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# **CONTENTS**

INTELLIGENT KEY SYSTEM
BASIC INSPECTION7
DIAGNOSIS AND REPAIR WORKFLOW 7 Work Flow
INSPECTION AND ADJUSTMENT10
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT
SYSTEM DESCRIPTION11
POWER DOOR LOCK SYSTEM11System Diagram11System Description11Component Parts Location13Component Description14
INTELLIGENT KEY SYSTEM15
INTELLIGENT KEY SYSTEM
DOOR LOCK FUNCTION

BACK DOOR OPEN FUNCTIONBACK DOOR OPEN FUNCTION : System Dia-	24
gramBACK DOOR OPEN FUNCTION : System De-	24
scription  BACK DOOR OPEN FUNCTION: System Description  BACK DOOR OPEN FUNCTION:	24
Component Parts Location BACK DOOR OPEN FUNCTION:	26
Component Description	28
REMOTE KEYLESS ENTRY FUNCTION	28
REMOTE KEYLESS ENTRY FUNCTION : Sys-	
tem DiagramREMOTE KEYLESS ENTRY FUNCTION : Sys-	28
tem Description	28
REMOTE KEYLESS ENTRY FUNCTION :	
Component Parts Location REMOTE KEYLESS ENTRY FUNCTION:	31
Component Description	33
WELCOME LIGHT FUNCTION	33
WELCOME LIGHT FUNCTION : System Descrip-	
tion WELCOME LIGHT FUNCTION :	33
Component Parts Location	34
KEY REMINDER FUNCTION	
KEY REMINDER FUNCTION : System Descrip-	
tion	36
KEY REMINDER FUNCTION: Component Parts Location	37
WARNING FUNCTION : System Description	
WARNING FUNCTION:	59
Component Parts Location	44
BACK DOOR OPENER SYSTEM	47
System Diagram	
System Description  Component Parts Location	
Component Description	

INTEGRATED HOMELINK TRANSMITTER	49	DRIVER SIDE : Component Function Check	70
Component Description	49	DRIVER SIDE : Diagnosis Procedure	70
DIAGNOSIS SYSTEM (BCM)	50	PASSENGER SIDE	70
		PASSENGER SIDE : Description	70
COMMON ITEM	50	PASSENGER SIDE :	
COMMON ITEM : CONSULT-III Function (BCM -		Component Function Check	70
COMMON ITEM)	50	PASSENGER SIDE : Diagnosis Procedure	70
DOOR LOCK	51	DOOR LOCK ACTUATOR	72
DOOR LOCK : CONSULT-III Function (BCM -			
DOOR LOCK)	51	DRIVER SIDE	
		DRIVER SIDE : Description	72
INTELLIGENT KEY	52	DRIVER SIDE : Component Function Check	72
INTELLIGENT KEY: CONSULT-III Function		DRIVER SIDE : Diagnosis Procedure	72
(BCM - INTELLIGENT KEY)	53	DACCENCED CIDE	70
TRUNK	56	PASSENGER SIDE	
TRUNK : CONSULT-III Function (BCM - TRUNK)		PASSENGER SIDE : Description PASSENGER SIDE :	/3
THOMAS OF THE WINDOW (BOWN THOMAS)	00		70
DTC/CIRCUIT DIAGNOSIS	57	Component Function Check	
		PASSENGER SIDE : Diagnosis Procedure	/3
U1000 CAN COMM CIRCUIT	57	REAR LH	73
Description	57	REAR LH: Description	
DTC Logic		REAR LH: Component Function Check	74
Diagnosis Procedure	57	REAR LH : Diagnosis Procedure	
HIANA CONTROL LINIT (CAN)	EO	-	
U1010 CONTROL UNIT (CAN)		REAR RH	
DTC Logic		REAR RH : Description	
Diagnosis Procedure		REAR RH : Component Function Check	
Special Repair Requirement	58	REAR RH : Diagnosis Procedure	75
B2621 INSIDE KEY ANTENNA 1	59	FUEL LID LOCK ACTUATOR	76
Description	59	Description	
DTC Logic	59	Component Function Check	
Diagnosis Procedure		Diagnosis Procedure	
B2622 INSIDE KEY ANTENNA 2	61		
Description		BACK DOOR OPENER ACTUATOR	
DTC Logic		Description	
Diagnosis Procedure		Component Function Check	
· ·		Diagnosis Procedure	//
B2623 INSIDE KEY ANTENNA 3	63	KEY CYLINDER SWITCH	79
Description	63	Description	
DTC Logic	63	Component Function Check	
Diagnosis Procedure	63	Diagnosis Procedure	
POWER SUPPLY AND GROUND CIRCUIT	65	Component Inspection	
		REMOTE KEYLESS ENTRY RECEIVER	01
BCM (BODY CONTROL MODULE)	65	Description	
BCM (BODY CONTROL MODULE) : Diagnosis		Component Function Check	
Procedure	65	Diagnosis Procedure	
DOOD CWITCH		Diagnosis Procedure	01
DOOR SWITCH		BACK DOOR OPENER SWITCH	84
Description		Description	
Component Function Check		Component Function Check	
Diagnosis Procedure		Diagnosis Procedure	
Component Inspection	ხგ	Component Inspection	
DOOR LOCK AND UNLOCK SWITCH	70	·	
		DOOR REQUEST SWITCH	
DRIVER SIDE		Description	
DRIVER SIDE : Description	70	Component Function Check	86

DOOR DOES NOT LOCK/UNLOCK WITH		POWER WINDOW DOWN FUNCTION DOE	
DOOR KEY CYLINDER OPERATION		NOT OPERATE WITH KEY CYLINDER OP	
Description		ERATION	
Diagnosis Procedure	173	Diagnosis Procedure	185
DOOR DOES NOT LOCK/UNLOCK WITH		POWER WINDOW DOWN FUNCTION DOE	=S
DOOR REQUEST SWITCH	174	NOT WORK WHEN OPERATING WITH IN-	
		TELLIGENT KEY	
ALL DOOR		Description	
ALL DOOR: Description		Diagnosis Procedure	
ALL DOOR : Diagnosis Procedure	174		
DRIVER SIDE	174	WELCOME LIGHT FUNCTION DOES NOT	•
DRIVER SIDE : Description		OPERATE	187
DRIVER SIDE : Diagnosis Procedure		Description	187
		Diagnosis Procedure	187
PASSENGER SIDE		DANIO AL ADM FUNCTION DOFO NOT OF	_
PASSENGER SIDE : Description	175	PANIC ALARM FUNCTION DOES NOT OF	
PASSENGER SIDE : Diagnosis Procedure	175	ERATE	
DACK DOOD	475	Description	
BACK DOOR		Diagnosis Procedure	188
BACK DOOR: Description		HAZARD AND HORN REMINDER DOES	
BACK DOOR : Diagnosis Procedure	1/5	NOT OPERATE	400
DOOR DOES NOT LOCK/UNLOCK WITH	IN-		
TELLIGENT KEY		Description  Diagnosis Procedure	
Description		Diagnosis Procedure	109
Diagnosis Procedure		HAZARD AND BUZZER REMINDER DOES	3
Diagnosis i recodare		NOT OPERATE	
BACK DOOR DOES NOT OPENED	178	Description	
Description	178	Diagnosis Procedure	
Diagnosis Procedure	178	-	
CELECTIVE UNI OCK FUNCTION DOEC		KEY REMINDER FUNCTION DOES NOT C	)P-
SELECTIVE UNLOCK FUNCTION DOES		ERATE	191
NOT OPERATE WITH DOOR REQUEST		Description	191
SWITCH		Diagnosis Procedure	191
Description		VEV WARNING DOES NOT OBERATE	
Diagnosis Procedure	179	KEY WARNING DOES NOT OPERATE	
SELECTIVE UNLOCK FUNCTION DOES		Description	
NOT OPERATE WITH INTELLIGENT KEY	7 100	Diagnosis Procedure	192
Description		OFF POSITION WARNING DOES NOT OP	)_
Diagnosis Procedure		ERATE	
Diagnosis i roccuare	100	Description	
VEHICLE SPEED SENSING AUTO LOCK		Diagnosis Procedure	
OPERATION DOES NOT OPERATE	181		
Diagnosis Procedure	181	P POSITION WARNING DOES NOT OPER	<b>'-</b>
•		ATE	194
IGN OFF INTERLOCK DOOR UNLOCK		Description	
FUNCTION DOES NOT OPERATE		Diagnosis Procedure	194
Diagnosis Procedure	182	A OO WARNING ROES NOT OPERATE	
P RANGE INTERLOCK DOOR LOCK/UN-		ACC WARNING DOES NOT OPERATE	
LOCK FUNCTION DOES NOT OPERATE		Description	
		Diagnosis Procedure	196
Diagnosis Procedure	183	TAKE AWAY WARNING DOES NOT OPER	R-
AUTO DOOR LOCK OPERATION DOES N	ОТ	ATE	
OPERATE			
Description		DOOR IS OPEN	
Diagnosis Procedure		DOOR IS OPEN: Description	
<b>.</b>		DOOR IS OPEN: Diagnosis Procedure	197

ANY DOOR OPEN TO ALL DOORS CLOSED 198 ANY DOOR OPEN TO ALL DOORS CLOSED :	PREPARATION214
Description	PREPARATION214
ANY DOOR OPEN TO ALL DOORS CLOSED :	Special Service Tools214
Diagnosis Procedure198	Commercial Service Tools214
PUSH-BUTTON IGNITION SWITCH OPERATION. 198 PUSH-BUTTON IGNITION SWITCH OPERA-	REMOVAL AND INSTALLATION215
TION: Description199	HOOD215
PUSH-BUTTON IGNITION SWITCH OPERA-	HOOD ASSEMBLY215
TION : Diagnosis Procedure199	HOOD ASSEMBLY: Exploded View215
INTELLIGENT KEY IS REMOVED FROM KEY	HOOD ASSEMBLY: Removal and Installation215
SLOT	HOOD ASSEMBLY : Adjustment217
INTELLIGENT KEY IS REMOVED FROM KEY	HOOD HINGE218
SLOT: Description199	HOOD HINGE : Exploded View219
INTELLIGENT KEY IS REMOVED FROM KEY	HOOD HINGE: Exploded View219
SLOT : Diagnosis Procedure200	
INTELLIGENT KEY LOW BATTERY WARN-	HOOD STAY220
ING DOES NOT OPERATE201	HOOD STAY: Exploded View220
Description201	HOOD STAY: Removal and Installation220
Diagnosis Procedure201	HOOD STAY : Disposal221
	RADIATOR CORE SUPPORT222
DOOR LOCK OPERATION WARNING DOES	Exploded View222
NOT OPERATE WITH DOOR REQUEST SWITCH202	Removal and Installation222
Description	FRONT FENDER225
Diagnosis Procedure	Exploded View225
-	Removal and Installation225
KEY ID WARNING DOES NOT OPERATE203	EDONT DOOD
Description	FRONT DOOR227
Diagnosis Procedure	DOOR ASSEMBLY227
INTELLIGENT KEY LOW BATTERY WARN-	DOOR ASSEMBLY : Exploded View227
ING DOES NOT OPERATE204	DOOR ASSEMBLY: Removal and Installation227
Description204	DOOR ASSEMBLY : Adjustment228
Diagnosis Procedure204	DOOR STRIKER229
INTEGRATED HOMELINK TRANSMITTER	DOOR STRIKER : Exploded View229
DOES NOT OPERATE205	DOOR STRIKER: Removal and Installation229
Description	DOOR LIINGE
Diagnosis Procedure205	DOOR HINGE         229           DOOR HINGE : Exploded View         230
•	DOOR HINGE: Exploded view
SQUEAK AND RATTLE TROUBLE DIAG-	
NOSES206	DOOR CHECK LINK
Work Flow	DOOK CHECK LINK . Exploded view231
Inspection Procedure	DOOR CHECK LINK: Removal and Installation231
Diagnostic Worksheet210	REAR DOOR232
PRECAUTION212	DOOR ASSEMBLY232
PRECAUTIONS212	DOOR ASSEMBLY : Exploded View232
Precaution for Supplemental Restraint System	DOOR ASSEMBLY : Removal and Installation232
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	DOOR ASSEMBLY : Adjustment233
SIONER"212	·
Precaution Necessary for Steering Wheel Rota-	DOOR STRIKER234
tion after Battery Disconnect212	THE PROPERTY OF THE PROPERTY O
	DOOR STRIKER: Exploded View
Precaution for Procedure without Cowl Top Cover. 213	DOOR STRIKER: Exploded view234 DOOR STRIKER: Removal and Installation234
Precaution for Procedure without Cowl Top Cover. 213 Work213	

Revision: 2010 March DLK-5 2009 EX35

DOOR HINGE: Removal and Installation235	OUTSIDE HANDLE	
DOOR CHECK LINK235	OUTSIDE HANDLE : Exploded View	
DOOR CHECK LINK : Exploded View236	OUTSIDE HANDLE : Removal and Installation	257
DOOR CHECK LINK: Exploded View	BACK DOOR LOCK	259
BOOK OFFECT ENVIOLENCE AND MICHAELOFF 200	Exploded View	
BACK DOOR237	Removal and Installation	
BACK DOOR ASSEMBLY237		
BACK DOOR ASSEMBLY : Exploded View237	FUEL FILLER LID OPENER	
BACK DOOR ASSEMBLY: Removal and Installa-	Exploded View	
tion237	Removal and Installation	260
BACK DOOR ASSEMBLY : Adjustment239	DOOR SWITCH	261
·	Exploded View	
BACK DOOR STRIKER240	Removal and Installation	
BACK DOOR STRIKER: Exploded View240		
BACK DOOR STRIKER : Removal and Installa-	INSIDE KEY ANTENNA	.262
tion240	INSTRUMENT CENTER	262
BACK DOOR HINGE241	INSTRUMENT CENTER : Exploded View	
BACK DOOR HINGE : Exploded View241	INSTRUMENT CENTER: Exploded view INSTRUMENT CENTER: Removal and Installa-	202
BACK DOOR HINGE : Removal and Installation241	tion	262
	uon	202
BACK DOOR STAY242	CONSOLE	
BACK DOOR STAY : Exploded View242	CONSOLE : Exploded View	262
BACK DOOR STAY: Removal and Installation242	CONSOLE: Removal and Installation	262
BACK DOOR STAY : Disposal243	LUGGAGE ROOM	262
BACK DOOR WEATHER-STRIP243	LUGGAGE ROOM : Exploded View	
BACK DOOR WEATHER-STRIP: Exploded View.244		
DAON DOON WEATHER OTHER LAPIDAGA VICW.277	LUGGAGE ROOM : Removal and Installation	・ソム・ス
BACK DOOR WEATHER-STRIP : Removal and	LUGGAGE ROOM : Removal and Installation	263
	LUGGAGE ROOM : Removal and Installation  OUTSIDE KEY ANTENNA	
BACK DOOR WEATHER-STRIP : Removal and Installation244	OUTSIDE KEY ANTENNA	.264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA	. 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE : Exploded View	. <b>264</b> <b>264</b> 264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA	. <b>264</b> <b>264</b> 264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA  DRIVER SIDE	.264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA  DRIVER SIDE	.264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation	OUTSIDE KEY ANTENNA  DRIVER SIDE	.264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK       248	OUTSIDE KEY ANTENNA  DRIVER SIDE	264 264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248	OUTSIDE KEY ANTENNA  DRIVER SIDE	.264 264 264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK       248	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View	264 264 264 264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation	264 264 264 264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER	264 264 264 264 264 264 264 264 264
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View	264 264 264 264 264 264 264 264 265 265
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Removal and Installation       251	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER	264 264 264 264 264 264 264 264 265 265
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE       251	DRIVER SIDE  DRIVER SIDE: Exploded View DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER Exploded View Removal and Installation	.264 264 264 264 264 264 264 265 265
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT	.264 264 264 264 264 264 264 265 265 265
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE       251	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT  Exploded View	.264 264 264 264 264 264 265 265 265 266
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT	.264 264 264 264 264 264 265 265 265 266
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251         OUTSIDE HANDLE : Removal and Installation       251         REAR DOOR LOCK       254	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT  Exploded View	264 264 264 264 264 264 265 265 265 266 266
BACK DOOR WEATHER-STRIP: Removal and Installation	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT  Exploded View  Removal and Installation	264 264 264 264 264 264 264 265 265 265 266 266
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251         OUTSIDE HANDLE : Removal and Installation       254         DOOR LOCK : Exploded View       254	OUTSIDE KEY ANTENNA  DRIVER SIDE  DRIVER SIDE: Exploded View  DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View  PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View  BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER  Exploded View  Removal and Installation  KEY SLOT  Exploded View  Removal and Installation  REMOTE KEYLESS ENTRY RECEIVER	.264 264 264 264 264 264 264 265 265 266 266 266 266
BACK DOOR WEATHER-STRIP: Removal and Installation	DRIVER SIDE	.264 264 264 264 264 264 264 265 265 265 266 266 267
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251         OUTSIDE HANDLE : Removal and Installation       251         REAR DOOR LOCK       254         DOOR LOCK       254         DOOR LOCK : Exploded View       254         DOOR LOCK : Removal and Installation       254	DRIVER SIDE  DRIVER SIDE: Exploded View DRIVER SIDE: Removal and Installation  PASSENGER SIDE  PASSENGER SIDE: Exploded View PASSENGER SIDE: Removal and Installation  BACK DOOR  BACK DOOR: Exploded View BACK DOOR: Removal and Installation  INTELLIGENT KEY WARNING BUZZER Exploded View Removal and Installation  KEY SLOT  Exploded View Removal and Installation  REMOTE KEYLESS ENTRY RECEIVER Exploded View Removal and Installation  INTELLIGENT KEY BATTERY	.264 264 264 264 264 264 264 265 265 265 266 266 267 267 267
BACK DOOR WEATHER-STRIP : Removal and Installation       244         HOOD LOCK       245         Exploded View       245         Removal and Installation       245         Inspection       247         FRONT DOOR LOCK       248         DOOR LOCK : Exploded View       248         DOOR LOCK : Removal and Installation       248         INSIDE HANDLE       250         INSIDE HANDLE : Exploded View       250         INSIDE HANDLE : Removal and Installation       251         OUTSIDE HANDLE : Exploded View       251         OUTSIDE HANDLE : Removal and Installation       254         DOOR LOCK : Exploded View       254	DRIVER SIDE	.264 264 264 264 264 264 264 265 265 265 266 266 267 267 267

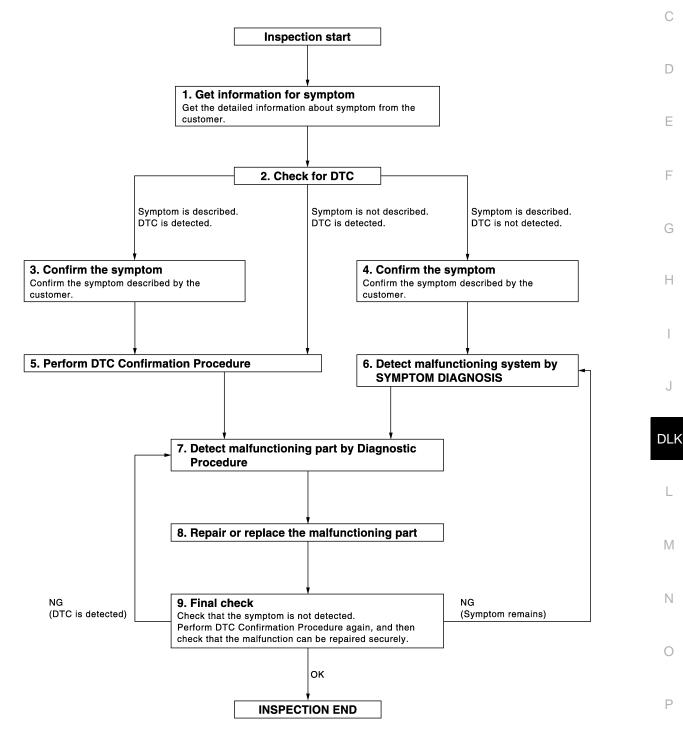
Α

# **BASIC INSPECTION**

# DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

**OVERALL SEQUENCE** 



JMKIA3620GB

### DIAGNOSIS AND REPAIR WORKFLOW

#### < BASIC INSPECTION >

[INTELLIGENT KEY SYSTEM]

# 1.GET INFORMATION FOR SYMPTOM

Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).

>> GO TO 2.

# 2. CHECK FOR DTC

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

### Is any symptom described and any DTC detected?

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

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

Symptom is not described, DTC is displayed>>GO TO 5.

# 3.confirm the symptom

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results.

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

>> GO TO 5.

# 4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results.

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

>> GO TO 6.

# 5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again.

At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time.

If two or more DTCs are detected, refer to <u>DLK-165</u>, "<u>DTC Inspection Priority Chart"</u> and determine trouble diagnosis order.

#### NOTE:

Perform Component Function Check if DTC Confirmation Procedure is not included in Service Manual. This simplified check procedure is an effective alternative though DTC cannot be detected during this check.

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

### Is DTC detected?

YES >> GO TO 7.

NO >> Refer to GI-40, "Intermittent Incident".

# $oldsymbol{6}.$ DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

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

>> GO TO 7.

# 7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Inspect according to Diagnostic Procedure of the system.

#### NOTE:

The Diagnostic Procedure described based on open circuit inspection. A short circuit inspection is also required for the circuit check in the Diagnostic Procedure.

# **DIAGNOSIS AND REPAIR WORKFLOW**

### < BASIC INSPECTION >

[INTELLIGENT KEY SYSTEM]

# Is malfunctioning part detected? YES >> GO TO 8.

NO >> Check voltage of related BCM terminals using CONSULT-III.

# 8.repair or replace the malfunctioning part

- 1. Repair or replace the malfunctioning part.
- Reconnect parts or connectors disconnected during Diagnostic Procedure again after repair and replacement.
- Check DTC. If DTC is displayed, erase it.

>> GO TO 9.

# 9. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction has been repaired securely.

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

### Does the symptom reappear?

YES (DTC is detected)>>GO TO 7.

YES (Symptom remains)>>GO TO 6.

NO >> INSPECTION END

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Revision: 2010 March DLK-9 2009 EX35

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# **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

[INTELLIGENT KEY SYSTEM]

# INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

NFOID:0000000004343359

Perform the system initialization when replacing BCM, replacing Intelligent Key or registering an additional Intelligent Key.

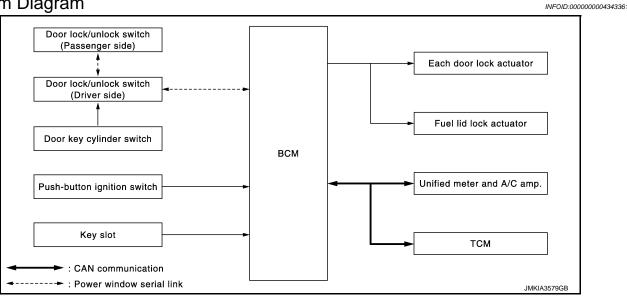
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

Refer to the CONSULT-III operation manual for the initialization procedure.

# SYSTEM DESCRIPTION

# POWER DOOR LOCK SYSTEM

System Diagram



# System Description

#### DOOR LOCK FUNCTION

- The door lock and unlock switch (driver side) is build into power window main switch.
- The door lock and unlock switch (passenger side) is build into front power window switch (passenger side).
- Interlocked with the locking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are locked.
- Interlocked with the unlocking operation of door lock and unlock switch, door lock actuators of all doors and fuel lid lock actuator are unlocked.

#### Door Key Cylinder

- With the door key inserted in the door key cylinder on driver side, turning it to "LOCK", will lock door lock actuator of all doors and fuel lid lock actuator.
- With the door key inserted in the door key cylinder on driver side, turning it to "UNLOCK" once unlocks the
  driver side door lock actuator and fuel lid lock actuator; turning it to "UNLOCK" again within 60 seconds after
  the first unlock operation unlocks all of the other doors. (SELECTIVE UNLOCK OPERATION)

Selective unlock operation mode can be changed using "DOOR LOCK-UNLOCK SET" mode in "WORK SUP-PORT". Refer to <u>DLK-51</u>, "DOOR LOCK: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

#### KEY REMINDER FUNCTION

When door lock and unlock switch are operated while Intelligent Key is inserted into key slot and any door is open, door locks once but immediately unlocks. This operation prevents Intelligent Key from being left in the vehicle.

### AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (LOCK OPERATION)

The interlock door lock function is the function that locks all doors linked with the vehicle speed or shift position. It has 2 types as follows.

### Vehicle Speed Sensing Auto Door Lock\*1

All doors are locked when the vehicle speed reaches 15 MPH (24 km/h) or more.

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is turned ON, all doors are closed and the vehicle speed received from the unified meter and A/C amp. via CAN communication becomes 24 km/h (15 miles) or more.

#### P Range Interlock Door Lock

All doors are locked when shifting the selector lever from the P position to any position other than P.

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### POWER DOOR LOCK SYSTEM

### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

BCM outputs the lock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from the TCM via CAN communication is shifted from the P position to any position other than P.

Setting change of Automatic Door Lock/Unlock Function

The lock operation setting of the automatic door lock/unlock function can be changed.

#### (P) With CONSULT-III

The ON/OFF switching of the automatic door lock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT-III.

#### **⋈** Without CONSULT- III

The automatic door lock function ON/OFF can be switched by performing the following operation.

- 1. Close all doors (door switch OFF)
- 2. Turn ignition switch ON
- Press and hold the door lock and unlock switch for 5 seconds or more in the lock direction within 20 seconds after turning the ignition switch ON.
- 4. The switching is completed when the hazard lamp blinks.

 $OFF \rightarrow ON$  : 2 blinks  $ON \rightarrow OFF$  : 1 blink

# AUTOMATIC DOOR LOCK/UNLOCK FUNCTION (UNLOCK OPERATION)

The automatic door lock/unlock function is the function that unlocks all doors linked with the key position or shift position. It has 2 types as follows.

#### IGN OFF Interlock Door Unlock\*1

All doors are unlocked when the power supply position is changed from ON to OFF.

BCM outputs the unlock signal to all door lock actuators when it detects that the power supply position is changed from ignition switch ON to OFF.

#### P Range Interlock Door Unlock

All doors are unlocked when shifting the selector lever from any position other than the P to P position.

BCM outputs the unlock signal to all door lock actuators when it detects that the ignition switch is in the ON position and the shift signal received from TCM via CAN communication is shifted from any position other than the P to P position.

Setting change of Automatic Door Lock/Unlock Function

The unlock operation setting of the automatic door lock/unlock function can be changed.

#### (P) With CONSULT- III

The ON/OFF switching of the automatic door lock/unlock function and the type selection of the automatic door lock/unlock function can be performed at the WORK SUPPORT setting of CONSULT-III.

### **Without CONSULT- III**

The automatic door lock/unlock function ON/OFF can be switched by performing the following operation.

- 1. Close all doors below (door switch OFF)
- Turn ignition switch ON
- 3. Press and hold the door lock and unlock switch for 5 seconds or more in the unlock direction within 20 seconds after turning the power supply position ON.
- 4. The switching is completed when the hazard lamp blinks.

 $OFF \rightarrow ON$  : 2 blinks  $ON \rightarrow OFF$  : 1 blink

\*1: This function is set to ON before delivery.

# Component Parts Location

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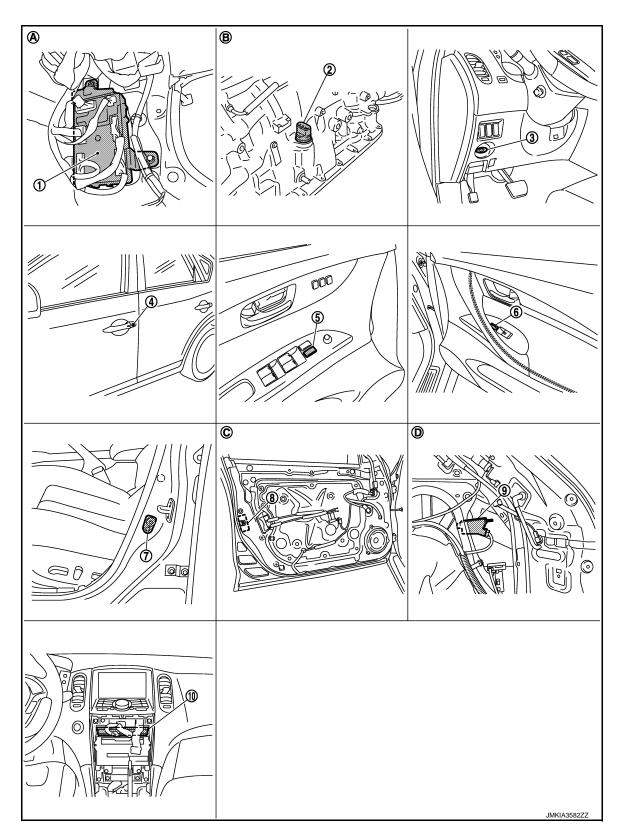
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- BCM M118, M119, M121, M122, M123
- Key cylinder switch [Front door lock assembly (driver side) D15]
- 2. A/T assembly connector F51
- Door lock and unlock switch (Power window main switch D8, D9)
- 3. Key slot M22
- Door lock and unlock switch [Front power window switch (passenger) D38]

Revision: 2010 March DLK-13 2009 EX35

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# POWER DOOR LOCK SYSTEM

### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

7. Front door switch (driver side) B16 8. Door lock actuator 9. Fuel lid lock actuator B242 [Front door lock assembly (driver

side) D15]

10. Unified meter and A/C amp. M66, M67

A. Dash side lower (passenger side) B. A/T assembly (TCM is built in A/T as- C. View with front door finisher (LH) is sembly) removed

D. View with luggage side finisher lower (RH) is removed

# Component Description

INFOID:0000000004343364

Item	Function
BCM	Controls the door lock function and room lamp function.
Door lock and unlock switch	Input lock or unlock signal to BCM.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Key cylinder switch	<ul> <li>Input lock or unlock signal to power window main switch.</li> <li>Power window main switch transmits door lock/unlock signal to BCM.</li> </ul>
Key slot	Input key insert/remove signal to BCM.
Unified meter and A/C amp.	<ul> <li>Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer.</li> <li>Transmits vehicle speed signal to BCM via CAN communication line.</li> </ul>
TCM	Transmit shift position signal to BCM via CAN communication line.
Push-button ignition switch	Input push-button ignition switch ON/OFF condition to BCM.

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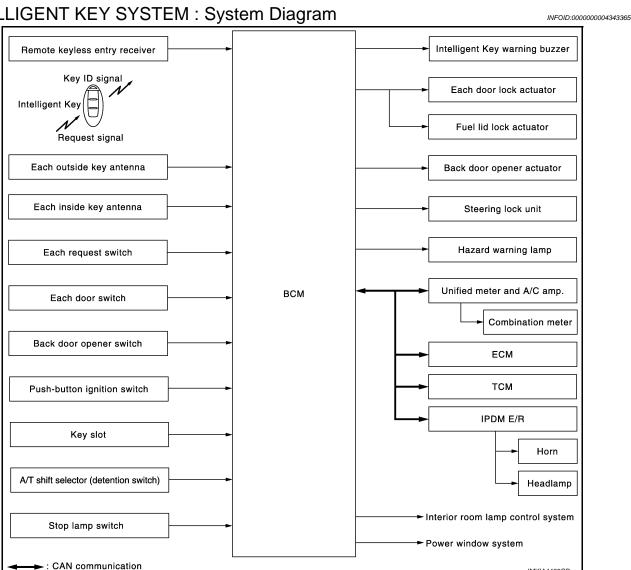
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# INTELLIGENT KEY SYSTEM INTELLIGENT KEY SYSTEM

INTELLIGENT KEY SYSTEM: System Diagram



# INTELLIGENT KEY SYSTEM: System Description

 The Intelligent Key system is a system that makes it possible to lock and unlock the door locks (door lock/ unlock function) by carrying the Intelligent Key, which operates based on the results of electronic ID verification using two-way communications between the Intelligent Key and the vehicle (BCM).

#### The driver should always carry the Intelligent Key

- The settings for each function can be changed with the CONSULT-III.
- If an Intelligent Key is lost, a new Intelligent Key can be registered. A maximum of 4 Intelligent Keys can be
- It is possible to perform a diagnosis on the system and register an Intelligent Key with the CONSULT-III.

Function	Description	Refer
Door lock function	Lock/unlock can be performed by pressing the request switch.	<u>DLK-19</u>
Remote keyless entry function	Lock/unlock can be performed by pressing the remote controller button of the Intelligent Key.	DLK-28
Back door open function	The back door can be opened by carrying the Intelligent Key and pressing the back door opener switch.	DLK-24

# < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

Function	Description	Refer
Welcome light function	The puddle lamp and room automatically turn ON, if the Intelligent Key is in the door outside key antenna detection area.	DLK-33
Key reminder function	The key reminder buzzer sounds a warning if the door is locked with the key left inside the vehicle.	DLK-36
Warning function	If an action that does not meet the operating condition of the Intelligent Key system is taken, the buzzer goes off to inform the driver.	DLK-39
Engine start function	The engine be turned on while carrying the Intelligent Key.	SEC-9

# INTELLIGENT KEY SYSTEM: Component Parts Location

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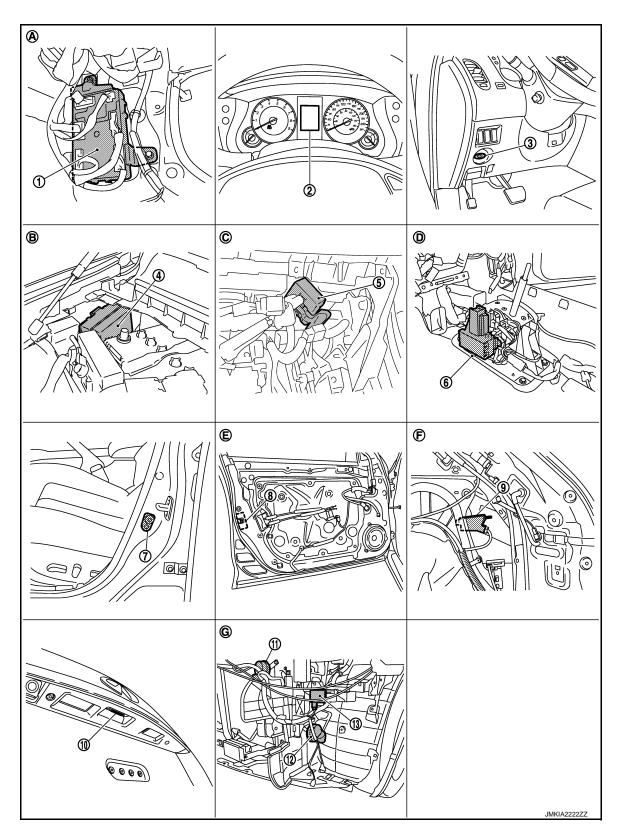
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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- Combination meter M53
- Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

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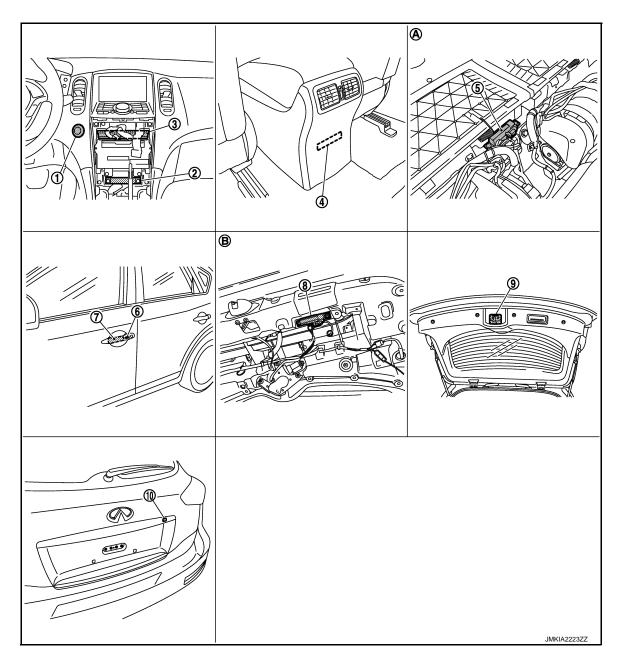
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Revision: 2010 March DLK-17 2009 EX35

- 7. Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E57
- A. Dash side lower (passenger side)
- D. View with center console assembly removed
- G. View with front bumper is removed

- 8. Front door lock assembly (driver side) D15
- 11. Horn (high) E61, E62
- B. Engine room dash panel (RH)
- E. View with front door finisher (LH) is F. removed
- 9. Fuel lid lock actuator B242
- 12. Horn (low) E69, E70
- Behind the instrument lower panel (driver side)
  - View luggage side finisher lower (RH) is removed



- Push-button ignition switch (push switch) M50
- 4. Inside key antenna (console) M146
- 7. Front outside handle LH (outside key 8. antenna) D14
- Inside key antenna (instrument cen- 3. ter) M131
- 5. Inside key antenna (luggage room) B228
  - Outside key antenna (back door)
     D118
- Unified meter and A/C amp. M66, M67
- Front outside handle LH (request switch) D13
- 9. Back door lock assembly D113

#### < SYSTEM DESCRIPTION >

### [INTELLIGENT KEY SYSTEM]

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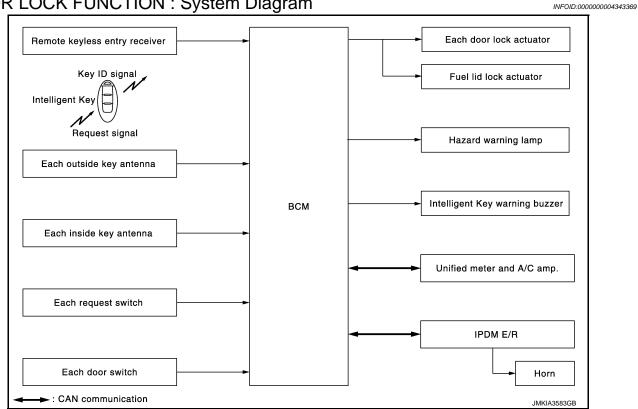
- 10. Back door request switch D116
- View with luggage floor finisher front B. is removed
- View with back door finisher inner is removed

# INTELLIGENT KEY SYSTEM: Component Description

Item	Function
BCM	Controls the Intelligent Key system.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Request switch	Input lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Unified meter and A/C amp.	<ul> <li>Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer.</li> <li>Transmits vehicle speed signal to BCM via CAN communication line.</li> </ul>
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
Back door opener switch	Input back door opener switch operation signal to BCM.
Back door opener actuator	Opens the back door with the back door open signal from BCM.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

# DOOR LOCK FUNCTION

DOOR LOCK FUNCTION: System Diagram



# DOOR LOCK FUNCTION: System Description

INFOID:0000000004343370

Only when pressing the request switch, it is possible to lock and unlock the door by carrying the Intelligent Key.

**DLK-19** Revision: 2010 March 2009 EX35

#### OPERATION DESCRIPTION

- When the BCM detects that each door request switch is pressed, it starts the outside key antenna and inside
  key antenna corresponding to the pressed door request switch and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the door.
- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM lock/unlock each door (except back door) and fuel lid lock actuator and sounds Intelligent Key buzzer warning (lock: 2 time, unlock: 1 times) at the same time as a reminder.

#### **OPERATION CONDITION**

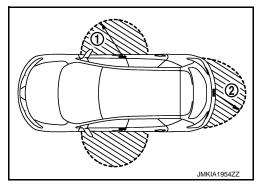
If the following conditions are satisfied, door lock/unlock operation is performed if the request switch is operated.

Operation	Operation condition
Lock operation	<ul> <li>All doors are closed</li> <li>P position warning is activated</li> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area</li> </ul>
Unlock Operation	<ul> <li>Panic alarm is not activated</li> <li>Intelligent Key is outside the vehicle</li> <li>Intelligent Key is within outside key antenna detection area *</li> </ul>

<sup>\*:</sup> Even with a registered Intelligent Key remaining inside the vehicle, door locks can be unlocked from outside of the vehicle with a spare Intelligent Key as long as key IDs are different.

#### **OUTSIDE KEY ANTENNA DETECTION AREA**

The outside key antenna detection area of door lock/unlock function is in the range of approximately 80 cm (31.50 in) surrounding the driver, passenger door handles and (1) and the back door request switch (2). However, this operating range depends on the ambient conditions.



#### SELECTIVE UNLOCK FUNCTION

When an LOCK signal is sent from door request switch (driver side or passenger side), all doors and fuel lid will be locked.

When an UNLOCK signal is sent from door request switch (driver side or passenger side) once, driver's door and fuel lid will be unlocked.

Then, if an UNLOCK signal is sent from door request switch (driver side and passenger side) again within 60 seconds, all other door will be unlocked.

### HAZARD AND BUZZER REMINDER FUNCTION

During lock, unlock, operation by each request switch, the hazard warning lamps and Intelligent Key warning buzzer will blink or honk as a reminder.

When doors are locked, unlocked by each request switch, BCM honks Intelligent Key warning buzzer as a reminder and blinks.

Operating Function of Hazard and Buzzer Reminder

Operation	Hazard warning lamp flash	Intelligent Key warning buzzer honk
Unlock	Once	Once
Lock	Twice	Twice

#### **How to Change Hazard and Buzzer Reminder Mode**

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### < SYSTEM DESCRIPTION >

[INTELLIGENT KEY SYSTEM]

#### AUTO DOOR LOCK FUNCTION

When all doors are locked, ignition switch is in OFF position and key switch is OFF (Intelligent Key is not inserted in key slot), doors are unlocked with door request switch

When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON (ignition switch is pressed)
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to <u>DLK-53</u>, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from door request switch. For detailed description, refer to <a href="INL-5">INL-5</a>, "System Description".

### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator and fuel lid lock actuator	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	CAN communication system	BCM	Hazard warning lamp	Push-button ignition switch
Door lock/unlock function by request switch	×	×	×	×	×	×	×	×			×		
Hazard and buzzer reminder function for door lock/ unlock operation									×	×	×	×	
Selective unlock function by request switch (Driver side)	×				×	×	×	×			×		
Selective unlock function by request switch (Passenger side)	×				×	×	×	×			×		
Selective unlock function by request switch (back door)	×				×		×	×			×		
Auto door lock function	×	×		×	×	×					×		×

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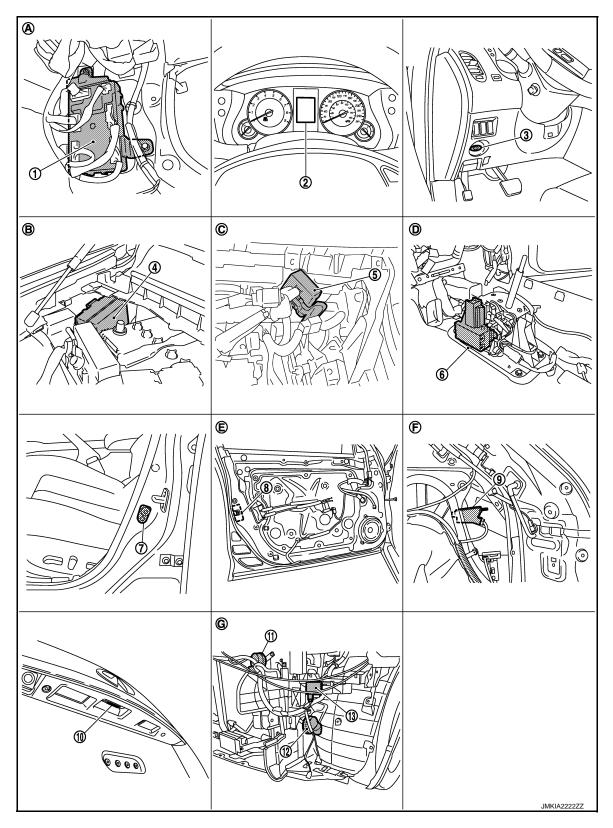
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# DOOR LOCK FUNCTION: Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- 2. Combination meter M53
- 5. Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

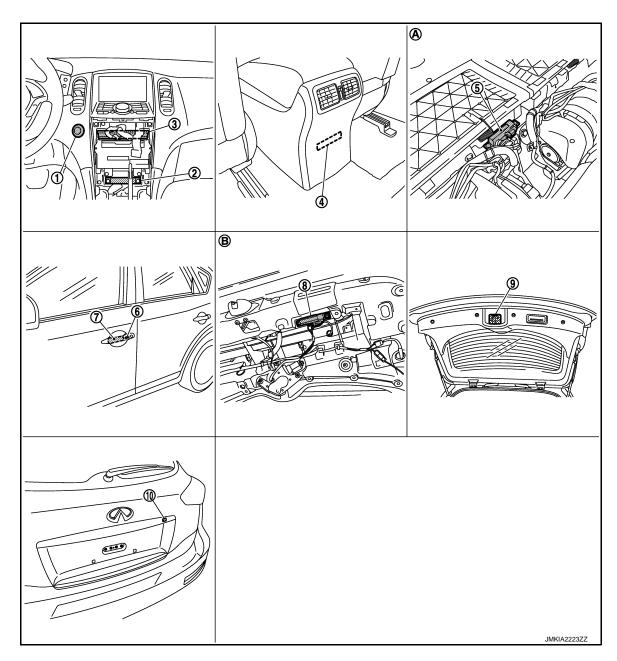
- Front door switch (driver side) B16
- 8. Front door lock assembly (driver side) D15
- Fuel lid lock actuator B242 9.

- 10. Back door opener switch D114
- 11. Horn (high) E61, E62
- Horn (low) E69, E70

- 13. Intelligent Key warning buzzer E57 Dash side lower (passenger side)
- Engine room dash panel (RH)
- Behind the instrument lower panel (driver side)

- View with center console assembly removed
- View with front door finisher (LH) is F. removed
  - View luggage side finisher lower (RH) is removed

View with front bumper is removed



- Push-button ignition switch (push switch) M50
- Inside key antenna (instrument center) M131
- Unified meter and A/C amp. M66, M67

Inside key antenna (console)

Revision: 2010 March

- Inside key antenna (luggage room) B228 6.
  - Front outside handle LH (request switch) D13

- Front outside handle LH (outside 8. key antenna) D14
- Outside key antenna (back door) D118
- Back door lock assembly D113

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- Back door opener request switch D116
- A. View with luggage floor finisher front is removed
- View with back door finisher inner is removed

# DOOR LOCK FUNCTION: Component Description

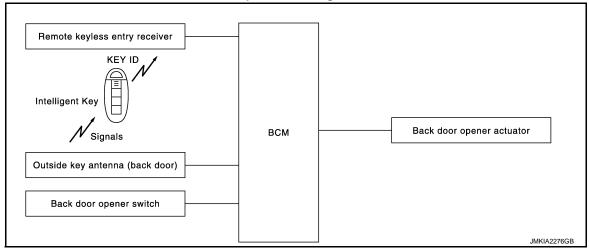
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Item	Function
BCM	Controls the door lock function.
Door lock actuator	Output lock/unlock signal from BCM and locks/unlocks each door.
Door switch	Input door open/close condition to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Request switch	Input lock/unlock operation to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna	Detects if Intelligent Key is outside the vehicle.
Inside key antenna	Detects if Intelligent Key is inside the vehicle.
Unified meter and A/C amp.	<ul> <li>Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer.</li> <li>Transmits vehicle speed signal to BCM via CAN communication line.</li> </ul>
Combination meter	Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.
Intelligent Key warning buzzer	Warns the user of the lock/unlock condition and inappropriate operations with the buzzer sound.

### BACK DOOR OPEN FUNCTION

# BACK DOOR OPEN FUNCTION: System Diagram

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# BACK DOOR OPEN FUNCTION: System Description

INFOID:0000000004343374

This section describes the operation of the back door opener switch. The operation of the back door request switch is the same as the door lock function. Refer to <a href="DLK-19">DLK-19</a>, "DOOR LOCK FUNCTION: System Description".

- The back door opener function can open the back door by pressing the back door opener switch while carrying the Intelligent Key. At this time, all doors other than the back door and fuel lid are locked.
- The back door opener function can open the back door by pressing the back door opener switch with all doors and fuel lid are unlocked by the door request switch or remote controller.

#### **BACK DOOR OPEN**

 When the BCM detects that back door opener switch is pressed, it starts the outside key antenna (back door) and inside key antenna and transmits the request signal to the Intelligent Key. And then, check that the Intelligent Key is near the back door.

#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

- If the Intelligent Key is within the outside key antenna detection area, it receives the request signal and transmits the key ID signal to the BCM via remote keyless entry receiver.
- BCM receives the key ID signal and compares it with the registered key ID.
- BCM open the back door and sounds Intelligent Key buzzer warning at the same time as a reminder.

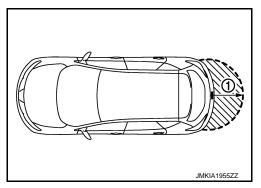
#### **OPERATION CONDITION**

If the following conditions are satisfied, the back door can be opened.

- · Back door is closed
- Intelligent Key is outside of vehicle
- Intelligent Key is within out side key antenna detection area

#### **OUTSIDE KEY ANTENNA DETECTION AREA**

The outside key antenna detection area of back door open function is in the range of approximately 80 cm (31.50 in) surrounding the back door opener switch (1). However, this operating range depends on the ambient conditions.



#### HAZARD AND BUZZER REMINDER FUNCTION

Back door opening operation by back door opener switch, the hazard warning lamps and born will blink or honk as a reminder.

#### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Door lock function	Intelligent Key	Key slot	Remote keyless entry receiver	Door switch	Door request switch	Door lock actuator and fuel lid lock actuator	Inside key antenna	Outside key antenna (Rear bumper)	Intelligent Key warning buzzer	CAN communication system	всм	Hazard warning lamp	Back door opener switch
Back door open function by back door opener switch (Carrying Intelligent Key)	×	×	×	×	×	×	×	×		×	×		×
Hazard and buzzer reminder function for door lock/unlock operation									×	×	×	×	

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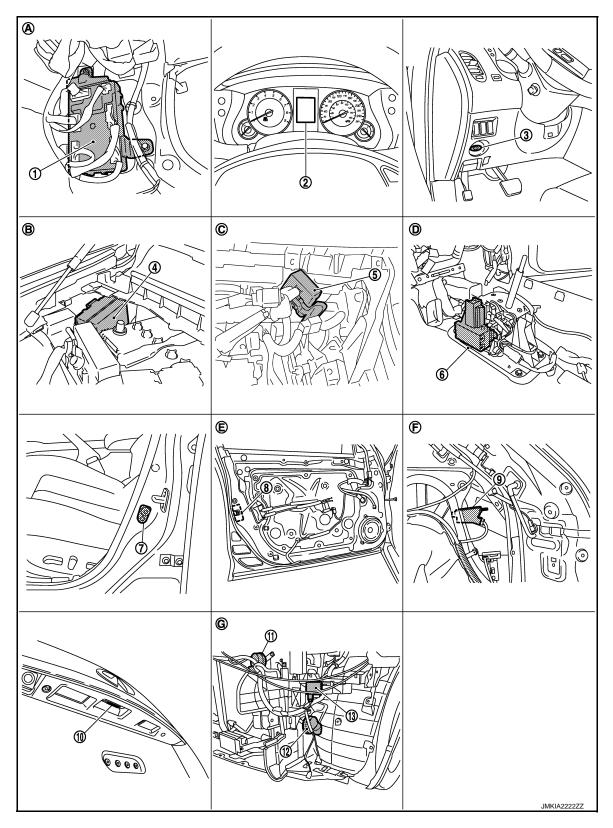
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# BACK DOOR OPEN FUNCTION : Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- 2. Combination meter M53
- 5. Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

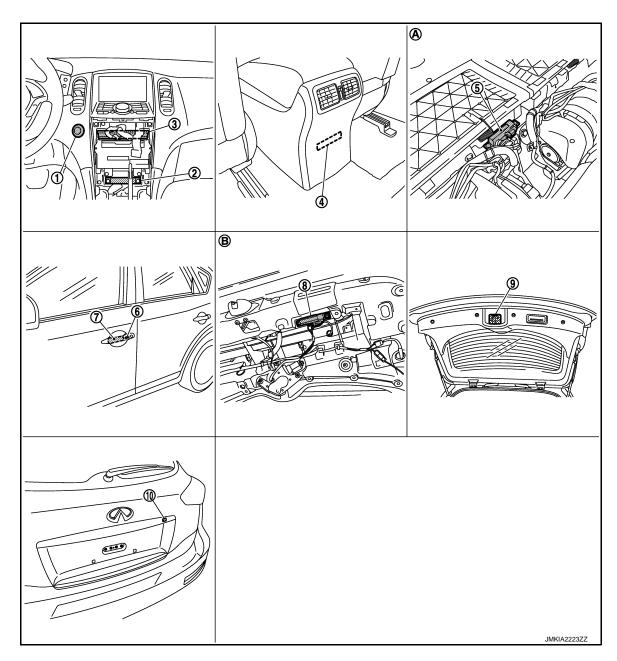
- 7. Front door switch (driver side) B16
- Front door lock assembly (driver side) D15
- 9. Fuel lid lock actuator B242

- 10. Back door opener switch D114
- 11. Horn (high) E61, E62
- 12. Horn (low) E69, E70

- 13. Intelligent Key warning buzzer E57A. Dash side lower (passenger side)
- . Engine room dash panel (RH)
- Behind the instrument lower panel (driver side)

- View with center console assembly removed
- E. View with front door finisher (LH) is F. removed
- F. View luggage side finisher lower (RH) is removed

G. View with front bumper is removed



- Push-button ignition switch (push switch) M50
- Inside key antenna (instrument center)
   M131
- Unified meter and A/C amp. M66, M67

- 4. Inside key antenna (console) M146
- 5. Inside key antenna (luggage room) B228 6.
  - Front outside handle LH (request switch)
     D13

- 7. Front outside handle LH (outside 8. key antenna) D14
- Outside key antenna (back door) D118
- 9. Back door lock assembly D113

Revision: 2010 March **DLK-27** 2009 EX35

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- Back door opener request switch D116
- View with luggage floor finisher front is removed
- View with back door finisher inner is removed

# BACK DOOR OPEN FUNCTION: Component Description

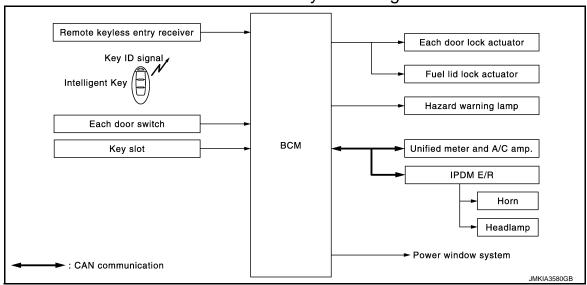
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Item	Function
BCM	Controls the back door open function and room lamp function.
Back door opener switch	Input press/degrees signal to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Intelligent Key	Transmits button operation to remote keyless entry receiver.
Outside key antenna (back door)	Detects if Intelligent Key is outside the vehicle.

# REMOTE KEYLESS ENTRY FUNCTION

# REMOTE KEYLESS ENTRY FUNCTION: System Diagram

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# REMOTE KEYLESS ENTRY FUNCTION: System Description

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The Intelligent Key has the same functions as the remote control entry system. Therefore, it can be used in the same manner as the remote controller by operating the door lock/unlock button.

#### **OPERATION**

Remote keyless entry system controls operation of the

- Door lock/unlock
- Selective unlock
- Hazard and horn reminder
- Auto door lock
- Panic alarm
- Power window down
- Interior lamp

#### OPERATION AREA

To ensure the Intelligent Key works effectively, use within 1 m (3ft) range of each doors, however the operable range may differ according to surroundings.

#### DOOR LOCK/UNLOCK FUNCTION

 When door lock/unlock button of the Intelligent Key is pressed, lock signal or unlock signal is transmits from Intelligent Key to BCM via remote keyless entry receiver.

### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

- When BCM receives the door lock/unlock signal, it operates door lock actuator and fuel lid lock actuator, flashes the hazard lamp (lock: 2 time, unlock: 1 times) and horn chirp signal to IPDM E/R at the same time as a reminder.
- IPDM E/R honks horn (lock: 2 time) as a reminder

### **OPERATION CONDITION**

Operation	Operation condition
Lock	All doors closed
Unlock	Intelligent Key is out of key slot

#### SELECTIVE UNLOCK FUNCTION

When an LOCK signal is transmitted from Intelligent Key, all doors and fuel lid will be locked.

When an UNLOCK signal is transmitted from Intelligent Key once, driver's door and fuel lid will be unlocked. Then, if an UNLOCK signal is transmitted from Intelligent Key again within 60 seconds, all other door will be unlocked.

#### HAZARD AND HORN REMINDER FUNCTION

When doors are locked or unlocked by Intelligent Key, BCM flashes hazard warning lamps as a reminder. The hazard and horn reminder has a horn chirp mode (C mode) and a non-horn chirp mode (S mode).

Operating Function of Hazard and Horn Reminder

	C n	node	Sm	node
Intelligent Key operation	Lock	Unlock	Lock	Unlock
Hazard warning lamp flash	Twice	Once	Twice	_
Horn sound	Once	_	_	_

Hazard and horn reminder does not operate if any door switch is ON (any door is OPEN).

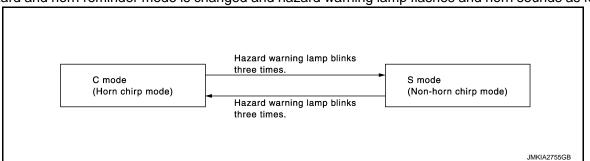
#### **How to Change Hazard and Horn Reminder Mode**

(II) With CONSULT-III

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Without CONSULT-III

When LOCK and UNLOCK signals are sent from the Intelligent Key for more than 2 seconds at the same time, the hazard and horn reminder mode is changed and hazard warning lamp flashes and horn sounds as follows:



### AUTO DOOR LOCK FUNCTION

When all doors and fuel lid are locked, ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), doors and fuel lid are unlocked with Intelligent Key button. When BCM does not receive the following signals within 60 seconds, all doors and fuel lid are locked.

- Door switch is ON (door is opened)
- Door is locked
- Ignition switch is ON
- Key switch is ON (Intelligent Key is inserted in key slot)

Auto door lock mode can be changed by "AUTO LOCK SET" mode in "WORK SUPPORT". Refer to DLK-53. "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### PANIC ALARM FUNCTION

When ignition switch is OFF (ignition switch is not pressed) and key switch is OFF (Intelligent Key is not inserted in key slot), BCM receives PANIC ALARM signal from Intelligent Key.

**DLK-29** Revision: 2010 March 2009 EX35

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#### < SYSTEM DESCRIPTION >

[INTELLIGENT KEY SYSTEM]

BCM turns on and off headlamp intermittently and transmits theft warning horn signal to IPDM E/R. Then, IPDM E/R turns on and off horn intermittently.

The headlamp flashes and the horn sounds intermittently.

The alarm automatically turns off:

- After 25 seconds
- When BCM receives any signal from Intelligent Key

Panic alarm function mode can be changed by "PANIC ALARM SET" mode in "WORK SUPPORT". Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

### KEYLESS POWER WINDOW DOWN (OPEN) FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3 seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.

The power window opening stops when the following operations are performed:

- When the unlock button is kept pressed more than 15 seconds.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

While retained power operation activate, Keyless power window down (open) function cannot be operated. Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <a href="https://documents.com/linearing/linearing-number-11">DLK-53</a>, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### INTERIOR ROOM LAMP CONTROL

Intelligent Key system turns on interior lamp by receiving UNLOCK signal from Intelligent Key. For detailed description, refer to <a href="INL-5">INL-5</a>, "System Description".

### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Remote keyless entry functions	Intelligent Key	Key slot	Door request switch	Door switch	Door lock actuator and fuel lid lock actuator	CAN communication system	BCM	Combination meter	Hazard warning lamp	Horn	IPDM E/R	Headlamp
Door lock/unlock function by remote control button	×	×		×	×		×					
Hazard and horn reminder function	×					×	×	×	×	×	×	
Selective unlock function	×			×	×		×					
Auto door lock function	×	×		×			×					
Panic alarm function	×		×			×	×			×	×	×

REMOTE KEYLESS ENTRY FUNCTION : Component Parts Location

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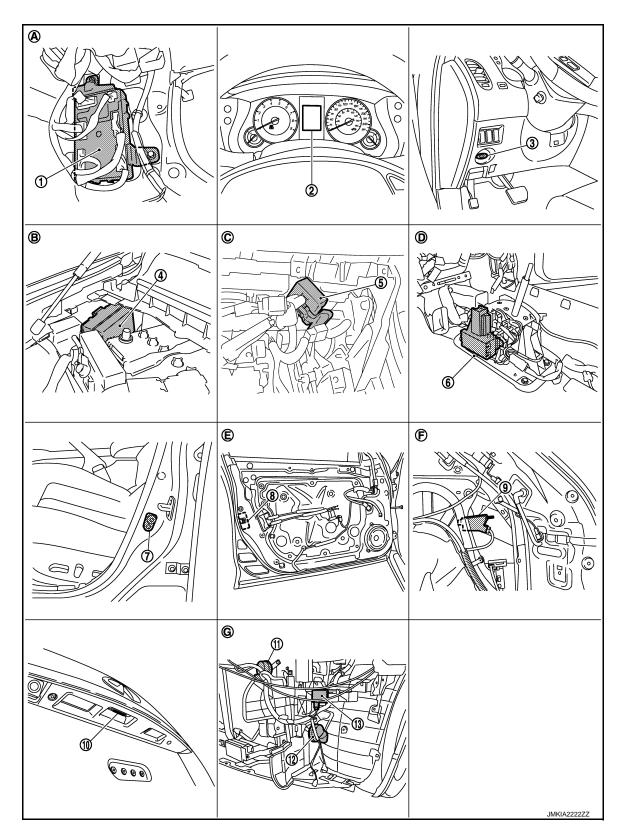
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- BCM M118, M119, M120, M121, M122, M123
- IPDM E/R E5, E6
- Combination meter M53
- Remote key less entry receiver M104
- Key slot M22 3.
- A/T shift selector (detention 6. switch) M137

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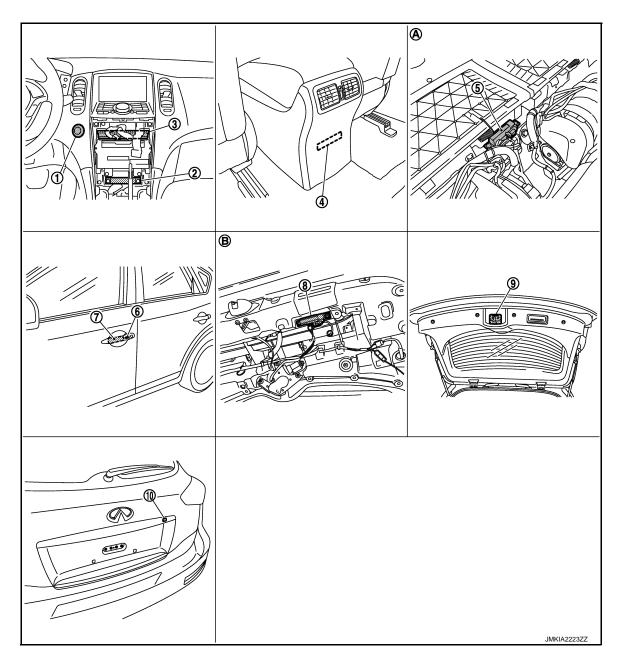
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**DLK-31** Revision: 2010 March 2009 EX35

- Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E57
- Dash side lower (passenger side)
- View with center console assembly removed
- View with front bumper is removed

- Front door lock assembly (driver side) D15
- 11. Horn (high) E61, E62
- B. Engine room dash panel (RH)
- View with front door finisher (LH) is F.
- Fuel lid lock actuator B242 9.
- 12. Horn (low) E69, E70
- Behind the instrument lower panel (driver side)
  - View luggage side finisher lower (RH) is removed



- Push-button ignition switch (push switch) M50
- Inside key antenna (console)
- Front outside handle LH (outside 8. key antenna) D14
- Inside key antenna (instrument center) M131
- Inside key antenna (luggage room) B228 6.
- 3. Unified meter and A/C amp. M66, M67
- Front outside handle LH (request switch) D13
- Outside key antenna (back door) D118 9. Back door lock assembly D113

#### < SYSTEM DESCRIPTION >

Combination meter

Intelligent Key

#### [INTELLIGENT KEY SYSTEM]

- 10. Back door opener request switch D116
- View with luggage floor finisher front is removed
- View with back door finisher inner is re-

# REMOTE KEYLESS ENTRY FUNCTION: Component Description

Item	Function
BCM	Controls the door lock function and room lamp function.
IPDM E/R	Horn sounds and headlamp blinks via CAN communication between BCM.
Door lock actuator	Outputs lock/unlock signal from BCM and locks/unlocks each door.
Remote keyless entry receiver	Receives lock/unlock signal from the Intelligent Key, and then transmits to BCM.
Unified meter and A/C amp.	<ul> <li>Receive buzzer signal from BCM via CAN communication line, and sounds the buzzer.</li> <li>Transmits vehicle speed signal to BCM via CAN communication line.</li> </ul>

Transmits button operation to remote keyless entry receiver.

Display, buzzer (combination meter) and KEY warning lamp are installed to combination meter.

# WELCOME LIGHT FUNCTION

# WELCOME LIGHT FUNCTION: System Description

#### CONDITION OF SEARCHING

If all following conditions are satisfied, BCM search Intelligent Key by outside key antenna (front outside handle LH/RH and back door). BCM has timer to search for 14 days (every 0.3 sec.). If run the engine, the timer will be reset.

Function	Condition
Welcome light function	<ul> <li>System setting is active.</li> <li>All doors are closed.</li> <li>Ignition position is OFF.</li> <li>There is no Intelligent Key inside vehicle.</li> <li>Shift position is P position.</li> <li>All doors are closed and locked (or auto lock timer is running).</li> </ul>

#### **OPERATION PROCEDURE**

BCM search outside key antenna (front outside handle LH/RH and back door) detection area. If registered Intelligent Key is detected, BCM turn ON the room lamp and puddle lamp.

For detailed description after turning ON the lamps, refer to INL-5. "System Description".

#### SYSTEM SETTING PROCEDURE

Setting of welcome light function can be changed by following procedure. (for system setting by CONSULT-III: refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".)

**DLK-33** 

- Confirm Intelligent Key is removed from key slot.
- Turn ignition switch ON and press and hold request switch (driver side) more than 5 seconds. 2.
- Confirm sounds of buzzer (combination meter).

Pi, Pi, Pi... (approx. 1.2 sec.): Welcome light function is OFF. Pi, Pi, Pi...(approx. 2.4 sec.): Welcome light function is ON.

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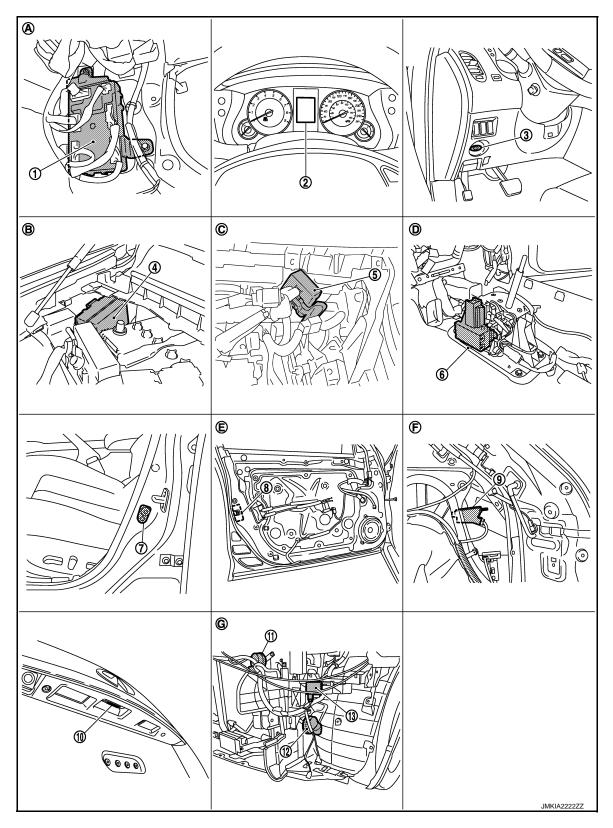
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# WELCOME LIGHT FUNCTION : Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- 2. Combination meter M53
- 5. Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

- Front door switch (driver side) B16
- 8. Front door lock assembly (driver side) D15
- Fuel lid lock actuator B242 9.

Horn (low) E69, E70

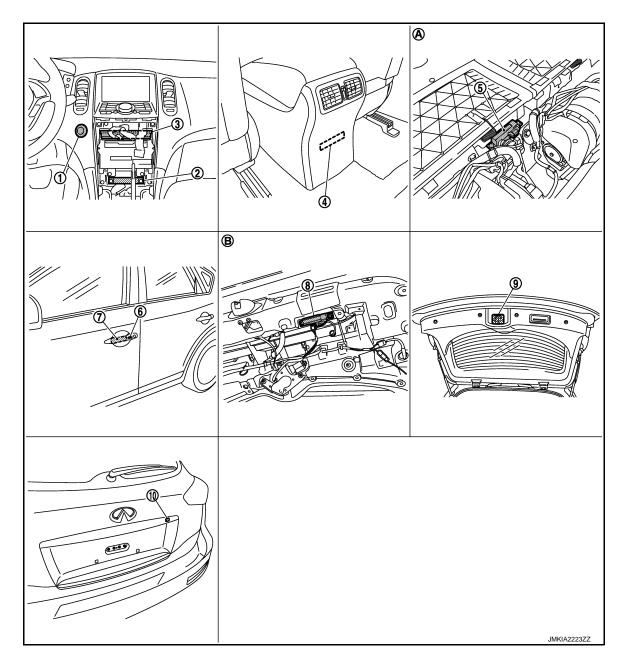
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E57 Dash side lower (passenger side)
  - - Engine room dash panel (RH)

11. Horn (high) E61, E62

Behind the instrument lower panel (driver side)

- View with center console assembly removed
- View with front door finisher (LH) is F. removed
- View luggage side finisher lower (RH) is removed

View with front bumper is removed



- Push-button ignition switch (push switch) M50
- Inside key antenna (instrument center) M131
- Unified meter and A/C amp. M66, M67

- Inside key antenna (console)
- Inside key antenna (luggage room) B228 6.
  - Front outside handle LH (request switch) D13

- Front outside handle LH (outside 8. key antenna) D14
- Outside key antenna (back door) D118
- Back door lock assembly D113

**DLK-35** Revision: 2010 March 2009 EX35

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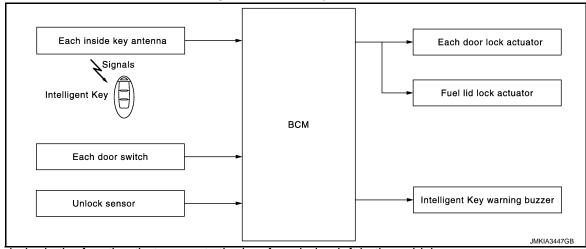
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- Back door opener request switch D116
- A. View with luggage floor finisher front is removed
- View with back door finisher inner is removed

### KEY REMINDER FUNCTION

# KEY REMINDER FUNCTION: System Description

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Key reminder is the function that prevents the key from being left in the vehicle. Key reminder has the following 3 functions.

Key remainder function	Operation condition	Operation
Driver door closed*	Right after driver side door is closed under the following conditions  Door lock operation is performed  Driver side door is opened  Driver side door is in lock state	All doors and fuel lid unlock
Door is open or closed	Right after all doors are closed under the following conditions  Intelligent Key is inside the vehicle  Any door is opened  All doors are locked by door lock and unlock switch or door lock knob	All doors and fuel lid unlock     Honk Intelligent Key warning     buzzer
Back door is closed	Right after back door is closed under the following conditions  Intelligent Key is inside vehicle  All doors (except back door) are closed  All doors (except back door) are locked	All doors and fuel lid unlock     Back door can open with     back door opener switch     Honk Intelligent Key warning     buzzer

<sup>\*:</sup>If the door closing impact shocks the door lock knob, or contacts against baggage with the door lock knob might activate the door locks accidentally but unlock operation will be perform in these cases.

#### **CAUTION:**

- The above function operates when the Intelligent Key is inside the vehicle. However, there may be times when the Intelligent Key cannot be detected, and this function will not operate when the Intelligent Key is on the instrument panel, or in the glove box. Also, this system sometimes does not operate if the Intelligent Key is in the door pocket for the open door.
- Key reminder function is operated when the back door is open/closed and the buzzers sound, if the following operations are performed, the key reminder function is cleared and buzzer sounds are stopped.
- Remote controller door lock button operation of Intelligent Key
- Remote controller door unlock button operation of Intelligent Key
- When the back door is closed, the Intelligent Key is not inside the vehicle
- When any door is open

# KEY REMINDER FUNCTION : Component Parts Location

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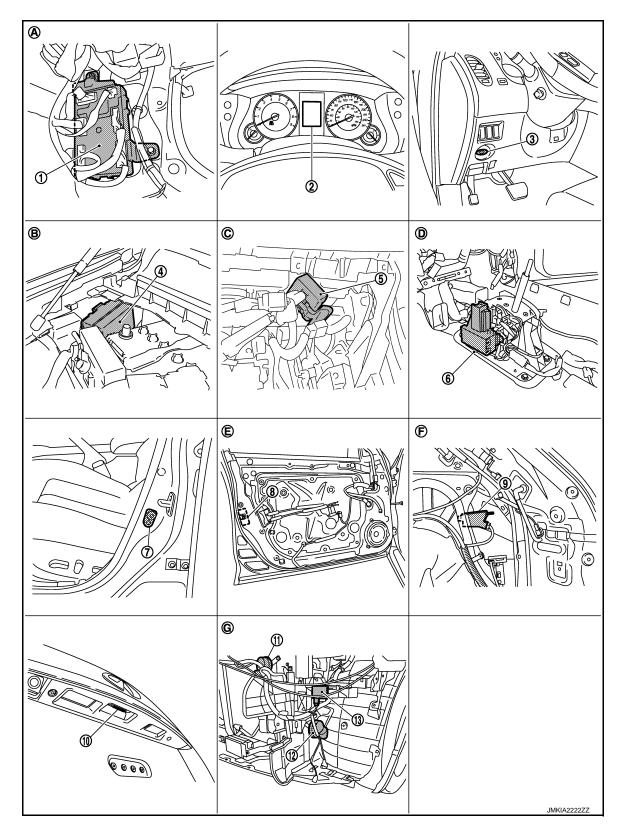
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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- Combination meter M53
- Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

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Revision: 2010 March DLK-37 2009 EX35

- 7. Front door switch (driver side) B16
- 10. Back door opener switch D114
- 13. Intelligent Key warning buzzer E57
- A. Dash side lower (passenger side)
- View with center console assembly removed
- G. View with front bumper is removed

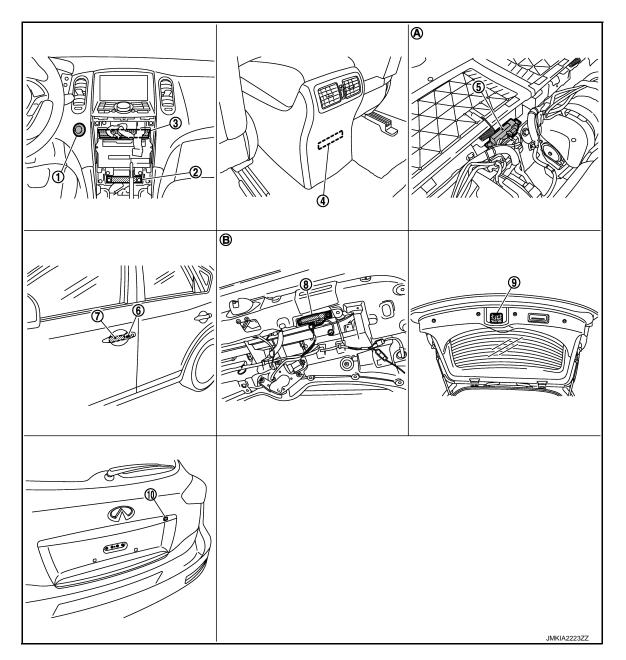
- Front door lock assembly (driver side) D15
- 11. Horn (high) E61, E62

B.

- E. View with front door finisher (LH) is F.

Engine room dash panel (RH)

- 9. Fuel lid lock actuator B242
- 12. Horn (low) E69, E70
- Behind the instrument lower panel (driver side)
  - View luggage side finisher lower (RH) is removed



- Push-button ignition switch (push switch) M50
- 4. Inside key antenna (console)

key antenna) D14

e) 5.

M131

- Front outside handle LH (outside 8. Outside key antenna (back door)
- Unified meter and A/C amp. M66, M67
- Inside key antenna (luggage room) B228 6. Front outside handle LH (request switch)
  D13
- Outside key antenna (back door) D118 9. Back door lock assembly D113

Inside key antenna (instrument center)

#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

- Back door opener request switch D116
- A. View with luggage floor finisher front is removed
- View with back door finisher inner is removed

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#### WARNING FUNCTION

# WARNING FUNCTION: System Description

#### INFOID:0000000004343385

#### **OPERATION DESCRIPTION**

The warning function are as follows and are given to the user as warning information and warnings using combinations of Intelligent Key warning buzzer, KEY warning lamp, key slot illumination and information display in combination meter.

- · Intelligent Key system malfunction
- OFF position warning
- P position warning
- ACC warning
- Take away warning
- · Door lock operation warning
- Key warning
- Intelligent Key insert information
- Engine start information
- Steering lock information
- Intelligent key low battery warning
- Key ID warning

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#### **OPERATION CONDITION**

Once the following condition from below is established, alert or warning will be executed.

Warning/Info	rmation functions	Operation procedure					
Intelligent Key system m	alfunction	When a malfunction is detected on BCM, "KEY" warning lamp will illuminate					
	For internal	<ul><li>Ignition switch: ACC position.</li><li>Door switch (driver side): ON (Door is open).</li></ul>					
OFF position warning	For external	OFF position warning (For internal) is in active mode, driver side door has been closed.  NOTE:  OFF position (For external) active only when each of the sequence has occurred as below: P position warning $\rightarrow$ ACC warning $\rightarrow$ OFF position warning (For internal) $\rightarrow$ OFF position warning (For internal)					
P position warning		<ul> <li>Shift position: Except P position.</li> <li>Engine is running to stopped (Ignition switch is ON to OFF).</li> </ul>					
ACC warning		<ul> <li>During P position warning is in active mode, shift position has changed P position.</li> <li>Ignition switch: ACC position.</li> </ul>					
	Door is open to close	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>					
Take away warning	Door is open	<ul> <li>Door switch: ON (Door is open).</li> <li>Key ID verification every 5 seconds when registered Intelligent Key can not be detected inside the vehicle.</li> </ul>					
•	Push button-ignition switch operation	<ul> <li>Ignition switch: Except LOCK position.</li> <li>Press push-button ignition switch.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>					
	Intelligent Key is removed from key slot	When Intelligent Key is removed from key slot, Intelligent Key can not be detected inside the vehicle.					

Revision: 2010 March **DLK-39** 2009 EX35

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#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

Warning/Inforn	nation functions	Operation procedure
Door lock operation warn-	Request switch operation	<ul> <li>When request switch is pushed (lock operation) under the following conditions.</li> <li>All door is closed.</li> <li>All door is unlocked.</li> <li>Intelligent Key is inside vehicle.</li> </ul>
ing	Intelligent Key button operation	<ul> <li>When Intelligent Key button is pushed (lock operation) under the following conditions.</li> <li>Door switch: ON (Any door is open).</li> <li>For 3 seconds after Intelligent Key is removed from key slot.</li> </ul>
Key warning		<ul> <li>Ignition switch is OFF position.</li> <li>Driver side door switch: ON (Driver side door is open).</li> <li>Intelligent Key is inserted in key slot.</li> </ul>
Intelligent Key insert information		<ul> <li>Door switch: ON to OFF (Door is open to close).</li> <li>Ignition switch: OFF to ON position.</li> <li>Intelligent Key is out of key slot.</li> <li>Intelligent Key can not be detected inside the vehicle.</li> </ul>
	Ignition switch is ON position	<ul><li>Ignition switch: ON position.</li><li>Shift position: P position.</li><li>Engine is stopped.</li></ul>
Engine start information	Ignition switch is except ON position	<ul> <li>Ignition switch: Except ON position.</li> <li>Shift position: P position.</li> <li>Intelligent Key is inserted in key slot or Intelligent Key can be detected inside the vehicle.</li> </ul>
Steering lock information		When steering lock can not be released after ignition switch is turned ON.
Intelligent Key low battery warning		When Intelligent Key is low battery, BCM is detected after ignition switch is turned ON.
Key ID warning		When registered intelligent Key can not be detected inside the vehicle after ignition switch is turned ON.

#### WARNING METHOD

The following table shows the alarm or warning methods with chime. Information display (combination meter), "KEY" indicator or key slot illumination when the warning conditions are met.

					Warning	g chime
Warning/Informa	ation functions "KEY" warn- ing lamp (combination meter)			Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer
Intelligent Key system	m malfunction	Illuminate	_	_	_	_
OFF position warn-	For internal	_	_	_	Activate	_
ing	For external	_	_	_	_	Activate
P position warning		- SHIFT		_	Activate	_
ACC warning		_	PUSH JMKIA0047GB	_	_	_

# [INTELLIGENT KEY SYSTEM]

Warning/Information functions					Warning		/
		"KEY" warn- ing lamp	Information display (combination meter)	Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer	
	Door is open to close	_		Blink	Activate	Activate	[
	Door is open	_		Blink	_	_	
Take away warning	Push-ignition switch operation	_	NO NO	Blink	Activate	_	(
	Take away through window	_	NO KEY	Blink	Activate	_	[
	Intelligent Key is removed from key slot	_	JMKIA0036GB	Blink	_	_	[
Door lock operation	Request switch operation	_	_	_	_	Activate	
warning	Intelligent Key operation	_	_	_	_	Activate	F
Key ID warning		_	NO KEY	_	_	_	(  -
Key warning		_	JMKIA0035GB	Blink	Activate	_	DI
Intelligent Key insert	information	_	JMKIA0034GB	Blink	_	_	I
Engine start informa	tion	_	BRAKE JMKIA0032GB	_	_	_	(

# [INTELLIGENT KEY SYSTEM]

				Warning chime				
Warning/Information functions	"KEY" warn- Information display K ing lamp (combination meter)		Key slot in- dicator	Combination meter buzzer	Intelligent Key warning buzzer			
Steering lock information	_	JMKIA0033GB	_	_	_			
Intelligent Key low battery warning	_	JMKIA0048GB	_	_	_			

#### LIST OF OPERATION RELATED PARTS

Parts marked with  $\times$  are the parts related to operation.

Warning function		Intelligent Key	Key slot	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter warning buzzer	CAN communication system	BCM	Combination meter display	Key slot illumination	Detention switch	"KEY" warning lamp
Intelligent Key system mal	function										×	×				×
OFF position warning	For internal				×					×	×	×				
	For external				×				×			×				
P position warning				×						×	×	×	×		×	
ACC warning				×						×	×	×	×		×	
	Door is open or close	×			×		×		×	×	×	×	×	×		
	Door is open	×			×		×				×	×	×	×		
Take away warning	Push-ignition switch operation	×		×			×			×	×	×	×	×		
	Intelligent Key is removed from key slot	×	×				×				×	×	×	×		
Door lock operation warning	ng	×	×		×	×	×	×	×			×				
Key ID warning		×	×	×			×				×	×	×			
Key warning		×	×		×					×	×	×	×	×		
Intelligent Key insert information		×	×	×	×		×				×	×	×	×		
Engine start information	Ignition switch is ON position	×	×	×			×				×	×	×		×	
Engine start information	Ignition switch is except ON position	×	×	×			×				×	×	×			

< SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

Warning function	Intelligent Key	Key slot	Ignition switch	Door switch	Door request switch	Inside key antenna	Outside key antenna	Intelligent Key warning buzzer	Combination meter warning buzzer	CAN communication system	BCM	Combination meter display	Key slot illumination	Detention switch	"KEY" warning lamp
Steering lock information			×							×	×	×			
Intelligent Key low battery warning	×					×				×	×	×			

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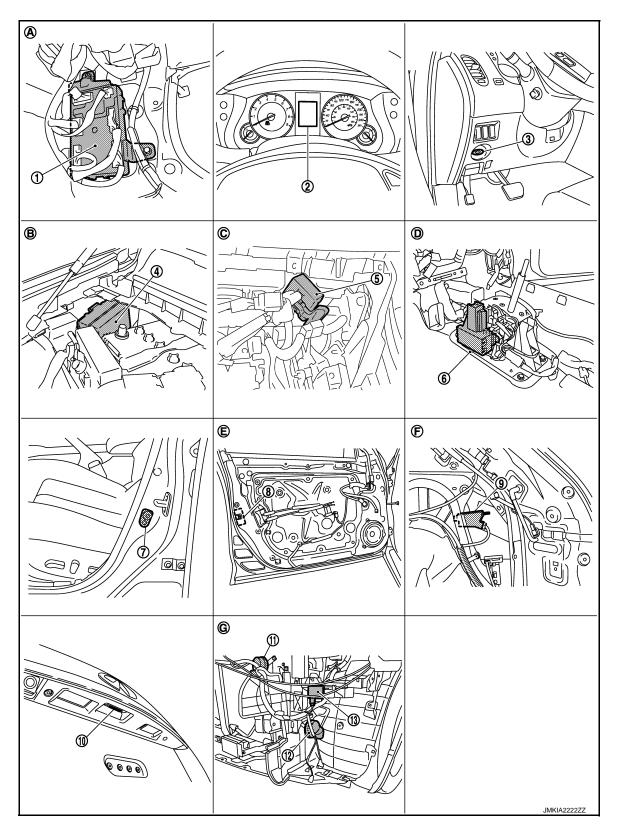
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# WARNING FUNCTION: Component Parts Location

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- 1. BCM M118, M119, M120, M121, M122, M123
- 4. IPDM E/R E5, E6
- 2. Combination meter M53
- 5. Remote key less entry receiver M104
- 3. Key slot M22
- 6. A/T shift selector (detention switch) M137

#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

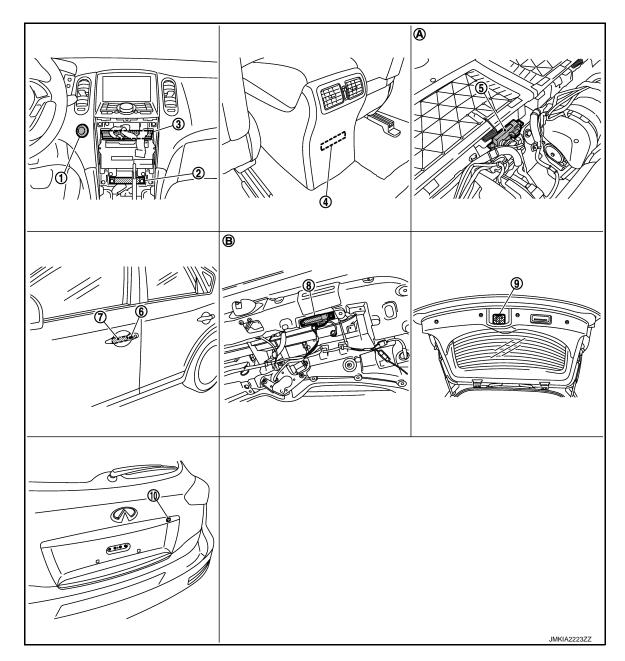
- 7. Front door switch (driver side) B16
- Front door lock assembly (driver side) D15
- 9. Fuel lid lock actuator B242

- 10. Back door opener switch D114
- 11. Horn (high) E61, E62
- 2. Horn (low) E69, E70

- 13. Intelligent Key warning buzzer E57A. Dash side lower (passenger side)
- . Engine room dash panel (RH)
- Behind the instrument lower panel (driver side)

- View with center console assembly removed
- E. View with front door finisher (LH) is F. removed
- F. View luggage side finisher lower (RH) is removed

G. View with front bumper is removed



- Push-button ignition switch (push switch) M50
- Inside key antenna (instrument center)
   M131
- Unified meter and A/C amp. M66, M67

- Inside key antenna (console) M146
- 5. Inside key antenna (luggage room) B228 6.
  - Front outside handle LH (request switch)
     D13

- 7. Front outside handle LH (outside 8. key antenna) D14
- Outside key antenna (back door) D118
- 9. Back door lock assembly D113

Revision: 2010 March **DLK-45** 2009 EX35

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# < SYSTEM DESCRIPTION >

[INTELLIGENT KEY SYSTEM]

- Back door opener request switch D116
- A. View with luggage floor finisher front is removed
- B. View with back door finisher inner is removed

# **BACK DOOR OPENER SYSTEM**

System Diagram

INFOID:0000000004672376

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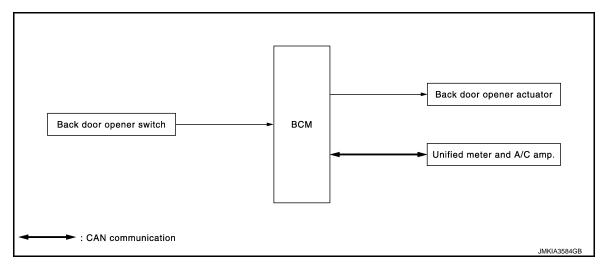
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# System Description

INFOID:0000000004672377

#### BACK DOOR OPENER OPERATION

When back door opener switch is pressed, BCM opens back door opener actuator.

#### NOTE:

Back door opener actuator is not for locking the back door. The function is only to open the back door.

#### **OPERATION CONDITION**

If the following conditions are satisfied, back door opener operation is performed.

Back door opener switch operation	Operation condition
Back door open	<ul> <li>All door is unlocked.*</li> <li>Vehicle speed is less than 5 km/h (3 MPH).</li> </ul>

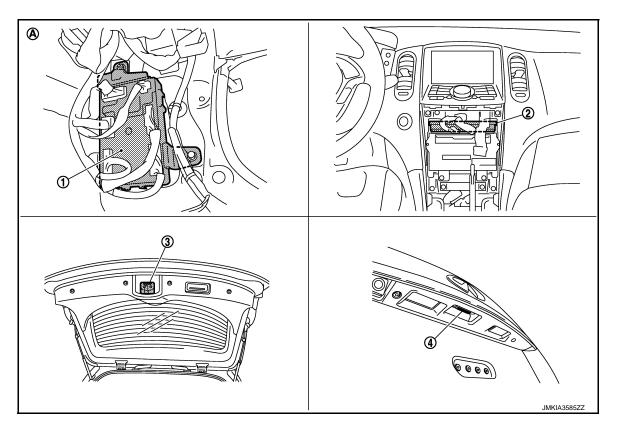
<sup>\*:</sup> Except UNLOCK by door lock knob operation.

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# Component Parts Location

INFOID:0000000004672378



- BCM M118, M119, M120, M121, M122
- 4. Back door opener switch D114
- A. Behind the center console
- 2. Unified meter and A/C amp. M66, M67
- 3. Back door lock assembly D113

# Component Description

INFOID:0000000004672379

Item	Function
BCM	Controls the back door opener function.
Back door opener switch	Input back door opener switch operation signal to BCM.
Back door opener actuator	Opens the back door with the back door open signal from BCM.
Unified meter and A/C amp.	Transmits vehicle speed signal to BCM via CAN communication.

### INTEGRATED HOMELINK TRANSMITTER

< SYSTEM DESCRIPTION >

[INTELLIGENT KEY SYSTEM]

# INTEGRATED HOMELINK TRANSMITTER

# **Component Description**

INFOID:0000000004343387

Item	Function
Homelink universal transceiver	A maximum of 3 radio signals can be stored and transmitted to operate the garage door, etc.

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#### < SYSTEM DESCRIPTION >

[INTELLIGENT KEY SYSTEM]

# DIAGNOSIS SYSTEM (BCM)

**COMMON ITEM** 

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

INFOID:0000000004343388

#### APPLICATION ITEM

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

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

#### SYSTEM APPLICATION

BCM can perform the following functions for each system.

#### NOTE:

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

×: Applicable item

System	Sub system selection item		Diagnosis mode	
System	·		Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT*1	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
_	AIR CONDITONER*2			
Intelligent Key system     Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door opener system	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

#### NOTE:

<sup>• \*1:</sup>At model with Intelligent Key system this item is displayed, but is not used.

<sup>• \*2:</sup> This item is displayed, but is not used.

#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

#### FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit		Description
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odomete	r value) of the moment a particular DTC is detected
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"
	ACC>ON		While turning power supply position from "ACC" to "IGN"
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
	CRANK>RUN	_	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
	ACC>OFF		While turning power supply position from "ACC" to "OFF"
	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"
Vehicle Condition	OFF>ACC	Power position status of the moment a particular	While turning power supply position from "OFF" to "ACC"
vernois containen	ON>CRANK	DTC is detected	While turning power supply position from "IGN" to "CRANKING"
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
	ACC		Power supply position is "ACC" (Ignition switch ACC)
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)
	CRANKING		Power supply position is "CRANKING" (At engine cranking)
IGN Counter	0 - 39	<ul><li>The number is 0 wher</li><li>The number increases whenever ignition swit</li></ul>	It ignition switch is turned ON after DTC is detected a malfunction is detected now. It is like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition in the OFF $\rightarrow$ ON. If $39$ until the self-diagnosis results are erased if it is over 39.

**DOOR LOCK** 

DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)

INFOID:0000000004343389

#### **BCM CONSULT-III FUNCTION**

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

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.

#### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

Diagnosis mode	Function Description
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.

#### **WORK SUPPORT**

Monitor item	Description
DOOR LOCK-UNLOCK SET	Selective unlock function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
AUTOMATIC DOOR LOCK SE- LECT	Automatic door lock function mode can be selected from the following in this mode.  VH SPD: All doors are locked when vehicle speed more than 24km/h (15MPH)  PRANGE: All doors are locked when shifting the selector lever from P position to other than the P position
AUTOMATIC DOOR UNLOCK SELECT	<ul> <li>Automatic door unlock function mode can be selected from the following in the mode.</li> <li>MODE 1: All doors are unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 2: All doors are unlocked when shifting the selector lever from any position other than the P to P position</li> <li>MODE 3: Driver side door is unlocked when the power supply position is changed from ON to OFF</li> <li>MODE 4: Driver side door is unlocked when shifting the selector lever from any position other than the P to P position</li> </ul>
AUTOMATIC LOCK/UNLOCK SET	Automatic door lock/unlock function mode can be selected from the following in this mode.  Off: non-operational  Unlock Only: door unlock operation only  Lock Only: door lock operation only  Lock/Unlock: lock/unlock operation

#### DATA MONITOR

Monitor Item	Contents
REQ SW-DR	Indicated [ON/OFF] condition of door request switch (driver side).
REQ SW-AS	Indicated [ON/OFF] condition of door request switch (passenger side).
REQ SW-BD/TR	Indicated [ON/OFF] condition of back door request switch.
DOOR SW-DR	Indicated [ON/OFF] condition of front door switch (driver side).
DOOR SW-AS	Indicated [ON/OFF] condition of front door switch (passenger side).
DOOR SW-RR	Indicated [ON/OFF] condition of rear door switch RH.
DOOR SW-RL	Indicated [ON/OFF] condition of rear door switch LH.
DOOR SW-BK	Indicated [ON/OFF] condition of back door switch.
CDL LOCK SW	Indicated [ON/OFF] condition of lock signal from door lock unlock switch.
CDL UNLOCK SW	Indicated [ON/OFF] condition of unlock signal from door lock unlock switch.
KEY CYL LK-SW	Indicated [ON/OFF] condition of lock signal from door key cylinder.
KEY CYL UN-SW	Indicated [ON/OFF] condition of unlock signal from door key cylinder.

### **ACTIVE TEST**

Test item	Description
DOOR LOCK	<ul> <li>This test is able to check door lock/unlock operation.</li> <li>The all door lock actuators are locked when "ALL LCK" on CONSULT-III screen is touched.</li> <li>The all door lock actuators are unlocked when "ALL UNLK" on CONSULT-III screen is touched.</li> <li>The door lock actuator (driver side) is unlocked when "DR UNLK" on CONSULT-III screen is touched.</li> <li>The door lock actuator (passenger side) is unlocked when "AS UNLK" on CONSULT- III screen is touched.</li> <li>The door lock actuator (rear LH and RH) is unlocked when "OTR ULK" on CONSULT-III screen is touched.</li> </ul>

# **INTELLIGENT KEY**

### < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

# INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY) INFOID:00000004343390

### **WORK SUPPORT**

Monitor item	Description
CONFIRM KEY FOB ID	It can be checked whether Intelligent Key ID code is registered or not in this mode.
AUTO LOCK SET	Auto door lock time can be changed in this mode.  • MODE 1: 1 minute  • MODE 2: 5 minutes  • MODE 3: 30 seconds  • MODE 4: 2 minutes
LOCK/UNLOCK BY I-KEY	Door lock/unlock function by door request switch (driver side, passenger side and back door) mode can be changed to operate (ON) or not operate (OFF) in this mode.
ENGINE START BY I-KEY	Engine start function mode can be changed to operate (ON) or not operate (OFF) with this mode.
TRUNK/GLASS HATCH OPEN	Buzzer reminder function mode by back door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
PANIC ALARM SET	Panic alarm button pressing time on Intelligent Key remote control button can be selected from the following with this mode.  • MODE 1: 0.5 sec.  • MODE 2: Non-operation  • MODE 3: 1.5 sec.
PW DOWN SET	Unlock button pressing time on Intelligent Key button can be selected from the following with this mode.  • MODE 1: 3 sec.  • MODE 2: Non-operation  • MODE 3: 5 sec.
TAKE OUT FROM WIN WARN	NOTE: This item is displayed, but cannot be supported.
TRUNK OPEN DELAY	NOTE: This item is displayed, but cannot be supported.
LO- BATT OF KEY FOB WARN	Intelligent Key low battery warning mode can be changed to operate (ON) or not operate (OFF) with this mode.
ANTI KEY LOCK IN FUNCTI	Key reminder function mode can be changed to operate (ON) or not operate (OFF) with this mode.
HAZARD ANSWER BACK	Hazard reminder function mode can be selected from the following with this mode.  • LOCK ONLY: Door lock operation only  • UNLOCK ONLY: Door unlock operation only  • LOCK/UNLOCK: Lock/unlock operation  • OFF: Non-operation
ANS BACK I-KEY LOCK	Buzzer reminder function (lock operation) mode by door request switch (driver side and passenger side) can be selected from the following with this mode.  • Horn chirp: Sound horn  • Buzzer: Sound Intelligent Key warning buzzer  • OFF: Non-operation
ANS BACK I-KEY UNLOCK	Buzzer reminder function (unlock operation) mode by door request switch can be changed to operate (ON) or not operate (OFF) with this mode.
SHORT CRANKING OUTPUT	Starter motor can operate during the times below.  • 70 msec.  • 100 msec.  • 200 msec.
INSIDE ANT DIAGNOSIS	This function allows inside key antenna self-diagnosis.
HORN WITH KEYLESS LOCK	Horn reminder function mode by Intelligent Key button can be changed to operate (ON) or not operate (OFF) with this mode.

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#### [INTELLIGENT KEY SYSTEM]

Monitor item	Description
WELCOME LIGHT OP SET	Welcome light function mode can be changed to operate (WITH) or not operate (WITHOUT) with this mode.
WELCOME LIGHT SELECT	Welcome light function mode can be selected from the following with this mode.  • Without room lamp  • With room lamp  • Without paddle lamp  • With paddle lamp

### SELF-DIAG RESULT

Refer to <u>DLK-167</u>, "DTC Index".

### **DATA MONITOR**

Monitor Item	Condition
REQ SW -DR	Indicates [ON/OFF] condition of door request switch (driver side).
REQ SW -AS	Indicates [ON/OFF] condition of door request switch (passenger side).
REQ SW -RR	NOTE: This item is displayed, but cannot be monitored.
REQ SW -RL	NOTE: This item is displayed, but cannot be monitored.
REQ SW -BD/TR	Indicates [ON/OFF] condition of back door request switch.
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY2 -F/B	Indicates [ON/OFF] condition of ignition relay 2.
CLUCH SW	NOTE: This item is displayed, but cannot be monitored.
BRAKE SW 1	Indicates [ON/OFF] condition of brake switch power supply.
BRAKE SW 2	Indicates [ON/OFF] condition of brake switch.
DETE/CANCL SW	Indicates [ON/OFF] condition of P position.
SFT PN/N SW	Indicates [ON/OFF] condition of P or N position.
S/L -LOCK	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L -UNLOCK	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY -F/B	Indicates [ON/OFF] condition of ignition switch.
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.
PUSH SW -IPDM	Indicates [ON/OFF] condition of push-button ignition switch.
IGN RLY1 -F/B	Indicates [ON/OFF] condition of ignition relay 1.
DETE SW -IPDM	Indicates [ON/OFF] condition of P position.
SFT PN -IPDM	Indicates [ON/OFF] condition of P or N position.
SFT P -MET	Indicates [ON/OFF] condition of P position.
SFT N -MET	Indicates [ON/OFF] condition of N position.
ENGINE STATE	Indicates [STOP/START/CRANK/RUN] condition of engine states.
S/L LOCK-IPDM	Indicates [ON/OFF] condition of steering lock unit (LOCK).
S/L UNLK-IPDM	Indicates [ON/OFF] condition of steering lock unit (UNLOCK).
S/L RELAY-REQ	Indicates [ON/OFF] condition of steering lock relay.
VEH SPEED 1	Display the vehicle speed signal received from unified meter and A/C amp. by numerical value [Km/h].
VEH SPEED 2	Display the vehicle speed signal received from ABS or VDC or CVT by numerical value [Km/h].
DOOR STAT-DR	Indicates [LOCK/READY/UNLOCK] condition of driver side door status.
DOOR STAT-AS	Indicates [LOCK/READY/UNLOCK] condition of passenger side door status.
ID OK FLAG	Indicates [SET/RESET] condition of key ID.

# < SYSTEM DESCRIPTION >

# [INTELLIGENT KEY SYSTEM]

Monitor Item	Condition
PRMT ENG STRT	Indicates [SET/RESET] condition of engine start possibility.
PRMT RKE STRT	NOTE: This item is displayed, but cannot be monitored.
KEY SW -SLOT	Indicates [ON/OFF] condition of key slot.
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.
RKE-LOCK	Indicates [ON/OFF] condition of LOCK signal from Intelligent Key.
RKE-UNLOCK	Indicates [ON/OFF] condition of UNLOCK signal from Intelligent Key.
RKE-TR/BD	NOTE: This item is displayed, but cannot be monitored.
RKE-PANIC	Indicates [ON/OFF] condition of PANIC button of Intelligent Key.
RKE-P/W OPEN	Indicates [ON/OFF] condition of P/W DOWN signal from Intelligent Key.
RKE-MODE CHG	Indicates [ON/OFF] condition of MODE CHANGE signal from Intelligent Key.
RKE OPE COUN1	When remote keyless entry receiver receives the signal transmitted while operating on Intelligent Key, the numerical value start changing.
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.

# **ACTIVE TEST**

Test item	Description
BATTERY SAVER	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
PW REMOTO DOWN SET	This test is able to check power window down operation. The power window down will be activated after "ON" on CONSULT-III screen is touched.
INSIDE BUZZER	This test is able to check warning chime in combination meter operation.  Take away warning chime sounds when "TAKE OUT" on CONSULT-III screen is touched.  Key warning chime sounds when "KEY WARN" on CONSULT-III screen is touched.  P position warning chime sounds when "P RNG WARN" on CONSULT-III screen is touched.  ACC warning chime sounds when "ACC WARN" on CONSULT-III screen is touched.
OUTSIDE BUZZER	This test is able to check Intelligent Key warning buzzer operation.  The Intelligent Key warning buzzer will be activated after "ON" on CONSULT-III screen is touched.
INDICATOR	This test is able to check warning lamp operation.  • "KEY" Warning lamp illuminates when "KEY ON" on CONSULT-III screen is touched.  • "KEY" Warning lamp flashes when "KEY IND" on CONSULT-III screen is touched.
INT LAMP	This test is able to check interior room lamp operation. The interior room lamp will be activated after "ON" on CONSULT-III screen is touched.
LCD	This test is able to check meter display information  Engine start information displays when "BP N" on CONSULT-III screen is touched.  Engine start information displays when "BP I" on CONSULT-III screen is touched.  Key ID warning displays when "ID NG" on CONSULT-III screen is touched.  Steering lock information displays when "ROTAT" on CONSULT-III screen is touched.  P position warning displays when "SFT P" on CONSULT-III screen is touched.  Intelligent Key insert information displays when "INSRT" on CONSULT-III screen is touched.  Intelligent Key low battery warning displays when "BATT" on CONSULT-III screen is touched.  Take away through window warning displays when "NO KY" on CONSULT-III screen is touched.  Take away warning display when "OUTKY" on CONSULT-III screen is touched.  OFF position warning display when "LK WN" on CONSULT-III screen is touched.
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation. This actuator opens when "ON" on CONSULT-III screen is touched.
FLASHER	This test is able to check hazard warning lamp operation. The hazard warning lamps will be activated after "ON" on CONSULT-III screen is touched.
HORN	This test is able to check horn operation. The horn will be activated after "ON" on CONSULT-III screen is touched.

Revision: 2010 March **DLK-55** 2009 EX35

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#### < SYSTEM DESCRIPTION >

#### [INTELLIGENT KEY SYSTEM]

Test item	Description
P RANGE	This test is able to check A/T shift selector power supply A/T shift selector power is supplied when "ON" on CONSULT-III screen is touched.
ENGINE SW ILLUMI	This test is able to check push-ignition switch illumination operation.  Push-ignition switch illumination illuminates when "ON" on CONSULT-III screen is touched.
LOCK INDICATOR	This test is able to check LOCK indicator in push-ignition switch operation. LOCK indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched;
ACC INDICATOR	This test is able to check ACC indicator in push-ignition switch operation. Indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
IGNITION ON IND	This test is able to check ON indicator in push-ignition switch operation.  Indicator in push-ignition switch illuminates when "ON" on CONSULT-III screen is touched.
KEY SLOT ILLUMI	This test is able to check key slot illumination operation.  Key slot illumination flash when "ON" on CONSULT-III screen is touched.
TRUNK/BACK DOOR	NOTE: This item is displayed, but cannot be tested.

# TRUNK

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

INFOID:0000000004343391

#### **BCM CONSULT-III FUNCTION**

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

Diagnosis mode	Function Description			
DATA MONITOR	The BCM input/output signals are displayed.			
ACTIVE TEST The signals used to activate each device are forcibly supplied from BCM.				

#### **DATA MONITOR**

Monitor Item	Contents			
PUSH SW	Indicates [ON/OFF] condition of push-button ignition switch.			
UNLK SEN -DR	Indicates [ON/OFF] condition of driver door UNLOCK status.			
VEH SPEED 1	Indicates [Km/h] condition of vehicle speed signal from combination meter.			
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.			
TR CANCEL SW	NOTE: This item is displayed, but cannot be monitored.			
TR/BD OPEN SW	Indicates [ON/OFF] condition of back door opener switch.			
TRNK/HAT MNTR	NOTE: This item is displayed, but cannot be monitored.			
RKE-TR/BD*	NOTE: This item is displayed, but cannot be monitored.			

### **ACTIVE TEST**

Test item	Description
TRUNK/GLASS HATCH	This test is able to check back door opener actuator open operation. This actuator opens when ""

#### **U1000 CAN COMM CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# DTC/CIRCUIT DIAGNOSIS

# U1000 CAN COMM CIRCUIT

Description INFOID:0000000043433392

CAN (Controller Area Network) is a serial communication line for real time applications. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Modern vehicle is equipped with many electronic control unit, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H-line, CAN L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only. CAN Communication Signal Chart. Refer to LAN-26, "CAN System Specification Chart".

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC detection condition	Possible cause
U1000	CAN COMM CIRCUIT	When BCM cannot communicate CAN communication signal continuously for 2 seconds or more.	CAN communication system

# Diagnosis Procedure

INFOID:0000000004343394

# 1.PERFORM SELF DIAGNOSTIC

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

#### Is "CAN COMM CIRCUIT" displayed?

YES >> Refer to LAN-17, "Trouble Diagnosis Flow Chart".

NO >> Refer to GI-40, "Intermittent Incident".

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Revision: 2010 March DLK-57 2009 EX35

# **U1010 CONTROL UNIT (CAN)**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# U1010 CONTROL UNIT (CAN)

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC detection condition	Possible cause
U1010	CONTROL UNIT (CAN)	BCM detected internal CAN communication circuit malfunction.	BCM

# Diagnosis Procedure

INFOID:0000000004343396

# 1. REPLACE BCM

When DTC [U1010] is detected, replace BCM.

>> Replace BCM. Refer to BCS-85, "Removal and Installation"

# Special Repair Requirement

INFOID:0000000004343397

# 1. REQUIRED WORK WHEN REPLACING BCM

Initialize control unit. Refer to CONSULT-III operation manual NATS-IVIS/NVIS.

>> Work end.

#### **B2621 INSIDE KEY ANTENNA 1**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

# **B2621 INSIDE KEY ANTENNA 1**

Description INFOID:0000000004343398

- Detects whether Intelligent Key is inside the vehicle.
- Installed in the instrument center.

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC detecting condition	Possible cause
B2621	INSIDE ANTENNA 1 CIRCUIT	An excessive high or low voltage from inside antenna is sent to BCM.	<ul> <li>Inside key antenna (instrument center)</li> <li>Between BCM and Inside key antenna (instrument center)</li> </ul>

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is inside key antenna DTC detected?

YES >> Refer to <u>DLK-59</u>, "<u>Diagnosis Procedure</u>".

NO >> Inside key antenna (instrument center) is OK.

# Diagnosis Procedure

1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

- 1. Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground with oscilloscope.

(+) BCM Connector Terminal		(–)	Condition	Signal (Reference value)	
Instrument				Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
center	M122	78, 79	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

#### Is the inspection result normal?

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

# 2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM and inside key antenna connector.

Revision: 2010 March **DLK-59** 2009 EX35

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#### **B2621 INSIDE KEY ANTENNA 1**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

Check continuity between BCM harness connector and inside key antenna (instrument center) harness connector.

В	BCM		Inside key antenna (instrument center)		
Connector	Terminal	Connector Terminal		Continuity	
M122	78	M131	2	Existed	
IVITZZ	79	WITST	1	Existed	

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	78	Ground	Not existed
IVITZZ	79		NOT EXISTED

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (instrument center). (New antenna or other antenna)
- 2. Connect BCM and inside key antenna (instrument center) connector.
- 3. Check signal between BCM harness connector and ground with oscilloscope.

(+) BCM Connector Terminal		(–)	Condition	Signal (Reference value)	
Instrument	M122	78, 79	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 JMKIA0062GB
center	WITE	70,73	Clound	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

#### Is the inspection result normal?

YES >> Replace inside key antenna (instrument center). Refer to <u>DLK-262, "INSTRUMENT CENTER:</u> Removal and Installation".

NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

#### **B2622 INSIDE KEY ANTENNA 2**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

# **B2622 INSIDE KEY ANTENNA 2**

Description INFOID:0000000004343401

- Detects whether Intelligent Key is inside the vehicle.
- · Installed in the console.

DTC Logic INFOID:0000000004343402

#### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC detecting condition	Possible cause
B2622	INSIDE ANTENNA 2 CIRCUIT	An excessive high or low voltage from inside antenna is sent to BCM.	Inside key antenna (console)     Between BCM ~ Inside key antenna (console)

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" of "INTELLIGENT KEY".
- Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is inside key antenna DTC detected?

>> Refer to DLK-61, "Diagnosis Procedure". YES

NO >> Inside key antenna (console) is OK.

### Diagnosis Procedure

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

Turn ignition switch OFF.

Check signal between BCM harness connector and ground with oscilloscope.

(+) BCM				Signal (Reference value)	
Conn	ector	Terminal			(
Console	M122	72, 73	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 JMKIA0062GB
Console	WILE	12,10	Ground	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 JMKIA0063GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2.CHECK INSIDE KEY ANTENNA CIRCUIT

- Disconnect BCM and inside key antenna (console) connector.
- Check continuity between BCM harness connector and inside key antenna harness connector.

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**DLK-61** Revision: 2010 March 2009 EX35

#### **B2622 INSIDE KEY ANTENNA 2**

В	СМ	Inside key ant	enna (console)	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	72	M146	2	Existed
IVI 122	73	101140	1	Existed

Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M122	72	Ground	Not existed
IVITZZ	73		Not existed

#### Is the inspection result normal?

>> GO TO 3. YES

NO >> Repair or replace harness.

# 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- Replace inside key antenna (console). (New antenna or other antenna)
- Connect BCM and inside key antenna (console) connector.
- Check signal between BCM harness connector and ground with oscilloscope.

Conv	(+) BCM	Terminal	(–)	Condition	Signal (Reference value)
Com	nector	Terminal		Place Intelligent Key inside the vehicle.	(V) 15 10 5 0
Console	M122	72, 73	Ground	Place Intelligent Key outside the vehicle.	JMKIA0062GB  (V) 15 10 1 s JMKIA0063GB

#### Is the inspection result normal?

>> Replace inside key antenna (console). Refer to <u>DLK-262, "CONSOLE : Removal and Installation"</u>. >> Replace BCM. Refer to <u>BCS-85, "Removal and Installation"</u>.

NO

# 4. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

#### **B2623 INSIDE KEY ANTENNA 3**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

### **B2623 INSIDE KEY ANTENNA 3**

Description INFOID:000000004343404

Detects whether Intelligent Key is inside the vehicle. Installed in the luggage room.

DTC Logic

#### DTC DETECTION LOGIC

DTC	CONSULT-III display description	DTC detecting condition	Possible cause
B2623	INSIDE ANTENNA 3 CIRCUIT	An excessive high or low voltage from inside antenna is sent to BCM.	<ul> <li>Inside key antenna (luggage room)</li> <li>Between BCM ~ Inside key antenna (luggage room)</li> </ul>

#### DTC CONFIRMATION PROCEDURE

# 1. PERFORM DTC CONFIRMATION PROCEDURE

- 1. Perform inside key antenna ("INSIDE ANT DIAGNOSIS") on "Work Support" of "INTELLIGENT KEY".
- 2. Perform "INTELLIGENT KEY" Self Diagnostic Result.

#### Is inside key antenna DTC detected?

YES >> Refer to DLK-63, "Diagnosis Procedure".

NO >> Inside key antenna (luggage room) is OK.

### Diagnosis Procedure

# 1. CHECK INSIDE KEY ANTENNA INPUT SIGNAL 1

1. Turn ignition switch OFF.

2. Check signal between BCM harness connector and ground with oscilloscope.

	(+) BCM		(-)	Condition	Signal (Reference value)
Conr	nector	Terminal			
Luggage	M121	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
room	WIZ	54, 66	Glound	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 JMKIA0063GB

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

# 2. CHECK INSIDE KEY ANTENNA CIRCUIT

1. Disconnect BCM and inside key antenna (luggage room) connector.

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#### **B2623 INSIDE KEY ANTENNA 3**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

Check continuity between BCM harness connector and inside key antenna (luggage room) harness connector.

В	ВСМ		Inside key antenna	
Connector	Terminal	Connector	Terminal	Continuity
M121	34	B228	2	Existed
IVITZT	35	D220	1	LXISIGU

3. Check continuity between BCM harness connector and ground.

ВСМ			
Connector	Terminal	Ground	Continuity
M121	34	Ground	Not existed
IVIIZI	35		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK INSIDE KEY ANTENNA INPUT SIGNAL 2

- 1. Replace inside key antenna (luggage room). (New antenna or other antenna)
- 2. Connect BCM and inside key antenna (luggage room) connector.
- 3. Check signal between BCM harness connector and ground with oscilloscope.

Conr	(+) BCM	Terminal	(-)	Condition	Signal (Reference value)
Luggage	M121	34, 35	Ground	Place Intelligent Key inside the vehicle.	(V) 15 10 5 0 1 s JMKIA0062GB
room		0.,00	0.02.1.2	Place Intelligent Key outside the vehicle.	(V) 15 10 5 0 1 s JMKIA0063GB

#### Is the inspection result normal?

YES >> Replace inside key antenna (luggage room). Refer to <u>DLK-263, "LUGGAGE ROOM : Removal and Installation"</u>.

NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

### 4. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

### **POWER SUPPLY AND GROUND CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# POWER SUPPLY AND GROUND CIRCUIT BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

INFOID:0000000004343407

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# 1. CHECK FUSE AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	K (40 A)
11	Battery power supply	10 (10 A)

#### 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.

(+) BCM		(-)	Voltage (Approx.)
Connector	Terminal		( + + + )
M118	1	Ground	Battery voltage
M119	11	Giodila	Battery Voltage

#### Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

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Revision: 2010 March DLK-65 2009 EX35

#### DOOR SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

### DOOR SWITCH

Description INFOID:0000000004343408

Detects door open/close condition.

Component Function Check

INFOID:0000000004343409

# 1. CHECK FUNCTION

#### (II) With CONSULT-III

Check door switches ("DOOR SW-DR", "DOOR SW-AS", "DOOR SW-RL", "DOOR SW-RR" and "DOOR SW-BK") in Data Monitor" mode with CONSULT-III.

Monitor item	Condition
DOOR SW-DR	
DOOR SW-AS	
DOOR SW-RL	$CLOSE \to OPEN \colon OFF \to ON$
DOOR SW-RR	
DOOR SW-BK	

#### Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to <u>DLK-66</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000004343410

# 1. CHECK DOOR SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect malfunctioning door switch connector.
- 3. Check signal between malfunctioning door switch harness connector and ground with oscilloscope.

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(+) Door switch		(-)	Signal	
Conr	nector	Terminal		(Reference value)
Driver side	B16	2	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB
Passenger side	B216	2		(V) 15 10 5 0 10 ms  JPMIA0011GB
Rear LH	B23	2		(V) 15 10 5 0 10 ms JPMIA0011GB
Rear RH	B223	2		(V) 15 10 5 0 JPMIA0011GB
Back door	D113	3		(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

YES-1 >> Back door: GO TO 3.

YES-2 >> Other doors: GO TO 4.

NO >> GO TO 2.

# 2. CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and door switch harness connector.

ВСМ		Door switch	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
M123	150	B16 (Driver side)			
WIIZS	124	B216 (Passenger side)	2		
	69	B23 (Rear LH)	2	Existed	
M121	68	B223 (Rear RH)			
	66	D113 (Back door)	3		

3. Check continuity between BCM harness connector and ground.

BCM		Continuity		
Connector	Terminal		Continuity	
M123	150 (Driver side)			
101123	124 (Passenger side)	Ground		
	69 (Rear LH)		Not existed	
M121	68 (Rear RH)			
	66 (Back door)			

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

### 3.CHECK BACK DOOR SWITCH GROUND CIRCUIT

Check continuity between back door lock assembly (back door switch) harness connector and ground.

Back door lock assen	nbly (back door switch)		Continuity
Connector	Terminal	Ground	Continuity
D113	4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

### 4. CHECK DOOR SWITCH

Refer to DLK-68, "Component Inspection".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning door switch.

- Door switch: Refer to <u>DLK-261</u>, "<u>Removal and Installation</u>".
- Back door lock assembly (back door switch): Refer to DLK-259, "Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

#### >> INSPECTION END

# Component Inspection

INFOID:0000000004343411

# 1. CHECK DOOR SWITCH

- Turn ignition switch OFF.
- Disconnect door switch connector.
- Check door switch terminals.

### **DOOR SWITCH**

#### < DTC/CIRCUIT DIAGNOSIS >

#### [INTELLIGENT KEY SYSTEM]

Door switch			Condition		Continuity
	Terminal		Condition Cont		Continuity
Each door	2	Ground part of door		Pressed	Not existed
Each door	2	switch	Door owitch	Released	Existed
Dook door	2	4	Door switch	Pressed	Not existed
Back door	3	4		Released	Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO-1 >> Replace malfunction door switch. Refer to <u>DLK-261</u>, "Removal and Installation".

NO-2 >> Replace back door lock assembly. Refer to <u>DLK-259</u>, "Removal and Installation".

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#### DOOR LOCK AND UNLOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# DOOR LOCK AND UNLOCK SWITCH

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000004343412

Transmits door lock/unlock operation to BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000004343413

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in Data Monitor mode with CONSULT-III.

Monitor item	(	Condition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-70</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

# **DRIVER SIDE**: Diagnosis Procedure

#### INFOID:0000000004343414

# 1. CHECK POWER WINDOW SWITCH

- Turn ignition switch ON.
- Check power window operation.

#### Does power window (driver side) operate?

YES >> Replace power window main switch.

NO >> Refer to <u>PWC-90</u>, "<u>Diagnosis Procedure</u>".

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000004343415

Transmits door lock/unlock operation to BCM.

PASSENGER SIDE: Component Function Check

INFOID:0000000004343416

# 1. CHECK FUNCTION

#### (P)With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in Data Monitor mode with CONSULT-III.

Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

#### Is the inspection result normal?

YES >> Door lock and unlock switch is OK.

NO >> Refer to <u>DLK-70</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

# PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000004343417

# 1. CHECK POWER WINDOW SWITCH

#### DOOR LOCK AND UNLOCK SWITCH

#### < DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

- 1. Turn ignition switch ON.
- 2. Check passenger side power window operation.

Does power window (passenger side) operate?

- YES >> Replace power window switch (passenger side)
- NO >> Refer to <u>PWC-92</u>, "<u>WHEN POWER WINDOW MAIN SWITCH IS OPERATED</u>: <u>Diagnosis Procedure</u>".

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#### DOOR LOCK ACTUATOR

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### DOOR LOCK ACTUATOR

**DRIVER SIDE** 

**DRIVER SIDE**: Description

INFOID:0000000004343418

Locks/unlocks the door with the signal from BCM.

DRIVER SIDE: Component Function Check

INFOID:0000000004343419

### 1. CHECK FUNCTION

- Use CONSULT-III to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LCK" or "ALL UNLK" to check that it works normally.

#### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-72</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

### **DRIVER SIDE**: Diagnosis Procedure

INFOID:0000000004343420

### 1. CHECK OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(+)					Voltage (V) (Approx.)	
Front door lock assembly (driver side)		(–) Condition		1		
Connector	Terminal				( ) ( )	
D15	1	Ground	Door lock and unlock	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	
D15	2	Sibund	switch	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

#### Is the inspection result normal?

YES >> Replace front door lock assembly (driver side). Refer to <u>DLK-227, "DOOR ASSEMBLY : Removal and Installation"</u>.

NO >> GO TO 2.

# 2. CHECK DOOR LOCK ACTUATOR CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D15	1	Existed
WITTE	9	D13	2	LXISIEU

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Giodila	Not existed
WHIS	9		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

#### PASSENGER SIDE

## DOOR LOCK ACTUATOR

#### < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

PASSENGER SIDE: Description

Locks/unlocks the door with the signal from BCM.

PASSENGER SIDE: Component Function Check

#### INFOID:0000000004343422

INFOID:0000000004343423

INFOID:0000000004343421

# 1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LCK" or "ALL UNLK" to check that it works normally.

## Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-73</u>, "<u>PASSENGER SIDE</u>: <u>Diagnosis Procedure</u>".

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# PASSENGER SIDE : Diagnosis Procedure

# 1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- Disconnect front door lock assembly (passenger side).
- 3. Check voltage between front door lock assembly (passenger side) harness connector and ground.

(	+)				
Front door lock assembly (passenger side)		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D45	1	Ground	Door lock and unlock	Unlock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$
D43	2 Switch	switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

## Is the inspection result normal?

YES >> Replace front door lock assembly (passenger side). Refer to <u>DLK-227, "DOOR ASSEMBLY:</u> Removal and Installation".

NO >> GO TO 2.

# 2.check door lock actuator circuit

Disconnect BCM connector.

Check continuity between BCM harness connector and front door lock assembly (passenger side) harness connector.

В	ВСМ		Front door lock assembly (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
M119	5	D45	1	Existed
IVI I I 9	8	045	2	LAISIEU

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	5	Giodila	Not existed
	8		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

**REAR LH** 

# REAR LH : Description

Locks/unlocks the door with the signal from BCM.

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INFOID:0000000004343424

## DOOR LOCK ACTUATOR

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

# REAR LH: Component Function Check

INFOID:0000000004343425

# 1. CHECK FUNCTION

- 1. Use CONSULT-III to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LCK" or "ALL UNLK" to check that it works normally.

## Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-74</u>, "<u>REAR LH</u>: <u>Diagnosis Procedure</u>".

## **REAR LH: Diagnosis Procedure**

INFOID:0000000004343426

# 1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly LH.
- 3. Check voltage between rear door lock assembly LH harness connector and ground.

(+)  Rear door lock assembly LH			Condition		Voltage (V) (Approx.)
		(–)			
Connector	Terminal				(11 - 7
D55	1	Ground	Door lock and unlock	Lock	$0 \to Battery\ voltage \to 0$
	2	switch	switch	Unlock	$0 \to \text{Battery voltage} \to 0$

## Is the inspection result normal?

YES >> Replace rear door lock assembly LH. Refer to <u>DLK-232</u>, "<u>DOOR ASSEMBLY</u>: <u>Removal and Installation</u>".

NO >> GO TO 2.

# 2.check door lock actuator circuit

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and rear door lock assembly LH harness connector.

всм		Rear door lock assembly LH		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M119	8	D55	1	Existed	
WITTS	10	D33	2	Existed	

3. Check continuity between BCM harness connector and ground.

E	BCM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
WITI	10		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH: Description

INFOID:0000000004343427

Locks/unlocks the door with the signal from BCM.

REAR RH: Component Function Check

INFOID:0000000004343428

# 1. CHECK FUNCTION

1. Use CONSULT-III to perform Active Test ("DOOR LOCK").

## DOOR LOCK ACTUATOR

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

2. Touch "ALL LCK" or "ALL UNLK" to check that it works normally.

### Is the inspection result normal?

YES >> Door lock actuator is OK.

NO >> Refer to <u>DLK-75</u>, "<u>REAR RH</u>: <u>Diagnosis Procedure</u>".

## REAR RH: Diagnosis Procedure

## INFOID:0000000004343429

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# 1. CHECK DOOR LOCK ACTUATOR SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear door lock assembly RH.
- 3. Check voltage between rear door lock assembly RH harness connector and ground.

	(+) Rear door lock assembly RH		(-) Condition		Voltage (V)	
Rear door loc					(Approx.)	
Connector	Terminal				, , ,	
D75	1	Ground	Door lock and unlock	Unlock	0  o Battery voltage  o 0	
5/5	2	2 Swi	switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

## Is the inspection result normal?

YES >> Replace rear door lock assembly RH. Refer to <u>DLK-232, "DOOR ASSEMBLY : Removal and Installation".</u>

NO >> GO TO 2.

# 2.CHECK DOOR LOCK ACTUATOR CIRCUIT

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and rear door lock assembly RH harness connector.

BCM		Rear door lock assembly RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M119	8	D75	2	Existed
IVITIS	10	D/3	1	LAISTEU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not Existed
WITTS	10		NOI EXISTED

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85. "Removal and Installation".

NO >> Repair or replace harness.

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Revision: 2010 March **DLK-75** 2009 EX35

## **FUEL LID LOCK ACTUATOR**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

## **FUEL LID LOCK ACTUATOR**

Description INFOID:000000004343430

Locks/unlocks the fuel filler lid with the signal from BCM.

# Component Function Check

#### INFOID:0000000004343431

# 1. CHECK FUNCTION

- Use CONSULT-III to perform Active Test ("DOOR LOCK").
- 2. Touch "ALL LOCK" or "ALL UNLOCK" to check that it works normally.

#### Is the inspection result normal?

YES >> Fuel lid lock actuator is OK.

NO >> Refer to <u>DLK-76, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004343432

# 1. CHECK FUEL LID LOCK ACTUATOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect fuel lid lock actuator connector.
- 3. Check voltage between fuel lid lock actuator harness connector and ground.

	(+) Fuel lid lock actuator		(-) Condition		Voltage (V) (Approx.)
Connector	Terminal				( 44)
B242	1	Ground	Door lock and unlock	Unlock	$0 \rightarrow Battery \ voltage \rightarrow 0$
B242	2	Glound	switch	Lock	$0 \rightarrow \text{Battery voltage} \rightarrow 0$

## Is the inspection result normal?

YES >> Replace fuel lid lock actuator. Refer to DLK-260, "Removal and Installation".

NO >> GO TO 2.

# 2.CHECK FUEL LID LOCK ACTUATOR CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and fuel lid lock actuator harness connector.

В	СМ	Fuel lid lo	Fuel lid lock actuator	
Connector	Terminal	Connector	Terminal	Continuity
M119	8	B242	2	Existed
101119	9	5242	1	LAISIGU

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	8	Ground	Not existed
	9		inot existed

## Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-85, "Removal and Installation"</u>.

NO >> Repair or replace harness.

## **BACK DOOR OPENER ACTUATOR**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

# **BACK DOOR OPENER ACTUATOR**

Description INFOID:0000000004343433

Back door opener actuator open back door from BCM.

# Component Function Check

# 1.CHECK FUNCTION

- 1. Perform Active Test ("TRUNK/GLASS HATCH") with CONSULT-III.
- 2. Touch "OPEN" and check that back door opens.

## Is the inspection result normal?

YES >> Back door opener actuator is OK.

NO >> Refer to <u>DLK-77</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

# 1. CHECK OUTPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect back door lock assembly.
- 3. Check voltage between back door lock assembly harness connector and ground.

(+) Back door lock assembly		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				( 44 )
D113	1	Ground	Back door opener switch	ON	0  o Battery voltage  o 0

## Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK BACK DOOR OPENER ACTUATOR CIRCUIT

Disconnect BCM connector.

2. Check continuity between BCM harness connector and back door lock assembly (back door opener actuator) harness connector.

ВСМ		Back door lo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M120	23	D113	1	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M120	23		Not existed	

## Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-85</u>, "Removal and Installation".

NO >> Repair or replace harness.

## 3.CHECK BACK DOOR OPENER ACTUATOR GROUND CIRCUIT

Check continuity between back door lock assembly harness connector and ground.

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## **BACK DOOR OPENER ACTUATOR**

## < DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Back door lo	ock assembly		Continuity	
Connector	Connector Terminal		Continuity	
D113	2		Existed	

## Is the inspection normal?

YES >> Replace back door lock assembly. Refer to <u>DLK-259</u>, "Removal and Installation"

NO >> Repair or replace harness.

## **KEY CYLINDER SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

## KEY CYLINDER SWITCH

Description INFOID:000000004343436

Power window main switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signals.

# Component Function Check

#### INFOID:0000000004343437

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# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to DLK-51, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	Condition	
KEY CYL LK-SW	Lock	: ON
RET GTL ER-SW	Neutral / Unlock	: OFF
KEY CYL UN-SW	Unlock	: ON
RET CTL UN-SW	Neutral / Lock	: OFF

## Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>DLK-79</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

#### INFOID:0000000004343438

# 1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side).
- 3. Check voltage between front door lock assembly (driver side) harness connector and ground.

(	+)	(–)	Voltage (V)	
Front door lock as	sembly (driver side)		Voltage (V) (Approx.)	
Connector	Terminal		, , ,	
D15	5	Ground	5	
	6	Ground	3	

## Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

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# 2.check door key cylinder signal circuit

1. Disconnect power window main switch connector.

Check continuity between power window main switch harness connector and front door lock assembly (driver side) harness connector.

Power window main switch		Front door lock assembly (driver side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D8	4	D15	6	Existed
D6	6	D13	5	LAISIEU

Check continuity between power window main switch harness connector and ground.

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## **KEY CYLINDER SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

Power windo	w main switch	- Ground	Continuity	
Connector	Terminal		Continuity	
D8	4	Ground	Not existed	
Do	6		inot existed	

## Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-104, "Removal and Installation".

NO >> Repair or replace harness.

# 3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock as	sembly (driver side)		Continuity
Connector	Terminal	Ground	Continuity
D15	D15 4		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to <u>DLK-80</u>, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-227, "DOOR ASSEMBLY : Removal and Installation".</u>

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000004343439

# 1. CHECK DOOR KEY CYLINDER SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) terminals.
- 3. Check front door lock assembly (driver side) terminals.

Front door lock assembly (driver side)		Key position	Continuity	
Terminal		Rey position	Continuity	
		Unlock	Existed	
5	4	Neutral / Lock	Not existed	
6		Lock	Existed	
		Neutral / Unlock	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-227</u>, "<u>DOOR ASSEMBLY</u>: <u>Removal</u> and Installation".

## REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# REMOTE KEYLESS ENTRY RECEIVER

Description INFOID:000000004343440

Receives Intelligent Key operation and transmits to BCM.

# Component Function Check

## INFOID:0000000004343441

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# 1. CHECK FUNCTION

## (P)With CONSULT-III

Check remote keyless entry receiver ("RKE OPE COUN1") in Data Monitor mode with CONSULT-III.

Monitor item	Condition
RKE OPE COUN1	Checks whether value changes when operating Intelligent Key.

#### Is the inspection result normal?

YES >> Remote keyless entry receiver is OK.

NO >> Refer to <u>DLK-81, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004343442

# 1. CHECK REMOTE KEYLESS ENTRY RECEIVER OUTPUT SIGNAL

- Turn ignition switch OFF.
- Check signal between remote keyless entry receiver harness connector and ground with oscilloscope.

(+) Remote keyless entry receiver		(–)	Condition	Signal (Reference value)
Connector	Terminal			(Nelerence value)
M104	2	Ground	During waiting	(V) 15 10 5 0 1 ms JMKIA0064GB
	-		When operating either button on the Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB

## Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

# 2.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 1

- Disconnect BCM connector and remote keyless entry receiver connector.
- 2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	BCM		s entry receiver	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M122	83	M104	2	Existed

3. Check continuity between BCM harness connector and ground.

## REMOTE KEYLESS ENTRY RECEIVER

< DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M122	83		Not existed

#### Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check remote keyless entry receiver power supply

- 1. Disconnect remote keyless entry receiver.
- Check voltage between remote keyless entry receiver harness connector and ground.

( Remote keyles	(+) Remote keyless entry receiver		Voltage (V) (Approx.)
Connector	Terminal		( + + )
M104	4	Ground	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

## 4. CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT 2

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	ВСМ		Remote keyless entry receiver	
Connector	Terminal	Connector	Terminal	Continuity
M122	103	M104	4	Existed

3. Check continuity between BCM harness connector and ground.

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M122	103		Not existed

## Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

## 5. CHECK REMOTE KEYLESS ENTRY RECEIVER GROUND CIRCUIT

Check continuity between remote keyless entry receiver harness connector and ground.

Remote keyles	s entry receiver		Continuity
Connector	Terminal	Ground	Continuity
M104	1		Existed

#### Is the inspection result normal?

YES >> Replace remote keyless entry receiver. Refer to <u>DLK-267</u>, "Removal and Installation".

NO >> GO TO 6.

## 6.CHECK REMOTE KEYLESS ENTRY RECEIVER CIRCUIT $_{3}$

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and remote keyless entry receiver harness connector.

В	BCM Remote keyless entry receiver		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M123	137	M104	1	Existed

## **REMOTE KEYLESS ENTRY RECEIVER**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

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## **BACK DOOR OPENER SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# BACK DOOR OPENER SWITCH

Description INFOID:000000004343443

Output back door open signal to BCM.

# Component Function Check

INFOID:0000000004343444

# 1. CHECK FUNCTION

Check back door opener switch ("TR/BD OPEN SW") in "Data Monitor mode with CONSULT-III.

Monitor item	Condition
TR/BD OPEN SW	Back door opener switch is pressed: ON
TIVED OF LINGW	Back door opener switch is released: OFF

## Is the inspection result normal?

YES >> Back door opener switch is OK.

NO >> Refer to <u>DLK-84, "Diagnosis Procedure"</u>.

# Diagnosis Procedure

INFOID:0000000004343445

# 1. CHECK BACK DOOR OPEN INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect back door opener switch connector.
- 3. Check signal between back door opener switch harness connector and ground with oscilloscope.

Back door o	(+) Back door opener switch		Signal (Reference value)
Connector	Terminal		
D114	1	Ground	(V) 15 10 5 0 10 ms  JPMIA0011GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK BACK DOOR OPENER SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and back door opener switch assembly harness connector.

BCM		Back door opener switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	67	D114	1	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M121	67		Not existed

## Is the inspection result normal?

## **BACK DOOR OPENER SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check back door opener switch ground circuit

Check continuity between back door opener switch harness connector and ground.

Back door opener switch			Continuity
Connector	Terminal	Ground	Continuity
D114	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# f 4.CHECK BACK DOOR OPENER SWITCH

Refer to DLK-85, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener switch. Refer to EXT-48. "Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000004343446

# 1. CHECK BACK DOOR OPENER SWITCH

- Turn ignition switch OFF.
- 2. Disconnect back door opener switch connector.
- Check continuity between back door opener switch terminals.

Back door opener switch		Condition		Continuity	
Terr	ninal	Condition		Continuity	
1	2	Back door opener switch	Pressed	Existed	
ı	2	Back door opener switch	Released	Not existed	

## Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door opener switch. Refer to EXT-48. "Removal and Installation". DLK

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**DLK-85** Revision: 2010 March 2009 EX35

## DOOR REQUEST SWITCH

Description INFOID:000000004343441

Transmits lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000004343448

# 1. CHECK FUNCTION

Check door request switch ("REQ SW -DR" or "REQ SW -AS") in Data Monitor mode.

Monitor item	Condition
REQ SW -DR	Door request switch is pressed: ON
REQ SW -AS	Door request switch is released: OFF

## Is the inspection result normal?

YES >> Door request switch is OK.

NO >> Refer to <u>DLK-86, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000004343449

# 1. CHECK BCM OUTPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect malfunctioning front outside handle (request switch) connector.
- Check signal between malfunctioning front outside handle (request switch) harness connector and ground with oscilloscope.

Fron	(+) Front outside handle (request switch)		(-)	Signal (Reference value)
Con	nector	Terminal	-	(1.10101.00 1.0100)
LH	D13			
RH	D43	1	Ground	(V) 15 10 5 0 JPMIA0016GB

## Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK DOOR REQUEST SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and malfunctioning front outside handle (request switch) harness connector.

В	СМ	Front outside handle (request switch)			Continuity	
Connector	Terminal	Connector		Terminal	Continuity	
M122	101	LH	D13	1	Existed	
101 1 2 2	100	RH	D43	1	LXISIEU	

Check continuity between BCM harness connector and ground.

## DOOR REQUEST SWITCH

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

BCM			Otiit
Connector	Terminal		Continuity
14400	101	Ground	Not eviete d
M122	100		Not existed

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

# ${f 3.}$ CHECK DOOR REQUEST SWITCH GROUND CIRCUIT

Check continuity between malfunctioning front outside handle (request switch) harness connector and ground.

Front outside handle (request switch)				Continuity	
Connector		Terminal	Ground	Continuity	
LH	D13	2	Ground	Existed	
RH	D43	2		LXISIEU	

## Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK DOOR REQUEST SWITCH

Refer to DLK-87, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace malfunctioning front outside handle (request switch). Refer to DLK-251, "OUTSIDE HAN-DLE: Removal and Installation".

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

## >> INSPECTION END

# Component Inspection

1. CHECK DOOR REQUEST SWITCH

- Turn ignition switch OFF.
- 2. Disconnect malfunctioning front outside handle (request switch) connector.
- Check continuity between malfunctioning front outside handle (request switch) terminals.

Front outside han	Front outside handle (request switch)		Condition	
Ter	minal	Con	uition	Continuity
1	2	Door request switch	Pressed	Existed
'	2	Door request switch	Released	Not existed

## Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace malfunctioning front outside handle (request switch). Refer to <u>DLK-251, "OUTSIDE HAN-</u> DLE: Removal and Installation".

**DLK-87** 

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## **BACK DOOR REQUEST SWITCH**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# BACK DOOR REQUEST SWITCH

**Description** 

Transmits lock/unlock operation to BCM.

# Component Function Check

INFOID:0000000004343452

# 1. CHECK FUNCTION

Check back door opener request switch ("REQ SW -BD/TR") in Data Monitor mode.

Monitor item	Condition
REQ SW -BD/TR	Back door opener request switch is pressed: ON
NEQ 3W -BB/TK	Back door opener request switch is released: OFF

## Is the inspection result normal?

YES >> Back door opener request switch is OK.

NO >> Refer to <u>DLK-88, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000004343453

# 1. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect back door opener request switch connector.
- 3. Check signal between back door opener request switch harness connector and ground with oscilloscope.

Back door opene	(+) Back door opener request switch		Signal (Reference value)
Connector	Terminal		
D116	1	Ground	(V) 15 10 5 0 10 ms  JPMIA0016GB

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2.CHECK BACK DOOR OPENER REQUEST SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and back door opener request switch harness connector.

ВСМ		Back door opener request switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M121	61	D116	1	Existed

3. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M121	61		Not existed

## Is the inspection result normal?

## **BACK DOOR REQUEST SWITCH**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

YES >> Replace BCM. Refer to BCS-85, "Exploded View".

NO >> Repair or replace harness.

# 3.CHECK BACK DOOR OPENER REQUEST SWITCH GROUND CIRCUIT

Check continuity between back door opener request switch harness connector and ground.

Back door open	er request switch		Continuity
Connector	Terminal	Ground	Continuity
D116	2		Existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# f 4.CHECK BACK DOOR OPENER REQUEST SWITCH

Refer to DLK-89, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace back door opener request switch. Refer to EXT-48, "Removal and Installation".

## 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

INFOID:0000000004343454

# 1. CHECK BACK DOOR OPENER REQUEST SWITCH

- Turn ignition switch OFF.
- 2. Disconnect back door opener request switch connector.
- Check continuity between back door opener request switch assembly terminals.

Back door opener request switch		Condition		Continuity	
Terminal		Condition	JII	Continuity	
1	2	Back door opener request	Pressed	Existed	
I		switch	Released	Not existed	

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace back door opener request switch. Refer to EXT-48, "Removal and Installation".

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**DLK-89** Revision: 2010 March 2009 EX35

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## < DTC/CIRCUIT DIAGNOSIS >

## **UNLOCK SENSOR**

Description INFOID:000000004343455

Detects door lock condition of driver door.

# Component Function Check

INFOID:0000000004343456

# 1. CHECK FUNCTION

Check unlock sensor ("UNLK SEN -DR") in "Data Monitor" mode.

Monitor item	Condition	
UNLK SEN -DR	Front door lock (driver side) LOCK: OFF	
ONER SEN -DIX	Front door lock (driver side) UNLOCK: ON	

## Is the inspection result normal?

YES >> Unlock sensor is OK.

NO >> Refer to <u>DLK-90, "Diagnosis Procedure"</u>.

## Diagnosis Procedure

INFOID:0000000004343457

# 1. CHECK BCM OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- Check signal between front door lock assembly (driver side) harness connector and ground with oscilloscope.

·	(+) Front door lock assembly (driver side)  Connector Terminal		Signal (Reference value)
D15	3	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB

## Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK UNLOCK SENSOR CIRCUIT

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and front door lock assembly (driver side) harness connector.

BCM		Front door lock as	Continuity	
Connector	Terminal	Connector Terminal		Continuity
M123	119	D15	3	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M123	119		Not existed	

## **UNLOCK SENSOR**

#### < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

## Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Repair or replace harness.

# 3.check unlock sensor ground circuit

Check continuity between front door lock assembly (driver side) harness connector and ground.

Front door lock as	sembly (driver side)		Continuity
Connector	Terminal	Ground	Continuity
D15	4		Existed

## Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

## 4. CHECK UNLOCK SENSOR

Refer to DLK-91, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side). Refer to <u>DLK-248, "DOOR LOCK : Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

# Component Inspection

# 1. CHECK UNLOCK SENSOR

- Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) connector.
- 3. Check front door lock assembly (driver side) terminals.

Front door lock assembly (driver side)		Condition		Continuity	
Terminal		Condit	ion	Continuity	
2	4	Front door lock assembly (driver side)	Unlock	Existed	
3			Lock	Not existed	

## Is the inspection result normal?

NO

YES >> INSPECTION END

>> Replace front lock assembly (driver side). Refer to <u>DLK-248</u>, "<u>DOOR LOCK</u>: Removal and Installation".

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## **OUTSIDE KEY ANTENNA**

Description INFOID:0000000043434559

- Detects whether Intelligent Key is outside the vehicle.
- Integrated in front outside handle (driver side, passenger side) and installed in rear bumper.

# Component Function Check

INFOID:0000000004343460

# 1. CHECK DOOR REQUEST SWITCH

Check door request switch. Refer to <u>DLK-86</u>, "Component Function Check" (front door) or <u>DLK-88</u>, "Component Function Check" (back door).

## Is the inspection result normal?

YES >> GO TO 2.

NO-1 >> Check front door opener request switch. Refer to <a href="DLK-86">DLK-86</a>, "Component Function Check".

NO-2 >> Check back door request switches. Refer to <a href="DLK-88">DLK-88</a>, "Component Function Check".

# 2. CHECK FUNCTION

Be sure that Intelligent Key is in each outside key antenna detection area.

## Does door lock/unlock when each request switch is pressed?

YES >> Outside key antenna is OK.

NO >> Refer to <u>DLK-92</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000004343461

# 1. CHECK OUTSIDE KEY ANTENNA INPUT SIGNAL 1

- Turn ignition switch OFF.
- 2. Check signal between BCM harness connector and ground with oscilloscope.

(+) BCM		(–)	Condition		Signal (Reference value)	
C	onnector	Terminal				(
	RH	74, 75				
M122	LH	76, 77	Ground	Request switch	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0062GB
M121	Back door	38, 39	Giounu	is pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0063GB

## Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation"

NO >> GO TO 2.

# 2.CHECK OUTSIDE KEY ANTENNA CIRCUIT

- Disconnect BCM connector and malfunctioning outside key antenna connector.
- Check continuity between BCM harness connector and malfunctioning outside key antenna harness connector.

## [INTELLIGENT KEY SYSTEM]

BCM		Outside key	Outside key antenna	
Connector	Terminal	Connector	Terminal	Continuity
	74	D44 (BU)	2	
M4.22	75	D44 (RH)	1	
M122	76	D44 (LLI)	2	
	77	D14 (LH)	1	Existed
M121	38	D440 (book door)	2	
	39	D118 (back door)	1	

3. Check continuity between BCM harness connector and ground.

В	SCM		Continuity
Connector	Terminal		Continuity
	74		
MAGG	75	Ground	
M122	76		Not evieted
	77		Not existed
MAGA	38		
M121	39		

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.check outside key antenna input signal ${\scriptstyle 2}$

- Replace malfunctioning outside key antenna. (New antenna or other antenna)
- 2. Connect BCM connector and malfunctioning outside key antenna (New antenna or other antenna) connector.
- 3. Check signal between BCM harness connector and ground with oscilloscope.

(+) BCM		(–) Condition		Signal (Reference value)		
С	onnector	Terminal				(Neteralice value)
	RH	74, 75				
M122	LH	76, 77	Ground	Door request switch is	When Intelligent Key is in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0062GB
M121	Back door	38, 39	Giounu	pushed	When Intelligent Key is not in the antenna detection area.	(V) 15 10 5 0 1 s JMKIA0063GB

## Is the inspection result normal?

- YES-1 >> Replace malfunctioning front outside handle (LH or RH). Refer to <u>DLK-251, "OUTSIDE HANDLE:</u> <u>Removal and Installation"</u>.
- YES-2 >> Replace outside key antenna (Back door). Refer to <u>DLK-264, "BACK DOOR: Removal and Installation"</u>.

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## **OUTSIDE KEY ANTENNA**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

NO >> Replace BCM. Refer to BCS-85, "Removal and Installation".

## INTELLIGENT KEY WARNING BUZZER

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

# INTELLIGENT KEY WARNING BUZZER

Description INFOID:0000000004343462

Answers back and warns for an inappropriate operation.

# Component Function Check

# INFOID:0000000004343463

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# 1. CHECK FUNCTION

Check Intelligent Key warning buzzer ("OUTSIDE BUZZER") in Active Test mode.

#### Is the inspection result normal?

>> Intelligent Key warning buzzer (engine room) is OK. YES

>> Refer to DLK-95, "Diagnosis Procedure". NO

# Diagnosis Procedure

#### Е INFOID:0000000004343464

# 1.CHECK FUSE

- Turn ignition switch OFF.
- Check 10 A fuse, [No.6, located in fuse block (J/B)].

## Is fuse fusing?

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

NO >> GO TO 2.

# 2.CHECK INTELLIGENT KEY WARNING BUZZER POWER SUPPLY CIRCUIT

Disconnect Intelligent Key warning buzzer connector.

Check voltage between Intelligent Key warning buzzer harness connector and ground.

(+) Intelligent Key warning buzzer  Connector Terminal		(–)	Voltage (V) (Approx.)	
			(Αρρίολ.)	
E57	1	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK INTELLIGENT KEY WARNING BUZZER CIRCUIT

Disconnect BCM connector.

Check continuity between BCM harness connector and Intelligent Key warning buzzer harness connector.

В	CM	Intelligent Key warning buzzer		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M121	64	E57	3	Existed	

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector Terminal		Ground	Continuity
M121	64		Not existed

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

# 4. CHECK INTELLIGENT KEY WARNING BUZZER

Check DLK-96, "Component Inspection".

Is the inspection result normal?

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## INTELLIGENT KEY WARNING BUZZER

## < DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-265, "Removal and Installation"</u>.

## Component Inspection

INFOID:0000000004343465

# 1. CHECK INTELLIGENT KEY WARNING BUZZER

- Turn ignition switch OFF.
- 2. Disconnect Intelligent Key warning buzzer connector.
- Connect battery power supply directly to Intelligent Key warning buzzer terminals and check the operation.

Intelligent Key	Intelligent Key warning buzzer	
Terminal		Operation
(+)	(-)	
1	3	Buzzer sounds

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace Intelligent Key warning buzzer. Refer to <u>DLK-265, "Removal and Installation"</u>.

## INTELLIGENT KEY

Description INFOID:0000000004343466

The following functions are available when having and carrying electronic ID.

- Door lock/unlock
- Engine start

Remote control entry function and panic alarm function are available when operating on button.

# Component Function Check

INFOID:0000000004343467

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# 1. CHECK FUNCTION

Check remote keyless entry receiver ("RKE OPE COUN1") in Data Monitor mode with CONSULT-III.

Monitor item	Condition
RKE OPE COUN1	Check that the numerical value is changing while operating on the Intelligent Key.

## Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Refer to DLK-97, "Diagnosis Procedure".

## Diagnosis Procedure

#### INFOID:0000000004343468

# 1. CHECK INTELLIGENT KEY BATTERY

Check by connecting a resistance (approximately  $300\Omega$ ) so that the current value becomes about 10 mA.

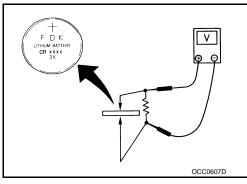
#### **Standard** : Approx. 2.5 - 3.0V

Is the measurement value within the specification?

YES >> Replace Intelligent Key.

NO

>> Replace Intelligent Key battery. Refer to <a href="DLK-97">DLK-97</a>, "Component Inspection".



INFOID:0000000004343469

# Component Inspection

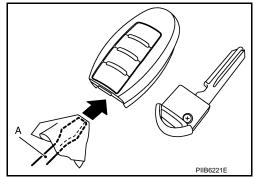
# ${f 1}$ . REPLACE INTELLIGENT KEY BATTERY

Release the lock knob at the back of the Intelligent Key and remove the mechanical key.

Insert a flat-blade screwdriver (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part.

#### **CAUTION:**

- Do not touch the circuit board or battery terminal.
- The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



Replace the battery with new one.

**DLK-97** Revision: 2010 March 2009 EX35

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## INTELLIGENT KEY

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

4. Align the tips of the upper and lower parts, and then push them together until it is securely closed.

## **CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- After replacing the battery, check that all Intelligent Key functions work normally.

## Is the inspection result normal?

YES >> Intelligent Key is OK.

NO >> Check remote keyless entry receiver. Refer to <u>DLK-81</u>. "Component Function Check".

# 2 PIIB6222E

#### INFOID:0000000004343470

# Special Repair Requirement

Refer to CONSULT-III Operation Manual NATS-IVIS/NVIS.

## [INTELLIGENT KEY SYSTEM]

# **KEY SLOT**

Description INFOID:0000000004343471

- Detect whether Intelligent Key is inserted.
- · Immobilizer antenna amp checks Intelligent Key transponder.

# Component Function Check

## INFOID:0000000004343472

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# 1. CHECK FUNCTION

Check key slot ("KEY SW -SLOT") in Data Monitor mode using CONSULT-III.

Monitor item	Condition
KEY SW-SLOT	Key is inserted in key slot: ON
NET 3W-0LOT	Key is removed from key slot: OFF

## Is the inspection result normal?

YES >> Key slot is OK.

>> Refer to <u>DLK-99</u>, "<u>Diagnosis Procedure</u>". NO

# Diagnosis Procedure

#### INFOID:0000000004343473

## 1. CHECK FUSE

- Turn ignition switch OFF.
- Check 10 A fuse, [No.9, located in fuse block (J/B)].

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

# 2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

- Disconnect key slot connector.
- Check voltage between slot harness connector and ground.

(+) Key slot		(–)	Voltage (V)	
Connector	Terminal		(Approx.)	
M22	1	Ground	Battery voltage	
41 1 41 14	10	1		

## Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK KEY SLOT CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and key slot harness connector.

В	BCM Key slot		Key slot	
Connector	Terminal	Connector	Terminal	Continuity
M123	121	M22	11	Existed

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector Terminal		Ground	Continuity
M123	121		Not existed

## Is the inspection result normal?

YES >> GO TO 4. DLK

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## **KEY SLOT**

## < DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

NO >> Repair or replace harness.

# 4. CHECK KEY SLOT

Refer to DLK-100, "Component Inspection".

## Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace key slot. Refer to <u>DLK-266, "Removal and Installation"</u>.

# 5. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

## >> INSPECTION END

# Component Inspection

INFOID:0000000004343474

# 1. CHECK KEY SLOT

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Check continuity between key slot terminals.

Key	/ slot	Con	dition	Continuity
Terr	minal	- Condition		Continuity
1	11	Intelligent Key	Inserted in key slot	Existed
	11	intelligent Ney	Removed in key slot	Not existed

## Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-266</u>, "Removal and Installation".

# KEY SLOT INDICATOR

Description INFOID:000000004343475

Blinks when Intelligent Key insertion is required.

# Component Function Check

# 1. CHECK FUNCTION

Check key slot indicator ("KEY SLOT ILLUMI") Active Test mode.

#### Is the inspection result normal?

YES >> Key slot function is OK.

NO >> Refer to <u>DLK-101</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

# 1. CHECK FUSE

Turn ignition switch OFF.

2. Check 10 A fuse, [No. 6, located in fuse block (J/B)].

## Is fuse fusing?

YES >> GO TO 2.

NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

## 2.CHECK KEY SLOT POWER SUPPLY CIRCUIT

1. Disconnect key slot connector.

2. Check voltage between key slot harness connector and ground.

(+)  Key slot  Connector Terminal		(-)	Voltage (V) (Approx.)	
		(-)		
M22	5	Ground	Battery voltage	

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# 3.CHECK KEY SLOT CIRCUIT

1. Disconnect BCM connector.

Check continuity between BCM harness connector and key slot harness connector.

В	BCM		Key slot	
Connector	Terminal	Connector	Terminal	Continuity
M122	92	M22	6	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M122	92		Not existed

## Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4.CHECK KEY SLOT

Refer to DLK-102, "Component Inspection".

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## **KEY SLOT INDICATOR**

## < DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

## Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-85, "Removal and Installation".

NO >> Replace key slot. Refer to <u>DLK-266, "Removal and Installation"</u>.

# Component Inspection

INFOID:0000000004343478

# 1. CHECK KEY SLOT ILLUMINATION

- 1. Turn ignition switch OFF.
- 2. Disconnect key slot connector.
- 3. Connect battery power supply directly to key slot terminals.

Key slot			
Terminal		Operation	
(+)	(-)		
5	6	Key slot illuminates	

## Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace key slot. Refer to <u>DLK-266, "Removal and Installation"</u>.

## HORN FUNCTION

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

## HORN FUNCTION

**Description** 

Perform answer-back for each operation with horn.

# Component Function Check

# 1. CHECK FUNCTION

- 1. Select "HORN" in "ACTIVE TEST" mode with CONSULT-III.
- 2. Check the horn (high/low) operation.

Test item			Description		
HORN	ON	Horn relay		ON (for 20 ms)	

#### Is the operation normal?

YES >> Horn function is OK.

NO >> Refer to <u>DLK-103</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

# 1. CHECK HORN SWITCH

Check horn function with horn switch

## Do the horns sound?

YES >> GO TO 2.

NO >> Refer to <u>HRN-2</u>, "Wiring <u>Diagram - HORN -"</u>.

# 2.CHECK HORN RELAY POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Perform "ACTIVE TEST" ("HORN") with CONSULT-III.
- Check voltage between malfunctioning horn relay harness connector and ground.

	(+)  Horn relay  Connector Terminal		(–) Test item			Voltage (V) (Approx.)	
					Test item		
	E11	Low	1 Ground	HORN	ON	Battery voltage $\rightarrow$ 0 $\rightarrow$ Battery voltage	
	E18	High	3	Giodila	HOKN	Other than above	Battery voltage

## Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

# 3.CHECK HORN RELAY CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect IPDM E/R connector and horn relay connector.
- 3. Check continuity between IPDM E/R harness connector and malfunctioning horn relay harness connector.

IPDM E/R		Horn	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
E6	44	E11	1	Existed	
E0	45	E18	3	LAISIEU	

4. Check continuity between driver seat control unit harness connector and ground.

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INFOID:0000000004343481

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## HORN FUNCTION

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

IPDM E/R			Continuity	
Connector	Connector Terminal			
E6	44	- Ground	Not existed	
	45		ivoi existed	

Is the inspection result normal?

YES >> Replace IPDM E/R. Refer to PCS-33, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

Is the inspection result normal?

>> INSPECTION END

COMBINATION METER DISPLAY FUNCTION  < DTC/CIRCUIT DIAGNOSIS > [INTELLIGENT KEY SYSTEM]	(1)
COMBINATION METER DISPLAY FUNCTION	<del>-</del>
Description INFOID:000000004343	A 482
Displays each operation method guide and warning for system malfunction.	В
Component Function Check	<b>48</b> 3
1.CHECK FUNCTION	С
Check the operation with ("LCD") in the Active Test.	_
Is each warning displayed on meter display?	D
Is the inspection result normal?  YES >> Meter display is OK.  NO >> Refer to DLK-105, "Diagnosis Procedure".	Е
Diagnosis Procedure	<b>184</b>
1. CHECK COMBINATION METER	F
Refer to MWI-100, "DTC Index".	_
Is the inspection result normal?	G
YES >> GO TO 2.  NO >> Check combination meter. Refer to MWI-4, "Work flow".  2.CHECK INTERMITTENT INCIDENT	Н
Refer to GI-40, "Intermittent Incident".	_

>> INSPECTION END

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Revision: 2010 March **DLK-105** 2009 EX35

# **BUZZER (COMBINATION METER)**

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# **BUZZER (COMBINATION METER)**

Description INFOID:000000004343485

Performs operation method guide and warning with buzzer.

# Component Function Check

INFOID:0000000004343486

# 1. CHECK FUNCTION

- 1. Check the operation with "INSIDE BUZZER" in the Active Test.
- 2. Touch "TAKE OUT", "KNOB" or "KEY" on screen.

## Is the inspection result normal?

Yes >> Warning buzzer into combination meter is OK.

No >> Refer to <u>DLK-106</u>, "<u>Diagnosis Procedure</u>".

## Diagnosis Procedure

INFOID:0000000004343487

# 1. CHECK METER BUZZER CIRCUIT

Refer to WCS-23, "Component Function Check".

## Is the inspection result normal?

Yes >> GO TO 2.

No >> Repair or replace harness.

## 2.check intermittent incident

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

## **KEY WARNING LAMP**

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

C D I C/CINCOTT DIAGNOSIS				
KEY WARNING LAM	)			۸
Description	INFOID:000000004343488	Δ		
Performs operation method gui		В		
Component Function C	INFOID:000000004343489			
1.check function				С
Check the operation with "INDI	CATOR" in	"Active Test" mode with CONSULT	-III.	
Test item		Condition		D
INDICATOR	RED ON	Key warning lamp (red) illuminates		
INDICATOR	RED IND	Key warning lamp (red) flashes		Е
YES >> Key warning lamp NO >> Refer to <u>DLK-107</u> .  Diagnosis Procedure	INFOID:000000004343490	F		
1. CHECK KEY WARNING LA	MP			G
Refer to MWI-38, "Diagnosis Description".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Repair or replace harness.				
2.CHECK INTERMITTENT IN	CIDENT			I
Refer to GI-40, "Intermittent Inc >> INSPECTION END			ſ	J

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Revision: 2010 March **DLK-107** 2009 EX35

## HAZARD FUNCTION

## < DTC/CIRCUIT DIAGNOSIS >

## [INTELLIGENT KEY SYSTEM]

## HAZARD FUNCTION

**Description** 

Perform answer-back for each operation with number of blinks.

# Component Function Check

INFOID:0000000004343492

# 1. CHECK FUNCTION

Check hazard warning lamp ("FLASHER") in Active Test.

#### Is the inspection result normal?

YES >> Hazard warning lamp circuit is OK.

NO >> Refer to <u>DLK-108</u>, "<u>Diagnosis Procedure</u>".

# Diagnosis Procedure

INFOID:0000000004343493

# 1. CHECK HAZARD SWITCH CIRCUIT

Refer to <u>EXL-103</u>, "Wiring <u>Diagram - TURN AND HAZARD WARNING LAMPS -"</u> (For xenon type) or <u>EXL-274</u>, "Wiring <u>Diagram - TURN AND HAZARD WARNING LAMPS -"</u> (For halogen type)

## Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

## 2. CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

#### INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

#### INTEGRATED HOMELINK TRANSMITTER

Description INFOID:000000004343494

Integrated Homelink Transmitter can store and transmit a maximum of 3 radio signals.

Allows operation of garage doors, gates, home and office lighting, entry door locks and security system, etc. Integrated Homelink Transmitter power supply uses vehicle battery, which enables it to maintain every program in case battery is discharged or removed.

### Component Function Check

INFOID:0000000004343495

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#### 1.CHECK FUNCTION

Check that system receiver (garage door opener, etc.) operates with original hand-held transmitter.

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Receiver or hand-held transmitter is malfunctioning.

### 2. CHECK ILLUMINATE

1. Turn ignition switch OFF.

2. Does red light of transmitter illuminate when any transmitter button is pressed?

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Refer to DLK-109, "Diagnosis Procedure".

#### 3. CHECK TRANSMITTER

Check transmitter with Tool\*.

\*: For details, refer to Technical Service Bulletin.

#### Is the inspection result normal?

YES >> Receiver or hand-held transmitter malfunction, not vehicle related.

>> Replace auto anti-dazzling inside mirror (homelink universal transceiver). Refer to MIR-101, "Removal and Installation" (with ADP) or MIR-122, "Removal and Installation" (Without ADP).

### Diagnosis Procedure

NO

INFOID:0000000004343496

### 1. CHECK POWER SUPPLY

- Turn ignition switch OFF.
- 2. Disconnect auto anti-dazzling inside mirror (homelink universal transceiver) connector.
- Check voltage between auto anti-dazzling inside mirror (home link universal transceiver) harness connector and ground.

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Termi	nal	Condition	Voltage (V) (Approx.)
R3	10	Ground	Ignition switch position: OFF	Pottory voltage
K3	6	Giouria	Ignition switch position: ON	Battery voltage

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Check the following.

- 10A fuse [No. 3 located in the fuse block (J/B)]
- 10A fuse [No. 6 located in the fuse block (J/B)]
- Harness for open or short between fuse and auto anti-dazzling inside mirror (homelink universal transceiver).

### 2.CHECK GROUND CIRCUIT

Check continuity between auto anti-dazzling inside mirror (homelink universal transceiver) harness connector and ground.

Revision: 2010 March **DLK-109** 2009 EX35

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#### INTEGRATED HOMELINK TRANSMITTER

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Auto anti-dazzling inside mirror (Homelink universal transceiver) connector	Terminal	Ground	Continuity
R3	8		Existed

Is the inspection result normal?

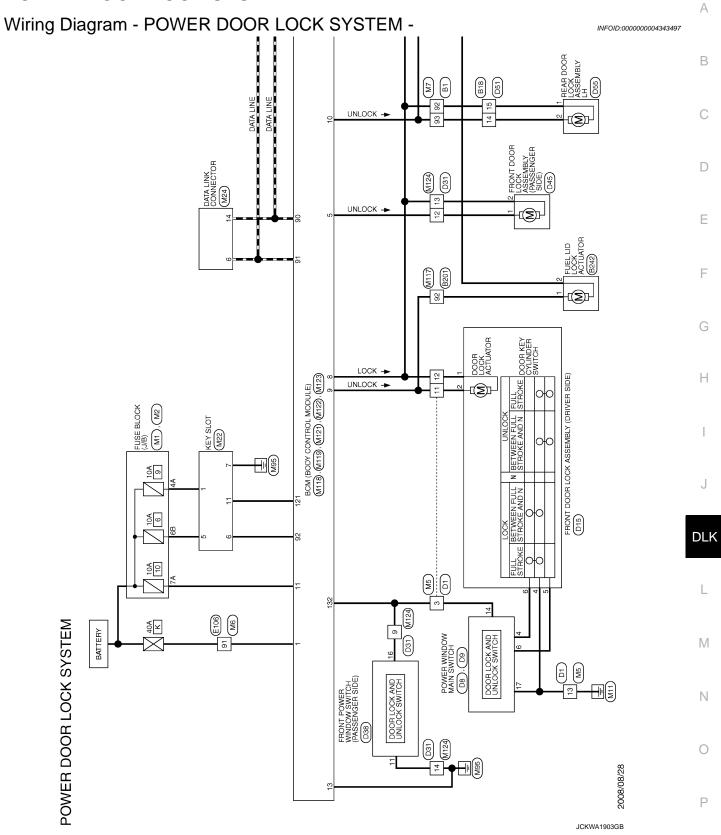
YES >> GO TO 3.

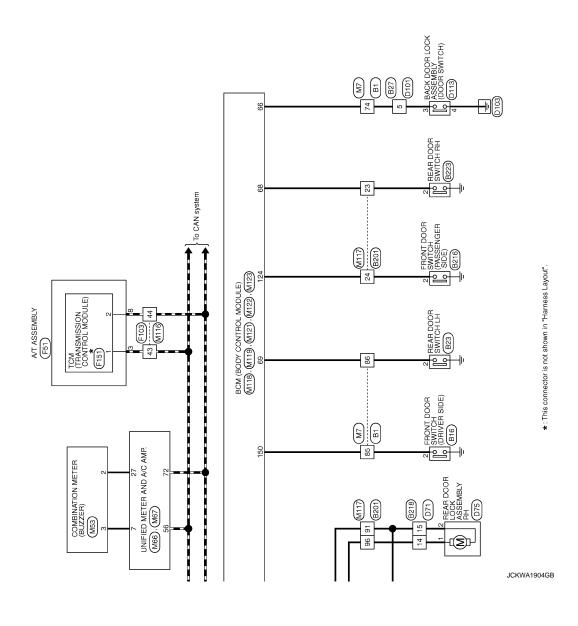
NO >> Repair harness.

3.CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END





### [INTELLIGENT KEY SYSTEM]

REAR DOOR SWITCH LIH A03FW    1	NS8    15   4   3   2   1   1   1   1   1   1   1   1   1		АВ
Commetter No. B23 Commetter Name REAR DOO Commetter Type A03FW    A03FW	Connector No. 8218 Connector Name WIRE TO WIRE Connector Type   TK10FW-NS8  H.S. 10 9 8 7 6 6 6 1 1 1 6 15  Terminal Color Signa  14 6 6 1 1 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1		C
NSS NSS  15 14 3 2 1 15 14 13 12 11  Signal Name [Specification]	BZ16 FPOWT DOOR SWITCH (PASSENGER SIDE) AU3FW  Signal Name [Specification]		E
Connector No.   B18	Connector No. B216 Connector Name FFRONT DOO! Connector Type A03FW  A04 A04 A05FW  A15 A		G H
BI 6 AGSFW AGSFW  Signal Name (Specification)	W-CS16-TM4 W-CS16-TM4 Signal Name [Specification]		1
ector No.  ector Type  initial Color  or of Wire	Rector No. B201  WIRE TO rector Name WIRE TO rector Type TH80FW  I Color of Wire Of Wi		DLK
	Converse		L
M   M   M   M   M   M   M   M   M   M	No. B27 Name WRE TO Type M06MW- of Wire		N
Connector Name   Connector Name   Connector Name   Connector Name   Connector Type   Color No. of Will No. of Wi	Connector No. Connector Type  Connector Type  Terminal Color No. 5 L.	JCKWA1905GB	O

Revision: 2010 March **DLK-113** 2009 EX35

POWER DOOK LOCK STSTEM  Connector No. 8223  Connector Name REAR DOOR SWITCH RH  Connector Type A03FW	Connector No. B242 Connector Name FUEL LID LOCK ACTUATOR Connector Type MOAFW-LC	Connector No. DI Connector Name WIRE TO WIRE Connector Type TH40PW-CS15	Connector No. D8 Connector Name POWER WINDOW MAIN SWITCH Connector Type NSIGFW-CS
	H.S.		H.S. 1 2 3 4 1 5 6 7 8 9 10 11 12 13 14 15 16
Color of Wire BR	Terminal   Color   Signal Name [Specification]	Terminal   Color   Signal Name [Specification]   Color   Signal Name [Specification]   Color   Color	Terminal   Color   Signal Name [Specification]   No. of Wire   Signal Name [Specification]   A
Connector No. D9 Connector Name POWER WINDOW MAIN SWITCH Connector Type INSOSFW-CS	Connector Nan FIS Connector Name SIDE)  Connector Type EDEFCY-RS	Connector No.         D31           Connector Name         WIRE TO WIRE           Connector Type         TH40FW-CS15	Connector No. D38 Connector Name (PASSEVORE WINDOW SWITCH Connector Type NS16FW-CS
1718118118118118118118118118118118118118	HS (123456)	15   4   3   2   1   1   1   1   1   1   1   1   1	H.S. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Color of Wire Signal Name [Specification]	Terminal   Color   Signal Name [Specification]   1	Terminal   Color   Signal Name [Specification]	Terminal   Color   Signal Name [Specification]   11   12   13   15   15   16   16   16   16   16   16

JCKWA1906GB

### [INTELLIGENT KEY SYSTEM]

9 10			А
15 16 17 8 6	Signal Name [Specification]	WIPE CSI6-TM4 CSI6-TM4 Signal Name [Specification]	В
WIRE TO WIRE TKIOMW-NS8 3 4 5 = 12 13 14		E 100 F 100	С
Connector No. Connector Type	Color   Color   No.   Of Wre     14   G   15   O   15   O   15   O   O   O   O   O   O   O   O   O	Connector Name Connector Type Terminal Color No. of Wire 91 W	D
H 1	[wopac	[looped]	Е
DSS FRAR DOOR LOOK ASSEMBLY LH E06FGY-RS TRAIL FRAIL T	Signal Name (Specification)	BACK DOOR LOCK ASSEMBLY NSOM-W-CS  A 3 2 1  Sigmal Name [Specification]	F
	Ooloo	BACK DO TITO	G
Connector No. Connector Name Connector Type	Terminal No. 2	Connector Nac Connector Name Connector Type  Terminal Color No. of Wire 3 4 B B	Н
8 9 10	off cartion]	offication)	I
wre NS8 	Signal Name [Specification]	WIRE LC 3 2 1 6 5 4 Signal Name [Specification]	J
Name WIRE TO WIRE TO Type TK (10MW- NSS T	Odlar G Wiles	Signa Color of Wire Signa of W	DLK
Connector No. Connector Type Connector Type II.S. II.S.	Terminal N. C. 13	Connector Name Connector Type Connector Type In the Color Terminal Color No of Wire S V	L
STEM  SEMBLY	eoification)	MBLY RH eofication]	M
MOOR LOCK SYSTEM  Mass  ENGIN TOOL LOCK ASSEMBLY  PASSENGER SIDE)  ENGIN-RS  ENGIN-RS  ENGIN-RS	Signal Name [Specification]	EGEGY-RS  Signal Name [Specification]	
	Color of Wire	Name Type O Calor O O O O O O O O O O O O O O O O O O O	N
POWER Connector No. Connector Name Connector Type	Terminal No. No. 2	Connector Na Connector Name Connector Name Connector Type Terminal Oor Wh 1 2 0 0 7 Wh 1 1 0 0 Wh 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	O 1907GB
			Р

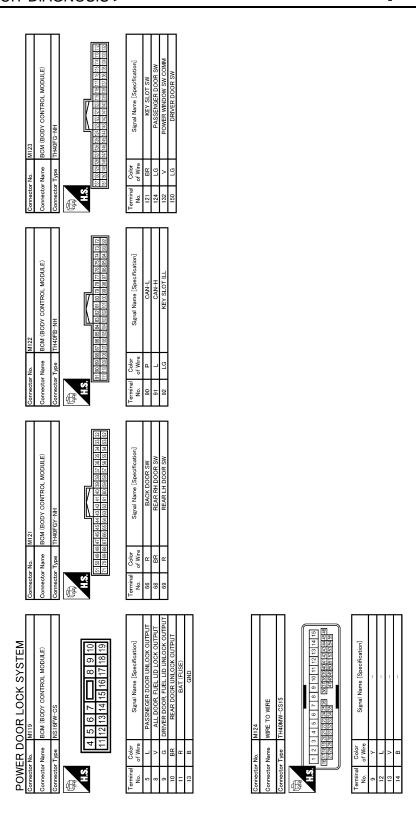
Revision: 2010 March **DLK-115** 2009 EX35

POWER D	POWER DOOR LOCK SYSTEM	2	1700	П	70 70	2		
Connector Name	A/T ASSEMBLY	Connector Name		Connector Name	TCM (TRANSMISSION CONTROL MODILLE)	Connector No.	Т	
Connector Type	$\neg$	Connector Type	Т	-	SP10FBGY	Connector Type	Т	
<b>€</b>	1	偃		<b>€</b>		優		
	5 4 3 2 1 10 9 8 7 6			109	987654321		3A 24 1A 8A 7A6A5A4A	
Terminal Color No. of Wire	Signal Name [Specification]	of of	r Signal Name [Specification]	Terminal Color No. of Wire	Signal Name [Specification]	la O do	Signal Name [Specification]	
 	1 1	44 43	1 1	2 - S	CAN-H CAN-L	4A 7A R	1 1	
Connector No.	M2	Connector No.	M5	Connector No.	M6	Connector No.	M7	
Connector Name		Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	Connector Name	WIRE TO WIRE	
Connector Type	NS10FW-CS	Connector Type	TH40MW-CS15	Connector Type	TH80MW-CS16-TM4	Connector Type	TH80MW-CS16-TM4	
₹ \$	4838	H.S. 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3   4   5   6   7   8   9   10   11   12   13   4   15   10   10   10   12   13   14   15   15   15   15   15   15   15	H.S.	8 1 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2	₽ H.S.		
Terminal Color No. of Wire	Signal Name [Specification]	Terminal Golor No. of Wire	Signal Name [Specification]	Terminal Color No. of Wire	Signal Name [Specification]	Terminal Color No. of Wire	Signal Name [Specification]	
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		13 B				92 ×	1	
		ł				00		

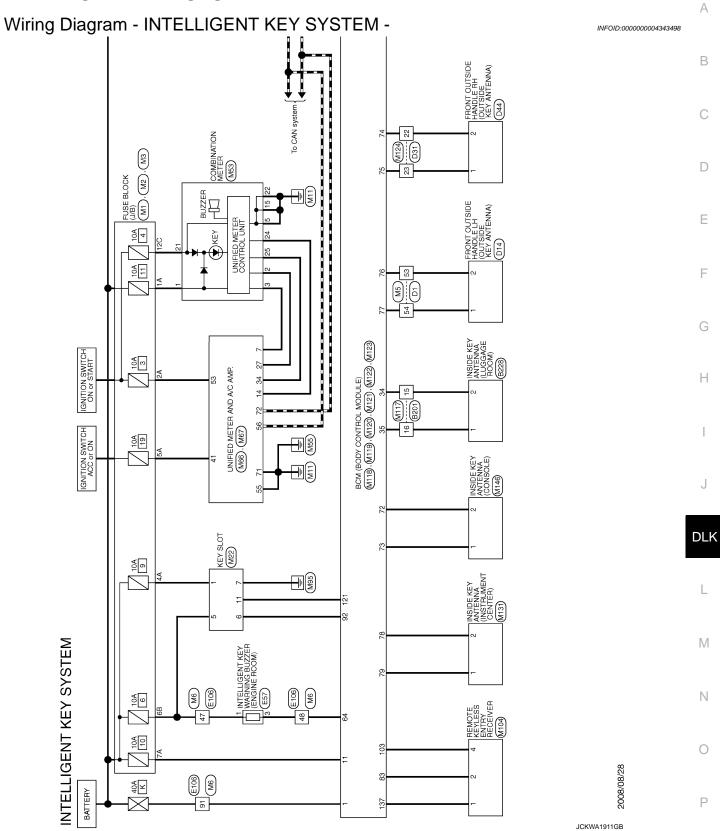
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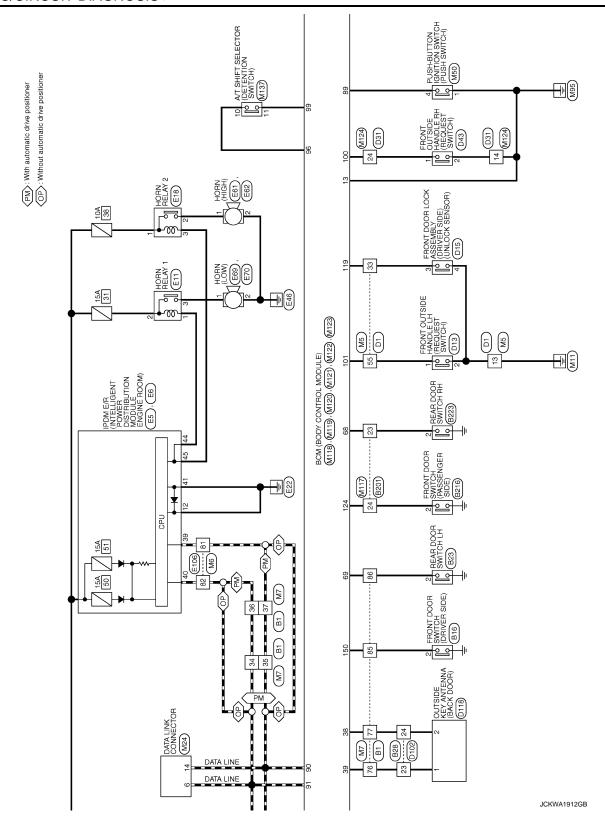
M66	MOTE-LC MOTE-LC  MOTE-LC  Signal Name [Specification]  BAT (F/L)		АВ
M66   Connector No.   M66   Connector Name   UNIFIED ME   Connector Type   TH40FW-HH   M.   Th40FW-HH   Th40FW-HH	Connector No. M118 Connector Name BCM (BOD) Connector Type M03FB-LC H.S. H.S. I w. of Wire I W		C D
MEST	W-Cs16-TM W-Cs16-TM W-Cs16-TM Signal Name [Specification]		E F
Connector No.   ME3   Connector Name   COMBINATION METE   Connector Type   TH40FW-NH   TH2   1   2   3   3   3   3   3   3   3   3   3	Corrector No.   MI17		G
M24 DATA LINK CONNECTOR BDIGFW  9 10 11 12 13 14 15 16   7   8   Signal Name [Specification]	WIRE WEIGHT BENEFICE SECTION SIGNAL IN NAME [Specification]		I
Connector No M24 Connector Name DATA III Connector Type BD16FW  H.S.  Terminal Color No. of Wire 6 14 P	Connector No. M116 Connector Name WIRE TO WIRE Connector Type TK36MW-NS10  12 14 2 4 4 1		DLK
LOCK SYSTEM  T  NH  2 3 4 5 6 8 9 101112  Signal Name [Specification]  Signal Name [Specification]  REY SWITCH SIGNAL	M67  TH:QFW-NH  TH:QFW-NH  TH:QFW-NH  TH:QFW-NH  Signal Name [Specification]  Signal Name [Specification]		M
Connector Name   REY SLOT	Connector No.   M67		N O
		JCKWA1909GB	Р

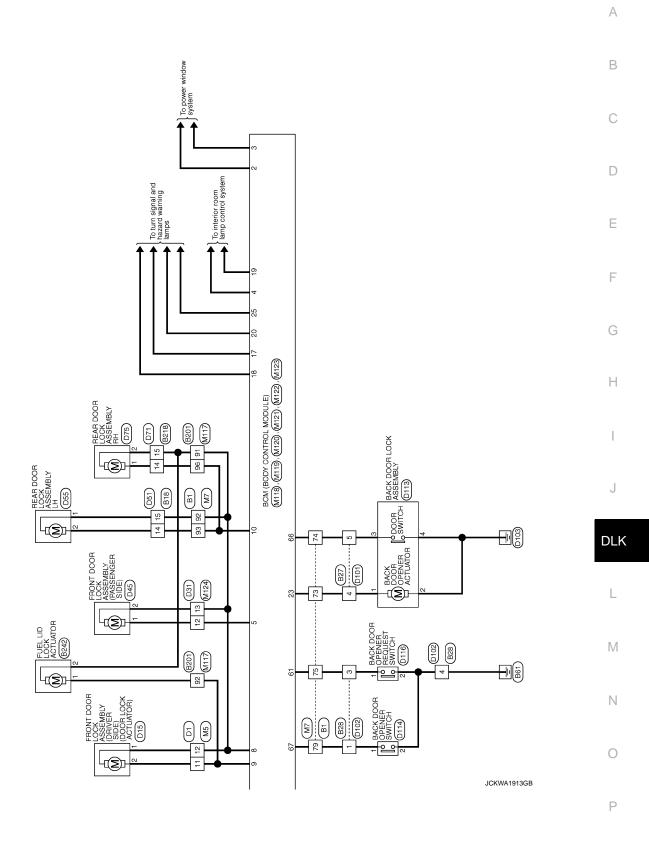
Revision: 2010 March **DLK-117** 2009 EX35

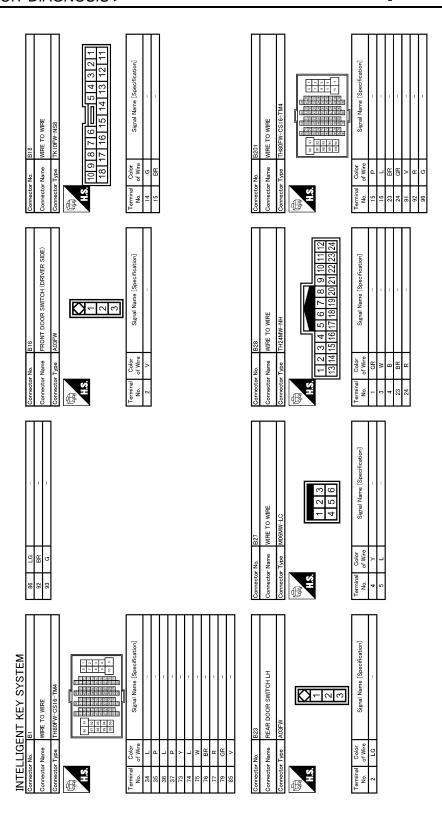


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ctor No. B228  Ctor Name INSIDE KEY ANTENNA (LUGGAGE ROOM)  Ctor Type RK02FGY  Ctor Type RK02FGY  Ctor Type Signal Name [Specification]  Color L  L  L  L  L  L  L  L  L  L  L  L  L	AS Signal Name [Specification]  Signal Name [Specification]  Signal Name [Specification]		В
Connector Connector No. No. 1	Connector Connector No. 1		D E
REZ3 REAR DOOR SWITCH RH AU3FW  Signal Name [Specification]	D13 FROOT OUTSIDE HANDLE LH (REQUEST RK02FL  Signal Name [Specification]		F
Connector No. Connector Name Connector Type  Terminal Color No. of Wire 2 BR	Connector No. Connector Type Connector Type H.S. H.S.  Terminal Color No. of Wire 2 B		Н
Name   R218	No.   D1   No.   D2   No.   D3   No.   D4   No.   D4   No.   D4   No.   D4   No.   D5   No.   D5		J
Connector No. Connector Name Connector Type 110 118 110 114 110 114 119 114 119 114 119 114 119 114 119 114 119 119	Connector No.   Connector Name   Connector Name   Connector Type   Conne		L
INT KEY SYSTEM B216 FRONT DOOR SWITCH (PASSENGER R025) A03FW Signal Name [Specification]	FUEL LID LOCK ACTUATOR MAJFW-LC  Signal Name [Specification]		M
No N	No.   B242   S242   S		N
INTELLL Connector Na. Connector Typ. Na. Na. Na. Na. Na. Na. Na. Na. Na. Na	Connecton Connecton Terminal No.	JCKWA1915GB	0
			Р

Connector No. D14 Connector Name REDAIT OUTSIDE HANDLE RH (OUTSIDE Connector Type RKO2MGY    Connector Type RKO2MGY   RKO2MGY	Terminal Color No. of Wire Signal Name [Specification]	Connector No. D71  Connector Name WIRE TO WIRE  Connector Type TKIOMW-NS8  H.S. 1 2 3 4 5 6 6 7 8 9 10  11 2 13 4 15 6 7 8 9 10	
Commedicar No. D43 Commedicar Name SWITCH) Commedicar Type RNOZEL  H.S.	Terminal Color	Connector No. D55 Connector Name REAR DOOR LOCK ASSEMBLY LH Connector Type E06FGY-RS  H.S. (1 2 3 4 5 6)	Terminal   Color   Signal Name [Specification]   1   V     2   G     Color   Color
Connector No.   D31   Connector Name   WIRE TO WIRE   Connector Type   TH40PW-CS15   TH50PW-CS15   TH50PW-CS15	Terminal Color No. of Vive Signal Name [Specification]  12 P	Connector No. DS1  Connector Name WIRE TO WIRE  Connector Type TK:10MW-NS8  LLS 1 2 3 4 5 6 7 8 9 10  1 1 2 3 4 5 6 7 8 9 10	Terminal Color   Signal Name [Specification]   No. of Wire   Signal Name [Specification]   14   0   -
INTELLIGENT KEY SYSTEM  Connector No. D15  Connector Name RROWI DOOR LOCK ASSEMBLY (DRIVER  Connector Type E00FGV-RS  H.S.  (123456)	No. 1   Color   Signal Name [Specification]   Of Wire   1   LG   2   2   2   2   2   3   L   4   B   Color   Color	Connector No. D45 Connector Name FFONT DOOR LOCK ASSEMBLY Connector Type EDEFGY-RS  H.S.  (6 5 4 3 2 1)	Terminal   Color   Signal Name [Specification]   No. of Wire   Signal Name [Specification]   P.

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### **INTELLIGENT KEY SYSTEM**

### [INTELLIGENT KEY SYSTEM]

BACK DOOR LOCK ASSEMBLY NSGAFW-CS  4 3 2 1	Signal Name (Specification)	Name   PES   PPM E./R (INTELLIGENT POWER	Signal Name [Specification]		A B
Connector No. D113 Connector Name BACK Connector Type NSOM H.S.	Terminal   Color	Connector No. E5 Connector Name IPDM Connector Type TH200  H.S.    11111 2 18    2   12 11 2 18	Terminal Color No. of Wire 12 B./W		D
15 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Signal Name [Spacification]	DI18 OUTSIDE KEY ANTENNA (BACK DOOR) RROZFGY	Signal Name [Specification]		Е
No. D102 Name WIFE TO WIFE Type TH24FW-NH  12 11 10 9 8 7 6 24 23 22 21 20 19 18	Color of Wire Signal Nan GR Wire GR W W R R R R R R		Color of Wire Signal Nan BR R		F G
Connector No. Connector Name Connector Type H.S. 12 1	Terminal No. 9	Connector No. Connector Name Connector Type	Terminal No. 2		Н
DIOI WIRE TO WIRE MOGFW-LC  3 2 1  6 5 4	Signal Name [Speoffcation]	DI 16 BACK DOOR OPENER REQUEST SWITCH TKG2MBR-P  1 2	Signal Name [Specification]		J
Connector No. Connector Name V Connector Type M H.S.	Color   No. of Wire   A   V   V   S   V   V   Color   No. of Wire   A   V   V   V   Color   Color	Connector No. Connector Name E Connector Type II	Color   No. of Wive   No. of Wive   No. of Wive   No. of Wive   No. of		DLK
					L
INTELLIGENT KEY SYSTEM Connector No. D73 Connector Name REAR DOOR LOCK ASSEMBLY RH Connector Type E00FGY-RS  H.S  (6 5 4 3 2 1)	Signal Name [Specification]	DI 14 BACK DOOR OPENER SWITCH TKGZMBR-P	Signal Name [Specification]		M
					Ν
INTELLIG Connector No. Connector Name Connector Type	Terminal   Color   No of Wire     Color     Color     Color     Color     Color     Color     Color     Color     Color	Connector No. Connector Type	Terminal   Color   No. of Wive   1   CR   2   B		0
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Revision: 2010 March **DLK-125** 2009 EX35

Cornector No. E57 Cornector Name (ENGINE ROOM) Cornector Type RK03FBR  H.S.	Terminal Color   Signal Name [Specification]	Corrector No. E70 Comector Name HORN (LOW) Commector Type POIFB-A  H.S.  Terminal Color No. of Wifee Signal Name [Specification]
Connector No. E18 Connector Name HORN RELAY 2 Connector Type M03FW-R-LC  M35  M35  M5	Terminal   Golor   No. of Wire   Signal Name [Specification]	Connector No E69 Connector Name HORN (LOW) Connector Type POITER-A  H.S.  Terminal Color No of Wire Signal Name [Specification]
Connector No. E11 Connector Name HORN RELAY 1 Connector Type H.S.	Terminal   Color   Signal Name [Specification]   No.   of Wire     LG       LG	Connector No. E82 Connector Name HORN (HIGH) Connector Type POIFE-A  H.S.  Termina Color No. of Wire Signal Name [Specification]
INTELLIGENT KEY SYSTEM  Connector Name  Connector Name  Connector Type  TH08FW-NN  42 41 40 39  46 45 44 43	Terminal   Color   Signal Name (Specification)   Signal Name   Specification   Color   Color	Connector No. E61 Connector Name HORN (HIGH) Connector Type POITB-A  H.S.  Terrinal Color No. Of Wire Signal Name [Specification]

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### **INTELLIGENT KEY SYSTEM**

CS C		АВ
Connector No. M3 Connector Name FUSE BLOCK (J/B) Connector Type INSIZEW-CS  H.S. 5C4C   120   12	α > α α α α α α α α α α α α α α α α α α	C
Signal Name [Specification]	NW-CS 16-TM4  NW-CS 16-TM4  NW-CS 16-TM4  NG-CS 16-TM4  NG	E
Connector No. M2 Connector Name FUSE BLOCK (J/B) Connector Type NS10FW-CS  H.S. 4B 38	Connector No. M7  Connector Name WIRE TO WIRE  Connector Type TH80MW-CS/16  H.A. I I I I I I I I I I I I I I I I I I	G
00K (J/B) M2  TABA 5A 1A  ZA 1A  Signal Name [Specification]	NW-CS16-TM4  WW-CS16-TM4  WW-CS	I
MI   Connector No   MI   Connector Name   FLISE BLOCK (J/B)   Connector Type   NS06FW-NZ   MS   MS   MS   MS   MS   MS   MS   M	Cornector No.   MS	DLK
KEY SYSTEM W-CSIG-TM4 W-CSIG-TM4 Signal Name [Specification]	Name   WIRE TO WIRE	L M
INTELLIGENT KEY SYSTEM   Cornector Name   RIG   Cornector Name   Cornector Type   TH80FW-CS16-TM4   Cornector Type   TH	Connecto Con	N O
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Revision: 2010 March **DLK-127** 2009 EX35

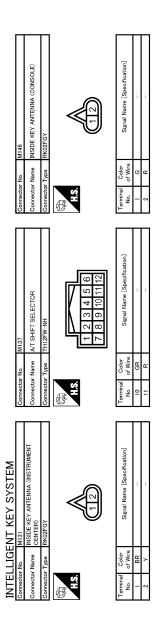
Cornector No.   M53	Terminal Color	DEIVER Connector No M117 Connector Name WIRE TO WIRE Connector Type TH80MV-CS16-TM4  LLS  LLS  LLS  LLS  LLS  LLS  LLS  L	Terminal Color No. of Wire SB 15 SB 16 V 23 BR 23 BR 24 LG 24 LG 24 CO
Connector No. M50 Connector Type TK08FBR  H.S. 1	Terminal Color   Signal Name [Specification]	Connector No. MITOM Connector Name REMOTE KEYLESS ENTRY RECEIVER Connector Type JABOMFB  LLS  (1 2 3 4	Terminal Color   Signal Name (Specification)   No. of Wire   Signal Name (Specification)   1
Connector No. M24 Connector Name DATA LINK CONNECTOR  Connector Type BDIGFW  H.S.  1 2 3 4 5 6 7 8	Terminal   Color   Signal Name   Specification	M67   Connector No.   M67   Connector Name   UNIFIED METER AND A/C AMP.	Terminal   Color   Signal Name   Specification
INTELLIGENT KEY SYSTEM	Terminal   Color   Signal Name [Specification]   No. of Wive   Signal Name [Specification]   No. of Wive   R.   R.   R.   R.   R.   R.   R.   R	Connector No   Mi66	Terminal   Color   Signal Name [Specification]   Terminal   No.   Of Wire   COMMUNICATION SIGNAL (AMP->METER)   14   BR   COMMUNICATION SIGNAL (AMP->AMPER)   27   LG   COMMUNICATION SIGNAL (METER->AMPE)   27   COMMUNICATION SIGNAL (AMP->-LCD)   COMMUNICATION SIGNAL (CAMP->-LCD)   CAMP->-LCD)   CAMP->

JCKWA1920GB

### **INTELLIGENT KEY SYSTEM**

### [INTELLIGENT KEY SYSTEM]

	TROL MODULE)  TROL MODULE)	Signal Name [Specification]  LUGGAGE ROOM ANT- LUGGAGE ROOM ANT- BACK DOOR ANT- BACK DOOR ANT- BACK DOOR ANT- THEY WARNE BUZZER FRO ISON) BACK DOOR SW BACK DOOR SW REAR BH DOOR SW REAR H DOOR SW		Signal Name [Specification]		АВ
	Connector No. M121 Connector Name BGM (BODY CONTROL MODULE) Connector Type TH40FGY-NH  T1S S150488778686995875655 T170698691988718658	Terminal   Color   Signal N     No. of Wire   Signal N     134   SB   LUGGG     135   SB   BACK DOOR     136   SB   BACK DOOR     146   SB   SB   BACK DOOR     146   SB   SB   SB   SB     146   SB   SB   SB   SB     146   SB   SB   SB   SB     146   SB   SB   SB   SB   SB     146   SB   SB   SB   SB   SB   SB     146   SB   SB   SB   SB   SB     146   SB   SB   SB   SB   SB   SB     146   SB   SB   SB   SB   SB   SB   SB     146   SB   SB   SB   SB   SB   SB   SB   S	Military   Military   Connector No.   Military   Mili	Color   Colo		C
		Signal Name (Speeifration) TURN SIGNAL RI (REAR) TURN SIGNAL LI (REAR)	22 20 20 20 20 20 20 20 20 20 20 20 20 2	Signal Name (Specification) DR DOOR UNLOOK SENSOR KEY SLOT SW PASSENGER DOOR SW RECEIVERY SENSOR GND DRIVER DOOR SW		E
	M20 ector Name BCM (BCDV CON) ector Type NS12FW-CS  20 21	Color of Wire G	Connector No. M123 Connector Name BCM (BODY CONTROL MODULE) Connector Type TH40FG-NH  TH S  STEED BY	Codor of Wire SB SB SB SB CO O O		G
	Comm	Terminal   No.   10   10   10   10   10   10   10   1		Terminal No. 119 121 121 124 137 150		Н
	MI19 BOM (BODY CONTROL MODULE) NSIGEW-CS  5 6 7     8 9 10  12 13 14 15 16 17 18 19	Signal Name [Speedfication] INTERGOR ROOM LAMP POWER SUPPLY PASSINGER POOR UNILCOK OUTPUT ALL DOOR FUEL LID UNILCOK OUTPUT PREAR DOOR FUEL LID UNILCOK OUTPUT REAR DOOR FUEL LID UNILCOK OUTPUT BAT (FISE) TURN SIGNAL LH (FRONT) TURN SIGNAL LH (FRONT) ROOM LAMP TIMER CONTROL	CAN-H  AT SHIFT SELECTOR POWER SUPPLY  SHIFT OF SHORT SUPPLY  PASSENGER DOOR RECUEST SW  DRIVER DOOR RECUEST SW  KEYLESS ENTRY RECEIVER POWER SUPPLY			J
	Connector No. MI 19 Connector Name BCM (BODY Connector Type NS16FW-CS  TLS  TLS  T1 12 13 14	Color   Colo	91 L 92 LG ATSHIFT 96 GR ATSHIFT 100 G PASS 101 SB DH 103 LG KEYLESS			DLK
		(RAP)	ZZ	L + +		L
SYSTEM	MUSTELC MAGRELC	일   [8]8]	M122 BCM (BODY CONTROL MODULE) TH40FB-14tH TH40FB-14tH TH60FB-14tH	Signal Name [Speedfication] ROOM ANTZ- ROOM ANTZ- PASSENGER DOOR ANTT- PASSENGER DOOR ANTT- DRIVER DOOR ANTT- ROOM ANTT-		M
INTELLIGENT KEY SYSTEM	MI18 BCM (BODY CON M03FB-LC	POWE	M122 BCM (BODY CO TH40FB-NH TH40FB-NH	<del>                                     </del>		Ν
INTELLIG	Connector No. Connector Type	Color   Colo	Connector No. Connector Name Connector Type	Content   Color   Co		0
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### INTEGRATED HOMELINK TRANSMITTER SYSTEM

< DTC/CIRCUIT DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### **INTEGRATED HOMELINK TRANSMITTER SYSTEM**

Wiring Diagram - INTEGRATED HOMELINK TRANSMITTER SYSTEM - INFOID:00000

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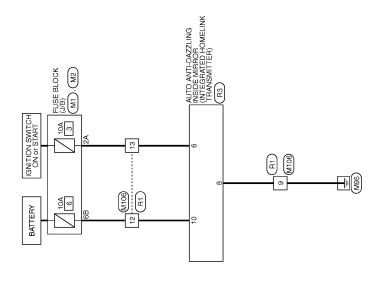
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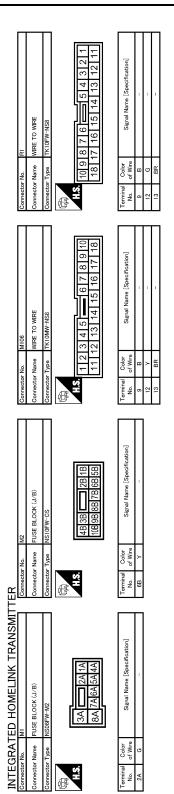
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**DLK-131** 

INTEGRATED HOMELINK TRANSMITTER

### INTEGRATED HOMELINK TRANSMITTER SYSTEM



R3	AUTO ANTI-DAZZLING INSIDE MIRROR	TH10FB-NH	10 9 8 7 6	Signal Name [Specification]	IGN	GND	BAT
Г				Color of Wire	BR	В	ď
Connector No.	Connector Name	Connector Type	H.S.	Terminal No.	9	8	ç

JCKWA1924GB

< ECU DIAGNOSIS INFORMATION >

[INTELLIGENT KEY SYSTEM]

Α

# **ECU DIAGNOSIS INFORMATION**

# **BCM (BODY CONTROL MODULE)**

Reference Value INFOID:0000000004921472 В

#### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
ED WIDED III	Other than front wiper switch HI	Off
R WIPER HI	Front wiper switch HI	On
	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
ED MACHED CM	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
TO WIDED INT	Other than front wiper switch INT	Off
R WIPER INT	Front wiper switch INT	On
TO WIDED OTOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
D WIDED OTOD	Rear wiper is in STOP position	Off
RR WIPER STOP	Rear wiper is not in STOP position	On
FURNI GIONAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
FURNI GIONIAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
5411 1 4445 0147	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
II DE AM OVA	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
IEAD LAMB OW	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
IEAD LAMB OW	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
DOOD CW DD	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
DOOD CW AC	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
DOOD OW DD	Rear RH door closed	Off
DOOR SW-RR	Rear RH door opened	On
D00D 0W D1	Rear LH door closed	Off
DOOR SW-RL	Rear LH door opened	On
2002 000 200	Back door closed	Off
DOOR SW-BK	Back door opened	On
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off
TD/DD 00511 011	Back door opener switch OFF	Off
TR/BD OPEN SW	While the back door opener switch is turned ON	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
51/5 1 6 61/	LOCK button of the key is not pressed	Off
RKE-LOCK	LOCK button of the key is pressed	On
	UNLOCK button of the key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the key is pressed	On
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off
51/5 51110	PANIC button of the key is not pressed	Off
RKE-PANIC	PANIC button of the key is pressed	On
DIVE DAM 6555	UNLOCK button of the key is not pressed	Off
RKE-P/W OPEN	UNLOCK button of the key is pressed and held	On
DIVE MODE SIZE	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off
RKE-MODE CHG	LOCK/UNLOCK button of the key is pressed and held simultaneously	On

# < ECU DIAGNOSIS INFORMATION >

# [ÍNTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
ODTICAL CENCOD	Bright outside of the vehicle	Close to 5 V	Α
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	
DEO CW. DD	Driver door request switch is not pressed	Off	Е
REQ SW -DR	Driver door request switch is pressed	On	
DEC CIAL AC	Passenger door request switch is not pressed	Off	
REQ SW -AS	Passenger door request switch is pressed	On	(
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off	_
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off	
REQ SW -BD/TR	Back door request switch is not pressed	Off	Е
REQ SW -BD/TR	Back door request switch is pressed	On	
DUOLLOW/	Push-button ignition switch (push switch) is not pressed	Off	
PUSH SW	Push-button ignition switch (push switch) is pressed	On	F
ION DIVO E/D	Ignition switch in OFF or ACC position	Off	
IGN RLY2 -F/B	Ignition switch in ON position	On	
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	(-
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off	-
	The brake pedal is depressed when No. 7 fuse is blown	Off	
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On	
DDAKE CW o	The brake pedal is not depressed	Off	
BRAKE SW 2	The brake pedal is depressed	On	
DETE/CANCL SW	Selector lever in P position	Off	
DETE/CANCE SVV	Selector lever in any position other than P	On	
OFT DAI/ALOVA/	Selector lever in any position other than P and N	Off	D
SFT PN/N SW	Selector lever in P or N position	On	*
2// 1 001/	Steering is unlocked	Off	
S/L -LOCK	Steering is locked	On	. L
	Steering is locked	Off	•
S/L -UNLOCK	Steering is unlocked	On	1
	Ignition switch in OFF or ACC position	Off	
S/L RELAY-F/B	Ignition switch in ON position	On	-
	Driver door is unlocked	Off	- 1
JNLK SEN -DR	Driver door is locked	On	
	Push-button ignition switch (push-switch) is not pressed	Off	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On	
	Ignition switch in OFF or ACC position	Off	3
IGN RLY1 -F/B	Ignition switch in ON position	On	F
	Selector lever in any position other than P	Off	-
DETE SW -IPDM	Selector lever in P position	On	-
	Colonia in a position	<b>-</b>	-
	Selector lever in any position other than P and N	Off	

**DLK-135** Revision: 2010 March 2009 EX35

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
SFT P -MET	Selector lever in any position other than P	Off
SI I F -WILT	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
OI I IN -IVIL I	Selector lever in N position	On
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOOK-IF DIVI	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
3/L UNLK-IPDIVI	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK.	Off
3/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK.	On
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
PRIVIT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEN OW OLOT	The key is not inserted into key slot	Off
KEY SW -SLOT	The key is inserted into key slot	On
RKE OPE COUN1	During the operation of the key	Operation frequency of the key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRMIDALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
001151514154	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done
CONFIDM ID2	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done

### < ECU DIAGNOSIS INFORMATION >

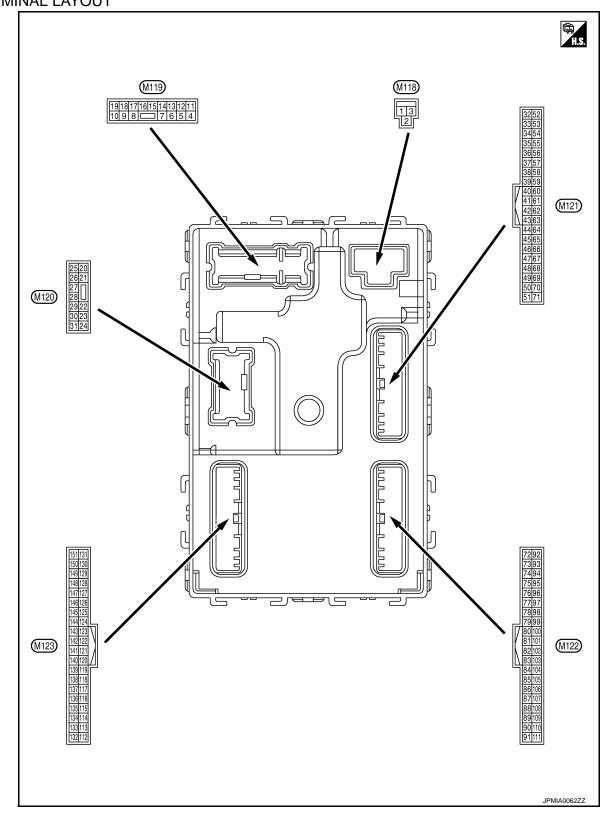
# [ÍNTELLIGENT KEY SYSTEM]

Monitor Item	Condition	Value/Status	
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet	— А
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done	В
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet	
CONFIRMIDI	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done	С
TP 4	The ID of fourth key is not registered to BCM	Yet	
1P 4	The ID of fourth key is registered to BCM	Done	_ D
TP 3	The ID of third key is not registered to BCM	Yet	
1173	The ID of third key is registered to BCM	Done	E
TDO	The ID of second key is not registered to BCM	Yet	
TP 2	The ID of second key is registered to BCM	Done	
TD /	The ID of first key is not registered to BCM	Yet	F
TP 1	The ID of first key is registered to BCM	Done	<del></del>
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire	G
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire	— — Н
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire	— п
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire	-
ID DECOT ELA	ID of front LH tire transmitter is registered	Done	
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet	
ID DECOT ED4	ID of front RH tire transmitter is registered	Done	
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet	
	ID of rear RH tire transmitter is registered	Done	DLI
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet	
	ID of rear LH tire transmitter is registered	Done	
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet	
	Tire pressure indicator OFF	Off	
WARNING LAMP	Tire pressure indicator ON	On	M
	Tire pressure warning alarm is not sounding	Off	_
BUZZER	Tire pressure warning alarm is sounding	On	_

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TERMINAL LAYOUT



PHYSICAL VALUES

### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	Α
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	В
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	Battery voltage	С
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON	1	Battery voltage	
4		Interior room lamp			battery saver is activated. com lamp power supply)	0 V	D
(LG)	Ground	power supply	Output	ed.	battery saver is not activat- or room lamp power supply)	Battery voltage	Е
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage	F
(L)	Ground	LOCK	Output	Passenger door	Other than UNLOCK (Actuator is not activated)	0 V	F
7	Ground	Step lamp	Output	Step lamp	ON	0 V	G
(Y)	Orodria	Otop lamp	Output	Otep lamp	OFF	Battery voltage	
8	Ground	All doors, fuel lid	Output Al	All doors	LOCK (Actuator is activated)	Battery voltage	Н
(V)	Oround	LOCK	Catput	7 til 40010	Other than LOCK (Actuator is not activated)	0 V	
9	Ground	Driver door, fuel lid	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage	I
(G)	Giodila	UNLOCK	Output	Dilver door	Other than UNLOCK (Actuator is not activated)	0 V	J.
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	Battery voltage	
(BR)	Giodila	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V	DL
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	-
13 (B)	Ground	Ground	_	Ignition switch ON	l	0 V	
					OFF	0 V	M
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position  (V)  10  2 ms  JSNIA0010GB	N O
15	0	A C C in direct colors	Out t	Lauddan o 901	OFF or ON	Battery voltage	
(Y)	Ground	ACC indicator lamp	Output	Ignition switch	ACC	0 V	

### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
					Turn signal switch OFF	0 V	
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	
(V)	Ground	control	Output	lamp	ON	0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
23	0	Dealt de consu	Outrant	Davida da ca	OPEN (Back door opener actuator is activated)	Battery voltage	
(G)	Ground	Back door open	Output	Back door	Other than OPEN (Back door opener actuator is not activated)	0 V	
					Turn signal switch OFF	0 V	
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
26					OFF (Stopped)	0.5 V	
26 (G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	Battery voltage	
					Sit (Spoidtod)	-and, ranage	

### < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		<b>a</b> 1111		Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(SB)	Glound	na (–)	Cutput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s 1 s JMKIA0063GB
35		Luggage room anten-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(V)	Ground	na (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
38	Ground	Back door antenna (–	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	2.53.13	)	- 3.531	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

### < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		O an altition		Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
	Ground	Back door antenna (+)	Output	When the back door opener re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s	
39 (W)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 1	
47	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage	
(Y)	Ground				ON	0 V	
52	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage	
(SB)					When selector lever is not in P or N position	0 V	
					ON (Pressed)	0 V	
61 (W)	Ground	Back door opener request switch	Input	Back door opener request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms 10 ms JPMIA0016GB	
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(V)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	Battery voltage	
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms 10 ms JPMIA0016GB	
					Not in stop position	0 V	

# < ECU DIAGNOSIS INFORMATION >

# [ÍNTELLIGENT KEY SYSTEM]

Terminal No. (Wire color)		Description		O litt		Value	
+	-	Signal name	Input/ Output	Condition		(Approx.)	
66 (R)	Ground	Back door switch	Input	Back door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB	
					ON (Door open)	0 V	
					Pressed	0 V	
67 (G)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 10 ms JPMIA0011GB 11.8 V	(
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close) ON (Door open)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	
					ON (Door open)	0 0	
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	D
					ON (Door open)	0 V	

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### < ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
(VVire	e color)	Signal name Input/ Output		Condition		(Approx.)	
72	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
(R)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0062GB	
(G)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+ (VVire	e color)	Signal name	Input/ Output		Condition	(Approx.)
75	0	d Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(GR) Ground	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
76		Ind Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
76 (V)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB
77	Ground	Driver door antenna (+)		When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB
(LG)	Giound		Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

# < ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	1			Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
79	Room antenna 1 (+)		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(BR)	Ground	(Instrument panel)	Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s  JMKIA0063GB
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(R)		block (J/B)] control	1 -1-	<b>5</b>	ON	Battery voltage

# < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	0
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
83		Remote keyless entry receiver communication	Input/ Output	During waiting		(V) 15 10 5 1 ms 1 ms	ВС
(Y)	Ground			When operating either button on the key		(V) 15 10 5 0 1 ms JMKIA0065GB	E F
		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	G H I
87	Ground				Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0037GB 1.3 V	J DLK
(BR)					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	M N
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 2 ms JPMIA0040GB 1.3 V	O P

	inal No.	Description				Volue
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V
					Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB
89	Ground	Push-button ignition	Input	Push-button igni-	Pressed	0 V
(BR)	Ground	switch (Push switch)	Input	tion switch (push switch)	Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output		_	<del>_</del>
91 (L)	Ground	CAN-H	Input/ Output			

## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description					
(Wire	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	Α
					OFF	0 V	
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	Blinking	(V) 15 10 5 0 JPMIA0015GB 6.5 V	B C D
					ON	Battery voltage	Е
93	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage	_
(V)	Giodila	ON Indicator lamp	Output	ignition switch	ON	0 V	
94	Ground	Puddle lamp control	Output	Puddle lamp	OFF	Battery voltage	F
(Y)	Giodila	Fudule lamp control	Output	Fuddle lamp	ON	0 V	
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V	
(O)	Giodila	ACC relay control	Output	ignition switch	ACC or ON	Battery voltage	G
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	Battery voltage	Н
97 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status UNLOCK status	0 V Battery voltage	
		Ctooring look condi			LOCK status	Battery voltage	
98 (P)	Ground	Steering lock condition No. 2	Input	Steering lock	UNLOCK status	0 V	
-		Calastar layer D nosi			P position	0 V	J
99 (R)	Ground	Selector lever P position switch	Input	Selector lever	Any position other than P	Battery voltage	
					ON (Pressed)	0 V	
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	L M
					ON (Pressed)	0 V	Ν
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	O P
100		Player for mater :-			OFF or ACC	0 V	
102 (O)	Ground	Blower fan motor re- lay control	Output	Ignition switch	ON	Battery voltage	
(0)		.ay control		_	<b>014</b>	Dattery Voltage	

## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				V.1
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage 0 V
	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB
107 (LG)					Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch LO	(V) 15 10 2 ms JPMIA0038GB 1.3 V
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V

## < ECU DIAGNOSIS INFORMATION >

# [ÍNTELLIGENT KEY SYSTEM]

	inal No.	Description				Value	Λ
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	ВС
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	E
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	G H
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB	J DLK
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB	M
						1.3 V	$\circ$

Р

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms  JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB

## < ECU DIAGNOSIS INFORMATION >

# [ÍNTELLIGENT KEY SYSTEM]

	inal No.	Description				Value
(Wire	e color) –	Signal name	Input/ Output		Condition	(Approx.)
					LOCK status	Battery voltage
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 5 0 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	cal sensor Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)	) Ground Optical sensor		input	ON	When dark outside of the vehicle	Close to 0 V
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2 (Without ICC)		Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
118	Ground	(Williout ICC)	Input		ON (Brake pedal is depressed)	Battery voltage
(P)		Stop lamp switch 2		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
		(With ICC)		Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Input		serted into key slot	Battery voltage
(BR)		-		When the key is no	ot inserted into key slot  OFF or ACC	0 V
123						

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## < ECU DIAGNOSIS INFORMATION >

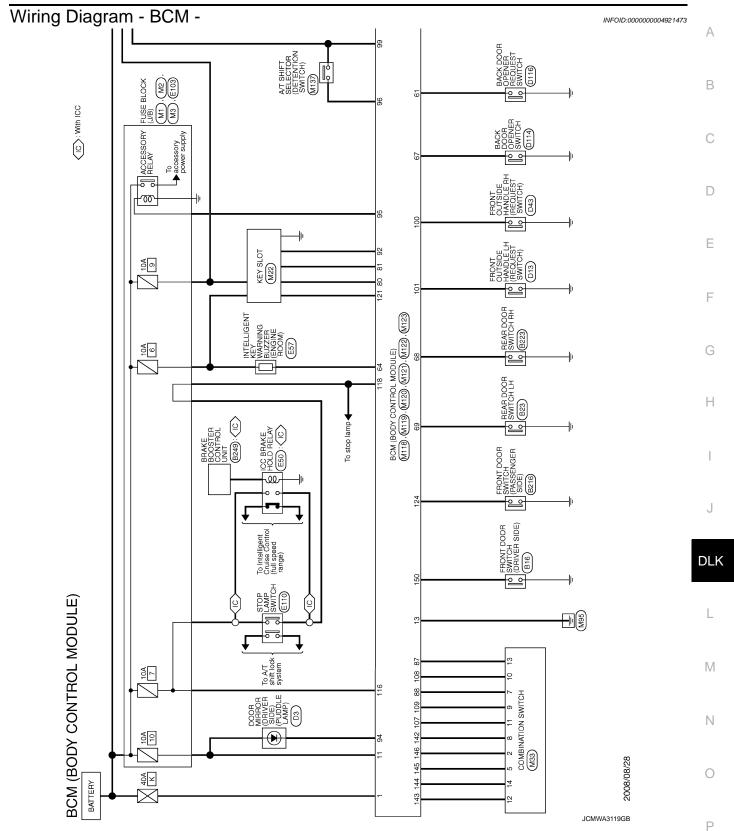
	inal No.	Description				Value
+ (VVire	e color)	Signal name	Input/ Output		Condition	(Approx.)
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (Door open)	0 V
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB
				Ignition switch OF	F or ACC	Battery voltage
-					ON (Tail lamps OFF)	9.5 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps ON)	NOTE: The pulse width of this wave is varied by the illumination brightening/dimming level.  (V) 15 10 5 0  JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
137		Receiver and sensor			ON	0 V
(O)	Ground	ground	Input	Ignition switch ON		0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(Y) Ground	power supply	Output	igindon switch	ACC or ON	5.0 V	

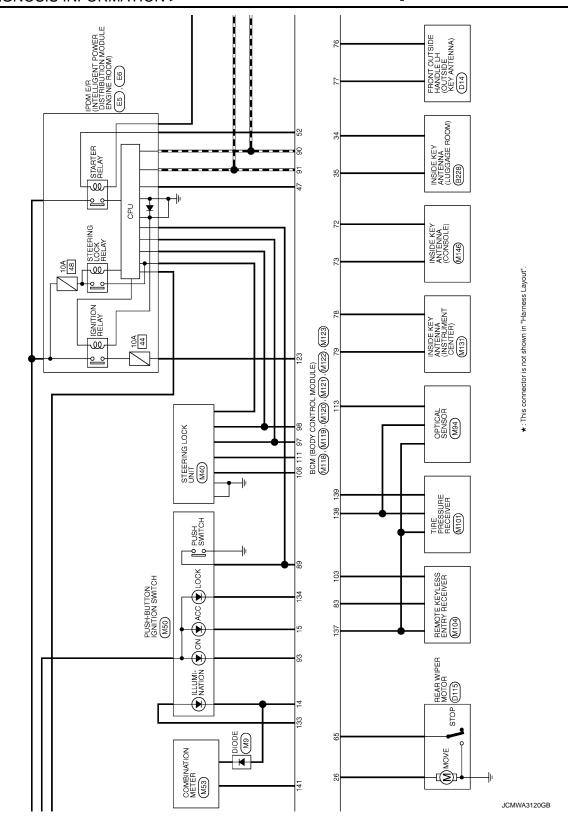
# < ECU DIAGNOSIS INFORMATION >

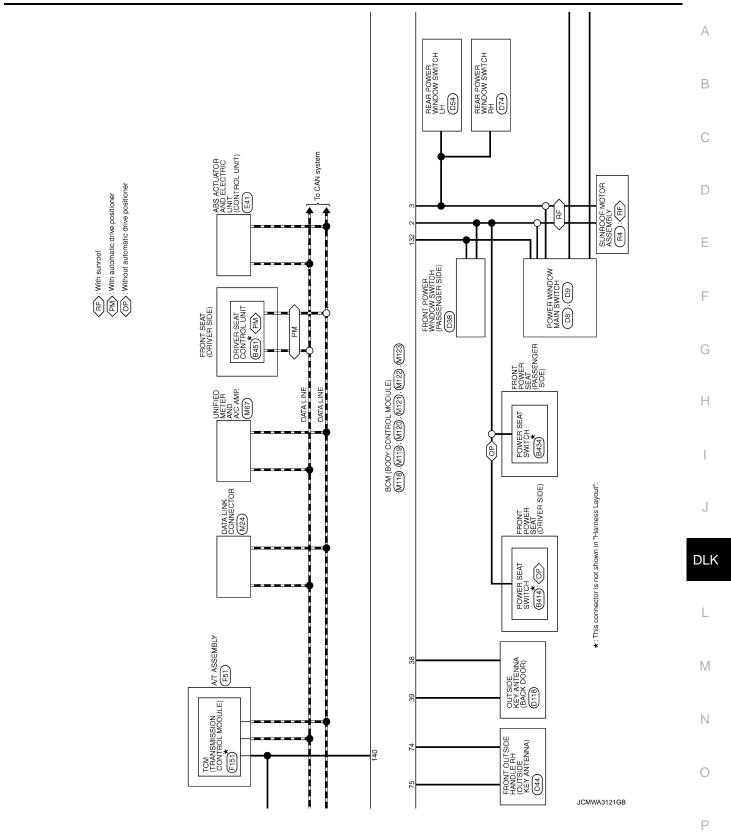
	inal No.	Description				Value
(Wir	e color)	Signal name	Input/ Output		Condition	(Approx.)
139		Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ** 0.2s
(L)	Ground	er communication	Output	ÓN	When receiving the signal from the transmitter	(V) 4 2 0 + 0.2s OCC3880D
140	0	Selector lever P/N	14	0.1	P or N position	Battery voltage
(GR)	Ground	position	Input	Selector lever	Except P and N positions	0 V
					ON	0 V
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 JPMIA0014GB 11.3 V
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF All switches OFF Lighting switch 1ST Lighting switch HI Lighting switch 2ND Turn signal switch RH	Battery voltage  0 V  (V) 15 10 2 ms  JPMIA0031GB  10.7 V
143 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)  Front wiper switch HI (Wiper intermittent dial 4)  Rear wiper switch INT (Wiper intermittent dial 4)  Any of the conditions below with all switches OFF  Wiper intermittent dial 1  Wiper intermittent dial 2  Wiper intermittent dial 3  Wiper intermittent dial 6  Wiper intermittent dial 7	0 V  (V) 15 10 2 ms  JPMIA0032GB  10.7 V

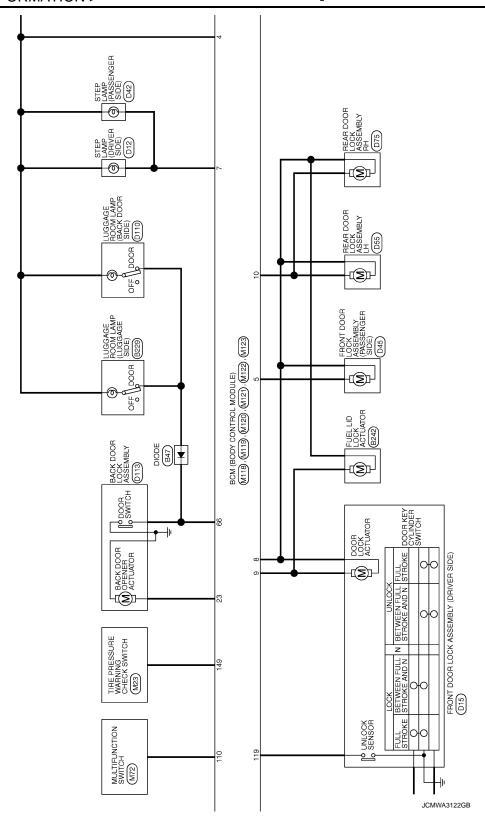
## < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				V/-I
	e color)	Signal name	Input/		Condition	Value (Approx.)
+	_		Output		All a Mala OFF	
					All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
144		Combination switch		Combination	Rear wiper switch ON (Wiper intermittent dial 4)	(V)
(G)	Ground	OUTPUT 2	Output	switch	Rear washer switch ON (Wiper intermittent dial 4)	10 5 0
					Any of the conditions below with all switches OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF	0 V
				Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	
					Front wiper switch LO	(V) 15
145 (L)	Ground	Combination switch OUTPUT 3	Output		Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB 10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	
		Combination switch OUTPUT 4		Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V)
146	Ground		Output		Lighting switch PASS	15
(SB)					Turn signal switch LH	2 ms JPMIA0035GB
149 (W)	Ground	Tire pressure warn- ing check switch	Input	Ignition switch ON		(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
150 (LG)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (Door open)	0 V
151 (C)	Ground	Rear window defog-	Output	Rear window de-	Active	0 V
(G)		ger relay control	-	fogger	Not activated	Battery voltage

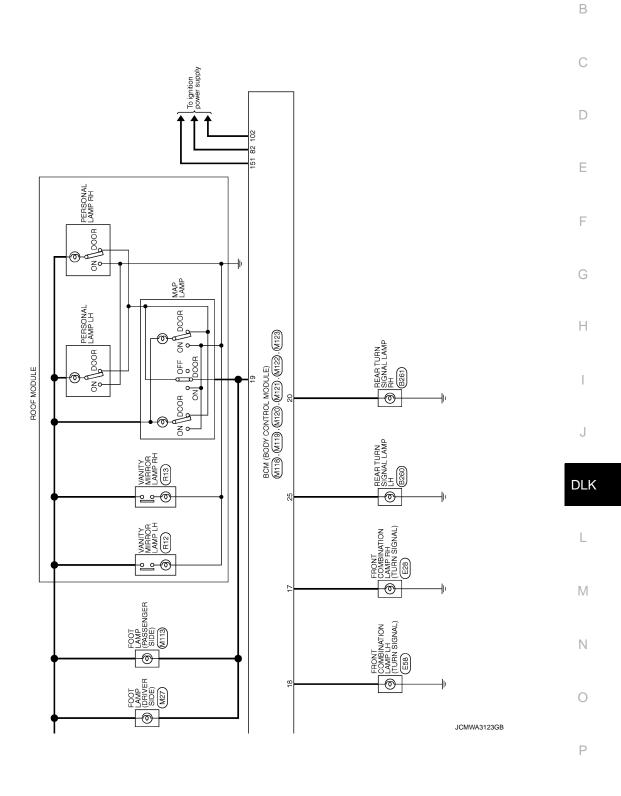








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18 O TURN SIGNAL LH (FRONT) 19 V ROOM LAMP TIMER CONTROL	7-10-11-11-11-19-11-11-11-11-11-11-11-11-11-	$\Box$	
Connector No. M119 Connector Name BOM (BODY CONTROL MODULE) Connector Type NSIGFW-CS  A.S. T. T. B. B. 9 10  11 12 13 14 15 16 17 118 19	Terminal   Color	68 BR REAR RH DOOR SW 69 R REAR LH DOOR SW	
Connector No. M18 Connector Name BCM (BODY CONTROL MODULE) Connector Type M05FB-LC  H.S. 113	No.   Oldor   Signal Name [Spearfication]   Oldor   No.   Oldor   Signal Name [Spearfication]	Connector No. M121 Connector Name BCM (BODY CONTROL MODULE) Connector Type TH40FGY-NH  H.S. STEP SEE SEE SEE SEE SEE SEE SEE SEE SEE S	Terminal   Color   Signal Name [Specification]   No. of Wire   Signal Name [Specification]   Signal Name   Signa
BCM (BODY CONTROL MODULE)   Connector No.   M33   Connector Name   COMBINATION SWITCH     Connector Type   THI 6FW-NH	Termina   Color   Signal Name (Spacification)     2   SB	Connector No. MIZO Connector Name BOM (BODY CONTROL MODULE) Connector Type NS12FW-CS  H.S. 20 21 22 23 24  25 26 27 28 29 30 31	Terminal   Color   Signal Name [Specification]   No. of Wire   TURN SIGNAL RH (REAR)   23 G   BACK DOOR OPEN UTPUT   25 G   TURN SIGNAL LH (REAR)   26 G   REAR WIPER OUTPUT   27 G   27

JCMWA3124GB

< ECU DIAGNOSIS INFORMATION >

[INTELLIGENT KEY SYSTEM]

138	
Connector Name	
Y   KEYLESS ENTRY RECEIVER COMM	D
Cornector Name   Color   CONTROL MODULE    SS   Cornector Name   Connector Name   Connector Name   Color   C	

Fail-safe

### FAIL-SAFE CONTROL BY DTC

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

Revision: 2010 March **DLK-163** 2009 EX35

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Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Starter control relay signal  • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent  • Selector lever P position switch signal  • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 km/h (2.5 MPH) or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit steering lock	<ul> <li>500 ms after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> </ul>
B2604: PNP SW	Inhibit steering lock	<ul> <li>500 ms after any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul>
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled  • Ignition switch is in the ON position  - Power position: IGN  - Selector lever P/N position signal: Except P and N positions (0 V)  - Interlock/PNP switch signal (CAN): OFF  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: P or N position (battery voltage)  - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent  • Steering lock relay signal (Request signal)  • Steering lock relay signal (Condition signal)

### < ECU DIAGNOSIS INFORMATION >

### [INTELLIGENT KEY SYSTEM]

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status becomes consistent</li> <li>Steering lock relay signal (Request signal)</li> <li>Steering lock relay signal (Condition signal)</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B2609: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When the following steering lock conditions agree  BCM steering lock control status  Steering lock condition No. 1 signal status  Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled  • Power position changes to ACC  • Receives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When any of the following conditions are fulfilled  Steering lock unit status signal (CAN) is received normally  The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E9: S/L STATUS	Inhibit engine cranking     Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled  • Steering condition No. 1 signal: LOCK (0 V)  • Steering condition No. 2 signal: LOCK (Battery voltage)

#### HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

### NOTE:

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

#### REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

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

### Condition of cancellation

- More than 1 minute is passed after the rear wiper stops.
- Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

## DTC Inspection Priority Chart

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

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INFOID:0000000004921475

## < ECU DIAGNOSIS INFORMATION >

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT     U1010: CONTROL UNIT (CAN)
3	<ul> <li>B2190: NATS ANTENNA AMP</li> <li>B2191: DIFFERENCE OF KEY</li> <li>B2192: ID DISCORD BCM-ECM</li> <li>B2193: CHAIN OF BCM-ECM</li> <li>B2195: ANTI SCANNING</li> </ul>
4	B2013: ID DISCORD BCM-S/L  B2014: CHAIN OF S/L-BCM  B2553: IGNITION RELAY  B2555: STOP LAMP  B2555: PUSH-BTN IGN SW  B2557: VEHICLE SPEED  B2560: STARTER CONT RELAY  B2601: SHIFT POSITION  B2602: SHIFT POSITION  B2603: SHIFT POSITION  B2603: SHIFT POSITION  B2603: SHIFT POSITION  B2605: PNP SW  B2606: S/L RELAY  B2606: S/L RELAY  B2607: S/L RELAY  B2607: S/L RELAY  B2608: STARTER RELAY  B2609: S/L STATUS  B2608: STEERING LOCK UNIT  B2600: STEERING LOCK UNIT  B2600: STEERING LOCK UNIT  B2600: STEERING LOCK UNIT  B26012: S/L STATUS  B2614: ACC RELAY CIRC  B2615: BLOWER RELAY CIRC  B2616: IGN RELAY CIRC  B2616: IGN RELAY CIRC  B2616: BLOWER RELAY CIRC  B2616: DSA STATUS  B2617: STARTER RELAY CIRC  B2618: BCM  B2619: BCM  B2619: BCM  B2614: ACC RELAY CIRC  B2615: VEHICLE TYPE  B26E5: S/L STATUS  B26EA: KEY REGISTRATION  C1729: VHCL SPEED SIG ERR  U0415: VEHICLE SPEED SIG

### < ECU DIAGNOSIS INFORMATION >

### [INTELLIGENT KEY SYSTEM]

Priority	DTC	
	C1704: LOW PRESSURE FL	A
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	В
	C1708: [NO DATA] FL	
	C1709: [NO DATA] FR	
	C1710: [NO DATA] RR	
	C1711: [NO DATA] RL	C
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	D
	C1715: [CHECKSUM ERR] RL	D
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	E
	C1719: [PRESSDATA ERR] RL	
	C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	• C1722: [CODE ERR] RR	F
	C1723: [CODE ERR] RL	
	C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	G
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
	B2621: INSIDE ANTENNA	Н
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

### NOTE:

The details of time display are as follows.

CRNT: A malfunction is detected now.

B2193: CHAIN OF BCM-ECM

**B2195: ANTI SCANNING** 

**B2553: IGNITION RELAY** 

PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-16, "COMMON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

Freeze Frame

CONSULT display	Fail-safe	Data  •Vehicle Speed  •Odo/Trip Meter  •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	L
o DTC is detected.						

No further testing may be required. U1000: CAN COMM CIRCUIT **BCS-37** U1010: CONTROL UNIT (CAN) **BCS-38** U0415: VEHICLE SPEED SIG **BCS-39** B2013: ID DISCORD BCM-S/L **SEC-48** × X B2014: CHAIN OF S/L-BCM **SEC-49** × × B2190: NATS ANTENNA AMP SEC-41 × B2191: DIFFERENCE OF KEY **SEC-44** × B2192: ID DISCORD BCM-ECM × **SEC-45** 

Revision: 2010 March **DLK-167** 2009 EX35

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**SEC-46** 

**SEC-47** 

PCS-49

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2555: STOP LAMP	_	×	_	_	SEC-52
B2556: PUSH-BTN IGN SW	_	×	×	_	SEC-54
B2557: VEHICLE SPEED	×	×	×	_	SEC-56
B2560: STARTER CONT RELAY	×	×	×	_	SEC-57
B2562: LOW VOLTAGE	_	×	_	_	BCS-40
B2601: SHIFT POSITION	×	×	×	_	SEC-58
B2602: SHIFT POSITION	×	×	×	_	SEC-61
B2603: SHIFT POSI STATUS	×	×	×	_	SEC-63
B2604: PNP SW	×	×	×	_	SEC-66
B2605: PNP SW	×	×	×	_	SEC-68
B2606: S/L RELAY	×	×	×	_	SEC-70
B2607: S/L RELAY	×	×	×	_	SEC-71
B2608: STARTER RELAY	×	×	×	_	SEC-73
B2609: S/L STATUS	×	×	×	_	SEC-75
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	SEC-79
B260C: STEERING LOCK UNIT	_	×	×	_	SEC-80
B260D: STEERING LOCK UNIT	_	×	×	_	SEC-81
B260F: ENG STATE SIG LOST	×	×	×	_	SEC-82
B2612: S/L STATUS	×	×	×	_	SEC-86
B2614: ACC RELAY CIRC	_	×	×	_	PCS-53
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-56
B2616: IGN RELAY CIRC	_	×	×	_	PCS-59
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-90
B2618: BCM	×	×	×		PCS-62
B2619: BCM	×	×	×	_	SEC-92
B261A: PUSH-BTN IGN SW		×	×	_	SEC-93
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	SEC-96
B2621: INSIDE ANTENNA	_	×	_	_	DLK-59
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63
B26E1: ENG STATE NO RES	×	×	×	_	SEC-83
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	SEC-84
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	SEC-85
C1704: LOW PRESSURE FL	_	_	_	×	
C1705: LOW PRESSURE FR	_	_	_	×	VA/T- 4-7
C1706: LOW PRESSURE RR	_	_	_	×	<u>WT-17</u>
C1707: LOW PRESSURE RL	_	_	_	×	

## < ECU DIAGNOSIS INFORMATION >

# [ÎNTELLIGENT KEY SYSTEM]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1708: [NO DATA] FL	_	_	_	×	
C1709: [NO DATA] FR	_	_	_	×	WT-19
C1710: [NO DATA] RR	_	_	_	×	<u> </u>
C1711: [NO DATA] RL	_	_	_	×	1
C1712: [CHECKSUM ERR] FL	_	_	_	×	
C1713: [CHECKSUM ERR] FR	_	_	_	×	WT-22
C1714: [CHECKSUM ERR] RR	_	_	_	×	<u> </u>
C1715: [CHECKSUM ERR] RL	_	_	_	×	1
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-25
C1718: [PRESSDATA ERR] RR	_	_	_	×	VV 1-23
C1719: [PRESSDATA ERR] RL	_	_	_	×	1
C1720: [CODE ERR] FL	_	_	_	×	
C1721: [CODE ERR] FR	_	_	_	×	WT-27
C1722: [CODE ERR] RR	_	_	_	×	<u>VV 1-27</u>
C1723: [CODE ERR] RL	_	_	_	×	1
C1724: [BATT VOLT LOW] FL	_	_	_	×	
C1725: [BATT VOLT LOW] FR	_	_	_	×	WT 20
C1726: [BATT VOLT LOW] RR	_	_	_	×	<u>WT-30</u>
C1727: [BATT VOLT LOW] RL	_	_	_	×	1
C1729: VHCL SPEED SIG ERR	_	_	_	×	<u>WT-33</u>
C1734: CONTROL UNIT	_	_	_	×	<u>WT-34</u>

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**DLK-169** Revision: 2010 March 2009 EX35

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# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH SYMPTOM DIAGNOSIS > [INTELLIGENT KEY SYSTEM]

## < SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH

**ALL DOOR** 

ALL DOOR : Description

INFOID:0000000004672391

All doors do not lock/unlock using door lock and unlock switch.

ALL DOOR: Diagnosis Procedure

INFOID:0000000004672392

## 1.CHECK POWER SUPPLY AND GROUND CIRCUIT

Check power supply and ground circuit.

Refer to DLK-65, "BCM (BODY CONTROL MODULE): Diagnosis Procedure".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK DOOR LOCK AND UNLOCK SWITCH

Check door lock and unlock switch.

- Driver side: Refer to DLK-70, "DRIVER SIDE: Component Function Check".
- Passenger side: Refer to DLK-70, "PASSENGER SIDE: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3.CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-72, "DRIVER SIDE: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

### DRIVER SIDE: Description

INFOID:0000000004672393

Driver side door does not lock/unlock using door lock and unlock switch.

### **DRIVER SIDE**: Diagnosis Procedure

INFOID:0000000004672394

# 1. CHECK DOOR LOCK ACTUATOR

Check door lock actuator (driver side).

Refer to DLK-72, "DRIVER SIDE: Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CONFIRM THE OPERATION

Confirm the operation again.

Revision: 2010 March **DLK-170** 2009 EX35

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH SYMPTOM DIAGNOSIS > [INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >	[INTELLIGENT KEY SYSTEM]
Is the result normal?  YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident. NO >> GO TO 1.  PASSENGER SIDE	ent".
PASSENGER SIDE : Description	INFOID:000000004672395
Passenger side door does not lock/unlock using door lock and unlock swit	ch.
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000004672396
1. CHECK DOOR LOCK ACTUATOR	
Check door lock actuator (passenger side). Refer to <u>DLK-73</u> , " <u>PASSENGER SIDE</u> : Component Function Check".  Is the inspection result normal?  YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.  2.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident NO >> GO TO 1.  REAR LH	ent".
REAR LH : Description	INFOID:000000004672409
Rear LH side door does not lock/unlock using door lock and unlock switch REAR LH: Diagnosis Procedure	·  INFOID:000000004672410
1.CHECK DOOR LOCK ACTUATOR	
Check door lock actuator (rear LH). Refer to DLK-74, "REAR LH: Component Function Check".  Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.  2.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?  YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident NO >> GO TO 1.  REAR RH	ent".
REAR RH : Description	INFOID:000000004672411
Rear RH side door does not lock/unlock using door lock and unlock switch	1.
REAR RH : Diagnosis Procedure	INFOID:0000000004672412
1.CHECK DOOR LOCK ACTUATOR	
Check door lock actuator (rear RH). Refer to DLK-74, "REAR RH: Component Function Check".  Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	

Revision: 2010 March **DLK-171** 2009 EX35

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR LOCK AND UNLOCK SWITCH [INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

# 2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

>> GO TO 1. NO

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERATION [INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR KEY CYLINDER OPERA-**TION**

INFOID:0000000004672397 В

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All doors do not lock/unlock using driver side door key cylinder.

Diagnosis Procedure

INFOID:0000000004672398

# 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

Description

NO >> Refer to DLK-170, "ALL DOOR: Diagnosis Procedure".

2. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to DLK-79, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

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**DLK-173** Revision: 2010 March 2009 EX35

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH ALL DOOR

ALL DOOR: Description

INFOID:0000000004672399

All doors do not lock/unlock using all door request switches.

#### NOTE:

Check door request switch operation in the door lock condition. Refer to <a href="DLK-19">DLK-19</a>, "DOOR LOCK FUNCTION: System Description".

## **ALL DOOR: Diagnosis Procedure**

INFOID:0000000004672400

## 1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Refer to <u>DLK-177</u>, "<u>Description</u>".

# 2.CHECK "LOCK/UNLOCK BY I-KEY" SETTING IN "WORK SUPPORT"

Check "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "LOCK/UNLOCK BY I-KEY" in "WORK SUPPORT".

## 3.CONFIRM THE OPERATION

Confirm the operation again.

### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE

## **DRIVER SIDE: Description**

INFOID:0000000004672401

All doors do not lock/unlock using driver side door request switch.

#### NOTE:

Check door request switch operation in the door lock condition. Refer to <u>DLK-19, "DOOR LOCK FUNCTION: System Description"</u>.

## DRIVER SIDE: Diagnosis Procedure

INFOID:0000000004672402

# 1. CHECK DRIVER SIDE DOOR REQUEST SWITCH

Check driver side door request switch.

Refer to DLK-86, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

## 2.CHECK OUTSIDE KEY ANTENNA (LH)

Check outside key antenna (LH).

Refer to DLK-92, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3. CONFIRM THE OPERATION

Confirm the operation again.

Revision: 2010 March **DLK-174** 2009 EX35

# DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH INTELLIGENT KEY SYSTEM

< SYMPTOM DIAGNOSIS >	[INTELLIGENT KEY SYSTEM]
Is the result normal?	_
YES >> Check Intermittent Incident. Refer to GI-40, "Intermittent In	ncident".
NO >> GO TO 1. PASSENGER SIDE	
PASSENGER SIDE : Description	INFOID:000000004672403
All doors do not lock/unlock using passenger side door request switch.	
NOTE: Check door request switch operation in the door lock condition. Refer to System Description.	to DLK-19, "DOOR LOCK FUNCTION:
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000004672404
1.CHECK PASSENGER SIDE DOOR REQUEST SWITCH	
Check passenger side door request switch. Refer to DLK-86, "Component Function Check".	
s the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
2.CHECK OUTSIDE KEY ANTENNA (RH)	
Check outside key antenna (RH).	
Refer to DLK-92, "Component Function Check". s the inspection result normal?	
YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	
3.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check Intermittent Incident. Refer to GI-40, "Intermittent In	ncident".
NO >> GO TO 1.	
BACK DOOR	
BACK DOOR: Description	INFOID:000000004672405
All doors do not look/unlook using book door request quitab	
All doors do not lock/unlock using back door request switch.  NOTE:	
Check door request switch operation in the door lock condition. Refer to System Description.	to DLK-19, "DOOR LOCK FUNCTION:
BACK DOOR : Diagnosis Procedure	INFOID:000000004672406
1.CHECK BACK DOOR REQUEST SWITCH	
Check back door request switch. Refer to <u>DLK-88, "Component_Function_Check"</u> .	
Is the inspection result normal?	
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	
2.CHECK OUTSIDE KEY ANTENNA (REAR BUMPER)	
Check outside key antenna (rear bumper).  Refer to <u>DLK-92</u> , "Component Function Check".	
Is the inspection result normal?	
YES >> GO TO 3.	

Revision: 2010 March **DLK-175** 2009 EX35

NO >> Repair or replace the malfunctioning parts.

## DOOR DOES NOT LOCK/UNLOCK WITH DOOR REQUEST SWITCH [INTELLIGENT KEY SYSTEM]

< SYMPTOM DIAGNOSIS >

# 3.confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check Intermittent Incident. Refer to GI-40, "Intermittent Incident".

>> GO TO 1. NO

## DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

DOOR DOES NOT LOCK/UNLOCK WITH INTELLIGENT KEY	Δ.
Description INFOID:000000004672407	А
All doors do not lock/unlock using Intelligent Key.  NOTE:	В
Check Intelligent Key remote operation in the door lock condition. Refer to <a href="DLK-28">DLK-28</a> , "REMOTE KEYLESS ENTRY FUNCTION: System Description".	0
Diagnosis Procedure	C
1. CHECK POWER DOOR LOCK OPERATION	D
Check power door lock operation.  Does door lock/unlock with door lock and unlock switch?  YES >> GO TO 2.  NO >> Refer to DLK-170, "ALL DOOR : Diagnosis Procedure".	Е
2.CHECK REMOTE KEYLESS ENTRY RECEIVER  Check remote keyless entry receiver	F
Check remote keyless entry receiver.  Refer to <a href="DLK-81">DLK-81</a> , "Component Function Check".	
Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	G
3. CHECK INTELLIGENT KEY  Check Intelligent Key	Н
Check Intelligent Key.  Refer to <u>DLK-97, "Component Function Check"</u> .	
Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.	.1
4.CHECK KEY SLOT Check key slot.	J
Refer to DLK-99, "Component Function Check".  Is the inspection result normal?	DLK
YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.  5.CHECK DOOR SWITCH	L
Check door switch. Refer to DLK-66, "Component Function Check".	M
Is the inspection result normal?  YES >> GO TO 6.  NO >> Repair or replace the malfunctioning parts.	Ν
6.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?	0
YES >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> . NO >> GO TO 1.	Р

### **BACK DOOR DOES NOT OPENED**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

## BACK DOOR DOES NOT OPENED

Description INFOID:000000004672413

### NOTE:

Before performing the diagnosis in the following procedure, check the operation condition. Refer to <u>DLK-24.</u> "BACK DOOR OPEN FUNCTION: System Description".

## **Diagnosis Procedure**

INFOID:0000000004672414

2009 EX35

## 1. CHECK BACK DOOR OPENER SWITCH

Check back door opener switch.

Refer to DLK-84, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2. CHECK BACK DOOR OPENER ACTUATOR

Check back door opener actuator.

Refer to DLK-77, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

## 3. CHECK VEHICLE SPEED SIGNAL

Check combination meter.

Refer to MWI-50, "Diagnosis Procedure".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

## 4. CONFIRM THE OPERATION

Confirm the operation again.

### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

## SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR REQUEST **SWITCH**

## < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH DOOR RE-QUEST SWITCH

Description INFOID:0000000004343519

### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-7, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

## CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is removed from key slot.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

## Diagnosis Procedure

INFOID:0000000004343520

## 1. CHECK DOOR LOCK FUNCTION

Check door lock function by door request switch.

## Does door lock/unlock with door request switch?

YES >> GO TO 2.

NO-1 >> Go to <u>DLK-174</u>, "<u>DRIVER SIDE</u>: <u>Description</u>" (driver side).

NO-2 >> Go to <u>DLK-175</u>, "<u>PASSENGER SIDE</u>: <u>Description</u>" (passenger side).

NO-3 >> Go to <u>DLK-175, "BACK DOOR: Description"</u> (back door).

## 2.CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT"

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "DOOR LOCK-UNLOCK SET" in "WORK SUPPORT".

## 3.confirm the operation

Confirm the operation again.

### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1. DLK

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**DLK-179** Revision: 2010 March 2009 EX35

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# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLIGENT KEY

## < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# SELECTIVE UNLOCK FUNCTION DOES NOT OPERATE WITH INTELLI-GENT KEY

Description INFOID:0000000043435221

### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7, "Work Flow".</u>
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent key is removed from key slot.
- · All doors are closed.

## Diagnosis Procedure

INFOID:0000000004343522

# 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Go to <u>DLK-170</u>, "ALL <u>DOOR</u>: <u>Description"</u>.

## 2.CHECK "DOOR LOCK-UNLOCK SET" SETTING IN "WORK SUPPORT"

Check "DOOR LOCK-UNLOCK SET" setting in "WORK SUPPORT".

Refer to DLK-51, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "DOOR LOCK-UNLOCK SET" of "WORK SUPPORT".

## 3.CONFIRM THE OPERATION

Confirm the operation again.

### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

# VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

VEHICLE SPEED SENSING AUTO LOCK OPERATION DOES NOT OPER	-
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INFOID:0000000004343523

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# Diagnosis Procedure

1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Go to <u>DLK-170</u>, "ALL <u>DOOR</u>: <u>Description"</u>.

2.CHECK VEHICLE SPEED SIGNAL

Check combination meter.

Refer to SEC-56, "DTC Logic".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

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Revision: 2010 March **DLK-181** 2009 EX35

### IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### IGN OFF INTERLOCK DOOR UNLOCK FUNCTION DOES NOT OPERATE

### Diagnosis Procedure

INFOID:0000000004343524

### 1. CHECK POWER DOOR LOCK OPERATION

Check power door lock operation.

Does door lock/unlock with door lock and unlock switch?

YES >> GO TO 2.

NO >> Go to <u>DLK-170</u>, "ALL <u>DOOR</u>: <u>Description"</u>.

### 2.CHECK BCM

Check DTC for BCM.

Refer to DLK-167, "DTC Index".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.confirm the operation

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

# P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES NOT OPERATE

SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

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< SYMPTOM DIAGNOSIS > [INTELLIGENT KEY]	SYSTEM]
P RANGE INTERLOCK DOOR LOCK/UNLOCK FUNCTION DOES N	OT OP-
ERATE	А
Diagnosis Procedure	DID:00000000004343525
1.check power door lock operation	
Check power door lock operation.	С
<u>Does door lock/unlock with door lock and unlock switch?</u> YES >> GO TO 2.	
YES >> GO TO 2.  NO >> Go to <u>DLK-170</u> , " <u>ALL DOOR : Description"</u> .	D
2.check tcm	D
Check DTC for TCM.	
Refer to TM-110, "DTC Index".	Е
Is the inspection result normal?  YES >> GO TO 3.	
NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION	
Confirm the operation again.	G
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-40, "Intermittent Incident"</u> .	
NO >> GO TO 1.	Н
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Revision: 2010 March **DLK-183** 2009 EX35

### **AUTO DOOR LOCK OPERATION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### AUTO DOOR LOCK OPERATION DOES NOT OPERATE

Description INFOID:000000004343526

#### NOTE:

• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>, "Work Flow".

### Diagnosis Procedure

INFOID:0000000004343527

# $1.\mathsf{check}$ "auto lock set" setting in "work support"

Check "AUTO LOCK SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Set "AUTO LOCK SET" setting in "WORK SUPPORT".

### 2.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLIN-DER OPERATION

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLINDER OPERATION

INFOID:0000000004343528

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Diagnosis Procedure

1. CHECK DOOR KEY CYLINDER OPERATION

Check door key cylinder operation.

Does door lock/unlock with door key cylinder switch operation?

YES >> GO TO 2.

NO >> Go to <u>DLK-173</u>, "<u>Description</u>".

2. CHECK POWER WINDOW OPERATION

Check power window operation.

Does power window up/down with power window main switch?

YES >> GO TO 3.

NO >> Go to PWC-90, "Diagnosis Procedure".

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

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Revision: 2010 March **DLK-185** 2009 EX35

# POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERATING WITH INTELLIGENT KEY

### < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERAT-ING WITH INTELLIGENT KEY

Description INFOID:000000004343529

#### NOTE:

• Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7, "Work Flow".</u>

### Diagnosis Procedure

INFOID:0000000004343530

### 1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go to <u>DLK-177</u>, "<u>Description</u>".

# 2. CHECK POWER WINDOW OPERATION

Check power window operation.

Does power window up/down with power window main switch?

YES >> GO TO 3.

NO >> Go to PWC-90, "Diagnosis Procedure".

3.CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"

Check "PW DOWN SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PW DOWN SET" setting in "WORK SUPPORT".

### 4. CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### WELCOME LIGHT FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

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#### WELCOME LIGHT FUNCTION DOES NOT OPERATE Α Description INFOID:0000000004343531 NOTE: В Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>DLK-7</u>, "Work Flow". Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. C CONDITIONS OF VEHICLE (OPERATION CONDITIONS) Intelligent Key system (door lock function) is normal. All operation conditions are satisfied. Refer to DLK-33, "WELCOME LIGHT FUNCTION: System Descrip-D tion". Diagnosis Procedure INFOID:0000000004343532 Е CHECK WELCOME LIGHT FUNCTION SETTING Check "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUPPORT". Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)". F Is the function active? YES >> GO TO 2. NO >> Set "WELCOME LIGHT OP SET" and "WELCOME LIGHT SELECT" setting in "WORK SUP-PORT". 2.CHECK DOOR LOCK FUNCTION Check Intelligent Key system (door lock function). Does the door lock/unlock with door request switch (driver side)? YES >> GO TO 3. NO >> Go to DLK-174, "DRIVER SIDE: Description". 3.check interior room Lamp control system Check interior room lamp control system. Refer to INL-5, "System Description". Does the room lamp and puddle lamp turn ON? YES >> GO TO 4. DLK NO >> Go to INL-99, "Symptom Table". 4.REPLACE BCM Replace BCM. Refer to BCS-85, "Removal and Installation". >> GO TO 5. 5.CONFIRM THE OPERATION M Confirm the operation again. Is the result normal? N YES >> INSPECTION END NO >> GO TO 1.

Revision: 2010 March **DLK-187** 2009 EX35

### PANIC ALARM FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### PANIC ALARM FUNCTION DOES NOT OPERATE

Description INFOID:0000000043435533

#### NOTE:

- Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>DLK-7, "Work Flow"</u>.
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

#### CONDITIONS OF VEHICLE (OPERATION CONDITIONS)

- Ignition switch is in OFF or LOCK position.
- Intelligent Key is removed from key slot.

### **Diagnosis Procedure**

INFOID:0000000004343534

### 1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go to <u>DLK-177</u>, "<u>Description</u>".

### 2.CHECK VEHICLE SECURITY ALARM OPERATION

Check vehicle security alarm operation.

Does alarm (headlamp and horn) active?

YES >> GO TO 3.

NO >> Go to SEC-198, "Description".

### 3.CHECK "PANIC ALARM SET" SETTING IN "WORK SUPPORT"

Check "PANIC ALARM SET" setting in "WORK SUPPORT".

Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PANIC ALARM SET" setting in "WORK SUPPORT".

### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### HAZARD AND HORN REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

#### HAZARD AND HORN REMINDER DOES NOT OPERATE Α Description INFOID:0000000004343535 NOTE: В Before performing the diagnosis following procedure, check "Work Flow". Refer to <u>DLK-7, "Work Flow"</u>. Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom. CONDITIONS OF VEHICLE (OPERATION CONDITIONS) Ignition switch is in OFF or LOCK position. Intelligent Key is removed from key slot. D Diagnosis Procedure INFOID:0000000004343536 CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT" Е Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT". Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)". F Is the inspection result normal? YES >> GO TO 2. NO >> Set "HAZARD ANSWER BACK" setting in "WORK SUPPORT". 2.CHECK "HORN WITH KEYLESS LOCK" SETTING IN "WORK SUPPORT". Check "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT". Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)". Н Is the inspection result normal? YES >> GO TO 3. NO >> Set "HORN WITH KEYLESS LOCK" setting in "WORK SUPPORT". 3.check hazard warning lamp Check hazard warning lamp. Refer to DLK-108, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. DLK NO >> Repair or replace the malfunctioning parts. 4.CHECK HORN Check horn. Refer to DLK-103, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. M NO >> Repair or replace the malfunctioning parts. ${f 5.}$ CONFIRM THE OPERATION N Confirm the operation again. Is the result normal? >> Check intermittent incident. Refer to GI-40, "Intermittent Incident". YES NO >> GO TO 1. Р

Revision: 2010 March **DLK-189** 2009 EX35

### HAZARD AND BUZZER REMINDER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### HAZARD AND BUZZER REMINDER DOES NOT OPERATE

Description INFOID:0000000043435537

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>, "Work Flow".
- Check that vehicle is under the condition shown in "Conditions of vehicle" before starting diagnosis, and check each symptom.

### CONDITIONS OF VEHICLE (OPERATING CONDITIONS)

- Intelligent Key is removed from key slot.
- Ignition switch is in OFF position.
- No Intelligent Keys are inside the vehicle.

### **Diagnosis Procedure**

INFOID:0000000004343538

## 1. CHECK "HAZARD ANSWER BACK" SETTING IN "WORK SUPPORT"

Check "HAZARD ANSWER BACK" setting in "WORK SUPPORT".

Refer to <u>DLK-51</u>, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 2

NO >> Set "HAZARD ANSWER BACK" in "WORK SUPPORT".

# 2.check "ans back i-key lock" setting in "work support"

Check "ANS BACK I-KEY LOCK" setting in "WORK SUPPORT".

Refer to DLK-51, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Set "ANS BACK I-KEY LOCK" in "WORK SUPPORT".

### 3.CHECK "ANS BACK I-KEY UNLOCK" SETTING IN "WORK SUPPORT"

Check "ANS BACK I-KEY UNLOCK" setting in "WORK SUPPORT".

Refer to <u>DLK-51</u>, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "ANS BACK I-KEY UNLOCK" in "WORK SUPPORT".

### 4. CHECK HAZARD WARNING LAMP

Check hazard warning lamp.

Refer to DLK-108, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

### 5. CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-95, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### O.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### **KEY REMINDER FUNCTION DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

KEY REMINDER FUNCTION DOES NOT OPERATE	-
Description INFOID:000000004343533	9
<ul> <li>NOTE:</li> <li>Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>, "Work <u>Flow"</u>.</li> <li>Understand the operation when does it work, refer to <u>DLK-36</u>, "<u>KEY REMINDER FUNCTION</u>: <u>System Description"</u>.</li> </ul>	
Diagnosis Procedure	0
1.CHECK "ANTI KEY LOCK IN FUNCTI" SETTING IN "WORK SUPPORT"  Check "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".  Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".  Is the inspection result normal?  YES >> GO TO 2.  NO >> Set "ANTI KEY LOCK IN FUNCTI" setting in "WORK SUPPORT".  2.CHECK DOOR SWITCH	_
Check door switch.  Refer to DLK-66, "Component Function Check".  Is the inspection result normal?  YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	
3. CHECK INSIDE KEY ANTENNA  Check inside less entenne	_
Check inside key antenna.  Refer to DLK-59, "DTC Logic" (instrument center).  Refer to DLK-61, "DTC Logic" (console).  Refer to DLK-63, "DTC Logic" (luggage room).  Is the inspection result normal?  YES >> GO TO 4.  NO >> Repair or replace the malfunctioning parts.	
4.CHECK UNLOCK SENSOR	_
Check unlock sensor. Refer to <u>DLK-90, "Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 5.  NO >> Repair or replace the malfunctioning parts.  5.CONFIRM THE OPERATION	
Confirm the operation again.  Is the result normal?  YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".	-
NO >> GO TO 1.	

Revision: 2010 March **DLK-191** 2009 EX35

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### KEY WARNING DOES NOT OPERATE

Description INFOID:000000004343541

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7. "Work Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm
  the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System
  Description".
- · Door lock function is normal.

### **Diagnosis Procedure**

INFOID:0000000004343542

### 1. CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to <u>DLK-106</u>, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2. CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-66, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK KEY SLOT

Check key slot.

Refer to DLK-99, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4. CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

### 5. CHECK KEY SLOT ILLUMINATION

Check key slot illumination.

Refer to DLK-101, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

#### 6.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### OFF POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

OFF POSITION WARNING DOES NOT OPERATE	_
Description	А
NOTE: • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <a href="DLK-7">DLK-7</a> , "Work Flow".	В <u>«</u>
<ul> <li>Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System <a href="Description">Description</a>.</li> <li>Door lock function is normal.</li> </ul>	
Diagnosis Procedure	D
1.CHECK POWER POSITION	_
Check if ignition switch position is changing or not.	- E
Does ignition switch position change?	
YES >> GO TO 2. NO >> Check DTC for BCM. Refer to <u>DLK-167, "DTC_Index"</u> .	F
2.CHECK BUZZER (COMBINATION METER)	
Check buzzer (combination meter). Refer to DLK-106, "Component Function Check".	G
Is the inspection result normal?	
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	Н
3. CHECK INTELLIGENT KEY WARNING BUZZER	
	_
Check Intelligent Key warning buzzer.  Refer to DLK-95, "Component Function Check".	
Is the inspection result normal?	J
YES >> GO TO 4.	
NO >> Repair or replace the malfunctioning parts.	DLK
4.CHECK DOOR SWITCH	DLK
Check door switch (driver side).  Refer to DLK-66, "Component Function Check".	
Is the inspection result normal?	L
YES >> GO TO 5.	
NO >> Repair or replace the malfunctioning parts.	M
5.CONFIRM THE OPERATION	_
Confirm the operation again.	
Is the result normal?	Ν
YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".  NO >> GO TO 1.	
	0

Revision: 2010 March **DLK-193** 2009 EX35

### P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### P POSITION WARNING DOES NOT OPERATE

Description INFOID:0000000004343545

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7. "Work</u> Flow".
- · Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System
- · Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000004343546

### 1. CHECK TRANSMISSION RANGE SWITCH

Check DTC for BCM.

Refer to DLK-167, "DTC Index".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

# 2.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-95, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-106, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-66, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

### 5.check inside key antenna

Check inside key antenna.

Refer to <u>DLK-59, "DTC Logic"</u> (instrument center). Refer to <u>DLK-61, "DTC Logic"</u> (console).

Refer to <u>DLK-63</u>, "<u>DTC Logic</u>" (luggage room).

#### Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace the malfunctioning parts.

### f 6.CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair or replace the malfunctioning parts.

### P POSITION WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# 7. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

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### **ACC WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### ACC WARNING DOES NOT OPERATE

Description INFOID:000000004342547

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>. "Work Flow".
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm
  the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System
  Description".
- · Door lock function is normal.

### Diagnosis Procedure

INFOID:0000000004343548

### 1. CHECK POWER POSITION

Check if ignition switch position is changing or not.

Does ignition switch position change?

YES >> GO TO 2.

NO >> Check DTC for BCM. Refer to <u>DLK-167</u>, "DTC Index".

# 2.CHECK BUZZER (COMBINATION METER)

Check buzzer (combination meter).

Refer to DLK-106, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

<	SYN	ЛΡТ	OM	DIA	١GN	IOSIS	>

[INTELLIGENT KEY SYSTEM]

TAKE AWAY WARNING DOES NOT OPERATE	
DOOR IS OPEN	Α
DOOR IS OPEN: Description	В
NOTE:  • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <a href="DLK-7">DLK-7</a> , "Work Flow".	С
<ul> <li>Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System <a href="Description">Description</a>.</li> <li>Door lock function is normal.</li> </ul>	D
DOOR IS OPEN: Diagnosis Procedure	
1. CHECK POWER POSITION	Е
Check if ignition switch position is changing or not.	
Does ignition switch position change?	F
YES >> GO TO 2.  NO >> Check DTC for BCM. Refer to <u>DLK-167, "DTC_Index"</u> .	
2.CHECK BUZZER (COMBINATION METER)	G
Check buzzer (combination meter).  Refer to DLK-106, "Component Function Check".	
Is the inspection result normal?	Н
YES >> GO TO 3.  NO >> Repair or replace the malfunctioning parts.	
3. CHECK COMBINATION METER DISPLAY	I
Check combination meter display. Refer to DLK-105, "Component Function Check".	J
Is the inspection result normal?	
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	DLK
4.CHECK DOOR SWITCH	
Check door switch (driver side). Refer to DLK-66, "Component Function Check".	L
Is the inspection result normal?	
YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts.	$\mathbb{M}$
5. CHECK INTELLIGENT KEY WARNING BUZZER	
Check Intelligent Key warning buzzer. Refer to DLK-95, "Component Function Check".	Ν
Is the inspection result normal?	
YES >> GO TO 6.	0
NO >> Repair or replace the malfunctioning parts.  6.CHECK INSIDE KEY ANTENNA	
Check inside key antenna.	Р
Refer to <u>DLK-59</u> , " <u>DTC Logic"</u> (instrument center).	
Refer to <u>DLK-61, "DTC Logic"</u> (console). Refer to <u>DLK-63, "DTC Logic"</u> (luggage room).	
Is the inspection result normal?	
YES >> GO TO 7.	
NO >> Repair or replace the malfunctioning parts.	

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

# 7.CHECK KEY SLOT ILLUMINATION

Check key slot illumination.

Refer to DLK-101, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Repair or replace the malfunctioning parts.

### 8.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

### ANY DOOR OPEN TO ALL DOORS CLOSED

### ANY DOOR OPEN TO ALL DOORS CLOSED: Description

INFOID:0000000004343551

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-7, "Work
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System Description".
- Door lock function is normal.

### ANY DOOR OPEN TO ALL DOORS CLOSED: Diagnosis Procedure

INFOID:0000000004343552

### 1. CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-66, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK INSIDE KEY ANTENNA

#### Check inside key antenna.

Refer to <u>DLK-59</u>, "<u>DTC Logic</u>" (instrument center).

Refer to <u>DLK-61</u>, "<u>DTC Logic</u>" (console). Refer to <u>DLK-63</u>, "<u>DTC Logic</u>" (luggage room).

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

#### 4.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

>> GO TO 1. NO

#### PUSH-BUTTON IGNITION SWITCH OPERATION

< SYMPTOM DIAGNOSIS >

NOTE:

[INTELLIGENT KEY SYSTEM]

#### PUSH-BUTTON IGNITION SWITCH OPERATION: Description INFOID:00000000004343553 Α NOTE: Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>. "Work Flow". В · Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System Description". C · Door lock function is normal. PUSH-BUTTON IGNITION SWITCH OPERATION: Diagnosis Procedure INFOID:000000004343554 D CHECK POWER POSITION Check if ignition switch position is changing or not. Does ignition switch position change? Е YES >> GO TO 2. NO >> Check DTC for BCM. Refer to DLK-167, "DTC Index". 2 .CHECK PUSH-BUTTON IGNITION SWITCH F Check push-button ignition switch. Refer to PCS-66, "Component Function Check". Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. Н 3.CHECK BUZZER (COMBINATION METER) Check buzzer (combination meter). Refer to DLK-106, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts. f 4.CHECK COMBINATION METER DISPLAY Check combination meter display. DLK Refer to DLK-105, "Component Function Check". Is the inspection result normal? YES >> GO TO 5. NO >> Repair or replace the malfunctioning parts. ${f 5.}$ CHECK INSIDE KEY ANTENNA Check inside key antenna. Refer to <u>DLK-59</u>, "<u>DTC Logic</u>" (instrument center). Refer to DLK-61, "DTC Logic" (console). Refer to <u>DLK-63</u>, "<u>DTC Logic</u>" (luggage room). N Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts. $\mathbf{6}.\mathsf{CONFIRM}$ THE OPERATION Confirm the operation again. Р Is the result normal? YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident". >> GO TO 1. NO INTELLIGENT KEY IS REMOVED FROM KEY SLOT INTELLIGENT KEY IS REMOVED FROM KEY SLOT: Description INFOID:0000000004343557

Revision: 2010 March **DLK-199** 2009 EX35

### < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7</u>, "Work Flow".
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm
  the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System
  <a href="Description">Description</a>".
- Door lock function is normal.

### INTELLIGENT KEY IS REMOVED FROM KEY SLOT: Diagnosis Procedure

INFOID:0000000004343558

### 1. CHECK KEY SLOT

Check key slot.

Refer to DLK-99, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2. CHECK COMBINATION METER DISPLAY

Check combination meter display.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

# 3. CHECK INSIDE KEY ANTENNA

Check inside key antenna.

Refer to <u>DLK-59</u>, "<u>DTC Logic</u>" (instrument center).

Refer to <u>DLK-61</u>, "<u>DTC Logic</u>" (console).

Refer to DLK-63, "DTC Logic" (luggage room).

#### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4. CHECK KEY SLOT ILLUMINATION

Check key slot illumination.

Refer to DLK-101, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

### 5.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

#### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE Α Description INFOID:0000000004343559 NOTE: • Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-7, "Work Flow". • Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System Description". Diagnosis Procedure INFOID:0000000004343560 D ${f 1}$ .CHECK "LO- BATT OF KEY FOB WARN" SETTING IN "WORK SUPPORT" Check "LO-BATT OF KEY FOB WARN" setting in "WORK SUPPORT". Е Refer to DLK-53, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)". Is the inspection result normal? YES >> GO TO 2. F NO >> Set "LO- BATT OF KEY FOB WARN" setting in "WORK SUPPORT". 2 .check intelligent key battery Check Intelligent Key battery. Refer to DLK-97, "Component Function Check". Is the inspection result normal? Н YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3.CHECK COMBINATION METER DISPLAY Check combination meter display. Refer to DLK-105, "Component Function Check". Is the inspection result normal? YES >> GO TO 4. >> Repair or replace the malfunctioning parts. NO 4. CHECK INSIDE KEY ANTENNA DLK Check inside key antenna. Refer to <u>DLK-59</u>, "<u>DTC Logic</u>" (instrument center). Refer to <u>DLK-61</u>, "<u>DTC Logic</u>" (console). Refer to <u>DLK-63</u>, "<u>DTC Logic</u>" (luggage room). Is the inspection result normal? YES M >> GO TO 5. NO >> Repair or replace the malfunctioning parts. ${f 5.}$ CHECK KEY SLOT ILLUMINATION Check key slot illumination. Refer to DLK-101, "Component Function Check". Is the inspection result normal? YES >> GO TO 6. NO >> Repair or replace the malfunctioning parts. **O.**CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident". NO >> GO TO 1.

### DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR RE-**QUEST SWITCH**

### < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

## DOOR LOCK OPERATION WARNING DOES NOT OPERATE WITH DOOR REQUEST SWITCH

Description INFOID:0000000004343561

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-7, "Work
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System Description".

### Diagnosis Procedure

INFOID:0000000004343562

### 1. CHECK DOOR LOCK FUNCTION

Check door lock function by door request switch.

### Does door lock/unlock with door request switch?

```
YES
      >> GO TO 2.
```

NO-1 >> Go to <u>DLK-174</u>, "<u>DRIVER SIDE</u>: <u>Description</u>" (driver side).

NO-2 >> Go to DLK-175, "PASSENGER SIDE: Description" (passenger side).

NO-3 >> Go to <u>DLK-175</u>, "BACK DOOR : <u>Description</u>" (back door).

### 2.CHECK DOOR SWITCH

Check door switch (driver side).

Refer to DLK-66, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CHECK INTELLIGENT KEY WARNING BUZZER

Check Intelligent Key warning buzzer.

Refer to DLK-95, "Component Function Check".

### Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

### 4. CHECK INSIDE KEY ANTENNA

Check inside key antenna.

Refer to <u>DLK-59</u>, "<u>DTC Logic"</u> (instrument center). Refer to <u>DLK-61</u>, "<u>DTC Logic"</u> (console).

Refer to DLK-63, "DTC Logic" (luggage room).

#### Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

### 5.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### **KEY ID WARNING DOES NOT OPERATE**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### KEY ID WARNING DOES NOT OPERATE

Description INFOID:0000000004343563

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7. "Work</u> Flow".
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm the list above twice in order to ensure proper operation. Refer to DLK-39, "WARNING FUNCTION: System Description".

### Diagnosis Procedure

INFOID:0000000004343564

### 1. CHECK INTELLIGENT KEY

Check Intelligent Key. Refer to DLK-97, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

### 2.check combination meter display function

Check combination meter display function.

Refer to DLK-105, "Component Function Check".

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

### 3.CONFIRM THE OPERATION

Confirm the operation again.

#### Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

NO >> GO TO 1.

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**DLK-203** Revision: 2010 March 2009 EX35

### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

### INTELLIGENT KEY LOW BATTERY WARNING DOES NOT OPERATE

Description INFOID:0000000043435655

#### NOTE:

- Before performing the diagnosis in the following procedure, check "Work Flow". Refer to <u>DLK-7. "Work Flow"</u>.
- Warning functions operating condition is extremely complicated, during operating confirmations, reconfirm
  the list above twice in order to ensure proper operation. Refer to <a href="DLK-39">DLK-39</a>, "WARNING FUNCTION: System
  Description".

### **Diagnosis Procedure**

INFOID:0000000004343566

### 1. CHECK INTELLIGENT KEY

Check Intelligent Key.

Refer to DLK-97, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK COMBINATION METER DISPLAY FUNCTION

Check combination meter display function.

Refer to DLK-105, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident".

### INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

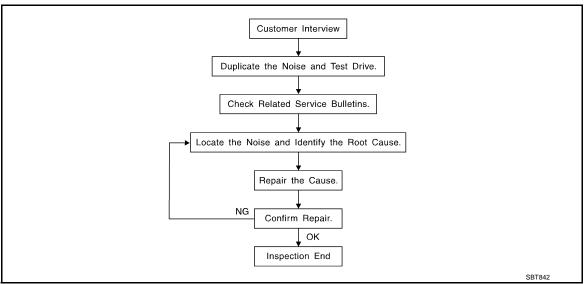
Р

# INTEGRATED HOMELINK TRANSMITTER DOES NOT OPERATE Α Description INFOID:0000000004343567 NOTE: В Before performing the diagnosis in the following procedure, check "Work Flow". Refer to DLK-7, "Work Flow". Diagnosis Procedure INFOID:0000000004343568 C 1. CHECK INTEGRATED HOMELINK TRANSMITTER Check integrated homelink transmitter. D Refer to DLK-109, "Component Function Check". Is the inspection result normal? YFS >> GO TO 2. Е NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Confirm the operation again. F Is the result normal? YES >> Check intermittent incident. Refer to GI-40, "Intermittent Incident". NO >> GO TO 1. Н DLK M Ν

Revision: 2010 March DLK-205 2009 EX35

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <a href="DLK-210">DLK-210</a>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics
  are provided so the customer, service adviser and technician are all speaking the same language when
  defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
   higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
   Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
  - Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
   Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician
  may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

#### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed.

SQUEAK AND RATTLE TROUBLE DIAGNOSES [INTELLIGENT KEY SYSTEM] < SYMPTOM DIAGNOSIS > If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following: Α 1) Close a door. 2) Tap or push/pull around the area where the noise appears to be coming from. 3) Rev the engine. В 4) Use a floor jack to recreate vehicle "twist". 5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models). 6) Raise the vehicle on a hoist and hit a tire with a rubber hammer. Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs. If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body. CHECK RELATED SERVICE BULLETINS D After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom. If a TSB relates to the symptom, follow the procedure to repair the noise. Е LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE 1. Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope). 2. Narrow down the noise to a more specific area and identify the cause of the noise by: Removing the components in the area that is are suspected to be the cause of the noise. Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise. Tapping or pushing/pulling the component that is are suspected to be the cause of the noise. Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only tem- Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise. Placing a piece of paper between components that are suspected to be the cause of the noise. Looking for loose components and contact marks. Refer to DLK-208, "Inspection Procedure". REPAIR THE CAUSE • If the cause is a loose component, tighten the component securely. • If the cause is insufficient clearance between components: - Separate components by repositioning or loosening and retightening the component, if possible. - Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts Department. L **CAUTION:** Never use excessive force as many components are constructed of plastic and may be damaged. Always check with the Parts Department for the latest parts information. The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005:  $100 \times 135$  mm  $(3.94 \times 5.31 \text{ in})/76884-71L01$ :  $60 \times 85$  mm  $(2.36 \times 3.35 \text{ in})/76884-71L01$ 

71L02:15  $\times$  25 mm (0.59  $\times$  0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

73982-9E000: 45 mm (1.77 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-

50Y00: 10 mm (0.39 in) thick,  $50 \times 50$  mm (1.97  $\times$  1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30  $\times$  50 mm (1.18  $\times$  1.97in)

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000:  $15 \times 25$  mm (0.59  $\times$  0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

UHMW (TEFLON) TAPE

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**DLK-207** Revision: 2010 March 2009 EX35

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

Used in place of UHMW tape that is be visible or does not fit. Will only last a few months.

SILICONE SPRAY

Used when grease cannot be applied.

**DUCT TAPE** 

Used to eliminate movement.

#### CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

### Inspection Procedure

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Refer to Table of Contents for specific component removal and installation information.

#### **INSTRUMENT PANEL**

Most incidents are caused by contact and movement between:

- 1. The cluster lid A and instrument panel
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar garnish
- Instrument panel to windshield
- 5. Instrument panel mounting pins
- 6. Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

#### **CAUTION:**

Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.

#### **CENTER CONSOLE**

Components to pay attention to include:

- 1. Shifter assembly cover to finisher
- A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

#### **DOORS**

Pay attention to the following:

- 1. Finisher and inner panel making a slapping noise
- Inside handle escutcheon to door finisher
- Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

#### **TRUNK**

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer. In addition look for the following:

- 1. Trunk lid dumpers out of adjustment
- Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

### SQUEAK AND RATTLE TROUBLE DIAGNOSES

#### < SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing the noise.

#### SUNROOF/HEADLINING

Noises in the sunroof/headlining area can often be traced to one of the following:

- Sunroof lid, rail, linkage or seals making a rattle or light knocking noise
- Sunvisor shaft shaking in the holder
- 3. Front or rear windshield touching headlining and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

#### SEATS

When isolating seat noise it's important to note the position the seats in and the load placed on the seat when the noise occurs. These conditions should be duplicated when verifying and isolating the cause of the noise. Cause of seat noise include:

- Headrest rods and holder
- 2. A squeak between the seat pad cushion and frame
- 3. The rear seatback lock and bracket

These noises can be isolated by moving or pressing on the suspected components while duplicating the conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### UNDERHOOD

Some interior noise may be caused by components under the hood or on the engine wall. The noise is then transmitted into the passenger compartment.

Causes of transmitted underhood noise include:

- 1. Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- 3. Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- 5. Hood bumpers out of adjustment
- Hood striker out of adjustment

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

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Revision: 2010 March **DLK-209** 2009 EX35

Diagnostic Worksheet

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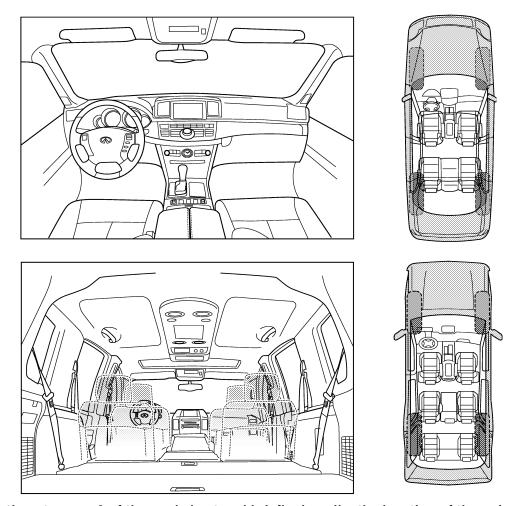
# SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service consultant or technician to ensure we confirm the noise you are hearing.

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

### **SQUEAK AND RATTLE TROUBLE DIAGNOSES**

< SYMPTOM DIAGNOSIS >

[INTELLIGENT KEY SYSTEM]

Briefly describe the location where the no	se occurs:		
I. WHEN DOES IT OCCUR? (please ch	ck the boxes that apply)		
☐ anytime☐ 1st time in the morning☐ only when it is cold outside☐ only when it is hot outside☐	☐ after sitting out in the rain☐ when it is raining or wet☐ dry or dusty conditions☐ other:	I	
II. WHEN DRIVING:	IV. WHAT TYPE OF NOISE		
☐ through driveways ☐ over rough roads ☐ over speed bumps	squeak (like tennis shoes creak (like walking on an rattle (like shaking a bab	old wooden floor)	
☐ only about mph ☐ on acceleration ☐ coming to a stop	<ul><li>☐ knock (like a knock at the</li><li>☐ tick (like a clock second h</li><li>☐ thump (heavy, muffled kr</li></ul>	nand)	
on turns: left, right or either (circle) with passengers or cargo	buzz (like a bumble bee)	·	
☐ other: ☐ after driving miles or mi	utes		
TO BE COMPLETED BY DEALERSHIP	DEDCONNEL		
Test Drive Notes:	YES NO	Initials of person performing	
	YES NO	Initials of person performing	
/ehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	YES NO	performing	

Revision: 2010 March **DLK-211** 2009 EX35

# **PRECAUTION**

### **PRECAUTIONS**

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### **WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### **WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

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#### NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

#### **OPERATION PROCEDURE**

Connect both battery cables.

#### NOTE:

Supply power using jumper cables if battery is discharged.

- 2. Turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.

#### **PRECAUTIONS**

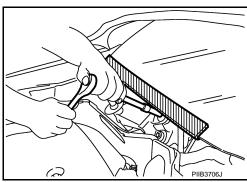
#### < PRECAUTION >

#### [INTELLIGENT KEY SYSTEM]

- When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
- Perform self-diagnosis check of all control units using CONSULT-III.

### Precaution for Procedure without Cowl Top Cover

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



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- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

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**DLK-213** Revision: 2010 March 2009 EX35

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# **PREPARATION**

### **PREPARATION**

# Special Service Tools

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
(J-39570) Chassis ear	SIIAO993E	Locates the noise
(J-43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairs the cause of noise

### **Commercial Service Tools**

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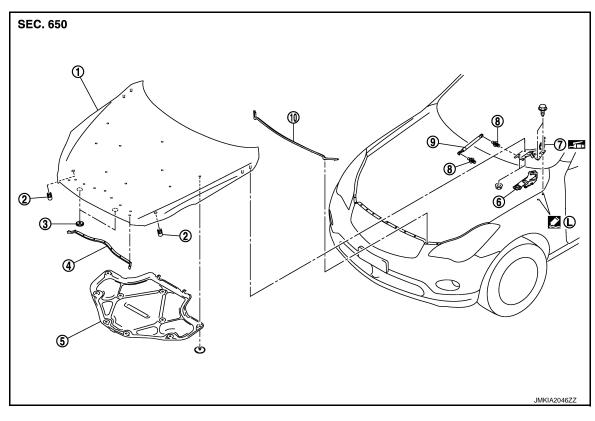
Tool name		Description
Engine ear	SIIA0996E	Locates the noise
Remover tool	JMKIA3050ZZ	Removes the clips, pawls and metal clips
Power tool		
	PIIB1407E	

# REMOVAL AND INSTALLATION

**HOOD** 

**HOOD ASSEMBLY** 

**HOOD ASSEMBLY: Exploded View** 



- 1. Hood assembly
- 4. Radiator core seal
- 7. Hood hinge
- 10. Hood seal (front)
- Bumper rubber
- Hood insulator
- 8. Stud ball

- 3. Seal
- 6. Hood hinge cover
- 9. Hood stay

Refer to GI-4, "Components" for symbols in the figure.

### **HOOD ASSEMBLY: Removal and Installation**

: Apply Genuine High Strength Locking Sealant or equivalent.

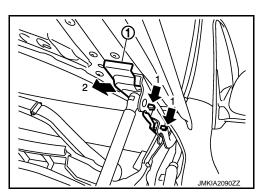
#### CAUTION:

Operate with 2 workers, because of its heavy weight.

#### **REMOVAL**

Remove hood hinge cover (LH/RH) (1).
 NOTE:

While pushing the pawls, pull hood hinge cover in the direction of the arrow.



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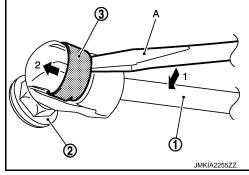
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- 2. Remove washer nozzle, washer tube. Refer to WW-104, "Removal and Installation".
- 3. Support hood lock assembly with a proper material to prevent it from falling.

#### **WARNING:**

Body injury may occur if no supporting rod is holding the hood open when removing the hood stay.

- 4. Remove the metal clip (3) located on the connection between the hood stay (1) and the stud ball (2) (hood side), by using a flatted-blade screwdriver (A).
- 5. Disengage the stud ball from the hood stay (hood side).



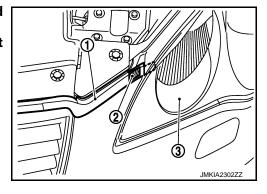
- 6. Remove hinge mounting nuts on the hood to remove the hood assembly.
- 7. Remove following parts after removing the hood assembly.
  - Radiator core seal
  - Hood insulator
  - Hood bumper rubber
  - Hood seal (front)
  - Hood striker

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

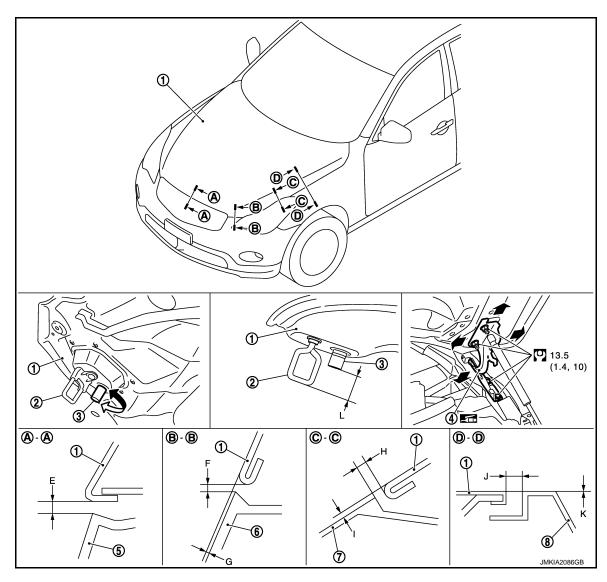
- Before installing hood seal (front)(1), apply double-faced adhesive tape (2).
- Check that both ends of hood seal (front) is below than front combination lamp (3).



- Before installing hood hinge, apply anticorrosive agent onto the mounting surface of the vehicle body.
- After installing, perform hood fitting adjustment. Refer to <u>DLK-217, "HOOD ASSEMBLY: Adjustment".</u>
- After installing, perform front washer nozzle and tube inspection and adjustment. Refer to <a href="WW-104">WW-104</a>. <a href=""">"Inspection and Adjustment"</a>.

**HOOD ASSEMBLY: Adjustment** 

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- Hood assembly
- 4. Hood hinge
- 7. Front combination lamp
- 2. Hood striker
- 5. Front grill
- Front fender

- 3. Hood bumper rubber
- 6. Front bumper fascia

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between hood and each part visually and by touching. (Fitting standard dimension in the table below should be satisfied.

If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

Unit: mm (in)

Portion			Standard	Difference (LH/RH, MAX)	
Hood – Front grille	<b>A</b> – <b>A</b>	E	Clearance	2.6 - 7.4 (0.102 - 0.291)	_
Hood – Front bumper	B – B	F	Clearance	1.5 - 5.5 (0.059 - 0.217)	2.5 (0.098)
fascia		G	Surface height	-1.0 - 3.0 (-0.039 - 0.118)	2.0 (0.079)

Revision: 2010 March **DLK-217** 2009 EX35

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#### [INTELLIGENT KEY SYSTEM]

	Portion	Standard	Difference (LH/RH, MAX)		
Hood – Front combina- tion lamp	C – C	Н	Clearance	1.5 – 5.5 (0.059 – 0.217)	2.0 (0.079)
		•	Surface height	-2.0 - 2.0 (-0.079 - 0.079)	2.1 (0.083)
Hood – Front fender	D – D	J Clearance (0.098 –		2.5 - 4.5 (0.098 - 0.177)	2.0 (0.079)
		K	Surface height	-1.0 - 1.0 (-0.039 - 0.039)	_
Hood striker – Bumper rubber	_	L	Clearance	32.5 - 33.5 (1.280 - 1.319)	_

- 1. Remove striker and adjust the surface height of hood, front bumper fascia and front fender according to the fitting standard dimension, by rotating hood bumper rubbers.
- 2. Adjust the height difference of striker, hood bumper rubber according to the fitting standard dimension.
- 3. Loosen hood hinge mounting nuts on the hood.
- Adjust the clearance of hood, front bumper fascia, front grill and front fender according to the fitting standard dimension, for the hood.
- Check that hood lock primary latch is securely engaged with striker by dropping hood from approximately 200 mm (7.874 in) height or pressing lightly on the hood.
   CAUTION:

Never drop hood from a height of 300 mm (11.811 in) or more.

- 6. Install as static closing face of hood is  $94 490 \text{ N} \cdot \text{m} \ (9.6 50.0 \text{ kg-m})$ . **NOTE:** 
  - Exercise vertical force on right side and left side of hood lock.
  - Never press simultaneously both sides.
- 7. After adjustment tighten hood hinge mounting nuts to the specified torque.

#### **HOOD HINGE**

**HOOD HINGE: Exploded View** 

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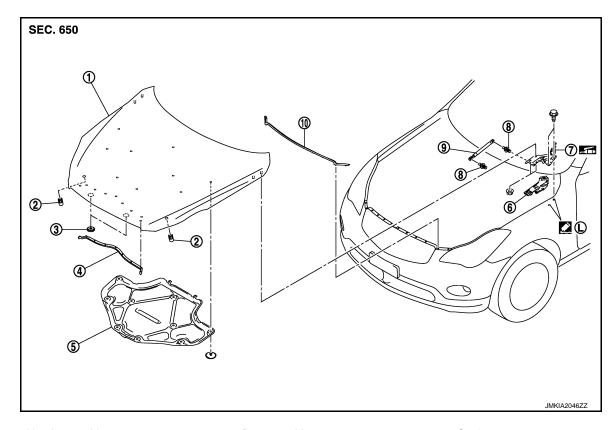
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- 1. Hood assembly
- 4. Radiator core seal
- 7. Hood hinge
- 10. Hood seal (front)

Bumper rubber

Hood insulator

8. Stud ball

5.

- 3. Seal
- 6. Hood hinge cover
- 9. Hood stay

: Apply Genuine High Strength Locking Sealant or equivalent.

Refer to GI-4, "Components" for symbols in the figure.

## **HOOD HINGE: Removal and Installation**

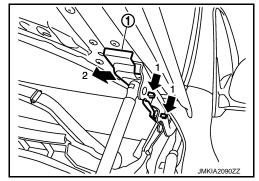
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#### **REMOVAL**

1. Remove hood hinge cover (LH/RH) (1).

#### NOTE:

While pushing the pawls, pull hood hinge cover in the direction of the arrow.



- 2. Remove hood assembly. Refer to <u>DLK-215</u>, "HOOD ASSEMBLY: Removal and Installation".
- 3. Remove front fender. Refer to DLK-225, "Removal and Installation".
- 4. Remove hood hinge mounting bolts, and then remove hood hinge.

#### INSTALLATION

Install in the reverse order of removal.

**CAUTION:** 

Revision: 2010 March **DLK-219** 2009 EX35

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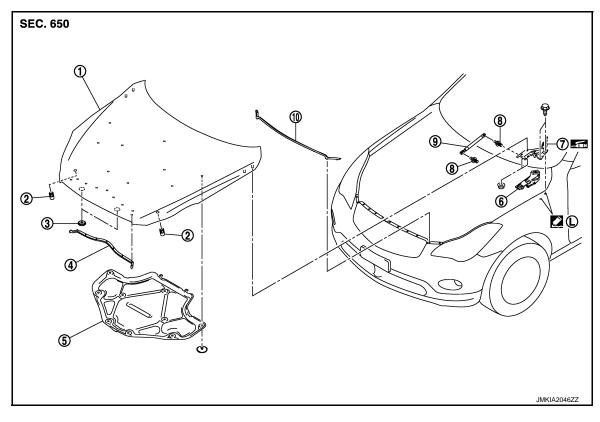
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- Before installation of hood hinge, apply anticorrosive agent onto the surface of the vehicle body.
- Before installation of hood hinge, drop genuine high strength locking sealant or equivalent into bolt hole of hood hinge (body side).
- After installation, apply touch-up paint (the body color) onto the head of the hinge mounting bolts and nuts.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-217</u>, "<u>HOOD ASSEMBLY</u>: <u>Adjustment</u>".

**HOOD STAY** 

**HOOD STAY: Exploded View** 

INFOID:0000000004650132



- 1. Hood assembly
- 4. Radiator core seal
- 7. Hood hinge
- 10. Hood seal (front)

- 2. Bumper rubber
- 5. Hood insulator
- 8. Stud ball

- 3. Seal
- 6. Hood hinge cover
- 9. Hood stay

: Apply Genuine High Strength Locking Sealant or equivalent.

Refer to GI-4, "Components" for symbols in the figure.

## **HOOD STAY: Removal and Installation**

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#### REMOVAL

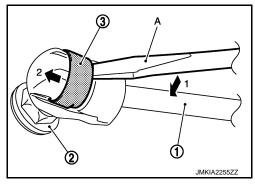
1. Support hood lock assembly with a proper material to prevent it from falling.

#### **WARNING:**

Body injury may occur if no supporting rod is holding the hood open when removing the hood stay.

#### [INTELLIGENT KEY SYSTEM]

- 2. Remove the metal clip (3) located on the connection between the hood stay (1) and the stud ball (2) (hood side), by using a flat-bladed screwdriver (A).
- 3. Disengage the stud ball from the hood stay (hood side).
- 4. Repeat the same operation to disengage the stud ball from the hood stay (body side), then remove the hood stay.



#### **INSTALLATION**

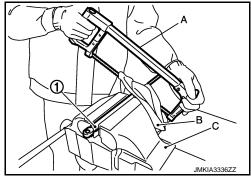
Install in the reverse order of removal.

## **HOOD STAY**: Disposal

- 1. Fix hood stay (1) using a vise (C).
- 2. Using hacksaw (A) slowly make 2 holes in the hood stay, in numerical order as shown in the figure.

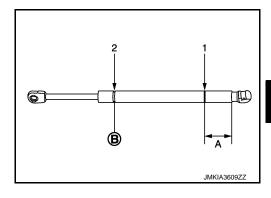
#### **CAUTION:**

- When cutting a hole on hood stay, always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil.
- Wear eye protection (safety glasses).
- Wear gloves.



A: 20 mm (0.787 in)

B: Cut at the groove.



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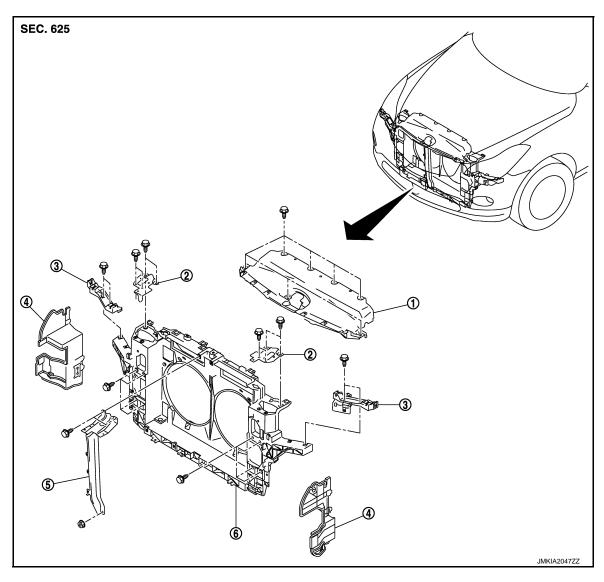
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## RADIATOR CORE SUPPORT

Exploded View



- Hood lock cover
- 4. Air guide (LH/RH)
- Hood lock bracket (LH/RH)
- 5. Hood lock stay assembly
- 3. Head lamp bracket (LH/RH)
- 6. Radiator core support

## Removal and Installation

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## **REMOVAL**

- Use a refrigerant collecting equipment to discharge the refrigerant. Refer to <u>HA-25</u>, "Collection and <u>Charge"</u>.
- 2. Drain engine coolant from radiator. Refer to CO-7, "Draining".
- 3. Remove engine under cover. Refer to EXT-31, "Removal and Installation".
- 4. Remove front grille. Refer to EXT-20, "Removal and Installation".
- 5. Remove front bumper fascia, energy absorber, reinforcement. Refer to <u>EXT-13</u>, "Removal and Installation".
- 6. Remove mounting bolts of hood lock cover.
- 7. Disconnect harness clip and hood lock cable from hood lock cover.
- 8. Remove hood lock cover.

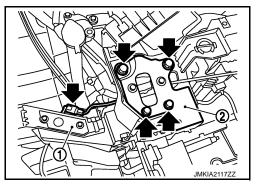
#### RADIATOR CORE SUPPORT

#### < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

- 9. Remove front combination lamp (LH/RH). Refer to <u>EXL-192</u>, "Removal and Installation" (XENON TYPE) or <u>EXL-351</u>, "Removal and Installation" (HALOGEN TYPE).
- 10. Disconnect hood lock switch connector (A) from head lamp bracket (RH) (1).
- Remove mounting bolts and remove hood lock bracket (2) (LH/RH).

= : Bolt



- 12. Disconnect hood lock cable from hood lock (LH/RH).
- 13. Disassembly hood lock from hood lock bracket (LH/RH).
- 14. Disconnect all clamp of hood cable from radiator core support assembly.
- 15. Disconnect harness connector of refrigerant pressure sensor. Refer to <a href="HAC-151">HAC-151</a>, "Removal and Installation".
- Disconnect harness connector of ambient sensor. Refer to <u>HAC-145, "Removal and Installation"</u>.
- 17. Remove air guide (LH).
- 18. Remove ICC sensor integrated unit (with intelligent cruse control model). Refer to <a href="CCS-180">CCS-180</a>, "Removal and Installation".
- 19. Remove horn (Hi/Lo). Refer to HRN-6, "Removal and Installation".
- Remove intelligent key warning buzzer. Refer to <u>DLK-265, "Removal and Installation"</u>.
- 21. Disconnect harness clamp from hood lock stay.
- Remove mounting bolt and nut, and remove hood lock stay.
- 23. Remove washer tank. Refer to <a href="https://www.nemoval.
- 24. Remove power steering oil cooler. Refer to <u>ST-50, "2WD : Exploded View"</u> (2WD) or <u>ST-51, "AWD : Exploded View"</u> (AWD).
- Remove air guide (RH).
- 26. Remove mounting bolt of power steering oil cooler pipe bracket. Refer to <u>ST-50, "2WD : Exploded View"</u> (2WD) or <u>ST-51, "AWD : Exploded View"</u> (AWD).
- 27. Remove air cleaner box (LH/RH). Refer to EM-27, "Removal and Installation".
- Remove front under side cover (LH). Refer to <u>EXT-31, "Removal and Installation"</u>.
- 29. Remove radiator upper hose and lower hose at radiator side. Refer to CO-12, "Removal and Installation".
- 30. Remove mounting bolts of condenser assembly from radiator core support assembly. Refer to <u>HA-49</u>. "CONDENSER: Removal and Installation".
- 31. Disconnect AT fluid cooler hose (upper/lower) from fan shroud and remove AT fluid cooler hose (upper/lower) from radiator. Refer to <a href="mailto:TM-191">TM-191</a>, "2WD: Removal and Installation" (2WD) or <a href="mailto:TM-193">TM-193</a>, "AWD: Removal and Installation" (AWD).
- 32. Remove condenser assembly. Refer to HA-49, "CONDENSER: Removal and Installation".
- 33. Remove radiator. Refer to CO-12, "Removal and Installation".
- Disconnect harness connector of crash zone sensor. Refer to <u>SR-21, "Removal and Installation"</u>.
- 35. Disconnect harness connector of cooling fan control module. Refer to CO-15, "Removal and Installation".
- 36. Disconnect all harness clip from radiator core support assembly.
- 37. Remove mounting bolts, and then remove radiator core support assembly. **CAUTION:**

#### Operate with two workers, because of its heavy weight.

- 38. Remove the following parts after removing radiator core support assembly.
  - Head lamp bracket
  - Cooling fan (LH/RH): Refer to CO-15, "Removal and Installation".
  - Crash zone sensor: Refer to <u>SR-21</u>, "Removal and Installation".
  - Ambient sensor: Refer to <u>HAC-145</u>, "Removal and Installation".

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#### RADIATOR CORE SUPPORT

#### < REMOVAL AND INSTALLATION >

[INTELLIGENT KEY SYSTEM]

#### **INSTALLATION**

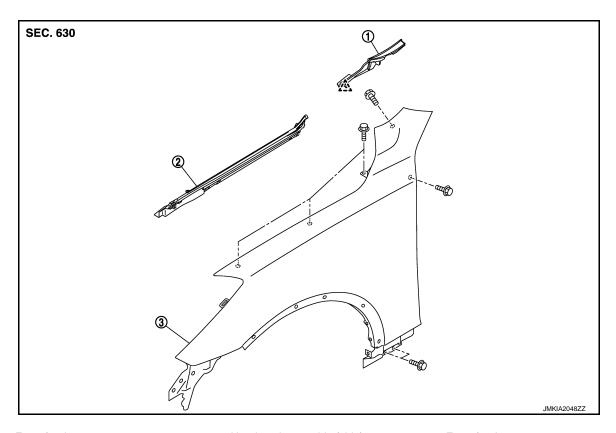
Install in the reverse order of removal.

#### **CAUTION:**

- Replenish the following parts.
- Refrigerant: Refer to HA-25, "Collection and Charge".
- Engine coolant: Refer to CO-8, "Refilling".
- AT fluid: Refer to TM-142, "Changing".
- Power steering oil: Refer to ST-11, "Inspection".
- Adjust the following parts.
- ICC sensor integrated unit (with intelligent cruse control model): Refer to <a href="CCS-13">CCS-13</a>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (ICC SENSOR INTEGRATED UNIT): Description".
- Front combination lamp: Refer to <u>EXL-188, "Aiming Adjustment Procedure"</u> (XENON TYPE) or <u>EXL-348, "Aiming Adjustment Procedure"</u> (HALOGEN TYPE).
- Around view monitor (BOSE AUDIO WITH NAVIGATION): Refer to AV-173, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR): Special Repair Requirement"

## FRONT FENDER

Exploded View



1. Front fender cover

2. Hood seal assembly (side)

Front fender

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#### Removal and Installation

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#### **CAUTION:**

Use a shop cloth to protect the body from being damaged during removal and installation.

## **REMOVAL**

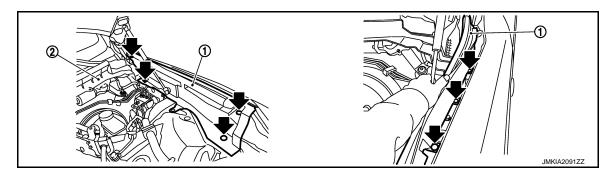
1. Remove the following parts.

• LH side

Brake master cylinder cover and hood ledge cover (LH): Refer to EXT-23, "Removal and Installation".

RH side
 Battery cover and hood ledge cover (RH): Refer to <u>EXT-23, "Removal and Installation"</u>.

2. Remove clips as shown in the figure by arrows, and remove hood seal assembly (side).



Hood seal assembly (side)

Cowl top cover

Revision: 2010 March **DLK-225** 2009 EX35

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#### FRONT FENDER

#### < REMOVAL AND INSTALLATION >

[INTELLIGENT KEY SYSTEM]

- Remove fender protector. Refer to EXT-25, "FENDER PROTECTOR: Removal and Installation".
- 4. Remove front bumper fascia. Refer to EXT-13, "Removal and Installation".
- 5. Remove front combination lamp. Refer to <u>EXL-192</u>, "Removal and Installation" (XENON TYPE) or <u>EXL-351</u>, "Removal and Installation" (HALOGEN TYPE).
- 6. Remove front fender cover.
- 7. Remove fillet molding. Refer to EXT-32, "Removal and Installation"
- 8. Remove center mod guard. Refer to EXT-29, "Removal and Installation".
- 9. Remove mounting bolts except bolt of windshield side.
- 10. Loosen the mounting bolt (windshield glass side), then pull the front fender upward to remove it. **CAUTION:** 
  - The mounting bolt (windshield glass side) can not be removed because there is not enough space, between the front fender and the windshield glass.
  - A viscous urethane foam is installed on the back surface of front fender. When removing the front fender, peel of the urethane foam bit at a time, and carefully to remove it.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- After installation, check front fender adjustment. Refer to <u>DLK-217</u>, "HOOD ASSEMBLY: Adjustment".
- After installation, apply the touch-up paint (the body color) onto the head of front fender mounting bolts.
- Adjust the following part.
- Front combination lamp: Refer to <u>EXL-188</u>, "Aiming Adjustment Procedure" (XENON TYPE) or <u>EXL-348</u>, "Aiming Adjustment Procedure" (HALOGEN TYPE).
- Around view monitor (BOSE AUDIO WITH NAVIGATION): Refer to AV-173, "CALIBRATING CAMERA IMAGE (AROUND VIEW MONITOR): Special Repair Requirement"

## FRONT DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

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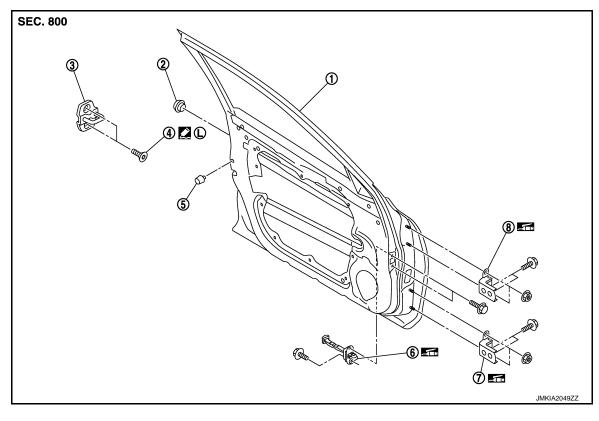
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- 1. Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- Grommet
- 5. Bumper rubber
- 8. Door hinge (upper)
- Door striker
- 6. Door check link

Refer to GI-4, "Components" for symbols in the figure.

## DOOR ASSEMBLY: Removal and Installation

#### **CAUTION:**

- Perform work with 2 workers, because of its heavy weight.
- When removing and installing front door assembly, support door with a jack and cloth to protect door and body.

#### REMOVAL

- 1. Remove mounting bolts of door check link on the vehicle.
- 2. Remove front door harness grommet, and then pull out the harness from the vehicle.
- 3. Disconnect front door harness connector.
- Remove door hinge mounting nuts (door side), and then remove door assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-228, "DOOR ASSEMBLY: Adjustment".</u>
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

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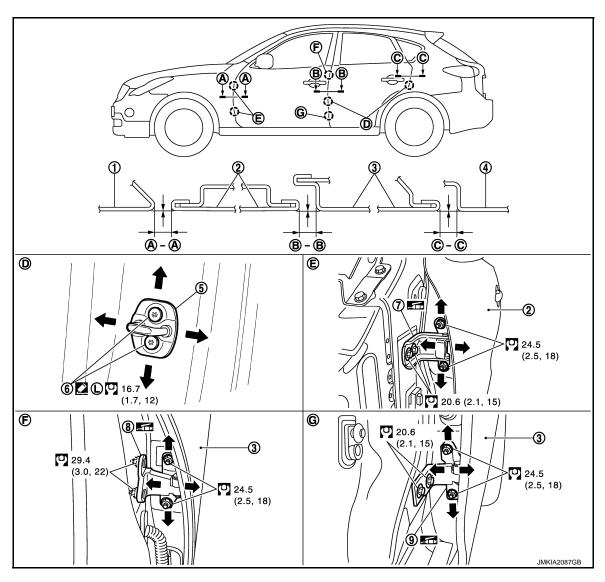
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Revision: 2010 March **DLK-227** 2009 EX35

DOOR ASSEMBLY: Adjustment

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- 1. Front fender
- 4. Body side outer
- 7. Front door hinge

- 2. Front door
- 5. Door striker
- 8. Rear door hinge (upper)
- 3. Rear door
- 6. TORX bolt
- 9. Rear door hinge (lower)

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and surface height between front door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

Unit: mm (in)

Portion		Clearance	Surface height	
Front fender – Front door	A – A	2.6 - 4.6 (0.102 - 0.181)	- 1.0 – 1.0 (- 0.039 – 0.039)	
Front door – Rear door	B – B	2.6 - 4.6 (0.102 - 0.181)	- 1.0 – 1.0 (- 0.039 – 0.039)	

- 1. Remove front fender. Refer to <u>DLK-225, "Removal and Installation"</u>.
- 2. Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of front door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting bolts on body side.

#### [INTELLIGENT KEY SYSTEM]

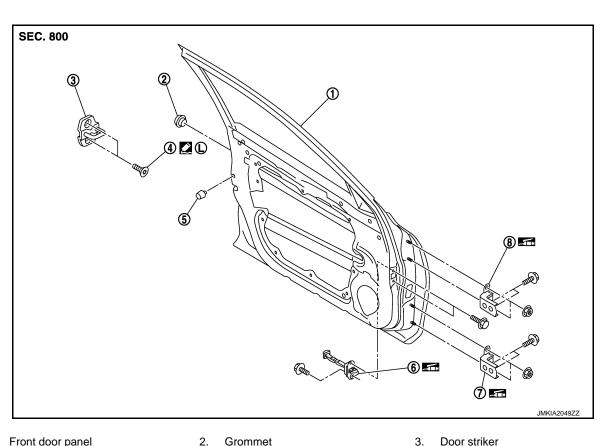
- Raise front door at rear end to adjust clearance of the front door according to the fitting standard dimension.
- 7. After adjustment tighten bolts and nuts to the specified torque.
- Install front fender. Refer to <u>DLK-225</u>, "Removal and Installation".

#### DOOR STRIKER ADJUSTMENT

Adjust door striker so that it becomes parallel with door lock insertion direction.

#### DOOR STRIKER

## DOOR STRIKER: Exploded View



- Front door panel 1.
- TORX bolt
- 7. Door hinge (lower)
- 2. Grommet
- 5. Bumper rubber
- Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

## DOOR STRIKER: Removal and Installation

**REMOVAL** 

Remove TORX bolts, and then remove door striker.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- After installation, check to perform the fitting adjustment. Refer to <u>DLK-228</u>, "<u>DOOR ASSEMBLY</u>: Adjustment".

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Door check link

**DOOR HINGE** 

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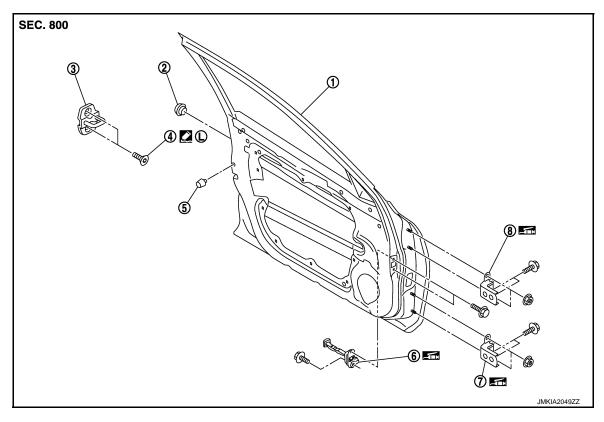
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DOOR HINGE: Exploded View

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- Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- 2. Grommet
- 5. Bumper rubber
- 8. Door hinge (upper)

Refer to GI-4, "Components" for symbols in the figure.

- Door striker
- Door check link

#### DOOR HINGE: Removal and Installation

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#### **REMOVAL**

- 1. Remove front fender. Refer to DLK-225, "Removal and Installation"
- 2. Remove front door assembly. Refer to <a href="DLK-227">DLK-227</a>, "DOOR ASSEMBLY: Removal and Installation".
- 3. Remove front door hinge mounting bolts, and then remove front door hinge.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check front door open/close, lock/unlock operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-228, "DOOR ASSEMBLY: Adjust-ment"</u>.
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.
   DOOR CHECK LINK

DOOR CHECK LINK: Exploded View

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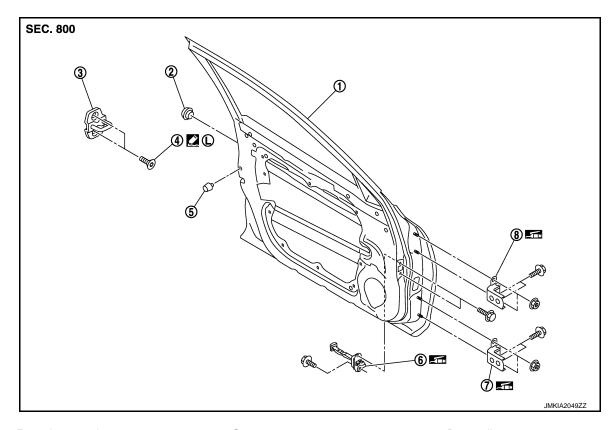
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- Front door panel
- 4. TORX bolt
- 7. Door hinge (lower)
- Grommet
- 5. Bumper rubber
- 8. Door hinge (upper)
- Door striker
- Door check link

Refer to GI-4. "Components" for symbols in the figure.

## DOOR CHECK LINK: Removal and Installation

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#### **REMOVAL**

- 1. Remove front door finisher. Refer to <u>INT-11</u>, "<u>DRIVER SIDE</u>: <u>Removal and Installation</u>" (driver side) or <u>INT-14</u>, "<u>PASSENGER SIDE</u>: <u>Removal and Installation</u>" (passenger side).
- 2. Fully close the front door window.
- 3. Remove front door speaker. Refer to <u>AV-155</u>, "<u>Removal and Installation</u>" (base audio without navigation) or <u>AV-577</u>, "<u>Removal and Installation</u>" (BOSE audio with navigation).
- Remove mounting bolts of door check link on the vehicle.
- 5. Remove mounting bolts of door check link on door panel.
- 6. Take door check link out from the hole of door panel.

#### **INSTALLATION**

Install in the reverse order of removal.

#### CALITION:

Check front door open/close operation after installation.

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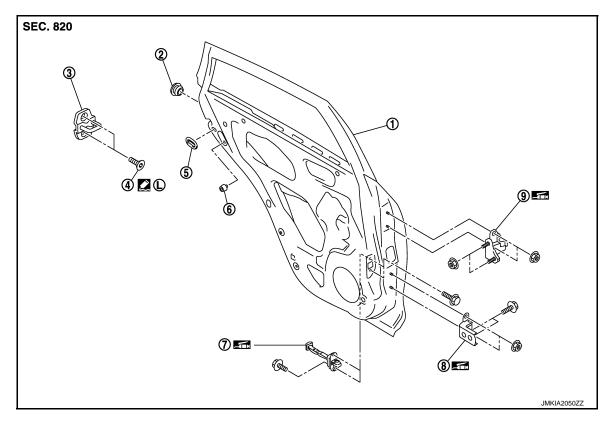
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Revision: 2010 March **DLK-231** 2009 EX35

## REAR DOOR DOOR ASSEMBLY

DOOR ASSEMBLY: Exploded View

INFOID:0000000004343598



- 1. Rear door panel
- TORX bolt
- 7. Door check link

- Grommet
- 5. Seal rubber
- 8. Door hinge (lower)
- 3. Door striker
- 6. Bumper rubber
- 9. Door hinge (upper)

Refer to  $\underline{\text{GI-4}}$ , "Components" for symbols in the figure.

## DOOR ASSEMBLY: Removal and Installation

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#### **CAUTION:**

- Perform work with 2 workers, because of it's heavy weight.
- When removing and installing rear door assembly, support door with a jack and cloth to protect door and body.

#### REMOVAL

- 1. Remove mounting bolts of door check link on the vehicle.
- 2. Remove rear door harness grommet, and then pull out door harness from the vehicle.
- 3. Disconnect rear door harness connector.
- 4. Remove door hinge mounting nuts (door side), and then remove rear door assembly.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

- Check rear door open/close, lock/unlock operation after installation.
- · Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- After installation, perform the fitting adjustment. Refer to <u>DLK-233</u>, "<u>DOOR ASSEMBLY</u>: <u>Adjust-ment</u>".
- After installation, apply touch-up paint (the body color) onto the head of door hinge mounting nuts.

**DOOR ASSEMBLY: Adjustment** 

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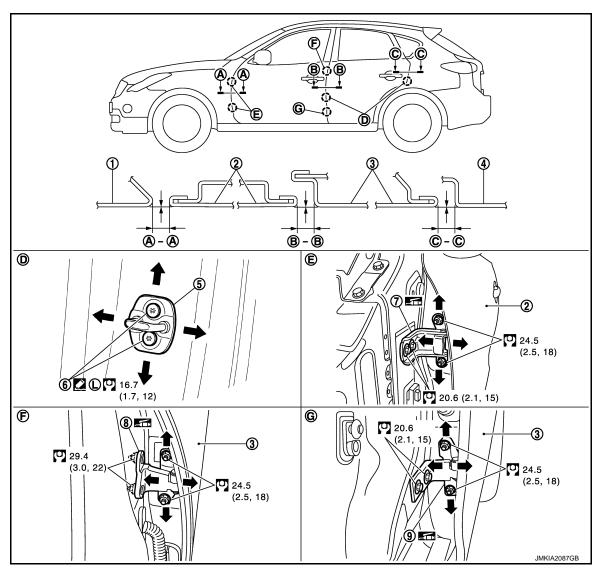
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- Front fender
- 4. Body side outer
- 7. Front door hinge

- 2. Front door
- 5. Door striker
- 8. Rear door hinge (upper)
- 3. Rear door
- 6. TORX bolt
- 9. Rear door hinge (lower)

Refer to GI-4. "Components" for symbols in the figure.

Check the clearance and surface height between rear door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

Unit: mm (in)

Portion		Clearance	Surface height
Front door – Rear door	B – B	2.6 - 4.6 (0.102 - 0.181)	-1.0 – 1.0 (-0.039 – 0.039)
Rear door – Body side outer	C – C	2.6 - 4.6 (0.102 - 0.181)	-1.0 – 1.0 (-0.039 – 0.039)

- 1. Remove center pillar lower garnish. Refer to <a href="INT-20">INT-20</a>, "Removal and Installation".
- Loosen door hinge mounting nuts on door side.
- 3. Adjust the surface height of rear door according to the fitting standard dimension.
- 4. Temporarily tighten door hinge mounting nuts on door side.
- 5. Loosen door hinge mounting nuts and bolts on body side.
- 6. Raise rear door at rear end to adjust clearance of rear door according to the fitting standard dimension.

#### < REMOVAL AND INSTALLATION >

- 7. After adjustment tighten bolts and nuts to the specified torque.
- Install center pillar lower garnish. Refer to .<u>INT-20, "Removal and Installation"</u>

#### DOOR STRIKER ADJUSTMENT

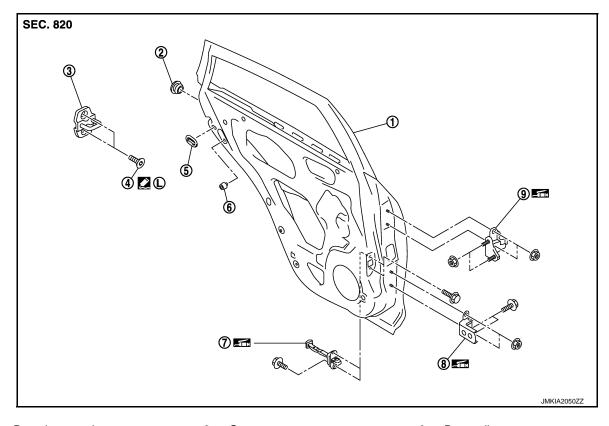
Adjust door striker so that it becomes parallel with door lock insertion direction.

#### DOOR STRIKER

DOOR STRIKER: Exploded View

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- Rear door panel
- 4. TORX bolt
- 7. Door check link

- 2. Grommet
- Seal rubber
- 8. Door hinge (lower)
- Door striker
- 6. Bumper rubber
- 9. Door hinge (upper)

Refer to  $\underline{\text{GI-4, "Components"}}$  for symbols in the figure.

#### DOOR STRIKER: Removal and Installation

**REMOVAL** 

Remove TORX bolts, and then remove door striker.

INSTALLATION

Install in the reverse order of removal.

**CAUTION:** 

- Check rear door open/close, lock/unlock operation after installation.
- After installation, check to perform the fitting adjustment. Refer to <u>DLK-233</u>, "<u>DOOR ASSEMBLY</u>:
   Adjustment".

#### DOOR HINGE

DOOR HINGE: Exploded View

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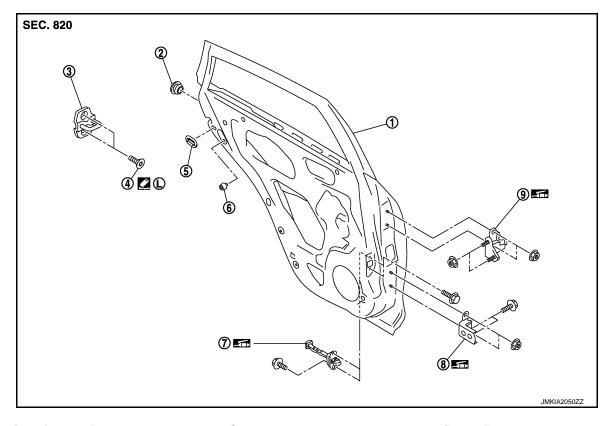
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- Rear door panel
- 4. TORX bolt
- 7. Door check link

- 2. Grommet
- 5. Seal rubber
- 8. Door hinge (lower)
- 3. Door striker
- 6. Bumper rubber
- 9. Door hinge (upper)

Refer to GI-4. "Components" for symbols in the figure.

## DOOR HINGE: Removal and Installation

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#### **REMOVAL**

- Remove center pillar lower garnish. Refer to <u>INT-20, "Removal and Installation"</u>.
- 2. Remove rear door assembly. Refer to <a href="DLK-232">DLK-232</a>, "DOOR ASSEMBLY: Removal and Installation".
- 3. Remove rear door hinge mounting bolts and nuts (body side), and then remove door hinge.

## **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check rear door open/close operation after installation.
- Check door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing rear door assembly, perform the fitting adjustment. Refer to <u>DLK-233</u>, <u>"DOOR ASSEMBLY: Adjustment"</u>.
- After installing, apply the touch-up paint (the body color) onto the head of door hinge mounting nuts.
   DOOR CHECK LINK

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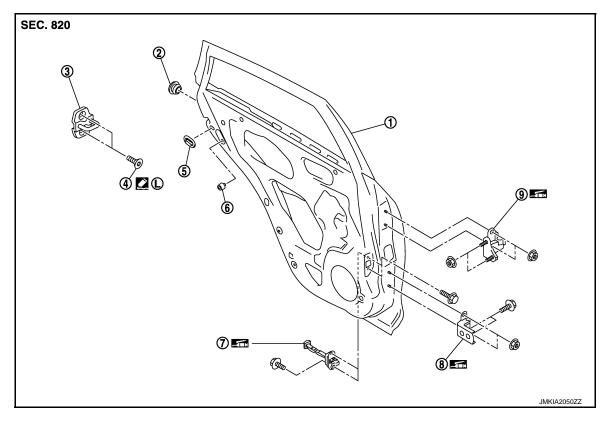
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Revision: 2010 March DLK-235 2009 EX35

## DOOR CHECK LINK: Exploded View

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- Rear door panel
- TORX bolt
- 7. Door check link

- Grommet
- Seal rubber
- 8. Door hinge (lower)

Refer to GI-4, "Components" for symbols in the figure.

- 3. Door striker
- 6. Bumper rubber
- 9. Door hinge (upper)

DOOR CHECK LINK: Removal and Installation

#### **REMOVAL**

1. Remove rear door finisher. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".

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- 2. Fully close the rear door window.
- 3. Remove rear door speaker. Refer to AV-156, "Removal and Installation" (BOSE audio without navigation) or AV-578, "Removal and Installation" (BOSE audio with navigation).
- 4. Remove mounting bolts of the check link on the vehicle.
- 5. Remove mounting bolts of the check link on door panel.
- Take door check link out from the hole of door panel.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

Check rear door open/close operation after installation.

# BACK DOOR BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY: Exploded View

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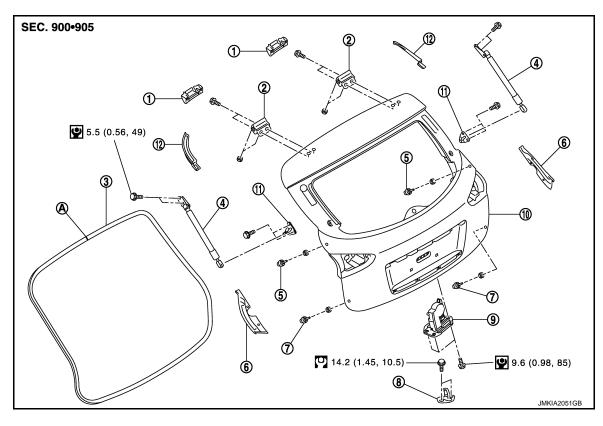
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- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (lower) (LH/RH)
- 10. Back door assembly
- A : Center mark

- 2. Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- 8. Back door striker
- 11. Stud ball assembly (LH/RH)
- 3. Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- 9. Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

Refer to GI-4, "Components" for symbols in the figure.

#### BACK DOOR ASSEMBLY: Removal and Installation

### **CAUTION:**

Operate with two workers, because of its heavy weight.

The back door harness constitute the back door assembly.

#### **REMOVAL**

- 1. Remove back door finisher inner, back door plate, back door hinge cover. Refer to <a href="INT-38">INT-38</a>, "Removal and Installation".
- 2. Remove clips of head lining at rear end. Refer to <a href="INT-27">INT-27</a>, "NORMAL ROOF: Removal and Installation" (SUNROOF).

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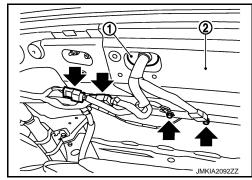
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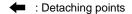
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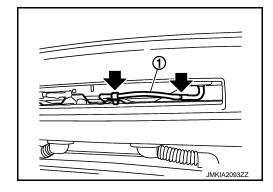
#### [INTELLIGENT KEY SYSTEM]

- 3. Disconnect harness connectors and bolts as shown in the figure by arrows.
- 4. Remove grommet (LH) (1), and then pull harness out of vehicle at roof panel (2) hole.



5. Remove grommet (RH), and then disconnect washer tube (1).





- 6. Pull washer tube out of back door.
- 7. Support back door lock with the proper material to prevent it from falling.

#### **WARNING:**

Body injury may occur if no supporting rod is holding the back door open when removing the back door stay.

- 8. Remove back door stay. Refer to DLK-242, "BACK DOOR STAY: Removal and Installation".
- 9. Remove back door hinge mounting bolts on back door and remove back door assembly.

#### INSTALLATION

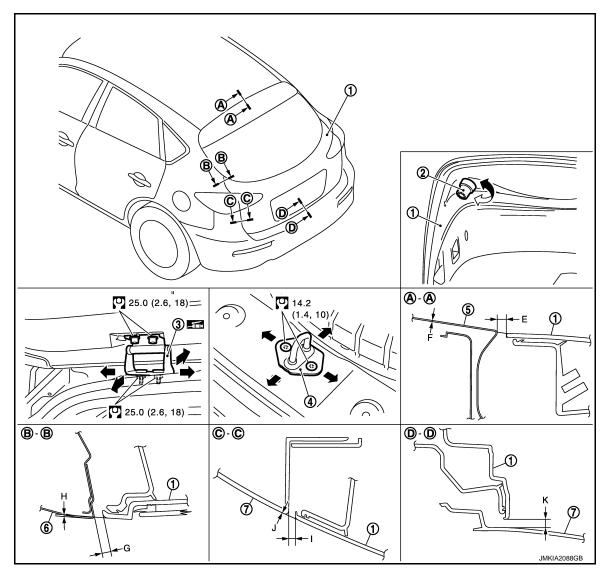
Install in the reverse order of removal.

#### **CAUTION:**

- Check back door open/close, lock/unlock operation after installation.
- After installation, perform fitting adjustment. Refer to <u>DLK-239</u>, "<u>BACK DOOR ASSEMBLY</u>: <u>Adjustment</u>".

## **BACK DOOR ASSEMBLY: Adjustment**

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Back door assembly Back door striker

4.

- 2. Bumper rubber
- 5. Roof

- 3. Back door hinge
- Body side outer 6.

7. Rear bumper fascia

Refer to GI-4, "Components" for symbols in the figure.

Check the clearance and the surface height between back door and each part by visually and touching. If the clearance and the surface height are out of specification, adjust them according to the procedures shown below.

Unit: mm (in)

Port	Standard			
Dook door Doof	A – A	E	Clearance	5.0 - 9.0 (0.197 - 0.354)
Back door – Roof		F	Surface height	-1.0 - 3.0 (-0.039 - 0.118)
Back door – Body side outer	B – B	G	Clearance	3.0 - 7.0 (0.118 - 0.276)
		Н	Surface height	-1.0 - 3.0 (-0.039 - 0.118)
Back door – Rear bumper fascia	c – c	I	Clearance	3.0 - 7.2 (0.118 - 0.283)
		J	Surface height	-1.7 - 2.5 (-0.067 - 0.098)
Back door – Rear bumper fascia	D – D	K	Clearance	5.1 - 9.1 (0.197 - 0.358)

**DLK-239** Revision: 2010 March 2009 EX35

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#### < REMOVAL AND INSTALLATION >

- Remove back door hinge cover. Refer to <u>INT-38</u>, "Removal and Installation".
- 2. Loosen back door hinge mounting bolts (back door side).
- 3. Loosen bumper rubber (side/lower).
- 4. Remove luggage rear plate mask. Refer to <a href="INT-35">INT-35</a>, "Removal and Installation".
- Loosen back door striker mounting bolts.
- Lift up back door approximately 100 150 mm (3.937 5.906 in) height then close it lightly and check that
  it is engaged firmly with back door closed.
- 7. Check the clearance and surface height.
- 8. Finally tighten back door hinge, bumper rubber, and back door striker.
- 9. Install back door hinge cover and luggage rear plate mask. Refer to <a href="INT-38">INT-38</a>, "Removal and Installation" and INT-35</a>, "Removal and Installation"

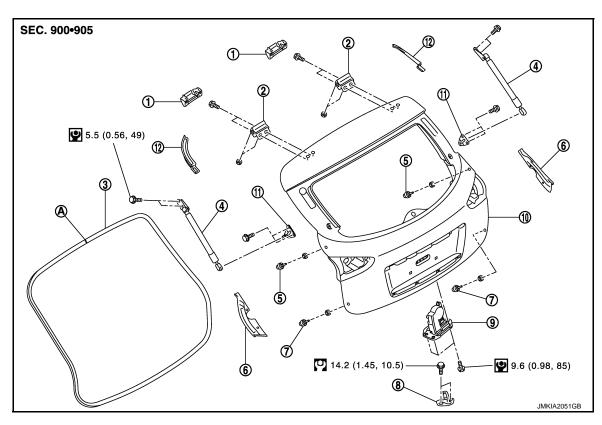
#### **BACK DOOR STRIKER ADJUSTMENT**

Adjust back door striker so that i becomes parallel with back door lock insertion direction.

#### BACK DOOR STRIKER

## BACK DOOR STRIKER: Exploded View





- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (lower) (LH/RH)
- Back door assembly
- A : Center mark

- 2. Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- Back door striker
- 11. Stud ball assembly (LH/RH)
- 3. Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- 9. Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

Refer to GI-4, "Components" for symbols in the figure.

#### BACK DOOR STRIKER: Removal and Installation

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#### REMOVAL

- Remove luggage rear plate mask. Refer to <u>INT-35</u>, "Removal and Installation".
- Remove mounting bolts, and then remove back door striker.

Revision: 2010 March **DLK-240** 2009 EX35

#### **INSTALLATION**

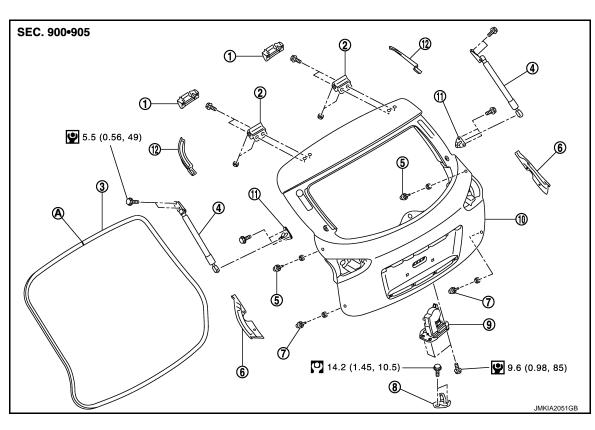
Install in the reverse order of removal.

#### CAUTION:

- Check back door open/close operation after installation.
- When removing and installing back door striker, check to perform the fitting adjustment. Refer to DLK-239, "BACK DOOR ASSEMBLY: Adjustment".

#### BACK DOOR HINGE

## BACK DOOR HINGE: Exploded View



- Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- Bumper rubber (lower) (LH/RH)
- 10. Back door assembly
- Α : Center mark

- Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- Back door striker
- Stud ball assembly (LH/RH)
- 3. Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

Refer to GI-4, "Components" for symbols in the figure.

#### BACK DOOR HINGE: Removal and Installation

## REMOVAL

- Remove luggage side lower finisher and luggage side upper finisher. Refer to INT-35, "Removal and Installation".
- Using a remover tool, remove headlining clip at the rear side of headlining, and then remove rear side of headlining. Refer to INT-27, "NORMAL ROOF: Removal and Installation" (NORMAL ROOF), INT-30, "SUNROOF: Removal and Installation" (SUNROOF).
- Remove back door assembly. Refer to <u>DLK-237</u>, "BACK <u>DOOR ASSEMBLY</u>: Removal and Installation".
- Remove back door hinge mounting nuts (body side), and then remove back door hinge.

#### INSTALLATION

Install in the reverse order of removal.

#### **CAUTION:**

**DLK-241** Revision: 2010 March 2009 EX35

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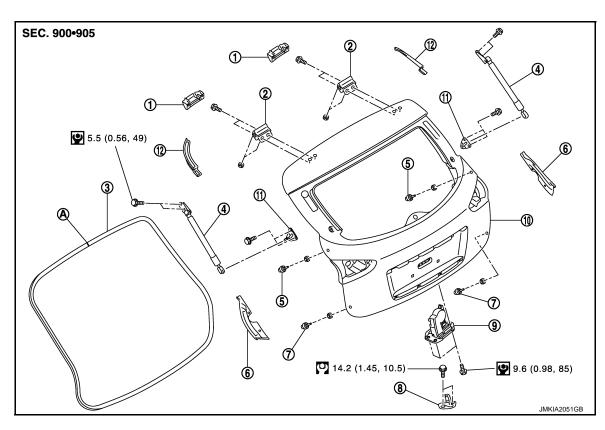
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- Check back door open/close operation after installation.
- Check back door hinge rotating part for poor lubrication. If necessary, apply body grease.
- When removing and installing back door assembly, perform the fitting adjustment. Refer to <u>DLK-239</u>, "BACK DOOR ASSEMBLY: Adjustment".
- After installation, apply touch-up paint (the body color) onto the head of back door hinge mounting nuts.

**BACK DOOR STAY** 

**BACK DOOR STAY: Exploded View** 



- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (lower) (LH/RH)
- 10. Back door assembly
- A : Center mark

- 2. Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- 8. Back door striker
- 11. Stud ball assembly (LH/RH)
- Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- 9. Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

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Refer to GI-4, "Components" for symbols in the figure.

## BACK DOOR STAY: Removal and Installation

### **REMOVAL**

Support back door lock with the proper material to prevent it from falling.

#### **WARNING:**

Body injury may occur if no supporting rod is holding the back door open when removing the back door stay.

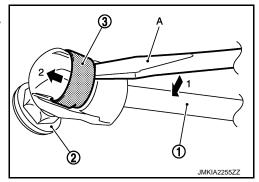
Remove mounting bolts of back door stay (body side).

## **BACK DOOR**

#### < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

- 3. Remove the metal clip (3) located on the connection between the back door stay (1) and the stud ball (2) (back door side) by using a flatted-blade screwdriver (A).
- Remove back door stay (back door side).



5. Remove mounting bolts of stud ball assembly, and then remove stud ball assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

Check back door open/close operation after installation.

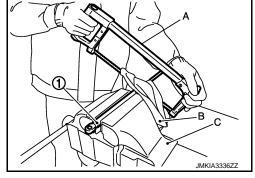
## **BACK DOOR STAY: Disposal**

1. Fix back door stay (1) using a vise (C).

2. Using hacksaw (A) slowly make 2 holes in the back door stay, in numerical order as shown in the figure.

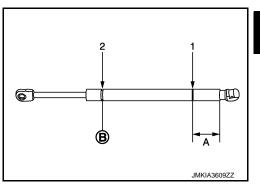
#### **CAUTION:**

- When cutting a hole on back door stay, always cover a hacksaw using a shop cloth (B) to avoid scattering metal fragments or oil.
- Wear eye protection (safety glasses).
- · Wear gloves.



A: 20 mm (0.787 in)

B: Cut at the groove.



BACK DOOR WEATHER-STRIP

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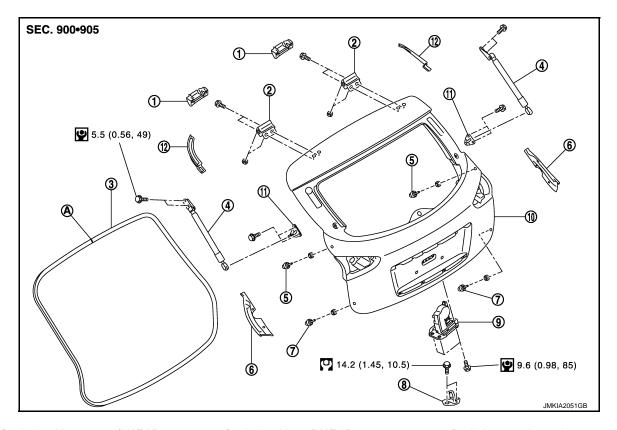
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## BACK DOOR WEATHER-STRIP : Exploded View

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- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (lower) (LH/RH)
- 10. Back door assembly
- A : Center mark

- 2. Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- 8. Back door striker
- 11. Stud ball assembly (LH/RH)
- 3. Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- 9. Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

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BACK DOOR WEATHER-STRIP: Removal and Installation

#### **REMOVAL**

Pull up and remove engagement with body from weather-strip joint.

#### **CAUTION:**

#### Never pull strongly on weather-strip.

Refer to GI-4, "Components" for symbols in the figure.

#### INSTALLATION

- 1. Working from the upper section, align weather-strip mark with vehicle center position mark and install weather-strip onto the vehicle.
- 2. For the lower section, align weather-strip seam with center of back door striker.
- 3. Pull weather-strip gently to ensure that there is no loose section. **NOTE:**

Check that weather-strip is fit tightly at each corner and luggage rear plate.

Install mounting bolts of power back door drive assembly (Back door side).

## **HOOD LOCK**

**Exploded View** 

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- 1. Hood striker (LH/RH)
- Secondary latch
- Hood lock control cable protector cover
- 2. Hood lock cover (LH/RH) 5.
- Hood lock control cable (front)
- Hood lock control cable (rear)
- 3. Hood lock (LH/RH)
- 6. Hood lock control cable protector
- Hood lock opener

( ) : Clip

Refer to GI-4, "Components" for symbols in the figure.

#### Removal and Installation

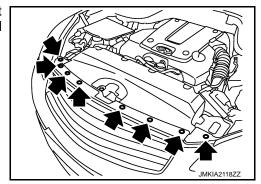
#### **REMOVAL**

#### **CAUTION:**

#### Check wiring of hood lock control before removal.

Remove mounting clips, of front grille upper side and front bumper fascia. Refer to EXT-20, "Removal and Installation" and EXT-13, "Removal and Installation".

: Clip



- 2. Remove mounting bolts of hood lock cover.
- 3. Disconnect harness clip and hood lock cable from hood lock cover.
- Remove hood lock cover.

**DLK-245** Revision: 2010 March 2009 EX35

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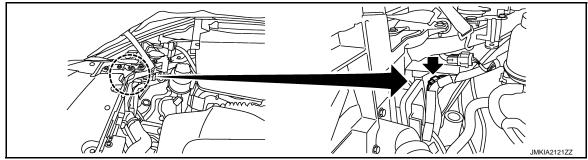
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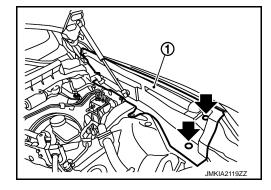
- 5. Remove air cleaner case assembly (LH). Refer to EM-27, "Removal and Installation".
- 6. Disconnect hood lock switch connector from head lamp bracket (RH).



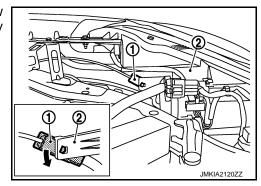
: hood lock switch connector

- 7. Remove mounting bolts and remove hood lock bracket (LH/RH).
- 8. Disconnect hood lock cable from hood lock (LH/RH).
- 9. Disassembly hood lock from hood lock bracket (LH/RH).
- 10. Remove fender protector (LH). Refer to EXT-25, "FENDER PROTECTOR: Removal and Installation".
- 11. Remove clips of hood seal assembly (side) (LH) (1).

= : Clip



12. Rotate hood lock control cable protector (1) toward the arrow direction, then remove it from front combination lamp assembly (2).



- 13. Remove hood lock control cable cover from hood lock control cable protector.
- 14. Disconnect hood lock control cable from hood lock control cable protector.
- 15. Remove mounting bolts and remove hood lock opener.
- 16. Remove grommet on the lower dash, pull hood lock control cable toward the passenger compartment. CAUTION:

While pulling, never to damage (peeling) the outside of the hood lock control cable.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

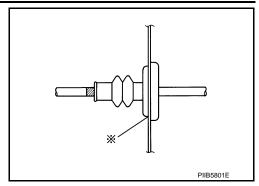
Never to bend cable too much, keeping the radius 100 mm (3.937 in) or more.

#### **HOOD LOCK**

#### < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

 Check that cable is not offset from the positioning grommet, and apply the sealant to the grommet (at \* mark) properly.



- Check that hood lock control cable is properly engaged with hood lock.
- After installation, perform hood fitting adjustment. Refer to <u>DLK-217, "HOOD ASSEMBLY: Adjustment"</u>.
- After installation, perform hood lock control inspection. Refer to <u>DLK-247</u>, "Inspection".

Inspection INFOID:000000004343620

#### NOTE:

If the hood lock cable is bent or deformed, replace it.

- 1. Check that secondary latch is properly engaged with secondary striker [6.8 mm (0.268 in)] by hood weight.
- 2. While operating hood opener, carefully check that the front end of hood is raised by approximately 20.0 mm (0.787 in). Also check that hood opener returns to the original position.
- 3. Check that hood opener operating is condition 49 N (5.0 kg, 11.0 lb) or below.
- 4. Install so that static closing force of hood is 94 − 490 N·m (9.6 − 50.0 kg-m, 69 − 361 ft − lb). **NOTE:** 
  - Exert vertical force on right side and left side of hood lock.
  - Never press simultaneously both sides.
- 5. Check the hood lock lubrication condition. If necessary, apply body grease to hood lock.

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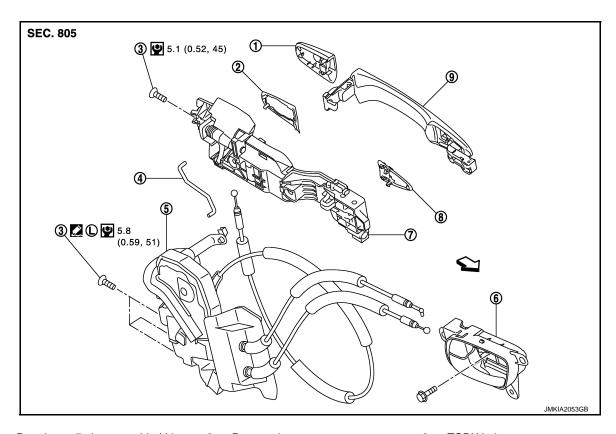
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## FRONT DOOR LOCK DOOR LOCK

DOOR LOCK: Exploded View

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- Door key cylinder assembly (driver
  - Outside handle escutcheon (passenger side)
- Key rod (driver side)
- Outside handle bracket

Rear gasket

- TORX bolt
- Inside handle Outside handle

- 8.
- Front gasket

Door lock assembly

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□ : Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

#### DOOR LOCK: Removal and Installation

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#### REMOVAL

- Remove front door finisher. Refer to INT-11, "DRIVER SIDE: Removal and Installation" (driver side) or INT-14, "PASSENGER SIDE: Removal and Installation" (passenger side).
- 2. Remove front door glass. Refer to GW-16, "Removal and Installation".
- Remove front door module assembly. Refer to GW-19, "Removal and Installation".
- Disconnect door antenna and door request switch connector and remove harness clamp (with Intelligent Key system model) on outside handle bracket.

## FRONT DOOR LOCK

#### < REMOVAL AND INSTALLATION >

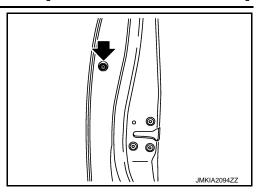
## [INTELLIGENT KEY SYSTEM]

Remove door side grommet, and loosen TORX bolt from grommet hole.

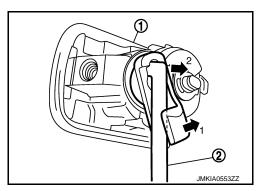
#### **CAUTION:**

**Never remove TORX bolt forcibly.** 

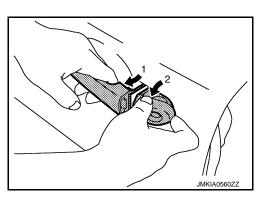
= : TORX bolt



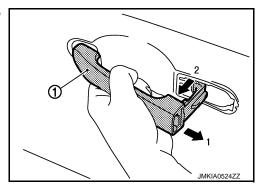
6. Reach in to separate key rod (2) connection [on the door key cylinder assembly (1)] (driver side).



7. While pulling outside handle, remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



8. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



9. Remove front gasket and rear gasket.

Revision: 2010 March **DLK-249** 2009 EX35

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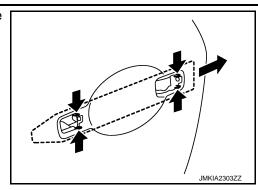
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#### [INTELLIGENT KEY SYSTEM]

10. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.



- 11. Reach in to separate outside handle cable connection on outside handle bracket.
- 12. Remove door lock assembly TORX bolts.
- 13. Disconnect door lock actuator connector, and then remove door lock assembly.
- 14. Remove key rod from door lock assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

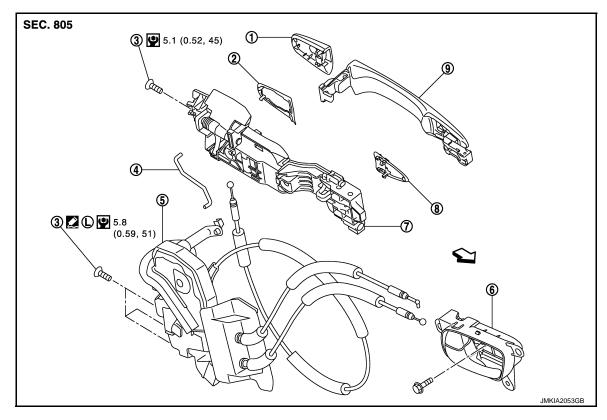
#### **CAUTION:**

- . When installing each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

## **INSIDE HANDLE**

**INSIDE HANDLE: Exploded View** 

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- Door key cylinder assembly (driver side)
  - Outside handle escutcheon (passenger side)
- 4. Key rod (driver side)

TORX bolt

- Door lock assembly

Rear gasket

Inside handle

- Outside handle bracket
- 8. Front gasket

Outside handle 9.

Refer to GI-4, "Components" for symbols in the figure.

## INSIDE HANDLE: Removal and Installation

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#### **REMOVAL**

- 1. Remove front door finisher. Refer to <a href="INT-11">INT-11</a>, "PASSENGER SIDE: Removal and Installation" (driver side) or <a href="INT-14">INT-14</a>, "PASSENGER SIDE: Removal and Installation" (passenger side).
- 2. Disconnect inside handle cable, and then remove the inside handle.
- 3. Remove inside handle mounting screws.

#### **INSTALLATION**

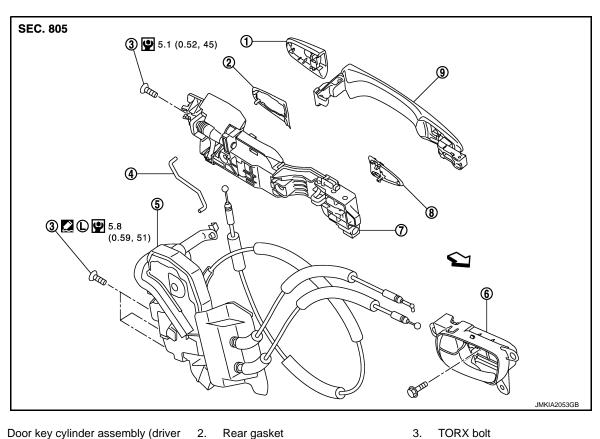
Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation.

**OUTSIDE HANDLE** 

**OUTSIDE HANDLE: Exploded View** 



- Door key cylinder assembly (driver side)
  - Outside handle escutcheon (passenger side)
- 4. Key rod (driver side)
- 5. Door lock assembly
- Outside handle bracket 8. Front gasket
- t gasket
- 9. Outside handle

Inside handle

: Vehicle front

Refer to GI-4, "Components" for symbols in the figure.

#### OUTSIDE HANDLE: Removal and Installation

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Revision: 2010 March **DLK-251** 2009 EX35

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## FRONT DOOR LOCK

#### < REMOVAL AND INSTALLATION >

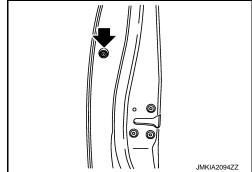
#### [INTELLIGENT KEY SYSTEM]

- 1. Remove front door finisher. Refer to <a href="INT-11">INT-11</a>, "PASSENGER SIDE: Removal and Installation" (passenger side).
- 2. Remove front door glass. Refer to GW-16, "Removal and Installation".
- 3. Remove front door module assembly. Refer to GW-19, "Removal and Installation".
- 4. Disconnect door antenna and door request switch connector and remove harness clamp (models with Intelligent Key system) on outside handle bracket.
- Remove door side grommet, and loosen TORX bolt from grommet hole.

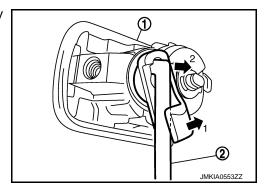
#### **CAUTION:**

Never remove TORX bolt forcibly.

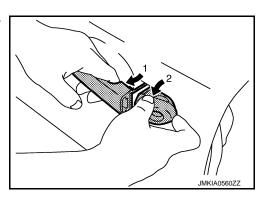
=: TORX bolt



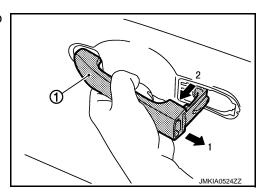
6. Reach in to separate key rod (2) connection [on the door key cylinder assembly (1)] (driver side).



7. While pulling outside handle, remove door key cylinder assembly (driver side) or outside handle escutcheon (passenger side).



8. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



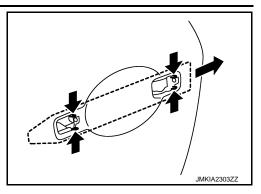
9. Remove front gasket and rear gasket.

#### FRONT DOOR LOCK

## < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

10. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.



11. Reach in to separate outside handle cable connection on outside handle bracket.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- When installing each rod, rotate rod holder until a click is felt.
- Check door open/close, lock/unlock operation after installation.

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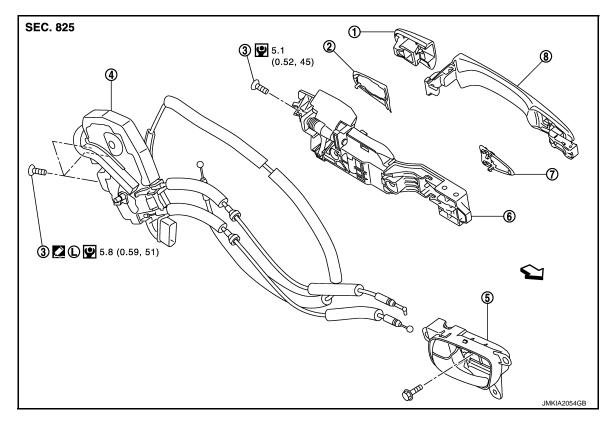
# **REAR DOOR LOCK**

DOOR LOCK

DOOR LOCK: Exploded View

INFOID:0000000004343627

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- 1. Outside handle escutcheon
- 4. Door lock assembly
- 7. Front gasket
- ⟨□ : Vehicle front

- 2. Rear gasket
- 5. Inside handle
- 8. Outside handle

- 3. TORX bolt
- Outside handle bracket

Refer to  $\underline{\mbox{GI-4, "Components"}}$  for symbols in the figure.

# DOOR LOCK: Removal and Installation

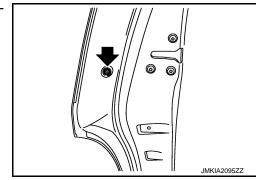
#### **REMOVAL**

- 1. Remove rear door finisher. Refer to <a href="INT-17">INT-17</a>, "Removal and Installation".
- 2. Remove sealing screen. Refer to GW-22, "Removal and Installation".
- 3. Fully close the rear door glass.
- 4. Remove door side grommet, and loosen TORX bolt from grommet hole.

#### **CAUTION:**

Never remove TORX bolt forcibly.

= : TORX bolt

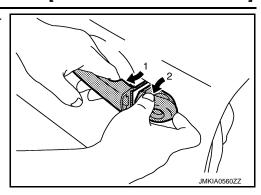


#### **REAR DOOR LOCK**

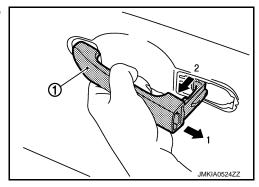
#### < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

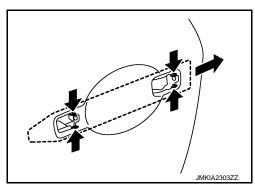
While pulling outside handle, remove outside handle escutcheon



6. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.



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- 9. Reach in to separate outside handle cable connection on outside handle bracket.
- 10. Remove door lock mounting bolts.
- 11. Remove door lock assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

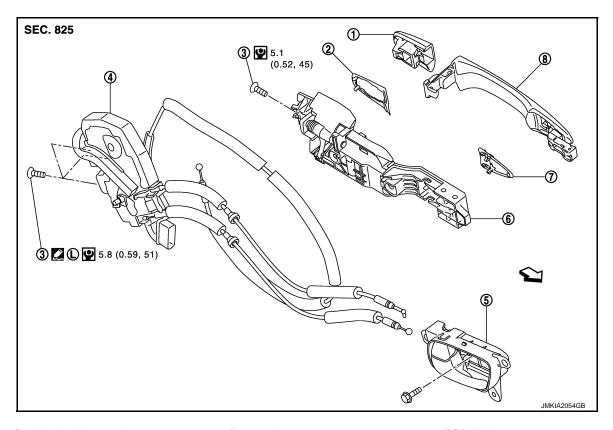
#### **CAUTION:**

Check door open/close, lock/unlock operation after installation. INSIDE HANDLE

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# INSIDE HANDLE: Exploded View



- Outside handle escutcheon
- Door lock assembly
- Front gasket

- Rear gasket
- Inside handle 5.
- 8. Outside handle

- 3. TORX bolt
- Outside handle bracket

Refer to GI-4, "Components" for symbols in the figure.

#### INSIDE HANDLE: Removal and Installation

#### **REMOVAL**

- 1. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
- Disconnect inside handle cable, and then remove inside handle.
- Remove inside handle mounting screws.

#### **INSTALLATION**

Install in the reverse order of removal.

**CAUTION:** 

Check door open/close, lock/unlock operation after installation. **OUTSIDE HANDLÉ** 

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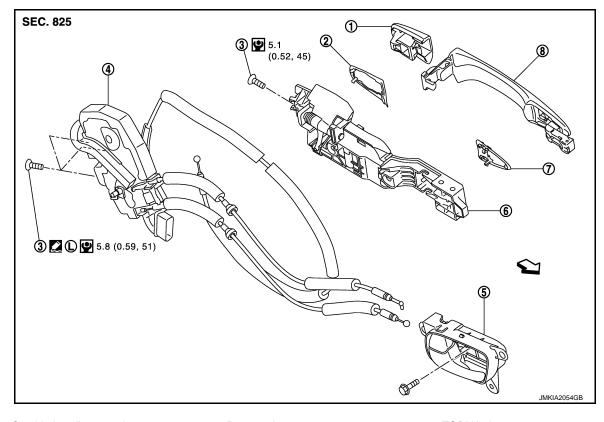
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# **OUTSIDE HANDLE: Exploded View**



- 1. Outside handle escutcheon
- 4. Door lock assembly
- 7. Front gasket
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  ⇒ : Vehicle front

- 2. Rear gasket
- 5. Inside handle
- 8. Outside handle

- 3. TORX bolt
- 6. Outside handle bracket

Refer to  $\underline{\mbox{GI-4. "Components"}}$  for symbols in the figure.

#### **OUTSIDE HANDLE: Removal and Installation**

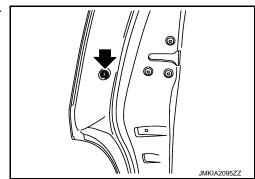
Remove door side grommet, and loosen TORX bolt from grommet hole.

**CAUTION:** 

**REMOVAL** 

Never remove TORX bolt forcibly.

= : TORX bolt



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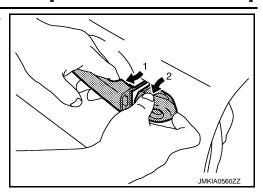
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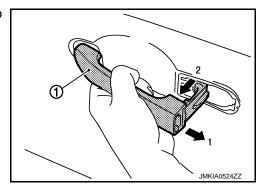
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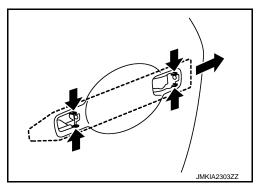
2. While pulling outside handle, remove outside handle escutcheon



3. While pulling outside handle (1), slide toward rear of vehicle to remove outside handle.



- 4. Remove rear door finisher. Refer to INT-17, "Removal and Installation".
- 5. Remove sealing screen. Refer to GW-22, "Removal and Installation".
- 6. Fully close rear door glass.
- 7. Remove front gasket and rear gasket.
- 8. While pulling outside handle bracket, slide toward rear of vehicle to remove outside handle bracket.



9. Reach in to separate outside handle cable connection on outside handle bracket.

#### INSTALLATION

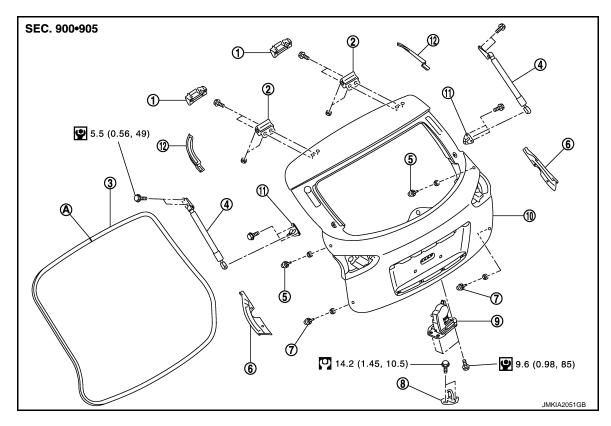
Install in the reverse order of removal.

#### **CAUTION:**

Check door open/close, lock/unlock operation after installation.

# BACK DOOR LOCK

Exploded View



- 1. Back door hinge cover (LH/RH)
- 4. Back door stay (LH/RH)
- 7. Bumper rubber (lower) (LH/RH)
- 10. Back door assembly
- A : Center mark
- Refer to GI-4, "Components" for symbols in the figure.
- 2. Back door hinge (LH/RH)
- 5. Bumper rubber (side) (LH/RH)
- 8. Back door striker
- 11. Stud ball assembly (LH/RH)
- 3. Back door weather-strip
- 6. Back door seal (side) (LH/RH)
- 9. Back door lock assembly
- 12. Back door seal (upper) (LH/RH)

### Removal and Installation

**REMOVAL** 

- Remove back door finisher inner. Refer to <u>INT-38</u>, "Removal and Installation".
- 2. Disconnect back door lock assembly and back door opener switch connectors.
- 3. Remove back door lock mounting bolts, and then remove back door lock assembly.

#### **INSTALLATION**

Install in the reverse order of removal.

**CAUTION:** 

Check back door open/close, lock/unlock operation after installation.

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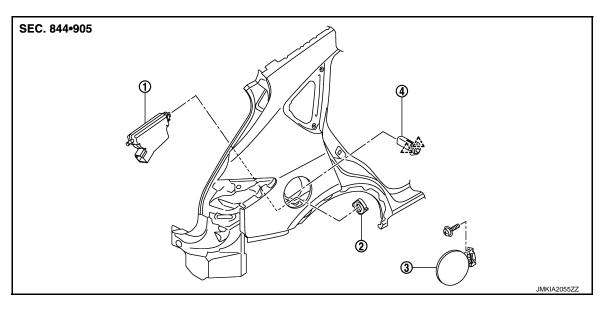
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# **FUEL FILLER LID OPENER**

Exploded View



- 1. Fuel filler lid opener actuator
- 2. Lock nut

3. Fuel filler lid assembly

Lock and cable assembly

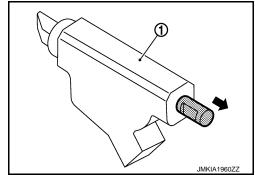


#### Removal and Installation

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#### NOTE:

When fuel filler lid opener actuator (1) is a defective operation, pull the rod to open fuel filler lid.



#### **REMOVAL**

- 1. Remove mounting screws, and then remove fuel filler lid.
- 2. Pull and remove lock & cable assembly forward, while pushing the pawls.
- 3. Rotate lock nut counterclockwise, and then remove lock nut.
- 4. Push fuel filler lid opener actuator behind the vehicle, while pushing the pawl.
- 5. Remove luggage side finisher lower (RH). Refer to <a href="INT-35">INT-35</a>, "Removal and Installation".
- 6. Disconnect harness connector and remove fuel filler lid opener actuator.

#### **INSTALLATION**

Install in the reverse order of removal.

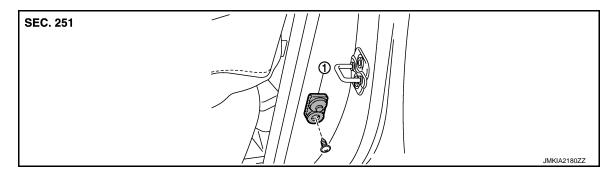
#### **CAUTION:**

After installation, apply the touch-up paint (the body color) onto the head of the mounting screws.

#### [INTELLIGENT KEY SYSTEM]

# **DOOR SWITCH**

Exploded View

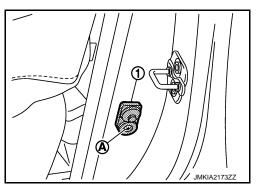


1. Door switch

**REMOVAL** 

#### Removal and Installation

1. Remove the door switch mounting screw (A), and then remove door switch (1).



#### **INSTALLATION**

Install in the reverse order of removal.

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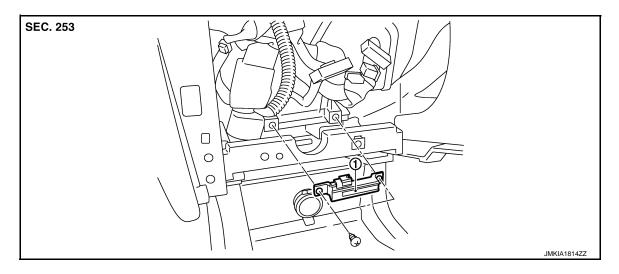
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# INSIDE KEY ANTENNA INSTRUMENT CENTER

**INSTRUMENT CENTER:** Exploded View

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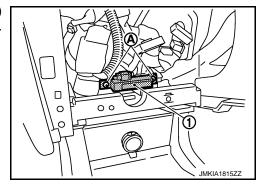
1. Inside key antenna (instrument center)

### **INSTRUMENT CENTER:** Removal and Installation

INFOID:0000000004343640

#### **REMOVAL**

- 1. Remove the console finisher assembly. Refer to IP-23. "Removal and Installation".
- 2. Remove the key antenna mounting screw (instrument center) (A), and then remove inside key antenna (instrument center) (1).



#### **INSTALLATION**

Install in the reverse order of removal.

CONSOLE

**CONSOLE**: Exploded View

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Refer to IP-23, "Exploded View".

**CONSOLE**: Removal and Installation

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#### **REMOVAL**

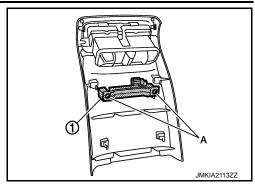
1. Remove the console pocket and rear finisher. Refer to IP-23, "Removal and Installation".

#### **INSIDE KEY ANTENNA**

#### < REMOVAL AND INSTALLATION >

#### [INTELLIGENT KEY SYSTEM]

2. Remove the inside key antenna mounting screw (A), and then remove inside key antenna (console) (1).



**INSTALLATION** 

Install in the reverse order of removal.

LUGGAGE ROOM

LUGGAGE ROOM: Exploded View

Refer to INT-34, "Exploded View".

**LUGGAGE ROOM:** Removal and Installation

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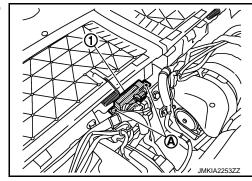
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**REMOVAL** 

1. Remove the luggage floor finisher front. Refer to <a href="INT-35">INT-35</a>, "Removal and Installation".

2. Remove the inside key antenna (luggage room) mounting clip (A), and then remove inside key antenna (luggage room) (1).



**INSTALLATION** 

Install in the reverse order of removal.

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#### **OUTSIDE KEY ANTENNA**

< REMOVAL AND INSTALLATION >

[INTELLIGENT KEY SYSTEM]

**OUTSIDE KEY ANTENNA** 

**DRIVER SIDE** 

DRIVER SIDE: Exploded View

INFOID:0000000004343645

Refer to DLK-251, "OUTSIDE HANDLE: Exploded View".

DRIVER SIDE: Removal and Installation

INFOID:0000000004343646

**REMOVAL** 

Remove the front outside handle LH. Refer to <u>DLK-251</u>, "OUTSIDE HANDLE: Removal and Installation".

INSTALLATION

Install in the reverse order of removal.

PASSENGER SIDE

PASSENGER SIDE: Exploded View

INFOID:0000000004343647

Refer to DLK-251, "OUTSIDE HANDLE: Exploded View".

PASSENGER SIDE: Removal and Installation

INFOID:0000000004343648

**REMOVAL** 

Remove the front outside handle RH. Refer to <u>DLK-251</u>, "OUTSIDE HANDLE: Removal and Installation".

**INSTALLATION** 

Install in the reverse order of removal.

**BACK DOOR** 

**BACK DOOR: Exploded View** 

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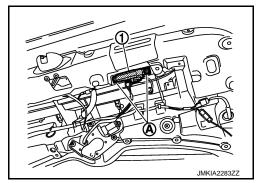
Refer to INT-38, "Exploded View".

BACK DOOR: Removal and Installation

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#### **REMOVAL**

- 1. Remove the back door finisher inner. Refer to EXT-48, "Removal and Installation".
- 2. Remove the outside key antenna (back door) mounting bolts (A), and then remove outside key antenna (back door) (1).



#### **INSTALLATION**

Install in the reverse order of removal.

#### INTELLIGENT KEY WARNING BUZZER

< REMOVAL AND INSTALLATION >

[INTELLIGENT KEY SYSTEM]

# INTELLIGENT KEY WARNING BUZZER

**Exploded View** INFOID:0000000004343651

Refer to EXT-12, "Exploded View".

Removal and Installation

#### INFOID:0000000004343652

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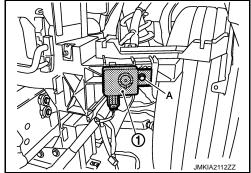
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#### **REMOVAL**

- Remove the fender protector. Refer to EXT-25, "FENDER PRO-TECTOR: Removal and Installation".
- 2. Remove the Intelligent Key warning buzzer mounting bolt (A), and then remove the Intelligent Key warning buzzer (1).



#### **INSTALLATION**

Install in the reverse order of removal.

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#### [INTELLIGENT KEY SYSTEM]

# **KEY SLOT**

Exploded View

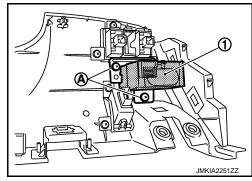
Refer to IP-12, "Exploded View".

Removal and Installation

#### INFOID:0000000004343654

#### **REMOVAL**

- 1. Remove the instrument lower panel LH (2). Refer to <a href="IP-13">IP-13</a>, "Removal and Installation".
- 2. Disconnect key slot connector.
- 3. Remove the key slot mounting screw (A), and then remove key slot (1).



#### **INSTALLATION**

Install in the reverse order of removal.

#### REMOTE KEYLESS ENTRY RECEIVER

< REMOVAL AND INSTALLATION >

[INTELLIGENT KEY SYSTEM]

# REMOTE KEYLESS ENTRY RECEIVER

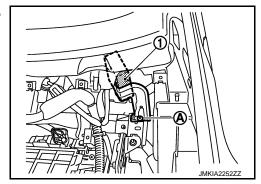
Exploded View

Refer to IP-12, "Exploded View".

Removal and Installation

#### **REMOVAL**

- 1. Remove the instrument lower panel RH. Refer to IP-13, "Removal and Installation".
- 2. Remove the remote keyless entry receiver mounting screw (A), and then remove remote keyless entry receiver (1).



#### **INSTALLATION**

Install in the reverse order of removal.

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Revision: 2010 March **DLK-267** 2009 EX35

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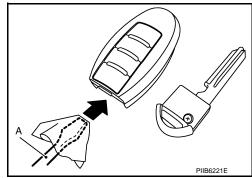
#### INTELLIGENT KEY BATTERY

#### Removal and Installation

- Release the lock knob at the back of the Intelligent Key and remove the mechanical key.
- Insert a flat-blade screwdriver (A) wrapped with a cloth into the slit of the corner and twist it to separate the upper part from the lower part.

#### **CAUTION:**

- Do not touch the circuit board or battery terminal.
- The key fob is water-resistant. However, if it does get wet, immediately wipe it dry.



3. Replace the battery with new one.

**Battery replacement** 

:Coin-type lithium battery (CR2025)

4. Align the tips of the upper and lower parts, and then push them together until it is securely closed.

#### **CAUTION:**

- When replacing battery, keep dirt, grease, and other foreign materials off the electrode contact area.
- After replacing the battery, check that all Intelligent Key functions work normally.

