WC SECTION POWER WINDOW CONTROL SYSTEM

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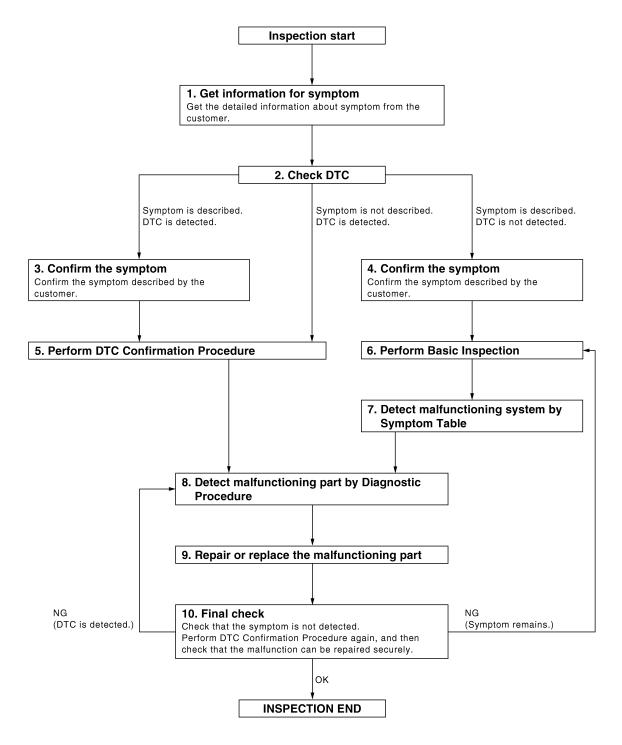
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007422821

OVERALL SEQUENCE



< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM	Λ
Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).	A
>> GO TO 2	В
2. CHECK DTC	
 Check DTC. Perform the following procedure if DTC is displayed. Record DTC and freeze frame data (Print them out with CONSULT.) Erase DTC. 	C
 Study the relationship between the cause detected by DTC and the symptom described by the customer. Check related service bulletins for information. 	
Is any symptom described and any DTC detected?	Е
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	F
3. CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT 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.	G
>> GO TO 5	Н
4. CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT 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	J
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 to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-65</u> , " <u>DTC Inspection Priority Chart</u> " and determine trouble	PWC
diagnosis order. NOTE:	L
 Freeze frame data is useful if the DTC is not detected. 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. 	Μ
Is DTC detected?	Ν
YES >> GO TO 8 NO >> Refer to <u>GI-42, "Intermittent Incident"</u> .	
6. PERFORM BASIC INSPECTION	0
Perform <u>PWC-8, "Work Flow"</u> .	
Inspection End>>GO TO 7	Ρ
7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE	

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

$\mathbf{8}$. 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.

Is malfunctioning part detected?

YES >> GO TO 9

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

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 10

10. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have 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 8 YES (Symptom remains)>>GO TO 6 NO >> Inspection End.

[LH ONLY ANTI-PINCH-SEDAN] < BASIC INSPECTION > INSPECTION AND ADJUSTMENT А ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De-В scription INFOID:000000007422822 Initial setting is necessary when battery terminal is disconnected. CAUTION: The following specified operations are not performed under the non-initialized condition. Auto-up operation Anti-pinch function D Retained power operation ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Spe-Ε cial Repair Requirement INFOID:000000007422823 INITIALIZATION PROCEDURE F Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or 1. more. Turn ignition switch ON. 2. 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open) Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more. Н 5. Inspect anti-pinch function. CHECK ANTI-PINCH FUNCTION 1. Fully open the door window. Place a piece of wood near fully closed position. 2. Close door glass completely with AUTO-UP. 3. Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops. Check that glass does not rise when operating the power window main switch while lowering. CAUTION: Do not check with hands and other part of body because they may be pinched. Do not get pinched. Check that AUTO-UP operates before inspection when system initialization is performed. PWC It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-46, "Fail Safe". · Perform initial setting when auto-up operation or anti-pinch function does not operate normally. L • Finish initial setting. Otherwise, next operation cannot be done. 1. Auto-up operation Anti-pinch function 2. 3. Retained power operation when ignition switch is OFF. M ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description Ν INFOID:000000007422824 Initial setting is necessary when replacing power window main switch. CAUTION: The following specified operations are not performed under the non-initialized condition. Auto-up operation Anti-pinch function Ρ Retained power operation ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement INFOID:000000007422825

INSPECTION AND ADJUSTMENT

INITIALIZATION PROCEDURE

1. Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or more.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
- 5. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>PWC-46</u>, "Fail Safe".
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Retained power operation when ignition switch is OFF.

[LH ONLY ANTI-PINCH-SEDAN]

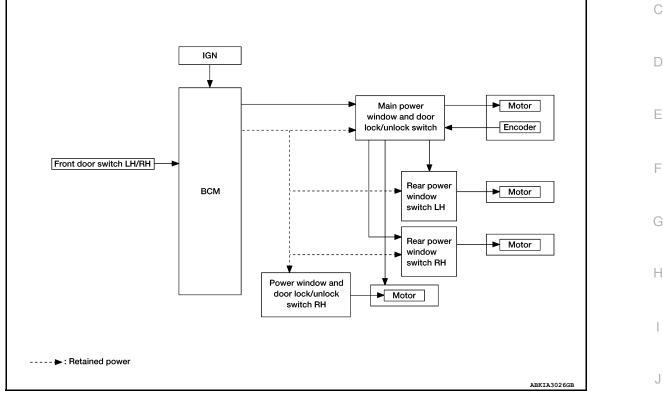
А

SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram

INFOID:000000007422826

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM



System Description

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator
Encoder	Encoder pulse signal		
Main power window and door lock/unlock switch	Front power window motor LH UP/		Front power window motor
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	Power window control	From power window motor
BCM	RAP signal		
Rear power window switch	Rear power window motor UP/DOWN signal		Rear power window motor

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PWC

POWER WINDOW OPERATION

- Power window system is operable during the retained power operation timer after turning ignition switch ON and OFF.
- · Main power window and door lock/unlock switch can open/close all windows.
- Front & rear power window switches can open/close the corresponding windows.

POWER WINDOW AUTO-OPERATION (FRONT LH)

INFOID:000000007422827

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

- AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits to main power window and door lock/unlock switch as the encoder pulse signal while power window motor is operating.
- Main power window and door lock/unlock switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.

RETAINED POWER OPERATION

 Retained power operation is an additional power supply function that enables power window system to operate during the 45 seconds even when ignition switch is turned OFF

Retained power function cancel conditions

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON.
- When timer time passes. (45 seconds)

POWER WINDOW LOCK

Ground circuit inside main power window and door lock/unlock switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the main power window and door lock/ unlock switch.

ANTI-PINCH OPERATION (FRONT LH)

- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 150 mm or 2 seconds when detected.
- Encoder continues detecting the movement of power window motor and transmits to main power window and door lock/unlock switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the window glass for 150 mm or 2 seconds after it detects encoder pulse signal frequency change.

OPERATION CONDITION

• When door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NŎTE:

Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.

POWER WINDOW SYSTEM

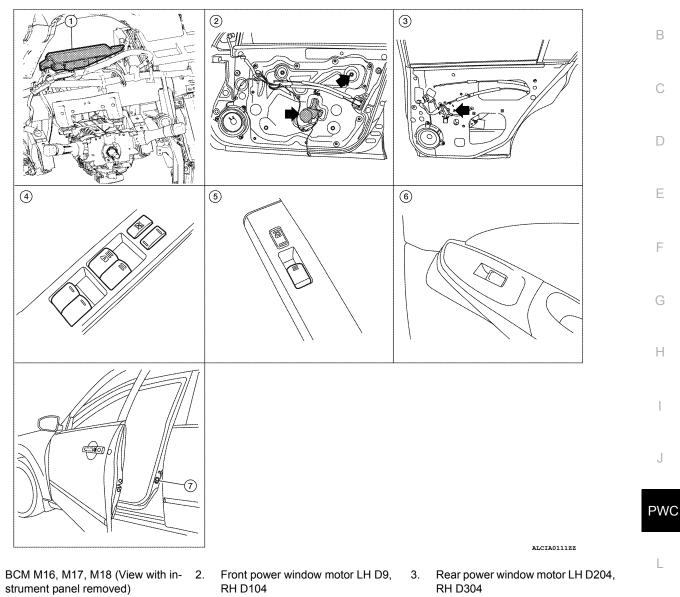
< SYSTEM DESCRIPTION >

Component Parts Location

[LH ONLY ANTI-PINCH-SEDAN]

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- Main power window and door lock/ 4. 5. unlock switch D7, D8
- 7. Front door switch LH B8, RH B108

Component Description

1.

- Power window and door lock/unlock 6. switch RH D105
- Rear power window switch LH D203, RH D303

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FRONT POWER WINDOW LH ANTI-PINCH SYSTEM

Component	Function	
ВСМ	Supplies power supply to power window switch.Controls retained power.	P
Main power window and door lock/un- lock switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of front power window LH.	
Power window and door lock/unlock switch RH	Controls front power window motor RH.	
Rear power window switch	Controls rear power window motors LH and RH.	

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

Component	Function
Front power window motor LH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch. Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch.
Front power window motor RH	Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH.
Rear power window motor	Starts operating with signals from main power window and door lock/unlock switch & rear power window switch.
Front door switch LH or RH	Detects door open/close condition and transmits to BCM.

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : Diagnosis Description

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.	
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.	
DATA MONITOR	The BCM input/output signals are displayed.	
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.	
ECU IDENTIFICATION	The BCM part number is displayed.	
CONFIGURATION	This function is not used even though it is displayed.	

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.

Sustem	Sub aveter adjustion item		Diagnosis mode			
System	Sub system selection item	WORK SUPPORT	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		×		-	
Exterior lamp	HEAD LAMP	×	×	×	P	
Wiper and washer	WIPER	×	×	×		
Turn signal and hazard warning lamps	FLASHER	×	×	×	_	
Air conditioner	AIR CONDITONER		×		_	
Intelligent Key system	INTELLIGENT KEY	×	×	×	_	
Combination switch	COMB SW		×		-	
BCM	BCM	×			_	
Immobilizer	IMMU		×	×	_	
Interior room lamp battery saver	BATTERY SAVER	×	×		-	
Trunk open	TRUNK		×	×	_	
Vehicle security system	THEFT ALM	×	×	×	_	
RAP system	RETAINED PWR		×		_	
Signal buffer system	SIGNAL BUFFER		×	×	_	
TPMS	AIR PRESSURE MONITOR	×	×	×	_	

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000007724087

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-67. "DTC Index"</u>.

Revision: February 2013

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INFOID:000000007629412

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000007629413

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [ON/OFF]	Indicates condition of front door switch LH.
DOOR SW-AS [ON/OFF]	Indicates condition of front door switch RH.

	_		SUPP	LY AND GR	ROUNE	_	
< DTC/CIRCUI						[LH ONLY ANTI-PINCH-SEDAN]	
DTC/CIF		_		_	_		А
POWER S	UPPLY AN	D GR	OUN		Т		
BCM							В
BCM : Diagr	nosis Proced	dure				INFOID:000000007629467	
							С
	ng Diagram info	ormatior	, refer	to <u>BCS-70, "Wi</u>	iring Dia	gram - Coupe" or <u>BCS-79, "Wiring Dia-</u>	0
<u>gram - Sedan"</u> .							D
1. CHECK FU	SE AND FUSIE		(D
Check if the foll				are blown.			_
		0 01 100			_		E
Terminal No.	Signal n	ame	Fuse a	nd fusible link No.	-		
1	Battery powe	er supply		H	_		F
11 Is the fuse or fu	sible link blown	2		10	-		
			fusible	link after repair	ing the a	iffected circuit.	G
NO >> GO	TO 2				0		
2. CHECK PO		CIRCUI	Т				Н
 Turn ignitio Disconnect 	n switch OFF.						
		CM harn	ess cor	nnector and gro	und.		
	T				-		
(-	Terminals +)	(-	-)				.1
	CM	(/	Voltage (Approx.)			0
Connector	Terminal	Cro	und				PW
M16	1	GIU	und	Battery voltage	-	alcia0025zz	FVV
M17	11			Dano, Fonago	-		
Is the measurer YES >> GC							L
	pair or replace	harness					
3. CHECK GR	OUND CIRCUI	Т					M
Check continuit	y between BCN	/I harnes	s conn	ector and groun	nd.		
BC	CM				-		Ν
Connector	Terminal	Gro	und	Continuity			
M17	13			Yes	-		0
Does continuity	exist?						
	pection End. pair or replace	harnoss				•	Р
		ancos				÷	
BCM · Snec	ial Renair P	equire	ment			ALCIA0024ZZ	
BCM : Special Repair Requirement							
1. REQUIRED	WORK WHEN	REPLA	CING	ВСМ			

< DTC/CIRCUIT DIAGNOSIS >

Initialize control unit. Refer to BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

>> Work End. POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

· BCM supplies power.

 It operates each power window motor via corresponding power window switch and makes window move up/ down when main power window and door lock/unlock switch is operated.

POWER WINDOW MAIN SWITCH : Component Function Check

Main Power Window And Door Lock/unlock Switch

 $\mathsf{1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch. Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.

>> Refer to PWC-20, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure". NO

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-77, "Wiring Diagram - Sedan With Left Front Only Power Window Anti-Pinch System".

Main Power Window And Door Lock/unlock Switch Power Supply Circuit Check

- 1. CHECK POWER SUPPLY CIRCUIT
- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ 2. unlock switch connectors (A and B) and ground.

Ter	minal		
(+)			Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	()	(Approx.)
D7 (A)	10	Ground	Battery voltage
D8 (B)	19	Giouna	Ballery vollage

10 10.19 QN ALKIA0273ZZ

Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

[LH ONLY ANTI-PINCH-SEDAN]

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INFOID:000000007422836

INFOID:000000007422834

< DTC/CIRCUIT DIAGNOSIS >

Turn ignition switch OFF. 1.

- 2. Disconnect BCM, main power window and door lock/unlock switch, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- 3. Check continuity between BCM connector (A) and main power window and door lock/unlock switch connectors (B and C).

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M16 (A)	3	D7 (B)	10	Yes
	2	D8 (C)	19	163

Check continuity between BCM connector and ground. 4.

BCM connector	Terminal		Continuity
M16 (A)	3	Ground	No
	2		NO

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

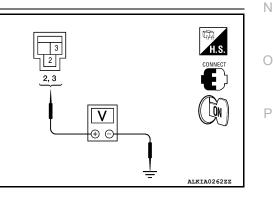
- 3. CHECK GROUND CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ 3. unlock switch connector and ground.

Main power window and door lock/un- lock switch connector	Terminal	Ground	Continuity
D8	17		Yes

Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 8
- NO >> Repair or replace harness.
- CHECK BCM OUTPUT SIGNAL
- 1. Connect BCM.
- Turn ignition switch ON. 2.
- Check voltage between BCM connector and ground. 3.

Tern			
(+)		()	Voltage (V) (Approx.)
BCM connector	Terminal	()	
M16	3	Ground	Battery voltage
W TO	2	Ground	Ballery Vollage



Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace BCM. Refer to BCS-92, "Removal and Installation".

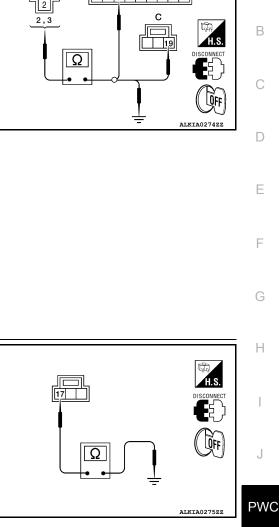
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< DTC/CIRCUIT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

5. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH LH)

1. Connect main power window and door lock/unlock switch.

- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch and ground.

Ten	ninal				
(+)	(+)		Window switch	Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(–)	position (rear LH)	(Approx.)	
	1		UP	Battery voltage	
D7		Ground	DOWN	0	
07	3	Ground	UP	0	
5			DOWN	Battery voltage	

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98, "Removal and Instal-</u> lation".

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH RH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch and ground.

Те	rminal			
(+)			Window switch	Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	(–)	position (rear RH)	(Approx.)
	7		UP	Battery voltage
D12	ľ	Ground	DOWN	0
012	E	Ground	UP	0
5			DOWN	Battery voltage

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98</u>, "<u>Removal and Instal-</u><u>lation</u>".

7. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH LH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch and ground.

< DTC/CIRCUIT DIAGNOSIS >

Ter	Terminal			
(+)			Window switch	Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	(–)	position (front LH)	(Approx.)
	16		UP	Battery voltage
D7	10	Ground	DOWN	0
זט	12	Ground	UP	0
	12		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98, "Removal and Instal-</u> E <u>lation"</u>.

8. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH RH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch and ground.

Terminal				
(+)			Window switch Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(—)	position (front RH)	(Approx.)
	11		UP	Battery voltage
D7		Ground	DOWN	0
Di	8	Ground	UP	0
	0		DOWN	Battery voltage
s the measuremen	t value with	in the spe	cification?	

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98, "Removal and Instal-</u><u>lation"</u>.

POWER WINDOW MAIN SWITCH : Component Inspection

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

1. Check main power window and door lock/unlock switch.

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< DTC/CIRCUIT DIAGNOSIS >

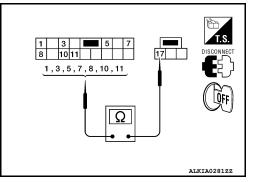
Terr	minal	Main power window and door lock/unlock switch condition		Continuity	
10	1	Rear LH			
10	7	Rear RH	UP	-	
10	8	Front RH			
1	3	Rear LH			
5	7	Rear RH	NEUTRAL	Yes	
8	11	Front RH	*	165	
10	3	Rear LH			
10	5	Rear RH	DOWN		
10	11	Front RH	*		
17	2		-		

2. Check continuity between main power window and door lock/ unlock switch (power window lock switch) (Lock operation).

Terr	ninal	Main power window and door lock/unlock switch condition		Continuity
3		Rear LH		
5		Rear RH	UP	
11		Front RH		
1		Rear LH		
3		Redi Lh		
5	17	Rear RH	NEUTRAL	No
7	17	Real RH	NEOTIAL	NO
8		Front RH		
11				
1		Rear LH		
7		Rear RH	DOWN	
8		Front RH		

Check continuity between main power window and door lock/ 3. unlock switch (power window lock switch) (Unlock operation).

Tern	ninal	Main power window and door lock/un- lock switch condition		Continuity
3		Rear LH		
5		Rear RH	UP	
11		Front RH	_	
1		Rear LH		Yes
3		Real LH		
5	17	Deer DU	NEUTRAL	
7	17	Rear RH	NEUTRAL	
8		Front RH	_	
11				
1		Rear LH		
7		Rear RH	DOWN	
8		Front RH		



1 3 5 7 8 10 1 1 1,3,5,7,8,10,11 1		
	ALKIA	0281ZZ

< DTC/CIRCUIT DIAGNOSIS >	[LH ONLY ANTI-PINCH-SEDAN]
Is the inspection result normal?	
YES >> Main power window and door lock/unlock switch is OK. NO >> Replace main power window and door lock/unlock switch. Replace <u>lation</u> .	fer to <u>PWC-98, "Removal and Instal-</u>
POWER WINDOW MAIN SWITCH : Special Repair Requ	lirement INFCID:000000007422838
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to <u>PWC-11. "ADDITIONAL SERVICE WHEN REMOVING BATTER</u> <u>Repair Requirement"</u> .	
Is the inspection result normal?	
YES >> GO TO 2 NO >> Check intermittent incident. Refer to <u>GI-42</u> , <u>"Intermittent Incid</u> 2. CHECK ANTI-PINCH OPERATION	<u>ent"</u> .
Check anti-pinch operation. Refer to <u>PWC-11. "ADDITIONAL SERVICE WHEN REPLACING CONTE</u> ment".	ROL UNIT : Special Repair Require-
Is the inspection result normal? YES >> Inspection end. NO >> Refer to <u>PWC-20, "POWER WINDOW MAIN SWITCH : Com</u> FRONT POWER WINDOW SWITCH	ponent Function Check".
FRONT POWER WINDOW SWITCH : Description	INFOID:00000007422839
BCM supplies power.Front power window motor RH will be operated if power window and doc	or lock/unlock switch RH is operated.
FRONT POWER WINDOW SWITCH : Component Function	ion Check INFOID:000000007422840
Power Window And Door Lock/unlock Switch RH	
1. CHECK POWER WINDOW MOTOR FUNCTION	
Check front power window motor operation with power window and door I Is the inspection result normal?	ock/unlock switch RH.
YES >> Power window and door lock/unlock switch RH power supply NO >> Refer to <u>PWC-25. "FRONT POWER WINDOW SWITCH : Dia</u>	
FRONT POWER WINDOW SWITCH : Diagnosis Procedu	INFOID:00000007422841
Regarding Wiring Diagram information, refer to <u>PWC-77, "Wiring Diagram</u> Window Anti-Pinch System".	
Power Window And Door Lock/Unlock Switch RH Power Supply Ci	rcuit Check
1. CHECK POWER SUPPLY CIRCUIT (POWER WINDOW AND DOOR	LOCK/UNLOCK SWITCH RH)

Ρ

POWER SUPPLY AND GROUND CIRCUIT DSIS > [LH ONLY ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch ON.
- 2. Check voltage between power window and door lock/unlock switch RH connector and ground.

T			
(+)			Voltage (V)
Power window and door lock/unlock switch RH connector	Terminal	()	(Approx.)
D105	8	Ground	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- 3. Check continuity between BCM connector (A) and power window and door lock/unlock switch RH connector (B).

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M16 (A)	3	D105 (B)	8	Yes

4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M16 (A)	3	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY (POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and power window and door lock/unlock switch RH.
- Check continuity between main power window and door lock/ unlock switch connector (A) and power window and door lock/ unlock switch RH connector (B).

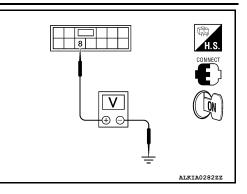
Main power win- dow and door lock/unlock switch connector	Terminal	Power window and door lock/un- lock switch RH connector	Terminal	Continuity
	11	D105 (B)	11	Yes
D7 (A)	8	D 100 (B)	12	165

D105 (B) 11 Yes (A) and see to be with a second sec

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/ unlock switch connector	Terminal		Continuity
	8	Ground	No
D7 (A)	11		INU

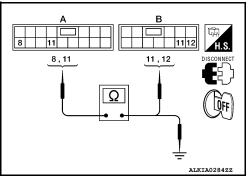




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	ection result	normal?				
-	> GO TO 5 > Repair or r	eplace harness.				
	•	PUT SIGNAL				
	ct BCM.					
	nition switch	NON.				
		veen BCM conne	ector and gr	round.		
		erminals		Voltage (V)		
PCM	(+)	Terminal	(-)	(Approx.)		
	M16	3	Ground	Battery voltage	-	
the mean		lue within the spe				
				I-42, "Intermittent	Incident".	
				oval and Installati		
. CHECK	K POWER W	INDOW AND DC	OOR LOCK	UNLOCK SWITC	CH RH	
		nd door lock/unic				
efer to <u>PV</u>	<u>NC-27, "FRO</u>	ONT POWER WI		/ITCH : Compone	nt Inspection".	
	ection result					
				I-42, "Intermittent		moval and installs
10 >>		wei willuow and		UNIOCK SWITCH KH.	Refer to <u>PWC-98</u> , "Re	emovar and mstalla-
	tion".					
י דוא∩ם			Ӥт∩⊔∙и	Component In	enection	
RONT		WINDOW SW	/ITCH : C	Component In	spection	INFOID:000000007422842
			/ITCH : (Component In	spection	INFOID:000000007422842
OMPON	POWER V	ECTION		·		INFOID:000000007422842
OMPON . CHECK	POWER V ENT INSPE	ECTION /INDOW AND DC	OOR LOCK	/UNLOCK SWITC		INFOID:000000007422842
OMPON . CHECK	POWER V ENT INSPE	ECTION	OOR LOCK	/UNLOCK SWITC		INFOID:000000007422842
OMPON . CHECk heck pow	POWER V ENT INSPE	ECTION /INDOW AND DC	DOR LOCK	/UNLOCK SWITC		11112 DISCONNECT
OMPON . CHECk heck pow	POWER N ENT INSPE (POWER W ver window a	ECTION /INDOW AND DC nd door lock/unic Power window switc	DOR LOCK	Z/UNLOCK SWITC RH.		11112 DISCONNECT
OMPON CHECk neck pow Terr	POWER N ENT INSPE (POWER W ver window a	ECTION /INDOW AND DC nd door lock/unic	DOR LOCK	Z/UNLOCK SWITC RH.		11,12 DISCONNECT
OMPON CHECK heck pow Terr 8	POWER N ENT INSPE C POWER W ver window a minal 7	ECTION /INDOW AND DC nd door lock/unic Power window switc UP	DOR LOCK ock switch I	C/UNLOCK SWITC		11112 DISCONNECT
OMPON CHECk neck pow Terr 8 12	POWER N ENT INSPE C POWER W ver window a minal 7 6	ECTION /INDOW AND DC nd door lock/unic Power window switc	DOR LOCK ock switch I	Z/UNLOCK SWITC RH.	CH RH	11,12 DISCONNECT DISCONNECT DISCONNECT DISCONNECT DISCONNECT DISCONNECT DISCONNECT DISCONNECT
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OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspection of the second	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 6 11 6 11 6 11 6 11 8 2 2 2 2 2 3 3 3 3 3 3 3 3 4 3 3 3 3 3 3	ECTION /INDOW AND DC nd door lock/unic Power window switc UP NEUTRA DOWN normal? dow and door lock	DOR LOCK ock switch f ch condition	VUNLOCK SWITC RH. Continuity Yes	CH RH	11,12 DISCONNECT
DMPON CHECk heck pow Terr 8 12 12 7 8 7 the inspec (ES >> IO >>	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 6 11 6 11 6 11 6 11 8 ction result > Power wind > Replace po tion".	ECTION /INDOW AND DC nd door lock/unic Power window switc UP NEUTRA DOWN normal? dow and door lock	DOR LOCK ock switch f ch condition	VUNLOCK SWITC RH. Continuity Yes	CH RH	11,12 DISCONNECT
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OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspect (ES >> NO >> EAR P EAR P	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 11 6 11 6 11 6 11 2 ction result > Power wind > Replace po tion". OWER W	ECTION /INDOW AND DC nd door lock/unic Power window switc UP NEUTRA DOWN normal? dow and door lock wer window and /INDOW SW	DOR LOCK ock switch f ch condition	VUNLOCK SWITC RH. Continuity Yes	CH RH	LKIAO29622
OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspect (ES >> NO >> EAR P EAR P BCM sup	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 11 6 11 6 11 2 ction result > Power wind > Replace po tion". 'OWER W OWER W	ECTION /INDOW AND DC nd door lock/unic Power window switc UP NEUTRA DOWN normal? dow and door lock ower window and /INDOW SW	DOR LOCK ock switch F ch condition L k/unlock sv door lock/u /ITCH TCH : De	Z/UNLOCK SWITC RH. Continuity Yes vitch RH is OK. unlock switch RH.	CH RH	LKIAO29622
OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspe YES >> NO >> EAR P EAR P BCM sup Rear pow	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 11 6 11 6 11 6 11 2 ction result > Power window > Replace po tion". OWER W OWER W OWER W	ECTION /INDOW AND DC ind door lock/unic Power window switc UP NEUTRAN DOWN normal? dow and door lock wer window and /INDOW SWI INDOW SWI notor will be oper	DOR LOCK ock switch F ch condition L k/unlock sv door lock/u /ITCH TCH : De rated if rear	Z/UNLOCK SWITC RH. Continuity Yes witch RH is OK. unlock switch RH.	CH RH	II.12 III.12 I
OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspe YES >> NO >> EAR P EAR P BCM sup Rear pow	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 11 6 11 6 11 6 11 2 ction result > Power window > Replace po tion". OWER W OWER W OWER W	ECTION /INDOW AND DC ind door lock/unic Power window switc UP NEUTRAN DOWN normal? dow and door lock wer window and /INDOW SWI INDOW SWI notor will be oper	DOR LOCK ock switch F ch condition L k/unlock sv door lock/u /ITCH TCH : De rated if rear	Z/UNLOCK SWITC RH. Continuity Yes vitch RH is OK. unlock switch RH.	CH RH	LKIAO29622
OMPON CHECK heck pow Terr 8 12 12 7 8 7 the inspect YES NO SEAR P BCM sup Rear pow EAR PO	POWER V ENT INSPE (POWER W ver window a minal 7 6 6 11 6 11 6 11 6 11 2 ction result > Power window > Replace po tion". OWER W OWER W OWER W	ECTION /INDOW AND DC ind door lock/unic Power window switc UP NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN NEUTRAN DOWN	DOR LOCK ock switch F ch condition L k/unlock sv door lock/u /ITCH TCH : De rated if rear	Z/UNLOCK SWITC RH. Continuity Yes witch RH is OK. unlock switch RH.	CH RH	II.12 III.12 I

< DTC/CIRCUIT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

Check rear power window motor operation with rear power window switch.

Is the inspection result normal?

YES >> Rear power window switch power supply and ground circuit are OK.

NO >> Refer to <u>PWC-28</u>, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

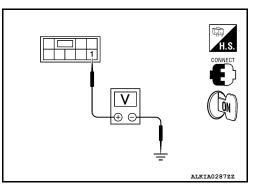
INFOID:000000007422845

Regarding Wiring Diagram information, refer to <u>PWC-77</u>, "Wiring Diagram - Sedan With Left Front Only Power <u>Window Anti-Pinch System</u>".

Rear Power Window Switch Power Supply Circuit Check

- 1. CHECK POWER SUPPLY CIRCUIT (REAR POWER WINDOW SWITCH)
- 1. Turn ignition switch ON.
- Check voltage between rear power window switch connector and ground.

	Terminal				
	(+)			Condition	Voltage (V)
•	Rear power window switch connector		(-)		(Approx.)
LH	D203	1	Ground	Ignition switch	Battery
RH	D303		Ground	ON	voltage



Is the measurement value within the specification?

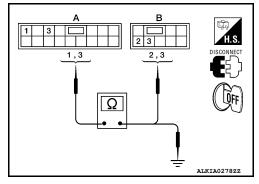
- YES >> GO TO 2 (Rear power window switch LH)
- YES >> GO TO 3 (Rear power window switch RH)

NO >> GO TO 4

2. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.
- Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Rear power win- dow switch LH connector	Terminal	Continuity
D7 (A)	1	D203 (B)	2	Yes
D7 (A)	3	D203 (D)	3	165



4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	1		No
	3		INO

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

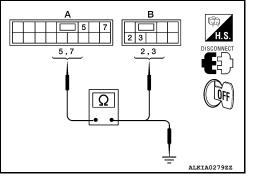
PWC-28

POWER SUPPLY AND GROUND CIRCUIT [LH ONLY ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and 2. rear power window switch RH.
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch RH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D7 (A)	5	D303 (B)	3	Vec
	7	D000 (D)	2	Yes



Check continuity between main power window and door lock/unlock switch connector (A) and ground. 4.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	5		No
	7		NO

Is the inspection result normal?

>> GO TO 5 YES

NO >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY

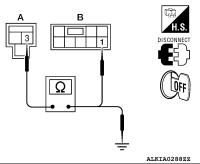
- 1. Disconnect BCM, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- 2. Check continuity between BCM connector (A) and rear power window switch connector (B).

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M16 (A)	3	LH	D203 (B)	1	Yes
W10 (A)	5	RH	D303 (B)	I	165

3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity			
M16	3	Ground	No			M
Is the inspection re	sult normal?					
YES >> Replace BCM. Refer to <u>BCS-92, "Removal and Installation"</u> . NO >> Repair or replace harness.						Ν
5. CHECK REAR	POWER WINDOW	SWITCH				
Check rear power	window switch.					\bigcirc
Refer to PWC-29, '	<u>'REAR POWER WI</u>	NDOW SWITC	<u> CH : Component</u>	Inspection".		0
Is the inspection re	sult normal?					
	intermittent inciden					Ρ
NO >> Replac	e rear power windo	w switch. Refe	er to <u>PWC-98, "</u> F	Removal and Installation".		
REAR POWER	R WINDOW SW	ITCH : Cor	nponent Insp	pection	INFOID:000000007422846	
COMPONENT IN						

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< DTC/CIRCUIT DIAGNOSIS >

Check rear power window switch.

Terr	minal	Power window switch condition	Continuity	
1	5	UP		
3	4	ŬF.	Yes	
3	4	NEUTRAL		
5	2	NEOTIVE	105	
1	4	DOWN		
5	2	boww		

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to <u>PWC-98</u>, "Removal and Installation".

[LH ONLY ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS > POWER WINDOW MOTOR А DRIVER SIDE DRIVER SIDE : Description INFOID:00000007422847 В Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch. DRIVER SIDE : Component Function Check INFOID:000000007422848 CHECK FRONT POWER WINDOW MOTOR LH CIRCUIT Check front power window motor LH operation with the main power window and door lock/unlock switch. D Is the inspection result normal? YES >> Front power window motor LH is OK. >> Refer to PWC-31, "DRIVER SIDE : Diagnosis Procedure". NO Е DRIVER SIDE : Diagnosis Procedure INFOID:000000007422849 Regarding Wiring Diagram information, refer to PWC-77, "Wiring Diagram - Sedan With Left Front Only Power Window Anti-Pinch System". Front Power Window Motor LH Circuit Check 1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL Н 1. Turn ignition switch OFF. Disconnect front power window motor LH. 2. Turn ignition switch ON. 3. Check voltage between front power window motor LH connector 4. 1,2 and ground. Terminal LÕN V Main power win-(+) dow and door Voltage (V) Ðθ Front power lock/unlock (Approx.) PWC (-) window motor Terminal switch condition LH connector ALKIA0290Z UP Battery voltage L 2 DOWN 0 D9 Ground UP 0 1 DOWN M Battery voltage Is the measurement value within the specification? YES >> GO TO 3 Ν NO >> GO TO 2 2. CHECK HARNESS CONTINUITY 1. Turn ignition switch OFF. Disconnect main power window and door lock/unlock switch. 2. в Α Check continuity between main power window and door lock/ 3. 12 unlock switch connector (A) and front power window motor LH Ρ 12,16 1.2 connector (B). LŐFF Ω

Revision: February 2013

< DTC/CIRCUIT DIAGNOSIS >

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
	16	D9 (B)	2	Yes
D7 (A)	12	D9 (B)	1	Tes

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	16		No
07 (A)	12		INU

Is the inspection result normal?

YES >> Refer to <u>PWC-20, "POWER WINDOW MAIN SWITCH : Component Function Check"</u>

NO >> Repair or replace harness.

 $\mathbf{3}$. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH. Refer to PWC-32, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace front power window motor LH. Refer to <u>GW-22, "Removal and Installation"</u>. After that, refer to <u>PWC-11, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Special Repair Requirement</u>".

DRIVER SIDE : Component Inspection

INFOID:000000007422850

COMPONENT INSPECTION

1.CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor.

Terr	minal	Motor condition
(+)	(-)	
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to <u>GW-22, "Removal and Installation"</u>. After that, refer to <u>PWC-11, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Special Repair Requirement"</u>.

DRIVER SIDE : Special Repair Requirement

INFOID:000000007422851

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-11</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special <u>Repair Requirement"</u>.

Is the inspection result normal?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

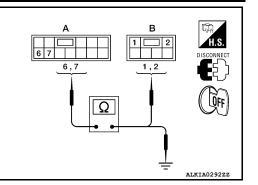
2. CHECK ANTI-PINCH OPERATION

< DTC/CIRCUIT I		-			UR [LH ONLY ANTI-PINCH-SEDAN]	
Check anti-pinch o	operation.					
Refer to <u>PWC-11,</u> Repair Requireme		INAL SER	VICE WHEN F	REMOVING BAI	TTERY NEGATIVE TERMINAL : Special	A
Is the inspection re		al?				
	ction End.	<u></u>				В
NO >> Refer	to <u>PWC-3</u>	<u>1, "DRIVE</u>	R SIDE : Comp	onent Function	<u>Check"</u> .	
PASSENGER	SIDE					
PASSENGER	SIDE : [Descripti	on		INFOID:00000007422852	С
Door glass moves power window and				from main powe	er window and door lock/unlock switch or	D
PASSENGER	SIDE : 0	Compon	ent Functio	n Check	INFOID:000000007422853	
1. CHECK FROM	IT POWEF		MOTOR RH	CIRCUIT		Ε
Check front power	window m	notor RH or	peration with m	nain power wind	ow and door lock/unlock switch or power	
window and door I					· · · · · · · · · · · · · · · · · · ·	F
Is the inspection re	esult norm	<u>al?</u>				
			RH is OK.			
				Diagnosis Proce	<u>edure"</u> .	G
PASSENGER	SIDE : [Diagnosi	s Procedur	е	INFOID:000000007422854	
						Н
Regarding Wiring	Diagram ir	formation	refer to PWC-	77 "Wiring Diac	gram - Sedan With Left Front Only Power	
Window Anti-Pincl			10101 to <u>1 110</u>			
Front Power Win	dow Moto	or RH Circ	uit Check			
1. CHECK POWE	ER WINDO	OW AND D	OOR LOCK/U	NLOCK SWITC	H RH OUTPUT SIGNAL	.1
1. Turn ignition s	witch OFF					0
2. Disconnect fro		window mo	otor RH.			
 Turn ignition s Check voltage 		front nowe	r window moto	r RH connector	1 2 H.S.	PW
and ground.		nom powe			1,2 DISCONNECT	
-					[長) [1
Те	rminal		_			L
(+)			Front power window motor	Voltage (V)		
Front power window	Terminal	(-)	RH condition	(Approx.)		M
motor RH connector	Torrina					
	2	-	UP	Battery voltage	ALKIA0290ZZ	
D104		Ground	DOWN	0		Ν
	1	-	UP	0		
			DOWN	Battery voltage		0
Is the measureme		ithin the sp	ecification?			
YES >> GO T(NO >> GO T(
2. CHECK HARN						Ρ

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- 3. Check continuity between power window and door lock/unlock switch RH connector (A) and front power window motor RH connector (B).

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105 (A)	6	D104 (B)	1	Yes
D100 (A)	7	D104 (D)	2	165



4. Check continuity between power window and door lock/unlock switch connector (A) and ground.

Power window and door lock/ unlock switch RH connector	Terminal		Continuity
D105 (A)	6	Ground	No
D103 (A)	7	*	NO

Is the inspection result normal?

YES >> Refer to PWC-25, "FRONT POWER WINDOW SWITCH : Component Function Check".

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to <u>PWC-34</u>, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace front power window motor RH. Refer to <u>GW-22, "Removal and Installation"</u>.

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to front power window motor RH.

Terminal		- Motor condition	
(+)	(-)		
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to <u>GW-22, "Removal and Installation"</u>. REAR LH

REAR LH : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch LH.

REAR LH : Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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PWC-34

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[LH ONLY ANTI-PINCH-SEDAN]	I
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< DTC/CIRCUIT DIAGNOSIS >

Check rear power window motor LH operation with main power window and door lock/unlock switch or rear power window switch LH.

Is the inspection result normal?

- YES >> Rear power window motor LH is OK.
- NO >> Refer to <u>PWC-35</u>, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

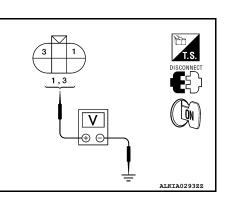
Regarding Wiring Diagram information, refer to <u>PWC-77, "Wiring Diagram - Sedan With Left Front Only Power</u> <u>Window Anti-Pinch System</u>".

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window motor LH.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power window motor LH connector and ground.

Ţ	erminal			
(+)	Window		Voltage (V)	
Rear power window motor LH connector	Terminal	(-)	condition	(Approx.)
	1	1	UP	Battery voltage
D204		Ground	DOWN	0
		2	Ground	UP
	3	3	DOWN	Battery voltage



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Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

- 2. CHECK HARNESS CONTINUITY
- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch LH.
- 3. Check continuity between rear power window switch LH connector (A) and rear power window motor LH connector (B).

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D203 (A)	5	D204 (B)	1	Yes
D203 (A)	4	D204 (B)	3	163

 Check continuity between rear power window switch LH connector (A) and ground.

Rear power window switch LH connector	Terminal		Continuity	
D203 (A)	5	Ground	No	
D203 (A)	4	-	INU	

Is the inspection result normal?

YES >> Refer to <u>PWC-27</u>, "REAR POWER WINDOW SWITCH : Component Function Check".

NO >> Repair or replace harness.

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[LH ONLY ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

 $\overline{\mathbf{3.}}$ CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH. Refer to <u>PWC-36</u>, "REAR LH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace rear power window motor LH. Refer to <u>GW-27, "Removal and Installation"</u>.

REAR LH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to rear power window motor LH.

Terminal		Motor condition	
(+)	(-)		
3	1	DOWN	
1	3	UP	

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to <u>GW-27, "Removal and Installation"</u>. **REAR RH**

REAR RH : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch RH.

REAR RH : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check rear power window motor RH operation with operating power window main switch or rear power window switch RH.

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Refer to PWC-36, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>PWC-77</u>, "Wiring Diagram - Sedan With Left Front Only Power <u>Window Anti-Pinch System</u>".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

1. Turn ignition switch OFF.

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

- 2. Disconnect rear power window motor RH.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power window motor RH connector and ground.

Terminal			5	
(+)			Rear power window switch	Voltage (V)
Rear power window motor RH connector	Terminal	()	RH condition	(Approx.)
	1 3		UP	Battery voltage
D304		Ground	DOWN	0
D304		Gibunu	UP	0
			DOWN	Battery voltage

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Is the measurement value within the specification?

YES >> GO TO 3

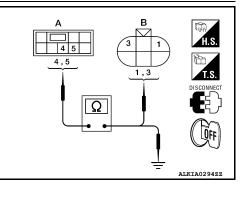
NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

- 2. Disconnect rear power window switch RH.
- 3. Check continuity between rear power window switch RH connector (A) and rear power window motor RH connector (B).

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
D303 (A)	5	D304 (B)	1	Yes
	4	D004 (D)	3	103



4. Check continuity between rear power window switch RH connector (A) and ground.

Rear power window switch RH connector	Terminal		Continuity	
D303 (A)	5	Ground	No	
	4	-	140	

Is the inspection result normal?

YES >> Refer to PWC-27, "REAR POWER WINDOW SWITCH : Component Function Check".

NO >> Repair or replace harness.

 $\mathbf{3}$. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-37, "REAR RH : Component Inspection"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace rear power window motor RH. Refer to <u>GW-27, "Removal and Installation"</u>.

REAR RH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to rear power window motor RH.

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

	Terminal		Motor condition
-	(+)	(-)	Motor condition
-	3	1	DOWN
-	1	3	UP

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-27, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS > ENCODER А DRIVER SIDE DRIVER SIDE : Description INFOID:000000007422864 В Detects condition of the front power window motor LH operation and transmits to main power window and door lock/unlock switch as pulse signal. **DRIVER SIDE : Component Function Check** INFOID:000000007422865 1. CHECK ENCODER OPERATION D Check front door glass LH perform AUTO open/close operation normally with main power window and door lock/unlock switch. Is the inspection result normal? Ε YES >> Encoder operation is OK. NO >> Refer to PWC-39, "DRIVER SIDE : Diagnosis Procedure". DRIVER SIDE : Diagnosis Procedure INFOID:000000007422866 Regarding Wiring Diagram information, refer to PWC-77, "Wiring Diagram - Sedan With Left Front Only Power Window Anti-Pinch System". Encoder Circuit Check Н 1. CHECK ENCODER OPERATION 1. Connect front power window motor LH. Turn ignition switch ON. 2. Check signal between main power window and door lock/unlock 3. 9 13 switch connector and ground with oscilloscope. 9,13 Terminals $\overline{\mathbf{v}}$ ÔN (+) Θ PWC Signal Main power window (Reference value) (-) and door lock/unlock Terminal switch ALKIA0295Z connector 9 D7 Ground Refer to following signal 13 M (V) 6 (V) 42 Encoder signal 1 Encoder signal 1 Ν (Terminal 13) (Terminal 13) 0 C (V (V Ζ Encoder signal 2 Encoder signal 2 2 2 (Terminal 9) (Terminal 9) 10ms Window DOWN Window UF (Starting of terminal 9 is 1/4 pulses earlier) (Starting of terminal 13 is 1/4 pulses earlier) Ρ JMKTA0220GE Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 2

 ${f 2.}$ CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch ON.
- 2. Check voltage between front power window motor LH connector and ground.

Term			
(+)			Voltage (V)
Front power window motor LH connector	Terminal	(-)	(Approx.)
D9	4	Ground	10

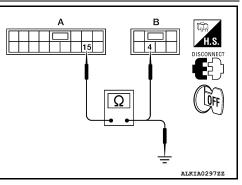
Is the measurement value within the specification?

YES >> GO TO 4 3

3. CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and 2. front power window motor LH.
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and front power window motor connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7 (A)	15	D9 (B)	4	Yes



4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	15		No

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to PWC-98, "Removal and Installation".
- NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

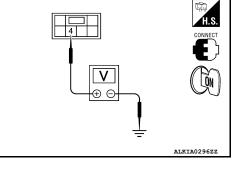
- 1. Turn ignition switch OFF.
- Disconnect front power window motor LH. 2.
- Check continuity between front power window motor LH connec-3. tor and ground.

Front power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

Is the inspection result normal?

YES >> GO TO 6

- NO >> GO TO 5
- **5.** CHECK HARNESS CONTINUITY 2



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< DTC/CIRCUIT DIAGNOSIS >

1.

- Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector (A) and front power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7 (A)	2	D9 (B)	6	Yes

Is the inspection result normal?

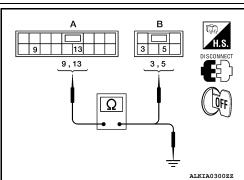
- YES >> Check main power window and door lock/unlock switch. Refer to <u>PWC-23, "POWER WINDOW MAIN SWITCH : Component Inspection"</u>.
- NO >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

1. Disconnect main power window and door lock/unlock switch.

 Check continuity between main power window and door lock/ unlock switch connector (A) and front power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power win- dow motor LH connector	Terminal	Continuity
D7 (A)	9	D9 (B)	3	Yes
	13	03(0)	5	163



 Check continuity between main power window and door lock/ unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	9		No
	13		NO

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-22</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-11</u>, "<u>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: <u>Special Repair</u> <u>Requirement</u>".

NO >> Repair or replace harness.

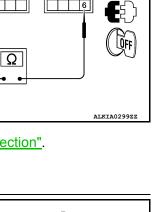
DRIVER SIDE : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform	i initialization procedure.	
Refer to	PWC-11, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special	
Repair F	Requirement".	0
s the in	spection result normal?	0
YES	>> Inspection End.	
NO	>> Check intermittent incident. Refer to GI-42, "Intermittent Incident".	_

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< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH

Description

Detects door open/close condition and transmits the signal to BCM.

Component Function Check

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[LH ONLY ANTI-PINCH-SEDAN]

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

Check ("DOOR SW-DR" and "DOOR SW-AS") in "DATA MONITOR" mode with CONSULT. Refer to <u>BCS-30</u>, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)".

Monitor item		Condition	
DOOR SW-DR	OPEN	: ON	
DOOR SW-DR	CLOSE	: OFF	
DOOR SW-AS	OPEN	: ON	
DOOR SW-AS	CLOSE	: OFF	

Is the inspection result normal?

YES >> Front door switch circuit is OK.

NO >> Refer to <u>PWC-42</u>, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:000000007422870

Regarding Wiring Diagram information, refer to <u>PWC-77</u>, "Wiring Diagram - Sedan With Left Front Only Power <u>Window Anti-Pinch System"</u>.

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

Terminals					
(+)			Door condition		Voltage (V)
BCM connector	Terminal	(-)			(Approx.)
	32 Front		Front door	OPEN	0
M18	RH	52	RH	CLOSE	Battery voltage
IVI I O			OPEN	0	
	30		LH	CLOSE	Battery voltage

Is the measurement value within the specification?

YES >> Replace BCM. Refer to <u>BCS-92</u>, "Removal and Installation". NO >> GO TO 2

- 2. CHECK HARNESS CONTINUITY
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and front door switch.

3. Check continuity between BCM connector and front door switch connector.

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18	32	RH: B108	2	Yes
WITO	58	LH: B8	2	165

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

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4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity	
M18	32	Ground	No	
IVI 18	58	-	INO	

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

2. Check voltage between BCM connector and ground.

	Terminal				
(+)	(+)		Voltage (V) (Approx.)		
BCM connector	Terminal	()	(
M18	32	Ground	Ground	Battery voltage	
IVI I O	58	Ground	Ballery vollage		
Is the measuremen	t value within th	e specification	?		
YES >> GO TO	YES >> GO TO 4				

. = •	
NO	>> Replace BCM. Refer to <u>BCS-92</u> , "Removal and Installation".
	-

4. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-43, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace front door switch.

Component Inspection

1. CHECK FRONT DOOR SWITCH

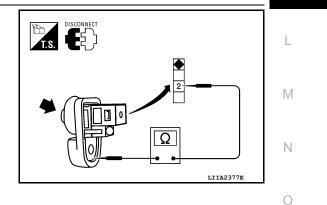
Check front door switches.

Terminal		Door switch	Continuity	
Door	Door switches		Continuity	
2	Ground part of door	Pressed	No	
2	switch	Released	Yes	

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace front door switch.



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< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal main power window and door lock/unlock switch, and operation is checked. Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98, "Removal and Instal-</u> <u>lation"</u>. After that, refer to <u>PWC-44, "Special Repair Requirement"</u>.
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:000000007422874

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-11, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special</u> <u>Repair Requirement"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

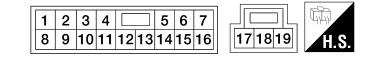
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ECU DIAGNOSIS INFORMATION POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (Y)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
2 (G)	Ground	Encoder ground	_	—	0
3 (O)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage
5 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
7 (P)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (BR)	11	Front power window motor RH UP signal	Output	When front RH switch in power window main switch is operated UP.	Battery voltage
9 (W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 2 0 •••••••••••••••••••••••••••••••••

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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
				IGN SW ON	Battery voltage
10	Ground	RAP signal	Input	Within 45 second after ig- nition switch is turned to OFF.	Battery voltage
(V)		J		When driver side or pas- senger side door is opened during retained power op- eration.	0
11 (L)	8	Front power window motor RH DOWN signal	Output	When front RH switch in power window main switch is operated DOWN.	Battery voltage
12 (LG)	16	Front power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage
13 (SB)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
15 (GR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	10
16 (R)	12	Front power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
17 (B)	Ground	Ground		_	0
19 (W)	Ground	Battery power supply	Input	_	Battery voltage

Fail Safe

INFOID:000000007422876

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/ close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).

Revision: February 2013

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

It changes to condition before initialization and the following functions do not operate when switched to fail- safe control. • Auto-up operation	А
 Anti-pinch function Retained power function 	В
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.	С
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< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

FR WIPER HI Other than front wiper switch HI OFF FR WIPER LOW Front wiper switch LO ON FR WIPER LOW Front wiper switch LO ON FR WASHER SW Front washer switch OFF OFF Front washer switch ON ON ON FR WIPER INT Other than front wiper switch INT OFF Front wiper switch INT ON ON FR WIPER STOP Front wiper is not in STOP position OFF Front wiper is not in STOP position ON ON TURN SIGNAL R Other than turn signal switch RH ON TURN SIGNAL L Turn signal switch RH ON TURN SIGNAL L Other than turn signal switch LH ON TURN SIGNAL L Other than lighting switch ST and 2ND OFF Turn signal switch LH ON ON ON HI BEAM SW Upfning switch AH ON ON Lighting switch ST or 2ND ON ON ON HEAD LAMP SW 1 Other than lighting switch 2ND ON ON Lighting switch PASS ON	Monitor Item	Condition	Value/Status
Front wiper switch HI ON FR WIPER LOW Other than front wiper switch LO OFF Front washer switch OF ON ON FR WASHER SW Front washer switch OF OFF Front washer switch ON ON ON FR WIPER INT Offer than front wiper switch INT OFF Front wiper sit in STOP position OFF ON INT VOLUME Wiper intermittent dial is in a dial position 1 - 6 Wiper intermittent dial position TURN SIGNAL R Other than turn signal switch RH ON TURN SIGNAL L Other than turn signal switch LH OFF Turn signal switch RH ON ON TURN SIGNAL L Other than turn signal switch LH OFF Turn signal switch LH OFF OT Turn signal switch RH ON ON Turn signal switch LH OFF OT Turn signal switch LT ON ON Turn signal switch LD ON OT HEAD LAMP SW1 Other than lighting switch ADD ON Lighting switch PASS OFF		Other than front wiper switch HI	OFF
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DOOR SW-RL Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF	DOOK 211-KK	Rear RH door opened	ON
Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF		Rear LH door closed	OFF
CDL LOCK SW	DOOK 200-KL	Rear LH door opened	ON
Power door lock switch LOCK ON		Other than power door lock switch LOCK	OFF
	ODE LOCK SW	Power door lock switch LOCK	ON

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Monitor Item	Condition	Value/Status
	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
	When hazard switch is not pressed	OFF
HAZARD SW	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
FAN ON SIG	When AUTO switch or fan switch is pressed	ON
AIR COND SW	When A/C switch is pressed	ON
	Trunk lid opener cancel switch OFF	OFF
AZARD SW EAR DEF SW AN ON SIG R COND SW R CANCEL SW R/BD OPEN SW R/BD OPEN SW RNK/HAT MNTR KE-LOCK KE-UNLOCK KE-UNLOCK KE-PANIC KE-PANIC KE-P/W OPEN KE-MODE CHG	Trunk lid opener cancel switch ON	ON
	Trunk lid opener switch OFF	OFF
I R/BD OPEN SW	While the trunk lid opener switch is turned ON	ON
	Trunk lid closed	OFF
I KNK/HAT MNTR	Trunk lid opened	ON
	When LOCK button of Intelligent Key is not pressed	OFF
KE-LOCK	When LOCK button of Intelligent Key is pressed	ON
	When UNLOCK button of Intelligent Key is not pressed	OFF
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON
	When PANIC button of Intelligent Key is not pressed	OFF
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON
	When UNLOCK button of Intelligent Key is not pressed and held	OFF
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON
	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
RRE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
	When outside of the vehicle is bright	Close to 5 V
OF TICAL SENSOR	When outside of the vehicle is dark	Close to 0 V
CDL UNLOCK SWCKEY CYL LK-SWCKEY CYL UN-SWCKEY CYL UN-SWCHAZARD SWVREAR DEF SWVFAN ON SIGVAIR COND SWVTR CANCEL SWTTR/BD OPEN SWVTRNK/HAT MNTRTTRKE-LOCKVRKE-UNLOCKVRKE-DOCKVRKE-PANICVRKE-PANICVRKE-PANICVRKE-PANICVRKE-MODE CHGVRKE-MODE CHGVRKE-MODE CHGVVVREQ SW-DRVREQ SW-DRVVVREQ SW-BD/TRVVVREQ SW-BD/TRVVVIGN RLY -F/BIIGN RLY -F/BI	When driver door request switch is not pressed	OFF
	When driver door request switch is pressed	ON
IR COND SW V R CANCEL SW 7 R/BD OPEN SW 7 RNK/HAT MNTR 7 KE-LOCK 7 KE-UNLOCK 7 KE-UNLOCK 7 KE-PANIC 7 KE-P	When passenger door request switch is not pressed	OFF
754 311-43	When passenger door request switch is pressed	ON
	When trunk request switch is not pressed	OFF
KEQ OVV-BD/1K	When trunk request switch is pressed	ON
	When engine switch (push switch) is not pressed	OFF
FUSH SW	When engine switch (push switch) is pressed	ON
	Ignition switch OFF or ACC	OFF
IGN RLY -F/B	Ignition switch ON	ON
	Ignition switch OFF	OFF
ACC RLY -F/B	Ignition switch ACC or ON	ON

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Monitor Item	Condition	Value/Status
CLUTCH SW	When the clutch pedal is not depressed	OFF
	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
DRAKE SVV I	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
DETE/CANCE SW	When selector lever is in any position other than P	ON
	When selector lever is in any position other than P or N	OFF
SFT PN/N SW	When selector lever is in P or N position	ON
S/L -LOCK	Electronic steering column lock LOCK status	OFF
S/L-LUCK	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L -UNLOCK	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-F/B	Ignition switch ON	ON
	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
	When engine switch (push switch) is not pressed	OFF
PUSH SW -IPDM	When engine switch (push switch) is pressed	ON
	Ignition switch OFF or ACC	OFF
IGN RLY1 F/B	Ignition switch ON	ON
	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
	When selector lever is in any position other than P	OFF
SFT P -MET	When selector lever is in P position	ON
	When selector lever is in any position other than N	OFF
SFT N -MET	When selector lever is in N position	ON
	Engine stopped	STOP
	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
	Electronic steering column lock LOCK status	OFF
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L UNLCK-IPDM	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-REQ	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	
DR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status	A
	Passenger door LOCK status	LOCK	А
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	В
	Ignition switch ACC or ON	RESET	
ID OK FLAG	Ignition switch OFF	SET	
D OK FLAG PRMT ENG STAT KEY SW -SLOT RKE OPE COUN1 AIR PRESS FL AIR PRESS FR AIR PRESS RR	When the engine start is prohibited	RESET	С
FRUIT ENG STAT	When the engine start is permitted	SET	
KEY SWI SLOT	When Intelligent Key is not inserted into key slot	OFF	D
KET SW -SLOT	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	E
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	F
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	G
	When ID of front LH tire transmitter is registered	DONE	
ID REGST FL1	When ID of front LH tire transmitter is not registered	YET	Η
	When ID of front RH tire transmitter is registered	DONE	
ID REGST FRT	When ID of front RH tire transmitter is not registered	YET	
	When ID of rear RH tire transmitter is registered	DONE	I
ID REGST RR1	When ID of rear RH tire transmitter is not registered	YET	
	When ID of rear LH tire transmitter is registered	DONE	J
ID REGST RL1	When ID of rear LH tire transmitter is not registered	YET	
	Tire pressure indicator OFF	OFF	
WARNING LAMP	Tire pressure indicator ON	ON	P۷

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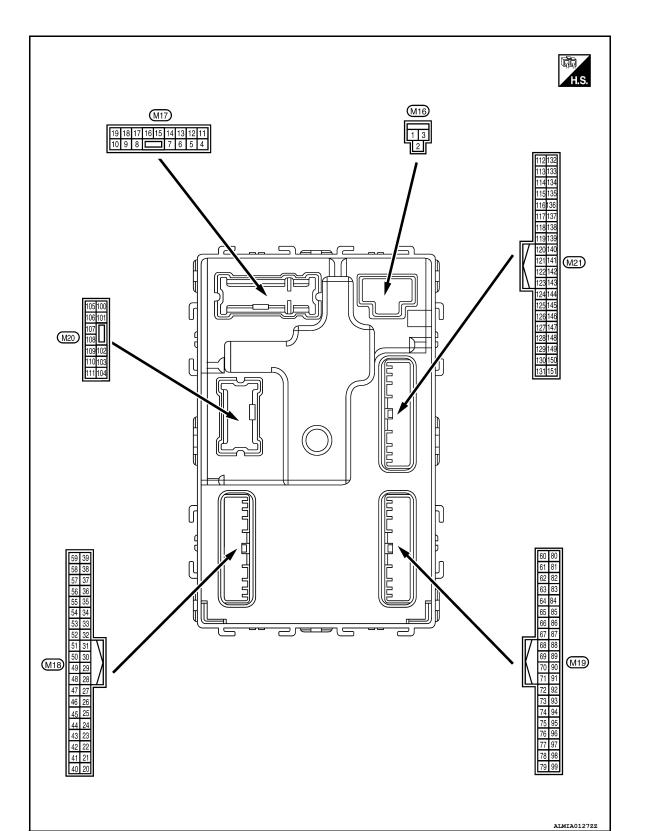
Ρ

BCM (BODY CONTROL MODULE) ATION > [LH ONLY ANTI-PINCH-SEDAN]

< ECU DIAGNOSIS INFORMATION >

Terminal Layout

INFOID:000000007629760



Physical Values

INFOID:000000007629761

< ECU DIAGNOSIS INFORMATION >

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< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Opposition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
14 ⁸ (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	OFF	0V NOTE: When the illumination brighten- ing/dimming level is in the neutral position (V) 10 0 2 ms JSNIL0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y/L)	Giouna	Acc indicator lamp	Output	Ignition switch	ACC	0V
					Turn signal switch OFF	OV
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0
					Turn signal switch OFF	0V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 + + + + + + + + + + + + + + + + + + +
						6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	Battery voltage 0V
21	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(P/B)				ON	When outside of the vehi- cle is dark	Close to 0V
22 ²	Ground	Clutch interlock	Input	Clutch interlock	OFF (clutch pedal is not depressed)	0V
(R/Y)	Ciound	switch	mput	switch	ON (clutch pedal is de- pressed)	Battery voltage
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not de- pressed)	0V
(O/L)	Ground	Cop tamp Switch 2	mput		ON (brake pedal is de- pressed)	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms 	B C D
					UNLOCK status	0V	
29	Ground	Key slot switch	Input	When Intelligent K	ey is inserted into key slot	Battery voltage	Е
(Y)	Giounu	Rey slot switch	mput	When Intelligent K	ey is not inserted into key slot	0V	
30 (V/Y)	Ground	ACC feedback signal	Input	Ignition switch	OFF ACC or ON	0 Battery voltage	F
31	Cround	Rear window defog-	laaut	Rear window de-	OFF	0V	
(G)	Ground	ger feedback signal	Input	fogger switch	ON	Battery voltage	
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>10</i> <i>ms</i> <i>JPMIA0011GB</i> <i>11.8</i> V	G H I
					ON (when front door RH opens)	OV	J
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	9V - 12V	
(SB)	oround	nal	mpat		ON	0V	PWC
34 ³ (L/R)	Ground	Front door lock as- sembly LH (key cylin- der switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral) ON (unlock)	Battery voltage 0V	
36 ³ (GR)	Ground	Lock switch signal	Input	Door lock/unlock switch	Lock Unlock	Battery voltage 0V	L
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1V	M N O
					ON	0V	
38		Rear window defog-		Rear window de-	OFF	Battery voltage	Ρ
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	0V	
39 ³ (GR/ R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock Lock	Battery voltage 0V	
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< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
40 ⁴ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON	- ar ACC	(V) 15 10 10 10 10 10 10 10 10 10 10	
				Engine switch	ON	5.5V	
41 (W)	Ground	Engine switch (push switch) illumination	Output	(push switch) illu- mination	OFF	0V	
42				LOCK indicator	ON	0V	
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage	
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V	
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	0V	
(V/W)	Ground	power supply output	Output	Ignition switch	ACC or ON	5.0V	
47 (G/O)	Ground	. Tire pressure receiv-	, Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s OCC3881D
(G/U)		er signal	Output		When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s • • 0.2s • • 0.2s • • 0.2s	
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position	12.0V	
(100)					Except P and N positions	0V	
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	ON Blinking	0V	
					OFF	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND Turn signal switch RH	0V (V) 15 10 5 0 2 ms JPMIA0031GB	B C D
51 (L/W)	Ground	Combination switch OUTPUT 1	Input	Combination switch	All switch OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	10.7V 0V (V) 15 10 5 0 2.ms JPMIA0032GB 10.7V	E F G
52 (G/B)	Ground	Combination switch OUTPUT 2	Input	Combination switch	All switch OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	0V	⊓ J PW0
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front wiper switch INT Front wiper switch LO Lighting switch AUTO	0V (V) 15 10 5 0 2 ms JEMIA0034GB 10.7V	L M
54 (G/Y)	Ground	Combination switch OUTPUT 4	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF Front fog lamp switch ON Lighting switch 2ND Lighting switch flash-to- pass Turn signal switch LH	0V (V) 15 10 5 0 2 ms JEMIA0035GB 10.7V	O P
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON OFF	Battery voltage	

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
56 ³		Front door lock as-		Front door lock	OFF (neutral)	Battery voltage
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input		_	Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59	Ground	Rear window defog-	Output	Rear window de-	Active	Battery voltage
(G/R)	Cround	ger relay	Output	fogger	Not activated	0V
60	Ground	bund Front console anten- na 2 (-)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10
60 (B/R)					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 5 1 5 10 1 5 10 1 5 10 1 5 10 1 5 10 10 10 10 10 10 10 10 10 10 10 10 10
61	Ground	ound Center console an- tenna 2 (+) Output		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 – – – – – – – – – – – – – – – – – – –
(W/R)	Ground		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
62		Front outside handle		When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(B/Y)	Ground	RH antenna (-)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 J J MKIA0063GB	E
63	Ground	Front outside handle RH antenna (+)	e bandle	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	G H I
(LG)			Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 10 1 5 1 5 1 5 1 5 1 5 1 5 1 5	J PWC
64	Ground	Front outside handle		When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 15 15 15 15 15 15 15 15 15 15	M
(V)	Ground	LH antenna (-)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 5 0 1 5 1 5 0 1 5	O

< ECU DIAGNOSIS INFORMATION >

	iinal No. e color)	Description		Or a differen		Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
65	Ground	Front outside handle	Output	When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB	
(P)	Ground	LH antenna (+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC ON	0V Battery voltage	
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 50 1 ms JMKIA0064GB	
(L/O)	Ground	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB	

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

Terminal No.		Description				Value	^				
(Wir (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А				
								All switch OFF (Wiper intermittent dial 4)		(V) 15 10 5 0	B
						2 ms JPMIA0041GB 1.4V	D				
75 (R/Y)	Ground	Ground Combination switch INPUT 5	Output	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)		E				
()						2 ms JPMIA0037GB 1.3V	F				
							G				
				Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040gB	H					
						jpmia0040gb 1.3V					

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< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value		
	e color)	Signal name	Input/		Condition	Value (Approx.)		
(+)	(-)		Output					
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0041GB 1.4V		
76	Ground	Combination switch	Output	Combination	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 0 0 2 ms 		
(R/G)		INPUT 3	switch	switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0037GB 1.3V		
							Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 0 2 ms JPMIA0040GB 1.3V
77		Engine switch (push		Engine switch	Pressed	OV		
(BR)	Ground	switch)	Input	(push switch)	Not pressed	Battery voltage		
78 (P)	Ground	CAN-L	Input/ Output					
79 (L)	Ground	CAN-H	Input/ Output		_	_		
. ,					OFF	0V		
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 <i>JPMIA0015GB</i>		
					ON	6.5V Battery voltage		

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage
83 (L)	Ground	ACC relay-1 control	Output	Ignition switch	ON OFF ACC or ON	0V Battery voltage
84 ⁵ (Y/R)	Ground	CVT shift selector	Output			Battery voltage
85 (L/O)	Ground	Electronic steering column lock condition No. 1	Input	Electronic steer- ing column lock	Lock status Unlock status	0V Battery voltage
86		Electronic steering		Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V
87 ⁵	Ground	Selector lever P posi- tion switch	Input	Selector lever	P position	0V
(G/B)					Any position other than P ON (pressed)	Battery voltage
88 (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 10 0 10 ms 10 ms JPMIA0016GB 1.0V
					ON (pressed)	0V
89 (B/W)	Ground	Front door LH re- quest switch	Input	Front door LH re- quest switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
90 (Y)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC ON	0V Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF		Battery voltage
94 (G/Y)	Ground	Electronic steering column lock power supply	Output	Ignition switch	OFF or ACC ON	Battery voltage 0V

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< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 0 2 ms JPMIA0041GB 1.4V
					Turn signal switch LH	(V) 15 0 2 ms JEMIA0037GB 1.3V
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 0 2 ms 10 2 ms 1.3V
					Front wiper switch LO	(V) 15 0 2 ms
					Front washer switch ON	(V) 15 0 2 ms 10 2 ms 1.3V

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	Terminal No. Description (Wire color)				Value		
(VVIr (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	_
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V	_
96		Combination switch		Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 0 2 ms 1.3V	
(P/B)	Ground	INPUT 4	Output	switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0036GB 1.3V	-
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3V	P

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
	e color)	Signal name	Input/	Condition		Value (Approx.)
(+)	(-)		Output		All switch OFF	(V) 15 0 5 0 2 ms JPMIA0041GB 1.4V
					Lighting switch flash-to- pass	(V) 15 0 2 ms JPMIA0037GB 1.3V
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 0 2 ms JPMIA0036GB 1.3V
					Front wiper switch INT	(V) 15 0 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 10 2 ms JPMIA0040GB 1.3V
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 10 10 10 10 JFMIA0012GB 1.1V

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
					LOCK status	Battery voltage	В
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB	C
					For 15 seconds after UN- LOCK	Battery voltage	E
					15 seconds or later after UNLOCK	0V	_
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage	F
(V)	Ground	Trank lid openling	Output		Close (trunk lid opener ac- tuator is not activated)	0V	G
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)	Clouid		Output		OFF	Battery voltage	Н
114		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 10 5 0 1 s JMKIA0062GB	l J
(B)	Ground	1 (-)	Output	OFF			PW
					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 •••••••••••••••••••••••••••••	L
						JMKIA0063GB	M

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< ECU DIAGNOSIS INFORMATION >

Terminal No. Description (Wire color)		Value				
(Wire (+)	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)
115	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(W) Ground 1 (+) Output OFF	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1			
118	Ground	Rear bumper anten-	Output	When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(L/O)	Ciouna	na (-)	Cutput	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
119 (BR/	Ground	Rear bumper anten-	Outout	When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 10 10 15 15 15 JMKIA0062GB
(BR/ W)	Sitund	na (+)	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description					
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	А
127			•		OFF or ACC	Battery voltage	
(BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	ON	0V	В
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V	C D E
					ON (trunk is open)	0V	
				Ignition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage	F
				cle)	When the clutch pedal is not depressed	0V	
132 (R)	Ground	Starter motor relay control	Output	Ignition switch	When selector lever is in P or N position and the brake is depressed	Battery voltage	G
				ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is not depressed	0V	Η
					ON (pressed)	0V	1
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 10 10 ms JPMIA0016GB 1.0V	J
144	Ground	Request switch buzz-	Output	Request switch	Sounding	0V	L
(GR)	Ground	er	Sulpul	buzzer	Not sounding	Battery voltage	
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V	R. 4
(L/R)	Cibaid	switch	input	switch	Not pressed	Battery voltage	Μ
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V	N
					ON (when rear door RH opens)	0V	Ρ

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
(.)	()		Output			
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes) ON (when rear door LH opens)	(V) 15 10 50 10 ms JPMIA0011GB 11.8V OV

1: Sedan only

2: M/T only

3: With LH front window anti-pinch

4: With LH and RH front window anti-pinch.

5: CVT only

6: With auto lights

7: With low tire pressure warning system

8: Coupe only

Fail Safe

INFOID:000000007629762

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	Erase DTC
B2557: VEHICLE SPEED Inhibit electronic steering column lock		When normal vehicle speed signals have been 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 has become consistent Starter control relay signal Starter relay status signal
B2562: LO VOLTAGE	 Inhibit engine cranking Inhibit electronic steering column lock 	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION Inhibit electronic ste column 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 electronic steering column lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is 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/transmission 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) transmission switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When the following electronic steering column lock conditions agree BCM electronic steering column lock control status Electronic steering column lock condition No. 1 signal status Electronic steering column lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When any of the following conditions is fulfilled Electronic steering column lock unit status signal (CAN) is received normally The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column 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

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power sup- ply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage)
B26E9: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No 1 signal: LOCK (0V) Steering condition No 2 signal: LOCK (Battery voltage)

DTC Inspection Priority Chart

INFOID:000000007629763

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	B2013: ID DISCORD BCM-S/L	
	B2014: CHAIN OF S/L-BCM	
	B2553: IGNITION RELAY	
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW	
	B2557: VEHICLE SPEED	
	B2560: STARTER CONT RELAY	
	B2601: SHIFT POSITION	
	B2602: SHIFT POSITION	
	B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	• B2605: PNP SW	
	B2606: S/L RELAY	
	B2607: S/L RELAY	
	B2608: STARTER RELAY	
	B2609: S/L STATUS	
	B260A: IGNITION RELAY	
4	B260B: STEERING LOCK UNIT B260C: STEERING LOCK UNIT	
4	B260D: STEERING LOCK UNIT	
	B260F: ENG STATE SIG LOST	
	B2611: ACC RELAY	
	• B2612: S/L STATUS	
	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	B2616: IGN RELAY CIRC	
	B2617: STARTER RELAY CIRC	
	• B2618: BCM	
	• B2619: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E1: ENG STATE NO RECIV	
	B26E8: CLUTCH SW	
	B26E9: S/L STATUS	
	B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL	
	• C1720: [CODE ERR] FL	
	C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR	
	C1723: [CODE ERR] RL	
	C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL C1724: CONTROL LINUT	
	C1734: CONTROL UNIT	
6	B2622: INSIDE ANTENNA	
0	B2623: INSIDE ANTENNA	

< ECU DIAGNOSIS INFORMATION >

DTC Index

INFOID:000000007629764

[LH ONLY ANTI-PINCH-SEDAN]

NOTE:

Details of time display

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

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	—	—	_	BCS-32
U1010: CONTROL UNIT (CAN)	—	_	—	BCS-33
U0415: VEHICLE SPEED SIG	—	—	—	<u>BCS-34</u>
B2013: ID DISCORD BCM-S/L	×	_	_	<u>SEC-36</u> (Coupe), <u>SEC-250</u> (Sedan)
B2014: CHAIN OF S/L-BCM	×	_	_	<u>SEC-37</u> (Coupe), <u>SEC-251</u> (Sedan)
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-65</u> (Coupe), <u>SEC-281</u> (Sedan)
B2191: DIFFERENCE OF KEY	×	_	_	<u>SEC-69</u> (Coupe), <u>SEC-285</u> (Sedan)
B2192: ID DISCORD BCM-ECM	×	_	_	<u>SEC-70</u> (Coupe), <u>SEC-286</u> (Sedan)
B2193: CHAIN OF BCM-ECM	×	_	—	<u>SEC-71</u> (Coupe), <u>SEC-287</u> (Sedan)
B2195: ANTI-SCANNING	—	—	—	<u>SEC-72</u>
B2553: IGNITION RELAY	—	_	—	PCS-59
B2555: STOP LAMP	_	_	—	<u>SEC-73</u> (Coupe), <u>SEC-289</u> (Sedan)
B2556: PUSH-BTN IGN SW	_	×	_	<u>SEC-78</u> (Coupe), <u>SEC-294</u> (Sedan)
B2557: VEHICLE SPEED	×	×	—	<u>SEC-80</u> (Coupe), <u>SEC-296</u> (Sedan)
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-81</u> (Coupe), <u>SEC-297</u> (Sedan)
B2562: LOW VOLTAGE	_		_	<u>BCS-35</u>
B2601: SHIFT POSITION	×	×	_	<u>SEC-82</u> (Coupe), <u>SEC-298</u> (Sedan)
B2602: SHIFT POSITION	×	×	_	<u>SEC-86</u> (Coupe), <u>SEC-302</u> (Sedan)
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-89</u> (Coupe), <u>SEC-305</u> (Sedan)
B2604: PNP SW	×	×	_	<u>SEC-92</u> (Coupe), <u>SEC-308</u> (Sedan)
B2605: PNP SW	×	×	_	<u>SEC-94</u> (Coupe), <u>SEC-310</u> (Sedan)
B2606: S/L RELAY	×	×	_	<u>SEC-96</u> (Coupe), <u>SEC-312</u> (Sedan)

Revision: February 2013

2012 Altima GCC

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	A
B2607: S/L RELAY	×	×		<u>SEC-97</u> (Coupe), <u>SEC-313</u> (Sedan)	В
B2608: STARTER RELAY	×	×	_	<u>SEC-99</u> (Coupe), <u>SEC-315</u> (Sedan)	
B2609: S/L STATUS	×	×	_	<u>SEC-101</u> (Coupe), <u>SEC-317</u> (Sedan)	С
B260A: IGNITION RELAY	×	×	—	PCS-61	
B260B: STEERING LOCK UNIT	_	×	—	<u>SEC-106</u> (Coupe), <u>SEC-322</u> (Sedan)	D
B260C: STEERING LOCK UNIT	_	×	—	<u>SEC-107</u> (Coupe), <u>SEC-323</u> (Sedan)	E
B260D: STEERING LOCK UNIT	_	×	_	<u>SEC-108</u> (Coupe), <u>SEC-324</u> (Sedan)	
B260F: ENG STATE SIG LOST	×	×	—	<u>SEC-109</u> (Coupe), <u>SEC-325</u> (Sedan)	F
B2611: ACC RELAY	_	_	—	PCS-62	
B2612: S/L STATUS	×	×	—	<u>SEC-110</u> (Coupe), <u>SEC-331</u> (Sedan)	G
B2614: ACC RELAY CIRC	_	×	_	PCS-64	
B2615: BLOWER RELAY CIRC	_	×	_	PCS-67	Н
B2616: IGN RELAY CIRC	_	×	_	PCS-70	
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-115</u> (Coupe), <u>SEC-336</u> (Sedan)	
B2618: BCM	×	×	—	PCS-73	
B2619: BCM	×	×	—	<u>SEC-117</u> (Coupe), <u>SEC-338</u> (Sedan)	J
B261A: PUSH-BTN IGN SW	_	×	_	<u>SEC-118</u> (Coupe), <u>SEC-339</u> (Sedan)	P۷
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	<u>SEC-121</u>	
B2622: INSIDE ANTENNA	_	_	_	DLK-282	L
B2623: INSIDE ANTENNA	_	_	_	DLK-285	
B26E1: ENG STATE NO RES	×	×		<u>SEC-326</u>	
B26E8: CLUTCH SW	×	×		<u>SEC-123</u>	N
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	_	<u>SEC-125</u>	
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	<u>SEC-126</u>	N
C1704: LOW PRESSURE FL		_	×	<u>WT-8</u>	~
C1705: LOW PRESSURE FR			×	<u>WT-8</u>	0
C1706: LOW PRESSURE RR			×	<u>WT-8</u>	
C1707: LOW PRESSURE RL			×	<u>WT-8</u>	Ρ
C1708: [NO DATA] FL			×	<u>WT-13</u>	
C1709: [NO DATA] FR			×	<u>WT-13</u>	
C1710: [NO DATA] RR	—	_	×	<u>WT-13</u>	
C1711: [NO DATA] RL			×	<u>WT-13</u>	
C1712: [CHECKSUM ERR] FL		_	×	<u>WT-15</u>	

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

[LH ONLY ANTI-PINCH-SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	—	—	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	—	—	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	—	—	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	—	—	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	—	—	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	—	—	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	—	—	×	<u>WT-17</u>
C1720: [CODE ERR] FL	—	—	×	<u>WT-15</u>
C1721: [CODE ERR] FR	—	—	×	<u>WT-15</u>
C1722: [CODE ERR] RR	—	—	×	<u>WT-15</u>
C1723: [CODE ERR] RL	—	—	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	—	—	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	—	—	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	—	—	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	—	—	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	—	—	×	<u>WT-18</u>
C1734: CONTROL UNIT			×	<u>WT-19</u>

WIRING DIAGRAM

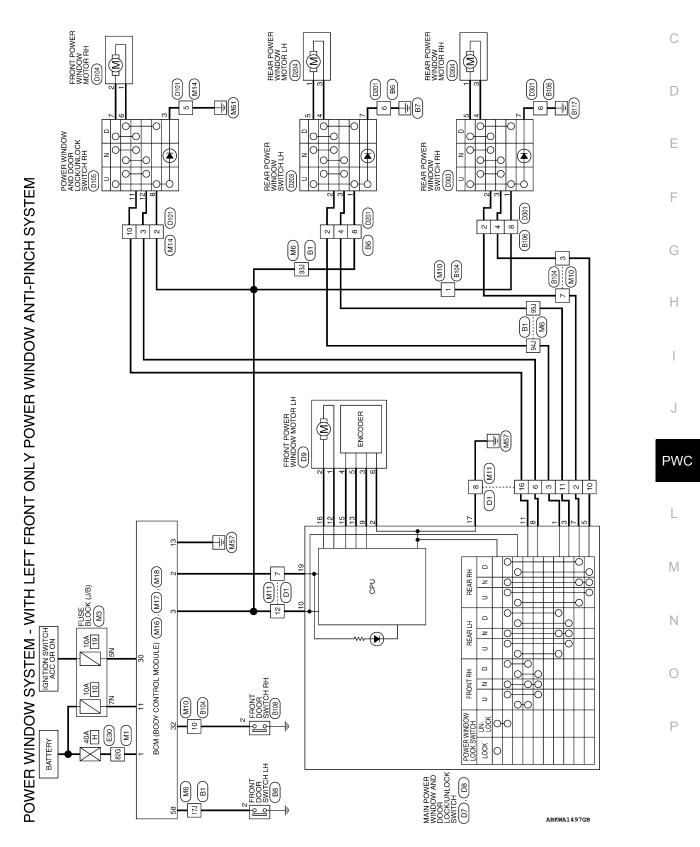
POWER WINDOW SYSTEM

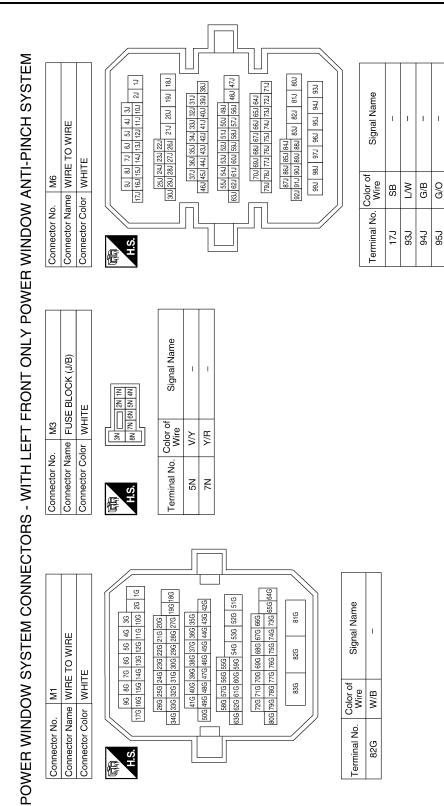
Wiring Diagram - Sedan With Left Front Only Power Window Anti-Pinch System

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< WIRING DIAGRAM >

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

Connector No. M11

Connector Name WIRE TO WIRE

Connector No. M10

Connector Color BROWN

[LH ONLY ANTI-PINCH-SEDAN]

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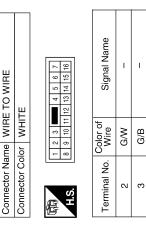
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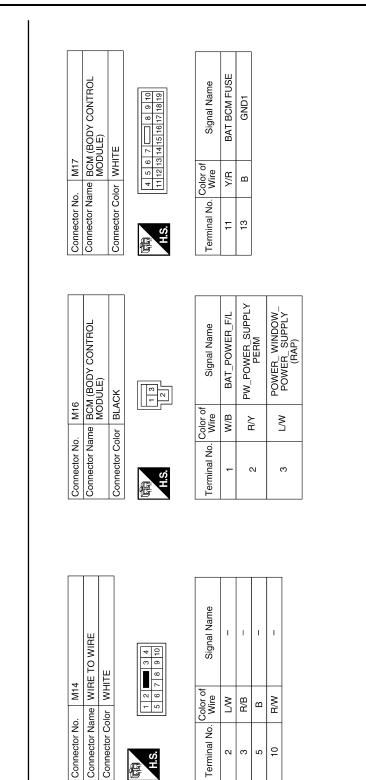
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Signal Name	I	I	I	I	I	I	I
Color of Wire	R/B	R/Υ	В	G/R	G/O	L/W	R/W
Terminal No. Color of Wire	9	7	8	10	11	12	16



10 9 8 7 6	Signal Name	I	-	I	I
5 4 C	Color of Wire	L/W	G/R	G/W	R/B
品.S.H	Terminal No.	Ļ	£	7	10



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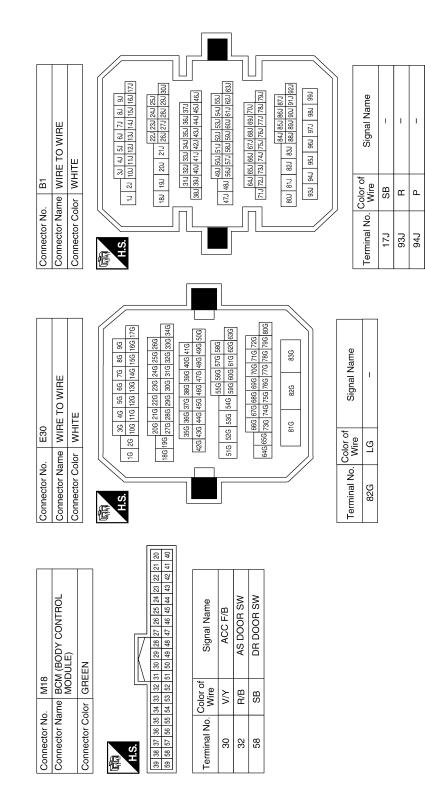
POWER WINDOW SYSTEM

< WIRING DIAGRAM >

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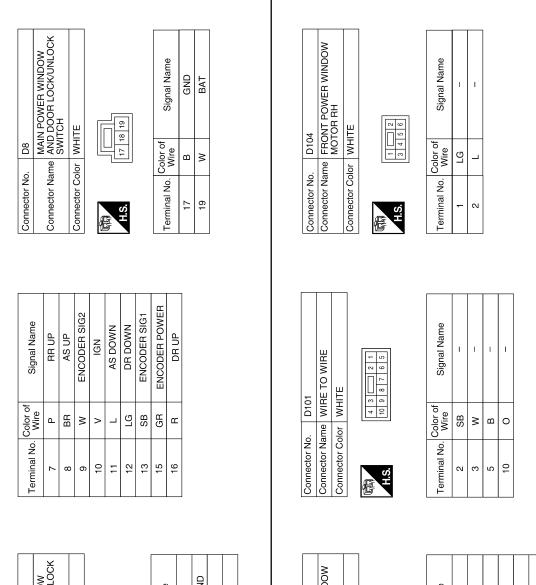
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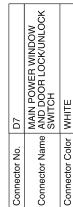
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B104 B104 me WIRE TO WIRE me WIRE TO WIRE n BROWN N BROWN N -	B
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Connector No. B104 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color BROWN Terminal No. Color of Signal 1 R - 1 R 10 Connector No. 11 R 10 Color of 11 R 10 Connector No. 11 R 10 Connector No. 11 R 10 Color of 11 R 11 N 12 W 13 Signal 14 R 10 Color of 11 R 12 V 13 Signal 14 Signal 15 V 16 L 16 L	Е
	F
Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Name FRONT DOOR SWITCH LH Connector Color WHITE Terminal No. Color of Wire Signal Name 2 SB DOOR SW (DR) Connector Name FRONT DOOR SWITCH LH Connector Name FRONT DOOR SWITCH RH Connector Name FRONT SWITCH RH Connector Name Signal Name Za GR Za	G
B8 B8 WHITE B108 FRONT DOOF B108 FRONT DOOF B108 FRONT DOOF Sign	Н
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< WIRING DIAGRAM >

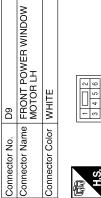
[LH ONLY ANTI-PINCH-SEDAN]







Signal Name	RL UP	ENCODER GND	RL DOWN	RR DOWN	
Color of Wire	≻	თ	0	SB	
Terminal No. Wire	-	2	ε	5	



H.S.H

Signal Name	I	I	I	I	I	I
Color of Wire	ŋ	œ	Ν	GR	SB	ŋ
Terminal No. Color of Wire	-	2	3	4	5	6

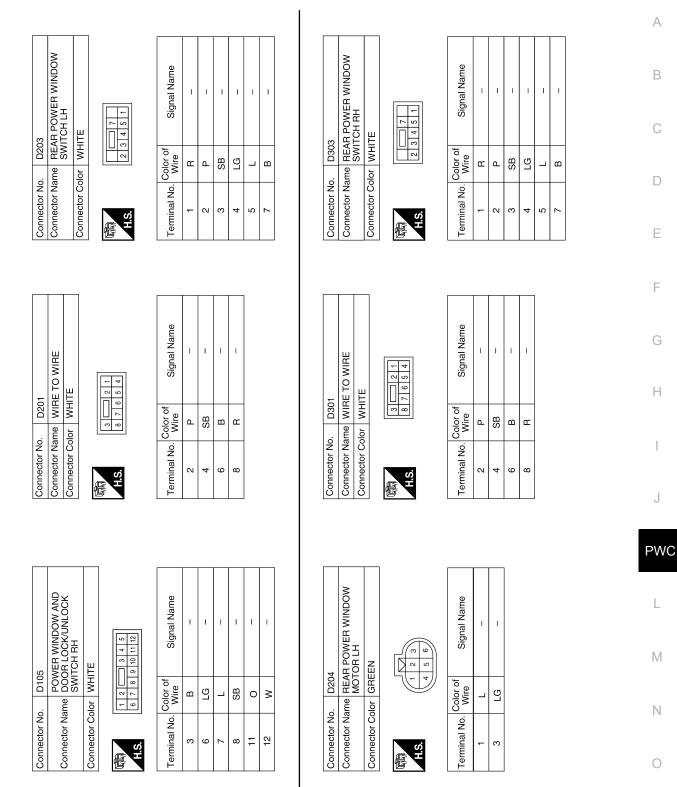
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< WIRING DIAGRAM >

POWER WINDOW SYSTEM

< WIRING DIAGRAM >

[LH ONLY ANTI-PINCH-SEDAN]



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< WIRING DIAGRAM >

5 6	Signal Name	I
4	Color of Wire	L
Ċ.	Terminal No.	۲

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Signal Name	Ι	Ι	
Color of Wire	Г	ГG	
Terminal No.	-	3	

PWC-84

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NONE OF THE DOWED WINDOWS CAN BE OBEDATED LISING ANY SWITCH

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH < SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-SEDAN]
SYMPTOM DIAGNOSIS
NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH
Diagnosis Procedure
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT
Check BCM power supply and ground circuit. Refer to <u>BCS-36, "Diagnosis Procedure"</u> .
Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.
2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
Check main power window and door lock/unlock switch. Refer to <u>PWC-23, "POWER WINDOW MAIN SWITCH : Component Inspection"</u> . Is the inspection result normal?
YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts.
3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT
Check main power window and door lock/unlock switch power supply and ground circuit. Refer to <u>PWC-20, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> .
Is the inspection result normal?
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.

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DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-SEDAN]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007422885

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH. Refer to <u>PWC-31</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE [LH ONLY ANTI-PINCH-SEDAN]

< SYMPTOM DIAGNOSIS >

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

Diagnosis Procedure	INFOID:000000007422886	В
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH		D
Check power window and door lock/unlock switch RH. Refer to <u>PWC-25</u> , "FRONT POWER WINDOW SWITCH : Component Function Check".		С
Is the inspection result normal?		
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.		D
2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT		
Check front power window motor RH circuit. Refer to <u>PWC-33</u> , "PASSENGER SIDE : Component Function Check".		Ε
Is the inspection result normal?		
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.		F
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REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007422887

[LH ONLY ANTI-PINCH-SEDAN]

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH. Refer to <u>PWC-27, "REAR POWER WINDOW SWITCH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH. Refer to <u>PWC-34, "REAR LH : Component Function Check"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	[LH ONLY ANTI-PINCH-SEDAN]	
REAR RH SIDE POWER WINDOW ALONE DOES		A
Diagnosis Procedure	INFOID:000000007422888	
1. CHECK REAR POWER WINDOW SWITCH RH		В
Check rear power window switch RH. Refer to <u>PWC-27</u> , "REAR POWER WINDOW SWITCH : Component Fu	nction Check".	
Is the inspection result normal?		С
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK REAR POWER WINDOW MOTOR RH		D
Check rear power window motor RH. Refer to <u>PWC-36, "REAR RH : Component Function Check"</u> .		E
Is the inspection result normal?		
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Inci</u> NO >> Repair or replace the malfunctioning parts.		F

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ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE) [LH ONLY ANTI-PINCH-SEDAN]

< SYMPTOM DIAGNOSIS >

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000007422889

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-25, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{2}$. CHECK DOOR WINDOW SLIDING PART

· A foreign material adheres to window glass or glass run rubber.

- · Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace the malfunctioning parts.

 ${f 3.}$ CHECK ENCODER CIRCUIT

Check encoder circuit. Refer to PWC-39, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Repair or replace the malfunctioning parts.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

LY (DRIVER SIDE)	
< SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-SEDAM	۱]
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY (DRIVER SIDE)	S _A
Diagnosis Procedure	2890 B
1. PERFORM INITIALIZATION PROCEDURE	D
Perform initialization procedure. Refer to <u>PWC-25, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"</u> .	С
Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK ENCODER	D
Check encoder. Refer to <u>PWC-39, "DRIVER SIDE : Component Function Check"</u> .	E
Is the inspection result normal?	
YES >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	F
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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

Diagnosis Procedure

INFOID:000000007422891

1. CHECK FRONT DOOR SWITCH

Check front door switch. Refer to <u>PWC-42, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION // DIAGNOSIS > [LH ONLY ANTI-PINCH-SEDAN]

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000007422892

А

1.REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH B Replace main power window and door lock/unlock switch. Refer to PWC-98, "Removal and Installation". C >> INSPECTION END D

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< PRECAUTION >

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 SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag 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

INFOID:000000007422894

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 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.

This vehicle is equipped with a push-button ignition switch and a 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 procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables. **NOTE:**

Supply power using jumper cables if battery is discharged.

- 2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. 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 >

[LH ONLY ANTI-PINCH-SEDAN]

- 5. 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 A wheel will lock when the push-button ignition switch is turned to LOCK position.)
- 6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Work

INFOID:000000007422895

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.

Then rub with a soft and dry cloth.

 Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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< PREPARATION > PREPARATION

PREPARATION

Special Service Tool

INFOID:000000007422896

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

The detail shapes of tent moore tools may affer from those of special service tools made	
Tool number (Kent-Moore No.) Tool name	Description
(J-46534) Trim Tool Set	Removing trim components

[LH ONLY ANTI-PINCH-SEDAN]

PERIODIC MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection INFOID:000000007422897 В **BASIC INSPECTION** 1. INSPECTION START С 1. Check the service history. 2. Check the following parts. D • Fuse/circuit breaker blown. · Poor connection, open or short circuit of harness connector. · Battery voltage. Is the inspection result normal? Е YES >> Inspection End. NO >> Repair or replace the malfunctioning parts. F

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REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:000000007422898

REMOVAL

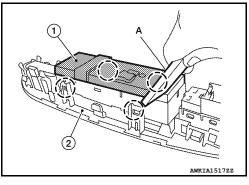
- 1. Remove the front door armrest finisher. Refer to INT-13. "Removal and Installation".
- Release the pawls, using suitable tool, then lift the main power window/door lock switch and finisher upward as an assembly.
 CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 3. Disconnect the harness connector.
- 4. Remove the main power window/door lock switch and finisher assembly from the front door finisher.
- 5. Release the four tabs (two on each side) with a suitable tool (A), then separate the main power window/door lock switch (1) from the switch finisher (2).

():Pawl CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION

Installation is in the reverse order of removal. **NOTE:**

Perform initialization procedure after switch is connected. Refer to <u>PWC-11</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT</u> : Special Repair Requirement".

< REMOVAL AND INSTALLATION >

FRONT POWER WINDOW SWITCH

Removal and Installation

REMOVAL

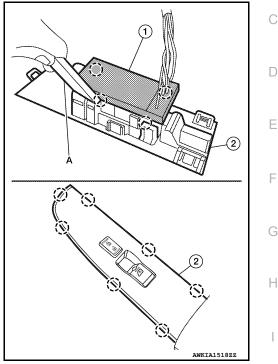
- 1. Remove the front door armrest finisher. Refer to INT-13, "Removal and Installation".
- 2. Release the pawls, using suitable tool, then lift the power window/door lock switch and finisher (2) - RH upward as an assembly.

():Pawl **CAUTION:**

Wrap a cloth around suitable tool to protect components from damage.

- 3. Disconnect the harness connector.
- 4. Remove the power window/door lock switch and finisher (2) -RH assembly from the front door finisher.
- 5. Release the four tabs (two on each side) with a suitable tool (A), then separate the power window/door lock switch (1) from the switch finisher (2). **CAUTION:**

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION Installation is in the reverse order of removal.

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< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

Removal and Installation

REMOVAL

 Release the pawls, using suitable tool then lift the rear power window switch and finisher (2) upward as an assembly.

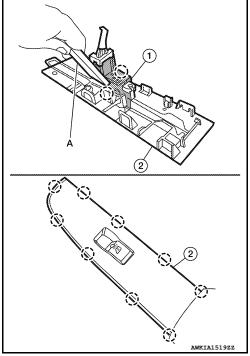
():Pawl CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 2. Disconnect the harness connector.
- 3. Remove the rear power window switch and finisher (2) assembly from the rear door finisher.
- 4. Release the tab (one on each side) with a suitable tool (A), then separate the rear power window switch (1) from the switch finisher (2).

CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION Installation is in the reverse order of removal. INFOID:000000007422900

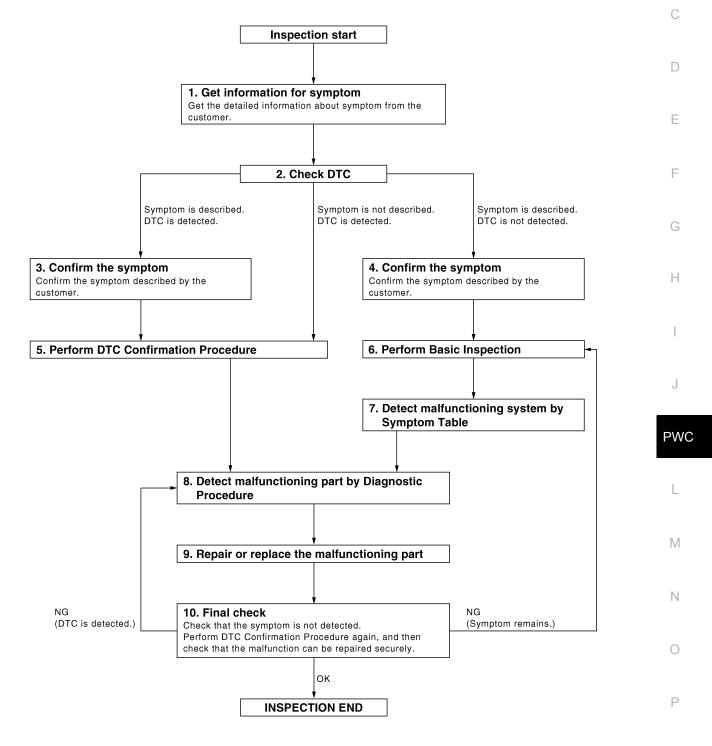
[LH&RH FRONT ANTI-PINCH-COUPE] **BASIC INSPECTION**

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007422901 В

OVERALL SEQUENCE



JMKIA0101GB

Revision: February 2013

PWC-101

< BASIC INSPECTION >

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 DTC

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

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

 $\mathbf{3.}$ CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT 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 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

b. 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 to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-65</u>. "<u>DTC Inspection Priority Chart</u>" and determine trouble diagnosis order.

NOTE:

- Freeze frame data is useful if the DTC is not detected.
- Perform Component Function Check if DTC Confirmation Procedure is not included 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 8

NO >> Refer to <u>GI-42, "Intermittent Incident"</u>.

6. PERFORM BASIC INSPECTION

Perform PWC-101, "Work Flow".

Inspection End>>GO TO 7

7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE

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

DIAGNOSIS AND REPAIR WORKFLOW

<u>SASIC INSPECTION ></u> [LH&RH FRONT ANTI-PINCH-COUPE]

 8. 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.

 Is malfunctioning part detected?

 YES
 >> GO TO 9

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

 9. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 10

10. FINAL CHECK

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

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

Does the symptom reappear?

YES (DTC is detected)>>GO TO 8 YES (Symptom remains)>>GO TO 6

NO >> Inspection End.

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INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description INFOID:000000007422902

Initial setting is necessary when battery terminal is disconnected.

CAUTION:

- The following specified operations are not performed under the non-initialized condition.
- Auto-up operation
- Anti-pinch function
- Retained power operation

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement INFOID:000000007422903

INITIALIZATION PROCEDURE

- 1. Disconnect battery negative terminal or main power window and door lock/unlock switch. Reconnect it after a minute or more.
- Turn ignition switch ON. 2.
- Operate power window switch to fully open the window. (This operation is unnecessary if the window is 3. already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
- Inspect anti-pinch function. 5.

CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- Place a piece of wood near fully closed position. 2
- Close door glass completely with AUTO-UP. 3.
- Check that glass lowers for approximately 150 mm. or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.
- **CAUTION:**
- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-139, "Fail Safe".
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- Anti-pinch function 2.
- 3. Retained power operation when ignition switch is OFF.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000007422904

Initial setting is necessary when replacing main power window and door lock/unlock switch. CAUTION:

The following specified operations are not performed under the non-initialized condition.

- Auto-up operation
- Anti-pinch function
- Retained power operation

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000007422905

INITIALIZATION PROCEDURE

1. Disconnect battery negative terminal or main power window and door lock/unlock switch. Reconnect it after a minute or more.

PWC-104

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH&RH FRONT ANTI-PINCH-COUPE]

- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is A already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
- 5. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the main power window and door lock/unlock switch while
 Iowering.

CAUTION:

- Do not check with hands and other part of body because they may be pinched. Do not get pinched. \square
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>PWC-139</u>, "Fail Safe".
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Retained power operation when ignition switch is OFF.

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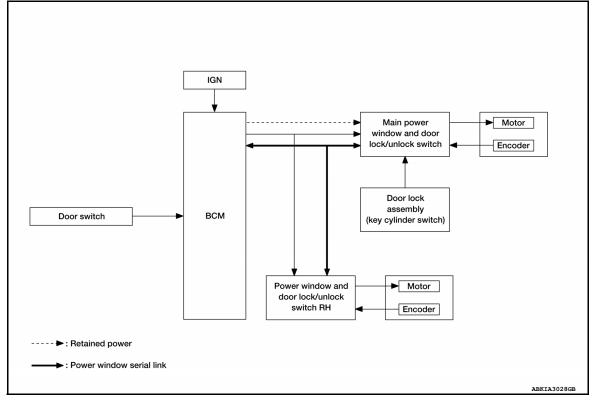
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SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram

INFOID:000000007422906

POWER WINDOW ANTI-PINCH SYSTEM



System Description

INFOID:000000007422907

POWER WINDOW MAIN SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator
Key cylinder switch	LOCK/UNLOCK signal (more than 1.5 seconds over)		
Encoder	Encoder pulse signal		
Main power window and door lock/unlock switch	Power window motor LH UP/DOWN signal	Power window control	Front power window motor
Power window and door lock/unlock switch RH	Power window motor RH UP/DOWN signal		
BCM	RAP signal		

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

POWER WINDOW SYSTEM

SYSTEM DESCR	RIPTION >		ONT ANTI-PINCH-COUPE]
Item	Input signal to front power window switch	Front power window switch function	Actuator
Power window and door lock/unlock switch RH	Power window motor RH UP/DOWN signal	Power window control	Front power window motor RH
Encoder	Encoder pulse signal		
BCM	RAP signal		
nd OFF. Iain power windo	w and door lock/unlock switch ca door lock switch ca	n open/close all windows.	
UTO UP/DOWN ower window and incoder continues s the encoder pu ower window swi ully opened/close	/ AUTO-OPERATION (LH & R operation can be performed wh d door lock/unlock switch RH turns s detecting the movement of pow lse signal while power window mo itch reads the changes of encode d position. tor is operable in case encoder is	ten main power window as s to AUTO. ver window motor and trans otor is operating. r signal and stops AUTO op	smits to power window switch
Retained power op	R OPERATION peration is an additional power su seconds even when ignition switc		oower window system to oper
oor CLOSE (doo Vhen ignition swit	r switch OFF)→OPEN (door swite	ch ON).	
	/ LOCK e main power window and door nhibits power window switch oper		
TI-PINCH OPE	RATION (LH & RH) erial in the door glass during AUT		e anti-pinch function that low
incoder continues	150 mm or 2 seconds when dete s detecting the movement of pow lse signal while power window mo	ver window motor and trans	smits to power window switch
Resistance is appl al if foreign mater Power window sw	lied to the power window motor re rial is trapped in the door glass. itch controls to lower the window	otation that changes the fre	
	, ,	ned (anti-pinch function do	es not operate just before the
TE:	onment and driving conditions, if	f a similar impact or load is	s applied to the door glass, in

KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for more than 1 second to OPEN or CLOSE front power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- Ignition switch OFF
- Hold door key cylinder to LOCK position for more than 1 second to perform CLOSE operation of the door glass.

PWC-107

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[LH&RH FRONT ANTI-PINCH-COUPE]

 Hold door key cylinder to UNLOCK position for more than 1 second to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN OPERATION (LH & RH)

Front power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3^(NOTE) 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 function cannot be operated. NOTE:

Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to BCS-16, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

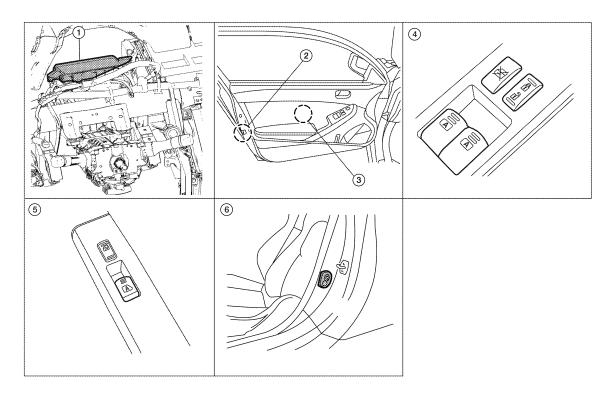
NOTE:

Use CONSULT to change settings.

MODE 1 (3sec) / MODE 2 (OFF) / MODE 3 (5sec)

Component Parts Location

INFOID:000000007422908



- BCM M16, M17, M18 (view with in- 2. 1. strument panel removed)
- 4 unlock switch D7

Component Description

POWER WINDOW ANTI-PINCH SYSTEM

- Door lock assembly LH (key cylinder 3. switch) D10
- Main power window and door lock/ 5. Power window and door lock/unlock 6. switch RH D105

- ALKIA1182ZZ
- Power window motor LH D9, RH D104
- Front door switch LH B8, RH B108

INFOID:000000007422909

PWC-108

< SYSTEM DESCRIPTION >

POWER WINDOW SYSTEM

[LH&RH FRONT ANTI-PINCH-COUPE]

Component	Function	
ВСМ	Supplies power supply to power window switch.Controls retained power.	
Main power window and door lock/un- lock switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of power window LH.	
Power window and door lock/unlock switch RH	Controls front power window motor RH.Controls anti-pinch operation of power window RH.	
Power window motor LH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch. Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch. 	
Power window motor RH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH. Transmits power window motor rotation as a pulse signal to power window and door lock/unlock switch RH. 	
Door lock assembly LH (key cylinder switch)	Transmits operation condition of key cylinder switch to main power window and door lock/unlock switch.	
Door switch LH or RH	Detects door open/close condition and transmits to BCM.	

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DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : Diagnosis Description

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	This function is not used even though it is displayed.

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.

System	Sub system selection item	Diagnosis mode		
System	Sub system selection item	WORK SUPPORT	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		×	
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
BCM	BCM	×		
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	
Trunk open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000007724088

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-67, "DTC Index"</u>.

Revision: February 2013

INFOID:000000007629765

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:000000007629766

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[LH&RH FRONT ANTI-PINCH-COUPE]

DATA MONITOR

Monitor Item [Unit]	Description	С
DOOR SW-DR [ON/OFF]	Indicates condition of front door switch LH.	
DOOR SW-AS [ON/OFF]	Indicates condition of front door switch RH.	-
		D

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DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>BCS-70, "Wiring Diagram - Coupe"</u> or <u>BCS-79, "Wiring Dia-</u> gram - <u>Sedan"</u>.

1. CHECK FUSE AND FUSIBLE LINK

Check if the following BCM fuse or fusible link are blown.

Terminal No.	Signal name	Fuse and fusible link No.
1	Battery power supply	Н
11	Dattery power supply	10

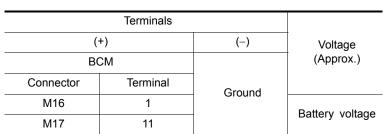
Is the fuse or fusible link blown?

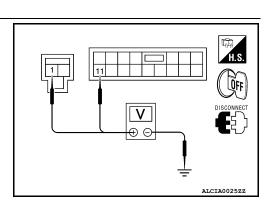
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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





Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M17	13	1	Yes

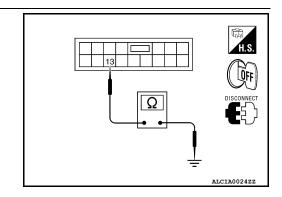
Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.

BCM : Special Repair Requirement

1. REQUIRED WORK WHEN REPLACING BCM



INFOID:000000007629768

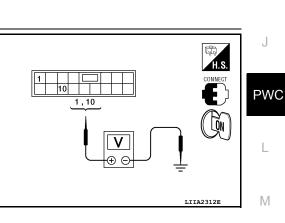
INFOID:000000007629767

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-COUPE]
Initialize control unit. Refer to <u>BCS-3</u> , "ADDITIONAL SERVICE W Work Procedure".	HEN REPLACING CONTROL UNIT (BCM) : A
>> Work End. POWER WINDOW MAIN SWITCH	В
POWER WINDOW MAIN SWITCH : Description	INFOID:00000007422914
 BCM supplies power. It operates each power window motor via corresponding power down when main power window and door lock/unlock switch is 	operated.
POWER WINDOW MAIN SWITCH : Component F	
Main Power Window And Door Lock/Unlock Switch 1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOG	
Check power window motor operation with main power window a ls the inspection result normal?	nd door lock/unlock switch.
YES >> Main power window and door lock/unlock switch pow NO >> Refer to <u>PWC-113</u> . "POWER WINDOW MAIN SWITC	
POWER WINDOW MAIN SWITCH : Diagnosis Pro	INFOID:000000007422916
Regarding Wiring Diagram information, refer to PWC-171, "Wiring	<mark>g Diagram - Coupe"</mark> .
Main Power Window And Door Lock/Unlock Switch Power S	Supply Circuit Check

- 1. CHECK POWER SUPPLY CIRCUIT
- 1. Turn ignition switch ON.
- 2. Check voltage between main power window and door lock/ unlock switch connectors and ground.

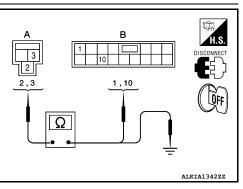
(+)			Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	()	(Approx.)
D7	1	Ground	Battery voltage
D1	10	Ground	Dattery voltage



Is the measurement value within the specification?

 $2. \, {\rm CHECK} \, {\rm HARNESS} \, {\rm CONTINUITY}$

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and main power window and door lock/unlock switch.
- 3. Check continuity between BCM connector (A) and main power window and door lock/unlock switch connectors (B).



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POWER SUPPLY AND GROUND (

< DTC/CIRCUIT DIAGNOSIS >

		CUII			
[L	.H&RH	FRONT	ANTI-PI	NCH-C	OUPE]

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M16 (A)	3	D7 (B)	10	Yes
W10 (A)	2	ы (В)	1	165

Check continuity between BCM connector (A) and ground. 4.

BCM connector	Terminal		Continuity
M16	3	Ground	No
	2		NO

Is the inspection result normal?

>> GO TO 4 YES

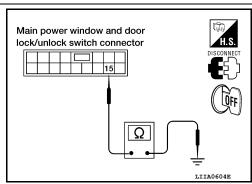
NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch. 2.
- Check continuity between main power window and door lock/ 3. unlock switch connector and ground.

Main power window and door lock/ unlock switch connector	Terminal	Ground	Continuity
D7	15		Yes



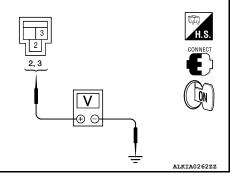


Is the inspection result normal?

YES >> GO TO 5

- >> Repair or replace harness. NO
- CHECK BCM OUTPUT SIGNAL
- 1. Connect BCM.
- 2. Turn ignition switch ON.
- Check voltage between BCM connector and ground. 3.

(+)		(-)	Voltage (V) (Approx.)	
BCM connector	Terminal			
M16	3	Ground	Battery voltage	
NTO	2	Ground	Dattery Voltage	



Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

NO >> Replace BCM. Refer to BCS-92, "Removal and Installation".

5. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

1. Connect main power window and door lock/unlock switch.

Turn ignition switch ON. 2.

3. Check voltage between main power window and door lock/unlock switch connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	Terminal					
(+)						
Main power win- dow and door lock/unlock switch connector	Terminal	()	Window switch position RH	Voltage (V) (Approx.)		
	0		UP	Battery voltage		
D7	8	Ground	DOWN	0		
DT	11	Ground	UP	0		
	11		DOWN	Battery voltage	-	
NO >> Rep Inst	eck interm blace main <u>allation"</u> .	ittent inciden n power win	t. Refer to <u>GI-42.</u>	ck/unlock switc	h. Refer to <u>PWC-192.</u>	"Removal and
			•			INFOID:000000007422917
1. PERFORM I	INITIALIZ	ATION PRO	CEDURE			
Perform initializa Refer to <u>PWC-1</u> <u>ment"</u> .	ation proce 04, "ADD	edure. ITIONAL SE	RVICE WHEN RE	EPLACING CON	NTROL UNIT : Special I	Repair Require-
Is the inspection	n result no	rmal?				
YES >> GO		:			- 1 - 1 4 !!	
NO >> Che 2. CHECK ANT			it. Refer to <u>GI-42,</u>		<u>pident"</u> .	
			N			
Check anti-pincl Refer to <u>PWC-1</u> <u>ment"</u> .			RVICE WHEN RE	EPLACING COM	NTROL UNIT : Special I	<u>Repair Require-</u>
Is the inspection						1
	Dection En		ER SIDE : Comp	onent Function	Check"	
			SWITCH (PA			
			,		DE) : Description	INFOID:000000007422918
BCM suppliesPower window		H will be ope	rated if power wir	idow and door l	ock/unlock switch RH is	s operated.
FRONT POV	VER WI	INDOW S	WITCH (PAS	SENGER SI	DE) : Component	Function
Check						INFOID:000000007422919
Power Window	And Do	or Lock/Unl	ock Switch RH			
4			OR RH FUNCTIO	N		
					lock/unlock switch RH.	
Is the inspection		•				
YES >> Pow NO >> Refe	ver windov	w and door lo			bly and ground circuit ar (PASSENGER SIDE) :	
FRONT POV	VER WI	INDOW S	WITCH (PAS	SENGER SI	DE) : Diagnosis P	

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

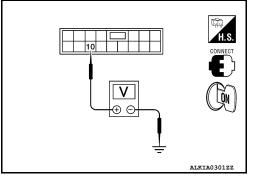
Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

Power Window And Door Lock/Unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window and door lock/unlock switch RH connector and ground.

Tern			
(+)		Voltage (V)	
Power window and door lock/ unlock Terminal switch RH connector		(-)	(Approx.)
D105	10	Ground	Battery voltage



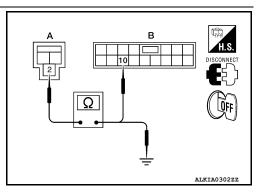
Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect BCM and power window and door lock/unlock switch 2. RH.
- Check continuity between BCM connector (A) and power win-3. dow and door lock/unlock switch RH connector (B).



Power window and BCM connector Terminal door lock/unlock Terminal Continuity switch RH connector 2 D105 (B) M16 (A) 10 Yes

4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M16 (A)	2	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

- Turn ignition switch OFF. 1.
- Disconnect power window and door lock/unlock switch RH. 2.
- Check continuity between power window and door lock/unlock 3. switch RH connector and ground.

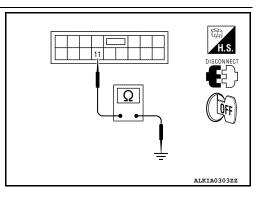
Power window and door lock/unlock switch RH	Terminal	Ground	Continuity
D105	11		Yes

Is the inspection result normal?

>> Check intermittent incident. Refer to GI-42, "Intermittent YES Incident".

NO >> Repair or replace harness.

CHECK BCM OUTPUT SIGNAL



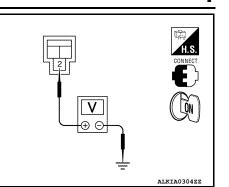
POWER SUPPLY AND GROUND CIRCUIT [LH&RH FRONT ANTI-PINCH-COUPE]

< DTC/CIRCUIT DIAGNOSIS >

1. Connect BCM.

- 2. Turn ignition switch ON.
- 3. Check voltage between BCM connector and ground.

(+)	(-)	Voltage (V) (Approx.)				
BCM connector Terminal		()	,			
M16 2 Ground Battery voltage						
Is the measurement value within the specification?						



YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

>> Replace BCM. Refer to BCS-92, "Removal and Installation". NO

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Special Repair Requirement INFOID:000000007422921

1. PERFORM INITIALIZATION PROCEDURE F Perform initialization procedure. Refer to PWC-104, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement". Is the inspection result normal? YES >> GO TO 2 Н NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". 2. CHECK ANTI-PINCH OPERATION Check anti-pinch operation. Refer to PWC-104, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement". Is the inspection result normal? YES >> Inspection End. NO >> Refer to PWC-124, "PASSENGER SIDE : Component Function Check".

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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch.

DRIVER SIDE : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check power window motor LH operation with operating main power window and door lock/unlock switch. <u>Is the inspection result normal?</u>

YES >> Power window motor LH is OK.

NO >> Refer to <u>PWC-118</u>, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:000000007422924

INFOID:000000007422922

INFOID:000000007422923

Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

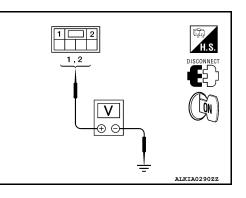
Power Window Motor LH Circuit Check

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power window motor LH.
- 3. Turn ignition switch ON.

 Check voltage between power window motor LH connector and ground.

Г	erminal				
(+)			Main power win- dow and door lock/	Voltage (V)	
Power window motor LH con- nector	Terminal	(–)	unlock switch con- dition	(Approx.)	
	2		UP	Battery voltage	
D9	2	Ground	DOWN	0	
09	1	Ground	UP	0	
	l		DOWN	Battery voltage	



Is the measurement value within the specification?

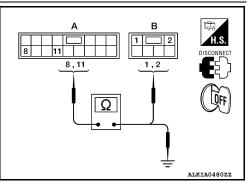
YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and power window motor LH.
- Check continuity between main power window and door lock/ unlock switch connector (A) and power window motor connector LH (B).

Main power window and door lock/unlock switch connector	Terminal	Power window mo- tor LH connector	Terminal	Continuity
D7 (A)	8	D9 (B)	2	Yes
D7 (A)	11	D9 (D)	1	165



POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

4. Check continuity betwee	een main pow	er window an	d door lock/unl	ock switch connector (A) and ground.
,, , ,	p			А
Main power window and door lock/unlock switch connector	Terminal		Continuity	
D7 (A)	8	Ground	No	В
DT (A)	11		NO	
Is the inspection result nor	mal?			C
		<u>R WINDOW N</u>	IAIN SWITCH	: Component Function Check".
NO >> Repair or repla				
3. CHECK POWER WINE				D
Check power window moto Refer to <u>PWC-119</u> , "DRIVE		nponent Inspe	ection".	
Is the inspection result nor				E
YES >> Check intermit	tent incident. I	Refer to <u>GI-42</u>	2, "Intermittent	Incident".
			o <u>Gvv-22, "Rer</u> ir Requirement	moval and Installation". After that, refer to
DRIVER SIDE : Com				-
	ponent ms	pection		INFOID:000000007422925
COMPONENT INSPECT	ΓΙΟΝ			G
1. CHECK POWER WINE	DOW MOTOR	LH		
Check motor operation by	connecting the	e battery volta	ge directly to p	oower window motor.
, ,	Ū	,	0 , 1	
Terminal		Mo	tor condition	
(+)	(-)	INIO		
1	2		DOWN	
2	1		UP	J
Is the inspection result nor				
	r window moto	or LH. Refer t	o <u>GW-22, "Rer</u> ir Requirement	moval and Installation". After that, refer to PW
DRIVER SIDE : Spec	cial Repair	Requireme	ent	INFOID:000000007422926
				L
1. PERFORM INITIALIZA		DURE		
Perform initialization proce Refer to <u>PWC-104</u> , "ADDI" ment".		<u>ICE WHEN F</u>	REPLACING C	ONTROL UNIT : Special Repair Require-
Is the inspection result nor	mal?			
YES >> GO TO 2				N
NO >> Check intermit		Refer to GI-42	2, "Intermittent	Incident".
2. CHECK ANTI-PINCH ()PERATION			0
Check anti-pinch operation Refer to <u>PWC-104</u> , "ADDI" <u>ment"</u> .		<u>ICE WHEN F</u>	REPLACING C	ONTROL UNIT : Special Repair Require-
Is the inspection result nor	mal?			Р
YES >> Inspection End	d.			
NO >> Refer to PWC	<u>122, "DRIVEF</u>	R SIDE : Com	ponent Functio	on Check".
PASSENGER SIDE				

< DTC/CIRCUIT DIAGNOSIS >

PASSENGER SIDE : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

PASSENGER SIDE : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check power window motor operation with operating main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Power window motor RH is OK.

NO >> Refer to <u>PWC-120, "PASSENGER SIDE : Diagnosis Procedure"</u>.

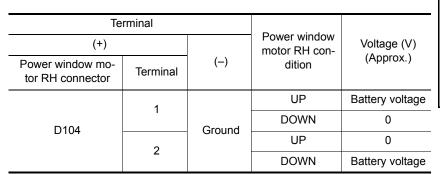
PASSENGER SIDE : Diagnosis Procedure

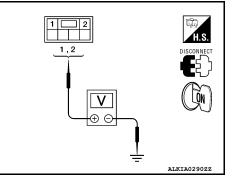
Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

Power Window Motor RH Circuit Check

1. CHECK POWER WINDOW SWITCH RH OUTPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect power window motor RH.
- 3. Turn ignition switch ON.
- Check voltage between power window motor RH connector and ground.





Is the measurement value within the specification?

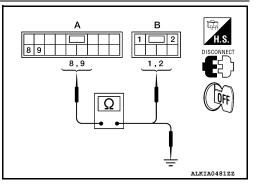
YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector (A) and power window motor RH connector (B).

Power window and door lock/unlock switch RH connector	Terminal	Power window mo- tor RH connector	Terminal	Continuity
D105 (A)	8	D104 (B)	2	Yes
D105 (A)	D105 (A) 9	D104 (B)	1	165



4. Check continuity between power window and door lock/unlock switch RH connector (A) and ground.

PWC-120

INFOID:000000007422927

INFOID:000000007422928

INFOID:000000007422929

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

				٨
Power window and door lock/unlock switch RH con- nector	Terminal		Continuity	A
	8	Ground		В
D105 (A)	9		No	D
le the increation regult re				
Is the inspection result no				
YES >> Refer to <u>PW</u> Function Che		I POWER	WINDOW SWITCH	I (PASSENGER SIDE) : Component
NO >> Repair or rep				
3. CHECK POWER WIN		RH		D
Check power window mc Refer to <u>PWC-121, "PAS</u>		: Compone	ent Inspection".	E
Is the inspection result no				
YES >> Check intern	nittent incident.	Refer to GI	-42, "Intermittent Inc	ident".
NO >> Replace pow	ver window mot	or RH. Refe	er to <u>GW-22, "Remov</u>	val and Installation". After that, refer to $_{F}$
<u>PWC-121, "F</u>	PASSENGER S	IDE : Speci	al Repair Requireme	<u>ent"</u> .
PASSENGER SIDE	: Compone	nt Inspec	ction	INFOID:000000007422930
	•	•		G
COMPONENT INSPEC	CTION			
1. CHECK POWER WI	NDOW MOTOR	RH		
Check motor operation b	v connecting th	e batterv vo	ltage directly to pow	H
	y connecting th	c ballery ve	lage ancoay to pow	
Terminal				-
(+)	(-)		Motor condition	I
1	2		UP	_
2	1		DOWN	— J
			DOWN	-
Is the inspection result no				
YES >> Power windo NO >> Replace pow		-	er to GW-22 "Remov	val and Installation". After that, refer to
			al Repair Requireme	
PASSENGER SIDE	· Special R	enair Rei	nuirement	
I AOOLINOLIN OIDL			quirement	INFOID:000000007422931
1. PERFORM INITIALIZ	ATION PROCE	DURE		
Perform initialization proc	redure			M
		/ICE WHEN	N REPLACING CON	TROL UNIT : Special Repair Require-
<u>ment"</u> .				
Is the inspection result no	ormal?			Ν
YES >> GO TO 2				
		Refer to GI	-42, "Intermittent Inc	<u>ident"</u> .
2. CHECK ANTI-PINCH	OPERATION			0
Check anti-pinch operation	on.			
		/ICE WHEN	NREPLACING CON	TROL UNIT : Special Repair Require-
	THUNAL SERV			
<u>ment"</u> .				P
Is the inspection result no	ormal?			P
Is the inspection result new YES >> Inspection E	<u>ormal?</u> nd.		E : Component Func	ч т

< DTC/CIRCUIT DIAGNOSIS > ENCODER

DRIVER SIDE

DRIVER SIDE : Description

Detects condition of the power window motor LH operation and transmits to main power window and door lock/unlock switch as pulse signal.

DRIVER SIDE : Component Function Check

1. CHECK ENCODER OPERATION

Check door glass LH perform AUTO open/close operation normally when operating main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to <u>PWC-122</u>, "DRIVER SIDE : Diagnosis Procedure".

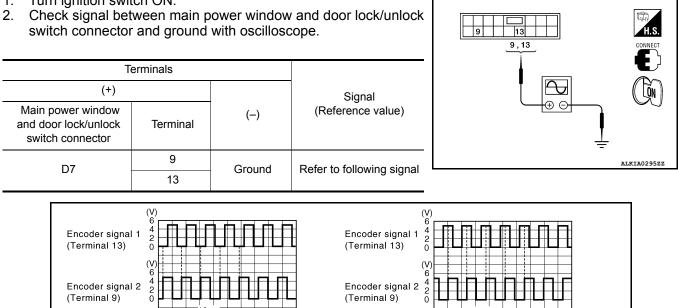
DRIVER SIDE : Diagnosis Procedure

INFOID:000000007422934

Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

Encoder Circuit Check

- 1. CHECK ENCODER OPERATION
- 1. Turn ignition switch ON.





YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

Window UP (Starting of terminal 9 is 1/4 pulses earlier)

NO >> GO TO 2

2. CHECK POWER WINDOW MOTOR LH POWER SUPPLY

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Window DOWN

(Starting of terminal 13 is 1/4 pulses earlier)

INFOID:000000007422933

INFOID-000000007422932

< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch ON. 1.
- 2. Check voltage between power window motor LH connector and ground.

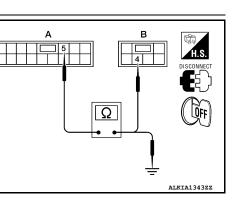
(+)			Voltage (V)
Power window mo- tor LH connector Terminal		(-)	(Approx.)
D9	4	Ground	10

Is the measurement value within the specification?

3. CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF. 1.
- Disconnect main power window and door lock/unlock switch and 2. power window motor LH.
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Power window mo- tor LH connector	Terminal	Continuity
D7 (A)	5	D9 (B)	4	Yes



4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

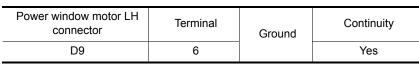
Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	5		No

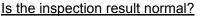
Is the inspection result normal?

- PWC YES >> Replace main power window and door lock/unlock switch. Refer to PWC-192, "Removal and Installation".
- NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window motor LH.
- Check continuity between power window motor LH connector 3. and ground.

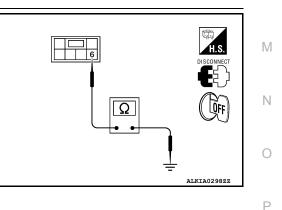




YES >> GO TO 6

NO >> GO TO 5





[LH&RH FRONT ANTI-PINCH-COUPE]

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< DTC/CIRCUIT DIAGNOSIS >

- 1. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector (A) and power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Power window mo- tor LH connector	Terminal	Continuity
D7 (A)	14	D9 (B)	6	Yes

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192</u>, "Removal and Installation".
- NO >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

- 1. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector (A) and power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Power window mo- tor LH connector	Terminal	Continuity	
D7 (A)	9	D9 (B)	5	Yes	
DT (A)	13	03 (D)	3	163	

 Check continuity between main power window and door lock/ unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D7 (A)	9	Ground	No
DT (A)	13	-	

Is the inspection result normal?

YES >> Replace power window motor LH. Refer to <u>GW-22, "Removal and Installation"</u>. After that, refer to <u>PWC-119, "DRIVER SIDE : Special Repair Requirement"</u>.

NO >> Repair or replace harness. PASSENGER SIDE

PASSENGER SIDE : Description

Detects condition of the power window motor RH operation and transmits to power window and door lock/ unlock switch RH as pulse signal.

PASSENGER SIDE : Component Function Check

1. CHECK ENCODER OPERATION

Check door glass RH perform AUTO open/close operation normally when operating power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to <u>PWC-124</u>, "PASSENGER SIDE : Diagnosis Procedure".

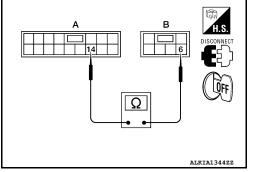
PASSENGER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

Revision: February 2013

PWC-124

[LH&RH FRONT ANTI-PINCH-COUPE]



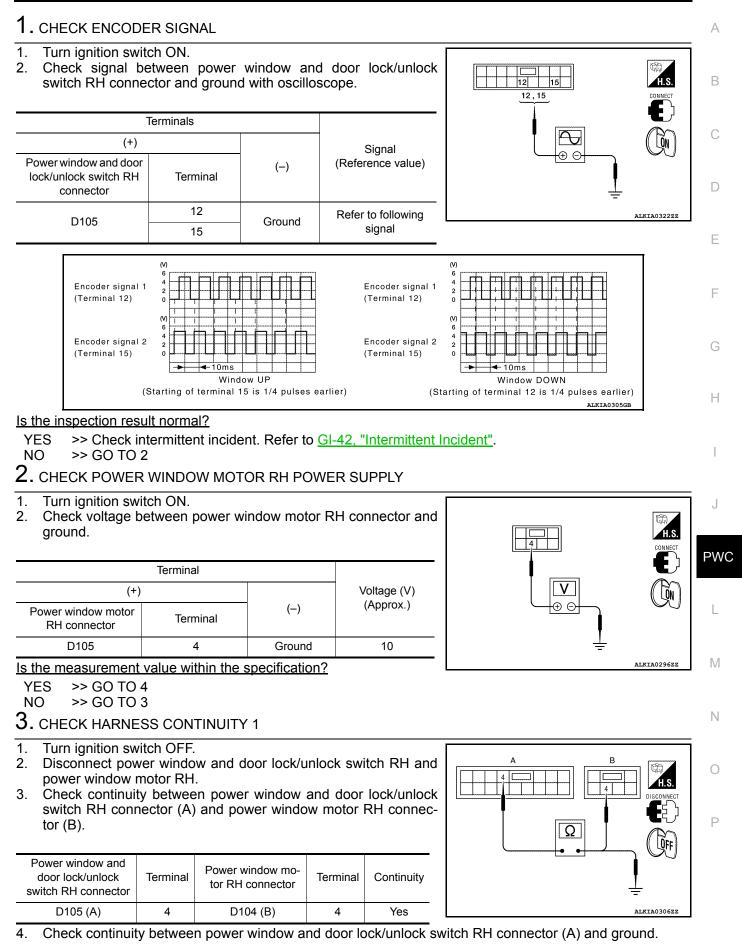
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< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]



< DTC/CIRCUIT DIAGNOSIS >

Power window and door unlock switch RH conn		erminal	Ground	Cont	inuity	
D105 (A)		4	oround	N	10	
Is the inspection resi	ult normal	?				
YES >> Replace lation" NO >> Repair of	power wi or replace	ndow and harness.	door lock	/unlock s	witch RH	I. Refer to <u>PWC-193, "Removal and Instal-</u>
4. CHECK GROUN	ID CIRCU	11				
 Turn ignition swi Disconnect power Check continuity and ground. 	er window			otor RH	connecto	
Power window motor F nector	RH con-	Terminal	Ground		ontinuity	
D104		6			Yes	
Is the inspection rest YES >> GO TO (NO >> GO TO (6	?				ALKIA0298ZZ
5. CHECK HARNE	SS CONT	INUITY 2	2			
 Disconnect power Check continuity switch RH connector (B). Power window and door lock/unlock switch RH connector 	y betweer ector (A)	n power wand power	window an	d door la	ock/unloc	
D105 (A)	3	D1	04 (B)	6	Yes	-
Is the inspection resi	-		04 (D)	0	100	-
YES >> Replace	power wi <u>PWC-193</u> or replace	ndow and <u>3, "Remov</u> harness.	val and Ins			Alkiro307zz
 Disconnect power Check continuity switch RH connector (B). 	y betweer	n power v	window an	d door la	ock/unloc	
Power window and door lock/unlock switch RH connector	Terminal	Power wir tor RH co		Terminal	Continuity	
D105 (A)	12 15	D104	+ (В)	3 5	Yes	ALKIA0308ZZ
3. Check continuity switch RH conner				d door lo	ock/unloc	

< DTC/CIRCUIT DIAGNOSIS >

Power window and do lock/unlock switch RH o nector		Ground	Continuity	
D105 (A)	12 15		No	
Is the inspection resu				
<u>PWC-12</u>	1, "PASSENGER	SIDE : Speci		temoval and Installation". After that, refer to irement".
NO >> Repair o	r replace harness	6.		

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< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH

Description

Detects door open/close condition and transmits the signal to BCM.

Component Function Check

1. CHECK DOOR SWITCH INPUT SIGNAL

Check ("DOOR SW-DR" and "DOOR SW-AS") in "DATA MONITOR" mode with CONSULT. Refer to <u>BCS-30</u>, "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)".

Monitor item		Condition	
DOOR SW-DR	OPEN	: ON	
DOOR SW-DR	CLOSE	: OFF	
DOOR SW-AS	OPEN	: ON	
DOOR SW-AS	CLOSE	: OFF	

Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> Refer to PWC-128, "Diagnosis Procedure".

Diagnosis Procedure

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Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

Terminals							
(+)			Door c	ondition	Voltage (V) (Approx.)		
BCM connector	Terminal	(-)					
	32	32	22		Front door	OPEN	0
M18		Ground	RH	CLOSE	Battery voltage		
58	58	Giounu	Front door	OPEN	0		
	30		LH	CLOSE	Battery voltage		

Is the measurement value within the specification?

YES >> Replace BCM. Refer to <u>BCS-92, "Removal and Installation"</u>. NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and door switch.
- 3. Check continuity between BCM connector and door switch connector.

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M18	32	RH: B108	2	Yes
M18	58	LH: B8	2	res

4. Check continuity between BCM connector and ground.

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

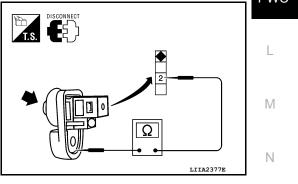
	-					
BCM connector	Terminal		Continuity		A	
M18	32	Ground	Ground			
IVI TO	58		NO		В	
Is the inspection re	esult normal?				D	
YES >> GO TO						
NO >> Repair or replace harness.						
3. СНЕСК ВСМ	OUTPUT SIGNA	L.				
1. Connect BCM connector.						
2. Check voltage	2. Check voltage between BCM connector and ground.					
	Terminal		Voltage (V)		E	
(+)		()	(Approx.)			
BCM connector	Terminal					
M18	32	Ground	Battery voltage		F	
	58					
Is the measureme		ne specification?			G	
YES >> GO TO		- DCC 02 //Dem			G	
· ·		0 <u>BCS-92, Rem</u>	oval and Installation".			
4. CHECK DOOF	RSWITCH				H	
Check door switch						
Refer to PWC-129		ispection".				
Is the inspection re				. 01		
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> Replace door switch.						
Component Inspection						
1. CHECK DOOR SWITCH						
Check door switch	ies.				PWC	
			10	DISCONNECT		

Terr	minal	Door switch	Continuity	
Door switches		Door switch	Continuity	
2	Ground part of	Pressed	No	
	door switch	Released	Yes	

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Replace door switch.



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< DTC/CIRCUIT DIAGNOSIS >

DOOR KEY CYLINDER SWITCH

Description

Main power window and door lock/unlock switch detects condition of the door key cylinder and transmits to BCM as the LOCK or UNLOCK signals.

Component Function Check

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 SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item	Co	ndition	
KEY CYL LK-SW	Lock	: ON	
KET CTL LK-SW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
KET CTL UN-SW	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to <u>PWC-130</u>, "Diagnosis Procedure".

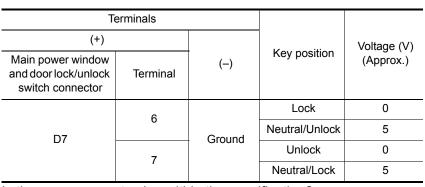
Diagnosis Procedure

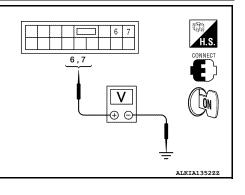
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Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector and ground.





Is the measurement value within the specification?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192</u>, "<u>Removal and</u> <u>Installation</u>".

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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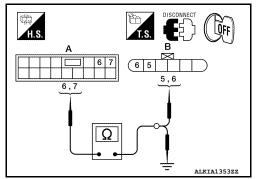
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DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and door lock assembly LH (key cylinder switch).
- Check continuity between main power window and door lock/ unlock switch connector (A) and door lock assembly LH (key cylinder switch) connector (B).

Main power window and door lock/unlock switch connector	Terminal	Door lock assembly LH (key cylinder switch) connector	Terminal	Continuity	
D7 (A)	6	D10 (B)	6	Yes	
	7	D10(B)	5		



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[LH&RH FRONT ANTI-PINCH-COUPE]

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity	
	6	Ground	No	
D7 (A)	7			

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $\mathbf{3}.$ CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between door lock assembly LH (key cylinder switch) connector and ground.

Door lock assembly LH (key cyl- inder switch) connector	Terminal	Ground	Continuity			
D10	4		Yes			
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 PWC-131, "Component Inspection".

Is the inspection result normal?

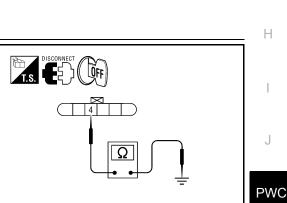
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace door lock assembly LH (door key cylinder switch). After that, refer to <u>PWC-132</u>, "Special <u>Repair Requirement</u>".

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH



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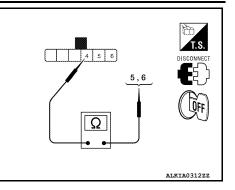
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DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

Check door lock assembly LH (key cylinder switch).

Term	vinal			
Door lock asse cylinder swite	embly LH (key	Key position	Continuity	
5		Unlock	Yes	
5	4	Neutral/Lock	No	
6	4	Lock	Yes	
0		Neutral/Unlock	No	



Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace door lock assembly LH (key cylinder switch). After that, refer to <u>PWC-132, "Special</u> <u>Repair Requirement"</u>.

Special Repair Requirement

INFOID:000000007422946

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>DLK-11</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS > POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

• Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Door window RH operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

POWER WINDOW MAIN SWITCH : Component Function Check

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item	C	Condition	
CDL LOCK SW	LOCK	: ON	H
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNEOCK SW	UNLOCK	: ON	

Is the inspection result normal?

- YES >> Power window serial link is OK.
- NO >> Refer to <u>PWC-133</u>, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

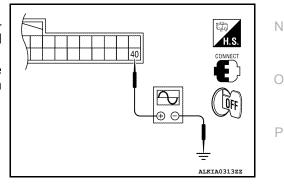
Regarding Wiring Diagram information, refer to PWC-171, "Wiring Diagram - Coupe".

Power Window Serial Link Check

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

PWC-133

- 1. Remove Intelligent Key, and close front door LH and RH.
- Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- 3. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".



[LH&RH FRONT ANTI-PINCH-COUPE]

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POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

(+) (-) (Reference value) BCM connector Terminal (-) (V) 15 10 15 10 10		Terminal				
BCM connector Terminal	(+)		()	Signal (Reference value)		
	BCM connector	Terminal	(-)	(,		
M18 40 Ground 0 Minimum Minimu	M18	40	Ground	15 10 5 0 10 10 10 10 10 ms =		

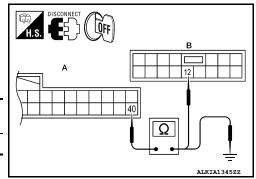
Is the inspection result normal?

YES >> Power window serial link is OK.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and main power window and door lock/unlock switch.
- 3. Check continuity between BCM connector (A) and main power window and door lock/unlock switch connector (B).

BCM connector	Terminal	Main power window and door lock/unlock switch connector		Continuity
M18 (A)	40	D7 (B)	12	Yes



4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M18 (A)	40	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192, "Removal and</u> <u>Installation"</u>.

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000007422950

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Door window RH operation signal
- Power window control by key cylinder switch signal
- · Retained power operation signal
- Power window lock switch signal

PASSENGER SIDE : Component Function Check

INFOID:000000007422951

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OUTPUT SIGNAL

PWC-134

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

	Monito	r item				Condition	_
					LOCK	: ON	
CDL LOCK S	VV				UNLOCK	: OFF	
	(0) ((LOCK	: OFF	
CDL UNLOCH	(SW				UNLOCK	: ON	
10 >> Re	ower windo efer to <u>PW</u>	ormal? ow serial link 'C-135, "PAS: E : Diagnos	SENGER		ignosis Prod	cedure". INFOID:00000	00007422952
egarding Wiri	ing Diagra	im informatio	n, refer to	<u>PWC-171</u>	, "Wiring Dia	agram - Coupe".	
ower Windo							
						н кн	
Check sigr scope whe to "LOCK"	nal betwe en door lo or "UNLC	Key, and close en BCM coni ck and unlocl 0CK". which are sho	nector and k switch (L	ground w .H and RH	vith oscillo- I) is turned		H.S.
detected d	uring 10 s	second just af ed to "LOCK"	ter door lo	ck and un			
	Terminal			Cianal			
(+)		(-)	(F	Signal Reference va	lue)	ALKI	A0313ZZ
3CM connector	Terminal						
M18	40	Ground	(V) 15 10 5 0	M M M			
					PIIA1297E		
the inspection							
	wer windo D TO 2	ow serial link	is OK.				
		NDOW SERI					
Turn ignitio	on switch					в]
	ntinuity be	tween BCM nlock switch			oower win-		ф Н.S.
	- · ·	Power window	w and door itch RH con-	Terminal	Continuity		
3CM connector	Terminal	nect	or				R

4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity	
M18 (A)	40	Ground	No	

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192</u>, "<u>Removal and</u> <u>Installation</u>".

NO >> Repair or replace harness.

POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal main power window and door lock/unlock switch, and operation is checked. Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192</u>, "<u>Removal and</u> <u>Installation</u>".
- NO >> Check condition of harness and connector.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-104, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u> <u>ment"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

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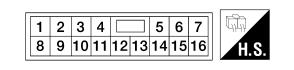
[LH&RH FRONT ANTI-PINCH-COUPE]

ECU DIAGNOSIS INFORMATION POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000007422956

TERMINAL LAYOUT



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PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termina	al No.	Description			Voltage [V]
+	_	Signal name	Input/ Output	Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	_	Battery voltage
5 (GR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
6 (L)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral/Unlocked → Locked)	$5 \rightarrow 0$
7 (R)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral/Lock \rightarrow Un- locked)	$5 \rightarrow 0$
8 (R)	11	Front door power window mo- tor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
9 (SB)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 2 0 10 ms JMKIA0700B
				IGN SW ON	Battery voltage
10 (V)	Ground	RAP signal	Input	Within 45 second after ig- nition switch is turned to OFF.	Battery voltage
(•)				When front LH or RH door is opened during retained power operation.	0
11 (LG)	8	Front door power window mo- tor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

Termina	al No.	Description			Voltage [V]	0
+	_	Signal name	Input/ Output	Condition	(Approx.)	A
12 (BR)	Ground	Power window serial link	Input/ Output	IGN SW ON or power win- dow timer operating.	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10	B
. <u> </u>					JPMIA0013GB	D
13 (W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 2 0 10 ms JMKIA0070GB	E
14 (G)	Ground	Encoder ground		_	0	G
15 (B)	Ground	Ground		_	0	9

Fail Safe

INFOID:000000007422957

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition	0
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.	
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/ close operation.	PW
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.	L
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.	
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.	M
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).	Ν

It changes to condition before initialization and the following functions do not operate when switched to failsafe control.

- Auto-up operation
- Anti-pinch function
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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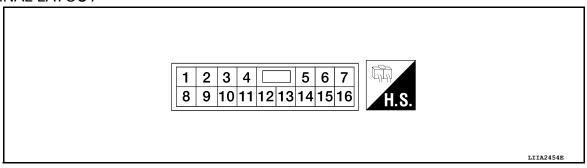
< ECU DIAGNOSIS INFORMATION >

FRONT POWER WINDOW SWITCH

Reference Value

INFOID:000000007422958

TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Termi	nal No.	Description			Voltage [V]
+	_	Signal name	Input/ Output	Condition	(Approx.)
3 (W)	Ground	Encoder ground	_	_	0
4 (BR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
8 (L)	9	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
9 (LG)	8	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage
10 (P)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (G)	3	Encoder pulse signal 2	Input	When power window motor op- erates.	(V) 6 4 2 0 10 ms JMKIA0070GB

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

Tern	ninal No.	Description			Voltage [V]	^
+	_	Signal name	Input/ Output	Condition	(Approx.)	А
						В
15 (Y)	3	Encoder pulse signal 1	Input	When power window motor op- erates.	2 0 10 ms	С
					JMKIA0070GB	D
16 (R)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 •••••••••••••••••••••••••••••	E
					JPMIA0013GB	

Fail Safe

INFOID:000000007422959

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FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition	
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.	
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/ close operation.	J
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.	PWC
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.	
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.	L
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).	Μ

It changes to condition before initialization and the following functions do not operate when switched to failsafe control.

- Auto-up operation
- Anti-pinch function
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

FR Other than front wiper switch HI OFF FR WIPER LOW Other than front wiper switch LO OF Front wiper switch LO ON OFF Front washer switch OF OFF OFF Front washer switch ON ON ON FR WIPER NT Front washer switch OFF OFF Front washer switch NT ON ON FR WIPER STOP Front wiper switch NT ON Front wiper switch NT ON Front wiper switch NT ON TURN SIGNAL R Other than trun signal switch RH OFF OFF Turn signal switch RH ON OFF OTH Turn signal switch RH ON TURN SIGNAL L Other than turn signal switch LH ON ON ON Miner Anni Signal switch RH OFF Turn signal switch RH ON Other than lighting switch ATH OFF Miner Anni Signal switch RH ON Turn signal switch RH ON Other than lighting switch ATH ON ON Turn signal switch HH ON ON <th>Monitor Item</th> <th>Condition</th> <th>Value/Status</th>	Monitor Item	Condition	Value/Status
Front Wiper witch HI ON FR WIPER LOW Other than front wiper switch LO OFF Front washer switch OF OFF Front washer switch ON ON PR WIPER INT Ofter than front wiper switch INT OFF Front wiper sit not in STOP position OFF Front wiper is in STOP position OFF Turn viper is in STOP position OFF Turn signal switch RH OFF Turn signal switch RH OFF Turn signal switch RH ON Other than turn signal switch LH OFF Turn signal switch RH ON Turn si		Other than front wiper switch HI	OFF
FR WiPER LOW Front wiper switch LO ON FR WASHER SW Front washer switch OFF OFF Front washer switch ON ON FR WIPER INT OFF Front washer switch ON ON FR WIPER STOP Front wiper switch INT OFF Front wiper is not in STOP position OFF OFF Trun Viper Stop Front wiper is in STOP position ON TURN SIGNAL R Wiper intermittent dial is in a dial position 1 - 6 Wiper intermittent dial position TURN SIGNAL R Other than turn signal switch RH OFF Turn signal switch RH ON ON TURN SIGNAL L Other than ighting switch ST and 2ND OFF Lighting switch 1ST or 2ND ON ON TAIL LAMP SW Other than lighting switch 2ND OFF Lighting switch 1ST or 2ND ON ON HEAD LAMP SW 1 Other than lighting switch 2ND OFF Lighting switch 2ND OFF ON Lighting switch 2ND OFF ON Autro LIGHT SW Other than lighting switch AUTO ON		Front wiper switch HI	ON
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CDL LOCK SW	DOOK SW-KL	Rear LH door opened	ON
Power door lock switch LOCK ON		Other than power door lock switch LOCK	OFF
	ODL LOCK SW	Power door lock switch LOCK	ON

[LH&RH FRONT ANTI-PINCH-COUPE]

INFOID:000000007629783

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

Monitor Item	Condition	Value/Status	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	OFF	_
DE UNEOCK SW	Power door lock switch UNLOCK	ON	
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF	_
CET CTL LK-SW	Driver door key cylinder LOCK position	ON	_
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF	
LET CTL UN-SW	Driver door key cylinder UNLOCK position	ON	
	When hazard switch is not pressed	OFF	
HAZARD SW	When hazard switch is pressed	ON	
REAR DEF SW	When rear window defogger switch is pressed	ON	
AN ON SIG	When AUTO switch or fan switch is pressed	ON	_
AIR COND SW	When A/C switch is pressed	ON	_
	Trunk lid opener cancel switch OFF	OFF	
FR CANCEL SW	Trunk lid opener cancel switch ON	ON	_
	Trunk lid opener switch OFF	OFF	
FR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON	_
	Trunk lid closed	OFF	_
RNK/HAT MNTR	Trunk lid opened	ON	
	When LOCK button of Intelligent Key is not pressed	OFF	_
RKE-LOCK	When LOCK button of Intelligent Key is pressed	ON	—
	When UNLOCK button of Intelligent Key is not pressed	OFF	_
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON	
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF	
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON	
	When PANIC button of Intelligent Key is not pressed	OFF	
RKE-PANIC	When PANIC button of Intelligent Key is not pressed When PANIC button of Intelligent Key is pressed	ON	_
	When UNLOCK button of Intelligent Key is not pressed and held	OFF	-]
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON	_
	When LOCK/UNLOCK button of Intelligent Key is pressed and held		_
RKE-MODE CHG	held simultaneously	OFF	_
	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON	
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V	
- HOAL GENOON	When outside of the vehicle is dark	Close to 0 V	
REQ SW-DR	When driver door request switch is not pressed	OFF	
	When driver door request switch is pressed	ON	-
REQ SW-AS	When passenger door request switch is not pressed	OFF	
	When passenger door request switch is pressed	ON	
	When trunk request switch is not pressed	OFF	
REQ SW-BD/TR	When trunk request switch is pressed	ON	
	When engine switch (push switch) is not pressed	OFF	
PUSH SW	When engine switch (push switch) is pressed	ON	
	Ignition switch OFF or ACC	OFF	
GN RLY -F/B	Ignition switch ON	ON	
	Ignition switch OFF	OFF	
ACC RLY -F/B	Ignition switch ACC or ON	ON	_

Revision: February 2013

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CLUTCH SW	When the clutch pedal is not depressed	OFF
CECTONISW	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
DRAKE SW I	When the brake pedal is depressed	OFF
	When selector lever is in P position	OFF
DETE/CANCL SW	When selector lever is in any position other than P	ON
	When selector lever is in any position other than P or N	OFF
SFT PN/N SW	When selector lever is in P or N position	ON
	Electronic steering column lock LOCK status	OFF
S/L -LOCK	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L -UNLOCK	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-F/B	Ignition switch ON	ON
	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
	When engine switch (push switch) is not pressed	OFF
PUSH SW -IPDM	When engine switch (push switch) is pressed	ON
	Ignition switch OFF or ACC	OFF
GN RLY1 F/B	Ignition switch ON	ON
	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
	When selector lever is in any position other than P	OFF
SFT P -MET	When selector lever is in P position	ON
	When selector lever is in any position other than N	OFF
SFT N -MET	When selector lever is in N position	ON
	Engine stopped	STOP
	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
	Electronic steering column lock LOCK status	OFF
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L UNLCK-IPDM	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-REQ	Ignition switch ON	ON
/EH SPEED 1	While driving	Equivalent to speedometer reading
/EH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

Monitor Item	Condition	Value/Status	٨
	Passenger door LOCK status	LOCK	А
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	В
ID OK FLAG	Ignition switch ACC or ON	RESET	
ID OK FLAG	Ignition switch OFF	SET	
PRMT ENG STAT	When the engine start is prohibited	RESET	С
	When the engine start is permitted	SET	
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF	D
KEY SW -SLUT	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	Ε
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	F
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	G
	When ID of front LH tire transmitter is registered	DONE	
ID REGST FL1	When ID of front LH tire transmitter is not registered	YET	Н
	When ID of front RH tire transmitter is registered	DONE	
ID REGST FR1	When ID of front RH tire transmitter is not registered	YET	
	When ID of rear RH tire transmitter is registered	DONE	I
ID REGST RR1	When ID of rear RH tire transmitter is not registered	YET	
	When ID of rear LH tire transmitter is registered	DONE	J
ID REGST RL1	When ID of rear LH tire transmitter is not registered	YET	
	Tire pressure indicator OFF	OFF	
WARNING LAMP	Tire pressure indicator ON	ON	P٧

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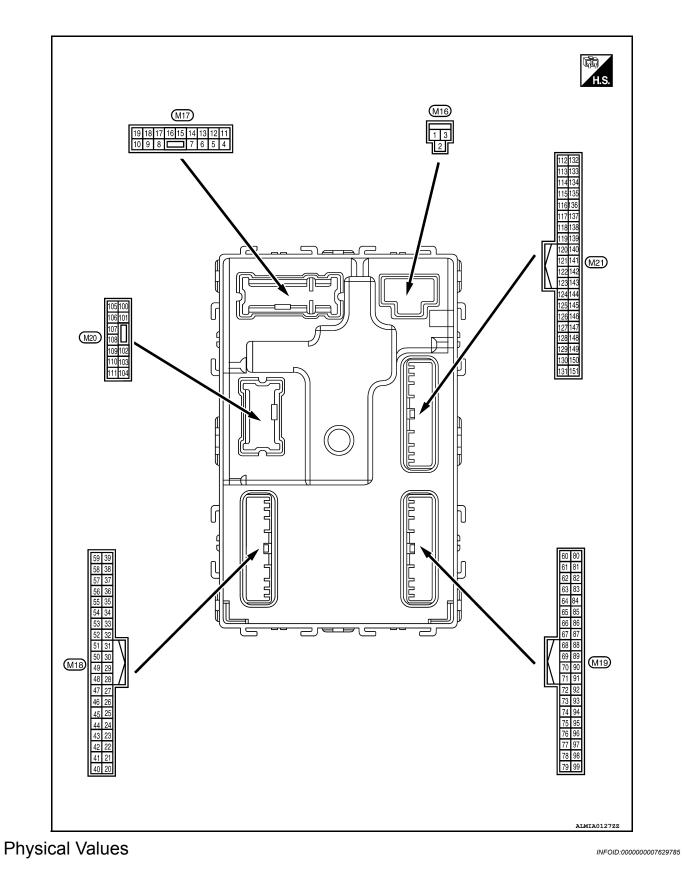
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BCM (BODY CONTROL MODULE) ATION > [LH&RH FRONT ANTI-PINCH-COUPE]

< ECU DIAGNOSIS INFORMATION >

Terminal Layout

INFOID:000000007629784



< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)				One difficu	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4	Cround	Interior room lamp		After passing the ir er operation time	nterior room lamp battery sav-	0V
(P/W)	Ground	power supply	Output	Any other time after lamp battery save	er passing the interior room r operation time	Battery voltage
5	Oneverd	Front door RH UN-	Quitaut		UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	0V
7	Ground	Sten Jamn	Output	Sten Jamp	ON	0V
(R/W)	Ground	Step lamp	Output	Step lamp	OFF	Battery voltage
8	Organis		Quitari		LOCK (actuator is activat- ed)	Battery voltage
(V)	Ground	und All doors LOCK Ou	Output	All doors	Other than LOCK (actuator is not activated)	0V
9	Ground	Front door LH UN-	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Output		Other than UNLOCK (actuator is not activated)	0V
10 ¹	Ground	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	υιριι	and rear door LH	Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground		Ignition switch ON		0V
					OFF	0V
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position (V) 10 0 0 2 ms

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	Input/		Condition	Value (Approx.)	
(+)	(-)	Signal name	Output			(Approx.)	
		Engine switch (push			OFF	0V NOTE: When the illumination brighten- ing/dimming level is in the neutral position	
14 ⁸ (R/Y)	Ground	switch) illumination ground	Input	Tail lamp	ON	(V) 10 0 2 ms JSNIA0010GB	
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage	
(Y/L)	oround		output	ignition officin	ACC	0V	
					Turn signal switch OFF	0V	
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s FKID0926E 6.5 V	
					Turn signal switch OFF	0V	
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
19		Room lamp timer		Interior room	OFF	Battery voltage	
(Y)	Ground	control	Output	lamp	ON	0V	
21	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V	
(P/B)	Croana	option concer eignar	mpar	ON	When outside of the vehi- cle is dark	Close to 0V	
22 ²	Ground	Clutch interlock	lutch interlock	Clutch interlock	OFF (clutch pedal is not depressed)	0V	
(R/Y)	Cround	switch	mput	switch	ON (clutch pedal is de- pressed)	Battery voltage	
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage	
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not de- pressed)	0V	
(O/L)	e.ound				ON (brake pedal is de- pressed)	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description	Description			Value	
	e color)	Signal name	Input/		Condition	Value (Approx.)	А
(+)	(-)	olghar flamo	Output				
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB	B
						11.8V	D
					UNLOCK status	0V	
29	Ground	Key slot switch	Input	When Intelligent K	ey is inserted into key slot	Battery voltage	Е
(Y)	0.00.00		mput	When Intelligent K	ey is not inserted into key slot	0V	
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0	
(V/Y)	0.00.00		mpor	.g	ACC or ON	Battery voltage	F
31	Ground	Rear window defog-	Input	Rear window de-	OFF	0V	
(G)		ger feedback signal		fogger switch	ON	Battery voltage	G
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 50 10 ms JPMIA0011GB 11.8 V	H
					ON (when front door RH opens)	٥V	J
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	9V - 12V	
(SB)		nal			ON	0V	PWC
34 ³ (L/R)	Ground	Front door lock as- sembly LH (key cylin- der switch) (unlock)	Input	Front door lock assembly LH (key cylinder switch)	OFF (neutral) ON (unlock)	Battery voltage 0V	1
36 ³			1	Door lock/unlock	Lock	Battery voltage	L
(GR)	Ground	Lock switch signal	Input	switch	Unlock	0V	
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1V	M N O
					ON	0V	
38					OFF	Battery voltage	Р
(GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	ON	0V	
39 ³					Unlock	Battery voltage	
(GR/ R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Lock	0V	
13)							

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description) (alua
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)
40 ⁴ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON	- or ACC	(V) 15 10 5 0 10 ms JPMIA0013GB 10.2V
				Engine switch	ON	5.5V
41 (W)	Ground	Engine switch (push switch) illumination	Output	(push switch) illu- mination	OFF	0V
42	Ground		Quitaut	LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	0V
(V/W)	Ground	power supply output	Output	Ignition switch	ACC or ON	5.0V
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ★ + 0.2s 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(G/O)		er signal	Output		When receiving the signal from the transmitter	(V) 4 2 0 • • 0.25 • • 0.25 • • 0.25 • • 0.25 • • 0.25
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/G)	Cround	position signal	mput		Except P and N positions	0V
					ON	0V
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	Blinking	(V) 15 0 5 0 15 10 5 0 15 10 5 0 11.3 V
					OFF	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

(HIRCEDAT) Signal name Input/ Output Condition Condition (Approx.) (+) (-) Signal name Input/ Output Condition (Approx.) B 50 (LG (B) Ground Combination switch OUTPUT 5 Input Combination switch Combination switch All switch OFF 0V B 10.7V Combination switch OUTPUT 1 Input Combination switch Combination switch All switch OFF 0V C 51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch All switch OFF 0V E 52 (GB) Ground Combination switch OUTPUT 2 Input Combination switch All switch OFF 0V E 52 (GB) Ground Combination switch OUTPUT 2 Input Combination switch All switch OFF 0V Input Combination switch All switch OFF 0V Input Input Combination switch Input Input Combination switch Input Input Combination switch Input Input Input Input Input Input Input Input Input		inal No.	Description				Value	
$ \begin{bmatrix} 50 \\ (LG' \\ P) \end{bmatrix} \begin{bmatrix} Ground \\ OutpUTG \\ Substitution \\ Substitu$,	Signal name			Condition		A
50 (LGr) (LGr) (LGr) (LGr) Combination switch OUTPUTS Input Combination switch (Wier intermit- text dial 4) Combination switch (Wier intermit- text dial 4) Ughing switch RH Ughing switch RH 51 (LMV) (LMV) Ground Combination switch OUTPUT 1 Input Combination switch All switch OFF (Wier intermittent dial 4) OV E 51 (LMV) (LMV) Ground Combination switch OUTPUT 1 Input Combination switch All switch OFF (Wier intermittent dial 4) OV E 52 (Ground Combination switch OUTPUT 2 Input Combination switch Combination switch Mi switch OFF (Wier intermittent dial 4) OV Fort Waler switch NON (Wier intermittent dial 4) V/V 52 (Ground Combination switch OUTPUT 2 Input Combination switch Combination witch (Wier intermittent dial 4) V/V Input Fort Waler switch NON (Wier intermittent dial 4) V/V 53 (Ground Ground Combination switch OUTPUT 3 Input Combination switch (Wier intermittent dial 4) Mi switch OFF OV V 54 (Gr) Ground Combination switch OUTPUT 3 Input Co						All switch OFF	0V	D
DD B Ground (LG/ B) Combination switch OUTPUT 5 Input switch (Wper intermittent dial 4) Lighting switch 2ND 10.7V C 51 (LW) Ground Combination switch OUTPUT 1 Input Switch (Wper intermittent dial 4) IV IV E 51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch All switch OFF (Wper intermittent dial 4) IV E 52 (G/G) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch All switch OFF (Wper intermittent dial 4) IV IV F 52 (G/G) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch Input Combination switch Input Combination switch IV IV Input Input Input Combination switch Input Input Combination switch Input						Lighting switch 1ST		D
DB B Ground (LG/ B) Combination switch (UTPUT 5 Input switch (Wper intermittent dial 4) Lighting switch 2ND 10.7V C 51 (LW) Ground Combination switch (UTPUT 1 Input Combination switch All switch OFF (Wper intermittent dial 4) 0V E 51 (LW) Ground Combination switch (UTPUT 1 Input Combination switch All switch OFF (Wper intermittent dial 4) 0V E 52 (G/G) Ground Combination switch (UTPUT 2 Input Combination switch Combination switch All switch OFF (Wper intermittent dial 4) 0V E 53 (LG/G) Ground Combination switch (UTPUT 2 Input Combination switch Combination switch Any of the conditions below with all switch OFF (Wper intermittent dial 4) 0V Input Input Front Wper switch INT (Wiper intermittent dial 4) Input Input Input Any of the conditions below with all switch OFF (Wiper intermittent dial 4) V Input Input Combination switch (Wiper intermittent dial 4) Input All switch OFF (Wiper intermittent dial 4) V Input Input Input Input All switch OFF (Wiper intermittent dial 4) V Input Input <					Combination	Lighting switch high-beam	(V) 15	
B) COLFORS Under internation tent dial 4) Under internation tent dial 4) Turn signal switch RH D (1,W) Ground Combination switch OFF (UMper intermittent dial 4) OV E (1,W) Ground Combination switch OFF (UMper intermittent dial 4) OV E (1,W) Ground Combination switch OFF (UMper intermittent dial 4) OV E (52) Ground Combination switch OFF (UMper intermittent dial 3) OV F (52) Ground Combination switch OFF (UMper intermittent dial 3) OV F (52) Ground Combination switch OFF (UMper intermittent dial 4) OV F (52) Ground Combination switch OFF (UMper intermittent dial 4) OV F (53) (1,G) OUTPUT 2 Input Combination switch OFF (MMper intermittent dial 5) OV (1,G) Ground Combination switch (MMper intermittent dial 4) OV F OV (1,G) Ground Combination switch (MMper intermittent dial 4) OV OV F OV (1,G) Ground Combination switch (MMper intermittent dial 4) OV <td></td> <td>Ground</td> <td></td> <td>Input</td> <td>switch</td> <td>Lighting switch 2ND</td> <td></td> <td>С</td>		Ground		Input	switch	Lighting switch 2ND		С
51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Combination switch Input Combination switch Combination Switch OV E 51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Combination Switch F OV E 52 (SR) Ground Combination switch OUTPUT 2 Input Combination Switch F OV F 53 (LGY (SR) Ground Combination switch OUTPUT 2 Input Combination Switch F OV F 53 (LGY (SR) Ground Combination switch OUTPUT 3 Input Combination Switch Combination Switch All switch OFF Wiper intermittent dial 4) V V F 53 (LGY (SR) Ground Combination switch OUTPUT 3 Input Combination Switch Combination Switch All switch OFF Front wiper switch INT Front wiper switch NIT OV Input Combination Switch (Wiper intermit- tent dial 4) V <td></td> <td>0.00.00</td> <td>OUTPUT 5</td> <td>mput</td> <td>· · ·</td> <td></td> <td></td> <td></td>		0.00.00	OUTPUT 5	mput	· · ·			
1 Imput Combination switch (LWW) Imput Combination (Wiper intermittent dial 4) OV E 1 10.7V Ground Combination switch OFF (Wiper intermittent dial 4) OV For twiper switch 11 Imput Combination switch OFF (Wiper intermittent dial 4) OV For twiper switch 11 Imput Combination switch OFF (Wiper intermittent dial 4) OV For twiper switch 10 Imput Combination Switch 10 Imput 10 Imput 10 Imput 10 Combination Switch 10 Imput						Turn signal switch RH		D
51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Combination combination All switch OFF (Wiper intermittent dial 4) ov F 52 (G/B) Ground Combination switch OUTPUT 1 Input Combination switch Combination combination Any of the conditions below with all switch OFF (Wiper intermittent dial 4) Input F G 52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Combination Ford washer switch OAI (Wiper intermittent dial 4) OV H 53 (LG/ (G/W) Ground Combination switch OUTPUT 3 Input Combination switch Combination switch May of the conditions below with all switch OFF OV H 53 (LG/ (G/W) Ground Combination switch OUTPUT 3 Input Combination switch Combination switch All switch OFF OV V 54 (G/W) Ground Combination switch OUTPUT 4 Input Combination switch Combination switch Mai switch OFF OV V Input 54 (G/W) Ground Combination switch OUTPUT 4 Input Combination switch Combination switch Input Combination switch <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>D</td></td<>								D
51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Combination Front wiper switch HI (Wiper intermittent dial 4) Wiper intermitte							10.7V	
51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Combination switch May of the conditions below Wiper intermittent dial 1 ··· Wiper intermittent dial 2 ··· Wiper intermittent dial 6 ··· Wiper intermittent dial 6 ···· Wiper intermittent dial 6 ···· Wiper intermittent dial 6 ····· Wiper intermittent dial 6 ····································							0V	Е
51 (LW) Ground Combination switch OUTPUT 1 Input Combination switch Any of the conditions below with all switch OFF Input Any of the conditions below with all switch OFF Input G 52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch F Input OV H 52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch OUTPUT 2 Input Combination switch OV H 53 (LG/ (R) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch Combination switch OV H 53 (LG/ (R) Ground Combination switch OUTPUT 3 Input Combination switch Combination switch All switch OFF OV PWO 53 (LG/ (R) Ground Combination switch OUTPUT 3 Input Combination switch Combination switch All switch OFF OV Input Input Combination (Wiper intermittent dial 4) Input Combination (Wiper intermittent dial 4) Input All switch OFF OV Input Input Input Input Combination switch Input								
Single Combination Switch (LWW) Ground Combination Switch (LWW) Input Combination Switch (LWW) Any or the condutions below (WW) Input (LWW) Any or the condutions below (WW) Input (LWW)						· · · /	(V) 15	F
- Wiper intermittent dial 2 Wiper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 3 Wiper intermittent dial 3 Wiper intermittent dial 3 Wiper intermittent dial 4 UV Wiper intermittent dial 4 UV Wiper intermittent dial 4 UV UV Wiper intermittent dial 4 UV UV Wiper intermittent dial 4 UV		Ground		Input		5		
 Wiper intermittent dial 3 Wiper intermittent dial 4 Wiper intermittent dial 5 Wiper intermittent dial 6 Wiper intermittent dial 7 Wiper intermittent dial 4 Wiper	(2,00)				ownon	Wiper intermittent dial 1	0	
S2 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch C							2 ms	G
52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch Combination switch Combination switch MI switch OFF (Wiper intermittent dial 4) 0V Input Input Front washer switch ON (Wiper intermittent dial 4) Input Input Combination switch Input Combination switch All switch OFF (Wiper intermittent dial 4) Input Input Input Combination switch Input Combination switch Input Combination switch Input Combination (Wiper intermittent dial 4) Input						Wiper intermittent dial 6	JPMIA0032GB	
52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Combination Switch Combination Switch Any of the conditionate PWC Input Input Input Input Any of the conditionation Switch Input							10.7V	Н
52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Combination switch Any of the conditions below with all switch OFF • Wiper intermittent dial 4) Imput Any of the conditions below with all switch OFF • Wiper intermittent dial 5 Imput Imput Imput Combination switch Imput Any of the conditions below with all switch OFF • Wiper intermittent dial 4) Imput							0V	
52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Any of the conditions below will switch OFF Input Any of the conditions below will switch OFF Input Input Input Any of the conditions below will switch OFF Input Input Input Input Any of the conditions below will switch OFF Input Input Input Input Input Any of the conditions below will switch OFF Input Input Input Input Input Input Input Input Combination switch (Wiper intermit- tent dial 4) All switch OFF Input Input Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV Input Input Combination switch (Wiper intermit- tent dial 4) Input Combination switch (Wiper intermit- tent dial 4) Input Combination switch (Wiper intermit- tent dial 4) Input Input Combination switch (Wiper intermit- tent dial 4) Input Input <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>I</td></t<>								I
52 (G/B) Ground Combination switch OUTPUT 2 Input Combination switch Any of the conditions below with all switch OFF Input Input Combination switch Any of the conditions below with all switch OFF Input Input Input Any of the conditions below with all switch OFF Input Input Input Any of the conditions below with all switch OFF Input						(Wiper intermittent dial 4)	15 15	I
S3 (LG/ R) Ground Combination switch OUTPUT 3 Input Combination switch (Viper intermittent dial 5 · Wiper intermittent dial 5 · Wiper intermittent dial 6 0V Input Combination switch (Viper intermittent dial 4) Input Combination switch (Viper intermittent dial 4) OV Input Combination switch (Viper intermittent dial 4) Input All switch OFF OV M 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Viper intermittent dial 4) All switch OFF OV OV 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Viper intermittent dial 4) Input Combination switch (Viper intermittent dial 4) Input Input </td <td></td> <td>Ground</td> <td></td> <td>Input</td> <td></td> <td>Any of the conditions below</td> <td></td> <td></td>		Ground		Input		Any of the conditions below		
- - Wiper intermittent dial 5 -<	· · ·					with all switch OFF		J
53 (LG/ R) Ground Combination switch OUTPUT 3 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV L 53 (LG/ R) Ground Combination switch OUTPUT 3 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV L 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV M M 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV OV P 55 (BR/ Ground Front blower monitor Input Front blower mon- tor switch ON Battery voltage P						Wiper intermittent dial 5		
53 (LG/ R) Ground Combination switch OUTPUT 3 Input Combination switch (Wiper intermit- tent dial 4) Combination switch (Wiper intermit- tent dial 4) All switch OFF OV L 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV M 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV N 55 (BR/ Ground Front blower monitor Input Front blower monitor Front blower monitor ON Battery voltage						Wiper intermittent dial 6		PWC
53 (LG/ R) Ground Combination switch OUTPUT 3 Input Combination switch (Wiper intermit- tent dial 4) Front wiper switch INT Front wiper switch LO Imput Imput M 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV N 55 (BR/ Ground Front blower monitor Input Front blower monitor Front blower monitor ON Battery voltage N						All switch OFF		
53 (LG/ R) Ground Combination switch (UTPUT 3 Input Combination switch (Wiper intermit- tent dial 4) Input Input Lighting switch AUTO Input <								
53 (LG/ R) Ground Combination switch OUTPUT 3 Input switch (Wiper intermit- tent dial 4) Lighting switch AUTO 10 0 2 ms Input M 54 (G/Y) Ground Combination switch OUTPUT 4 Input Input Combination switch (Wiper intermit- tent dial 4) All switch OFF OV OV 54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) Combination switch (Wiper intermit- tent dial 4) All switch OFF OV OV 55 (BR/ Ground Front blower monitor Input Front blower monitor ON Battery voltage P					Combination	-		L
(Lighting switch AUTO (Wiper intermittent dial 4) Lighting switch AUTO (Wiper intermittent dial 4) M 10.7V N All switch OFF OV N N 10.7V Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermittent dial 4) All switch OFF OV OV 10.7V Front fog lamp switch ON Lighting switch flash-to- pass Input Combination switch (Wiper intermittent dial 4) Input Combination switch (Wiper intermittent dial 4) Input Combination switch (Wiper intermittent dial 4) Input Input Front blower monitor tor switch ON Battery voltage		Ground		Input	switch			
Image: Second constraint of the second c		Ciouna	OUTPUT 3	mput				\mathbb{M}
54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) All switch OFF Front fog lamp switch ON Lighting switch flash-to- pass OV 55 (BR/ Ground Front blower monitor Input Front blower monitor Input Front blower monitor ON Battery voltage						Lighting switch AUTO	2 ms	
54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) Combination switch (Wiper intermit- tent dial 4) All switch OFF 0V 55 (BR/ Ground Front blower monitor Input Front blower mo- tor switch Front blower mo- tor switch ON Battery voltage							JPMIA0034GB	N
54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) Front fog lamp switch ON Lighting switch 2ND Input In								
54 (G/Y) Ground Combination switch OUTPUT 4 Input Combination switch (Wiper intermit- tent dial 4) Lighting switch 2ND Lighting switch flash-to- pass Input								
54 (G/Y) Ground Combination switch OUTPUT 4 Input switch (Wiper intermit- tent dial 4) Lighting switch flash-to- pass 10 pass							(V)	0
(G/Y) OUTPUT 4 Impact (Wiper intermittent dial 4) pass output (Pass) (G/Y) (Wiper intermittent dial 4) (Wiper intermittent dial 4) (Wiper intermittent dial 4) Turn signal switch LH (Wiper intermittent dial 4) (Wiper intermittent dial 4) 55 (BR/ Ground Front blower monitor Input Front blower monitor (Miper intermittent dial 4)	54		Combination switch					
55 (BR/ Ground Front blower monitor Input Front blower mon- tor switch ON Battery voltage		Ground		Input	(Wiper intermit-			Ρ
State State State State 6 10.7V					tent dial 4)			
55 (BR/ Ground Front blower monitor Input Front blower mon- tor switch ON Battery voltage						Turn signal switch LH		
(BR/ Ground Front blower monitor Input tor switch								
		Ground	Front blower monitor	Innut		ON	Battery voltage	
		C. Sund			tor switch	OFF	0V	

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
56 ³		Front door lock as-		Front door lock	OFF (neutral)	Battery voltage	
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	0V	
57 (W)	Ground	Tire pressure warn- ing check switch	Input		_	Battery voltage	
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB 11.8V	
					ON (front door LH OPEN)	0V	
59	Ground	Rear window defog-	Output	Rear window de-	Active	Battery voltage	
(G/R)	2.54114	ger relay	- sthat	fogger	Not activated	0V	
60	Ground	Front console anten-	Output	, Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKTA0062GB	
(B/R)	Clound	na 2 (-)	Guipar	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1	
61	Ground	Center consolo an	Center console an-	country to lignition switch	Output Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 – – – – – – – – – – – – – – – – – – –
(W/R)		tenna 2 (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKTA0063GB	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value			
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A		
62	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D		
(B/Y)		RH antenna (-)	Cutput	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0063GB	E		
63	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	G H I		
(LG)		RH antenna (+)				switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 5 0 1 5 1 1 5 1 1 1 1	J PWC
64	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 0 10 0 10 10 10 10 10 10 10 10 10 10 10	M		
(V)		LH antenna (-)		switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 1 3 JMKIA0063GB	P		

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			0	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
65	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(P)	Clound	LH antenna (+)	Guput	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70	Ground	Ignition relay-2 con-	Output	Ignition switch	OFF or ACC	0V
(R/B)		trol			ON	Battery voltage
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 10 10 10 10 10 10 10 10 10
(L/O)		receiver signal	Output	When operating ei	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value	٥
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V	B C D
75 (R/Y)	Ground	Combination switch INPUT 5	Output	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0037GB 1.3V	E
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 2 ms JEMIA0040GB 1.3V	G H I

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description									
	e color)	Signal name	Input/		Condition	Value (Approx.)					
(+)	(-)	Signarhame	Output		1	(FF - 7					
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V					
76	Ground	Combination switch	Output	Combination		Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 0 2 ms 				
(R/G)		INPUT 3	swi						switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 0 2 ms 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 0 2 ms JPMIA0040GB					
						1.3V					
77 (PD)	Ground	Engine switch (push	Input	Engine switch (push switch)	Pressed	0V					
(BR)		switch)		(push switch)	Not pressed	Battery voltage					
78 (P)	Ground	CAN-L	Input/ Output		_	_					
79 (L)	Ground	CAN-H	Input/ Output		_	_					
					OFF	0V					
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1					
					ON	Battery voltage					
					~						

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	
81	(-)		Output		OFF or ACC	Battery voltage	
(LG)	Ground	ON indicator lamp	Output	Ignition switch	ON	0V	
83					OFF	0V	
(L)	Ground	ACC relay-1 control	Output	Ignition switch	ACC or ON	Battery voltage	
84 ⁵ (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage	
85		Electronic steering	1	Electronic steer-	Lock status	0V	
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage	
86		Electronic steering		Electronic steer-	Lock status	Battery voltage	
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V	
87 ⁵	Cround	Selector lever P posi-	lanut	O ala atau la van	P position	0V	
(G/B)	Ground	tion switch	Input	Selector lever	Any position other than P	Battery voltage	
					ON (pressed)	0V	
88 (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	Input	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
					ON (pressed)	0V	
89 (B/W)	Ground	Front door LH re- quest switch	Input	Front door LH re- quest switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V	
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0V	
(Y)	Cround	lay control	Calput	-Sincori Switch	ON	Battery voltage	
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFI	F	Battery voltage	
94	Cround	Electronic steering	Outout		OFF or ACC	Battery voltage	
(G/Y)	Ground	column lock power supply	Output	Ignition switch	ON	0V	

< ECU DIAGNOSIS INFORMATION >

Term	inal No.	Description		2		Value	
(+)	e color) (-)	Signal name Ou	Input/ Output		Condition	(Approx.)	
					All switch OFF	(V) 15 0 2 ms JPMIA0041GB 1.4V	
					Turn signal switch LH	(V) 15 0 2 ms 10 2 ms JPMIA0037GB 1.3V	
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 0 2 ms JPMIA0036GB 1.3V	
					Front wiper switch LO	(V) 15 10 0 2 ms JPMIA0038GB 1.3V	
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3V	

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[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value	Δ
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JEMIA0041GB	B
						1.4V	D
					Lighting switch AUTO		Е
96		Combination switch		Combination	(Wiper intermittent dial 4)	2 ms JPMIA0038GB 1.3V	F
(P/B)	Ground	INPUT 4	Output	switch			G
					Lighting switch 1ST (Wiper intermittent dial 4)		Н
							Ι
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1	(V) 15 10 0	J
					 Wiper intermittent dial 5 Wiper intermittent dial 6 	2 ms	PWC
						1.3V	L

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< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description				Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 10 5 0 2 ms JPMIA0041GB 1.4V
					Lighting switch flash-to- pass	(V) 15 10 2 ms JPMIA0037GB 1.3V
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms
					Front wiper switch INT	(V) 15 0 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 10 2 ms JEMIA0040GB 1.3V
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1V

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No. e color)	Description				Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	A
					LOCK status	Battery voltage	В
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB	C
					For 15 seconds after UN- LOCK	Battery voltage	E
					15 seconds or later after UNLOCK	0V	-
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage	F
(V)	Ground	Turk in opening	Output		Close (trunk lid opener ac- tuator is not activated)	0V	G
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)			Calput		OFF	Battery voltage	Н
114		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15 15 15 15	J
(B)	Ground	1 (-)	Output	OFF			P۷
					When Intelligent Key is not in the passenger compart- ment		L

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
115	115 (W) Ground Trunk room antenna 1 (+)	Tauchasan automa		Output Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(W)		Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 10 10 10 10 10 10 10 10 10		
118	118 Ground Rear bumper anten-		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 5 0 1 5 0 5 0 1 5 0 5 0 1 5 0 5 0 1 5 0 5 0 1 5 0 5 0 1 5 0 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
(L/O)	Ground	na (-)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 10 10 10 10 10 10 10 10 10	
119 (BR/	Ground	Rear bumper anten-	Outout	When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 10 10 10 10 10 10 10 10 10	
(BR/ W)	Ground	na (+)	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB		

< ECU DIAGNOSIS INFORMATION >

Term	inal No.	Description				Value												
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value // (Approx.)												
127	(-)		Output		OFF or ACC	Battery voltage												
(BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	ON	OV E												
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V												
					ON (trunk is open)	0V												
				Ignition switch	When the clutch pedal is depressed	Battery voltage												
				OFF (M/T vehi- cle)	When the clutch pedal is not depressed	٥V												
132 (R)	Ground	Starter motor relay control	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Output	Ignition switch	When selector lever is in P or N position and the brake is depressed	Battery voltage
				ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is not depressed	٥V												
					ON (pressed)	0V												
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1												
144	Cround	Request switch buzz-	Outout	Request switch	Sounding	0V												
(GR)	Ground	er	Output	buzzer	Not sounding	Battery voltage												
147	Ground	Trunk lid opener	Innut	Trunk lid opener	Pressed	0V												
(L/R)	Ground	switch	Input	switch	Not pressed	Battery voltage												
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 <i>i i i i i i i i i i</i>												
					ON (when rear door RH opens)	OV F												

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value
	e color)	Signal name	Input/ Output	Condition		(Approx.)
(+) 149 ¹ (R/B)	(-) Ground	Rear door LH switch	Output	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms JEMIA0011GB 11.8V
					ON (when rear door LH opens)	٥V

1: Sedan only

2: M/T only

3: With LH front window anti-pinch

4: With LH and RH front window anti-pinch.

5: CVT only

6: With auto lights

7: With low tire pressure warning system

8: Coupe only

Fail Safe

INFOID:000000007629786

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	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been 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 has become consistentStarter control relay signalStarter relay status signal
B2562: LO VOLTAGE	 Inhibit engine cranking Inhibit electronic steering column lock 	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column 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 electronic steering column lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is 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/transmission 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) transmission switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When the following electronic steering column lock conditions agree BCM electronic steering column lock control status Electronic steering column lock condition No. 1 signal status Electronic steering column lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When any of the following conditions is fulfilled Electronic steering column lock unit status signal (CAN) is received normally The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column 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

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

Display contents of CONSULT	Fail-safe	Cancellation		
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be comes normal		
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power sup- ply output control inside BCM becomes normal		
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization		
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)		
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage) 		
B26E9: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No 1 signal: LOCK (0V) Steering condition No 2 signal: LOCK (Battery voltage) 		

DTC Inspection Priority Chart

INFOID:000000007629787

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

Priority		DTC
	B2013: ID DISCORD BCM-S/L	
	B2014: CHAIN OF S/L-BCM	
	B2553: IGNITION RELAY	
	B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED	
	B2560: STARTER CONT RELAY	
	B2601: SHIFT POSITION	
	B2602: SHIFT POSITION	
	B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	 B2605: PNP SW B2606: S/L RELAY 	
	• B2607: S/L RELAT	
	B2608: STARTER RELAY	
	• B2609: S/L STATUS	
	B260A: IGNITION RELAY	
	B260B: STEERING LOCK UNIT	
4	 B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT 	
	B260F: ENG STATE SIG LOST	
	• B2611: ACC RELAY	
	B2612: S/L STATUS	
	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	 B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC 	
	• B2618: BCM	
	• B2619: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E1: ENG STATE NO RECIV	
	 B26E8: CLUTCH SW B26E9: S/L STATUS 	
	B26EA: KEY REGISTRATION	
	C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	 C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	 C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL 	
5	C1716: [PRESSDATA ERR] FL	
Ū	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL	
	• C1720: [CODE ERR] FL	
	 C1721: [CODE ERR] FR C1722: [CODE ERR] RR 	
	C1722. [CODE ERR] RR C1723: [CODE ERR] RL	
	• C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT B2622: INSIDE ANTENNA	

< ECU DIAGNOSIS INFORMATION >

DTC Index

INFOID:000000007629788

[LH&RH FRONT ANTI-PINCH-COUPE]

NOTE:

Details of time display

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

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	—	_	BCS-32
U1010: CONTROL UNIT (CAN)	—	_	—	BCS-33
U0415: VEHICLE SPEED SIG	—	—	_	BCS-34
B2013: ID DISCORD BCM-S/L	×	_	—	<u>SEC-36</u> (Coupe), <u>SEC-250</u> (Sedan)
B2014: CHAIN OF S/L-BCM	×	_	_	<u>SEC-37</u> (Coupe), <u>SEC-251</u> (Sedan)
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-65</u> (Coupe), <u>SEC-281</u> (Sedan)
B2191: DIFFERENCE OF KEY	×	_	—	<u>SEC-69</u> (Coupe), <u>SEC-285</u> (Sedan)
B2192: ID DISCORD BCM-ECM	×	_	_	<u>SEC-70</u> (Coupe), <u>SEC-286</u> (Sedan)
B2193: CHAIN OF BCM-ECM	×	_	_	<u>SEC-71</u> (Coupe), <u>SEC-287</u> (Sedan)
B2195: ANTI-SCANNING	_	_	_	<u>SEC-72</u>
B2553: IGNITION RELAY	_	—		PCS-59
B2555: STOP LAMP	_	_	—	<u>SEC-73</u> (Coupe), <u>SEC-289</u> (Sedan)
B2556: PUSH-BTN IGN SW	_	×	—	<u>SEC-78</u> (Coupe), <u>SEC-294</u> (Sedan)
B2557: VEHICLE SPEED	×	×	_	<u>SEC-80</u> (Coupe), <u>SEC-296</u> (Sedan)
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-81</u> (Coupe), <u>SEC-297</u> (Sedan)
B2562: LOW VOLTAGE	—		_	BCS-35
B2601: SHIFT POSITION	×	×	_	<u>SEC-82</u> (Coupe), <u>SEC-298</u> (Sedan)
B2602: SHIFT POSITION	×	×	—	<u>SEC-86</u> (Coupe), <u>SEC-302</u> (Sedan)
B2603: SHIFT POSI STATUS	×	×	—	<u>SEC-89</u> (Coupe), <u>SEC-305</u> (Sedan)
B2604: PNP SW	×	×	—	<u>SEC-92</u> (Coupe), <u>SEC-308</u> (Sedan)
B2605: PNP SW	×	×	—	<u>SEC-94</u> (Coupe), <u>SEC-310</u> (Sedan)
B2606: S/L RELAY	×	×	_	<u>SEC-96</u> (Coupe), <u>SEC-312</u> (Sedan)

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	А
B2607: S/L RELAY	×	×	_	<u>SEC-97</u> (Coupe), <u>SEC-313</u> (Sedan)	В
B2608: STARTER RELAY	×	×	_	<u>SEC-99</u> (Coupe), <u>SEC-315</u> (Sedan)	
B2609: S/L STATUS	×	×	_	<u>SEC-101</u> (Coupe), <u>SEC-317</u> (Sedan)	С
B260A: IGNITION RELAY	×	×	—	PCS-61	
B260B: STEERING LOCK UNIT	_	×	—	<u>SEC-106</u> (Coupe), <u>SEC-322</u> (Sedan)	D
B260C: STEERING LOCK UNIT	_	×	_	<u>SEC-107</u> (Coupe), <u>SEC-323</u> (Sedan)	E
B260D: STEERING LOCK UNIT	_	×	—	<u>SEC-108</u> (Coupe), <u>SEC-324</u> (Sedan)	
B260F: ENG STATE SIG LOST	×	×	—	<u>SEC-109</u> (Coupe), <u>SEC-325</u> (Sedan)	F
B2611: ACC RELAY	_	—	—	PCS-62	
B2612: S/L STATUS	×	×	_	<u>SEC-110</u> (Coupe), <u>SEC-331</u> (Sedan)	G
B2614: ACC RELAY CIRC	—	×	—	PCS-64	
B2615: BLOWER RELAY CIRC		×	_	PCS-67	Н
B2616: IGN RELAY CIRC	_	×	_	PCS-70	
B2617: STARTER RELAY CIRC	×	×	—	<u>SEC-115</u> (Coupe), <u>SEC-336</u> (Sedan)	
B2618: BCM	×	×	_	PCS-73	
B2619: BCM	×	×	_	<u>SEC-117</u> (Coupe), <u>SEC-338</u> (Sedan)	J
B261A: PUSH-BTN IGN SW	_	×	—	<u>SEC-118</u> (Coupe), <u>SEC-339</u> (Sedan)	PW
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	<u>SEC-121</u>	
B2622: INSIDE ANTENNA	—	—	—	DLK-282	
B2623: INSIDE ANTENNA		_	_	DLK-285	_
B26E1: ENG STATE NO RES	×	×	_	<u>SEC-326</u>	
B26E8: CLUTCH SW	×	×	_	<u>SEC-123</u>	M
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	_	<u>SEC-125</u>	
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	<u>SEC-126</u>	Ν
C1704: LOW PRESSURE FL	—	—	×	<u>WT-8</u>	
C1705: LOW PRESSURE FR	—	—	×	<u>WT-8</u>	0
C1706: LOW PRESSURE RR	_	—	×	<u>WT-8</u>	
C1707: LOW PRESSURE RL			×	<u>WT-8</u>	Р
C1708: [NO DATA] FL		_	×	<u>WT-13</u>	
C1709: [NO DATA] FR			×	<u>WT-13</u>	
C1710: [NO DATA] RR			×	<u>WT-13</u>	
C1711: [NO DATA] RL			×	<u>WT-13</u>	
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-15</u>	

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	—	—	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	—	—	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	—	—	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	—	—	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	—	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	—	—	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	—	×	<u>WT-17</u>
C1720: [CODE ERR] FL	—	—	×	<u>WT-15</u>
C1721: [CODE ERR] FR	—	—	×	<u>WT-15</u>
C1722: [CODE ERR] RR	—	—	×	<u>WT-15</u>
C1723: [CODE ERR] RL	—	—	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	—	—	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	—	—	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	—	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	—	—	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	—	—	×	<u>WT-18</u>
C1734: CONTROL UNIT	_	—	×	<u>WT-19</u>

WIRING DIAGRAM

POWER WINDOW SYSTEM

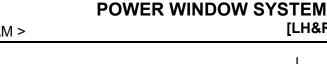
Wiring Diagram - Coupe

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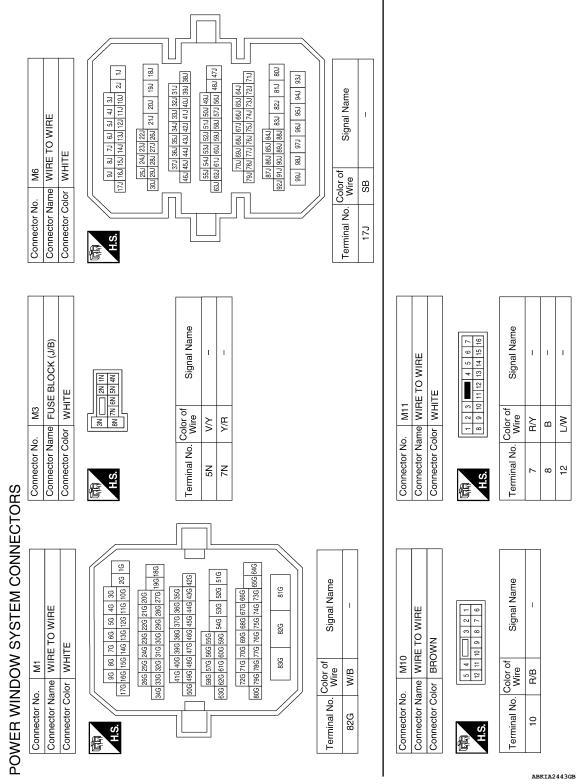
С POWER WINDOW MOTOR RH (D104) ENCODER Ś D DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH) D10 Ε POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH -1-1-6-2 S F FULL D101 СРU BETWEEN FULL F UNLOCK œ പ്പ D105 z Н VEEN FULL POWER WINDOW MOTOR LH D9 ENCODER \$ g STRO TROKE E 1 a - Wel μ J M12 9 POWER WINDOW LOCK SWITCH PWC FUSE BLOCK (J/B) M3 СРU M18 L LTM. IGNITION SWITCH ACC OR ON 0 10A BCM (BODY CONTROL MODULE) (M16), 12 Μ 10A JOOR TTCH RH OFM Ν B104 ΕW POWER WINDOW SYSTEM 40A BATTERY MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH 2 82G Ο 6 B8 B8 B8 B8 Ρ (E (¥ 2 8

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< WIRING DIAGRAM >

W SYSTEM [LH&RH FRONT ANTI-PINCH-COUPE]



Write Operation Operation Y/R BAT BCM FUSE 30 V/Y ACC F/B B GND1 32 R/B AS DOOR SW 40 Y/G PW K-1 INF
SE 30 V/Y 32 R/B 40 Y/G
32 R/B 40 Y/G
۲/G

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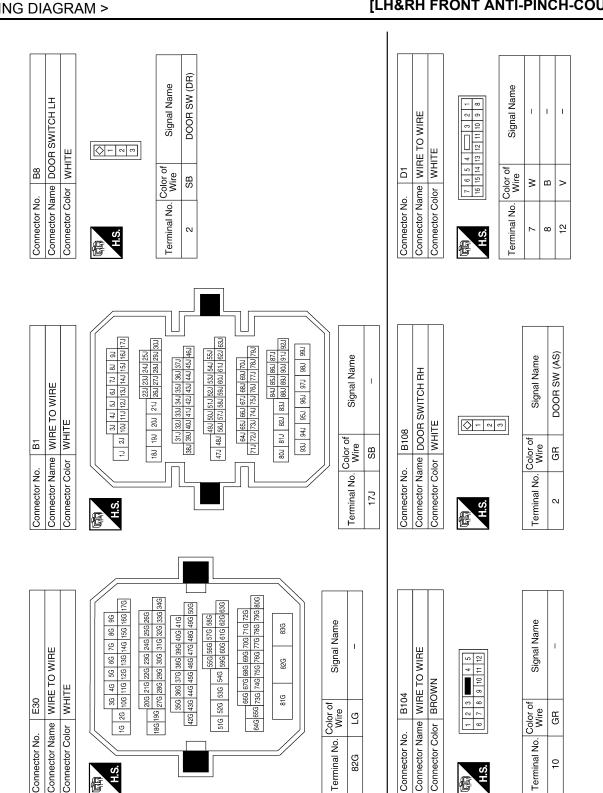
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Connector No. D2 Connoctor Namo WIDE TO WIDE	D2		Connector No.			Terminal No.	Color of Wire	Signal Name
Connector Color	NINC WHITE		Connector Name		AND DOOR LOCK/UNLOCK	œ	œ	UP
		1	Connector Color	olor WHITE	LE CL	6	SB	ENCODER SIG1
		R				10	>	IGN
	8 7 6	5 4 3 2 1	ſĽ	1 0 1	3 4 1 1 5 8 7	11	ГG	DOWN
0°11	16 15 14	13 12 11		_	4 2 3 4 5 11 12 13 14 5	12	ВВ	COM
			0.11			13	8	ENCODER SIG2
				10,000		14	σ	ENCODER GND
Terminal No.	Wire	Signal Name	Terminal No.	Wire	Signal Name	15	в	GND
10	BR	1	-	8	BAT			
			5	GR	ENCODER POWER			
			9	_	LOCK			
			2	æ	UNLOCK			
Connector No.	ED .		Connector No.	o. D10		Connector No.	o. D101	
Connector Na	me POWI	Connector Name POWER WINDOW MOTOR	Connector Name	ame DOO	DOOR LOCK ASSEMBLY	Connector Name	ame WIR	WIRE TO WIRE
Connector Color	lor WHITE	Ļ	Connector Color	_	~	Connector Color	olor WHITE	ΞL
							4 3	
E	- 0		E			H.S.	0 00	9
H.S.	2	7 7	H.S.	-	3 4 5 6			
Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
-	ГG	I	4	m	GND	4	Ч	-
2	ш	I	Ľ	۵	DOOR_KEY/C_	5	в	I
ო	≥	I	י	=	UNLOCK_SW	ω	œ	I
4	GR	I	G	_	DOOR KEY/C			
5	SB	I	D	L	LOCK_SW			
9	σ	I						

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Revision: February 2013

< WIRING DIAGRAM >

D105

Connector No.

Connector No. D104

2012 Altima GCC

ABKIA2375GB

	Connector Name DOOR LOCK/UNLOCK	SWILCH RH	r WHITE	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Nor of Signal Name	W GND	BR ENCODER POWEI
	Connector Nam		Connector Color WHITE	。 H.S.	Terminal No. Color of Wire	e	4
Т			٦				
	Connector Name PUWER WINDOW MUTUR	ITE		4 5 6	Signal Name	I	I
		olor WH.		- co	Color of Wire	ГG	_
	Connector Né	Connector Color WHITE		际可 H.S.	Terminal No. Color of Wire	-	2

											1
3 4 5 6 7 10 11 12 13 14 15 16	Signal Name	GND	ENCODER POWER	UP	DOWN	BAT	GND	ENCODER SIG2	ENCODER SIG1	COM	
8 9 1	Color of Wire	Μ	BR	Γ	ЪЦ	Ч	В	9	Υ	н	
ம்	inal No.	e	4	8	6	10	11	12	15	16	

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NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH < SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-COUPE]
SYMPTOM DIAGNOSIS
NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH
Diagnosis Procedure
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT
Check BCM power supply and ground circuit. Refer to <u>BCS-36, "Diagnosis Procedure"</u> .
Is the inspection result normal? YES >> GO TO 2
NO $>>$ Repair or replace the malfunctioning parts. 2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND
GROUND CIRCUIT Check power window switch main power supply and ground circuit.
Refer to <u>PWC-113, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> . Is the inspection result normal?
YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts.
3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT
Check main power window and door lock/unlock switch serial circuit. Refer to PWC-133, "POWER WINDOW MAIN SWITCH : Component Function Check".
Is the inspection result normal?
YES >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.
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DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007422968

1. CHECK POWER WINDOW MOTOR LH

Check power window motor LH. Refer to PWC-118, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-COUPE]	
PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE	А
Diagnosis Procedure	\square
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	В
Check power window and door lock/unlock switch RH. Refer to <u>PWC-115, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function</u> <u>Check"</u> .	С
Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCUIT	D
Check power window and door lock/unlock switch RH serial link circuit. Refer to <u>PWC-134</u> , "PASSENGER SIDE : Component Function Check".	Е
Is the inspection result normal? YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts. 3. CHECK POWER WINDOW MOTOR RH CIRCUIT	F
Check power window motor RH circuit. Refer to <u>PWC-120, "PASSENGER SIDE : Component Function Check"</u> .	G
<u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> . NO >> Repair or replace the malfunctioning parts.	Η

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ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000007422970

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-104</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

• A foreign material adheres to window glass or glass run rubber.

- Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to <u>PWC-122</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Repair or replace the malfunctioning parts.

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE) [LH&RH FRONT ANTI-PINCH-COUPE]

< SYMPTOM DIAGNOSIS >

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)

Diagnosis Procedure	
1. PERFORM INITIALIZATION PROCEDURE	В
Perform initialization procedure. Refer to <u>PWC-104, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u> ment".	С
Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.	D
 2. CHECK DOOR WINDOW SLIDING PART A foreign material adheres to window glass or glass run rubber. Glass run rubber wear or deformation. Sash is tilted too much or not enough. 	E
Is the inspection result normal? YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts. 3. CHECK ENCODER CIRCUIT	F
Check encoder circuit. Refer to <u>PWC-124, "PASSENGER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u>	Η
 YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. NO >> Repair or replace the malfunctioning parts. 	I

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AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

< SYMPTOM DIAGNOSI	S >
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[LH&RH FRONT ANTI-PINCH-COUPE]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000007422972

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-104</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to <u>PWC-122</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (PASSENGER SIDE)

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< SYMPTOM DIAGNOSIS > [LH&RH	FRONT ANTI-PINCH-COUPE]
AUTO OPERATION DOES NOT OPERATE BUT	
NORMALLY (PASSENGER SIDE)	A
Diagnosis Procedure	INFOID:00000007422973
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to PWC-104, "ADDITIONAL SERVICE WHEN REPLACING CONTRO	
ment".	
Is the inspection result normal?	
YES >> GO TO 2	D
NO >> Repair or replace the malfunctioning parts.	
2. CHECK ENCODER	E
Check encoder.	
Refer to PWC-124, "PASSENGER SIDE : Component Function Check".	
Is the inspection result normal?	F
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident	<u>.</u>
NO >> Repair or replace the malfunctioning parts.	

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

Diagnosis Procedure

INFOID:000000007422974

1. CHECK DOOR SWITCH

Check door switch. Refer to <u>PWC-128. "Component Function Check"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

POWER WINDOW DOES NOT OPERATE BY KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-COUPE]
POWER WINDOW DOES NOT OPERATE B	Y KEY CYLINDER SWITCH
Diagnosis Procedure	INFOID:00000007422975
1. PERFORM INITIALIZATION PROCEDURE	В
Perform initialization procedure. Refer to <u>PWC-104, "ADDITIONAL SERVICE WHEN REPLACING</u> ment".	G CONTROL UNIT : Special Repair Require-
<u>Is the inspection result normal?</u> YES >> GO TO 2	
NO >> Repair or replace the malfunctioning parts.	D
2. CHECK DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWI	ТСН)
Check door lock assembly LH (key cylinder switch). Refer to <u>PWC-130, "Component Function Check"</u> .	E
Is the inspection result normal?	
YES >> Check intermittent incident. Refer to <u>GI-42. "Intermitt</u> NO >> Repair or replace the malfunctioning parts.	ent Incident". F
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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007422976

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to <u>DLK-22, "INTELLIGENT KEY : System Description"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace BCM. Refer to <u>BCS-92. "Removal and Installation"</u>.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure 1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH B Replace main power window and door lock/unlock switch. Refer to PWC-192, "Removal and Installation". C >> INSPECTION END D

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< PRECAUTION > 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 SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag 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

INFOID:000000007422979

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 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.

This vehicle is equipped with a push-button ignition switch and a 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 procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables. **NOTE:**

Supply power using jumper cables if battery is discharged.

- 2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. 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 >

[LH&RH FRONT ANTI-PINCH-COUPE]

- 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.)
- 6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Work

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- · Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.

Then rub with a soft and dry cloth.

- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

PREPARATION

Special Service Tool

INFOID:000000007422981

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

The detail shapes of Kent Moore tools may affer nom those of special set	
Tool number (Kent-Moore No.) Tool name	Description
(J-46534) Trim Tool Set	Removing trim components

PERIODIC MAINTENANCE А PRE-INSPECTION FOR DIAGNOSTIC **Basic Inspection** INFOID:000000007422982 В **BASIC INSPECTION 1.**INSPECTION START С 1. Check the service history. 2. Check the following parts. D • Fuse/circuit breaker blown. · Poor connection, open or short circuit of harness connector. · Battery voltage. Is the inspection result normal? Е YES >> Inspection End. NO >> Repair or replace the malfunctioning parts. F

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[LH&RH FRONT ANTI-PINCH-COUPE]

REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:000000007422983

REMOVAL

- 1. Remove the front door armrest finisher. Refer to DLK-219, "FRONT DOOR : Removal and Installation".
- 2. Release the pawls, using suitable tool, then lift the main power window/door lock switch and finisher as an assembly.

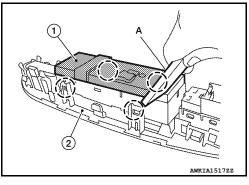
CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 3. Disconnect the harness connector.
- 4. Remove the main power window/door lock switch and finisher assembly from the front door finisher.
- 5. Release the four tabs (two on each side) with a suitable tool (A), then separate the main power window/door lock switch (1) from the switch finisher (2).

():Pawl CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION

Installation is in the reverse order of removal. **NOTE:**

Perform initialization procedure after switch is connected. Refer to <u>PWC-104</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

< REMOVAL AND INSTALLATION >

FRONT POWER WINDOW SWITCH

Removal and Installation

REMOVAL

- 1. Remove the front door armrest finisher. Refer to DLK-219, "FRONT DOOR : Removal and Installation".
- Release the pawls, using suitable tool, then lift the power window/door lock switch and finisher (2) - RH upward as an assembly.

():Pawl

INSTALLATION

CAUTION:

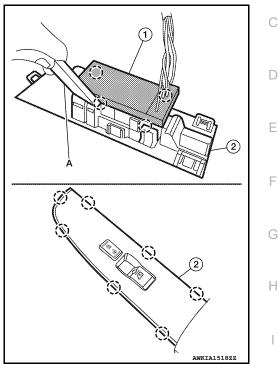
Wrap a cloth around suitable tool to protect components from damage.

3. Disconnect the harness connector.

Installation is in the reverse order of removal.

- Remove the power window/door lock switch and finisher (2) -RH assembly from the front door finisher.
- Release the four tabs (two on each side) with a suitable tool (A), then separate the power window/door lock switch (1) from the switch finisher (2).
 CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



[LH&RH FRONT ANTI-PINCH-COUPE]

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NOTE: Perform initialization procedure after switch is connected. Refer to <u>PWC-104, "ADDITIONAL SERVICE WHEN</u> <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

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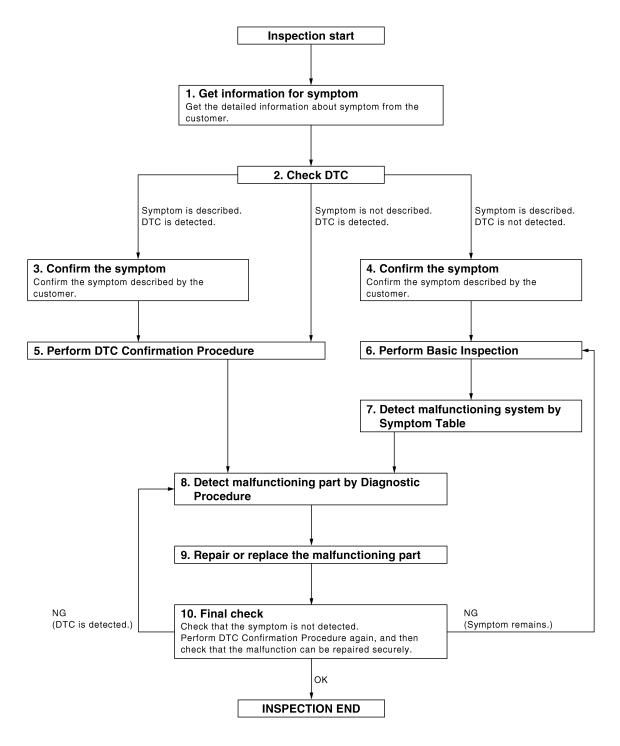
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000007422985

OVERALL SEQUENCE



DETAILED FLOW

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< BASIC INSPECTION >

1. GET INFORMATION FOR SYMPTOM	А
Get the detailed information from the customer about the symptom (the condition and the environment when the incident/malfunction occurred).	A
	В
>> GO TO 2	
2. CHECK DTC	0
1. Check DTC.	C
 Perform the following procedure if DTC is displayed. Record DTC and freeze frame data (Print them out with CONSULT.) 	
- Erase DTC.	D
 Study the relationship between the cause detected by DTC and the symptom described by the customer. Check related service bulletins for information. 	
Is any symptom described and any DTC detected?	Ε
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	F
3. CONFIRM THE SYMPTOM	I
Confirm the symptom described by the customer.	
Connect CONSULT 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.	G
>> GO TO 5	Н
4. CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT 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.	Ι
	J
>> GO TO 6 5 DEDECTION DECOEPTINE	
5. PERFORM DTC CONFIRMATION PROCEDURE	PWC
Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT to the vehicle, and check diagnostic results in real time.	1 110
If two or more DTCs are detected, refer to <u>BCS-65. "DTC Inspection Priority Chart"</u> and determine trouble	
diagnosis order. NOTE:	L
Freeze frame data is useful if the DTC is not detected.	
 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 Confirma- tion Procedure. 	Μ
Is DTC detected?	Ν
YES >> GO TO 8 NO >> Refer to <u>GI-42, "Intermittent Incident"</u> .	
6. PERFORM BASIC INSPECTION	0
Perform <u>PWC-194, "Work Flow"</u> .	
	Ρ
Inspection End>>GO TO 7	
7. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM TABLE	

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

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

$\mathbf{8}$. 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.

Is malfunctioning part detected?

YES >> GO TO 9

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

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 10

10. FINAL CHECK

When DTC was detected in step 2, perform DTC Confirmation Procedure or Component Function Check again, and then check that the malfunction have 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 8 YES (Symptom remains)>>GO TO 6 NO >> Inspection End.

< BASIC INSPECTION >	[LH&RH FRONT ANTI-PINCH-SEDAN]	
INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BA	TTERY NEGATIVE TERMINAL	A
ADDITIONAL SERVICE WHEN REMOVING BAT	TERY NEGATIVE TERMINAL : De-	В
Initial setting is necessary when battery terminal is disconnected CAUTION: The following specified operations are not performed under		С
 Auto-up operation Anti-pinch function Retained power operation 		D
ADDITIONAL SERVICE WHEN REMOVING BATT cial Repair Requirement	ERY NEGATIVE TERMINAL : Spe-	E
 INITIALIZATION PROCEDURE Disconnect battery minus terminal or power window main sw more. 	vitch connector. Reconnect it after a minute or	F
 Turn ignition switch ON. Operate power window switch to fully open the window. (The already fully open) 	nis operation is unnecessary if the window is	G
 Continue pulling the power window switch UP (AUTO-UP op position, keep pulling the switch for 4 seconds or more. Inspect anti-pinch function. 	eration). Even after glass stops at fully closed	Н
 CHECK ANTI-PINCH FUNCTION Fully open the door window. Place a piece of wood near fully closed position. Close door glass completely with AUTO-UP. 		
 Check that glass lowers for approximately 150 mm or 2 second Check that glass does not rise when operating the power wind CAUTION: 		J
 Do not check with hands and other part of body because t Check that AUTO-UP operates before inspection when sys It may switch to fail-safe mode if open/close operation is p ting in that situation. Refer to <u>PWC-240</u>, "Fail Safe". 	stem initialization is performed.	PWC
 Perform initial setting when auto-up operation or anti-pind Finish initial setting. Otherwise, next operation cannot be Auto-up operation 		L
 Anti-pinch function Retained power operation when ignition switch is OFF. ADDITIONAL SERVICE WHEN REPLACING COMPAREMENT 	ONTROL UNIT	M
ADDITIONAL SERVICE WHEN REPLACING COM	NTROL UNIT : Description	Ν
Initial setting is necessary when replacing power window main s CAUTION:		0
 The following specified operations are not performed under Auto-up operation Anti-pinch function Retained power operation 	the non-initialized condition.	P
ADDITIONAL SERVICE WHEN REPLACING CON quirement	NTROL UNIT : Special Repair Re-	

INSPECTION AND ADJUSTMENT

INITIALIZATION PROCEDURE

1. Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or more.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
- 4. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 4 seconds or more.
- 5. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

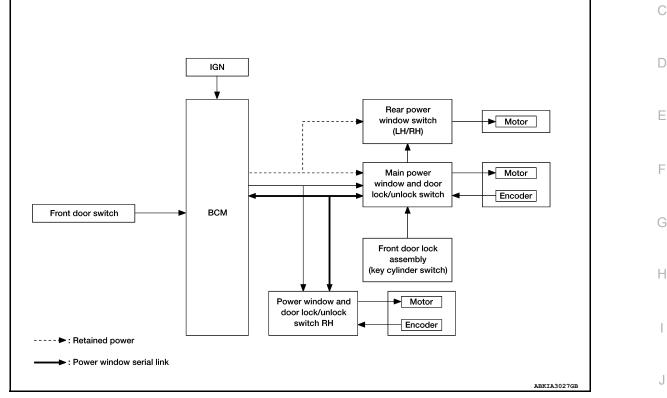
- 1. Fully open the door window.
- 2. Place a piece of wood near fully closed position.
- 3. Close door glass completely with AUTO-UP.
- Check that glass lowers for approximately 150 mm or 2 seconds without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.
- CAUTION:
- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to <u>PWC-240</u>, "Fail Safe".
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Retained power operation when ignition switch is OFF.

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram

FRONT WINDOW ANTI-PINCH SYSTEM



System Description

POWER WINDOW MAIN SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator	
Key cylinder switch	LOCK/UNLOCK signal (more than 1 second over)		5 (
Encoder	ock/unlock			
Main power window and door lock/unlock switch		Power window control	Front power window motor	
Power window and door lock/unlock switch RH				
BCM				
Rear power window switch	Rear power window motor UP/DOWN signal		Rear power window motor	

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

[LH&RH FRONT ANTI-PINCH-SEDAN]

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< SYSTEM DESCRIPTION >

POWER WINDOW SYSTEM

[LH&RH FRONT ANTI-PINCH-SEDAN]

Item	Input signal to front power window switch	Front power window switch function	Actuator
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	tunction	
Encoder	Encoder pulse signal		vindow control Front power window motor RH
BCM	RAP signal		

POWER WINDOW OPERATION

- Power window system is operable during the retained power operation timer after turning ignition switch ON and OFF.
- Power window main switch (driver side) can open/close all windows.
- Front & rear power window switch can open/close the corresponding windows.

POWER WINDOW AUTO-OPERATION (FRONT LH & RH)

- AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch & power window and door lock/unlock switch RH turns to AUTO.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Power window switch reads the changes of encoder signal and stops AUTO operation when door glass is at fully opened/closed position.
- Power window motor is operable in case encoder is malfunctioning.

RETAINED POWER OPERATION

• Retained power operation is an additional power supply function that enables power window system to operate during the 45 seconds even when ignition switch is turned OFF

Retained power function cancel conditions

- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- When ignition switch is ON.
- When timer time passes. (45 seconds)

POWER WINDOW LOCK

Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the power window switch.

ANTI-PINCH OPERATION (FRONT LH & RH)

- Pinch foreign material in the door glass during AUTO-UP operation, and it is the anti-pinch function that lowers the door glass 150 mm or 2 seconds when detected.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the window glass for 150 mm or 2 seconds after it detects encoder pulse signal frequency change.

OPERATION CONDITION

• When all door glass AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NOTE:

Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.

KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for more than 1 second to OPEN or CLOSE front power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- · Ignition switch OFF
- Hold door key cylinder to LOCK position for more than 1 second to perform CLOSE operation of the door glass.

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

 Hold door key cylinder to UNLOCK position for more than 1 second to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN OPERATION (FRONT LH & RH)

Front power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3^(NOTE) 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 function cannot be operated. **NOTE:**

Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>BCS-23</u>, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)". **NOTE:**

Use CONSULT to change settings.

MODE 1 (3sec) / MODE 2 (OFF) / MODE 3 (5sec)

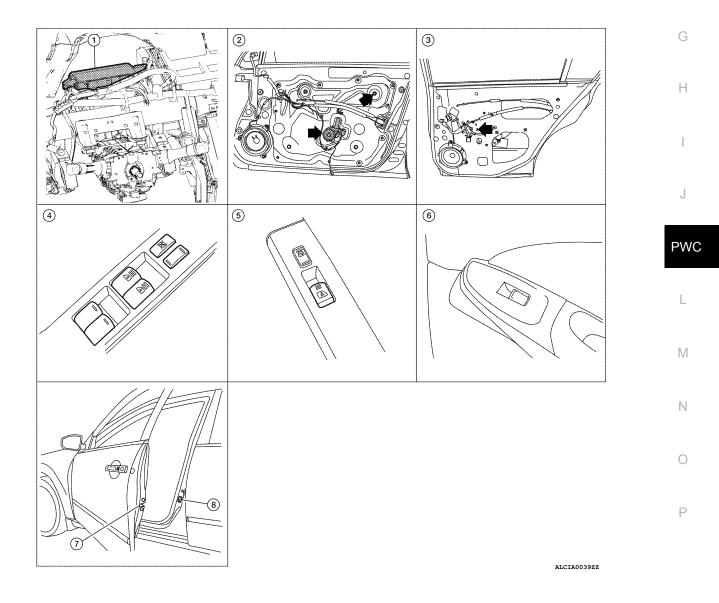
Component Parts Location

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Revision: February 2013

< SYSTEM DESCRIPTION >

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- 1. BCM M16, M17, M18 (view with in- 2. strument panel removed)
- 4. Main power window and door lock/ 5. unlock switch D7, D8
- 7. Front door lock assembly LH (key cylinder switch) D10

Component Description

Front power window motor LH D9, RH D104

- 5. Power window and door lock/unlock 6. switch RH D105
- 8. Front door switch LH B8, RH B108
- Rear power window motor LH D204, RH D304
- Rear power window switch LH D203, RH D303

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FRONT WINDOW ANTI-PINCH SYSTEM

Component	Function
BCM	Supplies power supply to power window switch.Controls retained power.
Main power window and door lock/un- lock switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of front power window LH.
Power window and door lock/unlock switch RH	Controls front power window motor RH.Controls anti-pinch operation of front power window RH.
Rear power window switch	Controls rear power window motors LH and RH.
Front power window motor LH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch. Transmits power window motor rotation as a pulse signal to main power window and door lock/unlock switch.
Front power window motor RH	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH. Transmits power window motor rotation as a pulse signal to power window and door lock/unlock switch RH.
Rear power window motor	Starts operating with signals from main power window and door lock/unlock switch & rear power window switch.
Front door lock assembly LH (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Front door switch LH or RH	Detects door open/close condition and transmits to BCM.

DIAGNOSIS SYSTEM (BCM) COMMON ITEM

COMMON ITEM : Diagnosis Description

BCM CONSULT FUNCTION

CONSULT performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM.	
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.	
DATA MONITOR	The BCM input/output signals are displayed.	
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.	
ECU IDENTIFICATION	The BCM part number is displayed.	
CONFIGURATION	This function is not used even though it is displayed.	

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.

Sustem	Sub aveter coloction item	Diagnosis mode			
System	Sub system selection item	WORK SUPPORT	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		×		_
Exterior lamp	HEAD LAMP	×	×	×	_
Wiper and washer	WIPER	×	×	×	
Turn signal and hazard warning lamps	FLASHER	×	×	×	_
Air conditioner	AIR CONDITONER		×		_
Intelligent Key system	INTELLIGENT KEY	×	×	×	_
Combination switch	COMB SW		×		_
BCM	BCM	×			_
Immobilizer	IMMU		×	×	_
Interior room lamp battery saver	BATTERY SAVER	×	×		_
Trunk open	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	
RAP system	RETAINED PWR		×		
Signal buffer system	SIGNAL BUFFER		×	×	_
TPMS	AIR PRESSURE MONITOR	×	×	×	_

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

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ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-67. "DTC Index"</u>.

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

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[LH&RH FRONT ANTI-PINCH-SEDAN]

DATA MONITOR

Monitor Item [Unit]	Description
DOOR SW-DR [ON/OFF]	Indicates condition of front door switch LH.
DOOR SW-AS [ON/OFF]	Indicates condition of front door switch RH.

POWER SUPPLY AND GROUND CIRCUIT [LH&RH FRONT ANTI-PINCH-SEDAN] < DTC/CIRCUIT DIAGNOSIS > DTC/CIRCUIT DIAGNOSIS А POWER SUPPLY AND GROUND CIRCUIT BCM В **BCM** : Diagnosis Procedure INFOID:000000007629792 Regarding Wiring Diagram information, refer to BCS-70, "Wiring Diagram - Coupe" or BCS-79, "Wiring Diagram - Sedan". D 1. CHECK FUSE AND FUSIBLE LINK Check if the following BCM fuse or fusible link are blown. Е Terminal No. Signal name Fuse and fusible link No. 1 Н Battery power supply 10 11 Is the fuse or fusible link blown? YES >> Replace the blown fuse or fusible link after repairing the affected circuit. NO >> GO TO 2 2. CHECK POWER SUPPLY CIRCUIT Н 1. Turn ignition switch OFF. 2. Disconnect BCM. 3. Check voltage between BCM harness connector and ground. Terminals V (+)(-) Voltage ΘΘ (Approx.) BCM Connector Terminal PWC Ground M16 1 Battery voltage ALCIA00252 M17 11 Is the measurement normal? YES >> GO TO 3 NO >> Repair or replace harness. $\mathbf{3.}$ check ground circuit M Check continuity between BCM harness connector and ground. Ν BCM Continuity Connector Terminal Ground M17 13 Yes Ο Ω Does continuity exist? YES >> Inspection End. Ρ NO >> Repair or replace harness. ALCIA0024Z BCM : Special Repair Requirement INFOID:000000007629793 1. REQUIRED WORK WHEN REPLACING BCM

< DTC/CIRCUIT DIAGNOSIS >

Initialize control unit. Refer to BCS-3, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT (BCM) : Work Procedure".

>> Work End. POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

· BCM supplies power.

 It operates each power window motor via corresponding power window switch and makes window move up/ down when main power window and door lock/unlock switch is operated.

POWER WINDOW MAIN SWITCH : Component Function Check

Main Power Window And Door Lock/unlock Switch

 $\mathsf{1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch. Is the inspection result normal?

>> Main power window and door lock/unlock switch power supply and ground circuit are OK. YES

>> Refer to PWC-206, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure". NO

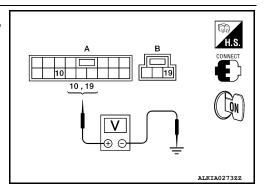
POWER WINDOW MAIN SWITCH : Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System".

Main Power Window And Door Lock/unlock Switch Power Supply Circuit Check

- 1. CHECK POWER SUPPLY CIRCUIT
- 1. Turn ignition switch ON.
- 2. Check voltage between main power window and door lock/ unlock switch connectors (A and B) and ground.

	Terminal		
(+)			Voltage (V)
Main power window and door lock/unlock switch connector		(-)	(Approx.)
D7 (A)	10	Ground	Battery voltage
D8 (B)	19	Giouna	Ballery Vollage



Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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[LH&RH FRONT ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

- Turn ignition switch OFF. 1.
- 2. Disconnect BCM, main power window and door lock/unlock switch, power window and door lock/unlock switch RH, rear power window switch LH and rear power window switch RH.
- 3. Check continuity between BCM connector (A) and main power window and door lock/unlock switch connectors (B and C).

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M16 (A)	3	D7 (B)	10	Yes
M16 (A)	2	D8 (C)	19	165

4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal		Continuity
M16 (A)	3	Ground	No
	2	-	INO

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

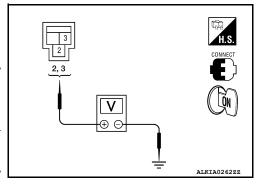
- 3. CHECK GROUND CIRCUIT
- Turn ignition switch OFF. 1.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ 3. unlock switch connector and ground.

Main power window and door lock/ unlock switch connector	Terminal	Ground	Continuity
D8	17		Yes

Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 7
- NO >> Repair or replace harness.
- CHECK BCM OUTPUT SIGNAL
- 1. Connect BCM.
- 2. Turn ignition switch ON.
- Check voltage between BCM connector and ground. 3.

(+)		(-)	Voltage (V) (Approx.)	
BCM connector	Terminal			
M16	3	Ground	Battery voltage	
WITO	2	Ground	Dattery Voltage	



Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace BCM. Refer to BCS-92, "Removal and Installation".

 ${f 5.}$ CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POW-

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[LH&RH FRONT ANTI-PINCH-SEDAN]

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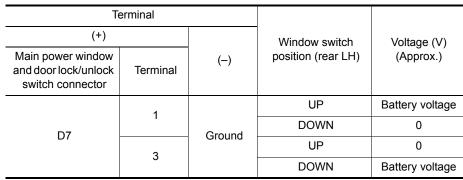
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< DTC/CIRCUIT DIAGNOSIS >

ER WINDOW SWITCH LH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.



Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".

6. Check main power window and door lock/unlock switch output signal (rear power window switch RH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

	Terminal				
(+)					
Main power win- dow and door lock/unlock switch connector	Terminal	(-)	Window switch position (rear RH)	Voltage (V) (Approx.)	
	7	Ground	UP	Battery voltage	
D7			DOWN	0	
07	5		UP	0	
	5		DOWN	Battery voltage	

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".

7. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH LH)

1. Connect main power window and door lock/unlock switch.

2. Turn ignition switch ON.

3. Check voltage between main power window and door lock/unlock switch connector and ground.

< DTC/CIRCUIT DIAGNOSIS >

-	Terminal			
(+)			Window switch position (front LH)	
Main power win- dow and door lock/unlock switch connector	Terminal	()		Voltage (V) (Approx.)
	8		UP	Battery voltage
D7	0	Ground	DOWN	0
07	11	Ciouna	UP	0
	11		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".

POWER WINDOW MAIN SWITCH : Component Inspection

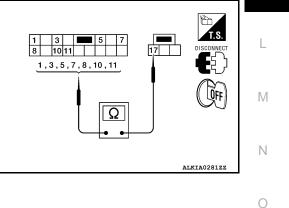
1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

1. Check main power window and door lock/unlock switch.

Terr	minal	Main power windo lock swite	Continuity	
10	1	Rear LH	UP	
10	7	Rear RH	UP	
1	3	Rear LH	NEUTRAL	
5	7	Rear RH	NEUTRAL	Yes
10	3	Rear LH	DOWN	
10	5	Rear RH	DOWN	
17	2		-	

2. Check continuity between main power window and door lock/ unlock switch (power window lock switch). (Lock operation).

Tern	Terminal Mair		Main power window and door lock/unlock switch condition		
3		Rear LH	UP		
5		Rear RH	UF		
1		Rear LH			
3	17		– NEUTRAL	No	
5		Rear RH			NO
7		Real IXII			
1	Rear LH DOWN Rear RH	Rear LH			
7					



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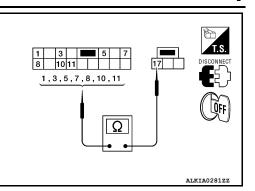
PWC

INFOID:000000007423001

< DTC/CIRCUIT DIAGNOSIS >

 Check continuity between main power window and door lock/ unlock switch (power window lock switch). (Unlock operation).

Terminal		Main power window and door lock/unlock switch condition		Continuity
3		Rear LH	UP	
5		Rear RH	01	
1		Rear LH		
3	17	Redi Lh	NEUTRAL	Yes
5	17	Rear RH	NEOTICE	163
7				
1		Rear LH	DOWN	
7		Rear RH	BOWN	



[LH&RH FRONT ANTI-PINCH-SEDAN]

Is the inspection result normal?

- YES >> Main power window and door lock/unlock switch is OK.
- NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-98</u>, "<u>Removal and Instal-</u><u>lation</u>".

POWER WINDOW MAIN SWITCH : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation. Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>PWC-223</u>, "DRIVER SIDE : Component Function Check".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

• BCM supplies power.

• Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID 000000007423004

INFOID:000000007423003

INFOID:000000007423002

Power Window And Door Lock/unlock Switch RH

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

Check front power window motor RH operation with power window and door lock/unlock switch RH. <u>Is the inspection result normal?</u>

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK. NO >> Refer to PWC-210, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000007423005

PWC-210

< DTC/CIRCUIT DIAGNOSIS >

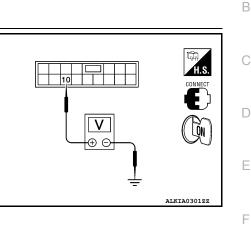
Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System".

Power Window And Door Lock/unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window and door lock/unlock switch RH connector and ground.

Terr	Terminal				
(+)		Voltage (V)			
Power window and door lock/ unlock switch RH connector	Terminal	(-)	(Approx.)		
D105	10	Ground	Battery voltage		



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Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

$\mathbf{2}.$ CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and power window and door lock/unlock switch RH.
- 3. Check continuity between BCM connector (A) and power window and door lock/unlock switch RH connector (B).

BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
M16 (A)	2	D105 (B)	10	Yes

Check continuity between BCM connector (A) and ground. 4.

BCM connector	Terminal	Ground	Continuity
M16 (A)	2	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

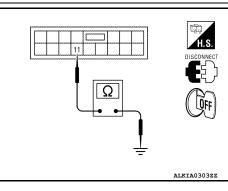
- ${f 3}$. CHECK GROUND CIRCUIT
- 1. Turn ignition switch OFF.
- Disconnect power window and door lock/unlock switch RH. 2.
- Check continuity between power window and door lock/unlock 3. switch RH connector and ground.

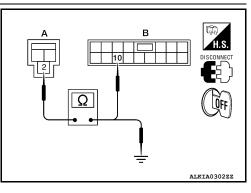
Power window and door lock/unlock switch RH	Terminal	Ground	Continuity
D105	11		Yes

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Repair or replace harness.

4. CHECK BCM OUTPUT SIGNAL

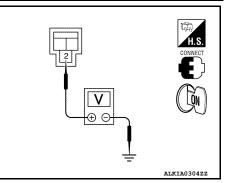




< DTC/CIRCUIT DIAGNOSIS >

- 1. Connect BCM.
- Turn ignition switch ON. 2.
- 3. Check voltage between BCM connector and ground.

Terminals					
(+)	Voltage (V) (Approx.)				
BCM connector	(-)				
M16 2 Ground Battery voltage					
s the measurement value within the specification?					



[LH&RH FRONT ANTI-PINCH-SEDAN]

>> Check intermittent incident. Refer to GI-42, "Intermittent YES Incident".

>> Replace BCM. Refer to BCS-92, "Removal and Installation". NO

FRONT POWER WINDOW SWITCH : Special Repair Requirement

INFOID:000000007423006

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

- YES >> GO TO 2
- NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

>> Refer to PWC-225, "PASSENGER SIDE : Component Function Check". NO REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Description

BCM supplies power.

• Rear power window motor will be operated if rear power window switch is operated.

REAR POWER WINDOW SWITCH : Component Function Check

Rear Power Window Switch

CHECK REAR POWER WINDOW MOTOR FUNCTION

Check rear power window motor operation with rear power window switch.

Is the inspection result normal?

YES >> Rear power window switch power supply and ground circuit are OK.

>> Refer to PWC-212, "REAR POWER WINDOW SWITCH : Diagnosis Procedure" NO

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000007423009

INFOID:000000007423007

INFOID 000000007423008

Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System".

Rear Power Window Switch Power Supply Circuit Check

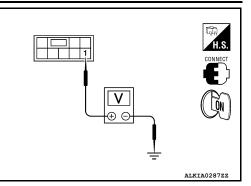
CHECK POWER SUPPLY CIRCUIT

POWER SUPPLY AND GROUND CIRCUIT [LH&RH FRONT ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS >

Check voltage between rear power window switch connector and ground.

	Terminal					
	(+)			Condition	Voltage (V)	
	Rear power window switch connector Terminal		(-)		(Approx.)	
LH	D203	1	Ground	Ignition switch	Battery voltage	
RH	D303		Ground	ON	Dattery voltage	



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Is the measurement value within the specification?

Terminal

1

3

>> GO TO 2 (Rear power window switch LH) YES

NO >> GO TO 4

Main power window

and door lock/unlock

switch connector

D7 (A)

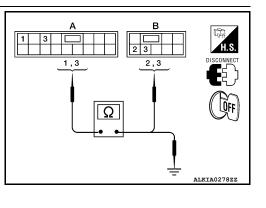
2. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and 2. rear power window switch LH.
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch LH connector (B).

Rear power window

switch LH connector

D203 (B)



3 Check continuity between main power window and door lock/unlock switch connector (A) and ground. 4

Terminal

2

Continuity

Yes

Main power window and door lock/un- lock switch connector	Terminal		Continuity
	1	Ground	No
D7 (A)	3		INO

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

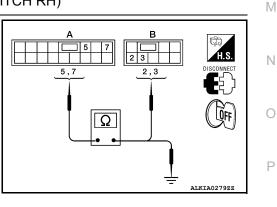
Turn ignition switch OFF. 1.

- 2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch RH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connec- tor	Terminal	Continuity
D7 (A)	5	D303 (B)	3	Yes
	7	D000 (D)	2	163

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4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.



< DTC/CIRCUIT DIAGNOSIS >

D7 (A) 5 Ground No	Main power window and door lock/unlock switch connector	Terminal		Continuity
D7 (A) 7	D7 (A)	5	Ground	No
	D7 (A)	7		NU

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY

1. Disconnect BCM and rear power window switch.

2. Check continuity between BCM connector (A) and rear power window switch connector (B).

BCM connector	Terminal		ver window connector	Terminal	Continuity
M16 (A)	3	LH	D203 (B)	1	Yes
MIO (A)	5	RH	D303 (B)	I	163

3. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M16 (A)	3	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-92, "Removal and Installation"</u>.

NO >> Repair or replace harness.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-214, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

NO >> Replace rear power window switch. Refer to <u>PWC-98</u>, "Removal and Installation".

REAR POWER WINDOW SWITCH : Component Inspection

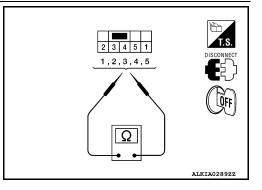
INFOID:000000007423010

COMPONENT INSPECTION

1.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

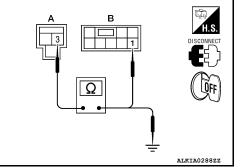
Terr	ninal	Power window switch condition	Continuity
1	5	UP	
3	4	UF	
3	4	NEUTRAL	Yes
5	2	NEUTRAL	ies
1	4	DOWN	
5	2	DOWN	



Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to <u>PWC-98</u>, "Removal and Installation".



POWER WINDOW MOTOR

[LH&RH FRONT ANTI-PINCH-SEDAN] < DTC/CIRCUIT DIAGNOSIS > POWER WINDOW MOTOR А DRIVER SIDE DRIVER SIDE : Description INFOID 000000007423011 В Door glass moves UP/DOWN by receiving the signal from power window main switch. DRIVER SIDE : Component Function Check INFOID:000000007423012 CHECK POWER WINDOW MOTOR CIRCUIT Check front power window motor LH operation with operating main power window and door lock/unlock D switch. Is the inspection result normal? YES >> Front power window motor LH is OK. Е >> Refer to PWC-215, "DRIVER SIDE : Diagnosis Procedure". NO DRIVER SIDE : Diagnosis Procedure INFOID:000000007423013 F Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System". Front Power Window Motor LH Circuit Check Н **1.** CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL 1. Turn ignition switch OFF. 2. Disconnect front power window motor LH. Turn ignition switch ON. 3. Check voltage between front power window motor LH connector 4. 1.2 and ground. Terminal ÔN Main power win-(+) PWC dow and door lock/ Voltage (V) θE Power window unlock switch con-(Approx.) (-) motor LH con-Terminal dition nector ALKIA0290Z UP Battery voltage 2 DOWN 0 D9 Ground UP 0 Μ 1 DOWN Battery voltage Is the measurement value within the specification? Ν YES >> GO TO 3 NO >> GO TO 2 2. CHECK HARNESS CONTINUITY

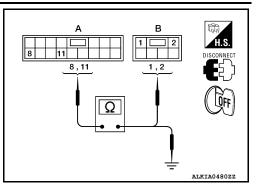
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POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and front power window motor LH.
- Check continuity between main power window and door lock/ unlock switch connector (A) and front power window motor connector LH (B).

Main power window and door lock/unlock switch connector	Terminal	Front power win- dow motor LH con- nector	Terminal	Continuity
D7 (A)	8	D9 (B)	2	Yes
	11		1	



[LH&RH FRONT ANTI-PINCH-SEDAN]

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	8		No
DT (A)	11		

Is the inspection result normal?

YES >> Refer to PWC-206, "POWER WINDOW MAIN SWITCH : Component Function Check".

NO >> Repair or replace harness.

3. CHECK POWER WINDOW MOTOR

Check front power window motor LH. Refer to <u>PWC-216, "DRIVER SIDE : Component Inspection"</u>.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Replace power window motor LH. Refer to <u>GW-22</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-216</u>, "<u>DRIVER SIDE</u> : <u>Special Repair Requirement</u>".

DRIVER SIDE : Component Inspection

INFOID:000000007423014

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor.

Terminal		Motor condition	
(+)	(—)		
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to <u>GW-22, "Removal and Installation"</u>. After that, refer to <u>PWC-216, "DRIVER SIDE : Special Repair Requirement"</u>.

DRIVER SIDE : Special Repair Requirement

INFOID:000000007423015

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

	[LH&RH FRONT ANTI-PINCH-SEDAN]

< DTC/CIRCUIT DIAGNOSIS > NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". 2. CHECK ANTI-PINCH OPERATION А Check anti-pinch operation. Refer to PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-В ment". Is the inspection result normal? YES >> Inspection End. NO >> Refer to PWC-223, "DRIVER SIDE : Component Function Check". PASSENGER SIDE PASSENGER SIDE : Description D INFOID:000000007423016 Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or power window and door lock/unlock switch RH. Е PASSENGER SIDE : Component Function Check INFOID:000000007423017 CHECK POWER WINDOW MOTOR CIRCUIT Check power window motor operation with operating main power window and door lock/unlock switch or power window and door lock/unlock switch RH. Is the inspection result normal? YES >> Front power window motor RH is OK. >> Refer to PWC-217, "PASSENGER SIDE : Diagnosis Procedure". NO Н PASSENGER SIDE : Diagnosis Procedure INFOID:000000007423018 Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System". Front Power Window Motor RH Circuit Check 1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL PWC 1. Turn ignition switch OFF. Disconnect front power window motor RH. 2. Turn ignition switch ON. 3. Check voltage between front power window motor RH connector L 4. 1.2 and ground. Μ Terminal V Front power (+) Voltage (V) window motor -Θ Θ (Approx.) (-) Front power window RH condition Terminal Ν motor RH connector UP Battery voltage ALKIA0290ZZ 2 DOWN 0 D104 Ground UP 0 1 DOWN Battery voltage Ρ Is the measurement value within the specification?

YES >> GO TO 3

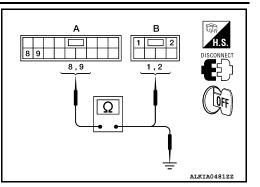
NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector (A) and front power window motor RH connector (B).

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity	
D105 (A)	8	D104 (B)	2	Yes	
D100 (A)	9		1	103	



4. Check continuity between power window and door lock/unlock switch RH connector (A) and ground.

Power window and door lock/unlock switch RH con- nector	Terminal	Ground	Continuity
	8		No
D105 (A)	9	-	INU
		•	

Is the inspection result normal?

- YES >> Refer to PWC-210, "FRONT POWER WINDOW SWITCH : Component Function Check".
- NO >> Repair or replace harness.

$\mathbf{3}$. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-218, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Replace front power window motor RH. Refer to <u>PWC-98</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-218</u>, "<u>PASSENGER SIDE</u> : <u>Special Repair Requirement</u>".

PASSENGER SIDE : Component Inspection

INFOID:000000007423019

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to front power window motor RH.

Terr	minal	- Motor condition	
(+)	(—)		
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Replace front power window motor RH. Refer to <u>GW-22, "Removal and Installation"</u>. After that, refer to <u>PWC-218, "PASSENGER SIDE : Special Repair Requirement"</u>.

PASSENGER SIDE : Special Repair Requirement

INFOID:000000007423020

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

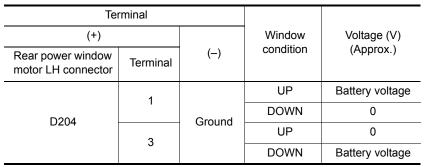
YES >> GO TO 2

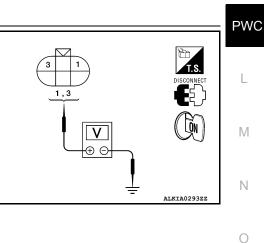
< DTC/CIRCUIT DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-SEDAN]
NO >> Check intermittent incident. Refer to <u>GI-42</u> , "Intermitter 2 . CHECK ANTI-PINCH OPERATION	ent Incident". A
Check anti-pinch operation. Refer to <u>PWC-197</u> , "ADDITIONAL SERVICE WHEN REPLACING ment".	CONTROL UNIT : Special Repair Require-
Is the inspection result normal? YES >> Inspection End. NO >> Refer to <u>PWC-225</u> , "PASSENGER SIDE : Componen REAR LH	t Function Check".
REAR LH : Description	INFOID:000000007423021
Door glass moves UP/DOWN by receiving the signal from power switch LH.	window main switch or rear power window ${\sf E}$
REAR LH : Component Function Check	INFOID:000000007423022
1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT	F
Check rear power window motor LH operation with main power power window switch LH.	window and door lock/unlock switch or rear
Is the inspection result normal?	G
YES >> Rear power window motor LH is OK. NO >> Refer to <u>PWC-219, "REAR LH : Diagnosis Procedure</u>	<u>-</u> . H
REAR LH : Diagnosis Procedure	INFOID:00000007423023
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Regarding Wiring Diagram information,	refer to PWC-273,	"Wiring Diagram	- Sedan Wi	<u>th Left And</u>	Right Front
Power Window Anti-Pinch System".					

Power Window Motor Circuit Check

- 1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL
- 1. Disconnect rear power window motor LH connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between rear power window motor LH connector and ground.





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Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch LH.
- Check continuity between rear power window switch LH connector (A) and rear power window motor LH connector (B).

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity	
D203 (A)	5	D204 (B)	1	Yes	
D203 (A)	4	D204 (B)	3	165	

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[LH&RH FRONT ANTI-PINCH-SEDAN]

4. Check continuity between rear power window switch LH connector (A) and ground.

Rear power window switch LH connector	Terminal		Continuity	
D203 (A)	5	Ground	No	
D203 (A)	4		NO	

Is the inspection result normal?

YES >> Refer to <u>PWC-212, "REAR POWER WINDOW SWITCH : Component Function Check"</u>.

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH. Refer to <u>PWC-220, "REAR LH : Component Inspection"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace rear power window motor LH. Refer to <u>GW-27, "Removal and Installation"</u>.

REAR LH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to rear power window motor LH.

Terr	minal	Motor condition	
(+)	(-)		
3	1	DOWN	
1	3	UP	

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to <u>GW-27, "Removal and Installation"</u>. REAR RH

REAR RH : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or rear power window switch RH.

REAR RH : Component Function Check

INFOID:000000007423026

INFOID:000000007423025

1. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

Check rear power window motor RH operation with operating main power window and door lock/unlock switch or rear power window switch RH.

Is the inspection result normal?

PWC-220

[LH&RH FRONT ANTI-PINCH-SEDAN] < DTC/CIRCUIT DIAGNOSIS > YES >> Rear power window motor RH is OK. NO >> Refer to PWC-221, "REAR RH : Diagnosis Procedure". А REAR RH : Diagnosis Procedure INFOID:000000007423027 В Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System". Rear Power Window Motor RH Circuit Check 1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL D 1. Disconnect rear power window motor RH. 2. Turn ignition switch ON. Check voltage between rear power window motor RH connector 3. Е and around. 1.3 Terminal F V Rear power (+)Voltage (V) window switch -⊕ Θ (Approx.) (-) Rear power window RH condition Terminal motor RH connector UP Battery voltage ALKIA0293ZZ 1 DOWN 0 D304 Ground Н UP 0 3 DOWN Battery voltage Is the measurement value within the specification? YES >> GO TO 3 NO >> GO TO 2 2. CHECK HARNESS CONTINUITY 1. Turn ignition switch OFF. Α в 2. Disconnect rear power window switch RH. PWC Check continuity between rear power window switch RH con-3. 4 5 nector (A) and rear power window motor RH connector (B). 4,5 1.3 L Rear power window Rear power window Terminal Terminal Continuity Ω switch RH connector motor RH connector 5 1 D303 (A) D304 (B) Yes Μ 4 3 4 Check continuity between rear power window switch RH con-ALKIA0294ZZ nector (A) and ground. Ν Rear power window switch Terminal Continuity RH connector Ground 5 D303 (A) No 4 Is the inspection result normal? Ρ YES >> Refer to PWC-212, "REAR POWER WINDOW SWITCH : Component Function Check". NO >> Repair or replace harness. $\mathbf{3}$. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-222, "REAR RH : Component Inspection"</u>. <u>Is the inspection result normal?</u>

Revision: February 2013

PWC-221

< DTC/CIRCUIT DIAGNOSIS >

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace rear power window motor RH. Refer to <u>GW-27, "Removal and Installation"</u>.

REAR RH : Component Inspection

INFOID:000000007423028

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to rear power window motor RH.

Terr	ninal	- Motor condition	
 (+)	(-)		
3	1	DOWN	
 1	3	UP	

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-27, "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS > ENCODER А DRIVER SIDE **DRIVER SIDE : Description** INFOID:000000007423029 В Detects condition of the front power window motor LH operation and transmits to main power window and door lock/unlock switch as pulse signal. **DRIVER SIDE : Component Function Check** INFOID:000000007423030 1. CHECK ENCODER OPERATION D Check front door glass LH perform AUTO open/close operation normally when operating main power window and door lock/unlock switch. Is the inspection result normal? Е YES >> Encoder operation is OK. NO >> Refer to PWC-223, "DRIVER SIDE : Diagnosis Procedure". DRIVER SIDE : Diagnosis Procedure INFOID:000000007423031 Regarding Wiring Diagram information, refer to PWC-273, "Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System". Encoder Circuit Check Н 1. CHECK ENCODER OPERATION 1. Turn ignition switch ON. Check signal between main power window and door lock/unlock 2. switch connector and ground with oscilloscope. 9 13 9,13 Terminals $\overline{\mathbf{v}}$ (+) ÔN Signal Θ Main power window (Reference value) PWC (-) Terminal and door lock/unlock switch connector 9 ALKIA0295ZZ D7 Ground Refer to following signal 13 (V) (V) M Encoder signal 1 Encoder signal 1 2 2 (Terminal 13) (Terminal 13) (V (V Ν Encoder signal 2 Encoder signal 2 42 2 (Terminal 9) (Terminal 9) C 10ms ⊢10ms Window DOWN Window UP (Starting of terminal 9 is 1/4 pulses earlier) (Starting of terminal 13 is 1/4 pulses earlier) Is the inspection result normal? Ρ YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> GO TO 2 ${f 2.}$ CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch ON.
- 2. Check voltage between front power window motor LH connector and ground.

(+)			Voltage (V)
Front power win- dow motor LH con- nector		(-)	(Approx.)
D9	4	Ground	10

Is the measurement value within the specification?

Terminal

15

YES >> GO TO 4

NO >> GO TO 3

Main power window

and door lock/unlock

switch connector D7 (A)

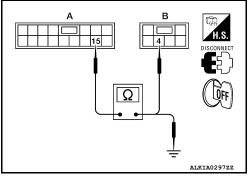
${f 3}.$ CHECK HARNESS CONTINUITY 1

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and 2. front power window motor LH.
- Check continuity between main power window and door lock/ 3. unlock switch connector (A) and front power window motor LH connector (B).

Front power window

motor LH connector

D9 (B)



4 4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Terminal

Continuity

Yes

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D7 (A)	15		No

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to PWC-298, "Removal and Installation".
- NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor LH.
- Check continuity between front power window motor LH connec-3. tor and ground.

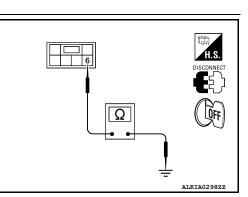
	Front power window motor LH connector	lerminal		Continuity
D9 6 Ye	D9	6		Yes

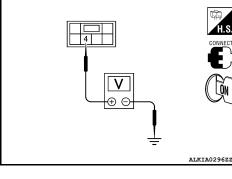
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2





< DTC/CIRCUIT DIAGNOSIS >

- Disconnect main power window and door lock/unlock switch. 1.
- Check continuity between main power window and door lock/ 2. unlock switch connector (A) and front power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power win- dow motor LH con- nector	Terminal	Continuity
D7 (A)	2	D9 (B)	6	Yes

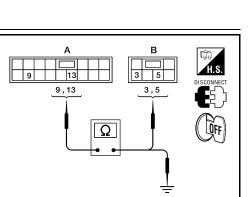
Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to PWC-298, "Removal and Installation".
- NO >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

- 1. Disconnect main power window and door lock/unlock switch.
- 2. Check continuity between main power window and door lock/ unlock switch connector (A) and front power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D7 (A)	9	D9 (B)	3	Yes
	13	D3 (D)	5	163



3. Check continuity between main power window and door lock/ unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity	
D7 (A)	9	Ground	No	
	13	-	NO	

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to GW-22. "Removal and Installation". After that, refer to PWC-216, "DRIVER SIDE : Special Repair Requirement".

NO >> Repair or replace harness. PASSENGER SIDE

PASSENGER SIDE : Description

Detects condition of the front power window motor RH operation and transmits to power window and door lock/unlock switch RH as pulse signal.

PASSENGER SIDE : Component Function Check

1. CHECK ENCODER OPERATION

Check front door glass RH perform AUTO open/close operation normally when operating power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Encoder operation is OK.

>> Refer to PWC-225, "PASSENGER SIDE : Diagnosis Procedure". NO

PASSENGER SIDE : Diagnosis Procedure

[LH&RH FRONT ANTI-PINCH-SEDAN]

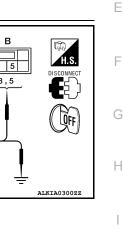
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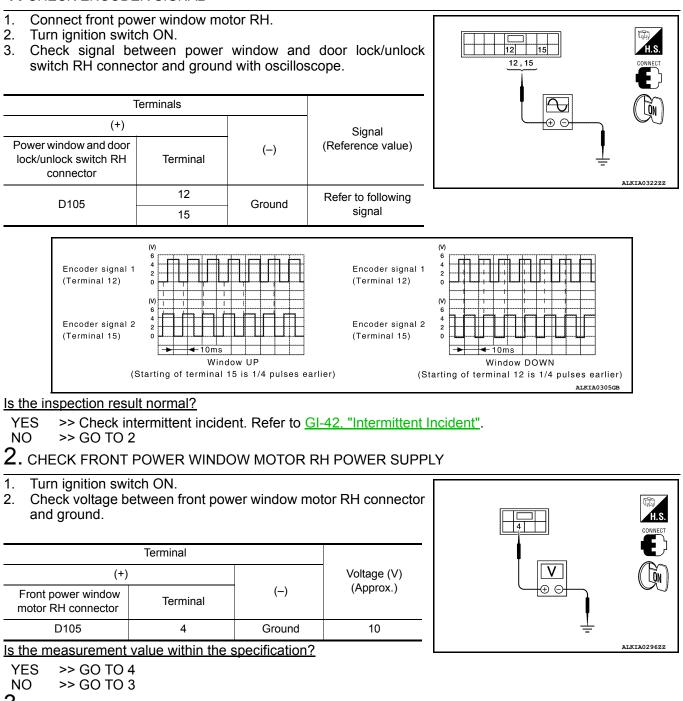
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< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Regarding Wiring Diagram information, refer to <u>PWC-273</u>, "Wiring Diagram - Sedan With Left And Right Front <u>Power Window Anti-Pinch System"</u>.

1. CHECK ENCODER SIGNAL



3. CHECK HARNESS CONTINUITY 1

< DTC/CIRCUIT DIAGNOSIS >

Turn ignition switch OFF. 1.

Power window and

door lock/unlock

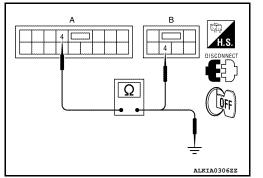
switch RH connector D105 (A)

- 2. Disconnect power window and door lock/unlock switch RH and front power window motor RH.
- 3. Check continuity between power window and door lock/unlock switch RH connector (A) and front power window motor RH connector (B).

Front power window

motor RH connector

D104 (B)



[LH&RH FRONT ANTI-PINCH-SEDAN]

4 4. Check continuity between power window and door lock/unlock switch RH connector (A) and ground.

Terminal

Continuity

Yes

Power window and door lock/ unlock switch RH connector	Terminal	Ground	Continuity
D105 (A)	4		No

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-299, "Removal and Installation".
- NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

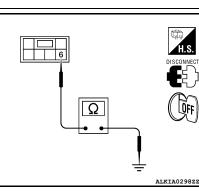
- 1. Turn ignition switch OFF.
- Disconnect front power window motor RH. 2.

Terminal

4

3. Check continuity between front power window motor RH connector and ground.

Front power window motor RH connector	Terminal	Ground	Continuity
D104	6		Yes



Is the inspection result normal?

YES >> GO TO 6

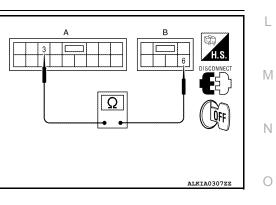
NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2

1. Disconnect power window and door lock/unlock switch RH. 2. Check continuity between power window and door lock/unlock

switch RH connector (A) and front power window motor RH connector (B).

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105 (A)	3	D104 (B)	6	Yes
le the increastion requilt normal?				



Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-299, "Removal and Installation".

- NO >> Repair or replace harness.
- 6. CHECK HARNESS CONTINUITY 3



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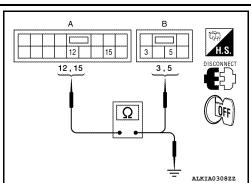
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< DTC/CIRCUIT DIAGNOSIS >

 Disconnect power window and door lock/unlock switch RH.
 Check continuity between power window and door lock/unlock switch RH connector (A) and front power window motor RH connector (B).

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
	12	D104 (B)	5	Yes
D105 (A)	15	D104 (B)	3	165



[LH&RH FRONT ANTI-PINCH-SEDAN]

3. Check continuity between power window and door lock/unlock switch RH connector (A) and ground.

Power window and door lock/unlock switch RH con- nector	Terminal	Ground	Continuity	
	12	*	No	
D105 (A)	15		NO	

Is the inspection result normal?

- YES >> Replace front power window motor RH. Refer to <u>GW-22</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-218</u>, "<u>PASSENGER SIDE</u> : <u>Special Repair Requirement</u>".
- NO >> Repair or replace harness.

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH

Description

Detects door open/close condition and transmits the signal to BCM.

Component Function Check

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

Check ("DOOR SW-DR" and "DOOR SW-AS") in "DATA MONITOR" mode with CONSULT. Refer to <u>BCS-30,</u> "RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)".

Monitor item		Condition	
DOOR SW-DR	OPEN	: ON	
DOOR SW-DR	CLOSE	: OFF	
DOOR SW-AS	OPEN	: ON	
DOOR 3W-AS	CLOSE	: OFF	

Is the inspection result normal?

- YES >> Front door switch circuit is OK.
- NO >> Refer to <u>PWC-229</u>, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>PWC-273, "Wiring Diagram - Sedan With Left And Right Front</u> <u>Power Window Anti-Pinch System"</u>.

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

	Terminals				Voltage (V)			
(+)			Door condition					
BCM connector	Terminal	(-)			(Approx.)			
M18 -	32	Ground				Front door	OPEN	0
			RH	CLOSE	Battery voltage			
	58		Front door	OPEN	0			
	50		LH	CLOSE	Battery voltage			

Is the measurement value within the specification?

YES	>> Replace BCM. Refer to BCS-92, "Removal and Installation".
NO	>> GO TO 2

- 2. CHECK HARNESS CONTINUITY
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and front door switch.

3. Check continuity between BCM connector and front door switch connector.

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18	32	RH: B108	2	Yes
WIG	58	LH: B8	2	105

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DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between BCM connector and ground.

BCM connector	Terminal		Continuity
M18	32	Ground	No
WITO	58		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.

2. Check voltage between BCM connector and ground.

	Terminal		
(-	+)	(-)	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	
 M18	32	Ground	Battery voltage
W10	58	Ground	Ballery vollage

Is the measurement value within the specification?

YES >> GO TO 4

NO >> Replace BCM. Refer to <u>BCS-92, "Removal and Installation"</u>.

4. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-230, "Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace front door switch.

Component Inspection

1. CHECK FRONT DOOR SWITCH

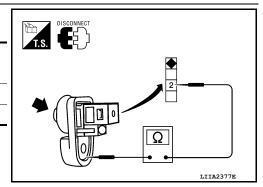
Check front door switches.

Tern	ninal	Door switch	Continuity
Door s	witches	Door Switch	Continuity
2	Ground part of	Pressed	No
£	door switch	Released	Yes

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace front door switch.



DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DOOR KEY CYLINDER SWITCH

Description

Power window main switch detects condition of the door key cylinder and transmits to BCM as the LOCK or $_{\rm B}$ UNLOCK signals.

Component Function Check

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 SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Co	ondition	
Lock	: ON	
Neutral / Unlock	: OFF	
Unlock	: ON	
Neutral / Lock	: OFF	
	Lock Neutral / Unlock Unlock	Neutral / Unlock : OFF Unlock : ON

YES >> Key cylinder switch is OK.

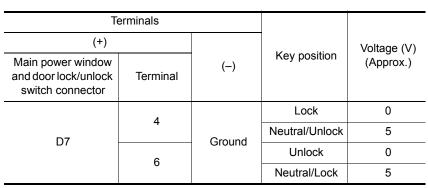
NO >> Refer to <u>PWC-231</u>, "Diagnosis Procedure".

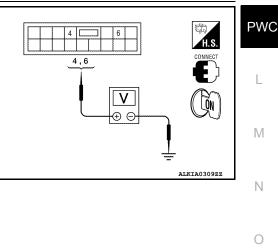
Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>PWC-273, "Wiring Diagram - Sedan With Left And Right Front</u> <u>Power Window Anti-Pinch System</u>".

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector and ground.





Is the measurement value within the specification?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-192</u>, "<u>Removal and</u> <u>Installation</u>".

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT



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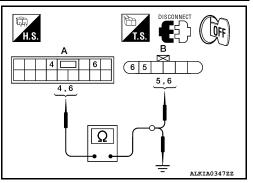
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DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and front door lock assembly LH (key cylinder switch).
- 3. Check continuity between main power window and door lock/ unlock switch connector (A) and front door lock assembly LH (key cylinder switch) connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front door lock as- sembly LH (key cylin- der switch) connector	Terminal	Continuity
D7 (A)	4	D10 (B)	6	Yes
DT (A)	6	D10 (D)	5	165



[LH&RH FRONT ANTI-PINCH-SEDAN]

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D7 (A)	4	Ground	No
D7 (A)	6		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $\mathbf{3}$. Check door key cylinder switch ground circuit

Check continuity between front door lock assembly LH (key cylinder switch) connector and ground.

Front door lock assembly LH (key cylinder switch) connector	Terminal	Ground	Continuity
D10	4	•	Yes
Is the inspection result norma	al?		

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to PWC-232, "Component Inspection".

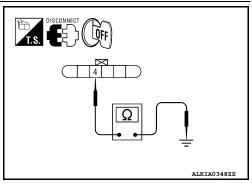
Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Replace front door lock assembly LH (door key cylinder switch). After that, refer to <u>PWC-233</u>, <u>"Special Repair Requirement"</u>.

Component Inspection

COMPONENT INSPECTION

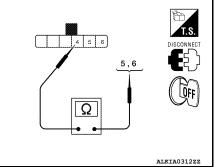
1. CHECK DOOR KEY CYLINDER SWITCH



< DTC/CIRCUIT DIAGNOSIS >

Check front door lock assembly LH (key cylinder switch).

Term	inal		
Front door lock (key cylinder sw		Key position	Continuity
5		Unlock	Yes
5	4	Neutral/Lock	No
6	4	Lock	Yes
0		Neutral/Unlock	No



[LH&RH FRONT ANTI-PINCH-SEDAN]

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Replace front door lock assembly LH (key cylinder switch). After that, refer to <u>PWC-233, "Special</u> <u>Repair Requirement"</u>.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>DLK-232</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

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< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Front door window RH operation signal
- Power window control by key cylinder switch signal
- · Power window lock switch signal
- Retained power operation signal

POWER WINDOW MAIN SWITCH : Component Function Check

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1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

Monitor item		Condition	
CDL LOCK SW	LOCK	: ON	
ODE LOOK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNECCR SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-234</u>, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

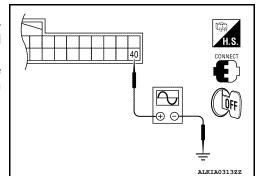
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Regarding Wiring Diagram information, refer to <u>PWC-273</u>, "Wiring Diagram - Sedan With Left And Right Front <u>Power Window Anti-Pinch System"</u>.

Power Window Serial Link Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Remove Intelligent Key, and close front door LH and RH.
- Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".



POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	Terminal		2.
(+)		()	Signal (Reference value)
BCM connector	Terminal	(-)	(
M18	40	Ground	(V) 15 10 5 0 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 5 10 10 10 10 10 10 10 10

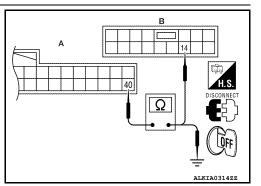
Is the inspection result normal?

YES >> Power window serial link is OK.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and main power window and door lock/unlock switch.
- Check continuity between BCM connector (A) and main power window and door lock/unlock switch connector (B).

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M18 (A)	40	D7 (B)	14	Yes



4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M18 (A)	40	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH : Description

Main power window and door lock/unlock switch, power window and door lock/unlock switch RH and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to main power window and door lock/unlock switch and power window and door lock/unlock switch RH

Keyless power window down signal

The signal mentioned below is transmitted from main power window and door lock/unlock switch to power window and door lock/unlock switch RH

- Front door window RH operation signal
- · Power window control by key cylinder switch signal
- Retained power operation signal
- Power window lock switch signal

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:000000007423048

INFOID:000000007423047

1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OUTPUT SIGNAL

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POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to <u>BCS-17, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-236, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

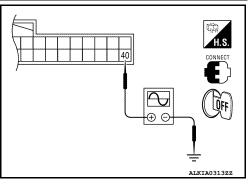
FRONT POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000007423049

Regarding Wiring Diagram information, refer to <u>PWC-273</u>, "Wiring Diagram - Sedan With Left And Right Front <u>Power Window Anti-Pinch System"</u>.

Power Window Serial Link Check

- 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
- 1. Remove Intelligent Key, and close the front door LH and RH.
- Check signal between BCM connector and ground with oscilloscope when door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".
- 3. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (LH and RH) is turned to "LOCK" or "UNLOCK".



	Terminal	Signal	
(+)		()	Signal (Reference value)
BCM connector	Terminal	(-)	
M18	40	Ground	(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> GO TO 2

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

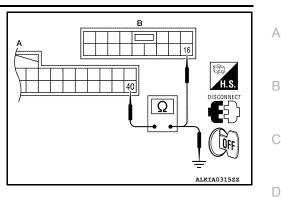
POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- 3. Check continuity between BCM connector (A) and power window and door lock/unlock switch RH connector (B).

BCM connector	Terminal	Power window and door lock/unlock switch RH con- nector	Terminal	Continuity
M18 (A)	40	D105 (B)	16	Yes



4. Check continuity between BCM connector (A) and ground.

BCM connector	Terminal	Ground	Continuity
M18 (A)	40	Ground	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".

NO >> Repair or replace harness.

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POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal main power window and door lock/unlock switch, and operation is checked. Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-298</u>, "<u>Removal and</u> <u>Installation</u>".
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:000000007423052

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

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POWER WINDOW MAIN SWITCH (TION > [LH&RH FRONT ANTI-PINCH-SEDAN]

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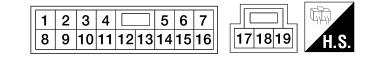
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ECU DIAGNOSIS INFORMATION POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termin	al No.	Description			Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (Y)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
2 (G)	Ground	Encoder ground		_	0
3 (O)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage
4 (L)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral/Unlocked \rightarrow Locked)	$5 \rightarrow 0$
5 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
6 (R)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral/Locked \rightarrow Un- locked)	$5 \rightarrow 0$
7 (P)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (R)	11	Front door power window mo- tor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
9 (W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 0 10 ms JMKLA0070GB

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Termina	al No.	Description			Voltogo IV/I
+	-	Signal name	Input/ Output	Condition	Voltage [V] (Approx.)
				IGN SW ON	Battery voltage
10 (V)	Ground	RAP signal	Input	Within 45 second after ig- nition switch is turned to OFF.	Battery voltage
				When front LH or RH door is opened during retained power operation.	0
11 (LG)	8	Front door power window mo- tor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage
13 (SB)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 2 0 10 ms JMKIA0070GB
14 (BR)	Ground	Power window serial link	Input/ Output	IGN SW ON or power win- dow timer operating.	(V) 15 10 50 10 ms JPMIA0013GB
15 (GR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	10
17 (B)	Ground	Ground		_	0
19 (W)		Battery power supply	Input	_	Battery voltage

Fail Safe

INFOID:000000007423054

FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/ close operation.
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Error	Error condition	^
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.	A
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).	В

It changes to condition before initialization and the following functions do not operate when switched to fail- C safe control.

Auto-up operation

Anti-pinch function

Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

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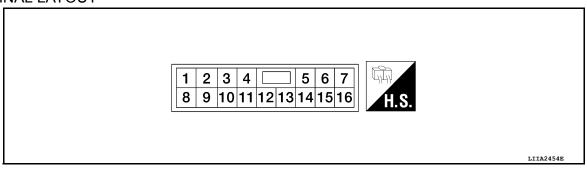
< ECU DIAGNOSIS INFORMATION >

FRONT POWER WINDOW SWITCH

Reference Value

INFOID:000000007423055

TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Termi	nal No.	Description			Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (W)	Ground	Encoder ground	_	_	0
4 (BR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
8 (L)	9	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
9 (LG)	8	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage
10 (P)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (Y)	3	Encoder pulse signal 1	Input	When power window motor op- erates.	(V) 6 2 0 10 ms JMKIA0070GB

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Term	inal No.	Description			Voltage [V]	^
+	-	Signal name	Input/ Output	Condition	(Approx.)	A
						В
15 (G)	3	Encoder pulse signal 2	Input	When power window motor op- erates.	2 0 10 ms	С
					JMKIA0070GB	D
16 (R)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 0 0 10 ms	E
					JPMIA0013GB	

Fail Safe

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FAIL-SAFE CONTROL

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when error beyond regulation value is detected between the fully closed position and the actual position of the glass.

Error	Error condition	
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.	
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/ close operation.	J
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.	PWC
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.	
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.	L
Malfunction of not yet up- dated closed position of glass	When glass open/close operation is continuously performed without fully closing more than the specified value (approximately 10 strokes).	Μ

It changes to condition before initialization and the following functions do not operate when switched to failsafe control.

- Auto-up operation
- Anti-pinch function
- Retained power function

Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

FR Other than front wiper switch HI OFF FR WIPER LOW Other than front wiper switch LO OF Front wiper switch LO ON OFF Front washer switch OF OFF OFF Front washer switch ON ON ON FR WIPER NT Front washer switch OFF OFF Front washer switch NT ON ON FR WIPER STOP Front wiper switch NT ON Front wiper switch NT ON Front wiper switch NT ON TURN SIGNAL R Other than trun signal switch RH OFF OFF Turn signal switch RH ON OFF OTH Turn signal switch RH ON TURN SIGNAL L Other than turn signal switch LH ON ON ON Miner Anni Signal switch RH OFF Turn signal switch RH ON Other than lighting switch ATH OFF Miner Anni Signal switch RH ON Turn signal switch RH ON Other than lighting switch ATH ON ON Turn signal switch HH ON ON <th>Monitor Item</th> <th>Condition</th> <th>Value/Status</th>	Monitor Item	Condition	Value/Status
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FR WiPER LOW Front wiper switch LO ON FR WASHER SW Front washer switch OFF OFF Front washer switch ON ON FR WIPER INT OFF Front washer switch ON ON FR WIPER STOP Front wiper switch INT OFF Front wiper is not in STOP position OFF OFF Trun Viper Stop Front wiper is in STOP position ON TURN SIGNAL R Wiper intermittent dial is in a dial position 1 - 6 Wiper intermittent dial position TURN SIGNAL R Other than turn signal switch RH OFF Turn signal switch RH ON ON TURN SIGNAL L Other than ighting switch ST and 2ND OFF Lighting switch 1ST or 2ND ON ON TAIL LAMP SW Other than lighting switch 2ND OFF Lighting switch 1ST or 2ND ON ON HEAD LAMP SW 1 Other than lighting switch 2ND OFF Lighting switch 2ND OFF ON Lighting switch 2ND OFF ON Autro LIGHT SW Other than lighting switch AUTO ON		Front wiper switch HI	ON
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DOOR SW-ASPassenger door openedONDOOR SW-RRRear RH door closedOFFDOOR SW-RRRear RH door openedONDOOR SW-RLRear LH door closedOFFRear LH door openedONCDL LOCK SWOther than power door lock switch LOCKOFF	DOOR SW-DR	Driver door opened	ON
Passenger door openedONDOOR SW-RRRear RH door closedOFFRear RH door openedONDOOR SW-RLRear LH door closedOFFRear LH door openedONCDL LOCK SWOther than power door lock switch LOCKOFF		Passenger door closed	OFF
DOOR SW-RR Rear RH door opened ON DOOR SW-RL Rear LH door closed OFF Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF	DOOR SW-AS	Passenger door opened	ON
Rear RH door opened ON DOOR SW-RL Rear LH door closed OFF Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF		Rear RH door closed	OFF
DOOR SW-RL Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF	DOOK SW-KK	Rear RH door opened	ON
Rear LH door opened ON CDL LOCK SW Other than power door lock switch LOCK OFF		Rear LH door closed	OFF
CDL LOCK SW	DOOK SW-KL	Rear LH door opened	ON
Power door lock switch LOCK ON		Other than power door lock switch LOCK	OFF
	ODL LOCK SW	Power door lock switch LOCK	ON

[LH&RH FRONT ANTI-PINCH-SEDAN]

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status		
DL UNLOCK SW	Other than power door lock switch UNLOCK	OFF		
DE UNEOCK SW	Power door lock switch UNLOCK	ON		
EY CYL LK-SW	Other than driver door key cylinder LOCK position	OFF		
ET GTE ER-SW	Driver door key cylinder LOCK position	ON		
EY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF		
REFOREIN-SW	Driver door key cylinder UNLOCK position	ON		
	When hazard switch is not pressed	OFF		
IAZARD SW	When hazard switch is pressed	ON		
REAR DEF SW	When rear window defogger switch is pressed	ON		
AN ON SIG	When AUTO switch or fan switch is pressed	ON		
AIR COND SW	When A/C switch is pressed	ON		
	Trunk lid opener cancel switch OFF	OFF		
R CANCEL SW	Trunk lid opener cancel switch ON	ON		
	Trunk lid opener switch OFF	OFF		
R/BD OPEN SW	While the trunk lid opener switch is turned ON	ON		
	Trunk lid closed	OFF		
RNK/HAT MNTR	Trunk lid opened	ON		
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF		
	When LOCK button of Intelligent Key is pressed	ON		
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF		
	When UNLOCK button of Intelligent Key is pressed	ON		
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF		
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON		
	When PANIC button of Intelligent Key is not pressed	OFF		
RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON		
	When UNLOCK button of Intelligent Key is not pressed and held	OFF		
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is pressed and held	ON		
	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF		
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON		
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V		
FILAL SENSUR	When outside of the vehicle is dark	Close to 0 V		
	When driver door request switch is not pressed	OFF		
REQ SW-DR	When driver door request switch is pressed	ON		
REQ SW-AS	When passenger door request switch is not pressed	OFF		
	When passenger door request switch is pressed	ON		
	When trunk request switch is not pressed	OFF		
EQ SW-BD/TR	When trunk request switch is pressed	ON		
	When engine switch (push switch) is not pressed	OFF		
PUSH SW	When engine switch (push switch) is pressed	ON		
	Ignition switch OFF or ACC	OFF		
GN RLY -F/B	Ignition switch ON	ON		
	Ignition switch OFF	OFF		
CC RLY -F/B	Ignition switch ACC or ON	ON		

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Monitor Item	Condition	Value/Status
CLUTCH SW	When the clutch pedal is not depressed	OFF
CECTONISW	When the clutch pedal is depressed	ON
BRAKE SW 1	When the brake pedal is not depressed	ON
	When the brake pedal is depressed	OFF
DETE/CANCL SW	When selector lever is in P position	OFF
	When selector lever is in any position other than P	ON
SFT PN/N SW	When selector lever is in any position other than P or N	OFF
SET FIN/IN SW	When selector lever is in P or N position	ON
S/L -LOCK	Electronic steering column lock LOCK status	OFF
3/L -LOCK	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L -UNLOCK	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-F/B	Ignition switch ON	ON
	Driver door UNLOCK status	OFF
UNLK SEN-DR	Driver door LOCK status	ON
	When engine switch (push switch) is not pressed	OFF
PUSH SW -IPDM	When engine switch (push switch) is pressed	ON
IGN RLY1 F/B	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
	When selector lever is in P position	OFF
DETE SW -IPDM	When selector lever is in any position other than P	ON
	When selector lever is in any position other than P or N	OFF
SFT PN -IPDM	When selector lever is in P or N position	ON
	When selector lever is in any position other than P	OFF
SFT P -MET	When selector lever is in P position	ON
	When selector lever is in any position other than N	OFF
SFT N -MET	When selector lever is in N position	ON
	Engine stopped	STOP
	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
	Electronic steering column lock LOCK status	OFF
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON
	Electronic steering column lock UNLOCK status	OFF
S/L UNLCK-IPDM	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
S/L RELAY-REQ	Ignition switch ON	ON
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status	
	Passenger door LOCK status	LOCK	/
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	E
ID OK FLAG	Ignition switch ACC or ON	RESET	
ID OK FLAG	Ignition switch OFF	SET	
PRMT ENG STAT	When the engine start is prohibited	RESET	(
PRIVITEING STAT	When the engine start is permitted	SET	
KEY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF	I
KET SW -SLUT	When Intelligent Key is inserted into key slot	ON	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	(
	When ID of front LH tire transmitter is registered	DONE	
ID REGST FL1	When ID of front LH tire transmitter is not registered	YET	ŀ
	When ID of front RH tire transmitter is registered	DONE	
ID REGST FR1	When ID of front RH tire transmitter is not registered	YET	
	When ID of rear RH tire transmitter is registered	DONE	
ID REGST RR1	When ID of rear RH tire transmitter is not registered	YET	
	When ID of rear LH tire transmitter is registered	DONE	1
ID REGST RL1	When ID of rear LH tire transmitter is not registered	YET	
	Tire pressure indicator OFF	OFF	
WARNING LAMP	Tire pressure indicator ON	ON	Ρ

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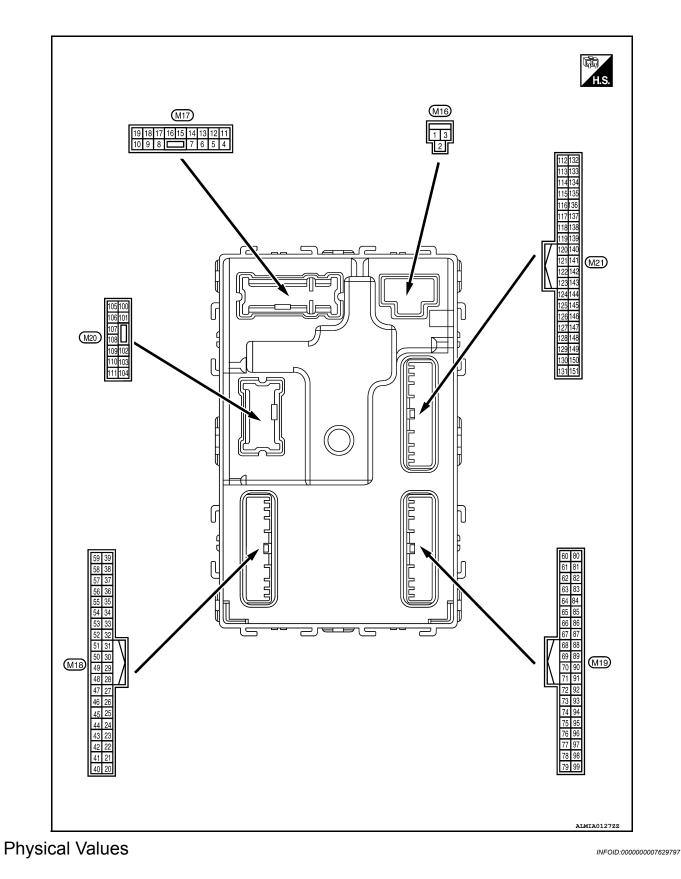
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BCM (BODY CONTROL MODULE) ATION > [LH&RH FRONT ANTI-PINCH-SEDAN]

< ECU DIAGNOSIS INFORMATION >

Terminal Layout



< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value						
(vvire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)						
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage						
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage						
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage						
4	Ground	Interior room lamp	Quitout	After passing the ir er operation time	nterior room lamp battery sav-	0V						
(P/W)	Ground	power supply	Output	Any other time after lamp battery save	er passing the interior room roperation time	Battery voltage						
5	Cround	Front door RH UN-	Output	Front door PH	UNLOCK (actuator is activated)	Battery voltage						
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	0V						
7	Ground	Sten Jamn	Output	Step lamp	ON	0V						
(R/W)	Ground	Step lamp	Output		OFF	Battery voltage						
8	8 (V) Ground All doors LOCK		Output	All doors	LOCK (actuator is activat- ed)	Battery voltage						
(V)										- aipui		Other than LOCK (actuator is not activated)
9	Ground	Front door LH UN- LOCK		Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage					
(G)	Cround			LOCK	Output		Other than UNLOCK (actuator is not activated)	0V				
10 ¹	Ground	Rear door RH and rear door LH UN- Ou	()utnut	Rear door RH	UNLOCK (actuator is activated)	Battery voltage						
(G/Y)	Cround	LOCK		and rear door LH	Other than UNLOCK (actuator is not activated)	0V						
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage						
13 (B)	Ground	Ground	_	Ignition switch ON		0V						
					OFF	0V						
14 ¹ (O/W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position (V) 10 0 0 2 ms						

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description		Condition		Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
					OFF	0V	
14 ⁸ (R/Y)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position	
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage	
(Y/L)	0.00.00		ouput	.ge.	ACC	0V	
					Turn signal switch OFF	0V	
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 50 1 s 1 s FKID0926E 6.5 V	
					Turn signal switch OFF	0V	
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15	
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	
(Y)	Ground	control	Output	lamp	ON	0V	
21	Ground	Optical sensor signal	Ontical sensor signal	al Input Ignition switch		When outside of the vehi- cle is bright	Close to 5V
(P/B)			ON	When outside of the vehi- cle is dark	Close to 0V		
22 ²	22 ² Ground	Clutch interlock	Innut	Input Clutch interlock switch	OFF (clutch pedal is not depressed)	0V	
(R/Y)	Croand	switch	mpar		ON (clutch pedal is de- pressed)	Battery voltage	
24 (R/W)	Ground	Stop lamp switch 1	Input			Battery voltage	
26	Ground	Ston Jamp switch 2	Input	Input Stop lamp switch	OFF (brake pedal is not de- pressed)	0V	
(O/L) Ground	round Stop lamp switch 2	Stop lamp switch 2 Input			ON (brake pedal is de- pressed)	Battery voltage	

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description		Description		Value	
	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
(+)	(-)		Output			(V)	В
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	15 10 5 10 10 ms JPMIA0011GB 11.8V	C
					UNLOCK status	0V	
29				When Intelligent K	ey is inserted into key slot	Battery voltage	_
29 (Y)	Ground	Key slot switch	Input		ey is not inserted into key slot	0V	E
30					OFF	0	
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage	F
31		Rear window defog-		Rear window de-	OFF	0V	
(G)	Ground	ger feedback signal	Input	fogger switch	ON	Battery voltage	
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 0 10 10 10 10 11.8 V	G H I
33 (SB)	Ground	Compressor ON sig- nal	Input	A/C switch	ON (when front door RH opens) OFF ON	0V 9V - 12V 0V	J
		Front door lock as-		Front door lock	OFF (neutral)	Battery voltage	PWC
34 ³ (L/R)	Ground	sembly LH (key cylin- der switch) (unlock)	Input	assembly LH (key cylinder switch)	ON (unlock)	0V	1
36 ³	Ground	Lock switch signal	Input	Door lock/unlock	Lock	Battery voltage	L
(GR)	Ground	LOCK SWITCH SIGNAL	input	switch	Unlock	0V	
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 10 10 ms 	M N O
					ON	0V	
38	_	Rear window defog-		Rear window de-	OFF	Battery voltage	Ρ
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	0V	
39 ³	Cross-		4- معرا	Door lock/unlock	Unlock	Battery voltage	
(GR/ R)	Ground	Unlock switch signal	Input	switch	Lock	0V	

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value
	e color)	Signal name	Input/		Condition	(Approx.)
(+)	(-)	olghar Hame	Output			
40 ⁴ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB 10.2V
				Ignition switch OFI	⁼ or ACC	0V
41		Engine switch (push		Engine switch	ON	5.5V
(W)	Ground	switch) illumination	Output	(push switch) illu- mination	OFF	0V
42	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0V
(R)	Cround		Suput	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46	Crowner'	Receiver & sensor	0	Ignition owitch	OFF	OV
(V/W)	Ground	power supply output	Output	Ignition switch	ACC or ON	5.0V
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
(G/O)	Ground	er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 • • 0.2 • • 0.2 • • 0.2 • • 0.2 • • 0.2 • • 0.2 • • • 0.2 • • • 0.2 • • • 0.2 • • • • • • • • • • • • • • • • • • •
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/G)	Ground		Except P and N positions	0V		
					ON	0V
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	Blinking	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 15 15 10 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15
					OFF	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value	0
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					All switch OFF Lighting switch 1ST	0V	В
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch high-beam Lighting switch 2ND Turn signal switch RH	(V) 15 0 2 ms JPHIA0031GB	C
					All switch OFF (Wiper intermittent dial 4) Front wiper switch HI (Wiper intermittent dial 4)	10.7V	E
51 (L/W)	Ground	Combination switch OUTPUT 1	Input	Combination switch	 (Wiper intermittent dial 4) Any of the conditions below with all switch OFF Wiper intermittent dial 1 	(V) 15 10 5 0	F
				 Wlper intermittent dial 2 Wiper intermittent dial 3 Wiper intermittent dial 6 Wiper intermittent dial 7 	2 ms JPMIA0032GB	G	
					All switch OFF (Wiper intermittent dial 4)	0V	Η
52		Combination switch		Combination	Front washer switch ON (Wiper intermittent dial 4)	(V) 15	I
(G/B)	Ground	OUTPUT 2	Input	switch	 Any of the conditions below with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6 	10 0 2 ms JPMIA0033GB 10.7V	J PWC
					All switch OFF	0V	
				Combination	Front wiper switch INT Front wiper switch LO	(V) 15	L
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms	Μ
					All switch OFF	10.7V	Ν
					Front fog lamp switch ON		0
54 (G/Y)		Combination switch OUTPUT 4	Input	Combination switch (Wiper intermit-	Lighting switch 2ND Lighting switch flash-to- pass		Ρ
(2)				(Wiper intermit- tent dial 4)	Turn signal switch LH	<u>2 ms</u> 10.7V	I.
55 (BD/	Orourst	Front blower menta	المرمين الم	Front blower mo-	ON	Battery voltage	
(BR/ W)	Ground	Front blower monitor	Input	tor switch	OFF	0V	

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)		Output		Ι	
56 ³	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	Battery voltage
(L/B)	Cround	der switch) (lock)	mpat	cylinder switch)	ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input			Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59	Ground	Rear window defog-	Output	Rear window de-	Active	Battery voltage
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V
60	Ground	Ind Front console anten- na 2 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(B/R)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15 15 15 15
61	Ground	Center console an- tenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 <i>1 1 1 1</i> <i>1 1 1 1</i> <i>1 1 1 1</i> <i>1 1 1 1</i> <i>1 1 1 1 1</i> <i>1 1 1 1 1</i> <i>1 1 1 1 1 1 1 1 1 1</i>
61 (W/R)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
62		Front outside handle		When the front door RH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	B C D
(B/Y)		RH antenna (-)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10	E
63	63 Ground Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 5 0 1 5 1 1 5 0 1 5 1 5 0 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 5 1 1 1 1	G H I	
(LG)	Ground	RH antenna (+)		switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	J PWC
64	Ground	Front outside handle	Output	When the front door LH 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 10 1 s 10 1 s 10 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10	M
(V)		LH antenna (-)			When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15 10 10 10 10 10 10 10 10 10 10 10 10 10	P

< ECU DIAGNOSIS INFORMATION >

	iinal No. e color)	Description		Condition		Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	
65	Ground	Front outside handle		When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(P)		LH antenna (+)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB	
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	
70 (R/B)	Ground	Ignition relay-2 con- trol	Output	Ignition switch	OFF or ACC ON	0V Battery voltage	
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 1 ms JMKIA0064GB	
(L/O)	Siound	receiver signal	Output	When operating ei	ther button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB	

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value (Approx.)	
(Wire (+)	e color) (-)	Signal name	Input/ Output	Condition			
					All switch OFF	(V) 15 10 5	В
					(Wiper intermittent dial 4)	0 2 ms JPMIA0041GB	С
						1.4V	D
75 (R/Y)	Ground	Combination switch	Output	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0	E
(101)						2 ms	F
						JPMIA0037GB	
						1.3V	G
						(V)	0
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6		Н
					Wiper intermittent dial 7	2 ms JPMIA0040GB 1.3V	I

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	oignai name	Output			
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
76	Ground	Combination switch	Output	Combination switch	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3V
(R/G)		INPUT 3			Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 0 2 ms JPMIA0040GB 1.3V
77 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Pressed Not pressed	0V Battery voltage
78 (P)	Ground	CAN-L	Input/ Output			_
79	Ground	CAN-H	Input/		_	_
(L)			Output		OFF	0V
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 0 1 1 1 1 JE 10 0 JE 10 0 0 JE 10 0 JE 10 0 JE 10 0 JE 10 0 JE 10 0 JE 10 0 JE 10 0 JE 10 0 JE 10 J
					ON	Battery voltage
	1				I	

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)
	(-)		Output		OFF or ACC	Battery voltage
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	ON	0V
83	<u> </u>				OFF	0V
(L)	Ground	ACC relay-1 control	Output	Ignition switch	ACC or ON	Battery voltage
84 ⁵ (Y/R)	Ground	CVT shift selector	Output		_	Battery voltage
85	Ground	Electronic steering column lock condition	Input	Electronic steer-	Lock status	0V
(L/O)	Ground	No. 1	Input		Unlock status	Battery voltage
86	0	Electronic steering	1	Electronic steer- ing column lock	Lock status	Battery voltage
(G/R)	Ground	column lock condition No. 2	Input		Unlock status	0V
87 ⁵	Ground	Selector lever P posi-	Input	Selector lever	P position	0V
(G/B)	Giounu	tion switch	input		Any position other than P	Battery voltage
					ON (pressed)	0V
88 (P/L)		Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 10 10 ms JPMIA0016GB 1.0V	
			- Input Front door LH re quest switch		ON (pressed)	0V
89 (B/W)	Ground	Front door LH re- quest switch		Front door LH re- quest switch	OFF (not pressed)	(V) 15 10 10 ms JPMIA0016GB 1.0V
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0V
(Y)	Cround	lay control	Caiput	-Sincori Switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFI	=	Battery voltage
94	Cround	Electronic steering	Out	Ignition curitate	OFF or ACC	Battery voltage
(G/Y)			Ignition switch	ON	0V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
					Turn signal switch LH	(V) 15 0 2 ms 1.3V
95 (R/W)	Ground	Combination switch INPUT 1	Output	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 0 2 ms JFMIA0036GB 1.3V
					Front wiper switch LO	(V) 15 10 0 2 ms JPMIA0038GB 1.3V
					Front washer switch ON	(V) 15 0 2 ms JEMIA0039GB 1.3V

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description		-		Value	А
(vvir (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 2 ms 2 ms JPMIA0041GB 1.4V	B C D
96		Combination switch		Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 2 ms JEMIA0038GB 1.3V	E
(P/B)	Ground	INPUT 4	Output	switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms 	G H I
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms 	J PW

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< ECU DIAGNOSIS INFORMATION >

	inal No.	Description		Occutition		Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 <i>2</i> ms <i>JPMIA0041GB</i> 1.4V
					Lighting switch flash-to- pass	(V) 15 0 2 ms JPMIA0037GB 1.3V
97 (R/B)	Ground	Combination switch INPUT 2	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V
					Front wiper switch INT	(V) 15 0 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3V
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 10 10 ms JPMIA0012GB 1.1V

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value	А
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
					LOCK status	Battery voltage	В
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB	C
					For 15 seconds after UN- LOCK	Battery voltage	E
				15 seconds or later after UNLOCK	0V	_	
103	103 Occurred Trans	Trunk lid opening	g Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage	F
(V) Ground	Trank lid openling	Output		Close (trunk lid opener ac- tuator is not activated)	0V	G	
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)	Ciouna		oaipai	Trank toom amp	OFF	Battery voltage	Н
114		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15 15 15 15	l J
(B)	Ground	1 (-)	Output	OFF		<u>"</u>	PWC
					When Intelligent Key is not in the passenger compart- ment		L
						JMKIA0063GB	M

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< ECU DIAGNOSIS INFORMATION >

	iinal No. e color)	Description	la a tí		Condition	Value
(+)	(-)	Signal name	Input/ Output			(Approx.)
115	Ground	Ground Trunk room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(W)				OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 10 5 10 5 10 5 10 5 10 5 10 5 1
118	Ground	nd Rear bumper anten- na (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB
(L/O)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB
119	Ground	nd Rear bumper anten- na (+)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15
(BR/ W)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

Termi	inal No.	Description				
	e color)	Signal name	Input/	•	Condition	Value (Approx.)
(+)	(-)	g	Output			
127 (BR/	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage
W)	Gibunu	E/R) control	Output	Ignition Switch	ON	0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 0 5 0 10 ms JPMIA0011GB 11.8V
					ON (trunk is open)	0V
				lgnition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage
				cle)	When the clutch pedal is not depressed	0V
132 (R)	Ground	Starter motor relay control	Output	Ignition switch	When selector lever is in P or N position and the brake is depressed	Battery voltage
				ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is not depressed	OV
					ON (pressed)	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 10 10 JENTA0016GB 1.0V
144	Ground	Request switch buzz-	Output	Request switch	Sounding	0V
(GR)	Cround	er	Saiput	buzzer	Not sounding	Battery voltage
147 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed Not pressed	0V Battery voltage
148 ¹ (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (when rear door RH opens)	0V

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value
	e color)	Signal name	Input/		Condition	(Approx.)
(+)	(-)		Output			
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes) ON (when rear door LH opens)	(V) 15 0 10 10 10 11.8V ОV

1: Sedan only

2: M/T only

3: With LH front window anti-pinch

4: With LH and RH front window anti-pinch.

5: CVT only

6: With auto lights

7: With low tire pressure warning system

8: Coupe only

Fail Safe

INFOID:000000007629798

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	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been 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 has become consistent Starter control relay signal Starter relay status signal
B2562: LO VOLTAGE	 Inhibit engine cranking Inhibit electronic steering column lock 	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column 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 electronic steering column lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is ful-filled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit electronic steering column lock	 500 ms after any of the following BCM recognition conditions is ful-filled Ignition switch is in the ON position Power position: IGN Selector lever P/N position signal: Except P and N positions (0 V) Interlock/transmission 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) transmission switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has become consistent Electronic steering column lock relay signal (Request signal) Electronic steering column lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When the following electronic steering column lock conditions agree BCM electronic steering column lock control status Electronic steering column lock condition No. 1 signal status Electronic steering column lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When any of the following conditions is fulfilled Electronic steering column lock unit status signal (CAN) is received normally The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column 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

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power sup- ply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: OFF (Battery voltage)
B26E9: S/L STATUS	 Inhibit engine cranking Inhibit electronic steering column lock 	 When BCM transmits the LOCK request signal to the steering lock unit and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No 1 signal: LOCK (0V) Steering condition No 2 signal: LOCK (Battery voltage)

DTC Inspection Priority Chart

INFOID:000000007629799

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

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP 	
	 B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY 	
	 B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW 	
	 B2605: PNP SW B2606: S/L RELAY B2607: S/L RELAY 	
	 B2608: STARTER RELAY B2609: S/L STATUS B260A: IGNITION RELAY B260B: STEERING LOCK UNIT 	
4	 B260C: STEERING LOCK UNIT B260D: STEERING LOCK UNIT B260F: ENG STATE SIG LOST 	
	 B2611: ACC RELAY B2612: S/L STATUS B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC 	
	 B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM 	
	 B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E1: ENG STATE NO RECIV 	
	 B26E8: CLUTCH SW B26E9: S/L STATUS B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 	
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL 	
	 C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL 	
	 C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL 	
5	 C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL 	
	 C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RL 	
	 C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR 	
	 C1727: [BATT VOLT LOW] RL C1734: CONTROL UNIT 	
6	B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

< ECU DIAGNOSIS INFORMATION >

DTC Index

INFOID:000000007629800

[LH&RH FRONT ANTI-PINCH-SEDAN]

NOTE:

Details of time display

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

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	—	_	BCS-32
U1010: CONTROL UNIT (CAN)	_	_	_	<u>BCS-33</u>
U0415: VEHICLE SPEED SIG		_	—	<u>BCS-34</u>
B2013: ID DISCORD BCM-S/L	×	_	—	<u>SEC-36</u> (Coupe), <u>SEC-250</u> (Sedan)
B2014: CHAIN OF S/L-BCM	×	_	_	<u>SEC-37</u> (Coupe), <u>SEC-251</u> (Sedan)
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-65</u> (Coupe), <u>SEC-281</u> (Sedan)
B2191: DIFFERENCE OF KEY	×	_	—	<u>SEC-69</u> (Coupe), <u>SEC-285</u> (Sedan)
B2192: ID DISCORD BCM-ECM	×	_	_	<u>SEC-70</u> (Coupe), <u>SEC-286</u> (Sedan)
B2193: CHAIN OF BCM-ECM	×	_	_	<u>SEC-71</u> (Coupe), <u>SEC-287</u> (Sedan)
B2195: ANTI-SCANNING	_	—	—	<u>SEC-72</u>
B2553: IGNITION RELAY	_	—	_	PCS-59
B2555: STOP LAMP	_	_	—	<u>SEC-73</u> (Coupe), <u>SEC-289</u> (Sedan)
B2556: PUSH-BTN IGN SW	_	×	—	<u>SEC-78</u> (Coupe), <u>SEC-294</u> (Sedan)
B2557: VEHICLE SPEED	×	×	_	<u>SEC-80</u> (Coupe), <u>SEC-296</u> (Sedan)
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-81</u> (Coupe), <u>SEC-297</u> (Sedan)
B2562: LOW VOLTAGE	—	_	_	<u>BCS-35</u>
B2601: SHIFT POSITION	×	×	_	<u>SEC-82</u> (Coupe), <u>SEC-298</u> (Sedan)
B2602: SHIFT POSITION	×	×		<u>SEC-86</u> (Coupe), <u>SEC-302</u> (Sedan)
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-89</u> (Coupe), <u>SEC-305</u> (Sedan)
B2604: PNP SW	×	×	—	<u>SEC-92</u> (Coupe), <u>SEC-308</u> (Sedan)
B2605: PNP SW	×	×	—	<u>SEC-94</u> (Coupe), <u>SEC-310</u> (Sedan)
B2606: S/L RELAY	×	×	_	<u>SEC-96</u> (Coupe), <u>SEC-312</u> (Sedan)

Revision: February 2013

2012 Altima GCC

< ECU DIAGNOSIS INFORMATION >

[LH&RH FRONT ANTI-PINCH-SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page	А
B2607: S/L RELAY	×	×	_	<u>SEC-97</u> (Coupe), <u>SEC-313</u> (Sedan)	В
B2608: STARTER RELAY	×	×	_	<u>SEC-99</u> (Coupe), <u>SEC-315</u> (Sedan)	
B2609: S/L STATUS	×	×	_	<u>SEC-101</u> (Coupe), <u>SEC-317</u> (Sedan)	С
B260A: IGNITION RELAY	×	×	_	PCS-61	
B260B: STEERING LOCK UNIT	_	×	—	<u>SEC-106</u> (Coupe), <u>SEC-322</u> (Sedan)	D
B260C: STEERING LOCK UNIT	_	×	—	<u>SEC-107</u> (Coupe), <u>SEC-323</u> (Sedan)	E
B260D: STEERING LOCK UNIT	_	×	_	<u>SEC-108</u> (Coupe), <u>SEC-324</u> (Sedan)	
B260F: ENG STATE SIG LOST	×	×	—	<u>SEC-109</u> (Coupe), <u>SEC-325</u> (Sedan)	F
B2611: ACC RELAY	_	—	_	PCS-62	
B2612: S/L STATUS	×	×	—	<u>SEC-110</u> (Coupe), <u>SEC-331</u> (Sedan)	G
B2614: ACC RELAY CIRC	_	×	_	PCS-64	
B2615: BLOWER RELAY CIRC	_	×		PCS-67	Н
B2616: IGN RELAY CIRC	_	×		PCS-70	
B2617: STARTER RELAY CIRC	×	×	—	<u>SEC-115</u> (Coupe), <u>SEC-336</u> (Sedan)	
B2618: BCM	×	×	_	PCS-73	
B2619: BCM	×	×	—	<u>SEC-117</u> (Coupe), <u>SEC-338</u> (Sedan)	J
B261A: PUSH-BTN IGN SW	_	×	—	<u>SEC-118</u> (Coupe), <u>SEC-339</u> (Sedan)	PW
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	<u>SEC-121</u>	
B2622: INSIDE ANTENNA	—	—	—	DLK-282	L
B2623: INSIDE ANTENNA	_	_	_	DLK-285	_
B26E1: ENG STATE NO RES	×	×	_	<u>SEC-326</u>	
B26E8: CLUTCH SW	×	×	_	<u>SEC-123</u>	M
B26E9: S/L STATUS	×	× (Turn ON for 15 seconds)	_	<u>SEC-125</u>	
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	<u>SEC-126</u>	Ν
C1704: LOW PRESSURE FL	_	_	×	<u>WT-8</u>	
C1705: LOW PRESSURE FR	_		×	<u>WT-8</u>	0
C1706: LOW PRESSURE RR	—	_	×	<u>WT-8</u>	
C1707: LOW PRESSURE RL			×	<u>WT-8</u>	Р
C1708: [NO DATA] FL	—		×	<u>WT-13</u>	
C1709: [NO DATA] FR			×	<u>WT-13</u>	
C1710: [NO DATA] RR			×	<u>WT-13</u>	
C1711: [NO DATA] RL			×	<u>WT-13</u>	
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-15</u>	

Revision: February 2013

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1713: [CHECKSUM ERR] FR	—	—	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	—	—	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	—	—	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	—	—	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	—	—	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	—	—	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	—	—	×	<u>WT-17</u>
C1720: [CODE ERR] FL	—	—	×	<u>WT-15</u>
C1721: [CODE ERR] FR	—	—	×	<u>WT-15</u>
C1722: [CODE ERR] RR	—	—	×	<u>WT-15</u>
C1723: [CODE ERR] RL	—	—	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	—	—	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	—	—	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	—	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	—	—	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	—	—	×	<u>WT-18</u>
C1734: CONTROL UNIT	_	—	×	<u>WT-19</u>

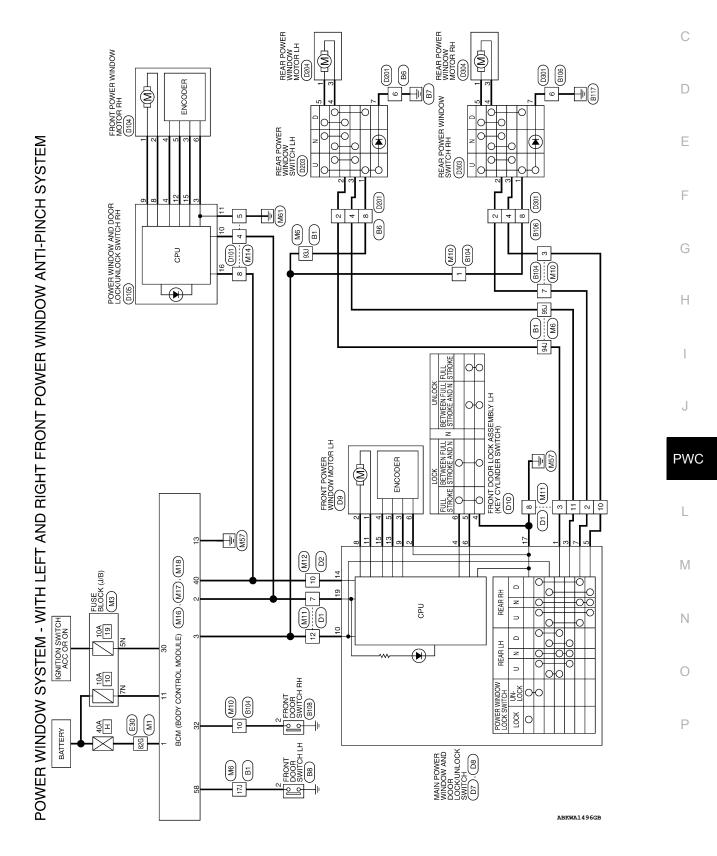
WIRING DIAGRAM

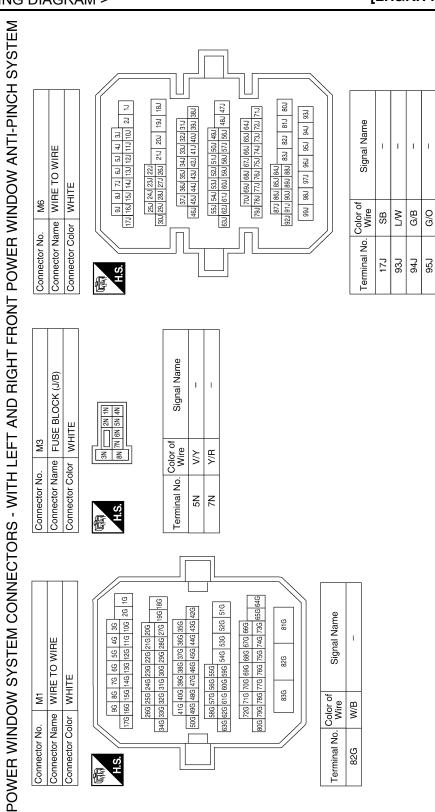
POWER WINDOW SYSTEM

Wiring Diagram - Sedan With Left And Right Front Power Window Anti-Pinch System

INFOID:000000007423063

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DIAGRAM >	[LH&RH FRONT ANTI-PINCH-SEDAN	<u>4]</u>
Terminal No. Color of Wire Signal Name 7 R/Y - 8 B - 10 G/R - 11 G/O - 12 L/W -	Connector No. M16 Connector Name BCM (BODY CONTROL Connector Name BCM (BODY CONTROL Connector Color BLACK Terminal No. Color of Wire Signal Name 2 R/Y PW_POWER_SUPPLY 3 L/W POWER_WINDOW_(RAP)	
Connector No. M11 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Connector Color WHITE Time 123 Time 112 Connector Name None Connector Name Nile Connector Name Nile Connector Color WHITE Connector Color Wile Color of Signal Name 2 G/B 3 G/B	Connector No. M14 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Main Image: Second state Terminal No. Color of Signal Name S B - S B - S B -	
Connector No. M10 Connector Name WIRE TO WIRE Connector Color BROWN Entry 1 Final No. 1 Wire Signal Name 3 G/R 7 G/M	Connector No. M12 Connector Name WIRE TO WIRE Connector Color WIHTE Connector Color WIHTE Mine 10 V/G Terminal No. Signal Name 10 V/G -	

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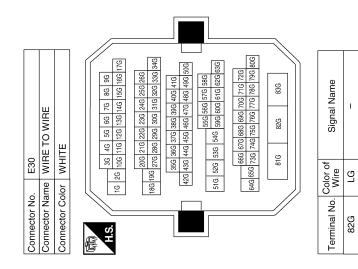
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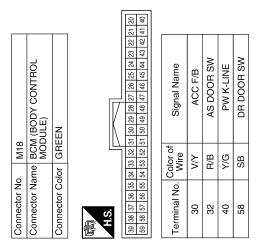
Revision: February 2013

< WIRING DIAGRAM >

POWER WINDOW SYSTEM







Connector No. M17 Connector Name BCM (BODY CONTROL	
Connector Name BCM (F	
MODULE)	30DY CONTROL LE)
Connector Color WHITE	
际国 111121314 H.S.	1 1 2 1 3 1 4 1 5 1 1 1 8 9 1 0



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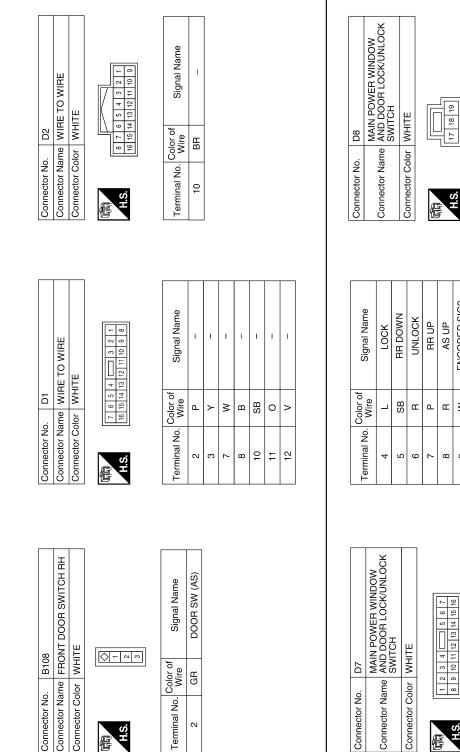
ABKIA2376GB

< WIRING DIAGRAM >	[LH&RH FRONT ANTI-PINCH-SEDAN]			
Connector No. B6 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Mine Image: Signal Name 2 P - 4 SB - 8 R -	Connector No. B106 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Terminal No. Color of Wire Signal Name 2 W - 8 R -	A B C D		
Terminal No. Color of Wire Signal Name 17J SB - 93J R - 94J P - 95J SB -	Connector No. B104 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color BROWN Terminal No. Color of 8 7 8 9 10 11 12 3 SB 7 W 7 W 10 GR	F G H J		
Connector No. B1 Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Name WIRE TO WIRE Connector Color WHITE Mail 31 41 51 61 71 41 551 661 771 80 501 Mail 11 21 131 41 1551 1561 1561 1561 1561 1561 1561	Connector No. BB Connector Name FRONT DOOR SWITCH LH Connector Color WHITE Image: Signal Name 2 2 SB	PWC L M N		

POWER WINDOW SYSTEM

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Signal Name

Color of Wire

Terminal No.

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19 1

ENCODER POWER

ENCODER SIG1

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ENCODER GND

RL UP

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RL DOWN

Signal Name

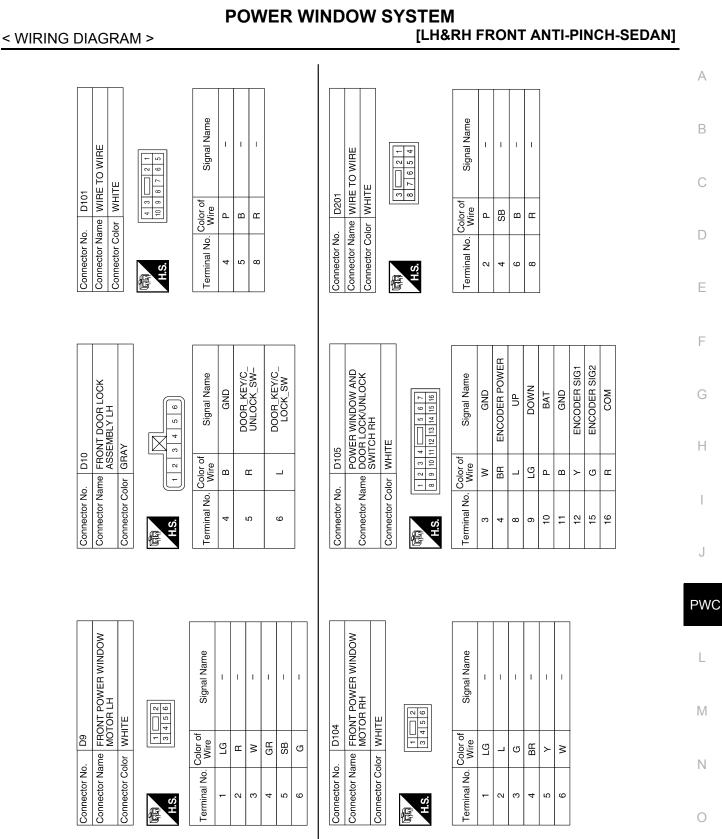
Color of Wire

Terminal No.

H.S.

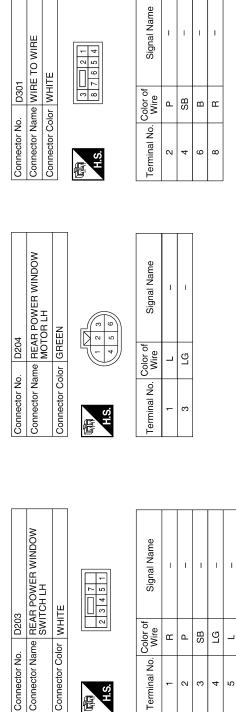
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< WIRING DIAGRAM >



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	Signal Name	I	I	I	I	Ι	I	
Color of	Wire	н	Ь	SB	ГG	L	В	
	Terminal No. Wire	-	2	3	4	5	7	

	Connector No. D303	Connector Name REAR POWER WINDOW SWITCH RH	Connector Color WHITE	(朝) HS
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Connector Name REAR POWER WINDOW MOTOR RH

D304

Connector No.

Connector Color GREEN

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Signal Name	I	I	Ι	I	Ι	I
Color of Wire	н	Р	SB	ГG	L	В
Terminal No. Color of Wire	-	2	3	4	5	7

Signal Name

Color of Wire

Terminal No.

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AAKIA0636GB

POWER WINDOW SYSTEM

Connector Color WHITE

H.S. F

D203

Connector No.

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

<pre>< SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-SEDAN]</pre>
SYMPTOM DIAGNOSIS
NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH
Diagnosis Procedure
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT
$ \begin{array}{l} \hline \label{eq:checkBCM} \hline \mbox{CheckBCM power supply and ground circuit.} \\ \hline \mbox{Refer to } BCS-36, "Diagnosis Procedure".} \\ \hline \mbox{Isthe inspection result normal?} \\ \hline \mbox{YES} >> GO TO 2 \\ \hline \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH} \\ \hline \hline \mbox{Check main power window and door lock/unlock switch.} \\ \hline \mbox{Refer to } PWC-209, "POWER WINDOW MAIN SWITCH : Component Inspection".} \\ \hline \mbox{Is the inspection result normal?} \\ \hline \mbox{YES} >> GO TO 3 \\ \hline \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND \\ \hline \mbox{GROUND CIRCUIT} \\ \hline \hline \mbox{Check power window switch main power supply and ground circuit.} \\ \hline \mbox{Refer to } PWC-206, "POWER WINDOW MAIN SWITCH : Component Function Check".} \\ \hline \mbox{Is the inspection result normal?} \\ \hline \mbox{YES} >> GO TO 4 \\ \hline \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{SWITCH : Component Function Check".} \\ \hline \mbox{Is the inspection result normal?} \\ \hline \mbox{YES} >> GO TO 4 \\ \hline \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{SWITCH : Component Function Check".} \\ \hline \mbox{Is the inspection result normal?} \\ \hline \mbox{YES} >> \\ \hline \mbox{GO TO 4} \\ \hline \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{SWITCH : Component Function Check".} \\ \hline \mbox{Is the inspection result normal?} \\ \hline \mbox{YES} >> \\ \hline \mbox{GO TO 4} \\ \hline \ \mbox{NO} >> \\ \hline \mbox{Repair or replace the malfunctioning parts.} \\ \hline \mbox{SWITCH : Component Function Check".} \\ \hline \mbox{SWITCH : Check parts or replace the malfunctioning parts.} \\ \hline \mbox{SWITCH : Check parts or replace the malfunctioning parts.} \\ \hline SWITCH : Check parts or repl$
4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT
Check main power window and door lock/unlock switch serial circuit. Refer to PWC-234, "POWER WINDOW MAIN SWITCH : Component Function Check". Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> Repair or replace the malfunctioning parts.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-SEDAN]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007423065

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH. Refer to <u>PWC-215</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE [LH&RH FRONT ANTI-PINCH-SEDAN]

< SYMPTOM DIAGNOSIS >

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

Diagnosis Procedure	INFOID:000000007423066
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	
Check power window and door lock/unlock switch RH. Refer to <u>PWC-210</u> , "FRONT POWER WINDOW SWITCH : Component Function Check"	С
Is the inspection result normal?	
YES >> GO TO 2	D
NO >> Repair or replace the malfunctioning parts.	D
2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK	CIRCUIT
Check power window and door lock/unlock switch RH serial link circuit. Refer to <u>PWC-235</u> , "FRONT POWER WINDOW SWITCH : Component Function Check"	. E
Is the inspection result normal?	
YES >> GO TO 3	F
NO >> Repair or replace the malfunctioning parts.	
3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT	
Check front power window motor RH circuit. Refer to <u>PWC-217, "PASSENGER SIDE : Component Function Check"</u> .	G
Is the inspection result normal?	Н
YES >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> .	
NO >> Repair or replace the malfunctioning parts.	
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REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007423067

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH. Refer to <u>PWC-212, "REAR POWER WINDOW SWITCH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH. Refer to <u>PWC-219, "REAR LH : Component Function Check"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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SYMPTOM DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-SEDAN]
REAR RH SIDE POWER WINDOW ALONE I	DOES NOT OPERATE
Diagnosis Procedure	INFOID:00000007423068
1. CHECK REAR POWER WINDOW SWITCH RH	I
Check rear power window switch RH. Refer to <u>PWC-212, "REAR POWER WINDOW SWITCH : Comp</u>	onent Function Check".
Is the inspection result normal? YES >> GO TO 2	(
NO >> Repair or replace the malfunctioning parts. 2. CHECK REAR POWER WINDOW MOTOR RH	I
Check rear power window motor RH. Refer to <u>PWC-220, "REAR RH : Component Function Check"</u> . Is the inspection result normal?	
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermitter NO</u> >> Repair or replace the malfunctioning parts.	tent Incident".
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ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000007423069

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-ment"</u>.

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK DOOR WINDOW SLIDING PART

• A foreign material adheres to window glass or glass run rubber.

- Glass run rubber wear or deformation.
- Sash is tilted too much or not enough.

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace the malfunctioning parts.

3. CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to <u>PWC-223</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.
- NO >> Repair or replace the malfunctioning parts.

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE) [LH&RH FRONT ANTI-PINCH-SEDAN]

< SYMPTOM DIAGNOSIS >

ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (PASSENGER SIDE)

Diagnosis Procedure	07423070 B
1. PERFORM INITIALIZATION PROCEDURE	D
Perform initialization procedure. Refer to <u>PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Required ment</u> ".	uire- C
<u>Is the inspection result normal?</u> YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.	D
 2. CHECK DOOR WINDOW SLIDING PART A foreign material adheres to window glass or glass run rubber. Glass run rubber wear or deformation. 	E
Sash is tilted too much or not enough. <u>Is the inspection result normal?</u> YES >> GO TO 3	F
NO >> Repair or replace the malfunctioning parts. 3. CHECK ENCODER CIRCUIT	G
Check encoder circuit. Refer to <u>PWC-225</u> , "PASSENGER SIDE : Component Function Check".	Н
Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident". NO >> Repair or replace the malfunctioning parts.	I

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AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

< 8	SYMP	ТОМ	DIAG	NOSIS >
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[LH&RH FRONT ANTI-PINCH-SEDAN]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:000000007423071

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-

ment".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-223. "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (PASSENGER SIDE)

< SYMPTOM DIAGNOSIS > [LH&RH FI	RONT ANTI-PINCH-SEDAN]
AUTO OPERATION DOES NOT OPERATE BUT M	
NORMALLY (PASSENGER SIDE)	A
Diagnosis Procedure	INFOID:00000007423072
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to PWC-197, "ADDITIONAL SERVICE WHEN REPLACING CONTROL	UNIT · Special Repair Require-
ment".	
Is the inspection result normal?	D
YES >> GO TO 2	D
NO >> Repair or replace the malfunctioning parts.	
2. CHECK ENCODER	E
Check encoder.	
Refer to <u>PWC-225</u> , "PASSENGER SIDE : Component Function Check".	
Is the inspection result normal?	F
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
NO >> Repair or replace the malfunctioning parts.	

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

Diagnosis Procedure

INFOID:000000007423073

1. CHECK FRONT DOOR SWITCH

Check front door switch. Refer to <u>PWC-229, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Repair or replace the malfunctioning parts.

POWER WINDOW DOES NOT OPERATE BY KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-SEDAN]
POWER WINDOW DOES NOT OPERATE BY	KEY CYLINDER SWITCH
Diagnosis Procedure	INFOID:00000007423074
1. PERFORM INITIALIZATION PROCEDURE	В
Perform initialization procedure. Refer to <u>PWC-197, "ADDITIONAL SERVICE WHEN REPLACING</u> ment".	CONTROL UNIT : Special Repair Require-
<u>Is the inspection result normal?</u> YES >> GO TO 2	
NO >> Repair or replace the malfunctioning parts.	D
2. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLIND	ER SWITCH)
Check front door lock assembly LH (key cylinder switch). Refer to <u>PWC-231, "Component Function Check"</u> .	E
Is the inspection result normal? YES >> Check intermittent incident. Refer to GI-42, "Intermitted	ent Incident"
NO $>>$ Repair or replace the malfunctioning parts.	F
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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000007423075

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to DLK-303, "Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace BCM. Refer to <u>BCS-92. "Removal and Installation"</u>.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure INFOLD:0000007423076 1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH B Replace main power window and door lock/unlock switch. Refer to PWC-298, "Removal and Installation". C >> INSPECTION END D

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< PRECAUTION >

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 SR and SB section of this Service Man-

ual. WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag 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

INFOID:000000007423078

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 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.

This vehicle is equipped with a push-button ignition switch and a 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 procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables. **NOTE:**

Supply power using jumper cables if battery is discharged.

- 2. Carry the Intelligent Key or insert it to the key slot and turn the push-button ignition switch to ACC position. (At this time, the steering lock will be released.)
- 3. 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 >

[LH&RH FRONT ANTI-PINCH-SEDAN]

- 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.)
- 6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Work

INFOID:000000007423079

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- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components.
- Water soluble dirt: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the dirty area.

Then rub with a soft and dry cloth.

- Oily dirt: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe the dirty area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Do not use organic solvent such as thinner, benzene, alcohol, or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

PREPARATION

Special Service Tool

INFOID:000000007423080

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

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Tool number (Kent-Moore No.) Tool name		Description
— (J-46534) Trim Tool Set	ANJIAO483ZZ	Removing trim components

[LH&RH FRONT ANTI-PINCH-SEDAN]

PERIODIC MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC	A
Basic Inspection	DID:000000007423081 B
BASIC INSPECTION 1.INSPECTION START	С
 Check the service history. Check the following parts. Fuse/circuit breaker blown. Poor connection, open or short circuit of harness connector. Battery voltage. 	D
Is the inspection result normal?	E
YES >> Inspection End. NO >> Repair or replace the malfunctioning parts.	F
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[LH&RH FRONT ANTI-PINCH-SEDAN]

REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:000000007423082

REMOVAL

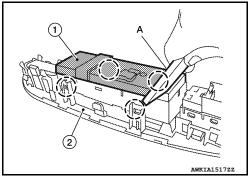
- 1. Remove the front door armrest finisher. Refer to INT-13. "Removal and Installation".
- Release the pawls, using suitable tool, then lift the main power window/door lock switch and finisher upward as an assembly.
 CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 3. Disconnect the harness connector.
- 4. Remove the main power window/door lock switch and finisher assembly from the front door finisher.
- 5. Release the four tabs (two on each side) with a suitable tool (A), then separate the main power window/door lock switch (1) from the switch finisher (2).

():Pawl CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION

Installation is in the reverse order of removal. **NOTE:**

Perform initialization procedure after switch is connected. Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT</u> : Special Repair Requirement".

< REMOVAL AND INSTALLATION >

FRONT POWER WINDOW SWITCH

Removal and Installation

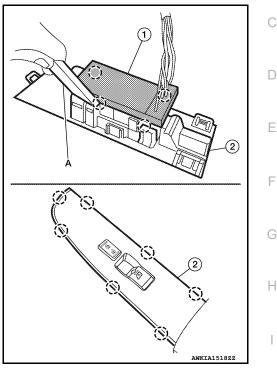
REMOVAL

- 1. Remove the front door armrest finisher. Refer to INT-13, "Removal and Installation".
- Release the pawls, using suitable tool, then lift the main power window/door lock switch and finisher upward as an assembly.
 ():Pawl
 CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 3. Disconnect the harness connector.
- Remove the power window/door lock switch and finisher (2) -RH assembly from the front door finisher.
- Release the four tabs (two on each side) with a suitable tool (A), then separate the power window/door lock switch (1) from the switch finisher (2).
 CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION

Installation is in the reverse order of removal.

NOTE:

Perform initialization procedure after switch is connected. Refer to <u>PWC-197</u>, "ADDITIONAL SERVICE WHEN <u>REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

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INFOID:000000007423083

REAR POWER WINDOW SWITCH

Removal and Installation

REMOVAL

 Release the pawls, using suitable tool, then lift the rear power window switch and finisher (2) upward as an assembly.

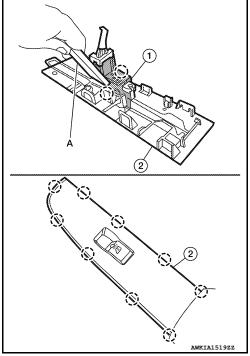
():Pawl CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 2. Disconnect the harness connector.
- 3. Remove the rear power window switch and finisher (2) assembly from the rear door finisher.
- 4. Release the tab (one on each side) with a suitable tool (A), then separate the rear power window switch (1) from the switch finisher (2).

CAUTION:

Do not bend back the pawls of the switch finisher too far or breakage will occur.



INSTALLATION Installation is in the reverse order of removal. INFOID:000000007423084