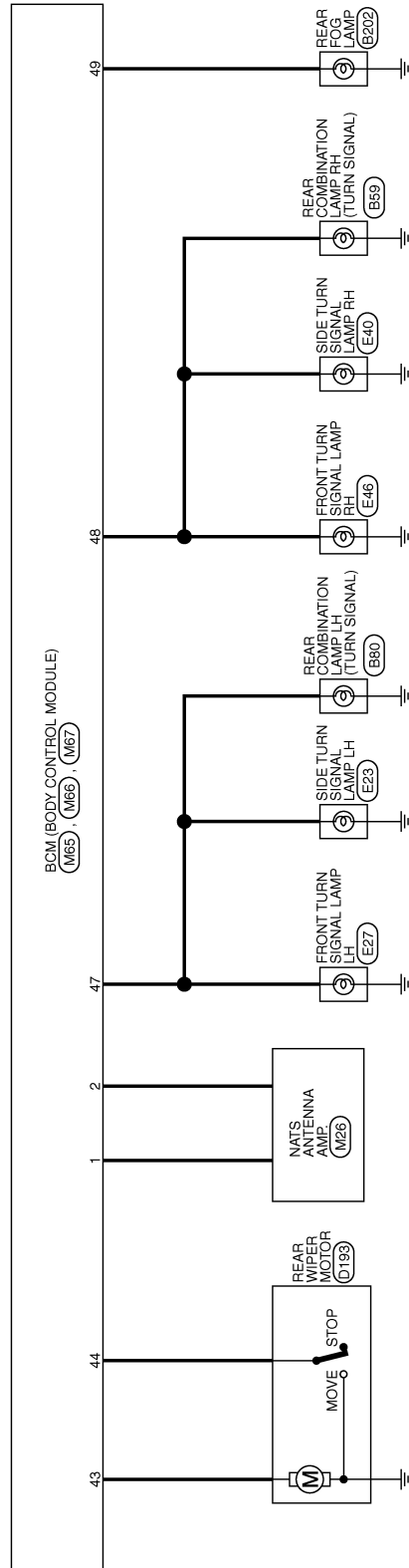


JCMWA0503GE

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]



JCMWA0504GE

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

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

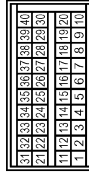
## BCM (BODY CONTROL MODULE)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK18FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT 1
2	LG	INPUT 2[RHD models]
3	L	INPUT 3
4	GR	INPUT 4
5	O	INPUT 5[RHD models]
6	P	OUTPUT 1
7	R	OUTPUT 2
8	G	OUTPUT 5
9	Y	OUTPUT 4

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAS4QFB



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	NATS ANTENNA AMP.
2	G	NATS ANTENNA AMP.
3	W	IGN SW
4	SB	ACC SW
5	LG	KEY SW[With Intelligent Key]
6	L	COMBI SW INPUT 3
7	GR	COMBI SW INPUT 4
8	V	COMBI SW INPUT 1
9	LG	COMBI SW INPUT 2[RHD models]
10	O	COMBI SW 5 [RHD models]

10	W	OUTPUT 3
----	---	----------

39	Y	COMBI SW OUTPUT 4
40	P	COMBI SW OUTPUT 1

11	B	AUDIO DONGLE LINK(SIGNAL)
12	LG	DOGS SW (FR)
13	V	DOOR SW (BACK)[LHD models]
14	P	DOOR SW (FR)[RHD models]
15	BR	DOOR SW (DR)[RHD models]
16	GR	DOOR SW (RL)[LHD models]
17	L	DOOR LOCK INDICATOR
20	SB	RR DEF SW
21	P	CAN-L
22	L	CAN-H
23	V	SECURITY INDICATOR[LHD models]
24	GR	LIGHT & RAIN SEN
25	G	ALARMS LINK
26	GR	BLOWER FAN SW
27	P	AIRCON SW[With gasoline engine]
28	LG	SHOCK DETECT SW[RHD models with air bag]
29	O	BACK DOOR OPEN SW
32	BR	LOCK UNLOCK SW (UNLOCK)
33	W	HAZARD SW[With automatic headlamps and daytime light system]
34	SB	LOCK UNLOCK SW (LOCK)[RHD models]
35	G	HEAD LAMP WASSHER SW
36	G	COMBI SW OUTPUT 5
37	R	COMBI SW OUTPUT 2
38	W	COMBI SW OUTPUT 3

JCMWA0505G1

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

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

Connector No.	M67
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FHA08FB



Terminal No.	Color of Wire	Signal Name [Specification]
53	L	P/W POWER SUPPLY(IGN)
54	O	DOOR UNLOCK OUTPUT (OTHER[LHD models])
55	B	GND
56	V	DOOR LOCK OUTPUT (ALL)
57	Y	BAT(F/L)
58	P	P/W POWER SUPPLY(BAT)
59	R	SUPER LOCK SET OUTPUT
60	G	DOOR UNLOCK/RELEASE OUTPUT(R/LHD models)

52	R	ROOM LAMP CONTROL
----	---	-------------------



## BCM (BODY CONTROL MODULE)

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FEA12FBR

Terminal No.	Color of Wire	Signal Name [Specification]
41	LG	BAT(F/USE)
42	V	ROOM LAMP POWER SUPPLY
43	SB	REAR WIPER MOTOR OUTPUT
44	B	REAR WIPER AUTO STOP
45	V	BACK DOOR OPEN OUTPUT(LHD models)
47	BR	FRASHER OUTPUT (LH)
48	GR	FRASHER OUTPUT (RH)
49	Y	REAR FOG LAMP
50	G	EXTRA INPUT (RHD models with Intelligent Key)
51	R	STOP LAMP SW(LHD models)

## Fail Safe

### FAIL-SAFE CONTROL BY DTC

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

JCMWA0506GE

INFOID:000000001528008

# BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

DTC	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2191: DIFFERENCE OF KEY	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2195: ANTI SCANNING	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC
B2196: DONGLE NG	<ul style="list-style-type: none"> <li>Inhibits engine cranking</li> <li>Inhibits steering lock unlocking (Intelligent Key unit)</li> <li>Fuel cut (ECM)</li> </ul>	Erase DTC

## REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper auto stop signal.

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

Condition of cancellation

1. Turn ignition switch OFF.
2. Pass more than 1 minute after the rear wiper stop.
3. Turn ignition switch ON.
4. Operate the rear wiper switch.

## HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

### NOTE:

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

## FAIL-SAFE CONTROL BY LIGHT & RAIN SENSOR MALFUNCTION

BCM detects the light & rain sensor serial link error and the light & rain sensor malfunction.

BCM controls the following fail-safe when light & rain sensor has a malfunction.

Fail-safe Control

- Auto light control: Headlamp is turned ON.
- Front wiper control: The condition just before the activation of fail-safe is maintained until the front wiper switch is turned OFF.

## DTC Inspection Priority Chart

INFOID:000000001528009

Priority	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>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>B2194: DISCORD BCM-I-KEY</li> <li>B2195: ANTI SCANNING</li> <li>B2196: DONGLE NG</li> </ul>



# BCM (BODY CONTROL MODULE)

[HALOGEN TYPE]

< ECU DIAGNOSIS >

## DTC Index

INFOID:000000001528010

### NOTE:

Details of time display

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

DTC	TIME		Fail-safe	Reference
U1000: CAN COMM CIRCUIT	0	1 - 39	—	<a href="#">BCS-33</a>
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	<a href="#">BCS-34</a>
B2190: NATS ANTENNA AMP	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-41</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-254</a></li> </ul>
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-43</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-256</a></li> </ul>
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-38</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-251</a></li> </ul>
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-40</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-253</a></li> </ul>
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	<a href="#">SEC-53</a>
B2195: ANTI SCANNING	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-54</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-264</a></li> </ul>
B2196: DONGLE NG	CRNT	PAST	×	<ul style="list-style-type: none"> <li>• With Intelligent Key system: <a href="#">SEC-55</a></li> <li>• Without Intelligent Key system: <a href="#">SEC-265</a></li> </ul>

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 >

[HALOGEN TYPE]

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

Reference Value

INFOID:000000001528011

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
MOTOR FAN REQ	Engine idle speed	Changes depending on engine coolant temperature, air conditioner operation status, vehicle speed, etc.	1 - 4
AC COMP REQ	Engine running	A/C switch OFF	Off
		A/C switch ON (Compressor is operating)	On
TAIL&CLR REQ	Lighting switch OFF		Off
	Lighting switch 1ST, 2ND or AUTO (Light is illuminated)		On
HL LO REQ	Lighting switch OFF		Off
	Lighting switch 2ND or AUTO (Light is illuminated)		On
HL HI REQ	Lighting switch OFF		Off
	Lighting switch HI (Light is illuminated)		On
FR FOG REQ	Lighting switch 2ND or AUTO (Light is illuminated)	Front fog lamp switch OFF	Off
		Front fog lamp switch ON	On
HL WASHER REQ <b>NOTE:</b> This item is monitored only on the vehicle with headlamp washer.	Ignition switch ON, and low beam headlamp is ON	Front washer switch OFF	Off
		Front washer switch ON (When headlamp washer is operating)	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
ST RLY REQ <b>NOTE:</b> Vehicle without Intelligent Key system indicates only "ON", and it does not change.	When Intelligent Key is outside the vehicle, and the push switch is pushed		Off
	When Intelligent Key is inside the vehicle, and the push switch is pushed		On
IGN RLY	Ignition switch OFF or ACC		Off
	Ignition switch ON		On
RR DEF REQ	Ignition switch ON	Rear window defogger switch OFF	Off
		Rear window defogger switch ON (Rear window defogger is operating)	On
OIL P SW	Ignition switch OFF, ACC or engine running		Open
	Ignition switch ON		Close

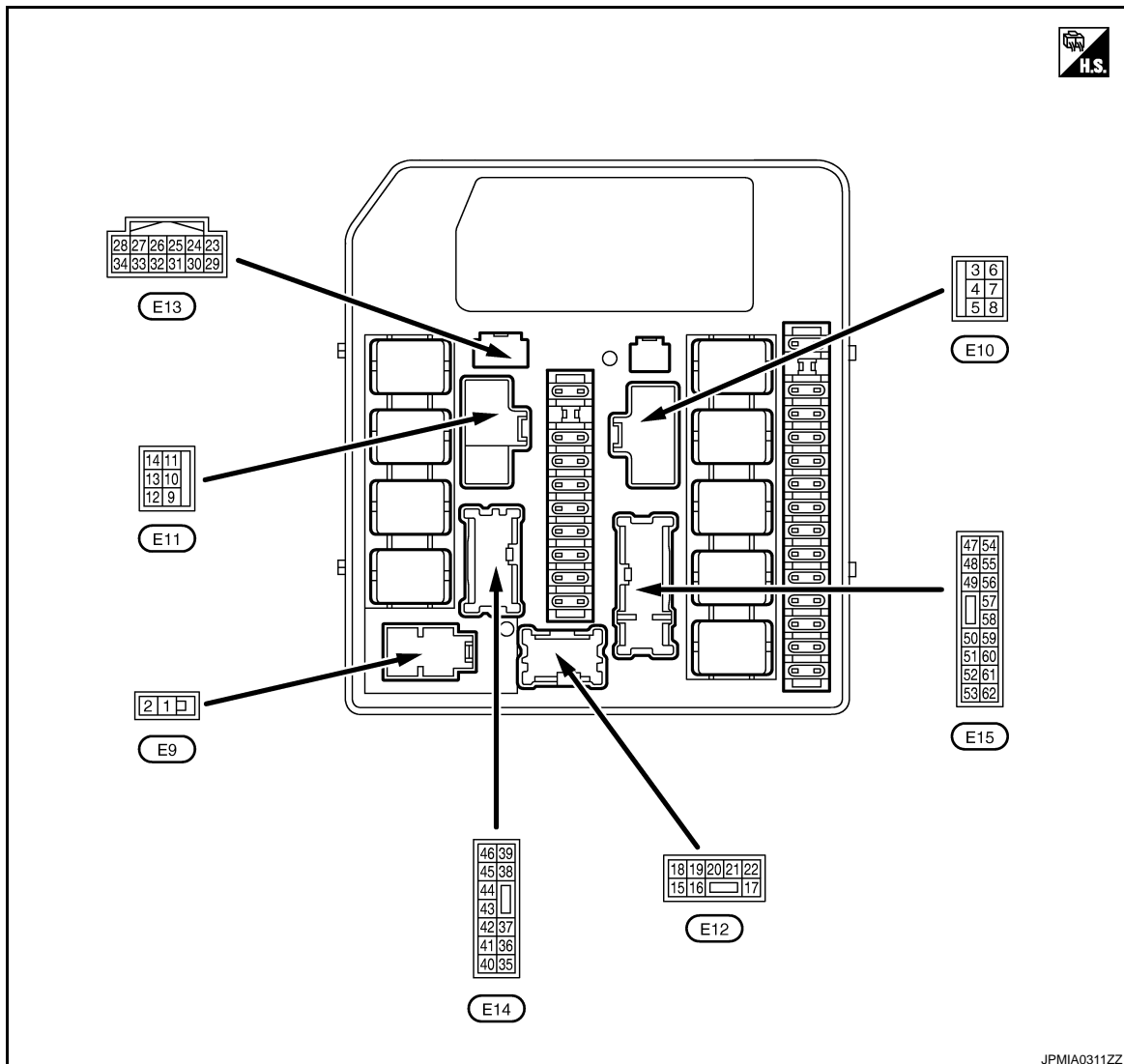
# IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Monitor Item	Condition	Value/Status
REV SW	<b>NOTE:</b> This item is indicated, but not monitored.	Off
DTRL REQ <b>NOTE:</b> This item is monitored only on the vehicle with the daytime running light system.	Daytime running light system is not operated with lighting switch OFF.	Off
	Any of the condition below • Daytime running light system is operated. • Lighting switch 1ST, 2ND or AUTO (Light is illuminated)	On
HOOD SW <b>NOTE:</b> This item is monitored only on the vehicle with the vehicle security system.	Close the hood	Off
	Open the hood	On
THFT HRN REQ <b>NOTE:</b> This item is monitored only on the vehicle with the vehicle security system.	Not operation	Off
	Horn is activated with vehicle security system.	On
HORN CHIRP	<b>NOTE:</b> This item is indicated, but not monitored.	Off

## TERMINAL LAYOUT



## PHYSICAL VALUES

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 >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
1 (G)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
3 (O)*1 (BR)*2	Ground	Starter relay power supply	Output	When engine is clanking		Battery voltage
				When engine is not clanking		0 V
4 (W)	Ground	Cooling fan relay-1 power supply	Output	Cooling fan operation	OFF	0 V
					MID or HI	Battery voltage
5 (R)	Ground	Ignition switch START	Input	Ignition switch OFF, ACC or ON		0 V
				Ignition switch START		Battery voltage
6 (BR)	Ground	Battery power supply (Cooling fan relay)	Input	Ignition switch OFF		Battery voltage
7 (P)	Ground	Cooling fan motor-2 (HI) ground	—	Cooling fan operation	OFF	Battery voltage
					HI	0 V
8 (G)	Ground	Cooling fan relay-2 power supply	Output	Cooling fan operation	OFF	0 V
					HI	Battery voltage
11 (B)	Ground	Ground	—	Ignition switch ON		0 V
12 (O)*3 (G)*4	Ground	Rear window defogger relay power supply	Output	Ignition switch ON	Rear window defogger switch OFF	0 V
					Rear window defogger switch ON	Battery voltage
15*5 (SB)	Ground	Daytime running light relay control	Output	<ul style="list-style-type: none"> <li>• Parking lamp</li> <li>• License plate lamp</li> <li>• Tail lamp</li> </ul>	Turn off	Battery voltage
					Turn on	0 V
16*6 (Y)	Ground	Front fog lamp (LH)	Output	Lighting switch 1ST	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
17*6 (W)	Ground	Front fog lamp (RH)	Output	Lighting switch 1ST	Front fog lamp switch OFF	0 V
					Front fog lamp switch ON	Battery voltage
18 (L)	Ground	Headlamp LO (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
19*7 (R)	Ground	Headlamp aiming motor power supply	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
20 (SB)	Ground	Headlamp LO (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 2ND		Battery voltage
21 (G)	Ground	Headlamp HI (LH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• lighting switch PASS</li> </ul>		Battery voltage
22 (LG)	Ground	Headlamp HI (RH)	Output	Lighting switch OFF		0 V
				<ul style="list-style-type: none"> <li>• Lighting switch 2ND and HI</li> <li>• lighting switch PASS</li> </ul>		Battery voltage
23 (W)	Ground	Oil pressure switch	Input	Ignition switch ON	Engine stopped	0 V
					Engine running	Battery voltage

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

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
24 (Y)	Ground	Front wiper auto stop	Input	Ignition switch ON	Front wiper stop position	0 V
					Any position other than front wiper stop position	Battery voltage
25 (B)	Ground	Ground	—	Ignition switch ON		0 V
26 (P)	—	CAN-L	Input/ Output	—		—
27 (L)	—	CAN-H	Input/ Output	—		—
31 (V)	Ground	Cooling fan relay-4 control	Output	Cooling fan operation	OFF	Battery voltage
					LO	0 V
32*1 (LG)	Ground	ETC relay control	Input	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF		Battery voltage
				<ul style="list-style-type: none"> <li>• Ignition switch ON</li> <li>• For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>		0 V
33*1 (GR)	Ground	Fuel pump relay control	Input	Ignition switch OFF		0 V
				Ignition switch ON	Engine stopped	Battery voltage
					Engine running	0.8 V
34*8 (Y)	Ground	Hood switch	Input	Close the hood		Battery voltage
				Open the hood		0 V
35*9 (W)	Ground	Headlamp washer relay control	Output	Ignition switch ON	When headlamp washer is not operating	Battery voltage
					When headlamp washer is operating	0 V
37 (R)	Ground	Tail, license plate lamps and illuminations	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
38*10 (O)*1 (GR)*2	Ground	Parking lamp (LH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
39*10 (GR)	Ground	Parking lamp (RH)	Output	Lighting switch OFF		0 V
				Lighting switch 1ST		Battery voltage
40 (V)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
41 (O)*1 (L)*2	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC		0 V
				Ignition switch ON		Battery voltage
42 (L)	Ground	Front wiper HI	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch HI	Battery voltage
43 (G)	Ground	Front wiper LO	Output	Ignition switch ON	Front wiper switch OFF	0 V
					Front wiper switch LO	Battery voltage
45 (Y)	Ground	Starter relay power supply	Input	Ignition switch ON (Except M/T models)	Selector lever "P" or "N"	Battery voltage
					Selector lever in any position other than "P" or "N"	0 V
				Ignition switch ON (M/T models)		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 >

[HALOGEN TYPE]

Terminal No. (Wire color)		Description		Condition	Value (Approx.)	
		Signal name	Input/ Output			
+	-					
46*1 (W)	Ground	Fuel pump relay power supply	Output	<ul style="list-style-type: none"> <li>Ignition switch OFF or ACC</li> <li>After passing approximately 1 second or more after turning the ignition switch ON</li> </ul>	0 V	
				<ul style="list-style-type: none"> <li>For approximately 1 second after turning the ignition switch ON</li> <li>Engine running</li> </ul>	Battery voltage	
47 (BR)*1 (G)*2	Ground	ECM relay power supply	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
48 (R)*1 (V)*2	Ground	ECM relay power supply	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
50 (G)	Ground	Cooling fan relay-5 control	Output	Cooling fan operation	OFF	
				MID or HI	0 V	
51 (W)	Ground	ECM relay control	Output	After passing approximately 20 seconds or more after turning the ignition switch from ON to OFF	Battery voltage	
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>For approximately 20 seconds after turning ignition switch from ON to OFF</li> </ul>	0 V	
52*1 (P)	Ground	ETC relay power supply	Output	After passing approximately 2 seconds or more after turning the ignition switch from ON to OFF	0 V	
				<ul style="list-style-type: none"> <li>Ignition switch ON</li> <li>For approximately 2 seconds after turning ignition switch from ON to OFF</li> </ul>	Battery voltage	
55 (O)	Ground	A/C relay power supply	Output	Engine stopped	0 V	
				Engine running	A/C switch OFF	0 V
					A/C switch ON (A/C compressor is operating)	Battery voltage
56 (L)	Ground	Ignition switch ON	Input	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
57*8 (V)	Ground	Horn relay control	Output	The horn is not activated	Battery voltage	
				The horn is activated	0 V	
58 (Y)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
59 (GR)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
60 (SB)	Ground	Ignition relay power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	
61 (O)	Ground	ECM power supply	Output	Ignition switch OFF	Battery voltage	

\*1: MR engine and QR engine models

\*2: M9R engine models

\*3: MR engine models

\*4: QR engine and M9R engine models

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

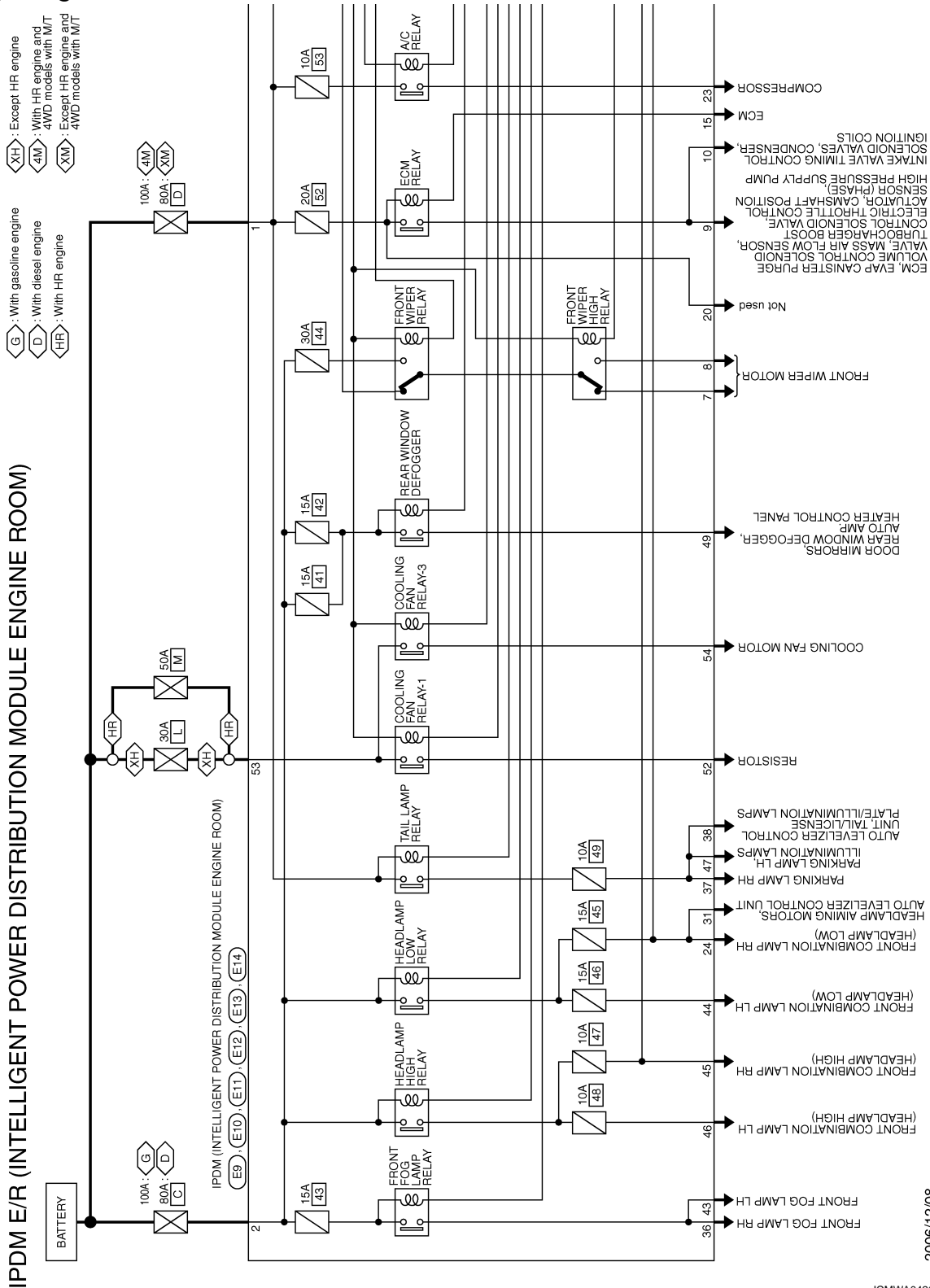
[HALOGEN TYPE]

## < ECU DIAGNOSIS >

- \*5: With daytime running light system
- \*6: With front fog lamp system
- \*7: Halogen type headlamp
- \*8: With vehicle security system
- \*9: With headlamp washer system
- \*10: Without daytime running light system

## Wiring Diagram - IPDM E/R -

INFOID:000000001528012



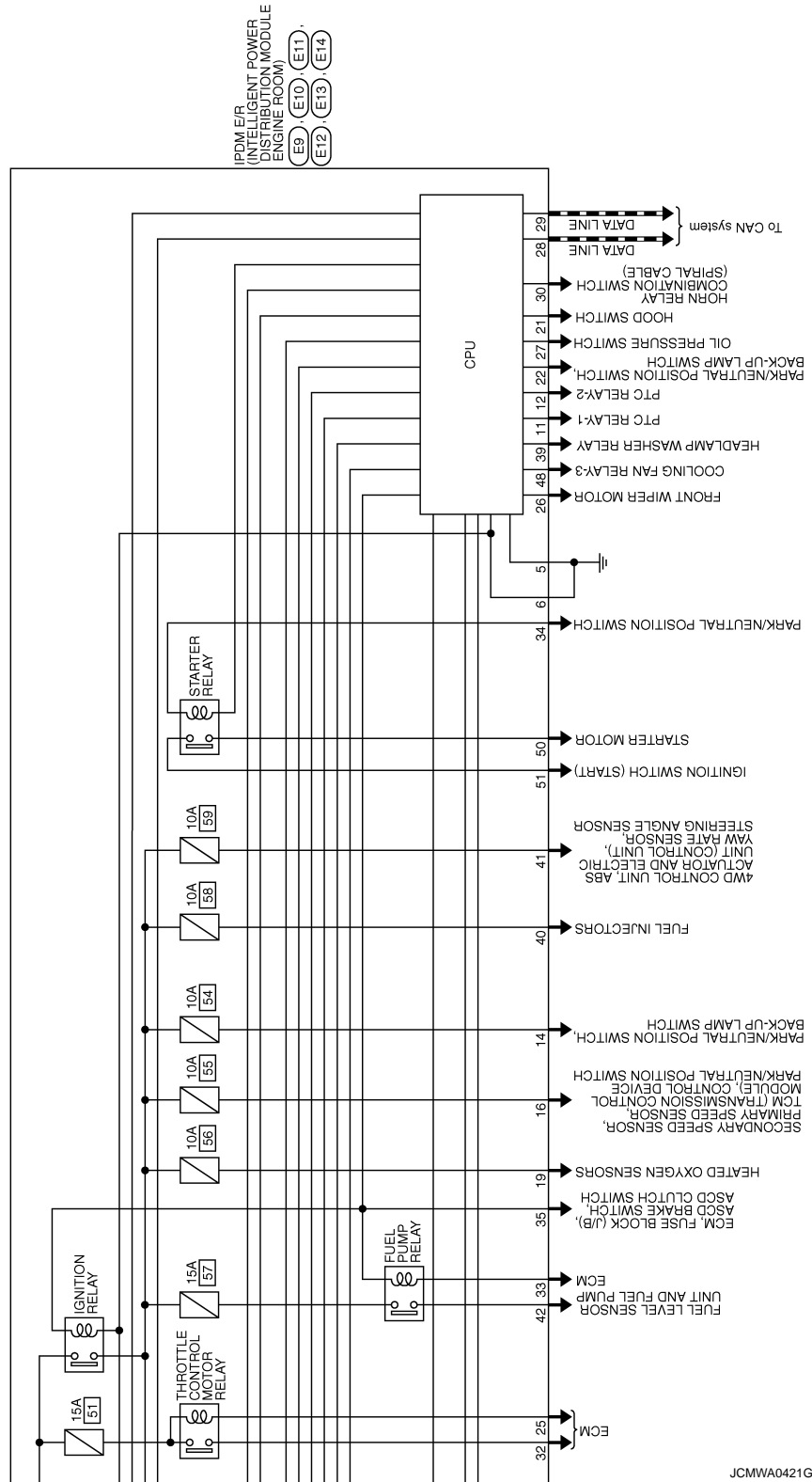
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

EXL

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

< ECU DIAGNOSIS >

[HALOGEN TYPE]



IPDM E/R  
(INTELLIGENT POWER  
DISTRIBUTION MODULE  
ENGINE ROOM)  
(E8), (E10), (E11),  
(E12), (E13), (E14)

JCMWA0421G1



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

< ECU DIAGNOSIS >

[HALOGEN TYPE]

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

Connector No.	E9
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	LOZFB-MC



1	2
---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	
2	R	

Connector No.	E10
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	MB8FB-LC



5	4	3
8	7	6

Terminal No.	Color of Wire	Signal Name [Specification]
5	B	
6	B	
7	Y	
8	Y/R	

Connector No.	E11
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS1ZFBR-CS



13	12	11	10	9
20	19	18	17	16
15	14			

Terminal No.	Color of Wire	Signal Name [Specification]
9	G	
10	L/R	
11	O	
12	G/Y	
14	R/B	
15	Y/L	-(With gasoline engine)
15	B/R	-(With diesel engine)
16	Y/R	
19	R/O	
20	-	

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS1ZFW-CS



25	24	23	22	21
32	31	30	29	28
27	26			

Terminal No.	Color of Wire	Signal Name [Specification]
21	GR	
22	Y/G	
23	Y/B	
24	R/Y	
25	G/L	
26	O	
27	W	
28	L	
29	P	
30	L	
31	R	

32	R/Y
----	-----

Connector No.	E13
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS16FW-CS



39	38	37	36	35	34	33
48	47	46	45	44	43	42
41	40					

Terminal No.	Color of Wire	Signal Name [Specification]
33	B/O	
34	R/B	
35	W/L	
36	W	
37	R/W	
38	R/L	
39	GR	
40	SB	-(With MFR engine)
40	BR/Y	-(With HR engine)
41	P	
42	B/Y	

43	W/B
44	L
45	L/W
46	G
47	R/L
48	Y

JCMWA0422GE

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

EXL

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

Connector No.	E14
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	YZK 7283-5391-40-F



Terminal No.	Color of Wire	Signal Name (Specification)
48	B	-
50	B/R	-
51	P	-
52	W	-
53	W/B	-
54	R	-

## 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

JCMWA0423GE

INFOID:000000001528013

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

< ECU DIAGNOSIS >

[HALOGEN TYPE]

Control part	Fail-safe in operation
Cooling fan	<ul style="list-style-type: none"> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn ON when the ignition switch is turned ON</li> <li>The cooling fan relay-1, the cooling fan relay-2, the cooling fan relay-3 and the cooling fan relay-5 turn OFF when the ignition switch is turned OFF</li> <li>Cooling fan relay-4 OFF</li> </ul>
A/C compressor	A/C relay OFF

If no CAN communication is available with BCM

Control part	Fail-safe in operation
Headlamp	<ul style="list-style-type: none"> <li>The headlamp low relay turns ON when the ignition switch is turned ON</li> <li>The headlamp low relay turns OFF 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>Tail lamps</li> <li>Illuminations</li> </ul>	<ul style="list-style-type: none"> <li>The tail lamp relay and the daytime running light relay*<sup>1</sup> turn ON when the ignition switch is turned ON</li> <li>The tail lamp relay and the daytime running light relay*<sup>1</sup> turn OFF 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 front 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
Starter motor	Starter relay OFF
Rear window defogger	Rear window defogger relay OFF
Headlamp washer* <sup>2</sup>	Headlamp washer relay OFF
Horn* <sup>3</sup>	Horn relay OFF

**NOTE:**

- \*1: With daytime running light system
- \*2: With headlamp washer system
- \*3: With vehicle security system

### Ignition relay malfunction detection function

- IPDM E/R monitors status of ignition relay by the voltage at ignition relay contact circuit inside it.
- IPDM E/R judges that the ignition relay is error, if status of the ignition relay and ignition switch ON signal (CAN) \*.
- If the ignition relay cannot turn OFF due to contact seizure, it activates the tail lamp relay and daytime running light relay\* for 10 minutes to alert the user to the ignition relay malfunction when the ignition switch is turned OFF.

DTC	Ignition switch	Ignition relay	Tail lamp relay and daytime running light relay*
—	ON	ON	—
—	OFF	OFF	—
—	OFF	ON	ON (10 minutes)
B2099: IGN RLY OFF	ON	OFF	—

**NOTE:**

- The tail lamp relay and the daytime running light relay\* are turned OFF when the ignition switch is turned ON.
- \*: With daytime running light system

### Front wiper control

IPDM E/R detects the front wiper stop position with the front wiper auto stop signal.

When the front wiper auto stop signal is in the conditions listed below, IPDM E/R repeats a front wiper 10 seconds operation and 20 seconds stop five times.

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 >

[HALOGEN TYPE]

Ignition switch	Front wiper switch	Front wiper auto stop signal
ON	OFF	The front wiper auto stop signal (stop position) cannot be input for 10 seconds.
	ON	The front wiper auto stop signal does not change for 10 seconds.

**NOTE:**

This operation status can be confirmed on the IPDM E/R “Data Monitor” that displays “BLOCK” for the item “WIP PROT” while the wiper is stopped.

## DTC Index

INFOID:000000001528014

CONSULT display	Fail-safe	Timing <sup>NOTE</sup>		Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	×	CRNT	PAST	<a href="#">PCS-13</a>
B2099: IGN RELAY OFF	—	CRNT	PAST	<a href="#">PCS-14</a>

**NOTE:**

The details of time display are as follows.

- CRNT: The malfunctions that are detected now.
- PAST: The number is indicated when it is normal at present and a malfunction was detected in the past.

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## SYMPTOM DIAGNOSIS

### EXTERIOR LIGHTING SYSTEM SYMPTOMS WITHOUT DAYTIME RUNNING LIGHT SYSTEM

#### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:000000001160268

**CAUTION:**

Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Halogen bulb (HI)</li> <li>• Harness between IPDM E/R and the front combination lamp</li> <li>• Front combination lamp (headlamp housing assembly)</li> <li>• IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-267</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to <a href="#">EXL-395</a> .	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.	IPDM E/R	
	When ignition switch is turned OFF.	—	
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 Data monitor "HI-BEAM IND"</li> <li>• BCM (HEAD LAMP) 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 front combination lamp</li> <li>• Front combination lamp (headlamp housing assembly)</li> <li>• IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-269</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-396</a> .	
Headlamp (LO) is not turned OFF.	When ignition switch is turned ON.	IPDM E/R	
	When ignition switch is turned OFF.	—	
Headlamp HI and LO are not turned ON.		<ul style="list-style-type: none"> <li>• Harness between front combination lamp and the ground</li> <li>• Front combination lamp (headlamp housing assembly)</li> </ul>	Headlamp ground circuit Refer to <a href="#">EXL-271</a> .
Each lamps are 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-67</a>
	<ul style="list-style-type: none"> <li>• Light &amp; rain sensor</li> <li>• Harness between the light &amp; rain sensor and BCM</li> <li>• BCM</li> </ul>		Light & rain sensor Refer to <a href="#">EXL-283</a> .

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

EXL

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

[HALOGEN TYPE]

< SYMPTOM DIAGNOSIS >

Symptom		Possible cause	Inspection item
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 fog lamp</li> <li>• Front fog lamp</li> <li>• IPDM E/R</li> </ul>	Front fog lamp circuit Refer to <a href="#">EXL-272</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-399</a> .	
Front fog lamp is not turned ON.			
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)		Combination meter	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "FR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>• Active test "FR FOG LAMP"</li> </ul>
Parking lamp is not turned ON.		<ul style="list-style-type: none"> <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-277</a> .
Tail lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Tail lamp bulb</li> <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-288</a> .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> <li>• License plate lamp bulb</li> <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-291</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-288</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-397</a> .	
Turn signal lamp does not blink.	Indicator lamp is normal. (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 circuit Refer to <a href="#">EXL-280</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-67</a>
Turn signal indicator lamp does not blink. (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>- BCM</li> <li>• Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>• Active test "FLASHER"</li> </ul>
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• 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-35</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-286</a> .

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symptom		Possible cause	Inspection item
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> <li>• Harness between BCM and rear fog lamp</li> <li>• Rear fog lamp bulb</li> <li>• BCM</li> </ul>	Rear fog lamp circuit Refer to <a href="#">EXL-294</a> .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> <li>• Combination switch</li> <li>• Harness between combination switch and BCM</li> <li>• BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-67</a>
Rear fog lamp indicator lamp does not turn on. (Rear fog lamp turns ON)		<ul style="list-style-type: none"> <li>• Rear fog lamp status signal - BCM</li> <li>• Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "REAR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>• Active test "RR FOG LAMP"</li> </ul>

## WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Symptom Table

INFOID:000000001303558

**CAUTION:**

**Perform the self-diagnosis with CONSULT-III before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.**

Symptom		Possible cause	Inspection item
Headlamp (HI) is not turned ON.	One side	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Halogen bulb (HI)</li> <li>• Harness between IPDM E/R and the front combination lamp</li> <li>• Front combination lamp (headlamp housing assembly)</li> <li>• IPDM E/R</li> </ul>	Headlamp (HI) circuit Refer to <a href="#">EXL-267</a> .
	Both sides	<b>Symptom diagnosis</b>	
Headlamp (HI) is not turned OFF.	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON" Refer to <a href="#">EXL-395</a> .	
	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 front combination lamp</li> <li>• Front combination lamp (headlamp housing assembly)</li> <li>• IPDM E/R</li> </ul>	Headlamp (LO) circuit Refer to <a href="#">EXL-269</a> .
	Both sides	<b>Symptom diagnosis</b>	
Headlamp (LO) is not turned OFF.	When ignition switch is turned ON.	"BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON" Refer to <a href="#">EXL-396</a> .	
	When ignition switch is turned OFF.	IPDM E/R	—
Headlamp HI and LO are not turned ON.		<ul style="list-style-type: none"> <li>• Harness between front combination lamp and the ground</li> <li>• Front combination lamp (headlamp housing assembly)</li> </ul>	Headlamp ground circuit Refer to <a href="#">EXL-271</a> .

# EXTERIOR LIGHTING SYSTEM SYMPTOMS

[HALOGEN TYPE]

< SYMPTOM DIAGNOSIS >

Symptom		Possible cause	Inspection item
Each lamps are 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-67</a>
		<ul style="list-style-type: none"> <li>• Light &amp; rain sensor</li> <li>• Harness between the light &amp; rain sensor and BCM</li> <li>• BCM</li> </ul>	Light & rain sensor Refer to <a href="#">EXL-283</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 fog lamp</li> <li>• Front fog lamp</li> <li>• IPDM E/R</li> </ul>	Front fog lamp circuit Refer to <a href="#">EXL-272</a> .
	Both sides	<b>Symptom diagnosis</b> "BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON" Refer to <a href="#">EXL-399</a> .	
Front fog lamp is not turned ON.			
Front fog lamp indicator lamp is not turned ON. (Front fog lamp is turned ON.)		Combination meter	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "FR FOG IND"</li> <li>• BCM (HEAD LAMP)</li> <li>• Active test "FR FOG LAMP"</li> </ul>
Parking lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Parking lamp bulb</li> <li>• Harness between daytime running light relay and the front combination lamp</li> <li>• Front combination lamp</li> </ul>	Parking lamp circuit Refer to <a href="#">EXL-278</a> .
Tail lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between daytime running light relay and the rear combination lamp</li> <li>• Rear combination lamp</li> </ul>	Tail lamp circuit Refer to <a href="#">EXL-289</a> .
License plate lamp is not turned ON.		<ul style="list-style-type: none"> <li>• Harness between daytime running light relay and the license plate lamp</li> <li>• License plate lamp</li> </ul>	License plate lamp circuit Refer to <a href="#">EXL-292</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-397</a> .	
Turn signal lamp does not blink.	Indicator lamp is normal. (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 circuit Refer to <a href="#">EXL-280</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-67</a>
Turn signal indicator lamp does not blink. (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>- BCM</li> <li>• Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>• Combination meter</li> <li>• Data monitor "TURN IND"</li> <li>• BCM (FLASHER)</li> <li>• Active test "FLASHER"</li> </ul>
	Both sides (Only when activating hazard warning lamp with the ignition switch OFF)	<ul style="list-style-type: none"> <li>• 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-35</a>



# EXTERIOR LIGHTING SYSTEM SYMPTOMS

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

Symptom		Possible cause	Inspection item
<ul style="list-style-type: none"> <li>Hazard warning lamp does not activate.</li> <li>Hazard warning lamp continues activating. (Turn signal is normal.)</li> </ul>		<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-286</a> .
Rear fog lamp is not turned ON.	Rear fog lamp indicator lamp is normal.	<ul style="list-style-type: none"> <li>Harness between BCM and rear fog lamp</li> <li>Rear fog lamp bulb</li> <li>BCM</li> </ul>	Rear fog lamp circuit Refer to <a href="#">EXL-294</a> .
	Rear fog lamp indicator lamp is included.	<ul style="list-style-type: none"> <li>Combination switch</li> <li>Harness between combination switch and BCM</li> <li>BCM</li> </ul>	Combination switch Refer to <a href="#">BCS-67</a>
Rear fog lamp indicator lamp does not turn on. (Rear fog lamp turns ON)		<ul style="list-style-type: none"> <li>Rear fog lamp status signal - BCM</li> <li>Combination meter</li> </ul>	<ul style="list-style-type: none"> <li>Combination meter Data monitor "REAR FOG IND"</li> <li>BCM (HEAD LAMP) Active test "RR FOG LAMP"</li> </ul>

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

EXL

## NORMAL OPERATING CONDITION

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

---

### NORMAL OPERATING CONDITION

#### Description

INFOID:000000001160269

#### AUTO LIGHT SYSTEM

The headlamp may not be turned ON/OFF immediately after passing dark area or bright area (short tunnel, sky bridge, shadowed area etc.) while using the auto light system. This causes the control difference. This is normal.

# BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE HEADLAMPS (HI) ARE NOT TURNED ON

### Description

INFOID:000000001160270

Both side headlamps (HI) are not turned ON when setting to the lighting switch HI or PASS.

### Diagnosis Procedure

INFOID:000000001160271

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#)

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK HEADLAMP (HI) REQUEST SIGNAL INPUT

CONSULT-III DATA MONITOR

1. Select "HL HI REQ" of IPDM E/R data monitor item.

2. With operating the lighting switch, check the monitor status.

Monitor item	Condition		Monitor status
HL HI REQ	Lighting switch (2ND)	HI or PASS	ON
		LO	OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#)

#### 3.HEADLAMP (HI) CIRCUIT INSPECTION

Check the headlamp (HI) circuit. Refer to [EXL-267. "Component Function Check"](#).

Is the headlamp (HI) circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

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

EXL

# BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE HEADLAMPS (LO) ARE NOT TURNED ON

### Description

INFOID:000000001160272

Both side headlamps (LO) are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000001160273

#### 1. CHECK COMBINATION SWITCH

Check the combination switch. Refer to [BCS-67, "Symptom Table"](#)

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2. CHECK HEADLAMP (LO) REQUEST SIGNAL INPUT

##### ⓂCONSULT-III DATA MONITOR

1. Select "HL LO REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status	
HL LO REQ	Lighting switch	2ND	ON
		OFF	OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#)

#### 3. HEADLAMP (LO) CIRCUIT INSPECTION

Check the headlamp (LO) circuit. Refer to [EXL-269, "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 WITHOUT DAYTIME RUNNING LIGHT SYSTEM

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001528015

The parking, license plate, tail lamps and each illumination are not turned ON in any condition.

### WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001528016

#### 1.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning part.

#### 2.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

1. Select "TAIL & CLR REQ" of IPDM E/R data monitor item.
2. With operating the lighting switch, check the monitor status.

Monitor item	Condition	Monitor status
TAIL & CLR REQ	Lighting switch	1ST ON
		OFF OFF

Is the item status normal?

YES >> GO TO 3.

NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#).

#### 3.TAIL LAMP CIRCUIT INSPECTION

Check the tail lamp circuit. Refer to [EXL-288. "WITHOUT DAYTIME RUNNING LIGHT SYSTEM : Component Function Check"](#).

Is the tail lamp circuit normal?

YES >> Replace IPDM E/R.

NO >> Repair or replace the malfunctioning part.

## WITH DAYTIME RUNNING LIGHT SYSTEM

### WITH DAYTIME RUNNING LIGHT SYSTEM : Description

INFOID:000000001528017

The parking, license plate and tail lamps are not turned ON in any condition.

### WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure

INFOID:000000001528018

#### 1.SYMPTOM CONFIRMATION

Turn lighting switch 1ST.

Are each illuminations turned ON?

YES >> GO TO 4.

NO >> GO TO 2.

#### 2.COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

Is the combination switch normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning part.

#### 3.CHECK TAIL LAMP RELAY REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# PARKING, LICENSE PLATE AND TAIL LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

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 >> Replace IPDM E/R.  
NO >> Replace BCM. Refer to [BCS-68, "Exploded View"](#).

## 4. DAYTIME RUNNING LIGHT RELAY CIRCUIT INSPECTION

Check the daytime running light relay circuit. Refer to [EXL-274, "Component Function Check"](#).

Is the tail lamp circuit normal?

- YES >> Check the parking lamp circuit. Refer to [EXL-279, "WITH DAYTIME RUNNING LIGHT SYSTEM : Diagnosis Procedure"](#).  
NO >> Repair or replace the malfunctioning part.

# BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

< SYMPTOM DIAGNOSIS >

[HALOGEN TYPE]

## BOTH SIDE FRONT FOG LAMPS ARE NOT TURNED ON

### Description

INFOID:000000001528019

The front fog lamps are not turned ON in any condition.

### Diagnosis Procedure

INFOID:000000001528020

#### 1. CHECK FUSE

Check that the following fuse is fusing.

Unit	Location	Fuse No.	Capacity
Front fog lamp	IPDM E/R	#65	15 A

##### Is the fuse fusing?

- YES >> Repair the applicable circuit. And then replace the fuse.
- NO >> GO TO 2.

#### 2. COMBINATION SWITCH INSPECTION

Check the combination switch. Refer to [BCS-67. "Symptom Table"](#).

##### Is the combination switch normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning part.

#### 3. CHECK FRONT FOG LAMP REQUEST SIGNAL INPUT

##### CONSULT-III DATA MONITOR

1. Select "FR FOG REQ" of IPDM E/R data monitor item.
2. With operating the front fog lamp switch, check the monitor status.

Monitor item	Condition	Monitor status	
FR FOG REQ	Front fog lamp switch (With lighting switch 1ST)	ON	ON
		OFF	OFF

##### Is the item status normal?

- YES >> GO TO 4.
- NO >> Replace BCM. Refer to [BCS-68. "Exploded View"](#).

#### 4. FRONT FOG LAMP CIRCUIT INSPECTION

Check the front fog lamp circuit. Refer to [EXL-272. "Component Function Check"](#).

##### Is the front fog lamp circuit normal?

- YES >> Replace IPDM E/R.
- NO >> Repair or replace the malfunctioning part.

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

## PRECAUTION

### PRECAUTIONS

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

INFOID:000000001208549

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

**WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.



# HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

## ON-VEHICLE MAINTENANCE

### HEADLAMP AIMING ADJUSTMENT

#### Description

INFOID:000000001160279

#### 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 luggage room.)

##### NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

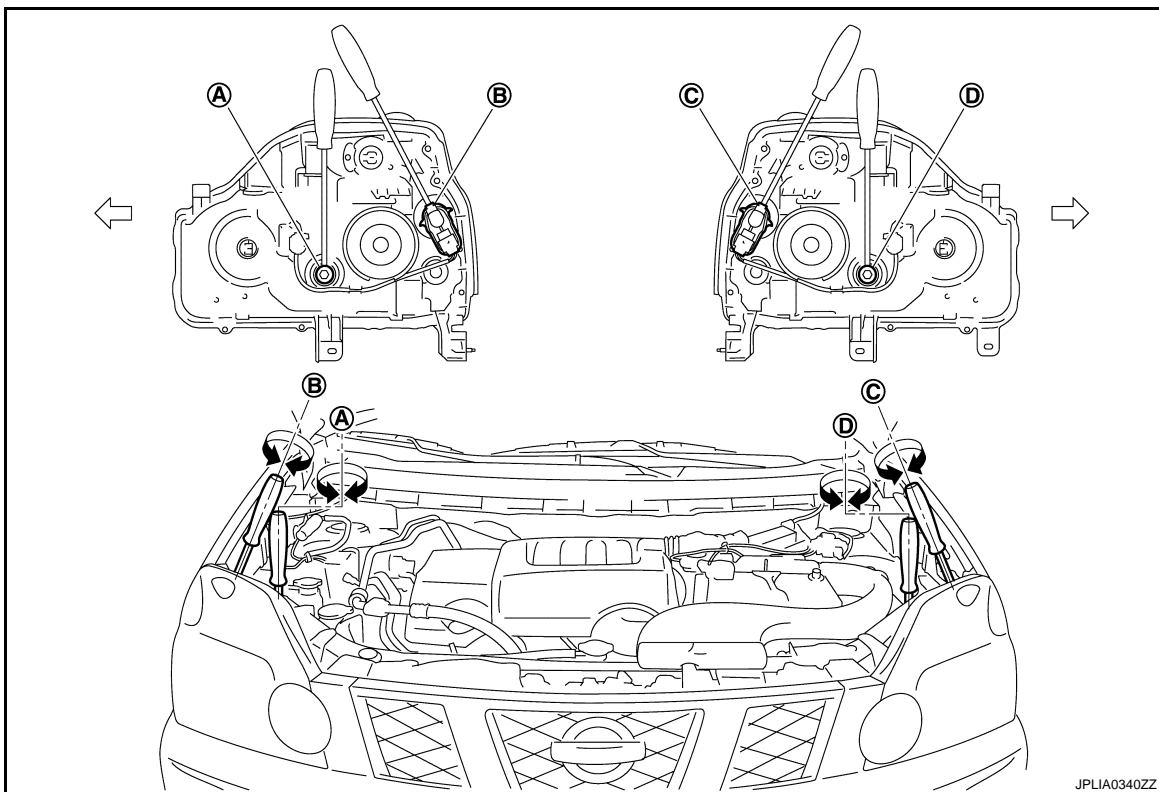
- Wipe out dirt on the headlamp.

##### CAUTION:

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.
- Headlamp aiming switch sets to "0".

#### AIMING ADJUSTMENT SCREW



A. Headlamp RH (INSIDE/OUTSIDE) adjustment screw

B. Headlamp RH (UP/DOWN) adjustment screw

C. Headlamp LH (UP/DOWN) adjustment screw

D. Headlamp LH (INSIDE/OUTSIDE) adjustment screw

↔: Vehicle center

# HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

Adjustment screw		Screw driver rotation	Facing direction
A	Headlamp RH (INSIDE/OUTSIDE)	Clockwise	OUTSIDE
		Counterclockwise	INSIDE
B	Headlamp RH (UP/DOWN)	Clockwise	DOWN
		Counterclockwise	UP
C	Headlamp LH (UP/DOWN)	Clockwise	DOWN
		Counterclockwise	UP
D	Headlamp LH (INSIDE/OUTSIDE)	Clockwise	OUTSIDE
		Counterclockwise	INSIDE

## LHD

### LHD : Aiming Adjustment Procedure

INFOID:000000001528021

- Place the screen.

**NOTE:**

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

- Face the vehicle squarely toward the screen and make the distance between the headlamp bulb center and the screen 10 m (32.8 ft).

- Start the engine and illuminate the headlamp (LO).

**NOTE:**

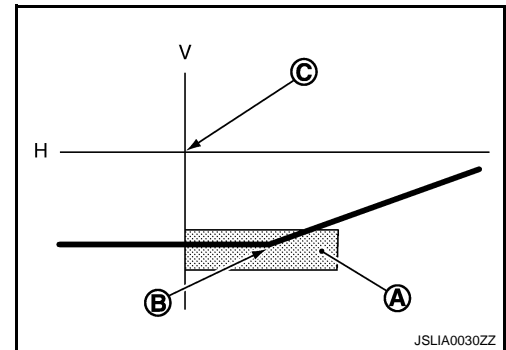
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

- Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area
- B. Elbow point
- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

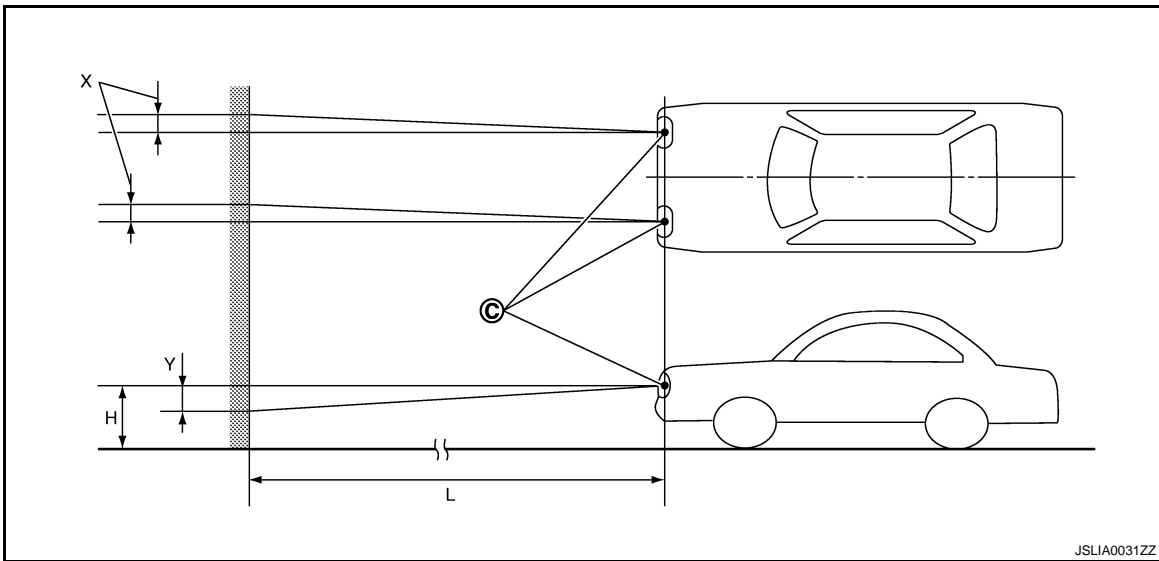
Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Right side from headlamp centerline)
105 – 135 (4.13 – 5.31)	Within 100 (3.94)

# HEADLAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]



- C. Vertical center line of headlamp    H. Horizontal center line of headlamp    L. Distance from headlamp center to screen  
X. Aiming adjustment area (lateral)    Y. Aiming adjustment area (Vertical)

Distance from headlamp center to screen (L) : 10 m (32.8 ft)

## RHD

### RHD : Aiming Adjustment Procedure

INFOID:000000001528022

1. Place the screen.

**NOTE:**

- Stop the vehicle at the perpendicular angle to the wall.
- Set the screen perpendicularly to the ground.

2. Face the vehicle squarely toward the screen and make the distance between the headlamp bulb center and the screen 10 m (32.8 ft).

3. Start the engine and illuminate the headlamp (LO).

**NOTE:**

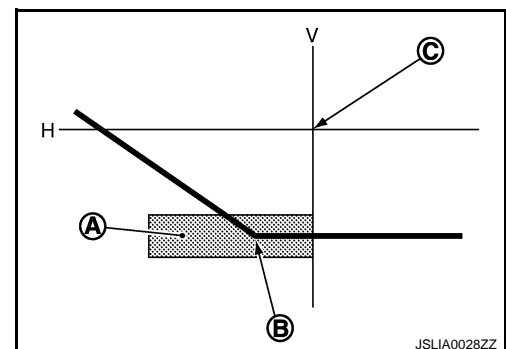
Block light from the headlamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

4. Use the aiming adjustment screw to adjust the elbow point projected by the low beams on the screen, so that it is within the aiming adjustment area.

Low beam distribution on the screen



- A. Aiming adjustment area  
B. Elbow point

# HEADLAMP AIMING ADJUSTMENT

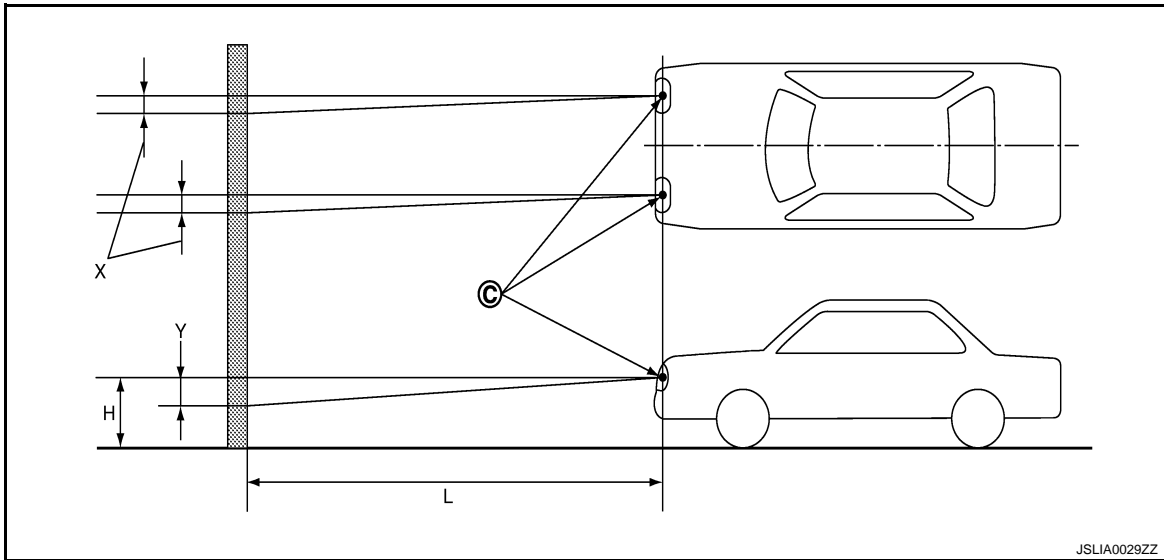
< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

- C. Headlamp center
- H. Horizontal center line of headlamp
- V. Vertical center line of headlamp

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from headlamp center height)	Lateral direction (X) (Left side from headlamp centerline)
105 – 135 (4.13 – 5.31)	Within 100 (3.94)



JSLIA0029ZZ

- C. Vertical center line of headlamp
- H. Horizontal center line of headlamp
- L. Distance from headlamp center to screen
- X. Aiming adjustment area (lateral)
- Y. Aiming adjustment area (Vertical)

**Distance from headlamp center to screen (L) : 10 m (32.8 ft)**

# FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

## FRONT FOG LAMP AIMING ADJUSTMENT

### Description

INFOID:000000001528023

### PREPARATION BEFORE ADJUSTING

#### NOTE:

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

Before performing aiming adjustment, check the following.

- Adjust the tire pressure to the specification.
- Fill with fuel, engine coolant and each oil.
- Maintain the unloaded vehicle condition. (Remove luggage from the passenger compartment and the luggage room.)

#### NOTE:

Do not remove the temporary tire, jack and on-vehicle tool.

- Wipe out dirt on the headlamp.

#### CAUTION:

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.

### AIMING ADJUSTMENT SCREW

- Turn the aiming adjusting screw for adjustment.

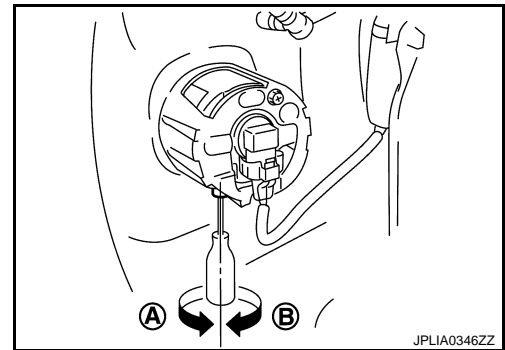
A: DOWN

B: UP

- 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:000000001528024

1. Place the screen.

#### NOTE:

- Stop the vehicle facing the wall.
- Place the board on a plain road vertically.

2. Face the vehicle with the screen. Maintain 10 m (32.8 ft) between the front fog lamp center and the screen.

3. Start the engine. Illuminate the front fog lamp.

#### CAUTION:

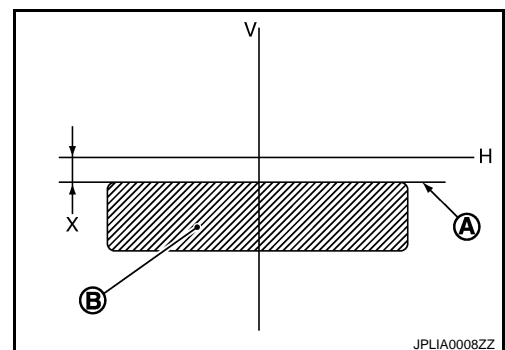
**Never cover the lens surface with a tape etc. The lens is made of resin.**

#### NOTE:

Shut off the headlamp light with the board to prevent from illuminating the adjustment screen.

4. Adjust the cutoff line height (A) with the aiming adjustment screw so that the distance (X) between the horizontal center line of front fog lamp (H) and (A) becomes 200 mm (7.87 in).

Front fog lamp light distribution on the screen



# FRONT FOG LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

---

- 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

# DRIVING LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

## DRIVING LAMP AIMING ADJUSTMENT

### Description

INFOID:000000001528025

### 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 driving lamp 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 luggage room.)

**NOTE:**

Do not remove the temporary tire, jack and on-vehicle tool.

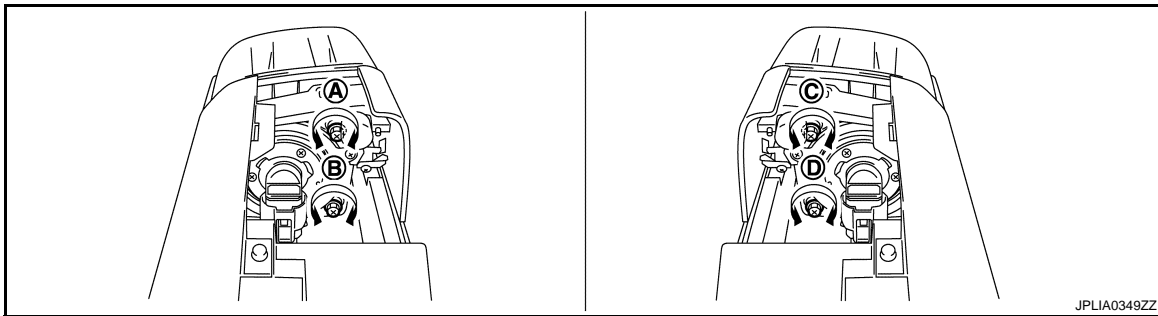
- Wipe out dirt on the driving lamp.

**CAUTION:**

**Never use organic solvent (thinner, gasoline etc.)**

- Ride alone on the driver seat.

### AIMING ADJUSTMENT SCREW



- A. Driving lamp RH (UP/DOWN) adjustment screw
- B. Driving lamp RH (INSIDE-DOWN/OUTSIDE-UP) adjustment screw
- C. Driving lamp LH (UP/DOWN) adjustment screw
- D. Driving lamp LH (INSIDE-DOWN/OUTSIDE-UP) adjustment screw

	Adjustment screw	Screw driver rotation	Facing direction
A	Driving lamp RH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
B	Driving lamp RH (INSIDE-DOWN/OUTSIDE-UP)	Clockwise	INSIDE-DOWN
		Counterclockwise	OUTSIDE-UP
C	Driving lamp LH (UP/DOWN)	Clockwise	UP
		Counterclockwise	DOWN
D	Driving lamp LH (INSIDE-DOWN/OUTSIDE-UP)	Clockwise	INSIDE-DOWN
		Counterclockwise	OUTSIDE-UP

### Aiming Adjustment Procedure

INFOID:000000001528026

- Place the screen.
  - NOTE:**
  - Stop the vehicle at the perpendicular angle to the wall.
  - Set the screen perpendicularly to the ground.
- Face the vehicle squarely toward the screen and make the distance between the driving lamp center and the screen 10 m (32.8 ft).

# DRIVING LAMP AIMING ADJUSTMENT

< ON-VEHICLE MAINTENANCE >

[HALOGEN TYPE]

- Start the engine and turn the lighting switch 2ND & HI and driving lamp switch ON.

**NOTE:**

Block light from the driving lamp that is not being adjusted with a thick fabric or another object, so that it does not reach the adjustment screen.

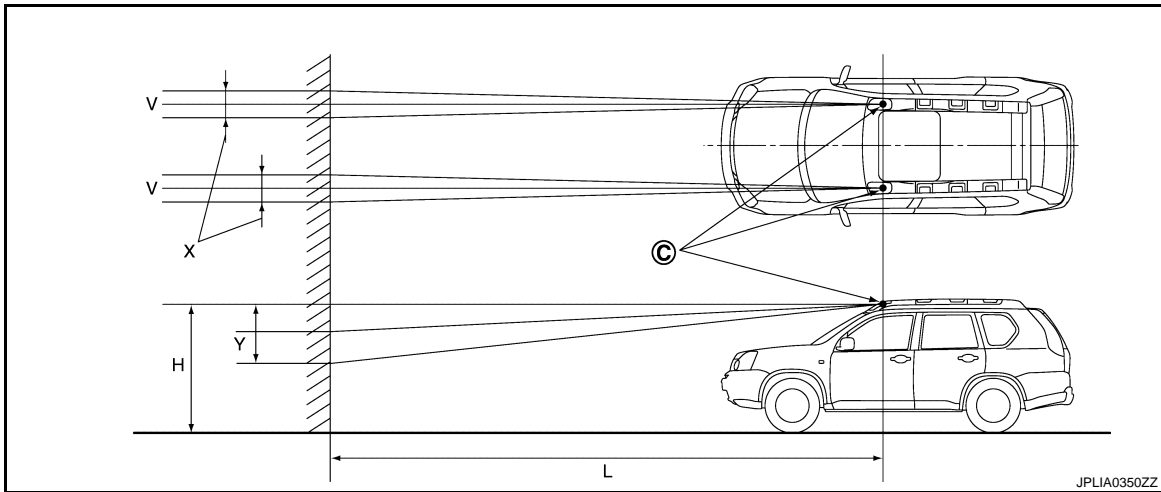
**CAUTION:**

**Never cover lens surface with tape, etc. because it is made from plastic.**

- Use the aiming adjustment screw to adjust the maximum illuminance zone center point on the screen, so that it is within the aiming adjustment area.

Unit: mm (in)

Aiming adjustment area	
Vertical direction (Y) (Lower side from driving lamp center height)	Lateral direction (X) (Right/left side from driving lamp center line)
0 – 174 (0 – 6.85)	Within 174 (6.85)



- C. Driving lamp center
- V. Vertical center line of driving lamp
- H. Horizontal center line of driving lamp
- X. Aiming adjustment area (lateral)
- Y. Aiming adjustment area (Vertical)

**Distance from driving lamp center to screen (L) : 10 m (32.8 ft)**



# FRONT COMBINATION LAMP

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

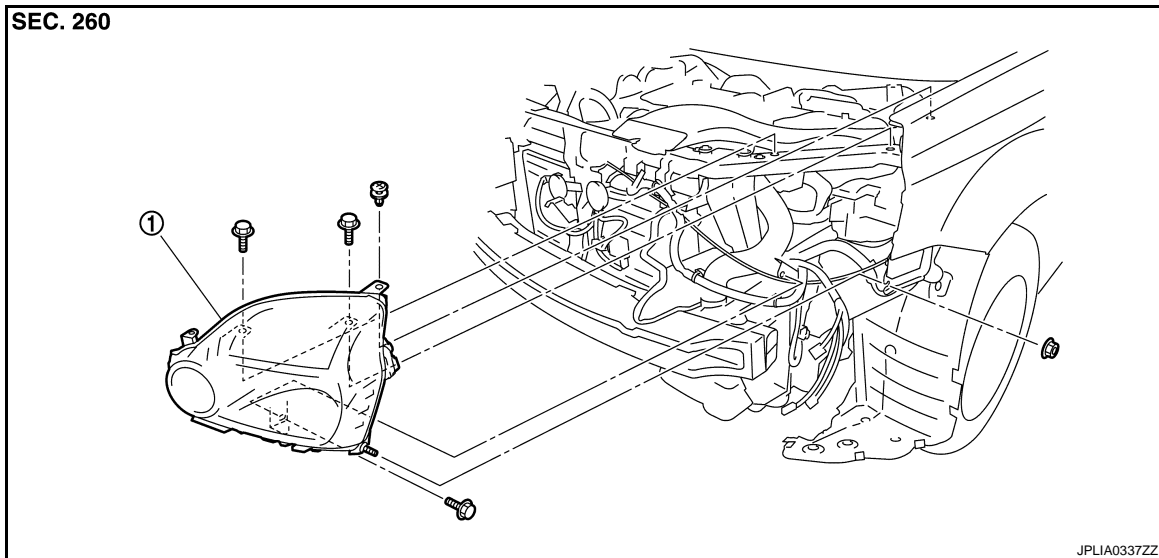
## ON-VEHICLE REPAIR

### FRONT COMBINATION LAMP

Exploded View

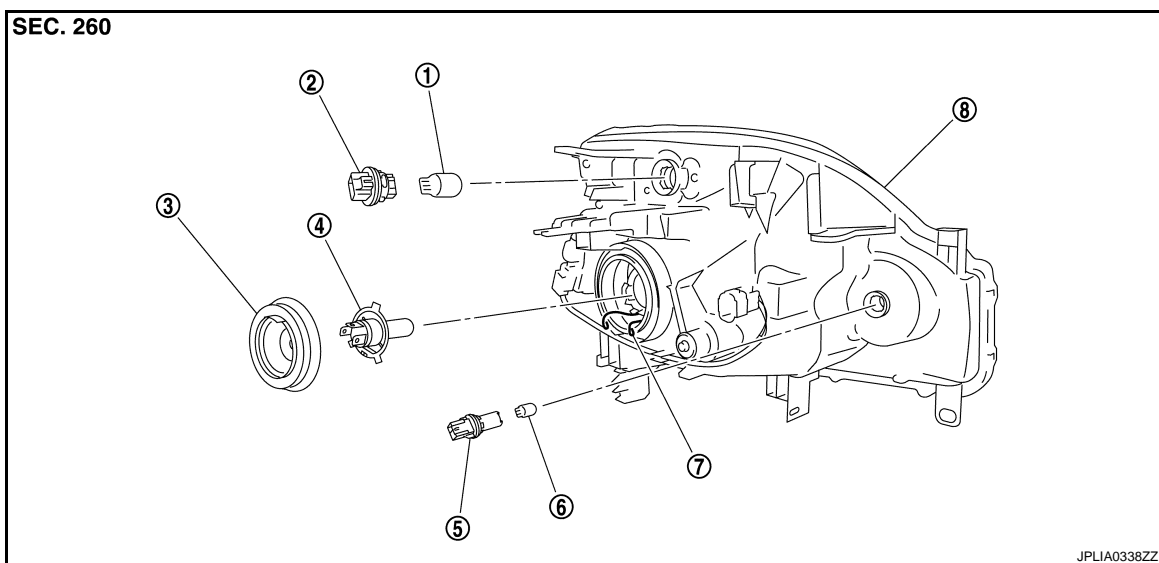
INFOID:000000001306475

#### REMOVAL



1. Front combination lamp

#### DISASSEMBLY



- |                                |                                       |                      |
|--------------------------------|---------------------------------------|----------------------|
| 1. Front turn signal lamp bulb | 2. Front turn signal lamp bulb socket | 3. Back cover        |
| 4. Halogen bulb                | 5. Parking lamp bulb socket           | 6. Parking lamp bulb |
| 7. Retaining spring            | 8. Headlamp housing assembly          |                      |

#### Removal and Installation

INFOID:000000001306476

#### REMOVAL

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

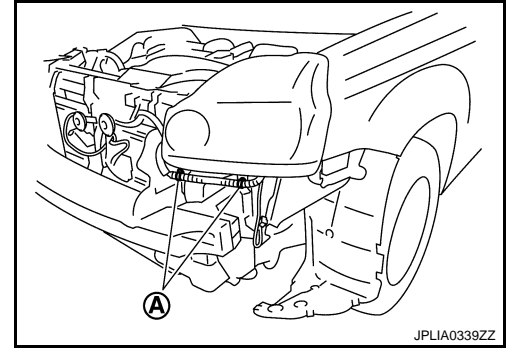
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL  
M  
N  
O  
P

# FRONT COMBINATION LAMP

[HALOGEN TYPE]

## < ON-VEHICLE REPAIR >

1. Remove front bumper fascia. Refer to [EXT-12, "Exploded View"](#).
2. Remove the harness clips (A)\*.  
\*: When replace a left.
3. Remove the headlamp mounting bolts.
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-401, "Description"](#).

## Replacement

INFOID:000000001306477

### CAUTION:

- Disconnect the battery negative terminal or the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.

## HEADLAMP BULB

1. Remove the air duct\*. Keep a service area.  
\*When replace a left.
2. Disconnect the headlamp bulb connector.
3. Remove the back cover.
4. Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.

### CAUTION:

Never break the xenon bulb ceramic tube when replacing the bulb.

## PARKING LAMP BULB

1. Remove the air duct\*. Keep a service area.  
\*When replace a left.
2. Rotate the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the bulb socket.

## FRONT TURN SIGNAL LAMP BULB

1. Rotate the bulb socket counterclockwise and unlock it.
2. Remove the bulb from the bulb socket.

## Disassembly and Assembly

INFOID:000000001306478

### DISASSEMBLY

1. Disconnect the headlamp bulb connector.
2. Remove the back cover.
3. Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.
4. Rotate the parking lamp bulb socket counterclockwise and unlock it.
5. Remove the bulb from the parking lamp bulb socket.
6. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
7. Remove the bulb from the front turn signal lamp bulb socket.

### ASSEMBLY

Assemble in the reverse order of disassembly.

# FRONT FOG LAMP

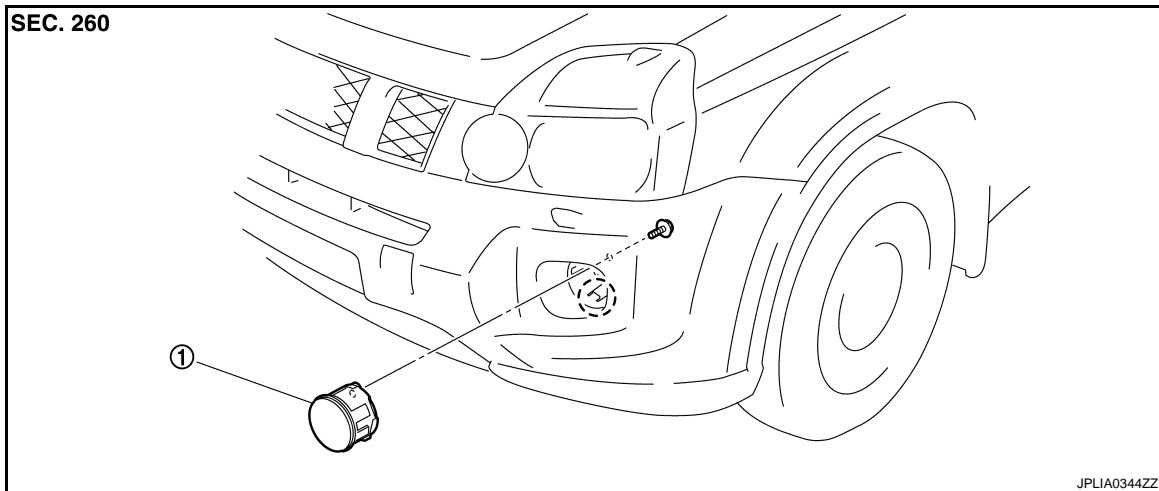
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## FRONT FOG LAMP

### Exploded View

INFOID:000000001528027



1. Front fog lamp
- : Fog lamp stopper

### Removal and Installation

INFOID:000000001528028

#### CAUTION:

Disconnect the battery negative terminal or the fuse.

#### REMOVAL

1. Remove the inner fender protector. Keep a service area. Refer to [EXT-21. "Exploded View"](#).
2. Remove the front fog lamp connector.
3. Unlock the fog lamp stopper.
4. Remove the screw. Remove the front fog lamp.

#### INSTALLATION

Installation is the reverse order of removal.

#### NOTE:

After installation, perform aiming adjustment. Refer to [EXL-405. "Description"](#)

### Replacement

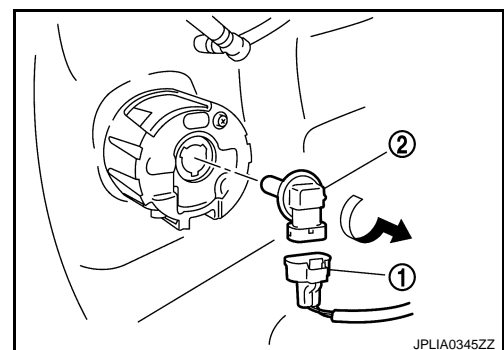
INFOID:000000001528029

#### CAUTION:

Disconnect the battery negative terminal or the fuse.

#### FRONT FOG LAMP BULB

1. Remove the fender protector. Keep the service area.
2. Remove the front fog lamp bulb connector (1).
3. Rotate the bulb (2) counterclockwise and unlock it.



# DRIVING LAMP

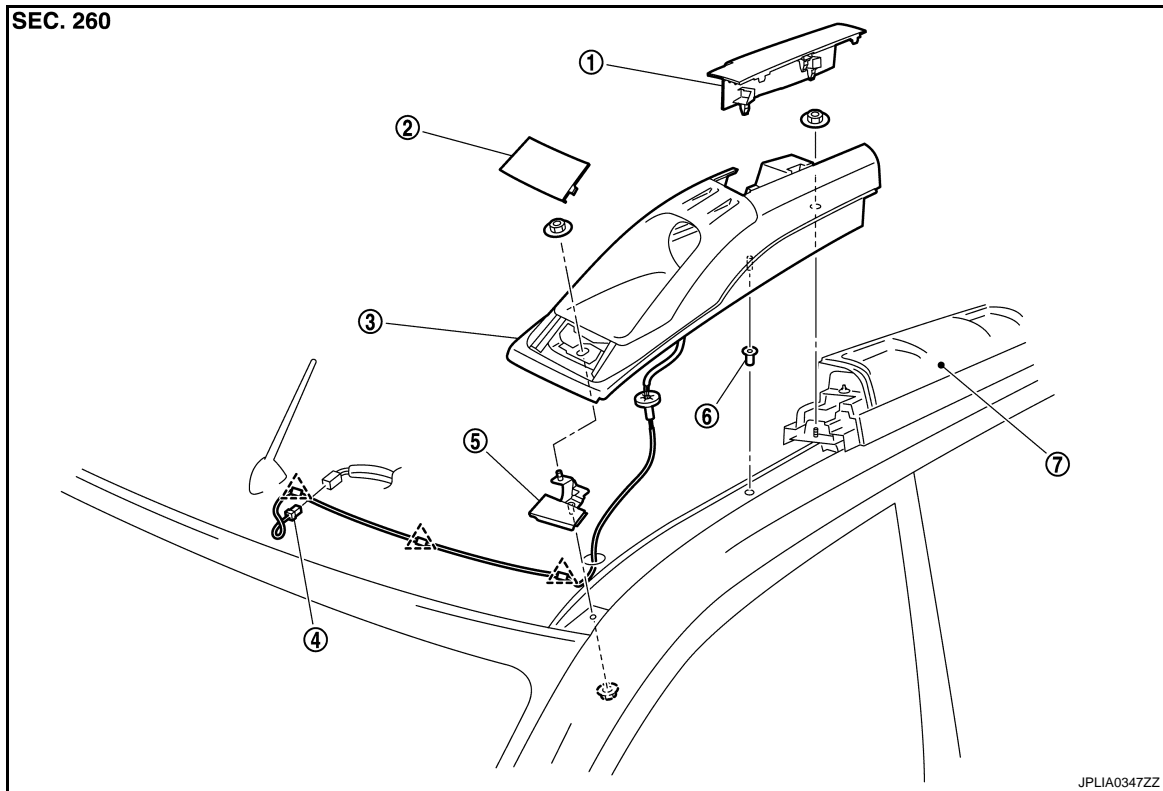
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]


## DRIVING LAMP

### Exploded View

INFOID:000000001528030



- |                                   |                         |                          |
|-----------------------------------|-------------------------|--------------------------|
| 1. Rear cover                     | 2. Front cover          | 3. Driving lamp assembly |
| 4. Driving lamp harness connector | 5. Driving lamp bracket | 6. Grommet               |
| 7. Roof rail                      |                         |                          |

 : Harness clip

### Removal and Installation

INFOID:000000001528031

#### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

#### REMOVAL

1. Remove the headlining (front side). Keep a service area. Refer to [INT-22. "NORMAL ROOF : Exploded View"](#).
2. Remove the harness clips and disconnect the driving lamp connector.
3. Remove the front cover and the rear cover.
4. Remove the mounting nuts.
5. Remove the driving lamp assembly.

#### INSTALLATION

Installation is the reverse order of removal.

#### **NOTE:**

After installation, perform aiming adjustment. Refer to [EXL-407. "Description"](#)

### Replacement

INFOID:000000001528032

#### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

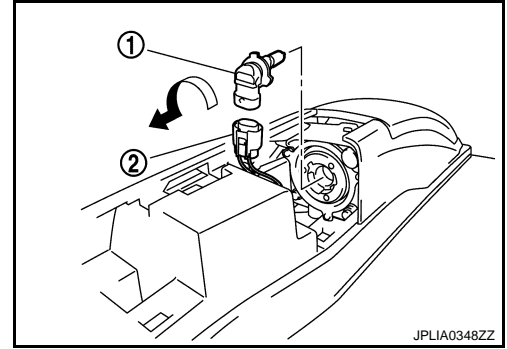
### DRIVING LAMP BULB

# DRIVING LAMP

[HALOGEN TYPE]

## < ON-VEHICLE REPAIR >

1. Remove the rear cover.
2. Rotate the bulb (1) counterclockwise and unlock it.
3. Remove the bulb.
4. Remove the driving lamp connector (2).



A

B

C

D

E

F

G

H

I

J

K

EXL

M

N

O

P

# LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## LIGHT & RAIN SENSOR

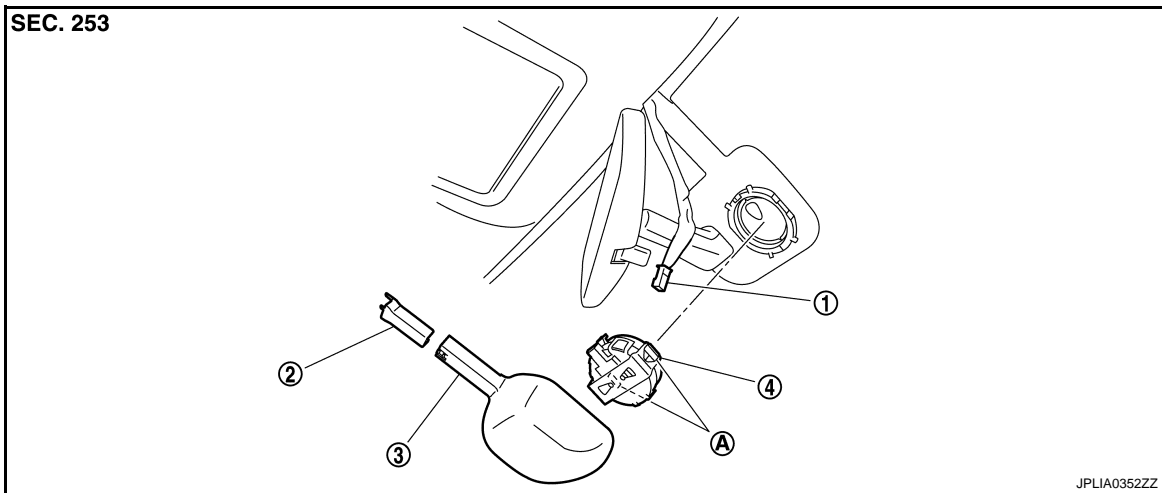
### Exploded View

INFOID:000000001528033

#### CAUTION:

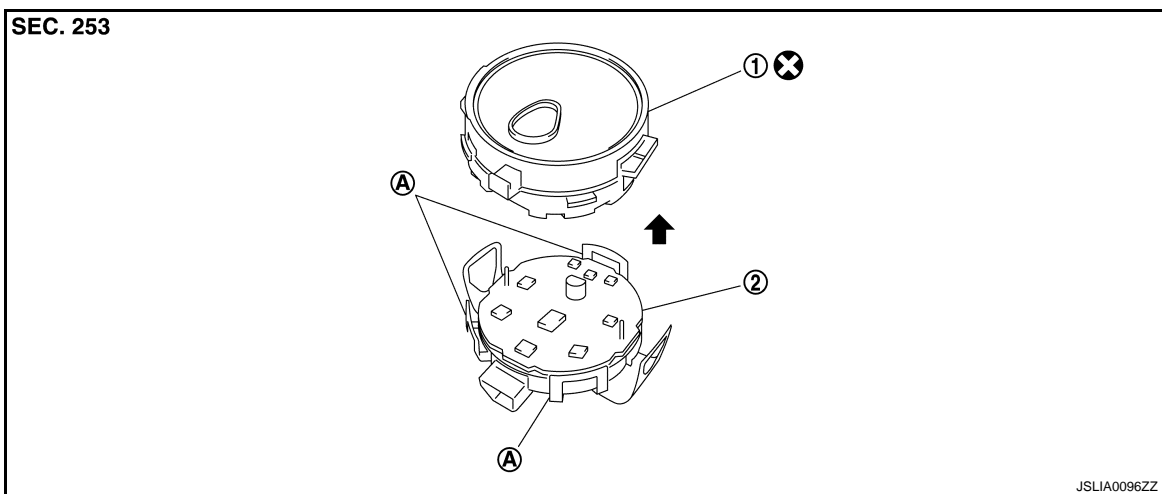
- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

### REMOVAL



1. Light & rain sensor connector
2. Inside mirror cover (upper)
3. Inside mirror cover (lower)
4. Light & rain sensor
- A. Metal spring clip

### DISASSEMBLY



1. Light & rain sensor housing
2. Light & rain sensor
- A. Pawl

Refer to [GI-4, "Components"](#) for symbols in the figure.

#### CAUTION:

Never touch the electronic circuit board.

# LIGHT & RAIN SENSOR

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## Removal and Installation

INFOID:000000001528034

### CAUTION:

- When the light & rain sensor is removed from windshield, gel/adhesive part of housing should not be re-used.
- When re-using the light & rain sensor (i.e. after windshield replacement), replace the light & rain sensor housing.

### REMOVAL

1. Remove the inside mirror cover (upper and lower). Refer to [MIR-23, "Exploded View"](#).
2. Disengage the both sides of metal spring clips, and remove the light & rain sensor from the windshield.
3. Disconnect light & rain sensor connector.

### NOTE:

When replacing the light & rain sensor housing;  
Disengage the pawls, and remove the light & rain sensor housing from the light & rain sensor.

### CAUTION:

**Never touch the electronic circuit board.**

### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

- Surface of windshield should be cleaned.
- Never touch gel/adhesive of new part.

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

# LIGHTING & TURN SIGNAL SWITCH

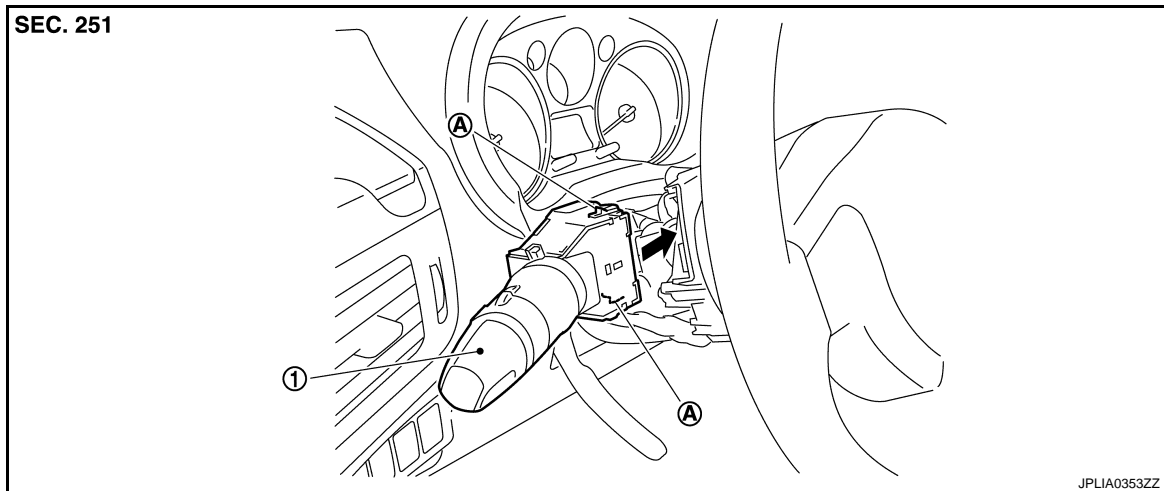
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## LIGHTING & TURN SIGNAL SWITCH

Exploded View

INFOID:000000001528035



- 1. Lighting & turn signal switch
- A. Pawl

## Removal and Installation

INFOID:000000001528036

### REMOVAL

1. Remove steering column cover. Refer to [IP-11. "Exploded View"](#).
2. While pressing pawls, pull the lighting & turn signal switch. And disconnect from the switch base.

### INSTALLATION

Installation is the reverse order of removal.



# SIDE TURN SIGNAL LAMP

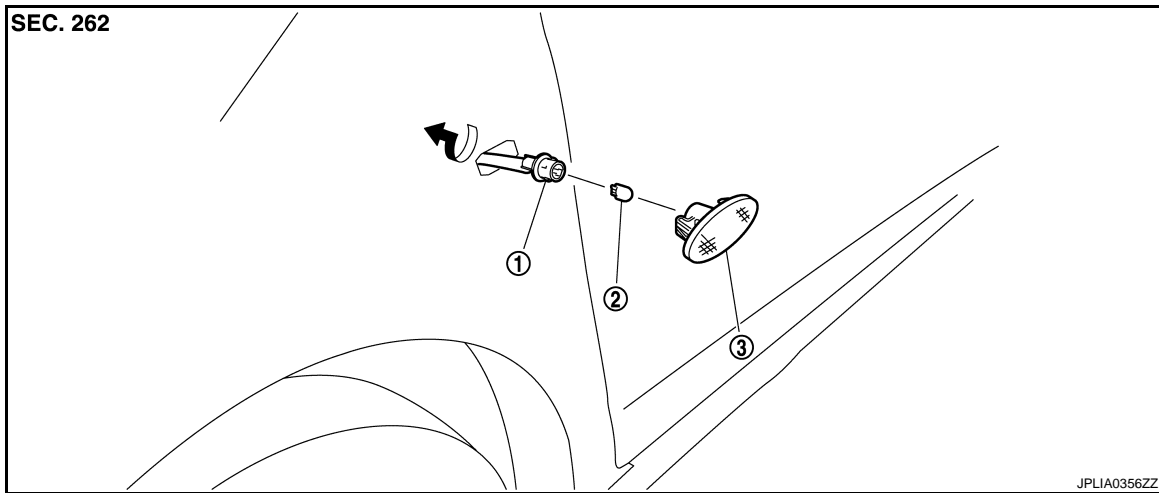
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## SIDE TURN SIGNAL LAMP

### Exploded View

INFOID:000000001528037



1. Side turn signal lamp bulb socket
2. Side turn signal lamp bulb
3. Side turn signal lamp housing

### Removal and Installation

INFOID:000000001528038

**CAUTION:**  
Disconnect battery negative terminal or remove the fuse.

#### REMOVAL

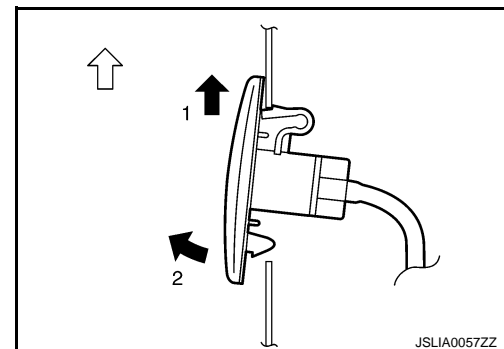
1. Remove the side turn signal lamp in numerical order shown in the figure.

⇐ : Installable both direction

2. Rotate the bulb socket counterclockwise and unlock it.

**NOTE:**

Support side turn signal lamp harness with tape so that it won't fall into the front fender.



#### INSTALLATION

1. Rotate the bulb socket clockwise and lock it.
2. Fix the pawl-side behind the side turn signal lamp housing first, then push the resin clip-side.

### Replacement

INFOID:000000001528039

**CAUTION:**  
Disconnect battery negative terminal or remove the fuse.

#### SIDE TURN SIGNAL LAMP BULB

1. Remove the side turn signal lamp.
2. Rotate the bulb socket counterclockwise and unlock it.

**NOTE:**

Support the vehicle-side harness of the side turn signal lamp with tape so that it does not drop inside the front fender.

3. Remove the bulb from the bulb socket.

# HAZARD SWITCH

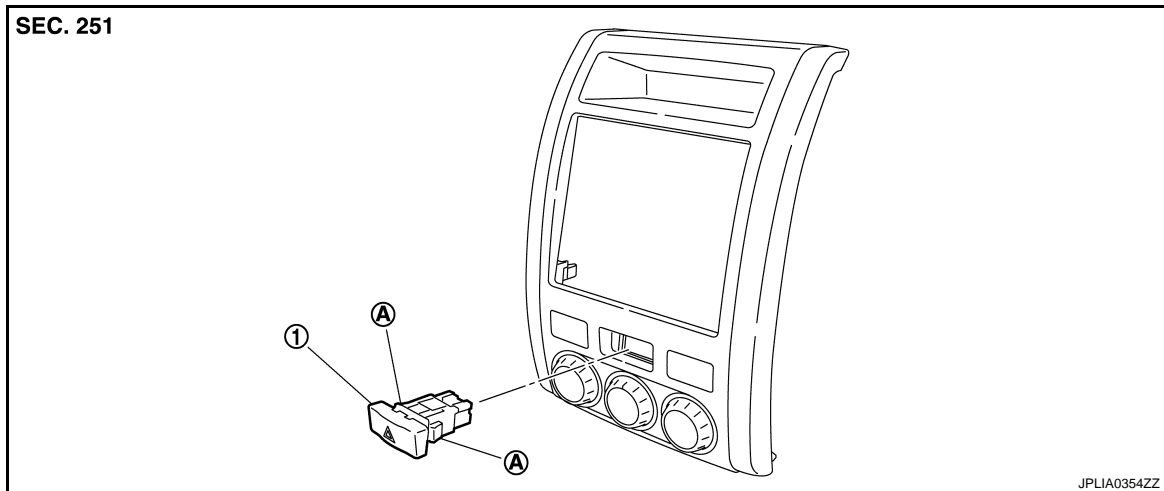
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## HAZARD SWITCH

### Exploded View

INFOID:000000001528040



- 1. Hazard switch
- A. Pawl

### Removal and Installation

INFOID:000000001528041

#### REMOVAL

1. Remove the cluster lid C. Refer to [IP-11. "Exploded View"](#).
2. While pressing pawls, push the hazard switch. And remove it.

#### INSTALLATION

Install in the reverse order of removal.

# DRIVING LAMP SWITCH

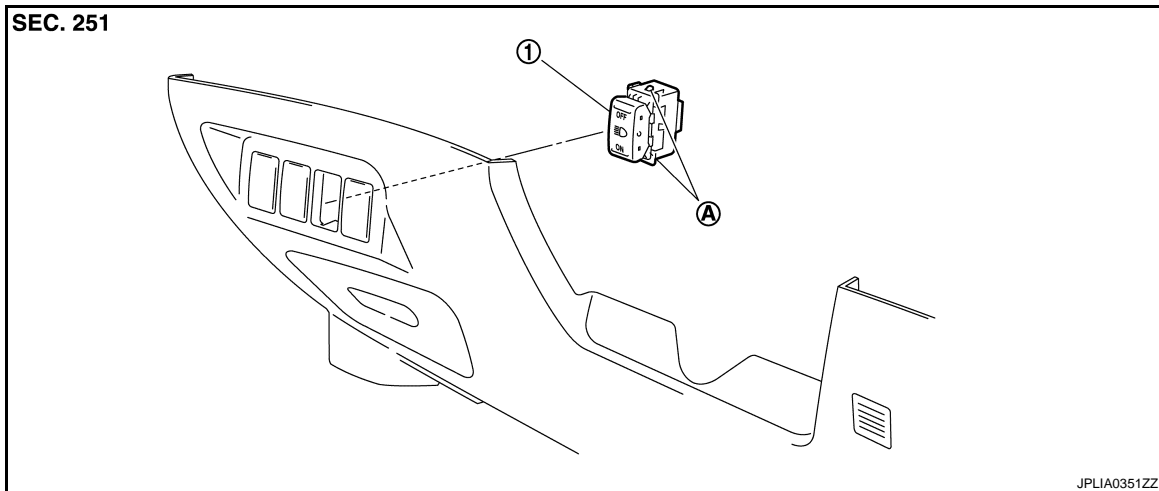
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## DRIVING LAMP SWITCH

Exploded View

INFOID:000000001528042



- 1. Driving lamp switch
- A. Pawl

## Removal and Installation

INFOID:000000001528043

### REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-11, "Exploded View"](#).
2. Widen the pawl. Remove driving lamp switch.

### INSTALLATION

Install in the reverse order of removal.

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

# HEADLAMP AIMING SWITCH

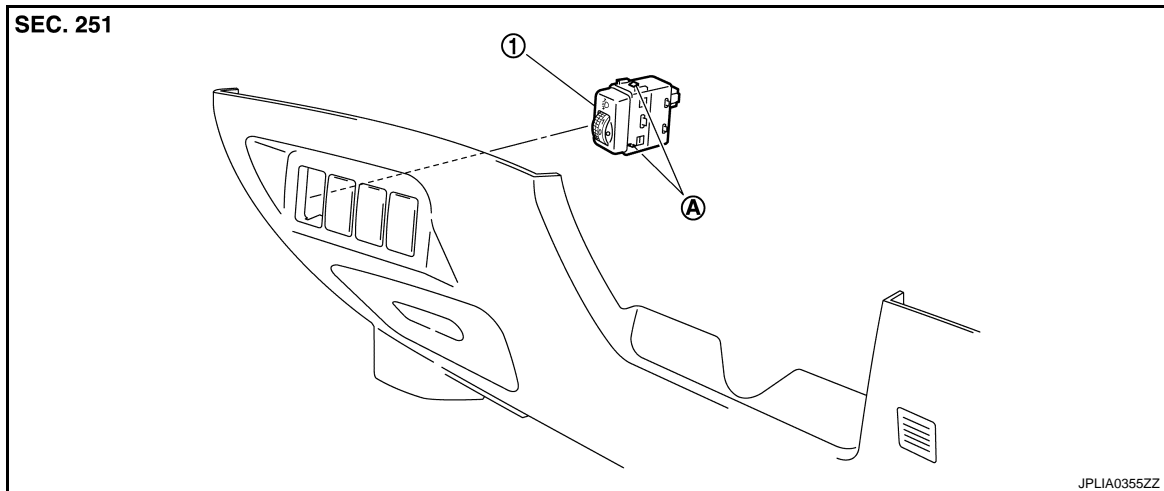
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## HEADLAMP AIMING SWITCH

Exploded View

INFOID:000000001160300



- 1. Headlamp aiming switch
- A. Pawls

## Removal and Installation

INFOID:000000001160301

### REMOVAL

1. Remove the instrument driver lower panel. Refer to [IP-11, "Exploded View"](#).
2. Widen the pawl. And remove headlamp aiming switch.

### INSTALLATION

Install in the reverse order of removal.

# REAR COMBINATION LAMP

< ON-VEHICLE REPAIR >

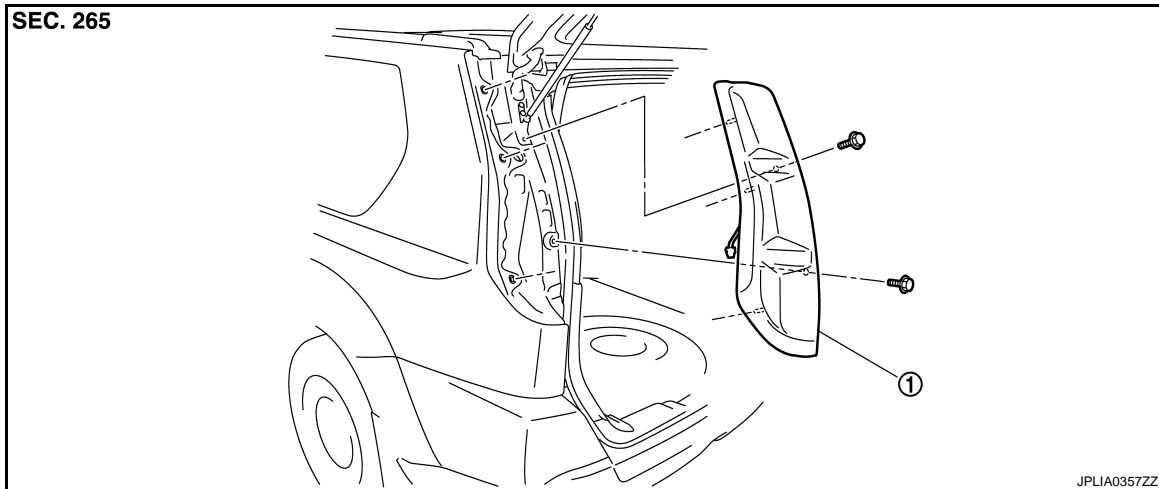
[HALOGEN TYPE]

## REAR COMBINATION LAMP

Exploded View

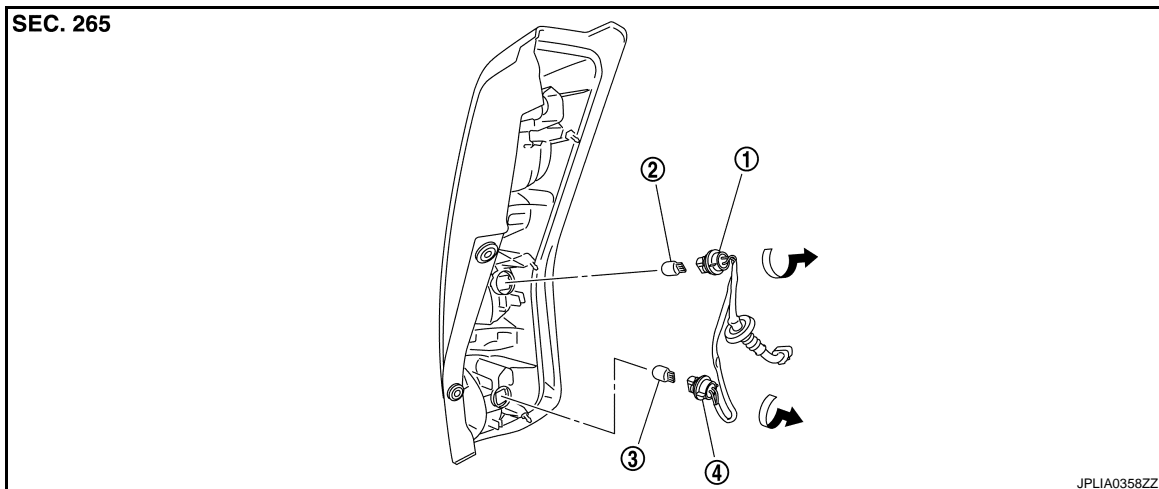
INFOID:000000001528564

REMOVAL



1. Rear combination lamp

DISASSEMBLY



1. Rear turn signal lamp bulb socket
2. Rear turn signal lamp bulb
3. Stop/tail lamp bulb
4. Stop/tail lamp bulb socket

Removal and Installation

INFOID:000000001528565

**CAUTION:**  
Disconnect the battery negative terminal or the fuse.

REMOVAL

1. Remove the rear pillar finisher. Refer to [INT-28, "Exploded View"](#).
2. Disconnect rear combination lamp connector.
3. Remove rear combination lamp mounting bolts.
4. Pull the rear combination lamp toward rear of the vehicle. Remove the rear combination lamp.

INSTALLATION

Install in the reverse order of removal.

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

EXL

# REAR COMBINATION LAMP

[HALOGEN TYPE]

< ON-VEHICLE REPAIR >

## Replacement

INFOID:000000001528566

### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

### STOP/TAIL LAMP BULB

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Keep a service area.
3. Rotate the stop/tail lamp bulb socket counterclockwise, and unlock it.
4. Remove bulb from the bulb socket.

### REAR TURN SIGNAL LAMP BULB

1. Remove rear combination lamp mounting bolts.
2. Pull the rear combination lamp toward rear of the vehicle. Keep a service area.
3. Rotate the rear turn signal lamp bulb socket counterclockwise, and unlock it.
4. Remove bulb from the bulb socket.

# HIGH-MOUNTED STOP LAMP

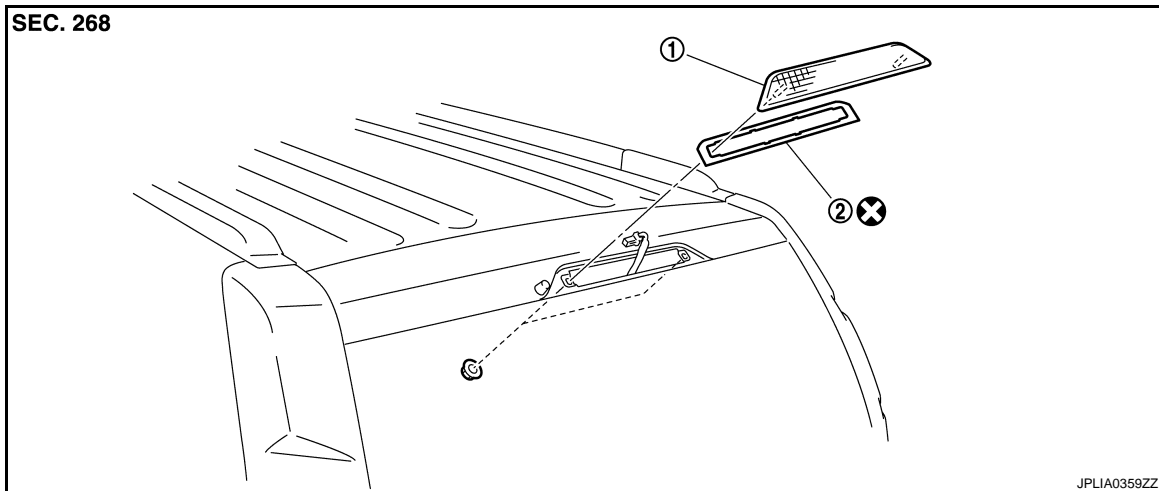
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## HIGH-MOUNTED STOP LAMP

Exploded View

INFOID:000000001528567



1. High-mounted stop lamp
2. Seal packing

Refer to [GI-4, "Components"](#) for symbols in the figure.

## Removal and Installation

INFOID:000000001528568

### CAUTION:

**Disconnect battery negative terminal or remove the fuse.**

### REMOVAL

1. Remove the back door trim finisher upper. Refer to [INT-31, "Exploded View"](#).
2. Remove the mounting nuts.
3. Cut the seal packing by the thin plate.
4. While pressing pawls, remove the high-mounted stop lamp.
5. Disconnect the high-mounted stop lamp connector.

### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

**Seal packing cannot be reused.**

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

# BACK-UP LAMP

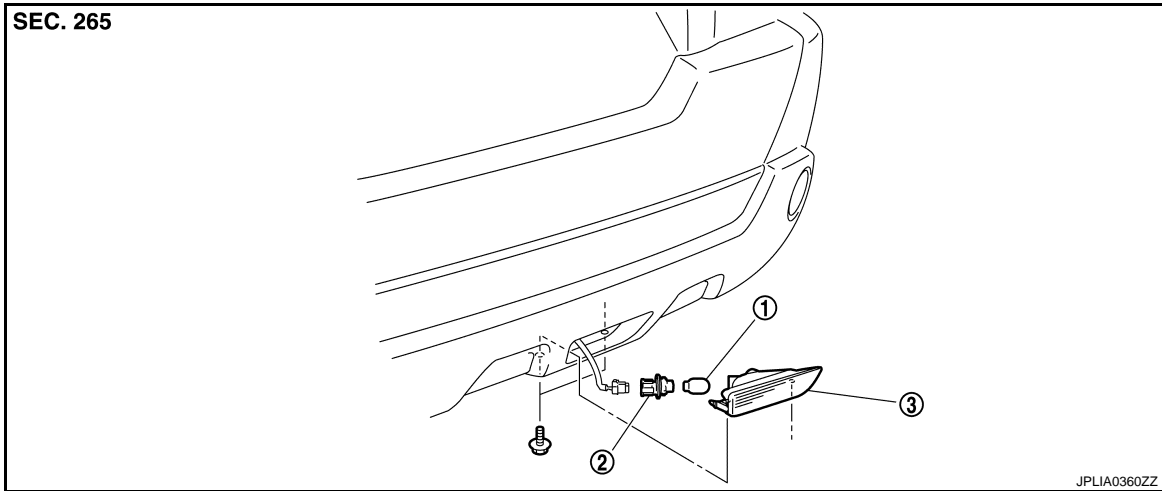
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## BACK-UP LAMP

### Exploded View

INFOID:000000001528569



1. Back-up lamp bulb
2. Back-up lamp bulb socket
3. Back-up lamp housing

### Removal and Installation

INFOID:000000001528570

#### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

#### REMOVAL

1. Remove back-up lamp mounting bolts.
2. Insert any appropriate tool into the gap between the back-up lamp and rear bumper fascia. And then remove the back-up lamp.
3. Disconnect back-up lamp connector.

#### INSTALLATION

Install in the reverse order of removal.

### Replacement

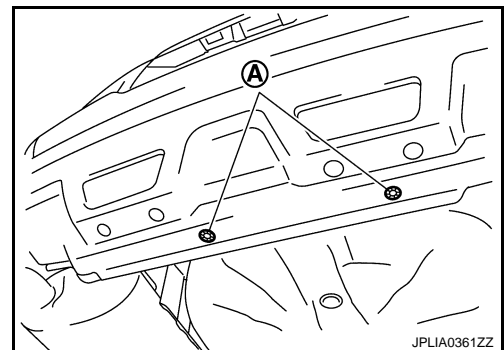
INFOID:000000001528571

#### **CAUTION:**

**Disconnect the battery negative terminal or the fuse.**

#### BACK-UP LAMP BULB

1. Remove the clips (A).
2. Widen the rear bumper fascia. Keep a service area.



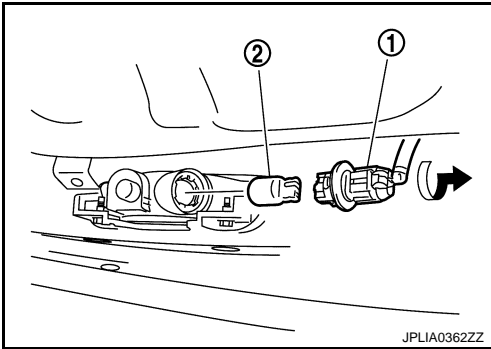


# BACK-UP LAMP

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

- 3. Rotate the bulb socket (1) counterclockwise and unlock it.
- 4. Remove the bulb (2) from the socket.



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

# LICENSE PLATE LAMP

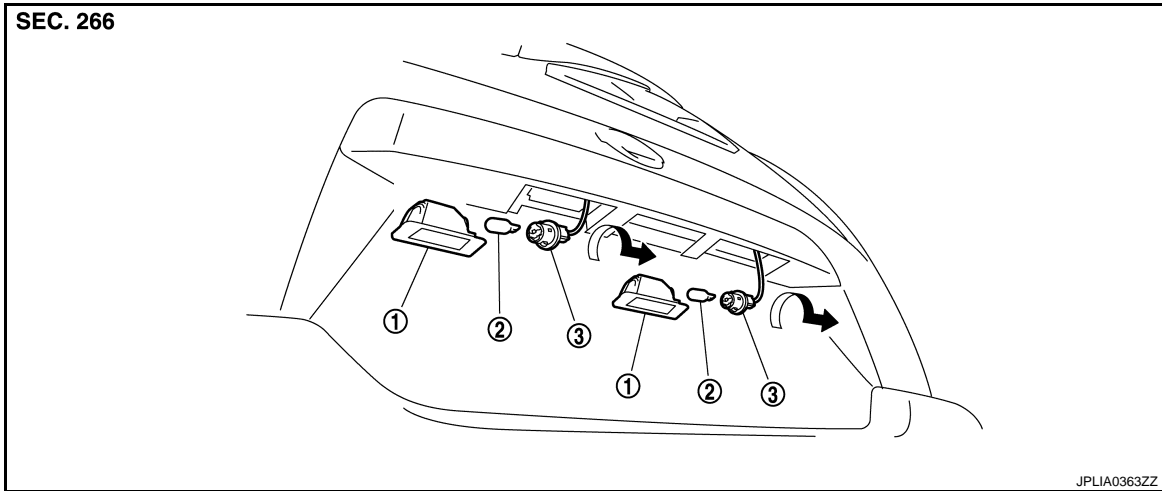
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## LICENSE PLATE LAMP

Exploded View

INFOID:000000001528572



1. License plate lamp housing      2. License plate lamp bulb      3. License plate lamp bulb socket

## Removal and Installation

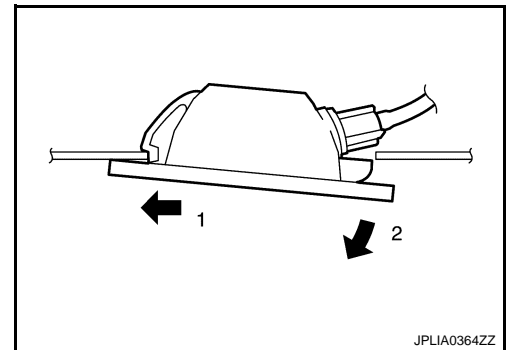
INFOID:000000001528573

### CAUTION:

**Disconnect the battery negative terminal or the fuse.**

### REMOVAL

1. Remove the license plate lamp in numerical order shown in the figure.
2. Rotate the bulb socket counterclockwise and unlock it.



### INSTALLATION

1. Rotate the bulb socket clockwise and lock it.
2. Fix the pawl-side behind the license plate lamp housing first, then push the resin clip-side.

## Replacement

INFOID:000000001528574

### CAUTION:

**Disconnect the battery negative terminal or the fuse.**

### LICENSE PLATE LAMP BULB

1. Remove license plate lamp.
2. Turn the bulb socket counterclockwise and unlock it.
3. Remove the bulb from the socket.

# REAR FOG LAMP

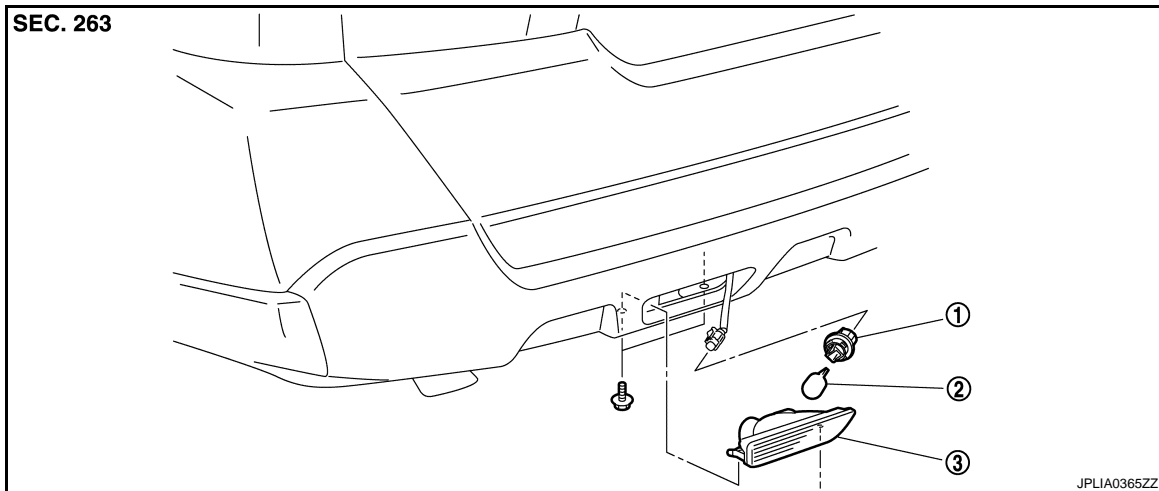
< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

## REAR FOG LAMP

### Exploded View

INFOID:000000001528575



1. Rear fog lamp bulb socket
2. Rear fog lamp bulb
3. Rear fog lamp housing

### Removal and Installation

INFOID:000000001528576

**CAUTION:**  
Disconnect battery negative terminal or remove the fuse.

#### REMOVAL

1. Remove rear fog lamp mounting bolts.
2. Insert any appropriate tool into the gap between the rear fog lamp and rear bumper fascia. And then remove the rear fog lamp.
3. Disconnect rear fog lamp connector.

#### INSTALLATION

Installation is the reverse order of removal.

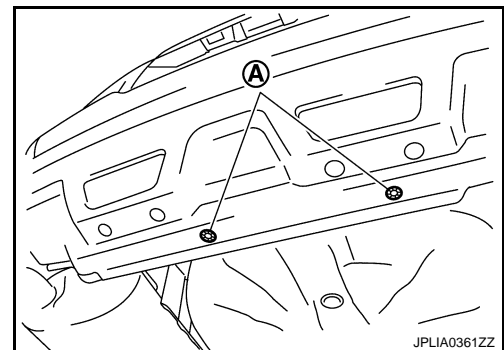
### Replacement

INFOID:000000001528577

**CAUTION:**  
Disconnect battery negative terminal or remove the fuse.

#### REAR FOG LAMP BULB

1. Remove the clips (A).
2. Widen the rear bumper fascia. Keep a service area.



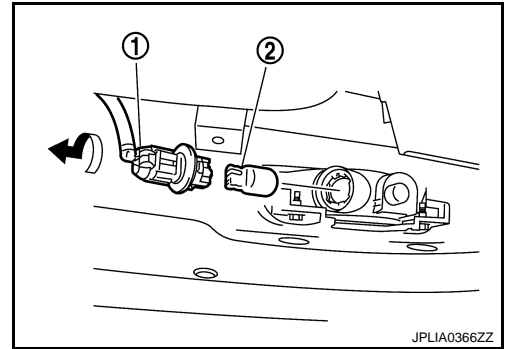
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
EXL  
M  
N  
O  
P

## REAR FOG LAMP

< ON-VEHICLE REPAIR >

[HALOGEN TYPE]

3. Rotate the bulb socket (1) counterclockwise and unlock it.
4. 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:000000001160316

Item		Type	Wattage (W)
Front combination lamp	Headlamp (HI/LO)	H4	60/55
	Front turn signal lamp	WY21W (Amber)	21
	Parking lamp	W5W	5
Front fog lamp		H8	35
Driving lamp		HB3	60
Side turn signal lamp		W5W (Amber)	5
Rear combination lamp	Stop lamp/Tail lamp	W21/5W	21/5
	Rear turn signal lamp	W21W	21
Back-up lamp		W21W	21
License plate lamp		W5W	5
High-mounted stop lamp		LED	—
Rear fog lamp		W21W	21

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

EXL