VC SECTION POWER WINDOW CONTROL SYSTEM

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PRE-INSPECTION FOR DIAGNOSTIC	
ON-VEHICLE REPAIR 411	

POWER WINDOW MAIN SWITCH 411

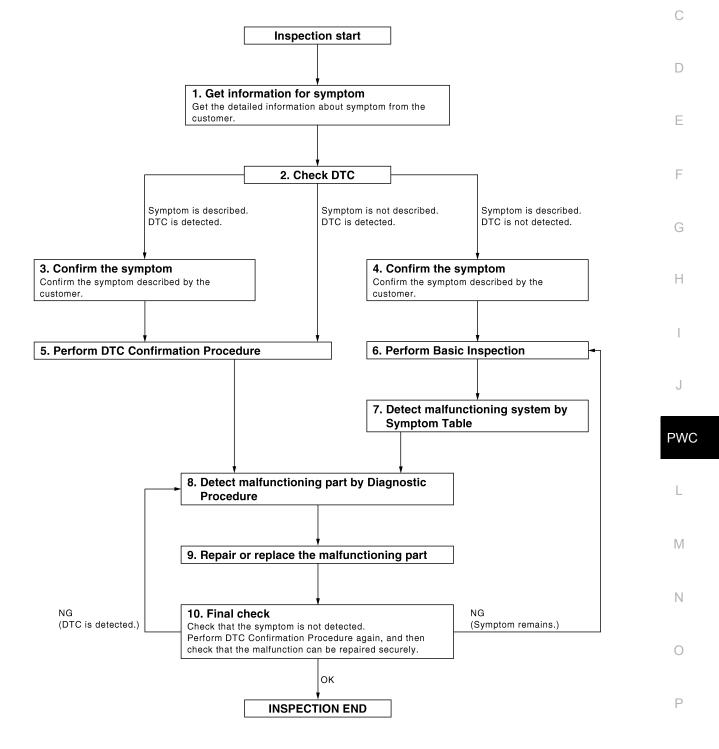
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004204943

А

OVERALL SEQUENCE



< 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-III.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- 3. Check related service bulletins for information.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3 Symptom is described, DTC is not displayed>>GO TO 4 Symptom is not described, DTC is displayed>>GO TO 5

 $\mathbf{3.}$ CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6

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-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-91</u>, "<u>DTC Index</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</u>, "Intermittent Incident".

6. PERFORM BASIC INSPECTION

Perform <u>PWC-92, "Work Flow"</u>.

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.

>> GO TO 8

DIAGNOSIS AND REPAIR WORKFLOW

>> Check voltage of related BCM terminals using CONSULT-III.

9. REPAIR OR REPLACE THE MALFUNCTIONING PART

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

>> GO TO 10

10. FINAL CHECK

NO

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

>> Inspection End. NO

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PWC-11

[LH ONLY ANTI-PINCH-COUPE]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description INFOID:000000004204944

Initial setting is necessary when battery terminal is diconnected.

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:000000004204945

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.
- 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.
- 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-42, "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:000000004204946

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:000000004204947

INITIALIZATION PROCEDURE

1. Disconnect battery negative terminal or main power window and door lock/unlock switch. 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 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. $_$
- 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-42</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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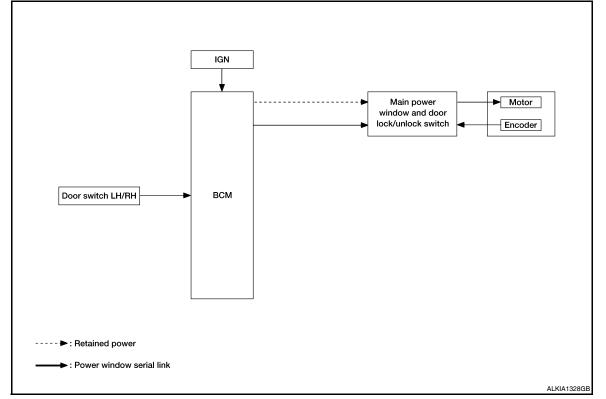
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FUNCTION DIAGNOSIS POWER WINDOW SYSTEM

System Diagram

INFOID:000000004204948

POWER WINDOW LH ANTI-PINCH SYSTEM



System Description

INFOID:000000004204949

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	Power window motor LH UP/DOWN signal	Power window control	Power window motor
Power window and door lock/unlock switch RH	Power window motor RH UP/DOWN signal		
BCM	RAP signal		

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.
- Power window switches can open/close the corresponding windows.

POWER WINDOW AUTO-OPERATION (LH)

• AUTO UP/DOWN operation can be performed when main power window and door lock/unlock switch turns to AUTO.

POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

- 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 oper-
- ation 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

- 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 (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.

PWC-15

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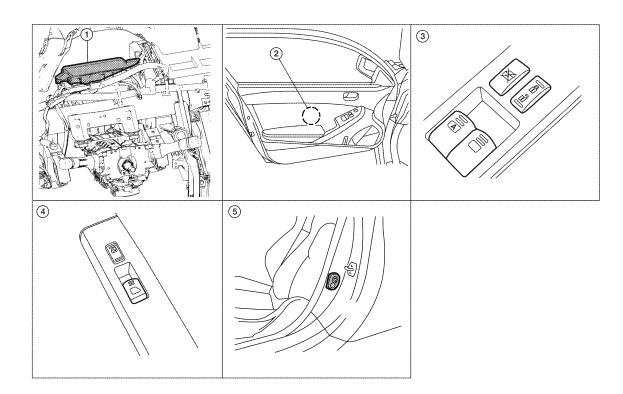
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POWER WINDOW SYSTEM [LH ONLY ANTI-PINCH-COUPE]

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000004204950



ALKIA1351ZZ

- 1. BCM M16, M17, M18, M19 (view with instrument panel removed)
- 4. Power window and door lock/unlock 5. switch RH D105
- Component Description
- 2. Power window motor LH D9, RH D104

Door switch LH B8, RH B108

3. Main power window and door lock/ unlock switch D7

INFOID:000000004204951

POWER WINDOW LH ANTI-PINCH SYSTEM

Component	Function
BCM	Supplies power to power window switches.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 power window motor 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	Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH.
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-III FUNCTION

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

Diagnosis mode	Function Description			
WORK SUPPORT	Changes the setting for each system function.			
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 avatam calentian 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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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-III Function

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>PWC-79, "DTC Index"</u>. А

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DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

INFOID:000000004497094

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 SI	JPPLY A	ND GROUNE	_	
< COMPC		-				[LH ONLY ANTI-PINCH-COUPE]	
COM	PONE	INT	⁻ DIAGN	OSIS			А
POWE	r Supf	۶LA	AND GRC	UND C	IRCUIT		/ \
POWEF		OW	MAIN SWI	ГСН			В
POWER		DW I	MAIN SWIT	CH : Des	scription	INFOID:00000004204954	D
 BCM sup It operate down wh 	es each po	ower \	window motor w window and do	ia correspo or lock/unl	onding power wind ock switch is oper	dow switch and makes window move up/ rated.	С
POWER) W	MAIN SWIT	CH : Cor	nponent Func	tion Check INFOID:000000004204955	D
Main Pow	ver Windo	w An	ld Door Lock/ι	inlock Swi	itch		
						WITCH FUNCTION	Е
						r lock/unlock switch operation?	
Is the insp				·		•	F
						upply and ground circuit are OK. Diagnosis Procedure".	
					gnosis Proced		G
Main Pow	er Windo	wΔn	d Door Lock/I	inlock Swi	itch Power Supp	ly Circuit Check	
							Н
-	gnition swi]	
2. Check	voltage	betwe	een main pow		and door lock/	(論) H.S.	
UNIOCK	C SWITCH CO	nnec	tors and ground	1.			
		Ter	minal			<u>9,13</u>	J
	(-	+)			Voltage (V)		
	r window and unlock switch		Terminal	(-)	(Approx.)		D۱۸
	onnector						ΓVV
	D7		9	Ground	Battery voltage	ALKIA1329ZZ	
le the mea	ouromont	valua	13 within the spe	oification?			L
	> GO TO :			<u>Sillealion :</u>			
NO >	> GO TO 2	2					M
2. CHEC	K HARNE	SS CO	ONTINUITY				
2. Discoi				indow and	door lock/unlock	АВ	Ν
switch 3. Check		/ betv	veen BCM con	nector (A)	and main power		
			/unlock switch			2,3 <u>9,13</u>	0
		Main	power window and	door			
BCM connector	Terminal		lock/unlock switch		inal Continuity	Ω	Ρ
	3		connector	13	3		
M16 (A)	2		D7 (B)	9	Yes	ALKIA1330ZZ	
4. Check	c continuity	v betw	een BCM conr	ector and g	ground.		

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< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

BCM connector	Terminal	_	Continuity		
M16 (A)	3	Ground	No		
()	2				
s the inspection result i	normal?				
YES >> GO TO 4					
- '	place harness.				
3. CHECK GROUND	CIRCUIT				
1. Turn ignition switch					
 Disconnect main po 3. Check continuity b 					ца H.S.
 Check continuity b unlock switch conn 					DISCONNECT
Main power window and do	or lock/un-			Ⅰ Ⅰ	OFF
lock switch connect		ninal Grou	Continuity und		
D7	1	0	Yes		
s the inspection result i	normal?				
YES >> Replace m	ain power wir	ndow and c	loor lock/unlock		ALKIA1331ZZ
			and Installation".		
		POWER W	<u>/INDOW MAIN S</u>	WITCH : Special Repair Require	<u>ement"</u> .
	eplace harness.				
4. CHECK BCM OUT	PUT SIGNAL				
1. Connect BCM.	<u></u>				
 Turn ignition switch Check voltage betw 		otor and are	aund		H.S.
Check voltage betw		ector and gro	Julia.		CONNECT
Т	erminals			2, 3	E)
(+)			Voltage (V)		(Ph)
BCM connector	Terminal	(-)	(Approx.)		
DOM CONNector	3				
M16	2	Ground	Battery voltage		
	_			· ÷	ALKIA0262ZZ
s the measurement val	<u>ue witnin the sp</u>	ecification?			
YES >> GO TO 5 NO >> Replace BO	M Refer to BC	S-06 "Remo	oval and Installation	op"	
5. CHECK MAIN POW					
				SWITCH	
Check main power wind				Increation"	
Refer to <u>PWC-20, "POV</u>		VIAIN SVIT		inspection.	
Is the inspection result in the inspection result in the inspection result in the instant in the		Defer to O		Incident"	
			42, "Intermittent	n. Refer to <u>PWC-91, "Removal a</u>	nd Instal
				MAIN SWITCH : Special Repair	
mont	,				

ment".

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000004204957

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

< COMPONENT DIAGNOSIS >

1.

Check main power window and door lock/unlock switch.

- Main power window and door lock/unlock Terminal Continuity switch condition 13 15 RH UP NEUTRAL 14 15 RH Yes 13 14 RH DOWN
- 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
14		RH	UP	
14	10	RH	NEUTRAL	No
15	10	КП	NEUTRAL	INU
15		RH	DOWN	

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

Terr	ninal	Main power window and door lock/un- lock switch condition		Continuity
14		RH	UP	
14	10	RH	NEUTRAL	Yes
15		КП	NEUTRAL	Tes
15		RH	DOWN	

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 PWC-91, "Removal and Installation". After that, refer to PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

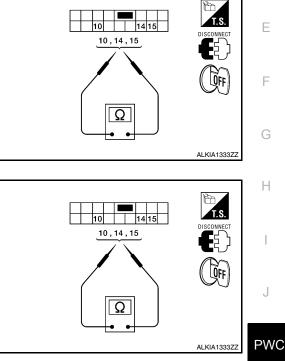
POWER WINDOW MAIN SWITCH : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.	Ν
Refer to PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-	
<u>ment"</u> .	
Is the inspection result normal?	0
YES >> GO TO 2	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
2. CHECK ANTI-PINCH OPERATION	Ρ
Check anti-pinch operation.	
Check anti-pinch operation. Refer to <u>PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u>	

YES >> Inspection end.

NO >> Refer to PWC-29, "DRIVER SIDE : Component Function Check".



[LH ONLY ANTI-PINCH-COUPE]

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< COMPONENT DIAGNOSIS >

PASSENGER SIDE

PASSENGER SIDE : Description

• BCM supplies power.

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

PASSENGER SIDE : Component Function Check

Power Window And Door Lock/unlock Switch RH

1. CHECK POWER WINDOW MOTOR RH FUNCTION

Does power window motor RH operate with power window and door lock/unlock switch RH operation? <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 <u>PWC-22, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

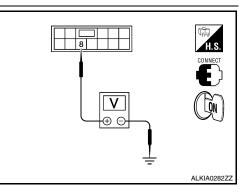
Power Window And Door Lock/Unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

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

Т			
(+)		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

NO ~ GO 10 Z

2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

 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)	3	D105 (B)	8	Yes

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

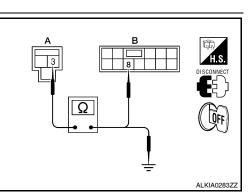
BCM connector	Terminal	Ground	Continuity
M16 (A)	3	Crodina	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

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



PWC-22



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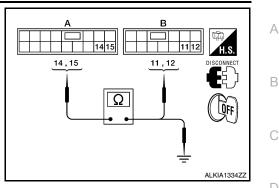
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POWER SUPPLY AND GROUND CIRCUIT [LH ONLY ANTI-PINCH-COUPE]

< COMPONENT DIAGNOSIS >

- 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/ 3. 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
	15	D105 (B)	11	Yes
D7 (A)	14	D105 (B)	12	165



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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)	14	Ground	No
DT (K)	15		NO

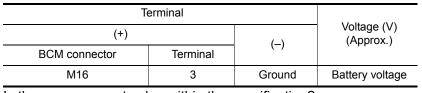
Is the inspection result normal?

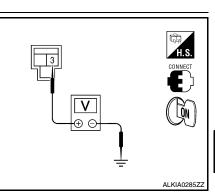
- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Repair or replace harness.

CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM.
- Turn ignition switch ON. 2.

3. Check voltage between BCM connector and ground.





Is the measurement value within the specification?

YES >> GO TO 5

NO >> Repair or replace harness.

${f 5.}$ CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Check power window and door lock/unlock switch RH. Refer to PWC-23, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- >> Replace power window and door lock/unlock switch RH. Refer to PWC-91, "Removal and Installa-NO tion".

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

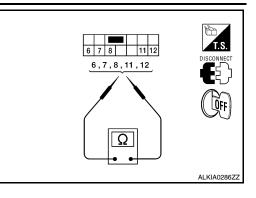
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Check power window and door lock/unlock switch RH.

Terr	ninal	Power window switch condition	Continuity	
8	6	UP		
12	7	UF		
12	7	NEUTRAL	Yes	
6	11	NEOTINE	163	
8	7	DOWN		
6	11	BOWN		



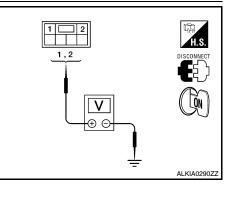
Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH is OK.
- NO >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-91, "Removal and Installa-</u> tion".

[LH ONLY ANTI-PINCH-COUPE]

POWER WINDOW MOTOR < COMPONENT 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 LH CIRCUIT Does power window motor LH operate with the main power window and door lock/unlock switch? Is the inspection result normal? YES >> Power window motor LH is OK. NO >> Refer to PWC-25, "DRIVER SIDE : Diagnosis Procedure". DRIVER SIDE : Diagnosis Procedure Power Window Motor LH Circuit Check 1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL 1. Disconnect power window motor LH. 2. Turn ignition switch ON. 3. Check voltage between power window motor LH connector and ground.

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



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Is the measurement value within the specification?

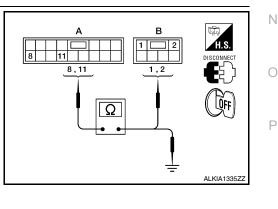
YES >> GO TO 2

>> Replace main power window and door lock/unlock switch. Refer to PWC-91, "Removal and Instal-NO lation". After that, refer to PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch. 2.
- 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)	8	D9 (B)	2	Yes
DT (A)	11	D3 (D)	1	163



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

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK POWER WINDOW MOTOR LH

Check power window motor LH.

Refer to PWC-203, "DRIVER SIDE : Component Inspection".

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-19, "Removal and Installation"</u>. After that, refer to <u>PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair</u> <u>Requirement"</u>.

DRIVER SIDE : Component Inspection

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COMPONENT INSPECTION

1. CHECK POWER WINDOW MOTOR LH

Does motor operate by connecting the battery voltage directly to power window motor?

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

Is the inspection result normal?

YES >> Power window motor LH is OK.

NO >> Replace power window motor LH. Refer to <u>GW-19, "Removal and Installation"</u>. After that, refer to <u>PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair</u> <u>Requirement"</u>.

DRIVER SIDE : Special Repair Requirement

INFOID:000000004204967

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-12</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-12</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>PWC-29</u>, "DRIVER SIDE : Component Function Check".

PASSENGER SIDE

POWER WINDOW MOTOR < COMPONENT DIAGNOSIS > **PASSENGER SIDE** : Description power window and door lock/unlock switch RH. PASSENGER SIDE : Component Function Check CHECK FRONT POWER WINDOW MOTOR RH CIRCIUT and door lock/unlock switch? Is the inspection result normal? YES >> Power window motor RH is OK. NO >> Refer to PWC-27, "PASSENGER SIDE : Diagnosis Procedure". PASSENGER SIDE : Diagnosis Procedure Power Window Motor RH Circuit Check 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OUTPUT SIGNAL Disconnect power window motor RH. 1. 2. Turn ignition switch ON.] 2 3. Check voltage between power window motor RH connector and ground. 1,2 Terminal ٧ Power window (+) Voltage (V) motor RH con--⊕Θ (Approx.) (-) Power window modition Terminal tor RH connector UP Battery voltage 1 DOWN 0 D104 Ground UP 0 2 DOWN Battery voltage Is the measurement value within the specification? YES >> GO TO 2

NO

1.

2.

3.

tor (B).

Power window and

door lock/unlock-

switch RH connector

D105 (A)

tion".

2. CHECK HARNESS CONTINUITY

Terminal

6

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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 connec-

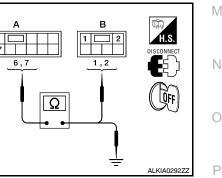
Power window motor

RH connector

D104 (B)

Turn ignition switch OFF.

>> Replace power window and door lock/unlock switch RH. Refer to PWC-91, "Removal and Installa-B 6,7 1,2



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

Terminal

1

2

Continuity

Yes

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

Does power window motor RH operate with main power window and door lock/unlock switch or power window

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[LH ONLY ANTI-PINCH-COUPE]

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

Power window and door lock/ unlock switch RH connector	Terminal		Continuity
	6	Ground	No
D105 (A)	7	1	NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK POWER WINDOW MOTOR RH

Check power window motor RH.

Refer to PWC-28, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

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

NO >> Replace power window motor RH. Refer to <u>GW-19, "Removal and Installation"</u>.

PASSENGER SIDE : Component Inspection

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COMPONENT INSPECTION

COMPONENT INSPECTION

1. CHECK POWER WINDOW MOTOR RH

Does motor operate by connecting the battery voltage directly to power window motor RH?

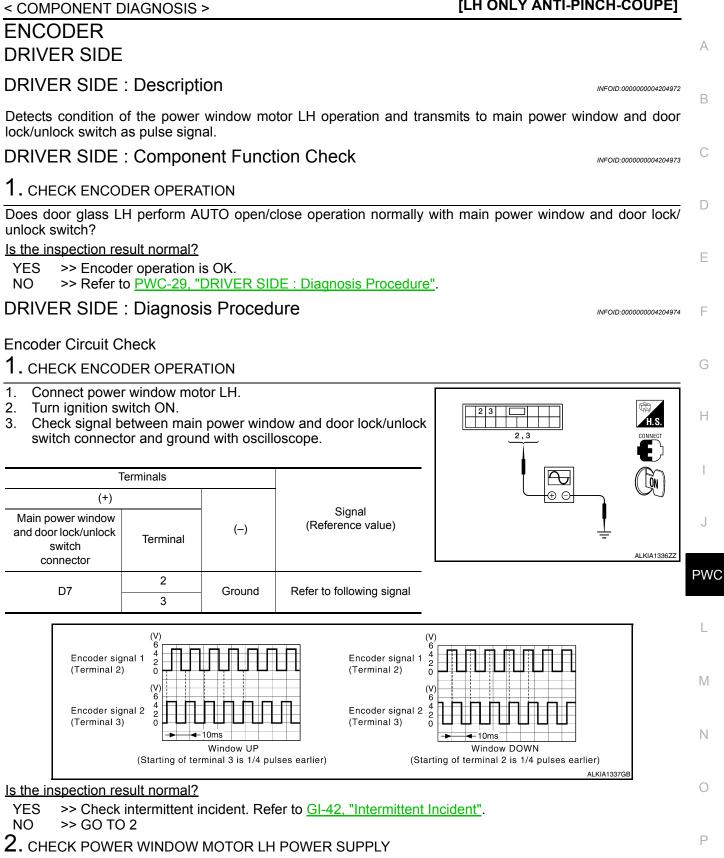
Terr	ninal	Motor condition
(+)	(-)	
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace power window motor RH. Refer to <u>GW-19, "Removal and Installation"</u>.

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< COMPONENT DIAGNOSIS >

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

Termi			
(+)		Voltage (V)	
Power window motor LH con- nector Terminal		(-)	(Approx.)
D9	4	Ground	10

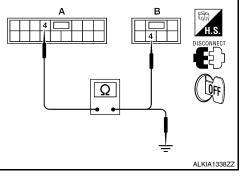
Is the measurement value within the specification?

YES >> GO TO 4

3. CHECK HARNESS CONTINUITY 1

- 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 (B).

Main power window and door lock/unlock switch connector	Terminal	Power window motor LH connector	Terminal	Continuity
D7 (A)	4	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)	4		No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-91, "Removal and Instal-</u> lation". After that, refer to <u>PWC-31, "DRIVER SIDE : Special Repair Requirement"</u>.

NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

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

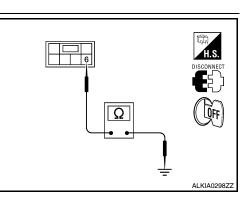
Power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

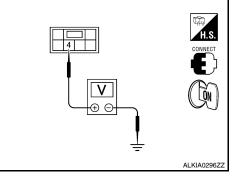
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2





[LH ONLY ANTI-PINCH-COUPE]

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< COMPONENT 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)	7	D9 (B)	6	Yes

Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-91, "Removal and Installation"</u>. After that, refer to <u>PWC-31, "DRIVER SIDE</u> : <u>Special Repair Requirement"</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 power window motor LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Power window motor LH con- nector	Terminal	Continuity
D7 (A)	3	D9 (B)	3	Yes
DT (R)	2	D9 (B)	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	Ground	Continuity
D7 (A)	2		No
07 (K)	3		INO

Is the inspection result normal?

YES	>> Replace power window motor LH. Refer to GW-19, "Removal and Installation". After that, refer to	L
	PWC-26, "DRIVER SIDE : Special Repair Requirement".	
	>> Denair ar replace hornese	

NO >> Repair or replace harness.

DRIVER SIDE : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

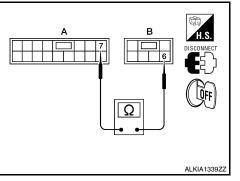
Perform initialization procedure.	
Refer to PWC-12, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-	
ment".	\sim
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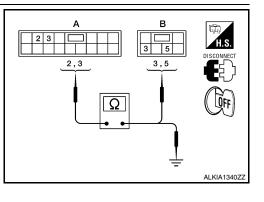
Is the inspection result normal?

YES >> Inspection End.

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

[LH ONLY ANTI-PINCH-COUPE]





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< COMPONENT 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-III. Refer to <u>BCS-34</u>, "RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)".

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

Is the inspection result normal?

YES >> Door switch circuit is OK.

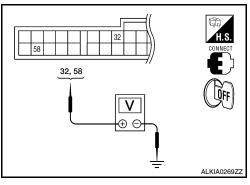
NO >> Refer to <u>PWC-32</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

	Terminals					
(+)				condition	Voltage (V)	
BCM connector	Terminal	(-)			(Approx.)	
	32	Ground	RH	OPEN	0	
M18	52			CLOSE	Battery voltage	
	58		LH	OPEN	0	
	50		LU	CLOSE	Battery voltage	

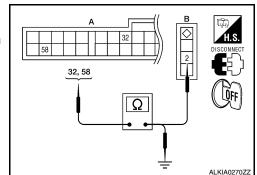


Is the measurement value within the specification?

- YES >> Replace BCM. Refer to <u>BCS-96, "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 (A) and door switch connector (B).

BCM connector	Terminal	Door switch connector	Terminal	Continuity
M18 (A)	32	RH: B108 (B)	_ 2	Yes
	58	LH: B8 (B)		165

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



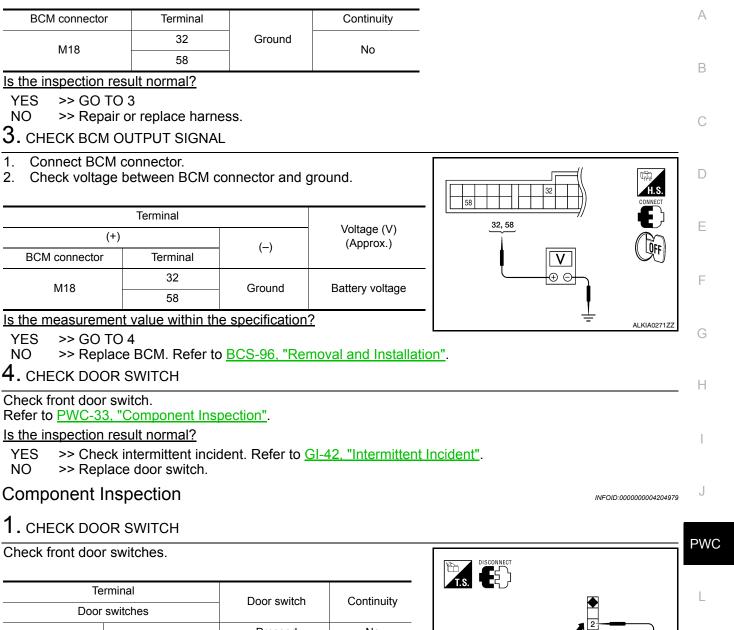
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DOOR SWITCH

< COMPONENT DIAGNOSIS >



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

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Replace door switch.

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< COMPONENT 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-91. "Removal and Instal-</u> lation". After that, <u>PWC-12. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT :</u> <u>Special Repair Requirement"</u>.
- NO >> Check condition of harness and connector.

Special Repair Requirement

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-12</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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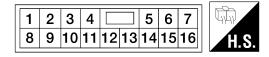
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ECU DIAGNOSIS

POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Terminal No. (Wire color)		Description		Condition	Voltage [V]	Η
+	-	Signal name	Input/ Output	Condition	(Approx.)	
2 (G/Y)	7	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	J PWC
3 (G/W)	7	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	L
4 (G/R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	10	Ν
7 (W/B)	Ground	Encoder ground		_	0	0
8 (L/R)	11	Power window motor LH UP signal	Output	When LH switch in power window main switch is operated UP.	Battery voltage	Ρ
9 (R/Y)	Ground	Battery power supply	Input	_	Battery voltage	
10 (B)	Ground	Ground	_	_	0	

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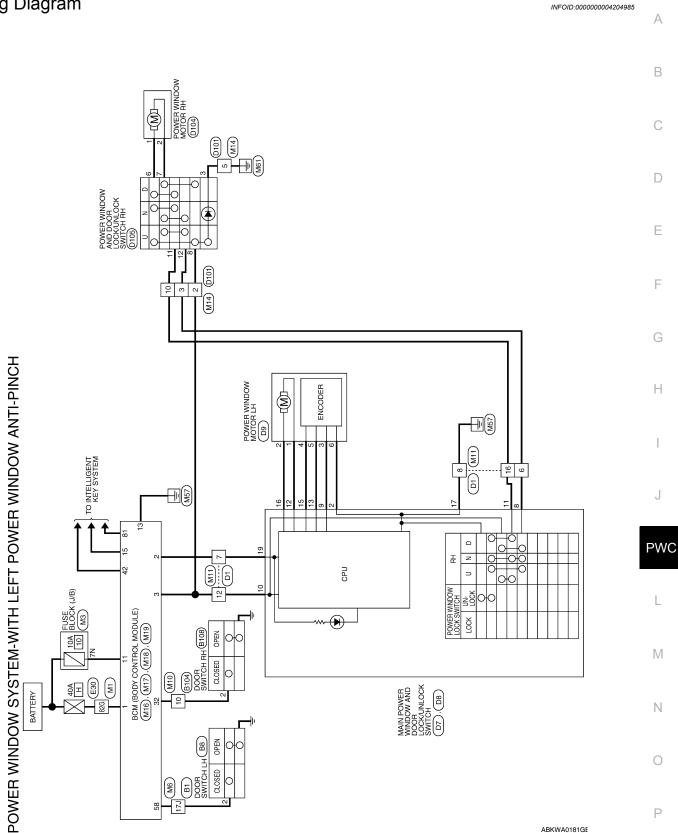
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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

	Terminal No. (Wire color)		Description		Condition	Voltage [V]	
	+	_	Signal name	Input/ Output	Condition	(Approx.)	
_	11 (L/B)	8	Power window motor LH DOWN signal	Output	When LH switch in power window main switch is operated DOWN.	Battery voltage	
		Ground	RAP signal	Input	IGN SW ON	Battery voltage	
(13				Within 45 second after ig- nition switch is turned to OFF.	Battery voltage	
	(L/W)				When driver side or pas- senger side door is opened during retained power op- eration.	0	
_	14 (R/B)	15	Power window motor RH UP signal	Output	When RH switch in power window main switch is operated UP.	Battery voltage	
_	15 (R/W)	14	Power window motor RH DOWN signal	Output	When RH switch in power window main switch is operated DOWN.	Battery voltage	

Wiring Diagram



< ECU DIAGNOSIS >

POWER WINDOW MAIN SWITCH

[LH ONLY ANTI-PINCH-COUPE]

I.

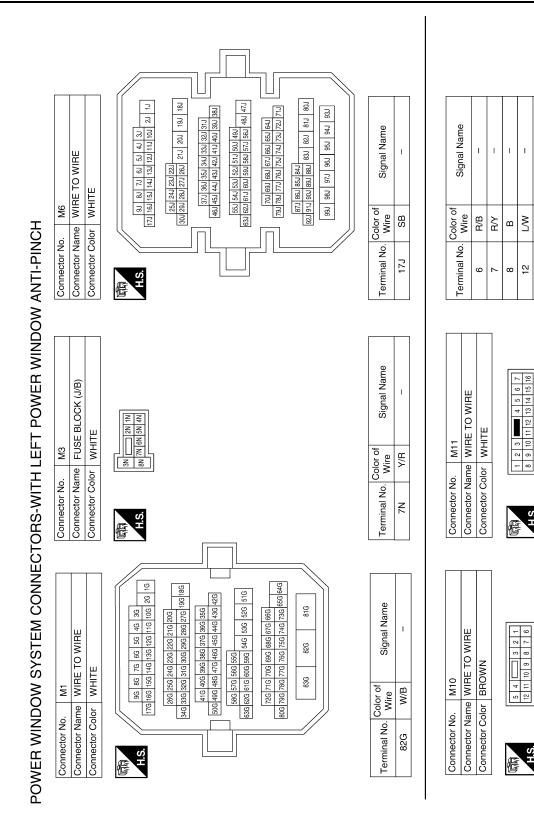
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Signal Name

Color of Wire

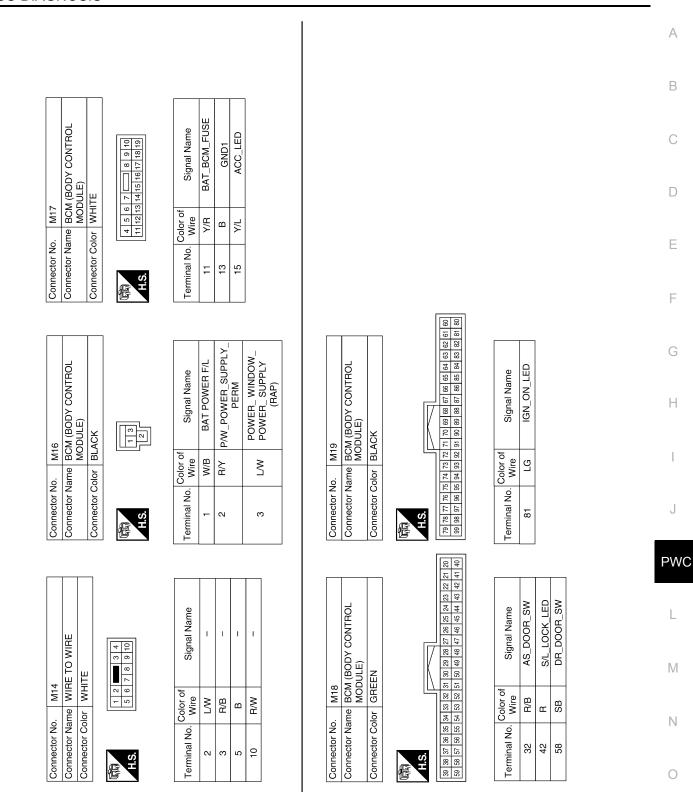
Terminal No.

H.S.

Т

B/B

10



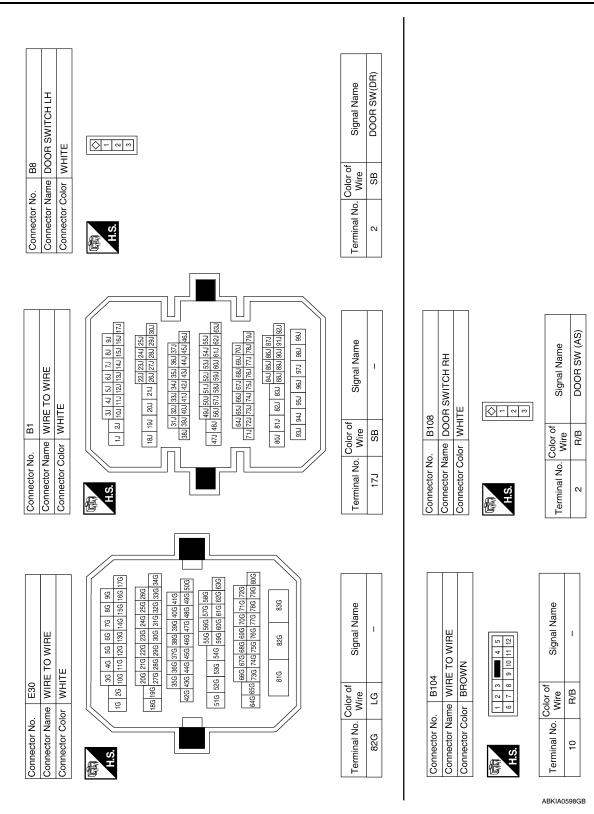
POWER WINDOW MAIN SWITCH

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[LH ONLY ANTI-PINCH-COUPE]

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POWER WINDOW MAIN SWITCH

[LH ONLY ANTI-PINCH-COUPE]

		A
Name ER GND JP DWN DWN DWN SWN CWN CWN CWN CWN CWN CWN CWN CWN CWN C	Signal Name	В
Signal Name ENCODER GND AS UP AS UP IGN AS DOWN AS DOWN DR DOWN ENCODER SIG1 ENCODER RIG1 DE UP		С
Color of Wite Wite Wite Wite Wite Wite Wile R/B R/B R/W		D
Terminal No. 2 9 9 11 11 12 13 13 15 15 15 15 16 <	Connector No. Connector Name Connector Color Terminal No. With 3 RJ 010 RJ	E
		F
D7 MAIN POWER WINDOW ANDLOCKUNLOCK SWITCH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM) WHITE	INDOW Signal Name	G
D7 MAIN POWER W SWITCH (KI/THIL POWER WINDO ANTI-PINCH SY WHITE		Н
Name SWIC ANT Color WH ANT ANT ANT ANT ANT ANT ANT ANT ANT ANT		I
Connector No. Connector Name Connector Color	Connector No. Connector Name Connector Color Terminal No. W 4 4 6 8 8 8 8	J
		PWC
NIRE I <td>D8 Main POWER WINDOW Main POWER WINDOW Switch WINDOW Switch WINDOW ANTI-PINCH SYSTEM) WHITE MHITE NHITE Signal Name B GND R/Y BAT</td> <td>L</td>	D8 Main POWER WINDOW Main POWER WINDOW Switch WINDOW Switch WINDOW ANTI-PINCH SYSTEM) WHITE MHITE NHITE Signal Name B GND R/Y BAT	L
0. D1 mme WIRE TO WIRE olor WHITE color of 5 4 1 1 1 0 9 mine Mine R/B - R/M - B - R/W - B - R/W -	B B B B B B B B B B B B B B B B B B B	Μ
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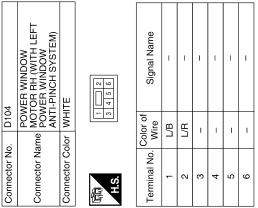
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05	POWER WINDOW AND DOOR LOCKUNLOCK SWITCH RH (WITH LEFT POWER WINDOW ANTI-PINCH SYSTEM)	WHITE	8 9 10 11 12	Signal Name	LOCK	NNLOCK	GND	I	-	DOWN	UP	NÐI
o. D105			6 1 2	Color of Wire	GR	GR/R	в	I	I	L/B	Ы	۲W
Connector No.	Connector Name	Connector Color	国 H.S.	Terminal No.	-	2	e	4	5	9	7	8
		_										

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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.

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

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).

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 >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	OFF
	Front wiper switch HI	ON
FR WIPER LOW	Other than front wiper switch LO	OFF
FR WIPER LOW	Front wiper switch LO	ON
	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
FR WIPER INT	Other than front wiper switch INT	OFF
	Front wiper switch INT	ON
	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
	Other than turn signal switch LH	OFF
TURN SIGNAL L	Turn signal switch LH	ON
	Other than lighting switch 1ST and 2ND	OFF
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON
	Other than lighting switch HI	OFF
HI BEAM SW	Lighting switch HI	ON
	Other than lighting switch 2ND	OFF
HEAD LAMP SW 1	Lighting switch 2ND	ON
	Other than lighting switch 2ND	OFF
HEAD LAMP SW 2	Lighting switch 2ND	ON
	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
	Other than lighting switch AUTO	OFF
AUTO LIGHT SW	Lighting switch AUTO	ON
	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
	Passenger door closed	OFF
DOOR SW-AS	Passenger door opened	ON
	Rear door RH closed	OFF
DOOR SW-RR	Rear door RH opened	ON
	Rear door LH closed	OFF
DOOR SW-RL	Rear door LH opened	ON
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF

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< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Monitor Item	Condition	Value/Status	
	Other than power door lock switch LOCK	OFF	А
CDL LOCK SW	Power door lock switch LOCK	ON	
	Other than power door lock switch UNLOCK	OFF	В
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	С
	Other than driver door key cylinder UNLOCK position	OFF	
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	ON	Г
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF	L
	When hazard switch is not pressed	OFF	Е
HAZARD SW	When hazard switch is pressed	ON	
REAR DEF SW	When rear window defogger switch is pressed	ON	
	Trunk lid opener cancel switch OFF	OFF	F
TR CANCEL SW	Trunk lid opener cancel switch ON	ON	
	Trunk lid opener switch OFF	OFF	C
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON	G
	Trunk lid closed	OFF	
TRNK/HAT MNTR	Trunk lid opened	ON	F
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF	
	When LOCK button of Intelligent Key is pressed	ON	
	When UNLOCK button of Intelligent Key is not pressed	OFF	1
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON	
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF	J
	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	P١
	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	L
	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	N
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V	
OPTICAL SENSOR	When outside of the vehicle is dark	Close to 0 V	Ν
	When driver door request switch is not pressed	OFF	
REQ SW-DR	When driver door request switch is pressed	ON	
	When passenger door request switch is not pressed	OFF	C
REQ SW-AS	When passenger door request switch is pressed	ON	
	When trunk request switch is not pressed	OFF	F
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	
IGN RLY2-F/B	Ignition switch ON	ON	

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
ACC RLY-F/B	Ignition switch OFF	OFF
	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
old i on ow	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
DETE/CANCE SW	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
SFT FININ SVV	When selector lever is in P or N position	ON
S/L L OCK	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
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

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
	Driver door LOCK status	LOCK	/
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door UNLOCK status	UNLK	E
	Passenger door LOCK status	LOCK	
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door UNLOCK status	UNLK	(
	Ignition switch ACC or ON	RESET	
ID OK FLAG	Ignition switch OFF	SET	
	When the engine start is prohibited	RESET	
PRMT ENG STAT	When the engine start is permitted	SET	
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET	
	When Intelligent Key is not inserted into key slot	OFF	
KEY 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	
	NOTE:		
RKE OPE COUN2	This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key	
	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET	
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE	
	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET	
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE	
	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET	
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE	Ρ
	The key ID that the key slot receives does not accord with the sec- ond key ID registered to BCM.	YET	
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE	
	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET	
CONFIRM ID1	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE	
	The ID of fourth key is not registered to BCM	YET	
TP 4	The ID of fourth key is registered to BCM	DONE	
	The ID of third key is not registered to BCM	YET	
TP 3	The ID of third key is registered to BCM	DONE	
	The ID of second key is not registered to BCM	YET	
TP 2	The ID of second key is registered to BCM	DONE	
	The ID of first key is not registered to BCM	YET	
TP 1	The ID of first key is registered to BCM	DONE	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is re- ceived)	Air pressure of front LH tire	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is re- ceived)	Air pressure of front RH tire	

< ECU DIAGNOSIS >

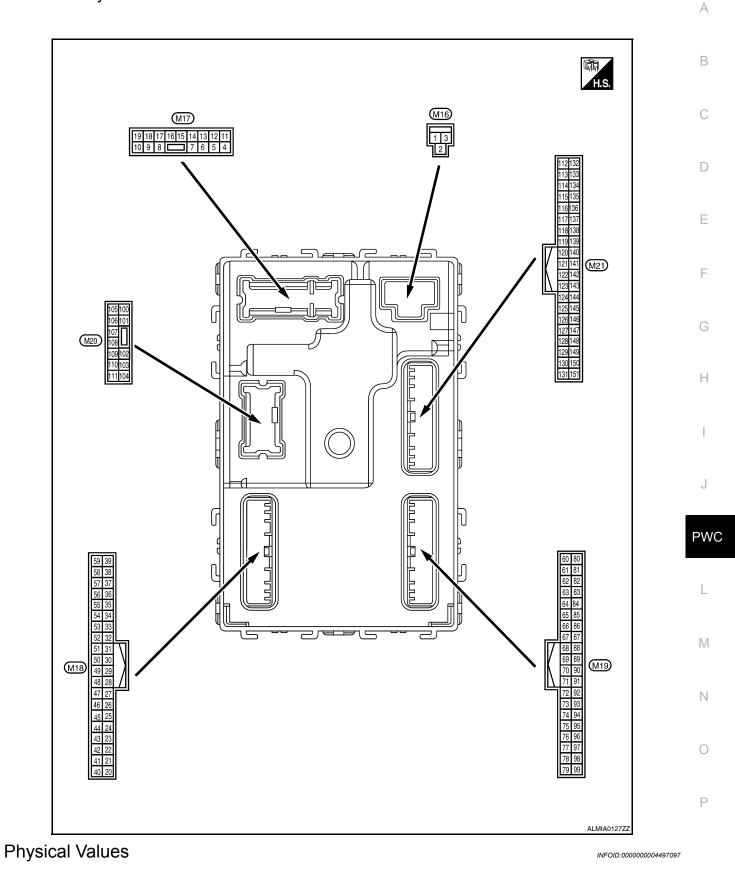
Monitor Item	Condition	Value/Status
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE
ID REGSTIET	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
ID REGGI FRI	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
ID REGGI KRI	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
ID REGOT RET	When ID of rear LH tire transmitter is not registered	YET
	Tire pressure indicator OFF	OFF
WARNING LAMP	Tire pressure indicator ON	ON
BUZZER	Tire pressure warning alarm is not sounding	OFF
DULLER	Tire pressure warning alarm is sounding	ON

BCM (BODY CONTROL MODULE) [LH ONLY ANTI-PINCH-COUPE]

< ECU DIAGNOSIS >

Terminal Layout

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BCM (BODY CONTROL MODULE)

	inal No.	Description				Value
(+)	e color) (-)	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 OFI	F	Battery voltage
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage
4	Ground	Interior room lamp	Output	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 saver	er passing the interior room r operation time	Battery voltage
5	Ground	Front door RH UN-	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output		Other than UNLOCK (actu- ator is not activated)	0V
7	Ground	Step lamp	Output	Step lamp	ON	0V
(R/W)	oround		output		OFF	Battery voltage
8	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activat- ed)	Battery voltage
(V)	0.00110		Carpar		Other than LOCK (actuator is not activated)	٥V
9	Ground	Front door LH UN-	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
(G)	0.00110	LOCK	e atp at		Other than UNLOCK (actuator is not activated)	٥V
10 ¹	Ground	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is acti- vated)	Battery voltage
(G/Y)	Cround	LOCK	Output	and rear door LH	Other than UNLOCK (actu- ator 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	OV
14 (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 (V) 10 0 0 2 ms
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y/L)	Ground		Supul	Sincon Switch	ACC or ON	0V

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[LH ONLY ANTI-PINCH-COUPE]

	inal No.	Description					
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					Turn signal switch OFF	0V	D
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	B C D
					Turn signal switch OFF	0V	Е
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 5 0 1 5 0 FKID0926E 6.5 V	F
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	Н
(Y)	Glound	control	Output	lamp	ON	0V	
21	Ground	Optical sensor signal	Input	Ignition switch	When outside of the vehi- cle is bright	Close to 5V	I
(P/B)			•	ON	When outside of the vehi- cle is dark	Close to 0V	
22	Ground	Clutch interlock	Input	Clutch interlock	OFF (clutch pedal is not depressed)	0V	J
(R/Y)		switch		switch	ON (clutch pedal is de- pressed)	Battery voltage	PWC
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	L
(O/L)	Ground		mput		ON (brake pedal is de- pressed)	Battery voltage	M
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 11.8V	N
					UNLOCK status	0V	Ρ
29	Ground	Key slot switch	Input	When Intelligent K	ey is inserted into key slot	Battery voltage	-
(Y)	Giound	NGY SIDE SWILLI	input	When Intelligent K	ey is not inserted into key slot	0V	
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0	
(V/Y)	0.0414				ACC or ON	Battery voltage	

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Terminal No.		Description				Value	
	e color)	Signal name	Input/		Condition	(Approx.)	
(+)	(-)	_	Output			<u></u>	
31	Ground	Rear window defog- ger feedback signal	Input	Rear window de-	OFF	0V	
(G)		ger reeuback signal		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 10 ms JPMIA0011GB 11.8 V	
					ON (when front door RH opens)	٥V	
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	5V	
(SB)	Cround	nal	input	VO SWICH	ON	0V	
34 ²		Front door lock as-		Front door lock	OFF (neutral)	5V	
(L/R)	Ground	sembly LH (key cylin- der switch) (unlock)	Input	assembly LH (key cylinder switch)	ON (unlock)	0V	
36 ²	Cround	Lock switch signal	Innut	Door lock/unlock	Lock	Battery voltage	
(GR)	Ground	LOCK SWITCH SIGNAL	Input	switch	Unlock	OV	
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 10 10 ms JPMIA0012GB 1.1V	
					ON	0V	
38 (GR/	Ground	Rear window defog-	Input	Rear window de-	OFF	5V	
W)		ger ON signal		fogger switch	ON	0V	
39 ²	Ground	Unlock switch signal	Input	Door lock/unlock	Unlock	Battery voltage	
(GR/ R)	Cround	Officer Switch Signal	mput	switch	Lock	0V	
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 0 10 ms JPMIA0013GB 10.2V	
				Ignition switch OFF	F or ACC	0V	
				Engine switch	ON	5.5V	
41 (W)	Ground	Engine switch (push switch) illumination	Output	(push switch) illu- mination	OFF	0V	
42	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0V	
(R)	Ciouna		Julpur	lamp	OFF	Battery voltage	

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[LH ONLY ANTI-PINCH-COUPE]

	inal No.	Description		- Value		Value			
	e color)	Signal name	Input/		Condition	(Approx.)	A		
(+)	(-)	_	Output						
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V	В		
46	Ground	Receiver & sensor	Output	Ignition switch	OFF	OV			
(V/W)	cicana	power supply output	o alpar	.g	ACC or ON	5.0V	С		
47		Ground	Tire pressure receiv- er signal		Input/	Ignition switch	Standby state	(V) 6 4 2 0 + 0.2s OCC3881D	D
(G/O)	olound	er signal			er signal	er signal	Output	ON	When receiving the signal from the transmitter
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V			
(R/G)	Ground	position signal	Input	Selector level	Except P and N positions	0V	I		
					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 15 10 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	J PWC		
					OFF	Battery voltage			
					All switch OFF	0V	рл		
					Lighting switch 1ST		M		
50 (LG/ B)	Ground	und Combination switch Output OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch high-beam Lighting switch 2ND	(V) 15 10 5 0	Ν		
в)					Turn signal switch RH	2 ms JPMIA0031GB	0		

Ρ

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	inal No.	Description				Velue
-	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)		Output			
					All switch OFF (Wiper intermittent dial 4)	0V
					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	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
					All switch OFF (Wiper intermittent dial 4)	ΟV
					Front washer switch ON (Wiper intermittent dial 4)	(V)[]
52 (G/B) Ground	Ground	d Combination switch OUTPUT 2	Output	Combination switch	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • WIper intermittent dial 5 • Wiper intermittent dial 6	15 10 5 0 2 ms 10.7V
					All switch OFF	0V
				Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	
		Combination switch OUTPUT 3	Output		Front wiper switch LO	(V) 15
53 (LG/ R)	Ground				Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB
						10.7V
					All switch OFF	0V
					Front fog lamp switch ON	(V)
				Combination	Lighting switch 2ND	15
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit-	Lighting switch flash-to- pass	
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
						10.7V
55 (BR/	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON OFF	Battery voltage
W)		Front door lock as-		Front door lock		5V
56 ² (L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	OFF (neutral) ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input			5V

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	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 0 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
					When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 5 0 1 5 10 1 5 10 10 10 10 10 10 10 10 10 10 10 10 10
60	60 (D/D) Ground	Front console anten-	Output	Ignition switch OFF		JMKIA0062GB
(B/R)		na 2 (-)			When Intelligent Key is not in the passenger compart- ment	(V) 15 0 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15 15 15 15
					When Intelligent Key is in the passenger compart- ment	
61		Center console an-	-	Ignition switch		JMKIA0062GB
61 (W/R) Gro	Ground	tenna 2 (+)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 0 0 1 s JMKIA0063GB

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	ninal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
62 ⁴	62 ⁴ (B/Y) Ground Front outside handle RH antenna (-) Out	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/Y)		RH antenna (-)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
63 ⁴	Ground	round Front outside handle RH antenna (+)	Output	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 1 1 1 1 1 1 1 1 1 1 1 1
(LG)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 0 15 0 15 15 JMKIA0063GB
64 ⁴	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 1 s JMKIA0062GB
(V)	Ground	LH antenna (-)			When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB

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	ninal No. Description				Value		
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
65 ⁴	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	B C D
(P)	Glound	LH antenna (+)	Cutput		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
66	66 (D) Ground	Instrument panel an- tenna (-)	Output	lgnition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 50 1 s JMKIA0062GB	G H I
(R)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	J PWC
67	Ground	Instrument panel an- tenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M
(G)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 15 0 15 0 15 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	P

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[LH ONLY ANTI-PINCH-COUPE]

	inal No.	Description				Value
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
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)	Ground	receiver signal	Output	When operating either button on Intelligent Key		(V) 15 10 5 0 1 ms JMKIA0065GB
	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4V
75 (R/Y)					Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 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 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3V

< ECU DIAGNOSIS >

	inal No.	Description				Value	^
	e color)	Signal name	Input/		Condition	(Approx.)	А
(+)	(-)		Output				
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB	В
					Lighting switch high-beam (Wiper intermittent dial 4)	1.4V	D
76 (R/G) Ground	Combination switch	Input	Combination		2 ms JPMIA0036GB 1.3V	F	
		INPUT 3		switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0	G
						JPMIA0037GB 1.3V	I
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB	J PWC
					Pressed	1.3V 0V	L
77 (BR)	Ground	Engine switch (push switch)	Input	Engine switch (push switch)	Not pressed	Battery voltage	
78 (P)	Ground	CAN-L	Input/ Output		_		Μ
79 (L)	Ground	CAN-H	Input/ Output		_	_	Ν
(_)			Output		OFF	0V	
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0	O
					ON	Battery voltage	
	1		1	1	I		

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	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
81					OFF or ACC	0V
(LG)	Ground	ON indicator lamp	Output	Ignition switch	ON	Battery voltage
83	Ground	ACC relay control	Output	Ignition switch	OFF	0V
(L)	Giouna	Acc relay control	Output	Ignition switch	ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	Output		_	Battery voltage
85	Oracial	Electronic steering	المعربة	Electronic steer-	Lock status	0V
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage
86	Ground	Electronic steering column lock condition	Input	Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	No. 2	Input	ing column lock	Unlock status	0V
87	Ground	Selector lever P posi-	Input	Selector lever	P position	0V
(G/B)	Croana	tion switch	mput		Any position other than P ON (pressed)	Battery voltage
88 ⁴ (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10
		Front door LH re- quest switch			ON (pressed)	0V
89 ⁴ (B/W)	Ground		Input	Front door LH re- quest switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
90	0	Blower fan motor re-	0	leniting of the	OFF or ACC	0V
(Y)	Ground	lay control	Output	Ignition switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFI	=	Battery voltage
94	Ground	Steering wheel lock	Output	Ignition switch	OFF or ACC	Battery voltage
(G/Y)	Cround	unit power supply	σαιραί		ON	0V

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

	inal No.	Description				Value	0
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF	(V) 15 0 2 ms JPMIA0041GB 1.4V	B C D
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V	E
95 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 0 2 ms JPMIA0036GB 1.3V	G H
					Front wiper switch LO	(V) 15 0 2 ms JPMIA0038GB 1.3V	J PWC
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB	M
						1.3V	0

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< ECU DIAGNOSIS >

	inal No. e color)	Description				Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4V
96	Ground				Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0038GB 1.3V
(P/B)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 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 0 2 ms JPMIA0039GB 1.3V

< ECU DIAGNOSIS >

	inal No.	Description				Value	Δ
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V	B C D
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V	E
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 2 ms JPMIA0036GB 1.3V	G H I
					Front wiper switch INT	(V) 15 10 2 ms JPMIA0038GB 1.3V	J PWC
					Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3V	M
					Pressed	0 V	0
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms 10 ms JPMIA0012GB 1.1V	Ρ

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
					LOCK status	Battery voltage	
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 MKIA0066GB	
					For 15 seconds after UN- LOCK	Battery voltage	
					15 seconds or later after UNLOCK	0V	
103 Group	Cround	ound Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage	
(V)			Output		Close (trunk lid opener ac- tuator is not activated)	0V	
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)		·····			OFF	Battery voltage	
114	Ground	round Rear parcel shelf an- tenna 1 (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
114 (B)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	

< ECU DIAGNOSIS >

	inal No.	Description) (eluc	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	А
115	Ground	Rear parcel shelf an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(W)	(W)	tenna 1 (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E F
118 ⁴	118 ⁴ Ground	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 10 5 0 15 1 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	G H
(L/O)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J PWC
119 ⁴	Ground	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 10 5 0 1 s JMKIA0062GB	M
(BR/ G W)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Terminal No.		Description) (clus
(Wire color)		Signal name Input/		Condition		Value (Approx.)
(+)	(-)	Signal name	Output			(())
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0V
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed) ON (trunk is open)	(V) 15 10 0 10 10 ms JPMIA0011GB 11.8V 0V
					When the clutch pedal is	
		Starter motor relay control	Output	Ignition switch OFF (M/T vehi- cle)	depressed	Battery voltage
132 (R)	Ground				When the clutch pedal is not depressed	0V
				Ignition switch ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is depressed	Battery voltage
					When selector lever is in P or N position and the brake is not depressed	0V
	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed)	0V
141 (G/R)					OFF (not pressed)	(V) 15 0 10 10 10 1.0V
144 ⁴	<u> </u>	Intelligent Key warn- ing buzzer	Output	Request switch buzzer	Sounding	0V
(GR)	Ground				Not sounding	Battery voltage
144 ⁵		Outside warning buzzer	Output	Outside warning buzzer	Sounding	0V
(GR)	Ground				Not sounding	Battery voltage
147	Crowner'	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	OV
(L/R)	Ground				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 0 0 10 ms JPMIA0011GB 11.8V
					ON (when rear door RH opens)	0V

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Terminal No. (Wire color) (+) (-)		Description				Value	^
		Signal name	Input/ Output	Condition		(Approx.)	A
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0	B
					ON (when rear door LH opens)	UPMIA0011GB 11.8V	D

1: Sedan only

2: With LH front window anti-pinch

3: With LH and RH front window anti-pinch

4: With Intelligent Key

5: Without Intelligent Key

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PWC

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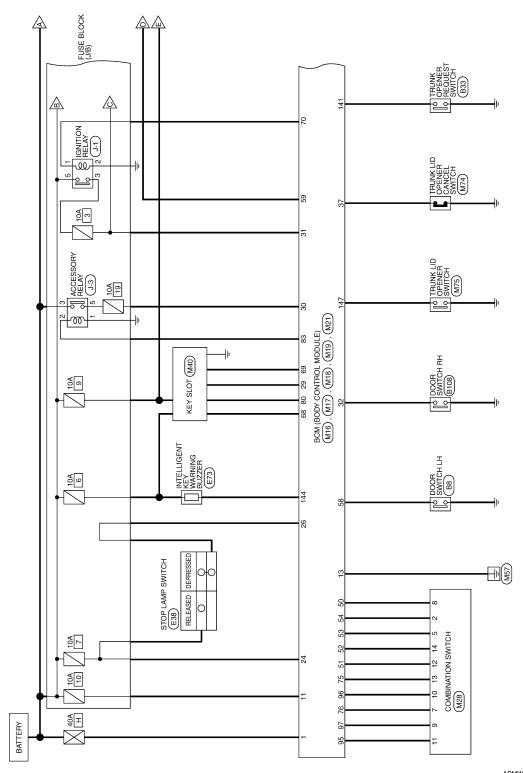
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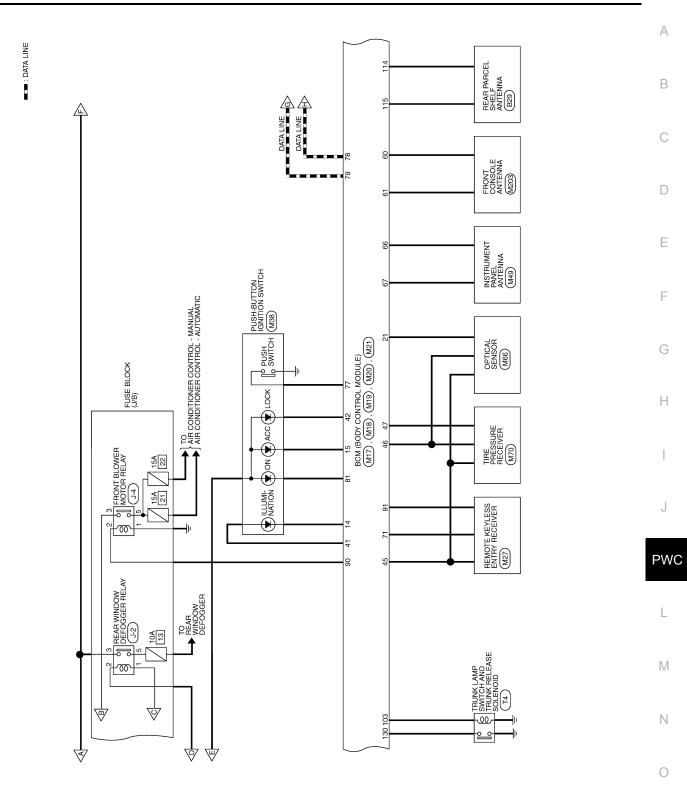
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Wiring Diagram-Coupe

INFOID:000000004497098

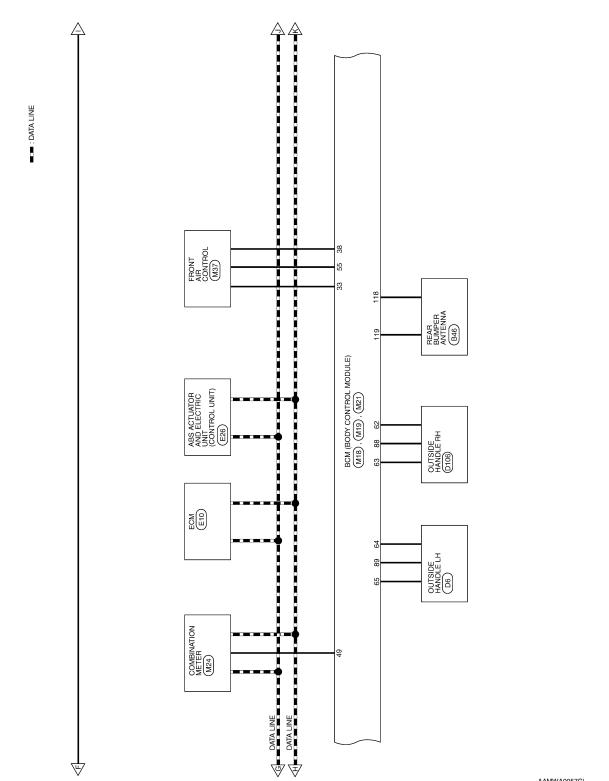


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ABMWA0166GI

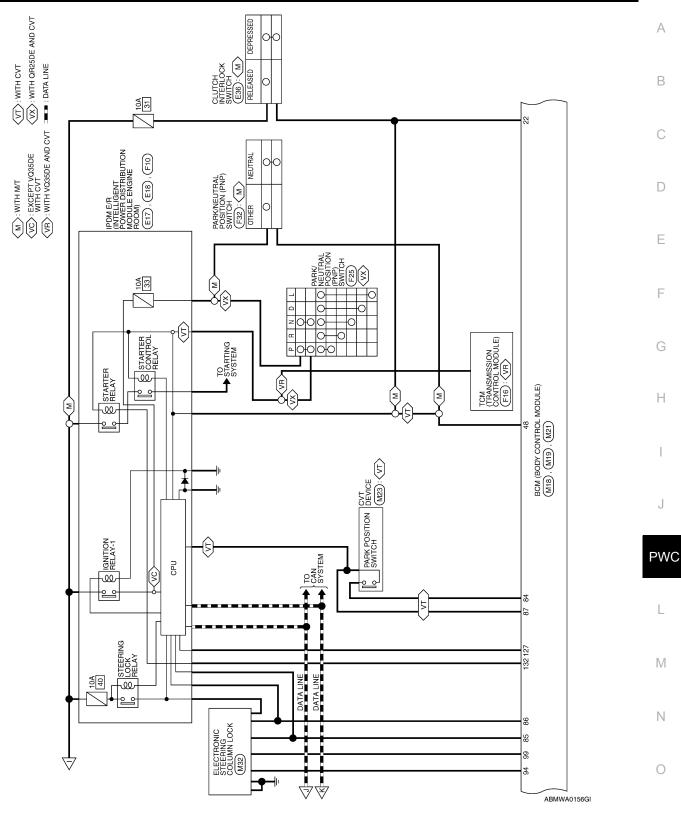
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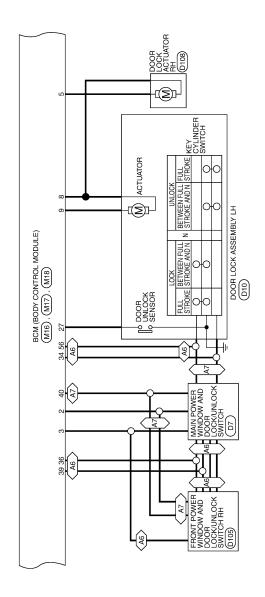
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[LH ONLY ANTI-PINCH-COUPE]

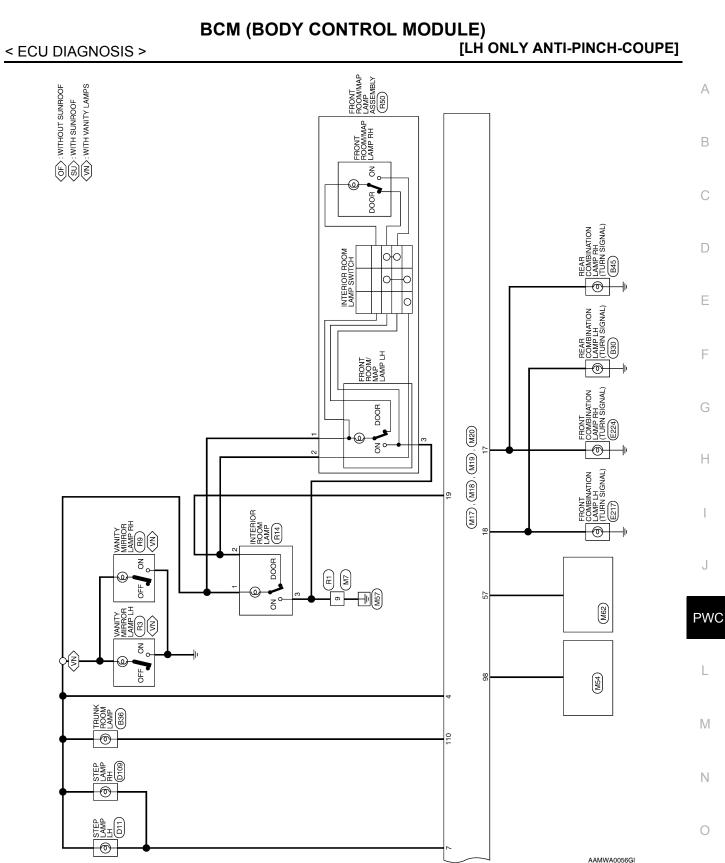


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 $\overline{\langle ab \rangle}$: with Left power window anti-pinch system $\overline{\langle ab \rangle}$: with Left and right power window anti-pinch system



ABMWA0157GI



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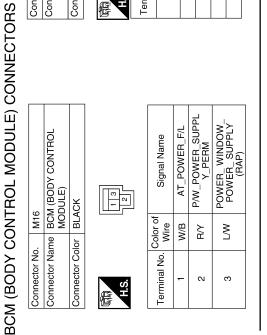
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Signal Name	CDL_DR/FL	CDL_RR_RL_BACK	BAT_BCM_FUSE	1	GND1	LOW_SIDE_PUSH_LE D_OUTPUT	ACC_LED	1	FR_FLASHER	FL_FLASHER	ROOM_LAMP_OUTPUT
Color of Wire	σ	G∕	Y/R	ı	в	RY	٨/L	I	G/B	G∕Y	-
Terminal No.	6	10	11	12	13	14	15	16	17	18	19

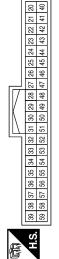
Signal Name	A/L_SENS_KEYLESS_	TUNER_POWER_SUP	PLY	KEYLESS_TUNER_SI	SHIFT_N/P	IMMO_LED	INPUT_5	INPUT_1	INPUT_2	INPUT_3	INPUT_4	BLOWER_FAN_SW	DOOR_KEY/C_LOCK_ SW	TPMS_MODE_TRIGG ER_SW	DR_DOOR_SW	REAR_DEFOGGER_ RI Y	
Color of Wire		W/۸		G/O	R/G	Г/О	LG/B	۲W	G/B	LG/R	G/Y	BR/W	L/B	3	SB	G/R	
Terminal No.		46		47	48	49	50	51	52	53	54	55	56	57	58	59	

Connector No.		
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color	lor WHITE	TE
H.S.	4 5 6 11 12 13	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
Terminal No.	Color of Wire	Signal Name
4	P/W	ROOM_LAMP_BAT_ SAVER
5	G/Y	CDL_AS
9	-	I
7	R/W	STEP_LAMP_OUTPUT
8	٨	CDL_COMMON

Signal Name	FOB_IN_SW_1	ACC_F/B	IGN_F/B	AS_DOOR_SW	AIRCON_SW	DOOR_KEY/C_ UNLOCK_SW_	I	CENTRAL_UNLOCK_SW	TRUNK_CANCEL_SW	REAR_DEFOGGER_SW	CENTRAL_UNLOCK_SW	PW_K-LINE	PUSH_LED	S/L_LOCK_LED	1	I	GND_RF2_A/L
Color of Wire	Y	V/Y	G	R/B	SB	L/R	I	GR	0	GR/W	GR/R	У/G	Ν	В	I	I	٩
Terminal No.	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45







Signal Name	I	AUTO_LIGHT_SENSO R_INPUT1	CLUTCH_SW	I	STOP_LAMP_LOW_SW	I	STOP_LAMP_HIGH_SW	DOOR_LOCK_STATUS	I
Color of Wire	I	P/B	R/Y	I	R/W	I	O/L	G/W	-
Ferminal No.	20	21	22	23	24	25	26	27	28

ABMIA0468GB

[LH ONLY ANTI-PINCH-COUPE]

DR_REQUEST SWITCH IGN2_CONT RF1_POWER_SUPPLY S/L_POWER_SUPPLY_ 12V ACC CONT AT DEVICE OUT S/L CONDITION 1 S/L CONDITION 2 SHIFT_P AS_REQUEST SWITCH OUTPUT 1 OUTPUT 4 OUTPUT 2 Signal Name Color of Wire G/B G/B L/R R/W R/B B/W G/Y Р/L _ ≻ I I

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

[LH ONLY ANTI-PINCH-COUPE]

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PWC-75

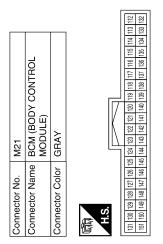
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Connector No.	M28
Connector Name	Connector Name COMBINATION SWITCH
Connector Color WHITE	WHITE
雨 H.S.	2 8 9 10 11 12 13 14

Signal Name	WASH_MTR	INPUT_4	INPUT_3	GND	OUTPUT_3	INPUT_5	OUTPUT_2	OUTPUT_4	OUTPUT_1		OUTPUT_5	OUTPUT_2
Color of Wire	R/L	G∕	LG/R	В	R/G	LG/B	R/B	P/B	R/W	L/W	РŅ	G/B
Terminal No.	-	2	5	9	7	8	6	10	11	12	13	14

Signal Name	I	I	I	IGN_USM_CONT1	1	I	TRUNK_SW	I	ST_CONT_USM	I	I	I	I	1	I	I	I	TRUNK_REQUEST_SW	I	I	BUZZER	I	I	BACK_TRUNK_ OPENER	I	I	I	I
Color of Wire	Ξ	I	I	BR/W	I	-	Y/G	I	В	I	I	I	I	I	I	-	I	G/R	-	I	G/R	-	I	L/R	I	I	I	I
Terminal No.	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151



Fail Safe

Signal Name	Η	T	TRUNK_ANT_1_B	TRUNK_ANT_1_A	I	I	BACK_DOOR_ANT_B	BACK_DOOR_ANT_A	Ι	-	Ι
Color of Wire	I	ı	в	Μ	I	I	Г/О	BR/W	I	I	-
Terminal No.	112	113	114	115	116	117	118	119	120	121	123

ABMIA0469GB

INFOID:000000004497100

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

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
	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
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/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status 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)

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)

DTC Inspection Priority Chart

INFOID:000000004497101

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

< ECU DIAGNOSIS >

INFOID:000000004497102

ECU DIAGN		
Priority	DTC	
4	 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 B2602: SHIFT POSI STATUS B2605: S/L RELAY B2606: S/L RELAY B2606: S/L RELAY B2606: S/L RELAY B2600: STARTER RELAY B2600: STARTER RELAY B2600: STERRING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STATUS B2602: SHET SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2615: BLOWER RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2618: BCM B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B26619: BCM B2614: PUSH-BTN IGN SW 	
5	 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] RR C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1721: [CODE ERR] FR C1722: [CODE ERR] FR C1722: [CODE ERR] FR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR 	
6	C1727: [BATT VOLT LOW] RL C1734: CONTROL UNIT B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA	

DTC Index

< ECU DIAGNOSIS >

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-38
U1010: CONTROL UNIT (CAN)	_	_		<u>BCS-39</u>
U0415: VEHICLE SPEED SIG		_		<u>BCS-40</u>
B2013: ID DISCORD BCM-S/L	×	_		<u>SEC-38</u>
B2014: CHAIN OF S/L-BCM	×	_		<u>SEC-39</u>
B2190: NATS ANTENNA AMP	×	_		<u>SEC-64</u>
B2191: DIFFERENCE OF KEY	×	_		<u>SEC-67</u>
B2192: ID DISCORD BCM-ECM	×	_		<u>SEC-68</u>
B2193: CHAIN OF BCM-ECM	×			<u>SEC-69</u>
B2553: IGNITION RELAY				PCS-60
B2555: STOP LAMP				<u>SEC-70</u>
B2556: PUSH-BTN IGN SW	_	×		<u>SEC-72</u>
B2557: VEHICLE SPEED	×	×		<u>SEC-74</u>
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-75</u>
B2562: LOW VOLTAGE	_	_	_	<u>BCS-41</u>
B2601: SHIFT POSITION	×	×		<u>SEC-76</u>
B2602: SHIFT POSITION	×	×	_	<u>SEC-79</u>
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-81</u>
B2604: PNP SW	×	×	_	<u>SEC-84</u>
B2605: PNP SW	×	×		<u>SEC-86</u>
B2606: S/L RELAY	×	×		<u>SEC-88</u>
B2607: S/L RELAY	×	×	_	<u>SEC-89</u>
B2608: STARTER RELAY	×	×	_	<u>SEC-91</u>
B2609: S/L STATUS	×	×	_	<u>SEC-93</u>
B260A: IGNITION RELAY	×	×	_	PCS-62
B260B: STEERING LOCK UNIT		×	_	<u>SEC-97</u>
B260C: STEERING LOCK UNIT		×		<u>SEC-98</u>
B260D: STEERING LOCK UNIT	-	×	_	<u>SEC-99</u>
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-100</u>
B2612: S/L STATUS	×	×		<u>SEC-101</u>
B2614: ACC RELAY CIRC	_	×	_	PCS-65
B2615: BLOWER RELAY CIRC	_	×	_	PCS-68
B2616: IGN RELAY CIRC		×		PCS-71
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-105</u>
B2618: BCM	×	×		PCS-74

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	—	<u>SEC-107</u>
B261A: PUSH-BTN IGN SW	_	×	—	<u>SEC-108</u>
B2621: INSIDE ANTENNA	_	—	_	<u>DLK-59</u>
B2622: INSIDE ANTENNA		—		<u>DLK-62</u>
B2623: INSIDE ANTENNA		—		DLK-65
B26E1: ENG STATE NO RES	×	×		<u>SEC-110</u>
C1704: LOW PRESSURE FL	_	_	×	<u>WT-52</u>
C1705: LOW PRESSURE FR		_	×	<u>WT-52</u>
C1706: LOW PRESSURE RR	—	—	×	<u>WT-52</u>
C1707: LOW PRESSURE RL	—	—	×	<u>WT-52</u>
C1708: [NO DATA] FL	—	—	×	<u>WT-14</u>
C1709: [NO DATA] FR	—	—	×	<u>WT-14</u>
C1710: [NO DATA] RR	_	—	×	<u>WT-14</u>
C1711: [NO DATA] RL	_	—	×	<u>WT-14</u>
C1712: [CHECKSUM ERR] FL	_	—	×	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR	_	—	×	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL	_	—	×	<u>WT-16</u>
C1716: [PRESSDATA ERR] FL	_	—	×	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	—	×	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	—	×	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	—	—	×	<u>WT-18</u>
C1720: [CODE ERR] FL	—	—	×	<u>WT-16</u>
C1721: [CODE ERR] FR	—	—	×	<u>WT-16</u>
C1722: [CODE ERR] RR	—	—	×	<u>WT-16</u>
C1723: [CODE ERR] RL	—	—	×	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	—	—	×	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	—	—	×	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	—	—	×	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL	—	—	×	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR	—	—	×	<u>WT-19</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-20</u>

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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.

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000004499255

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

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.
- 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 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-III.

<pre> SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-COUPE] </pre>	
SYMPTOM DIAGNOSIS	А
NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH	В
Diagnosis Procedure	D
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT	С
Check BCM power supply and ground circuit. Refer to <u>BCS-42, "Diagnosis Procedure"</u> .	
<u>Is the inspection result normal?</u> YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.	D
2 . CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT	Ε
Check main power window and door lock/unlock switch power supply and ground circuit. Refer to <u>PWC-19, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> .	F
Is the inspection result normal? YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts.	G
3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	
Check main power window and door lock/unlock switch. Refer to PWC-19, "POWER WINDOW MAIN SWITCH : Component Function Check".	Η
<u>Is the inspection result normal?</u> YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
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DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-COUPE]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000004204988

1. CHECK POWER WINDOW MOTOR LH

Check power window motor LH. Refer to <u>PWC-25</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE [LH ONLY ANTI-PINCH-COUPE] < SYMPTOM DIAGNOSIS > PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE А **Diagnosis** Procedure INFOID:000000004204989 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH В Check power window and door lock/unlock switch RH. Refer to PWC-22, "PASSENGER SIDE : Component Function Check". С Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT D Check power window motor RH circuit. Refer to PWC-27, "PASSENGER SIDE : Component Function Check". Е

Is the inspection result normal?

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

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000004204990

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-21, "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-19, "POWER WINDOW MAIN SWITCH : Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

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

LY (DRIVER SIDE)	
< SYMPTOM DIAGNOSIS > [LH ONLY ANTI-PINCH-COUPE]	
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES	A
NORMALLY (DRIVER SIDE)	1
Diagnosis Procedure	В
1. PERFORM INITIALIZATION PROCEDURE	D
Perform initialization procedure. Refer to <u>PWC-21, "POWER WINDOW MAIN SWITCH : Special Repair Requirement"</u> .	С
Is the inspection result normal?	
YES >> GO TO 2	D
NO >> Repair or replace the malfunctioning parts.	D
2. CHECK ENCODER	
Check encoder. Refer to <u>PWC-19, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> .	E
Is the inspection result normal?	
YES >> Inspection End.	F
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

Diagnosis Procedure

INFOID:000000004204992

1. CHECK DOOR SWITCH

Check door switch. Refer to <u>PWC-32, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection End.

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

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH ONLY ANTI-PINCH-COUPE]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION	А
Diagnosis Procedure	A
1.REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	В
Replace main power window and door lock/unlock switch. Refer to <u>PWC-91</u> , " <u>Removal and Installation</u> ". After that, <u>PWC-21</u> , " <u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair Requirement</u> ". Is the inspection result normal?	С
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> .	D
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ON-VEHICLE MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.

2. Check the following parts.

• Fuse/circuit breaker blown.

• Poor connection, open or short circuit of harness connector.

• Battery voltage.

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace the malfunctioning parts.

INFOID:000000004204995

ON-VEHICLE REPAIR POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

1. Remove the power window main switch finisher (2). Refer to <u>INT-12, "Removal and Installation"</u>.

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2. Power window main switch (1) is removed from power window main switch finisher (2) using a suitable tool (A).

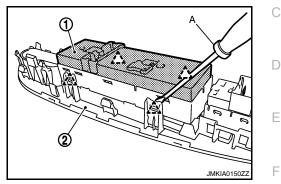
CAUTION:

Do not fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for front power window and door lock/unlock switch RH, and rear power window switch (LH & RH).

INSTALLATION

Installation is in the reverse order of removal.



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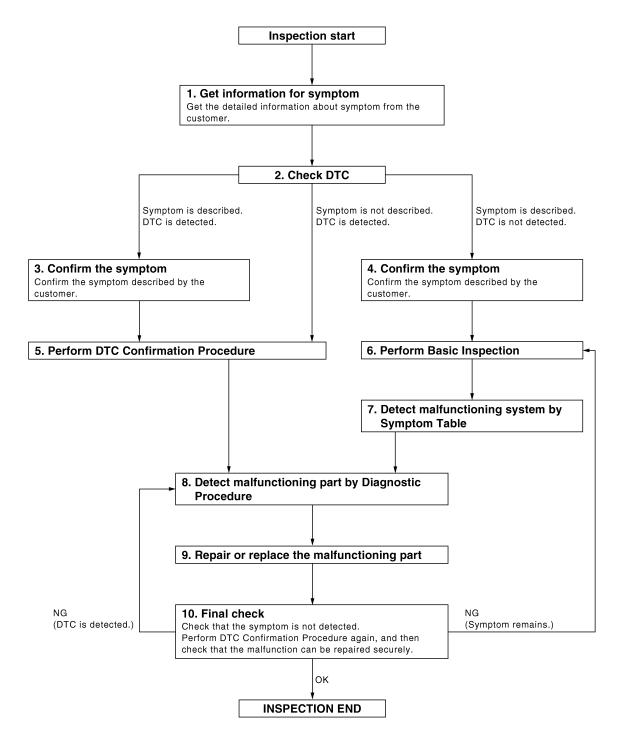
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BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004204997

OVERALL SEQUENCE



< 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
 Check DTC. Perform the following procedure if DTC is displayed.
 Record DTC and freeze frame data (Print them out with CONSULT-III.) Erase DTC. Study the relationship between the cause detected by DTC and the symptom described by the customer.
3. Check related service bulletins for information.
Is any symptom described and any DTC detected?
Symptom is described, DTC is displayed>>GO TO 3 Symptom is described, DTC is not displayed>>GO TO 4 Symptom is not described, DTC is displayed>>GO TO 5
3. CONFIRM THE SYMPTOM
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.
>> GO TO 5
4. CONFIRM THE SYMPTOM
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR " mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.
>> GO TO 6
5. PERFORM DTC CONFIRMATION PROCEDURE
Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again.
At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time.
If two or more DTCs are detected, refer to <u>BCS-90. "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-92, "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

< BASIC INSPECTION >

$\mathbf{8.} \text{ detect malfunctioning part by diagnostic procedure}$

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-III.

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:000000004204998 Initial setting is necessary when battery terminal is removed. 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:000000004204999 INITIALIZATION PROCEDURE F Disconnect battery minus terminal or power window main switch connector. Reconnect it after a minute or more. 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) 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. 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. PWC It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-135, "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:000000004205000 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:000000004205001

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.

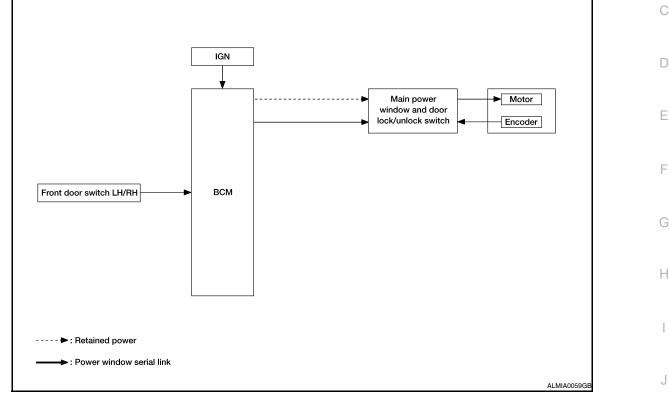
CAUTION:

- 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-135, "Fail Safe"</u>.
- 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.

FUNCTION DIAGNOSIS POWER WINDOW SYSTEM

System Diagram

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/ DOWN signal		Front power window motor
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	Power window control	
BCM	RAP signal		
Rear power window switch	Rear power window motor UP/DOWN signal		Rear power window motor

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)

PWC-97

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POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

- 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

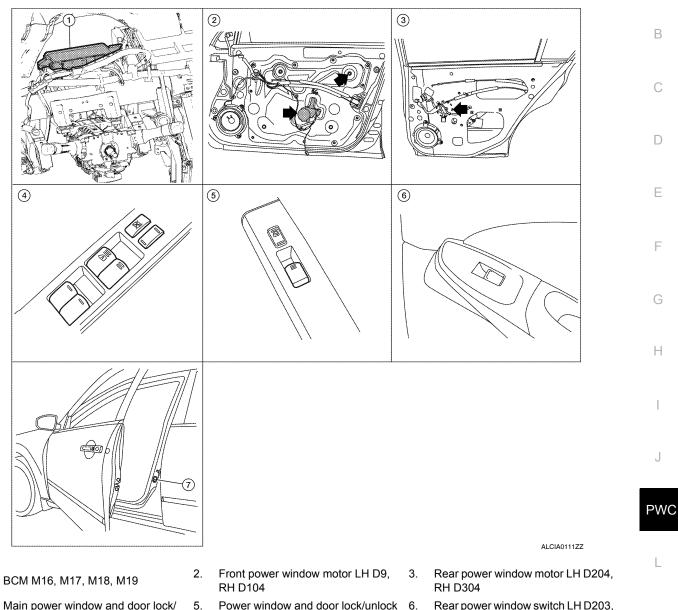
< FUNCTION DIAGNOSIS >

Component Parts Location

[LH ONLY ANTI-PINCH-SEDAN]

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

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 to power window switches.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.	
Rear power window switch	Controls rear power window motors LH and RH.	

POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

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-III FUNCTION

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

Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
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 austom aslastian 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	MUTI REMOTE ENT	×	×	×	
Exterior lamp	HEADLAMP	×	×	×	
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-III Function

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-91, "DTC Index"</u>. А

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INFOID:000000004498115

INFOID:000000004498116

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

INFOID:000000004498117

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 SI	JPPLY A	AND (GROUNE		
< COMPC							[LH ONLY ANTI-PIN	ICH-SEDAN]
COM	PONE	NT	DIAGN	OSIS				A
POWE	R SUPF	ΡLΥ	AND GRC	DUND C	IRCL	JIT		<i>2</i> x
POWEF	R WIND	WC	MAIN SWI	ТСН				В
POWER		DW N	AIN SWIT	CH : De	scripti	on		D
	es each po	wer v	vindow motor v window and do				low switch and makes win ated.	ndow move up/
POWER)W N	AIN SWIT	CH : Co	mpon	ent Func	tion Check	INFOID:000000004205009
Main Pow	er Windo	wΔn	d Door Lock/ı	Inlock Sw	vitch			
							WITCH FUNCTION	E
							lock/unlock switch operation	tion?
Is the insp			•				······	F
							upply and ground circuit a Diagnosis Procedure".	re OK.
			//AIN SWIT					NEO/D:000000000000000000000000000000000000
					ignosi			INFOID:000000004205010
				unlock Sw	itch Po	ower Supp	ly Circuit Check	
1. CHEC	K POWER	SUP	PLY CIRCUIT					Н
	gnition swi			or window	, and ,	door look/		
			en main pow ors (A and B) a			JOOI IOCK/	А В	H.S.
			ninal					J
Main nowe	+) r window and	-				ltage (V) opprox.)		
lock/u	inlock switch onnector		Terminal	()		φρισκ.)		PV
	D7 (A)		10	Ground	Batte	ery voltage		ALKIA0273ZZ
.	D8 (B)		19			,		L
	surement > GO TO 3		within the spe	cification?				
	> GO TO 2							Μ
2. CHEC	K HARNES	ss co	ONTINUITY					
2. Discoi			FF. main power w	indow and	door lo	ock/unlock	A B	N
switch 3. Check		, betw	veen BCM con	nector (A)	and m	ain power		
			/unlock switch				2,3	
		Main	power window and	Idoor				19 H.S.
BCM connector	Terminal		lock/unlock switch		ninal C	Continuity		_ € £) P
	3		D7 (B)	1	0			QFF
M16 (A)	2		D7 (B)		9	Yes	L	ALKIA0274ZZ
4. Check		betw	een BCM conr		-			
	,				-			

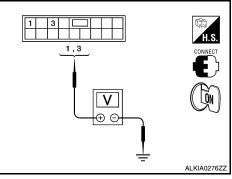
)

< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

BCM connector	Terminal		Continuity		
	3	Ground			
M16 (A)	2	Gioune	No		
Is the inspection result r					
YES >> GO TO 4	lonnar:				
NO >> Repair or re	place harness.				
3. CHECK GROUND (CIRCUIT				
 Turn ignition switch Disconnect main po Check continuity be unlock switch connect 	wer window an etween main p	ower window			H.S.
Main power window and doo lock switch connect		minal Gro	Continuity		
D8	-	17	Yes		
Is the inspection result r	ormal?			-	
			door lock/unlock and Installation".		ALKIA0275ZZ
After that, re	efer to PWC-10	8, "POWER	WINDOW MAIN	SWITCH : Special Repair Requ	uirement".
NO >> Repair or re					
4. CHECK BCM OUTF	UT SIGNAL				
1. Connect BCM.					
 Turn ignition switch Check voltage betw 		octor and ar	aund		Щ. Н.S.
3. Check voltage betw		ector and gr	Juliu.		CONNECT
Te	rminals			- 2, 3	E
(+)			Voltage (V)		(\tilde{n})
BCM connector	Terminal	(-)	(Approx.)		
	3				
M16	2	Ground	Battery voltage	<u> </u>	
Is the measurement value	ue within the sp	ecification?	I	-	ALKIA0262ZZ
YES >> Check main LH) GO TO		/ and door lo	ock/unlock switch	output signal (rear power wind	low switch
YES >> Check main RH) GO TO	power window 6			output signal (rear power wind	low switch
			oval and Installati		
		AND DOOR I	LOCK/UNLOCK	SWITCH OUTPUT SIGNAL (RE	AR POW-
ER WINDOW SWITCH	,				
1 Connect main nowe	r window and c	loor lock/unl	ock switch		

- 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.



< COMPONENT DIAGNOSIS >

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l			

Terr	minal			
(+)			Window	Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	(–)	condition	(Approx.)
	1	Ground	UP	Battery voltage
D7			DOWN	0
Di	3		UP	0
			DOWN	Battery voltage

Is the measurement value within the specification?

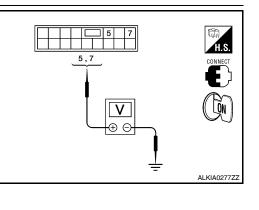
YES >> GO TO 7

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-186</u>, "<u>Removal and</u> E <u>Installation</u>". After that, refer to <u>PWC-108</u>, "<u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair</u> <u>Requirement</u>".

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POW- \models ER WINDOW SWITCH RH)

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

Tei	rminal			
(+)		Window	Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(–)	condition	(Approx.)
	7	Ground	UP	Battery voltage
D7			DOWN	0
07	5	Giouna	UP	0
	5		DOWN	Battery voltage



Is the measurement value within the specification?

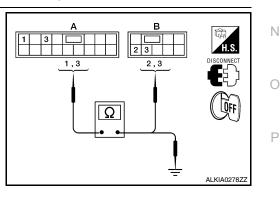
YES >> GO TO 8

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-186</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-108</u>, "<u>POWER WINDOW MAIN SWITCH</u>: <u>Special Repair</u> <u>Requirement</u>".

7. 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 window switch LH connector	Terminal	Continuity	
D7 (A)	1	D203 (B)	2	Yes	
	3	D203 (B)	3		



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

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< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

OFF

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Main power window and door lock/unlock switch con nector	- Terminal	Ground		Continuity	
D7 (A)	1 3			No	
Is the inspection result i	ormal?				
YES >> GO TO 9	eplace harness.		OWER V	VINDOW SV	VITCH RH)
 Turn ignition switch Disconnect main por rear power window Check continuity b unlock switch conn connector (B). 	ower window an switch RH. etween main p	ower wind	dow and	d door lock/	
Main power window and door lock/unlock Te switch connector	erminal Rear p Rear p window RH con	switch T	erminal	Continuity	
D7 (A)	5 D303	B (B)	3 2	Yes	<u>=</u>
4. Check continuity be	tween main po	wer windo	ow and c	loor lock/unl	ock switch connector and ground.
Main power window and doo unlock switch connected		-	round	Continuity	
D7 (A)	5		lound	No	
Is the inspection result i	normal?				
YES >> GO TO 9 NO >> Repair or re	eplace harness.				
9. CHECK MAIN POW	ER WINDOW	AND DOO	R LOCI	<td>SWITCH</td>	SWITCH
Check main power wind Refer to PWC-106, "PO				: Componen	t Inspection".

Is the inspection result normal?

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

>> Replace main power window and door lock/unlock switch. Refer to PWC-186, "Removal and NO Installation". After that, refer to PWC-108, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".

POWER WINDOW MAIN SWITCH : Component Inspection

INFOID:000000004205011

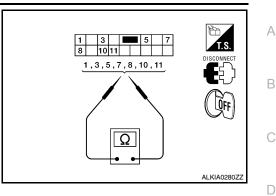
1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

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

Continuity		Terminal Main power window and doo switch condition		Terr
		Rear LH	1	10
	UP	Rear RH	7	10
		Front RH	8	10
		Rear LH	3	1
Yes	NEUTRAL	Rear RH	7	5
		Front RH	11	8
		Rear LH	3	10
	DOWN	Rear RH	5	10
		Front RH	11	10

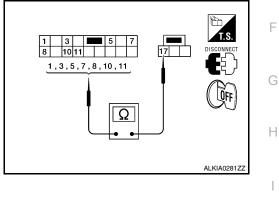


2. Check continuity between main power window and door lock/ unlock switch (power window lock switch) (Lock operation).

Terr	ninal	Main power window switch c	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	NEUTRAL	
8		Front RH		
11				
1		Rear LH		+
7		Rear RH	DOWN	
8		Front RH		

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

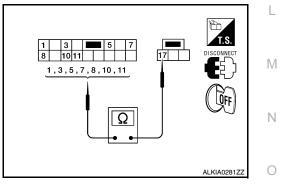
Terminal		Main power window and door lock/un- lock switch condition		Continuity
3	-	Rear LH	UP	Yes
5		Rear RH		
11		Front RH		
1		Rear LH	NEUTRAL	
3				
5	17	Rear RH		
7	17			
8	-	Front RH		
11				
1		Rear LH	DOWN	
7		Rear RH		
8		Front RH		



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[LH ONLY ANTI-PINCH-SEDAN]

< COMPONENT DIAGNOSIS >

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-186</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-108</u>, "<u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair</u> <u>Requirement</u>".

POWER WINDOW MAIN SWITCH : Special Repair Requirement

INFOID:000000004205012

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-95</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-95</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to <u>PWC-103, "POWER WINDOW MAIN SWITCH : Component Function Check"</u>. 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

Power Window And Door Lock/unlock Switch RH

1. CHECK POWER WINDOW MOTOR FUNCTION

Does front power window motor operate with power window and door lock/unlock switch RH operation? <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 <u>PWC-108</u>, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

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INFOID:000000004205013

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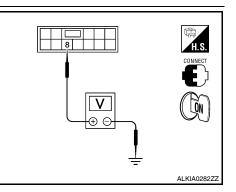
Power Window And Door Lock/Unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

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

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



Is the measurement value within the specification?

YES >> GO TO 3

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

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NO >> GO TO 2

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)	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
D7 (A)	11	D105 (B)	11	Yes
D7 (A)	8	D 103 (D)	12	103

 11
 Yes

 12
 Yes

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

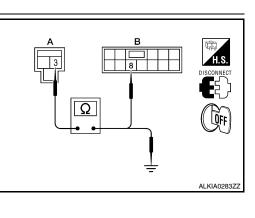
Main power window and door lock/ unlock switch connector	Terminal		Continuity
D7 (A)	8	Ground	No
D7 (A)	11		INU

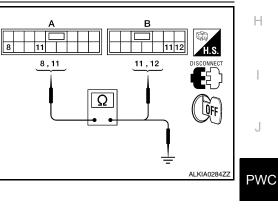
Is the inspection result normal?

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

NO >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY





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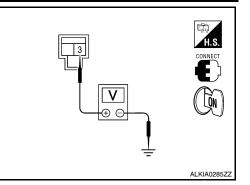
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

1. Connect BCM.

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

Т				
(+)		()	Voltage (V) (Approx.)	
BCM connector	Terminal			
D105	8	Ground	Battery voltage	



[LH ONLY ANTI-PINCH-SEDAN]

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Check power window and door lock/unlock switch RH.

Refer to <u>PWC-110</u>, "FRONT POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
- NO >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-186, "Removal and Instal-</u> lation".

FRONT POWER WINDOW SWITCH : Component Inspection

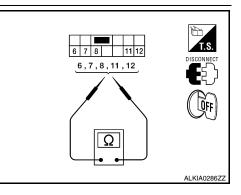
INFOID:000000004205016

COMPONENT INSPECTION

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

Check power window and door lock/unlock switch RH.

Terr	ninal	Power window switch condition	Continuity
8	6	UP	
12	7	UF	
12	7	NEUTRAL	Yes
6	11	NEUTRAL	165
8	7	DOWN	
6	11	DOWN	



Is the inspection result normal?

- YES >> Power window and door lock/unlock switch RH is OK.
- NO >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-186</u>, "<u>Removal and Instal-</u> lation".

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.

REAR POWER WINDOW SWITCH : Component Function Check

Rear Power Window Switch

1. CHECK REAR POWER WINDOW MOTOR FUNCTION

Does rear power window motor operate with rear power window switch operation? Is the inspection result normal?

PWC-110

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

< COMPONENT DIAGNOSIS >

- YES >> Rear power window switch power supply and ground circuit are OK.
- NO >> Refer to PWC-111, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

- 1. CHECK POWER SUPPLY CIRCUIT
- 1. Turn ignition switch ON.
- Check voltage between rear power window switch connector 2. and ground.

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

Is the measurement value within the specification?

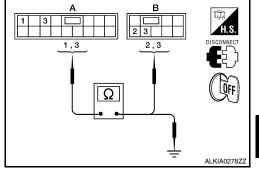
YES >> GO TO 2 (Rear power window switch LH)

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/ 3. 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



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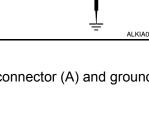
Θ

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

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

NO >> Repair or replace harness.

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





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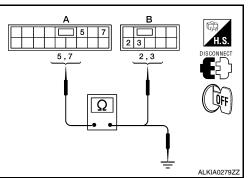
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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.
- 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	Yes
DT (A)	7	D303 (B)	2	163



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
07 (K)	7		140

Is the inspection result normal?

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-112, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

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

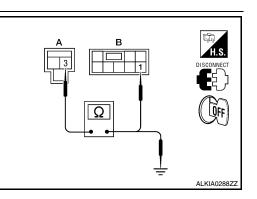
NO >> Replace rear power window switch. Refer to <u>PWC-186, "Removal and Installation"</u>.

REAR POWER WINDOW SWITCH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.



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PWC-112

[LH ONLY ANTI-PINCH-SEDAN]

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

	Ter	minal	Power window switch condition	Continuity	A
	1	5	UP		
	3	4	- Or		D
	3	4	NEUTRAL	Yes	В
	5	2	NEOTICE	165	
	1	4	DOWN		С
	5	2	Down		
<u>Is the inspection r</u> YES >> Rear NO >> Repla	power wind	low switch is	s OK. switch. Refer to <u>PWC-186, "Rem</u>	oval and Installation".	D
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					F
					G
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< COMPONENT 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 FRONT POWER WINDOW MOTOR LH CIRCUIT

Does front power window motor LH operate with the main power window and door lock/unlock switch? <u>Is the inspection result normal?</u>

YES >> Front power window motor LH is OK.

NO >> Refer to <u>PWC-114</u>, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

Front Power Window Motor LH Circuit Check

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

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

-	Terminal				
(+)			Main power win- dow and door	Voltage (V)	
Front power window motor LH connector	Terminal	(–)	lock/unlock switch condition	(Approx.)	
	2		UP	Battery voltage	
D9	2	Ground	DOWN	0	
D9 —	1	Ground	UP	0	
			DOWN	Battery voltage	

Is the measurement value within the specification?

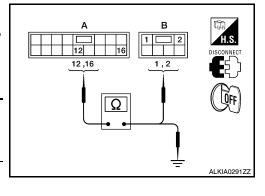
YES >> GO TO 2

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-186</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-115</u>, "<u>DRIVER SIDE</u> : <u>Special Repair Requirement</u>".

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. 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	
	16		2	Yes	
D7 (A)	12	D9 (B)	1	ies	



1,2

⊕⊝

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

PWC-114

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INFOID:000000004205022

INFOID:000000004205023

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< COMPONENT DIAGNOSIS >

Main power window and					A
door lock/unlock switch connector	Terminal	Ground	Continuity		
D7 (A)	16 12		No		В
Is the inspection resul	It normal?			•	
YES >> GO TO 3					С
•	replace harness				
3. CHECK FRONT F	OWER WINDO	W MOTOR LH			D
Check front power wir Refer to <u>PWC-115</u> , "D		Component Inc	naction"		
Is the inspection resul		2011ponent ins	<u>pection</u> .		Е
	ermittent incider	nt. Refer to GI-	42. "Intermittent	t Incident".	L
NO >> Replace t	front power wind	dow motor LH	. Refer to GW-1	19, "Removal and Installati	<u>on"</u> . After that,
refer to <u>P</u>	<u>WC-115, "DRIVI</u>	<u>ER SIDE : Spe</u>	<u>cial Repair Req</u>	<u>uirement"</u> .	F
DRIVER SIDE : 0	Component I	nspection			INFOID:000000004205024
					G
					G
1.CHECK FRONT P	OWER WINDO	W MOTOR LH			
Does motor operate b	by connecting the	e battery voltag	ge directly to pov	wer window motor?	Н
	Te	rminal			
	(+)	(-)		Motor condition	1
	1	2		DOWN	
	2	1		UP	
Is the inspection resul	It normal?				J
	ver window moto				
	front power wine WC-115, "DRIVI			<u>19, "Removal and Installati</u>	on". After that, PV
_		•		<u>uirement</u> .	
DRIVER SIDE : S	Special Repa	ir Requiren	nent		INFOID:000000004205025
1. PERFORM INITIA	LIZATION PRO	CEDURE			L
Perform initialization p	procedure				
	DDITIONAL SE	RVICE WHEN	REMOVING BA	ATTERY NEGATIVE TERM	IINAL : Special M
Is the inspection resul	<u>lt normal?</u>				
YES >> GO TO 2					Ν
•	ermittent incider		42, "Intermittent	<u>í Incident"</u> .	
2. CHECK ANTI-PIN	ICH OPERATIO	N			
	DDITIONAL SE	RVICE WHEN	REMOVING BA	ATTERY NEGATIVE TERM	O IINAL : Special
Repair Requirement". Is the inspection result					Р
YES >> Inspection					
	<u>PWC-114, "DRI∖</u>	<u> /ER SIDE : Co</u>	mponent Function	<u>on Check"</u> .	
PASSENGER S	IDE				

PASSENGER SIDE : Description

< COMPONENT DIAGNOSIS >

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 FRONT POWER WINDOW MOTOR RH CIRCIUT

Does front power window motor RH operate with main power window and door lock/unlock switch or power window and door lock/unlock switch?

Is the inspection result normal?

YES >> Front power window motor RH is OK.

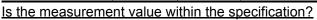
NO >> Refer to <u>PWC-116, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

Front Power Window Motor RH Circuit Check

- 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH OUTPUT SIGNAL
- 1. Disconnect front power window motor RH.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor RH connector and ground.

Те	rminal	E		
(+)			Front power window motor	Voltage (V)
Front power window motor RH connector	Terminal	(-)	RH condition	(Approx.)
D104	1	Ground	UP	Battery voltage
			DOWN	0
	2		UP	0
			DOWN	Battery voltage

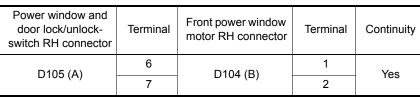


YES >> GO TO 2

NO >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-186</u>, "<u>Removal and Instal-</u> lation".

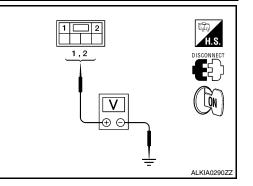
2. CHECK HARNESS CONTINUITY

- 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).



A B 67 6,7 1,2 CFF A A B LKIA0292ZZ

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



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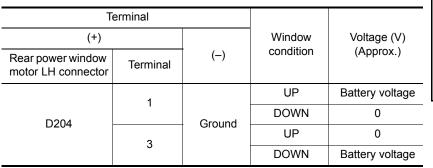
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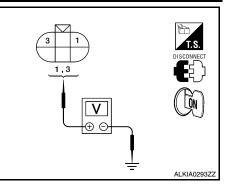
< COMPONENT DIAGNOSIS >

Power window and door lock/ unlock switch RH connector	Terminal		Continuity	-	A
D105 (A)	6 7	Ground	No	-	В
Is the inspection result no	ormal?			-	
YES >> GO TO 3 NO >> Repair or rep	lace harness.				С
3. CHECK FRONT POW		V MOTOR RE	1		
Check front power window Refer to <u>PWC-117</u> , "PASS		E : Compone	ent Inspection".		D
Is the inspection result no					_
YES >> Check interm NO >> Replace from				<u>Incident"</u> . , "Removal and Installation".	E
PASSENGER SIDE	: Compon	ent Inspec	ction	INFOIL	D:000000004205029
COMPONENT INSPEC	TION				
					G
COMPONENT INSPEC	-				
1. CHECK FRONT POW					н
Does motor operate by co	onnecting the	battery voltag	ge directly to from	nt power window motor RH?	
	Terr	minal		NA-1	
	(+)	(-)		Motor condition	1
	1	2		DOWN	
	2	1		UP	J
Is the inspection result no	ormal?				
YES >> Power windo NO >> Replace from REAR LH			Refer to <u>GW-19</u>	, "Removal and Installation".	PW
REAR LH : Descript	ion			INFOIL	D:000000004205030
		ving the signa	al from main pow	ver window and door lock/unlocl	k switch or
rear power window switc		.			M
REAR LH : Compor	ient Functi	on Check		INFOIL	D:0000000004205031
1. CHECK REAR POWE	ER WINDOW	MOTOR LH	CIRCUIT		N
Does rear power window power window switch LH?		perate with r	main power win	dow and door lock/unlock swit	ch or rear
Is the inspection result no	ormal?				0
YES >> Rear power w NO >> Refer to <u>PWC</u>			sis Procedure"		
REAR LH : Diagnos		-		INFOIL	D:000000004205032
Rear Power Window M	otor LH Circ	uit Check			
1. CHECK REAR POWE	ER WINDOW	SWITCH LH	OUTPUT SIGN	AL	

< COMPONENT DIAGNOSIS >

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





[LH ONLY ANTI-PINCH-SEDAN]

Is the measurement value within the specification?

YES >> GO TO 2

NO >> Check rear power window switch LH. Refer to <u>PWC-118</u>, "REAR LH : Component Inspection".

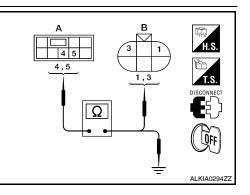
2. CHECK HARNESS CONTINUITY

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	5204 (B)	3	100



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	1		

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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

Check rear power window motor LH. Refer to <u>PWC-118, "REAR LH : Component Inspection"</u>.

Is the inspection result normal?

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

NO >> Replace rear power window motor LH. Refer to <u>GW-14, "Removal and Installation"</u>.

REAR LH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

Does motor operate by connecting the battery voltage directly to rear power window motor LH?

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< COMPONENT DIAGNOSIS >

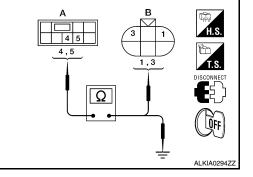
[LH ONLY ANTI-PINCH-SEDAN]

		Term	ninal		Motor condition	
	(+)	()			
	3		1		DOWN	
-	1		3		UP	
s the inspection re	esult norma	<u> ?</u>				
	oower wind ce rear pow			efer to <u>GW-14, "</u>	Removal and Installation	<u>on"</u> .
REAR RH : De	escription	1				INFOID:00000000420503
Door glass moves rear power windov			ing the signal	from main powe	er window and door lock	<pre>x/unlock switch o</pre>
REAR RH : Co	omponen	t Functio	on Check			INFOID:00000000420503
1. CHECK POWE						
Does rear power v switch RH?	vindow mot	or KH ope	erate with ope	rating power wil	ndow main switch or re	ar power window
is the inspection re	esult norma	<u> ?</u>				
	window m					
			<u>RH : Diagnosi</u>	<u>s Procedure"</u> .		
REAR RH : Di	agnosis I	Procedu	re			INFOID:00000000420503
Rear Power Wind	dow Motor		uit Chock			
1. CHECK REAR			SWITCH RH C	OUTPUT SIGNA	L	
1. Disconnect re	ar power w		SWITCH RH C	OUTPUT SIGNA	L	R.
 Disconnect re Turn ignition s Check voltage 	ar power wi witch ON.	indow mot	SWITCH RH C or RH.	OUTPUT SIGNA		T.S.
 Disconnect real Turn ignition s 	ar power wi witch ON.	indow mot	SWITCH RH C or RH.			T.S. DISCONNECT
 Disconnect re. Turn ignition s Check voltage and ground. 	ar power wi witch ON. e between re	indow mot	SWITCH RH C or RH.			
 Disconnect real Turn ignition s Check voltage and ground. 	ar power wi witch ON.	indow mot	SWITCH RH C or RH. window motor Rear power			
 Disconnect re. Turn ignition s Check voltage and ground. 	ar power wi witch ON. e between re erminal	indow mot	SWITCH RH C or RH. window motor	r RH connector		
 Disconnect re. Turn ignition s Check voltage and ground. 	ar power wi witch ON. e between re	indow mot ear power	SWITCH RH C or RH. window motor Rear power window switch	r RH connector		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window	ar power wi witch ON. between re erminal Terminal	indow mot ear power	SWITCH RH C or RH. window motor Rear power window switch	r RH connector		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window	ar power wi witch ON. e between re erminal	indow mot ear power	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN	r RH connector Voltage (V) (Approx.) Battery voltage 0		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window motor RH connector	ar power wi witch ON. between re erminal Terminal	indow mot ear power (–)	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN UP	Voltage (V) (Approx.) Battery voltage 0 0		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window motor RH connector	ar power wi witch ON. between re erminal Terminal	indow mot ear power (–)	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN	r RH connector Voltage (V) (Approx.) Battery voltage 0		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window motor RH connector	ar power wi witch ON. between re erminal Terminal 1 3	indow mot ear power (–) Ground	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN UP DOWN	Voltage (V) (Approx.) Battery voltage 0 0		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window motor RH connector D304 the measureme YES >> GO T(ar power wi witch ON. between re erminal Terminal 1 3 nt value wit O 2	indow mot ear power (–) Ground <u>hin the sp</u>	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN UP DOWN ecification?	r RH connector Voltage (V) (Approx.) Battery voltage 0 0 Battery voltage		
 Disconnect re. Turn ignition s Check voltage and ground. Te (+) Rear power window motor RH connector D304 the measureme YES >> GO T(ar power wi witch ON. between re erminal Terminal 1 3 nt value wit O 2 c rear powe	indow mot ear power (-) Ground <u>hin the sp</u> r window s	SWITCH RH C or RH. window motor Rear power window switch RH condition UP DOWN UP DOWN ecification?	r RH connector Voltage (V) (Approx.) Battery voltage 0 0 Battery voltage		

< COMPONENT DIAGNOSIS >

- 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	D304 (B)	3	res



[LH ONLY ANTI-PINCH-SEDAN]

 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
D303 (A)	4		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-120, "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-14, "Removal and Installation"</u>.

REAR RH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Does motor operate by connecting the battery voltage directly to rear power window motor RH?

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

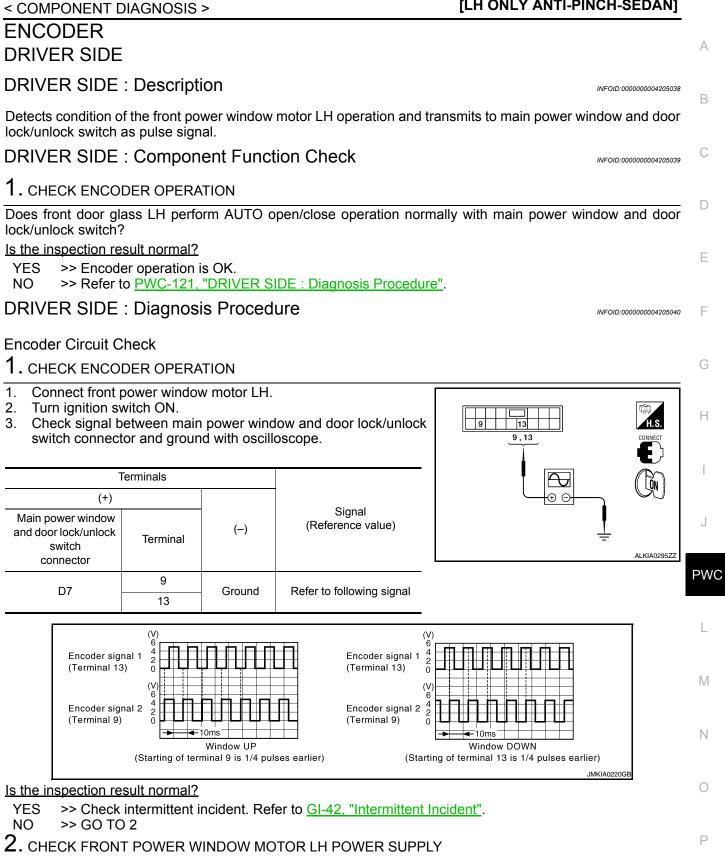
Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-14, "Removal and Installation"</u>.

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< COMPONENT DIAGNOSIS >

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

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

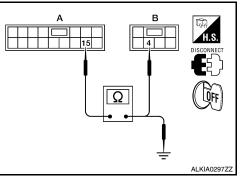
Is the measurement value within the specification?

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-186, "Removal and Installation". After that, refer to PWC-123, "DRIVER SIDE : Special Repair Requirement". 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.

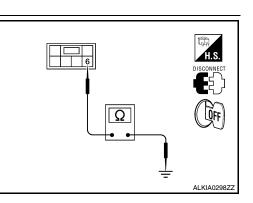
Front power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

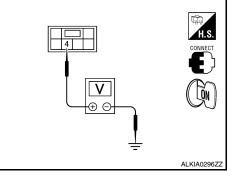
Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2





[LH ONLY ANTI-PINCH-SEDAN]

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< COMPONENT DIAGNOSIS >

1.

- Disconnect main power window and door lock/unlock switch.
- 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 window motor LH connector	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-186, "Removal and Installation". After that, refer to PWC-123, "DRIVER SIDE : Special Repair Requirement".
- NO >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

- Disconnect main power window and door lock/unlock switch. 1.
- 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 win- dow motor LH connector	Terminal	Continuity
D7 (A)	9	D9 (B)	3	Yes
D7 (A)	13	D9 (B)	5	165

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	Ground	Continuity	
	9		No	
D7 (A)	13		INO	

Is the inspection result normal?

YES	>> Replace front power window motor LH. Refer to <u>GW-19, "Removal and Installation"</u> . After that,	L
	refer to PWC-123, "DRIVER SIDE : Special Repair Requirement".	
	>> Denair or replace harpese	

NO >> Repair or replace harness.

DRIVER SIDE : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

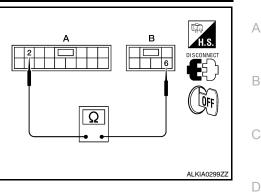
Perform initialization procedure. Refer to PWC-95, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement". Ο

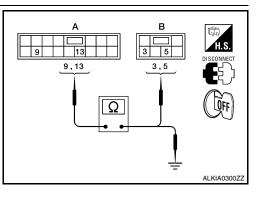
Is the inspection result normal?

YES >> Inspection end.

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

[LH ONLY ANTI-PINCH-SEDAN]





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< COMPONENT 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-III. Refer to <u>BCS-34</u>, "RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)".

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

Is the inspection result normal?

YES >> Front door switch circuit is OK.

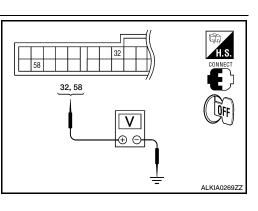
NO >> Refer to PWC-124, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

Terminals					
(+)		Door condition		Voltage (V)	
BCM connector	Terminal	(-)			(Approx.)
	32 M18 Gro		Front door	OPEN	0
M10		Ground	RH	CLOSE	Battery voltage
IVITO			Ground	Front door	OPEN
	50		LH	CLOSE	Battery voltage

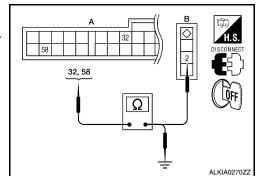


Is the measurement value within the specification?

- YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>. NO >> GO TO 2
- 2. CHECK HARNESS CONTINUITY
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and front door switch.
- Check continuity between BCM connector (A) and front door switch connector (B).

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18 (A)	32	RH: B108 (B)	2	Yes
M18 (A)	58	LH: B8 (B)	- 2	165

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



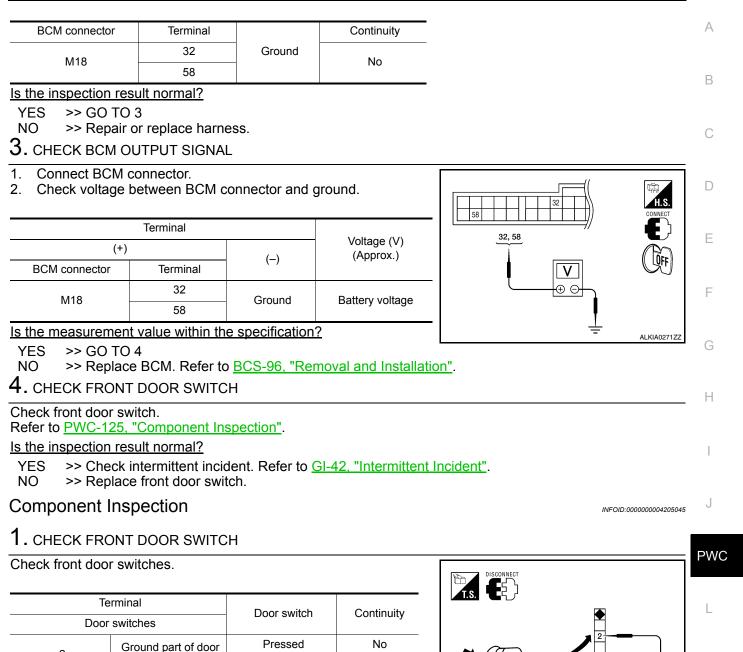
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[LH ONLY ANTI-PINCH-SEDAN]

DOOR SWITCH

< COMPONENT DIAGNOSIS >



Yes

Released

Is the inspection result normal?

2

YES >> Front door switch is OK.

NO >> Replace front door switch.

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< COMPONENT 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-186</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-126</u>, "<u>Special Repair Requirement</u>".
- NO >> Check condition of harness and connector.

Special Repair Requirement

INFOID:000000004205048

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-95</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

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

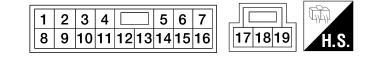
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ECU DIAGNOSIS POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

	nal No. color)	Description		Condition	Voltage [V]	Н
+	-	Signal name	Input/ Output	Condition	(Approx.)	I
1 (G/B)	Ground	Rear power window motor LH UP signal			Battery voltage	J
2 (W/B)	Ground	Encoder ground	_	_	0	
3 (G/O)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage	PV
5 (G/R)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage	L
7 (G/W)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage	M
8 (R/B)	11	Front power window motor RH UP signal	Output	When front RH switch in power window main switch is operated UP.	Battery voltage	Ν
9 (G/W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	O

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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[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
(L/W)				When driver side or pas- senger side door is opened during retained power op- eration.	0
11 (R/W)	8	Front power window motor RH DOWN signal	Output	When front RH switch in power window main switch is operated DOWN.	Battery voltage
12 (L/B)	16	Front power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage
13 (G/Y)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA00
15 (G/R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	10
16 (L/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 (R/Y)	Ground	Battery power supply	Input	_	Battery voltage

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

Wiring Diagram

[LH ONLY ANTI-PINCH-SEDAN]

А

В

С

D

Ε

F

Н

J

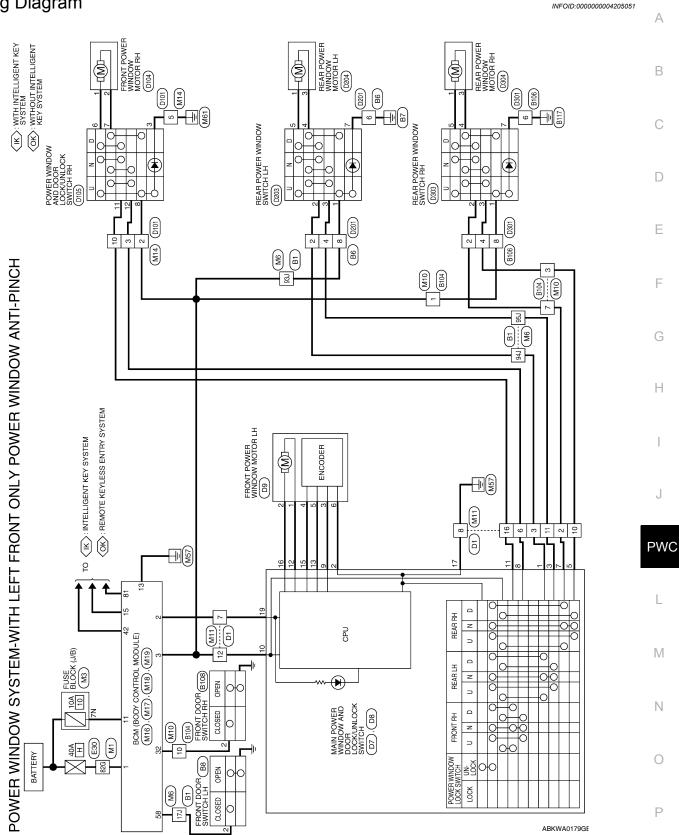
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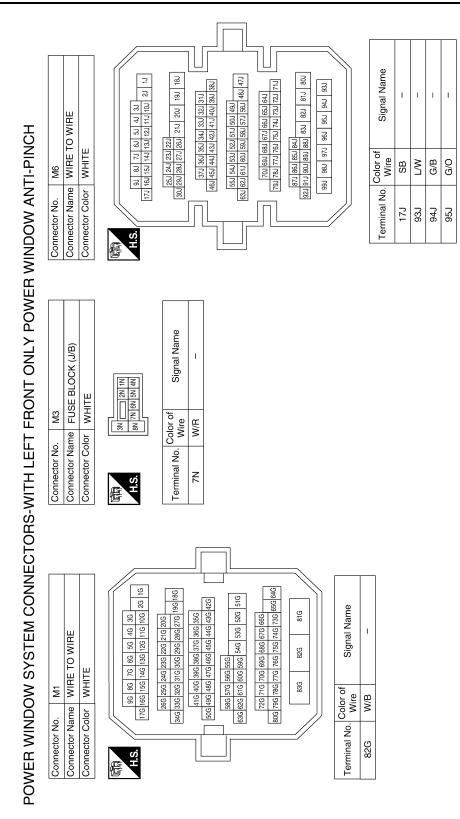
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< ECU DIAGNOSIS >

POWER WINDOW MAIN SWITCH





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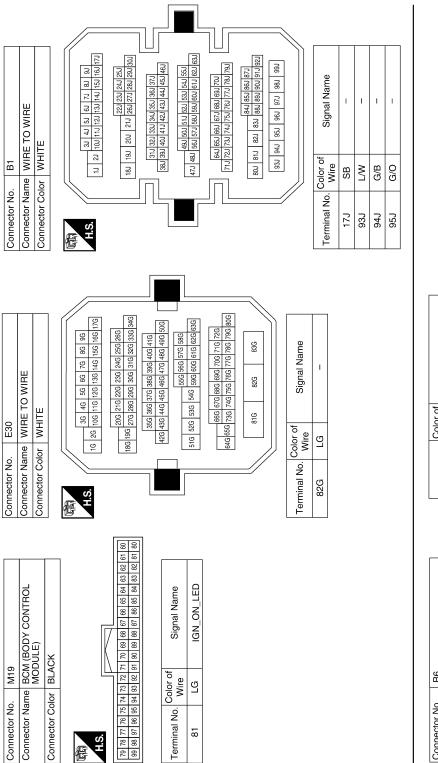
	21 20
WIHE O WIHE NHITE 12 12 13 1 2 <t< th=""><th>FEN</th></t<>	FEN
	Action Color GH 8 97 36 33 33 33 33 33 33 33 33 33 33 33 33 32 37 35 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 54 55 7 10 <td< td=""></td<>
Connector Name WITE OWNE Connector Color WHTE 4 5 6 7 Terminal No. Write Signal Name - - - - 2 G/W - </td <td>rr WHITE</td>	rr WHITE
Image WITE lor WITE Color of 011112 G/W G/W B 011112 L/W B/M B M17 M17 M17	All All
Connector Name Connector Color Terminal No. Color 3 6 7 7 7 8 8 8 8 6 7 11 10 6 8 7 11 10 6 8 7 7 7 7 7 7 7 7 8 8 7 10 10 0 0 0 11 10 0 0 0 0 10 10 10 10 1	Connector Color Terminal No. Co 13 15
MI6 MM6 MM6 MM6 MM6 MM6 MM6 MM6	CK Signal Name BAT_POWER_F/L P/W_POWER_SUPPL Y_PERM POWER_SUPPLY (RAP)
Connector National No. Connector Colorector National No. Connector No. Connector No. Connector No.	Connector Color HLS 3 L L V V V Co

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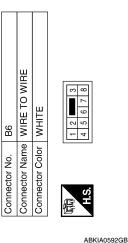
POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >



Terminal No.Color of
WireSignal Name2G/B-4G/O-6B-8L/W-



PWC-132

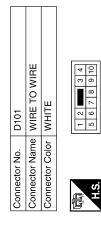
[LH ONLY ANTI-PINCH-SEDAN]

9	WIRE TO WIRE	ITE	1 2 1 4 5 6 7	Signal Name	I	I	I	1			TCH	ITE	1 2 3 4 1 5 6 7 8 9 10 11 12 13 14 15 16	Signal Name	RL_UP	ENCODER_GND	RL_DOWN	RR_DOWN	RR_UP	AS_UP	ENCODER_SIG2	IGN	AS_DOWN	DR_DOWN	ENCODER_SIG1	ENCODER_POWER	DR_UP	
		lor WHITE	1 2 4 5	Color of Wire	G/B	GR	B/Υ	Γ		MAI	SWI	lor WHITE	1 2 8 9	Color of Wire	G/B	W/B	G/O	G/R	G/W	R/B	G/W	LN	R/W	ĽВ	G/Y	G/R	L/R	
Connector No.	Connector Name	Connector Color	国 H.S.	Terminal No.	D	4	9	80	Connector No.	Connector Name		Connector Color	日 H.S.	Terminal No.	-	2	ю	ъ	7	8	თ	10	11	12	13	15	16	
				ле										me														
5	WIRE TO WIRE	BROWN	1 2 3 4 5 6 7 8 9 10 11 12	Signal Name	I	I	I	I		E TO WIRE	Щ	•	12 11 10 9 8	Signal Name	1	-	I	I	1	I	1	I	I	I				
. B104	me WIR	_	1 2 3 6 7 8	Color of Wire	LW	G/R	G/B	R/B	5	me WIR	lor WHITE	4	16 15 14 1	Color of Wire	G/W	G/B	R/B	Rγ	в	G/R	G/O	۲ ۲	>	ММ				
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	FRONT DOOR SWITCH LH				Signal Name					FRONT DOOR SWITCH RH					Signal Name													
		WHITE		8	Color of		SB		B108	FRONT	WHITE	K	>- ~ ∞		Color of	Wire												
tor No.	Connector Name	Connector Color								e																		
Connector No.	Conneci	Conneci	园 H.S.		Terminal No		N		Connector No.	Connect	Connector Color	肥	H.S.		Terminal No.	C	N											
- 1																												

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]



Signal Name	-	I	Η	-
Color of Wire	L/W	R/B	В	R/W
Terminal No. Color of Wire	2	e	2	10

Signal Name	IGN	I	I	DOWN	UP	
Color of Wire	L/W	I	I	R/W	R/B	
Terminal No. Color of Wire	8	6	10	11	12	

Connector No.	60	
Connector Name		FRONT POWER WINDOW MOTOR LH
Connector Color WHITE	lor WH	ITE
品.S.		3 1
Terminal No. Color of Wire	Color of Wire	Signal Name
-	L/B	I
2	L/R	I
e.	G/W	1

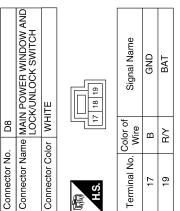
Signal Name	I	I	I	I	-	I	
Color of Wire	L/B	L/R	G/W	G/R	G/Y	W/B	
Terminal No. Color of Wire	-	2	£	4	9	9	

Connector No.	D105	
Connector Name	POWER WINDOW AND Connector Name DOOR LOCK/UNLOCK SWITCH RH	
Connector Color WHITE	WHITE	
日 日 日	1 2 3 4 5 6 7 8 9 10 11 12	

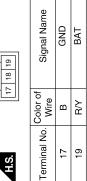
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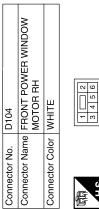
H.S.

Signal Name	LOCK	NNLOCK	GND	I	I	DOWN	UP
Color of Wire	GR	GR/R	В	I	I	L/B	L/R
Terminal No. Wire	-	2	3	4	5	9	7



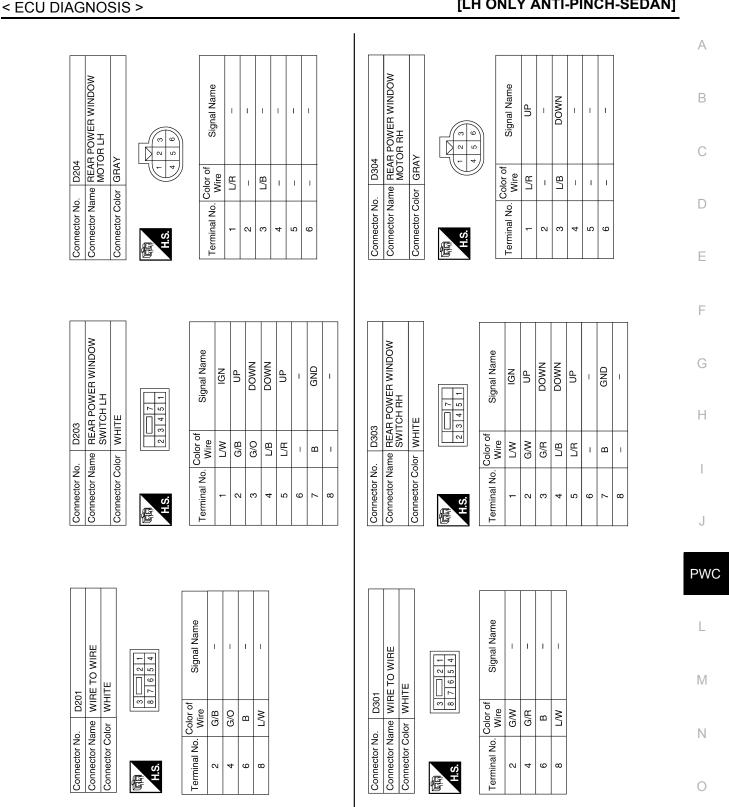
E





Signal Name	I	I	-	I	Ι	I
Color of Wire	L/B	L/R	Ι	I	Ι	I
Terminal No. Color of Wire	-	2	3	4	5	9

ABKIA0661GB



Fail Safe

Ρ INFOID:000000004205052

ABKIA0662GB

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.

POWER WINDOW MAIN SWITCH

[LH ONLY ANTI-PINCH-SEDAN]

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

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).

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 >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status		
FR WIPER HI	Other than front wiper switch HI	OFF	С	
	Front wiper switch HI	ON	•	
FR WIPER LOW	Other than front wiper switch LO	OFF	Г	
FR WIPER LOW	Front wiper switch LO	ON	L	
	Front washer switch OFF	OFF	•	
FR WASHER SW	Front washer switch ON	ON	E	
	Other than front wiper switch INT	OFF	-	
FR WIPER INT	Front wiper switch INT	ON	F	
	Front wiper is not in STOP position	OFF		
FR WIPER STOP	Front wiper is in STOP position	ON	-	
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position	G	
	Other than turn signal switch RH	OFF	-	
TURN SIGNAL R	Turn signal switch RH	ON		
	Other than turn signal switch LH	OFF	-	
TURN SIGNAL L	Turn signal switch LH	ON		
	Other than lighting switch 1ST and 2ND	OFF		
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON		
	Other than lighting switch HI	OFF		
HI BEAM SW	Lighting switch HI	ON	J	
	Other than lighting switch 2ND	OFF		
HEAD LAMP SW 1	Lighting switch 2ND	ON	P٧	
	Other than lighting switch 2ND	OFF		
HEAD LAMP SW 2	Lighting switch 2ND	ON	-	
	Other than lighting switch PASS	OFF	L	
PASSING SW	Lighting switch PASS	ON		
	Other than lighting switch AUTO	OFF		
AUTO LIGHT SW	Lighting switch AUTO	ON	N	
	Front fog lamp switch OFF	OFF		
FR FOG SW	Front fog lamp switch ON	ON	N	
	Driver door closed	OFF	-	
DOOR SW-DR	Driver door opened	ON	-	
	Passenger door closed	OFF	С	
DOOR SW-AS	Passenger door opened	ON	-	
	Rear door RH closed	OFF	F	
DOOR SW-RR	Rear door RH opened	ON		
	Rear door LH closed	OFF		
DOOR SW-RL	Rear door LH opened	ON		
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF	-	

INFOID:000000004498118

А

В

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

CDL LOCK SW Other than power door lock switch LOCK OFF CDL UNLOCK SW Other than power door lock switch LOCK ON CDL UNLOCK SW Other than power door lock switch UNLOCK ON KEY CYL LK-SW Other than driver door key cylinder UOK position OFF Driver door key cylinder UOK position OFF Driver door key cylinder UNLOCK position OFF Mark CY LUN-SW Other than driver door key cylinder UNLOCK position OFF MARTE This Item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is pressed ON REAR DEF SW When near window defoger switch ofF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener door lintelligent Key is pressed ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When UNLOCK	Monitor Item	Condition	Value/Status
Power door lock switch LOCK ON CDL UNLOCK SW Other than power door lock switch UNLOCK OFF KEY CYL LK-SW Other than driver door key cylinder LOCK position OFF Driver door key cylinder LOCK position ON ON KEY CYL LK-SW Other than driver door key cylinder LOCK position ON Mer door key cylinder UNLOCK position ON ON KEY CYL LW-SW Other than driver door key cylinder UNLOCK position ON KEY CYL SW-TR This item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is pressed ON REAR DEF SW When hazard switch of pressed ON Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener and for gener switch is turned ON ON ON TRNKHAT MNTR Trunk lid opener switch is turned ON ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF OFF When UNLOCK button of Intelligent Key is not pressed ON ON ON ON		Other than power door lock switch LOCK	OFF
CDL UNLOCK SW Power door lock switch UNLOCK ON KEY CYL LK-SW Other than driver door key cylinder LOCK position OFF Driver door key cylinder UNLOCK position ON KEY CYL UN-SW Other than driver door key cylinder UNLOCK position OFF Driver door key cylinder UNLOCK position ON ON KEY CYL UN-SW Other than driver door key cylinder UNLOCK position ON MOTE: This then is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is not pressed ON REAR DEF SW When near window defogger switch is pressed ON Truth IId opener cancel switch OFF OFF OFF Truth II dopener cancel switch OFF OFF When the Truth II dopener switch OFF Truth II dopener switch OFF OFF When LOCK button of Intelligent Key is not pressed OFF When LOCK button of Intelligent Key is pressed ON ON Montectte Switch Swi	CDL LOCK SW	Power door lock switch LOCK	ON
Power door lock switch UNLOCK ON KEY CYL LK-SW Diver door key oplinder LOCK position OFF KEY CYL UN-SW Other than driver door key oplinder UNLOCK position OFF Mere Y CYL UN-SW Other than driver door key oplinder UNLOCK position ON KEY CYL UN-SW Other than driver door key oplinder UNLOCK position ON KEY CYL SW-TR NOTE: True door key oplinder UNLOCK position ON HAZARD SW When hazard switch is pressed ON REAR DEF SW When rear window defogger switch is pressed ON TR CANCEL SW Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener and switch OFF OFF OFF Trunk lid opener and switch OFF OFF OFF Trunk lid opener door of Intelligent Key is not pressed OFF ON RKE-LOCK When LOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN bu		Other than power door lock switch UNLOCK	OFF
KEY CYL LK-SW Driver door key cylinder UNLOCK position ON KEY CYL UN-SW Other than driver door key cylinder UNLOCK position OFF Driver door key cylinder UNLOCK position ON ON KEY CYL SW-TR NOTE: This item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is not pressed ON REAR DEF SW When near window defogger switch is pressed ON TR CANCEL SW Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener cancel switch OFF OFF OFF Trunk lid opener down of Intelligent Key is not pressed ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed ON OFF RKE-LOCK When UNLOCK button of Intelligent Key is pressed ON ON RKE-LOCK When TRUNK OPEN button of Intelligent Key is pressed ON OFF	CDL UNLOCK SW	Power door lock switch UNLOCK	ON
Driver door key cylinder LOCK position ON KEY CYL UN-SW Other than driver door key cylinder UNLOCK position OFF KEY CYL SW-TR NOTE: This item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is not pressed OFF TR CANCEL SW Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch ON ON TR CANCEL SW Trunk lid opener cancel switch ON ON TRNKDHAT MNTR Trunk lid opener switch OFF OFF TRNKHAT MNTR Trunk lid opener switch Is pressed OFF TRNKHAT MNTR Trunk lid opener switch is pressed OFF TRNKHAT MNTR Trunk lid opener switch Is pressed OFF TRNKHAT MNTR When LOCK button of Intelligent Key is pressed ON RKE-UNLOCK When NULOCK button of Intelligent Key is pressed OFF When TRUNK OPEN button of Intelligent Key is pressed ON ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON		Other than driver door key cylinder LOCK position	OFF
KEY CYL UN-SW Driver door key cylinder UNLOCK position ON KEY CYL SW-TR This item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is not pressed ON REAR DEF SW When near window defogger switch is pressed ON TR CANCEL SW Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch ON ON ON TR/BD OPEN SW Trunk lid opener switch OFF OFF Trunk lid opener switch OFF OFF Trunk lid opener switch OFF TRINKHAT MNTR Trunk lid opener switch OFF OFF Trunk lid opener switch OFF OFF Trunk lid opener Trunk lid opener switch of Intelligent Key is not pressed ON Memointelligent Key is not pressed RKE-LOCK When LOCK button of Intelligent Key is not pressed ON Memointelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed ON Memointelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed ON Memointelligent Key is not pressed ON RKE-	KET GTLLK-SW	Driver door key cylinder LOCK position	ON
Driver door key cylinder UNLOCK position ON KEY CYL SW-TR This item is displayed, but cannot be monitored. OFF HAZARD SW When hazard switch is pressed OFF HAZARD SW When hazard switch is pressed ON REAR DEF SW When rear window defogger switch is pressed ON TR CANCEL SW Trunk lid opener cancel switch OFF OFF Trunk lid opener switch OFF OFF OFF Trunk lid opener switch OFF OFF OFF Trunk lid opener switch OFF OFF OFF Trunk lid opener switch is turned ON ON ON TRICHLAT MNTR Trunk lid opener switch is turned ON ON TRIKHAT MNTR Trunk lid opener switch is pressed OFF When LOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When TRUNK OPEN button of Intelligent Key is not pressed ON RKE-TRIBD When UNLOCK button of Intelligent Key is not pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON RKE-PANIC		Other than driver door key cylinder UNLOCK position	OFF
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REAR DEF SW When near window defogger switch is pressed ON REAR DEF SW When rear window defogger switch is pressed ON Trunk lid opener cancel switch OFF OFF Trunk lid opener switch OFF OFF TR/BD OPEN SW Trunk lid opener switch OFF OFF TRIND OPEN SW Trunk lid opener switch OFF OFF TRINK/HAT MNTR Trunk lid opener ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When LOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-LOCK When UNLOCK button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed ON RKE-PANIC When PANIC button of Intelligent Key is not pressed ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held OFF When DANC DUCK button of Intelligent Key is not pressed and held OFF ON RKE-PANIC When UNLOCK button of Intelligent K		When hazard switch is not pressed	OFF
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TR CANCEL SW Trunk lid opener cancel switch ON ON TR/BD OPEN SW Trunk lid opener switch OFF OFF TRNK/HAT MNTR Trunk lid opener switch is turned ON ON TRNK/HAT MNTR Trunk lid opener switch is turned ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON RKE-PW OPEN When UNLOCK button of Intelligent Key is not pressed of OFF When UNLOCK button of Intelligent Key is not pressed and held ON RKE-MODE CHG When UNLOCK button of Intelligent Key is not pressed and held ON OPTICAL SENSOR When outside of the vehicle is bright Close to 5 V When driver door request switch is not pressed OFF When driver door request switch is not pressed OFF When driver door request switch is not pressed OFF When driver door request switch i	REAR DEF SW	When rear window defogger switch is pressed	ON
Trunk lid opener cancel switch ON ON TR/BD OPEN SW Trunk lid opener switch OFF OFF While the trunk lid opener switch is turned ON ON TRNK/HAT MNTR Trunk lid opened OFF Trunk lid opened ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed ON ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed ON RKE-PANIC When UNLOCK button of Intelligent Key is pressed ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is pressed and held ON OPTICAL SENSOR W		Trunk lid opener cancel switch OFF	OFF
TR/BD OPEN SW While the trunk lid opener switch is turned ON ON TRNK/HAT MNTR Trunk lid closed OFF Trunk lid opened ON ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is pressed ON ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed OFF When VANC DEN button of Intelligent Key is not pressed ON ON RKE-PANIC When PANIC button of Intelligent Key is not pressed ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held OFF When UNLOCK button of Intelligent Key is not pressed and held ON OFF RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held OFF When UNLOCK button of Intelligent Key is not pressed and held OFF ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held OFF When LOCK/UNLOCK button of Intelligent Key is not pressed and	TR CANCEL SW	Trunk lid opener cancel switch ON	ON
While the trunk lid opener switch is turned ON ON TRNK/HAT MNTR Trunk lid obsed OFF Trunk lid opened OFF ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When LOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed OFF When PANIC button of Intelligent Key is not pressed ON RKE-PANIC When PANIC button of Intelligent Key is not pressed ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON RKE-PANIC When UNLOCK button of Intelligent Key is not pressed and held ON		Trunk lid opener switch OFF	OFF
TRNK/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 prossed ON RKE-UNLOCK When UNLOCK 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 not pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is not pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is not pressed OFF When VNLOCK button of Intelligent Key is not pressed ON ON RKE-PW OPEN When UNLOCK button of Intelligent Key is not pressed and held ON When UNLOCK button of Intelligent Key is not pressed and held ON ON RKE-MODE CHG When outside of the vehicle is bright Close to 5 V OPTICAL SENSOR 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 not pressed ON <t< td=""><td>TR/DD OPEN SW</td><td>While the trunk lid opener switch is turned ON</td><td>ON</td></t<>	TR/DD OPEN SW	While the trunk lid opener switch is turned ON	ON
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When trunk request switch is pressed ON PUSH SW When engine switch (push switch) is not pressed OFF When engine switch (push switch) is pressed ON IGN RLY2-F/B Ignition switch OFF or ACC OFF		When trunk request switch is not pressed	OFF
PUSH SW When engine switch (push switch) is pressed ON IGN RI Y2-F/B Ignition switch OFF or ACC OFF		When trunk request switch is pressed	ON
When engine switch (push switch) is pressed ON IGN RI Y2-F/B Ignition switch OFF or ACC OFF	PUSH SW/	When engine switch (push switch) is not pressed	OFF
IGN RI Y2-F/B		When engine switch (push switch) is pressed	ON
Ignition switch ON ON		Ignition switch OFF or ACC	OFF
		Ignition switch ON	ON

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

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
ACC RLY-F/B	Ignition switch OFF	OFF
ACC REI-F/B	Ignition switch ACC or ON	ON
CLUTCH SW	When the clutch pedal is not depressed	OFF
	When the clutch pedal is depressed	ON
	When the brake pedal is not depressed	ON
DRAKE SVV I	When the brake pedal is depressed	OFF
	When selector lever is in P position	OFF
BRAKE SW 1When the brake pedal is not depressedONDETE/CANCL SWWhen the brake pedal is depressedOFFDETE/CANCL SWWhen selector lever is in P positionOFFSFT PN/N SWWhen selector lever is in any position other than PONSFT PN/N SWWhen selector lever is in any position other than P or NOFFS/L-LOCKElectronic steering column lock LOCK statusOFFS/L-LOCKElectronic steering column lock UNLOCK statusONS/L-UNLOCKElectronic steering column lock UNLOCK statusOFFS/L-UNLOCKElectronic steering column lock LOCK statusOFFS/L RELAY-F/BIgnition switch OFF or ACCOFFIgnition switch ONONONUNLK SEN-DRDriver door UNLOCK statusOFFDriver door UNLOCK statusONONPUSH SW-IPDMWhen engine switch (push switch) is not pressedONIGN RLY1 F/BIgnition switch OFF or ACCOFFIgnition switch ONONONDETE SW -IPDMWhen selector lever is in any position other than PONSFT PN -IPDMWhen selector lever is in any position other than PONSFT PN-IPDMWhen selector lever is in any position other than PONSFT P-METWhen selector lever is in any position other than POFFWhen selector lever is in any position other than POFFOFFWhen selector lever is in any position other than POFFOFFWhen selector lever is in any position other than POFFOFFWhen selec	ON	
	When selector lever is in any position other than P or N	OFF
SFT PIN/IN SVV	When selector lever is in P or N position	ON
	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-UNLUUK	Electronic steering column lock LOCK status	ON
	Ignition switch OFF or ACC	OFF
DIL KELAY-F/B	Ignition switch ON	ON
	Driver door UNLOCK status	OFF
JNLK SEN-UK	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 RI Y1 F/B	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
	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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
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
FRIMI ENG STAT	When the engine start is permitted	SET
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET
KEY SWI SLOT	When Intelligent Key is not inserted into key slot	OFF
KEY 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
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key
	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID that the key slot receives does not accord with the sec- ond key ID registered to BCM.	YET
CONFIRMIDZ	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
CONFIRM ID1	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
TP 4	The ID of fourth key is not registered to BCM	YET
1F 4	The ID of fourth key is registered to BCM	DONE
	The ID of third key is not registered to BCM	YET
TP 3	The ID of third key is registered to BCM	DONE
	The ID of second key is not registered to BCM	YET
TP 2	The ID of second key is registered to BCM	DONE
	The ID of first key is not registered to BCM	YET
TP 1	The ID of first key is registered to BCM	DONE
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status			
AIR PRESS RR	ESS RR Ignition switch ON (only when the signal from the transmitter is received) Air pressure of rear RH til				
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire			
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE			
ID REGGI FLI	When ID of front LH tire transmitter is not registered	YET			
	When ID of front RH tire transmitter is registered	DONE			
ID REGST FR1	When ID of front RH tire transmitter is not registered	YET			
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE			
ID REGST RRT	When ID of rear RH tire transmitter is not registered	YET			
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE			
ID REGST RET	When ID of rear LH tire transmitter is not registered	YET			
	Tire pressure indicator OFF	OFF			
WARNING LAMP	Tire pressure indicator ON	ON			
	Tire pressure warning alarm is not sounding	OFF			
BUZZER	Tire pressure warning alarm is sounding	ON			

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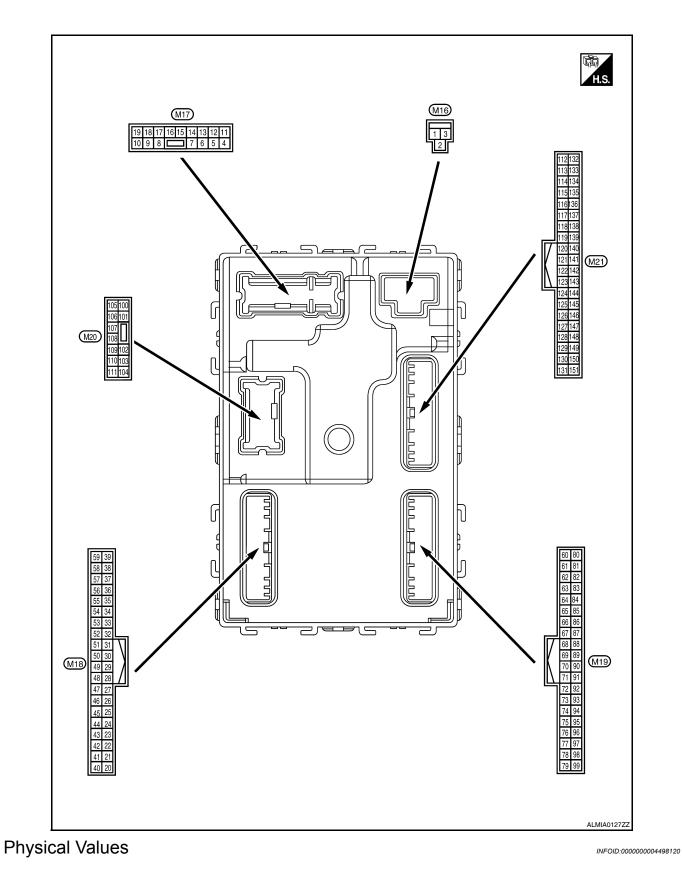
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BCM (BODY CONTROL MODULE) [LH ONLY ANTI-PINCH-SEDAN]

< ECU DIAGNOSIS >

Terminal Layout

INFOID:000000004498119



< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

[LH ONLY ANTI-PINCH-SEDAN]

Terminal No. (Wire color)		Description		_		Value
(Wire (+)	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	I	Battery voltage
4	Ground	Interior room lamp		After passing the interior room lamp battery saver operation time		٥V
(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 RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output		Other than UNLOCK (actuator is not activated)	٥V
7	Ground	Step lamp	Output	Step lamp	ON	0V
(R/W)	Ground				OFF	Battery voltage
8 (V) Grour	Ground	All doors LOCK	Outout	tput All doors	LOCK (actuator is activat- ed)	Battery voltage
	Ground		Output		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- LOCK	Output	t Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Giouna				Other than UNLOCK (actuator is not activated)	0V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON	l	0V
					OFF	0V
14 (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 (V) 10 0 10 0 2 ms
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

(Wire color)		Description		Condition		Value
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF	0V (V) 15 10 5 0 0 0 0 0 0 0 0 0 0 0 0 0
						PKID0926E 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 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage
(Y)	Cround	control	Output	lamp	ON	0V
21	Ground	Optical sensor signal	Input	Ignition switch ON	When outside of the vehi- cle is bright	Close to 5V
(P/B)					When outside of the vehi- cle is dark	Close to 0V
22	Ground	Clutch interlock	Innut	Clutch interlock	OFF (clutch pedal is not depressed)	0V
(R/Y)		switch		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)	٥V
(O/L)	Cround		mput		ON (brake pedal is de- pressed)	Battery voltage
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 0 0 10 ms JPMIA0011GB 11.8V
					UNLOCK status	0V
29	Ground	Key slot switch	Input	_	ey is inserted into key slot	Battery voltage
(Y)				When Intelligent Key is not inserted into key slot OFF		0V 0
30 (V/Y)	Ground	Ground ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage

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[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value	٥
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
31	Cround	Rear window defog-	Innut	Rear window de-	OFF	0V	D
(G)	Ground	ger feedback signal	Input	fogger switch	ON	Battery voltage	В
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	C D E
					ON (when front door RH opens)	0V	_
33	Oreverd	Compressor ON sig-	land	A/C awitab	OFF	5V	F
(SB)	Ground	nal	Input	A/C switch	ON	OV	1
34 ²	_	Front door lock as-		Front door lock	OFF (neutral)	5V	
(L/R)	Ground	sembly LH (key cylin- der switch) (unlock)	Input	assembly LH (key cylinder switch)	ON (unlock)	0V	G
36 ²	Cround		Input	Door lock/unlock	Lock	Battery voltage	
(GR)	Ground	Lock switch signal	Input	switch	Unlock	0V	Н
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	l J
					ON	0V	PW
38		Boor window dofog		Door window do	OFF	5V	
(GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	ON	0V	
39 ²					Unlock	Battery voltage	L
(GR/	Ground	Unlock switch signal	Input	Door lock/unlock switch	Lock	0V	
R)							Μ
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 10 10 10 10 10 10 JPMIA0013GB 10.2V	N O
				Ignition switch OF	F or ACC	0V	Ρ
44		Engine switch (such		Engine switch (push switch) illu-	ON	5.5V	
41 (W)	Ground	Engine switch (push switch) illumination	Output		OFF	0V	
	1				ON	0V	
42	Ground	LOCK indicator lamp	Output	LOCK indicator	UN	00	

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	inal No.	Description				Value
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF ACC or ON	0V 5.0V
47	Ground	Tire pressure receiv- er signal	Input/ Output	Ignition switch ON	Standby state	(V) 6 4 2 0 •••• 0.2s OCC3881D
(G/O)	Clound				When receiving the signal from the transmitter	(V) 6 4 2 0 •••••••••••••••••••••••••••••••••
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 ON	0V 0V
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	Blinking	(V) 15 10 5 0 15 15 15 15 15 15 15 15 15 15
					OFF	Battery voltage
					All switch OFF	0V
					Lighting switch 1ST	(1)
50				Combination	Lighting switch high-beam	
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	10 50 2 ms JPMIA0031GB
						10.7V

< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	0V
		Combination switch OUTPUT 1		Combination switch	Front wiper switch HI (Wiper intermittent dial 4)	(V) 15
51 (L/W)	Ground		Output		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 5 0 2 ms JPMIA0032GB 10.7V
					All switch OFF (Wiper intermittent dial 4)	٥V
	52 (G/B) Ground Combination switch OUTPUT 2 O				Front washer switch ON (Wiper intermittent dial 4)	(V)
52 (G/B)		Output	Combination switch	Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • WIper intermittent dial 5 • Wiper intermittent dial 6	15 10 5 0 2 ms JPMIA0033GB	
					All switch OFF	10.7V
					Front wiper switch INT	
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0034Gf
					All switch OFF	10.7V
					Front fog lamp switch ON	
				Quarki ii	Lighting switch 2ND	(V) 15
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit-	Lighting switch flash-to- pass	
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB
55 (PD)	Organisat		ا بر مرد ا	Front blower mo-	ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input		OFF	0V
56 ²	0	Front door lock as-		Front door lock	OFF (neutral)	5V
(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		_	5V

< ECU DIAGNOSIS >

	inal No. e color)	Description	I			Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 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)	Giouna	ger relay	Output	fogger	Not activated	0V
60	Ground	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)					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
61	Ground	round Center console an- tenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(W/R)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 1 1 1 1 5 0 J J J J J J J J J J J J J

< ECU DIAGNOSIS >

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
62 ⁴	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/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 JMKIA0063GB
63 ⁴	34 (G)GroundFront outside handle RH antenna (+)Outputdoor R switch ed with	Outout	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 0 1 1 1 5 0 J J J J J J J J J J J J J	
(LG)		switch is operat- ed with ignition switch OFF	d with ignition	(V) 15 0 5 0 1 s JMKIA0063GB		
64 ⁴	Ground	Front outside handle	Output	When the front door LH request switch is operat-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(V) Cround LH antenr	LH antenna (-)	H antenna (-)		When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB	

	inal No. e color)	Description	1		.	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
65 ⁴	Ground	Front outside handle LH antenna (+)	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 1 1 1 1 1 1 1 1 1 1 1 1 1
(P)	Giodina				When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB
66	Ground	Instrument panel an- tenna (-)	Output	lgnition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB
(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
67	Ground	Instrument panel an- tenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB
(G)					When Intelligent Key is not in the passenger compart- ment	(V) 10 0 1 s JMKIA0063GB

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

Terminal No. (Wire color)		Description				Value	-
	-	Signal name	Input/		Condition	Value (Approx.)	A
(+) 68 (G/O)	(-) Ground	NATS antenna amp (built in key slot)	Output 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.	E
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		Remote keyless entry receiver signal	Input/	During waiting		(V) 15 10 50 1 ms JMKIA0064GB	F
(L/O)	Ground		Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 1 ms JMKIA0065GB	F
		Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V	, P\
75 (R/Y)	Ground				Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 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 6 • Wiper intermittent dial 7	(V) 15 10 2 ms JPMIA0040GB 1.3V	F

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< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire (+)	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
76	Ground	Combination switch	Input	Combination	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V
(R/G)	Ground	INPUT 3		switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 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 10 5 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			
(F) 79 (L)	Ground	CAN-H	Input/ Output		_	
(Ľ)			Output		OFF	0V
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	6.5V Battery voltage
						Ballory Vollage

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< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
81	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0V
(LG)	Cround		Output	ignition ownon	ON	Battery voltage
83	Ground	ACC relay control	Output	Ignition switch	OFF	OV
(L)	Clound		output	Ignition ownon	ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	Output		_	Battery voltage
85	Oreverd	Electronic steering	la a d	Electronic steer-	Lock status	OV
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage
86	Ground	Electronic steering	المعربة	Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V
87	Crownel	Selector lever P posi-	Innut	Selector lever	P position	0V
(G/B)	Ground	tion switch	Input	Selector lever	Any position other than P	Battery voltage
					ON (pressed)	0V
88 ⁴ (P/L)		Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 10 10 ms JPMIA0016GB 1.0V	
					ON (pressed)	0V
89 ⁴ (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 10 ms JPMIA0016GB 1.0V
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	OV
(Y)	c. sund	lay control	- sthat		ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OF	F	Battery voltage
94	4 Ground Steering wheel lock Output Ignition switch		Ignition switch	OFF or ACC	Battery voltage	
(G/Y) Ground		unit power supply	Supul	ignition switch	ON	0V

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	inal No.	Description				Value
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch LH	(V) 15 0 2 ms 10 2 ms JPMIA0037GB 1.3V
95 (R/W)					Turn signal switch RH	(V) 15 10 0 2 ms JPMIA0036GB 1.3V
					Front wiper switch LO	(V) 15 0 2 ms JPMIA0038GB 1.3V
					Front washer switch ON	(V) 15 0 2 ms 1.3V

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2.ms. JPMIA0041GB 1.4V	B C D
	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 •••••••••••••••••••••••••••••	E
96 (P/B)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15	G
						15 10 5 0 ••••••••••••••••••••••••••••••	Η
						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 0 2 ms	J PW(
						JPMIA0039GB 1.3V	L

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Term	inal No.	Description				Value
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V
					Front wiper switch INT	(V) 15 10 5 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 0 10 ms JPMIA0012GB 1.1V

< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

	inal No.	Description				Value	٨
(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	Е
					15 seconds or later after UNLOCK	٥V	F
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage	F
(V)	Cround	Turk in opening	Output		Close (trunk lid opener ac- tuator is not activated)	٥V	G
110	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	
(V/W)					OFF	Battery voltage	Н
114		Rear parcel shelf an-		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	l J
(B)	Ground	tenna 1 (-)	Output	OFF			PWC
					When Intelligent Key is not in the passenger compart- ment		L
						JMKIA0063GB	Μ

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< ECU DIAGNOSIS >

	inal No. e color)	Description				Value		
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)		
115	Ground	Rear parcel shelf an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB		
(W)	Clouin	tenna 1 (+)	Guiput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB		
118 ⁴	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)	Ground	na (-)		is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 1 s 0 JMKIA0063GB		
119 ⁴	Ground	Rear bumper anten- na (+)	Output	When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB		
(BR/ W)				lid request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB		

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< ECU DIAGNOSIS >

[LH ONLY ANTI-PINCH-SEDAN]

Term	inal No.	Description					
(Wire	e color)	Signal name	Input/		Condition	Value (Approx.)	A
(+)	(-)	Signarhame	Output				
127 (BR/	Ground	Ignition relay (IPDM	Outout	Ignition owitch	OFF or ACC	Battery voltage	В
(BR/ W)	Ground	E/R) control	Output	Ignition switch	ON	0V	D
130 (Y/G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed)	(V) 15 10 50 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	ΟV	
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	OV	Η
					ON (pressed)	0V	I
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V	J
144 ⁴		Intelligent Key warn-		Request switch	Sounding	0V	L
(GR)	Ground	ing buzzer	Output	buzzer	Not sounding	Battery voltage	
144 ⁵	0	Outside warning		Outside warning	Sounding	0V	
(GR)	Ground	buzzer	Output	buzzer	Not sounding	Battery voltage	Μ
147	Ground	Trunk lid opener	Innut	Trunk lid opener	Pressed	0V	
(L/R)	Ground	switch	Input	switch	Not pressed	Battery voltage	Ν
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	O P
					ON (when rear door RH opens)	0V	

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< ECU DIAGNOSIS >

	inal No.	Description				Value			
	e color)	Signal name	Input/		Condition	(Approx.)			
(+)	(-)		Output		T				
149 ¹ (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 0 10 10 10 11.8V JPMA0011GB			
					ON (when rear door LH opens)	0V			

1: Sedan only

2: With LH front window anti-pinch

3: With LH and RH front window anti-pinch

4: With Intelligent Key

5: Without Intelligent Key

< ECU DIAGNOSIS >

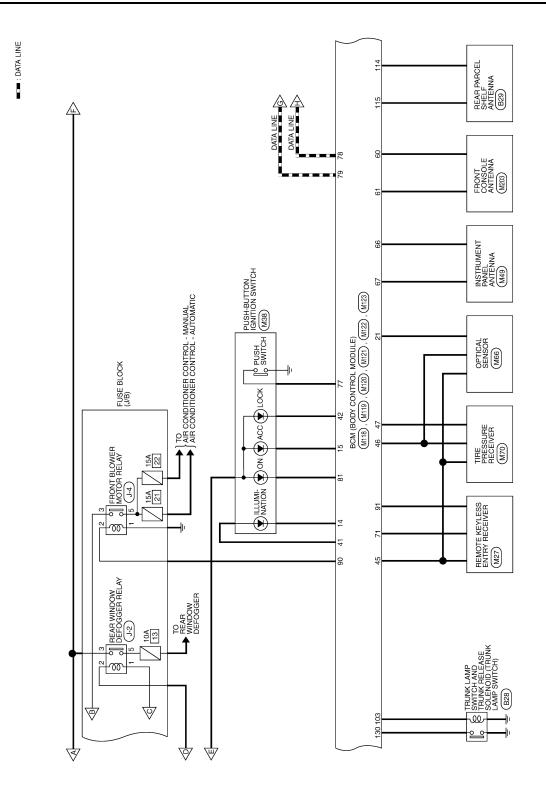


Wiring Diagram-Sedan INFOID:000000004498122 А

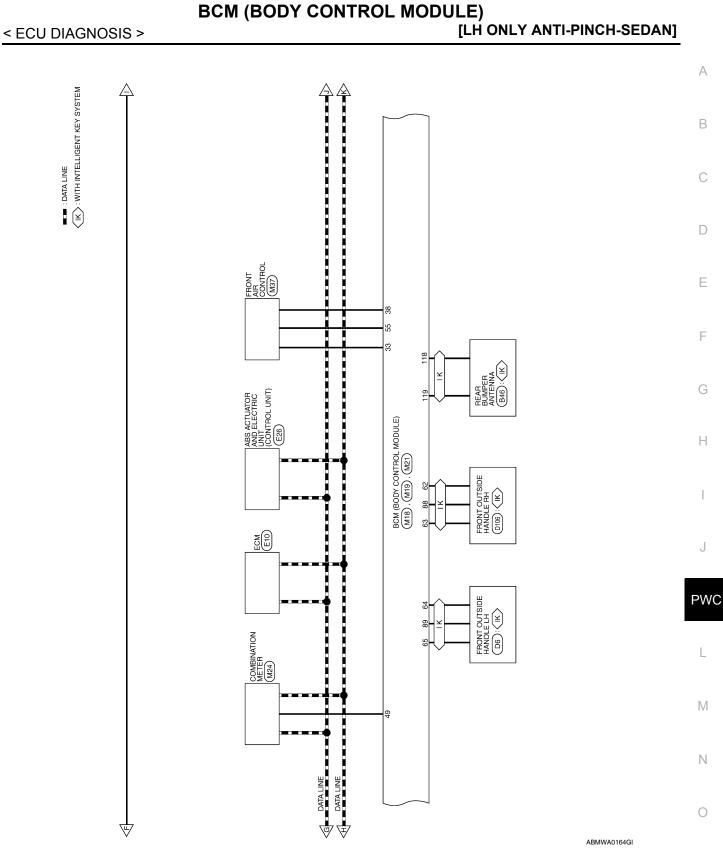
 Image: Signal and the intelligent key

 Image: Signal and the intelligent key

 Image: Signal and Signa WITH TRUNK OPENER REQUEST SWITCH ÂΦ A FUSE BLOCK В e С SWITCH B33 A \mathbb{A} ſ₽ ല RELAY-2 TRUNK LID OPENER CANCEL SWITCH (M74) D ~w~∾ 4 Ε 310A OPENER SWITCH M75 F 147 20 BI16 BI16 G ÷ BCM (BODY CONTROL MODULE) (M16) , (M17) , (M18) , (M19) , (M21) 48 <u>م</u> 83 BIB B18 ÷ Н KEY SLOT (M40) 69 10A 68 80 29 49 B108 B108 B108 INTELLIGENT KEY WARNING BUZZER E73): (IK) OUTSIDE WARNING BUZZER (E73) : OK J Ē 10A SWITCH LH BB 144 PWC 26 00 BCM (BODY CONTROL MODULE) STOP LAMP SWITCH E38 DEPRESSED L θЮ 50 œ 2 2 RELEASED 53 ഹ COMBINATION SWITCH 0 52 4 Μ ₽ 51 10A 75 13 4 96 ₽ 10A Ν 76 97 ത 95 40A BATTERY Ο $\overline{\mathbf{X}}$ ę ABMWA0151GI Ρ

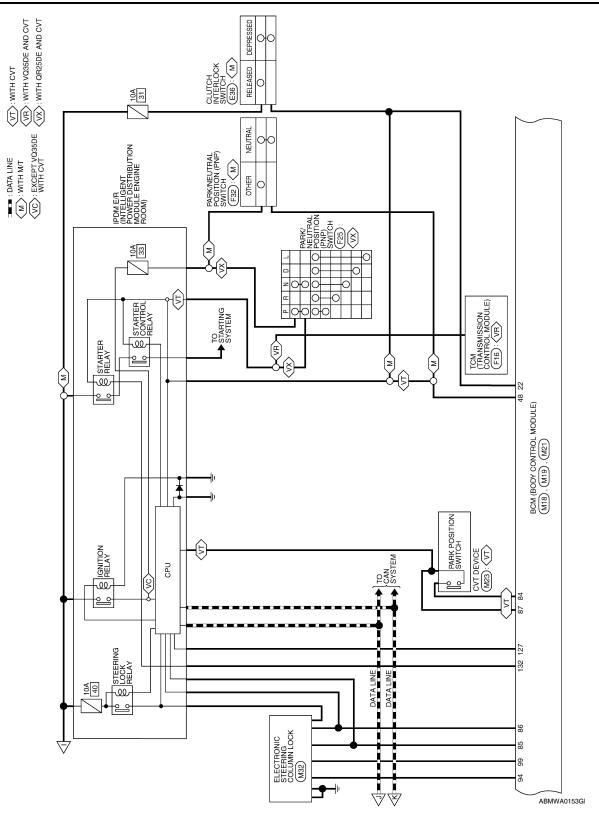


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[LH ONLY ANTI-PINCH-SEDAN]



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

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A1

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42

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH 80

WINDOW AND DOOR LOCK/UNLOCK SWITCH RH INDOW AND R

REAR POWER WINDOW SWITCH LH (0203)

REAR POWER WINDOW SWITCH RH D303

ABMWA0154GI

6

REAR DOOR LOCK ACTUATOR RH $\overline{\langle at angle}$; with left front only power window anti-pinch system $\overline{\langle a2 angle}$; with left and right front power window anti-pinch system D305) - (S)-PEAR DOOR LOCK ACTUATOR LH D205 (S)-C FRONT LOCK ACTUATOR BAH (0108) -13)-KEY CYLINDER SWITCH ACTUATOR юю FRONT DOOR LOCK ASSEMBLY LH BETWEEN FULL STROKE AND N BCM (BODY CONTROL MODULE) (M16), (M17), (M18) -(2)-I FULL ž DOOR UNLOCK SENSOR C ല

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С

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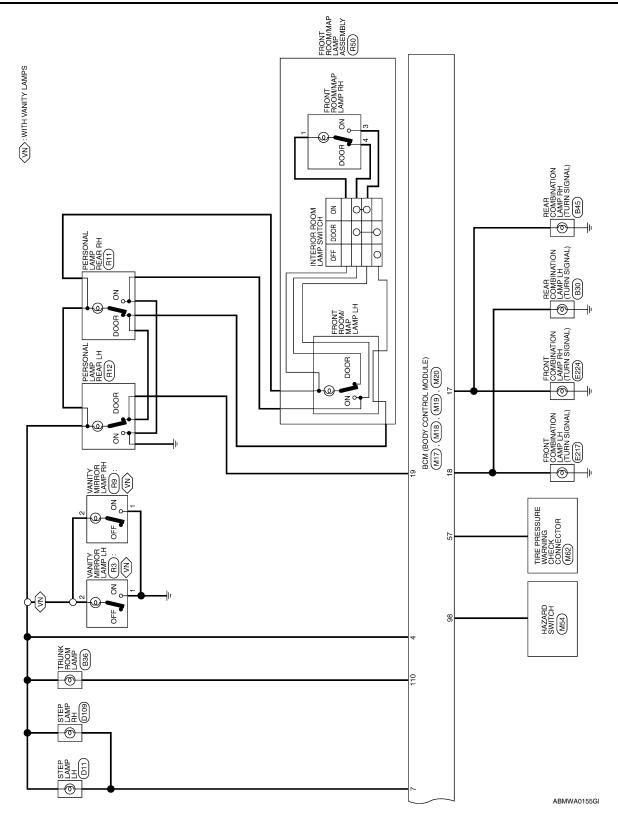
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H.S. Color of Color of
Connector No.
Connector Name BCM (BODY CONTROL MODULE)
Connector Color

Connector No.	M18		Terminal No.	Color of	
Connector Name			27	wire G/W	ŏ
Connector Color GBEEN			28	I	
			29	≻	
4			30	λ/λ	
			31	თ	
H.S.H	Į		32	R/B	
			33	SB	
39 38 37 36 35 3 59 58 57 56 55 5	36 35 34 33 32 31 56 55 54 53 52 51	33 38 37 36 35 34 33 22 31 30 29 28 27 26 25 24 23 22 21 20 59 58 57 56 55 54 55 22 51 50 49 48 47 46 45 44 43 42 41 40	34	L/R	
			35	1	
			36	GR	CEN
Terminal No.	Color of	Signal Name	37	0	비
20			38	GR/W	REA
		ALITO LIGHT SENSO	39	GR/R	CEN
21	P/B	R INPUT1	40	Y/G	
22	R/Υ	CLUTCH_SW	41	N	
23	I	1	42	ж	
24	N/H	STOP LAMP LOW SW	43	I	
- 3			11		



Signal Name	DOOR_LOCK_STATUS	I	FOB_IN_SW_1	ACC_F/B	IGN_F/B	AS_DOOR_SW	AIRCON_SW	UNLOCK_SW	1	CENTRAL_UNLOCK_SW	TRUNK_CANCEL_SW	REAR_DEFOGGER_SW	CENTRAL_UNLOCK_SW	PW_K-LINE	PUSH_LED	S/L_LOCK_LED	I	-	GND_RF2_A/L	A/L_SENS_KEYLESS_ TUNER_POWER_SUP PLY
Color of Wire	G/W	ī	≻	۲/Y	G	R/B	SB	L/R	ı	GR	0	GR/W	GR/R	Y/G	V	В	ī	I	٩	M/N
Terminal No.	27	28	29	08	31	32	33	34	35	36	37	38	39	40	14	42	43	74	45	46

H.S.

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Connector Name BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE)

M16

Connector No. Connector Name

BLACK

Connector Color

M17

Connector No.

BCM (BODY CONTROL MODULE) CONNECTORS

Connector Color WHITE

	Signal Name	KEYLESS_TUNER_SI	SHIFT_N/P	IMMO_LED	INPUT_5		2_TUPUT_2	INPUT_3	INPUT_4	BLOWER_FAN_SW	DOOR_KEY/C_LOCK_ SW	TPMS_MODE_TRIGG ER_SW	DR_DOOR_SW	REAR_DEFOGGER_ RLY
	Color of Wire	G/O	R/G	D/J	LG/B	L/W	G/B	LG/R	G/Y	BR/W	L/B	Μ	SB	G/R
	Terminal No.	47	48	49	50	51	52	53	54	55	56	57	58	59

												ſ	
DL_DR/FL	RR_RL_BACK	BCM_FUSE	1	GND1	SIDE_PUSH_LE	VCC_LED	ļ	FLASHER	FLASHER	LAMP_OUTPUT			ignal Name

I	GND1	LOW_SIDE_PUSH_LE D_OUTPUT	ACC_LED	I	FR_FLASHER	FL_FLASHER	ROOM_LAMP_OUTPUT		Signal Name		KEYLESS_TUNER_SI	CHIET N/D
I	в	R/Y	7/L	I	G/B	G/Y	≻		Color of	Wire	G/O	

[LH ONLY ANTI-PINCH-SEDAN]

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STOP_LAMP_HIGH_SW

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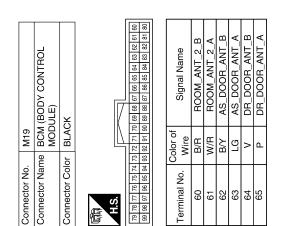
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[LH ONLY ANTI-PINCH-SEDAN]

Signal Name	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	SHIFT_P	AS_REQUEST SWITCH	DR_REQUEST SWITCH	IGN2_CONT	RF1_POWER_SUPPLY	1	1	S/L_POWER_SUPPLY_ 12V		OUTPUT_4	OUTPUT_2	HAZARD_SW	S/L_K-LINE
Color of Wire	Y/R	L/0	G/R	G/B	P/L	B/W	≻	L/R	Т	T	G/Y	R/W	P/B	R/B	G/O	Z
Terminal No.	84	85	86	87	88	89	06	91	92	93	94	95	96	97	98	66

Signal Name	ROOM_ANT_1_B	ROOM_ANT_1_A	FOB_READER_CLOCK	FOB_READER_DATA	IGN_ELEC_CONT	RF1_TUNER_SIGNAL	1	-	OUTPUT_5	OUTPUT_3	ENG_START_SW	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	1	ACC_CONT
Color of Wire	н	U	G/O	0	R/B	ΓQ	I	I	R/Y	R/G	BR	٩.	_	R/L	ГG	I	Γ
Terminal No.	66	67	68	69	70	71	72	73	75	76	77	78	79	80	81	82	83



	Signal Name	T	1	I	CDL_BACK_TRUNK	I	1	1	I	Ι	1	TRUNK_LAMP_OUTPUT	I
Color of	Wire	I	I	I	٨	Т	I	I	I	I	I	W/M	I
	Terminal No.	100	101	102	103	104	105	106	107	108	109	110	111



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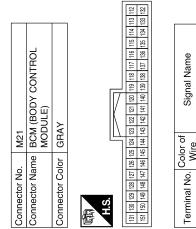
	BCM (BODY CONTROL
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NTROL MODULE)	
[LH	ONLY ANTI-PINCH-SEDAN]

Connector No. Connector Nam	Connector No. M28 Connector Name COMBINATION SWITCH
Connector Color WHITE	r WHITE
E	
- S H	2 5 6
7	8 9 10 11 12 13 14

7 8 9 10 11 12 13 14	Signal Name	WASH_MTR	OUTPUT_4	OUTPUT_3	GND	INPUT_3	OUTPUT_5	INPUT_2	INPUT_4	INPUT_1	OUTPU_1	INPUT_5	OUTPUT_2
7 8 9 1	Color of Wire	R/L	G∖∕	LG/R	в	R/G	LG/B	R/B	P/B	R/W	۲W	R/Y	G/B
	Terminal No.	-	2	5	9	7	8	6	10	11	12	13	14

Signal Name	BACK_DOOR_ANT_A	I	I	I	I	I	I	I	IGN_USM_CONT1	I	Ι	TRUNK_SW	I	ST_CONT_USM	I	Ι	-	I	I	Ι	Ι	-	TRUNK_REQUEST_SW	-	-	BUZZER	-	-	BACK_TRUNK_OPENER	RR_DOOR_SW	RL_DOOR_SW	-	I
Color of Wire	BR/W	I	I	I	I	I	I	-	BR/W	I	T	У/G	-	н	I	Ι	I	I	I	Т	-	I	G/R	I	I	GR	I	I	L/R	R/W	R/B	I	I
Terminal No.	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	145	147	148	149	150	151



Signal Name	1	I	TRUNK_ANT_1_B	TRUNK_ANT_1_A	I	I	BACK_DOOR_ANT_B	
Color of Wire	I	I	В	3	I	-	20	
Terminal No. Color of Wire	112	113	114	115	116	117	118	

ABMIA0470GB

Ρ INFOID:000000004498123

Display contents of CONSULT	Fail-safe	Cancellation
Display contents of CONSULT	Fall-Sale	Cancenation
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

Fail Safe

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[LH ONLY ANTI-PINCH-SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
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
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/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status 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)

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[LH ONLY ANTI-PINCH-SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)

DTC Inspection Priority Chart

INFOID:000000004498124

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	

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Priority		DTC	
4	 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 POSI STATUS 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 B2609: S/L STATUS B2609: S/L STATUS B2609: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2602: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2614: ENG STATE NO RECIV C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG 		
5	 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] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] RR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] RR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1724: CONTROL UNIT 		
6	 B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA 		

DTC Index

< ECU DIAGNOSIS >

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-38
U1010: CONTROL UNIT (CAN)	_	_		BCS-39
U0415: VEHICLE SPEED SIG	_	—	_	BCS-40
B2013: ID DISCORD BCM-S/L	×	—		<u>SEC-38</u>
B2014: CHAIN OF S/L-BCM	×	_	_	<u>SEC-39</u>
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-64</u>
B2191: DIFFERENCE OF KEY	×	—		<u>SEC-67</u>
B2192: ID DISCORD BCM-ECM	×	_	_	<u>SEC-68</u>
B2193: CHAIN OF BCM-ECM	×		_	<u>SEC-69</u>
B2553: IGNITION RELAY	—		_	PCS-60
B2555: STOP LAMP	—		_	<u>SEC-70</u>
B2556: PUSH-BTN IGN SW	—	×	_	<u>SEC-72</u>
B2557: VEHICLE SPEED	×	×	_	<u>SEC-74</u>
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-75</u>
B2562: LOW VOLTAGE	—		_	BCS-41
B2601: SHIFT POSITION	×	×	_	<u>SEC-76</u>
B2602: SHIFT POSITION	×	×	_	<u>SEC-79</u>
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-81</u>
B2604: PNP SW	×	×	_	<u>SEC-84</u>
B2605: PNP SW	×	×	_	<u>SEC-86</u>
B2606: S/L RELAY	×	×	_	<u>SEC-88</u>
B2607: S/L RELAY	×	×	_	<u>SEC-89</u>
B2608: STARTER RELAY	×	×	_	<u>SEC-91</u>
B2609: S/L STATUS	×	×	_	<u>SEC-93</u>
B260A: IGNITION RELAY	×	×	_	PCS-62
B260B: STEERING LOCK UNIT	_	×	_	<u>SEC-97</u>
B260C: STEERING LOCK UNIT	_	×	_	<u>SEC-98</u>
B260D: STEERING LOCK UNIT	—	×	_	<u>SEC-99</u>
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-100</u>
B2612: S/L STATUS	×	×	_	<u>SEC-101</u>
B2614: ACC RELAY CIRC	_	×	_	PCS-65
B2615: BLOWER RELAY CIRC		×	_	PCS-68
B2616: IGN RELAY CIRC	_	×	_	PCS-71
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-105</u>
B2618: BCM	×	×		PCS-74

< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	_	<u>SEC-107</u>
B261A: PUSH-BTN IGN SW	_	×	_	<u>SEC-108</u>
B2621: INSIDE ANTENNA	_	_	_	DLK-59
B2622: INSIDE ANTENNA	_	_	_	DLK-62
B2623: INSIDE ANTENNA	_	_	_	DLK-65
B26E1: ENG STATE NO RES	×	×	_	<u>SEC-110</u>
C1704: LOW PRESSURE FL	_	_	×	<u>WT-52</u>
C1705: LOW PRESSURE FR	_	_	×	<u>WT-52</u>
C1706: LOW PRESSURE RR	_	_	×	<u>WT-52</u>
C1707: LOW PRESSURE RL	_	_	×	<u>WT-52</u>
C1708: [NO DATA] FL		_	×	<u>WT-14</u>
C1709: [NO DATA] FR		_	×	<u>WT-14</u>
C1710: [NO DATA] RR		_	×	<u>WT-14</u>
C1711: [NO DATA] RL	_	_	×	<u>WT-14</u>
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR		_	×	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL		_	×	<u>WT-16</u>
C1716: [PRESSDATA ERR] FL		_	×	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR		_	×	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	_	_	×	<u>WT-18</u>
C1720: [CODE ERR] FL		_	×	<u>WT-16</u>
C1721: [CODE ERR] FR	_	_	×	<u>WT-16</u>
C1722: [CODE ERR] RR	_	_	×	<u>WT-16</u>
C1723: [CODE ERR] RL	_	_	×	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	—	_	×	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	_	—	×	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL	—	—	×	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR	—	—	×	<u>WT-19</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-20</u>

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PRECAUTION PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRF-TENSIONER" INFOID:000000004205062

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. D 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.

Necessary for Steering Wheel Rotation After Battery Disconnect

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.
- 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.

PWC If turning the steering wheel is required with the battery disconnected or discharged, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

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 discon-Ν nected and the steering wheel can be turned.
- 4. Perform the necessary repair operation.
- 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 wheel will lock when the push-button ignition switch is turned to LOCK position.)
- Perform self-diagnosis check of all control units using CONSULT-III.

PWC-175

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

INFOID:000000004205053

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to BCS-42, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{2}.$ 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 PWC-103, "POWER WINDOW MAIN SWITCH : Component Function Check".

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

Check main power window and door lock/unlock switch. Refer to PWC-103, "POWER WINDOW MAIN SWITCH : Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

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

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

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

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Diagnosis Procedure	INFOID:000000004205054	
1. CHECK FRONT POWER WINDOW MOTOR LH		В
Check front power window motor LH. Refer to <u>PWC-114, "DRIVER SIDE : Component Function Check"</u> .		
Is the inspection result normal?		С
YES >> Inspection end.		
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .		D

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

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

Diagnosis Procedure

INFOID:000000004205055

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

Check power window and door lock/unlock switch RH. Refer to <u>PWC-108</u>, "FRONT POWER WINDOW SWITCH : Component Function Check".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT

Check front power window motor RH circuit. Refer to <u>PWC-116</u>, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

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

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

[LH ONLY ANTI-PINCH-SEDAN] < SYMPTOM DIAGNOSIS > REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE **Diagnosis** Procedure INFOID:000000004205056 1. CHECK REAR POWER WINDOW SWITCH LH Check rear power window switch LH. Refer to PWC-110, "REAR POWER WINDOW SWITCH : Component Function Check". 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 PWC-117, "REAR LH : Component Function Check". Is the inspection result normal? YES >> Inspection end. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000004205057

[LH ONLY ANTI-PINCH-SEDAN]

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power winodw switch RH. Refer to PWC-110, "REAR POWER WINDOW SWITCH : Component 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

Check rear power window motor RH. Refer to <u>PWC-119, "REAR RH : Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection end.

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

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) А **Diagnosis** Procedure INFOID:000000004205058 1. PERFORM INITIALIZATION PROCEDURE В Perform initialization procedure. Refer to PWC-108, "POWER WINDOW MAIN SWITCH : 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 D · A foreign material adheres to window glass or glass run rubber. · Glass run rubber wear or deformation. Е Sash is tilted too much or not enough. Is the inspection result normal? YES >> GO TO 3 F NO >> Repair or replace the malfunctioning parts. $\mathbf{3.}$ CHECK ENCODER CIRCUIT Check encoder circuit. Refer to PWC-103, "POWER WINDOW MAIN SWITCH : Component Function Check". Is the inspection result normal? Н YES >> Inspection end. NO >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

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

< SYMPTOM D	IAGNOSIS >
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[LH ONLY ANTI-PINCH-SEDAN]

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

Diagnosis Procedure

INFOID:000000004205059

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-108</u>, "POWER WINDOW MAIN SWITCH : 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-103, "POWER WINDOW MAIN SWITCH : Component Function Check"</u>. <u>Is the inspection result normal?</u>

YES >> Inspection end.

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

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:000000004205060	R
1. CHECK FRONT DOOR SWITCH		D
Check front door switch. Refer to <u>PWC-124, "Component Function Check"</u> .	_	С
Is the inspection result normal?		
 YES >> Inspection end. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. 		D

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POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000004205061

[LH ONLY ANTI-PINCH-SEDAN]

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

Replace main power window and door lock/unlock switch.

Refer to <u>PWC-186</u>, "Removal and Installation". After that, <u>PWC-108</u>, "POWER WINDOW MAIN SWITCH : <u>Special Repair Requirement</u>".

Is the inspection result normal?

YES >> Inspection end.

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

< ON-VEHICLE MAINTENANCE >

ON-VEHICLE MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection	INFOID:000000004205063	В
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?		Е
YES >> Inspection End. NO >> Repair or replace the malfunctioning parts.		F
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ON-VEHICLE REPAIR POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

1. Remove the power window main switch finisher (2). Refer to <u>INT-34, "Removal and Installation"</u>.

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2. Power window main switch (1) is removed from power window main switch finisher (2) using a suitable tool (A).

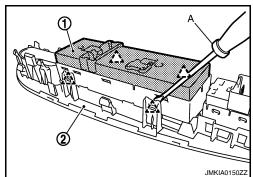
CAUTION:

Do not fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for front power window and door lock/unlock switch RH, and rear power window switch (LH & RH).

INSTALLATION

Installation is in the reverse order of removal.



INFOID:000000004499252

[LH&RH FRONT ANTI-PINCH-COUPE]

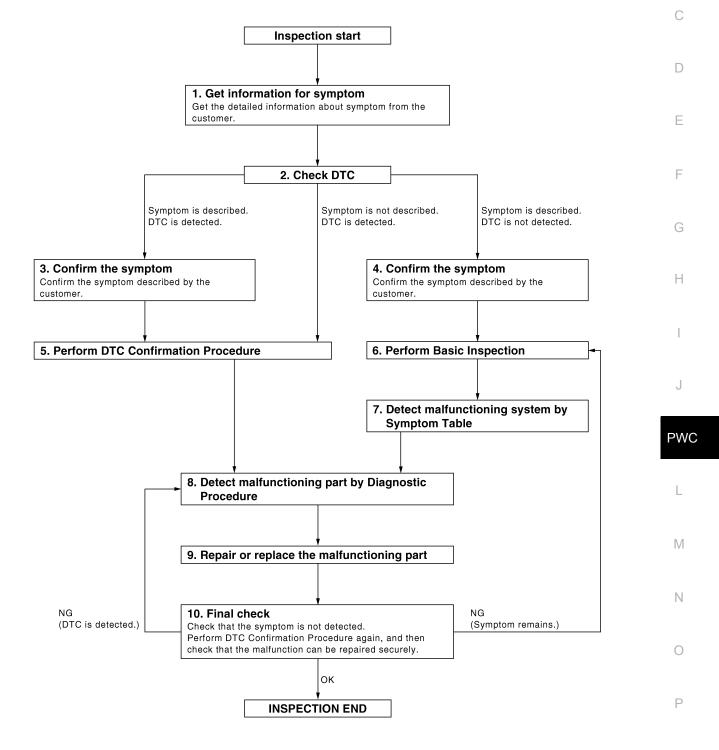
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004205065

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OVERALL SEQUENCE



< 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-III.)
- Erase DTC.
- Study the relationship between the cause detected by DTC and the symptom described by the customer.
- 3. Check related service bulletins for information.

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>GO TO 3 Symptom is described, DTC is not displayed>>GO TO 4 Symptom is not described, DTC is displayed>>GO TO 5

3. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer.

Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 5

4. CONFIRM THE SYMPTOM

Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.

>> GO TO 6

5. PERFORM DTC CONFIRMATION PROCEDURE

Perform DTC Confirmation Procedure for the displayed DTC, and then check that DTC is detected again. At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-91, "DTC Index"</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</u>, "Intermittent Incident".

6. PERFORM BASIC INSPECTION

Perform PWC-187, "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.

>> GO TO 8

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [LH&R 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-III.

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

Initial setting is necessary when battery terminal is diconnected.

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

INITIALIZATION PROCEDURE

- 1. Disconnect battery negative terminal or main power window and door lock/unlock switch. Reconnect it after a minute or more.
- 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-229, "Fail Safe"</u>.
- 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.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000004205068

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

INITIALIZATION PROCEDURE

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

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 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-229</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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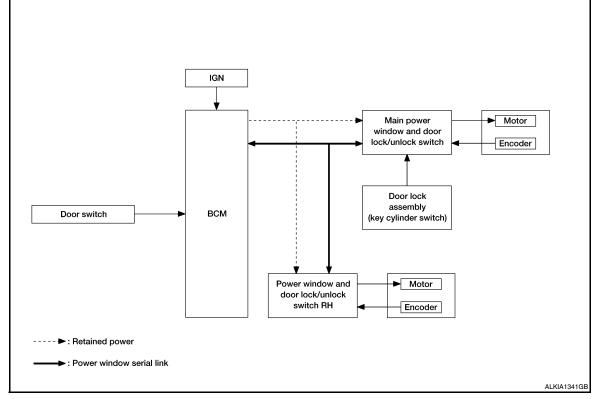
[LH&RH FRONT ANTI-PINCH-COUPE]

FUNCTION DIAGNOSIS POWER WINDOW SYSTEM

System Diagram

INFOID:000000004205070

POWER WINDOW ANTI-PINCH SYSTEM



System Description

INFOID:000000004205071

POWER WINDOW MAIN SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switchMain 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

< FUNCTION DIAGNOSIS >

POWER WINDOW SYSTEM

[LH&RH FRONT ANTI-PINCH-COUPE]

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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		
			0
	door lock unlock switch RH can		
	AUTO-OPERATION (LH & R	,	
AUTO UP/DOWN	operation can be performed wl	hen main power window a	nd door lock/unlock switch &
AUTO UP/DOWN power window and Encoder continues	operation can be performed will door lock/unlock switch RH turn detecting the movement of pov	hen main power window an ns to AUTO. wer window motor and trans	
AUTO UP/DOWN power window and Encoder continues as the encoder pul	operation can be performed will door lock/unlock switch RH turn detecting the movement of pov se signal while power window m	hen main power window an is to AUTO. wer window motor and trans lotor is operating.	mits to power window switch
AUTO UP/DOWN power window and Encoder continues as the encoder pul	operation can be performed will door lock/unlock switch RH turn detecting the movement of pov se signal while power window m tch reads the changes of encode	hen main power window an is to AUTO. wer window motor and trans lotor is operating.	mits to power window switch
AUTO UP/DOWN power window and Encoder continues as the encoder pul Power window swi fully opened/closed	operation can be performed will door lock/unlock switch RH turn detecting the movement of pov se signal while power window m tch reads the changes of encode	hen main power window an ns to AUTO. wer window motor and trans notor is operating. er signal and stops AUTO op	mits to power window switch

 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

- 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 (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 sig-Μ nal 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

< FUNCTION DIAGNOSIS >

[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 <u>BCS-18, "COMMON ITEM : CONSULT-III Function"</u>.

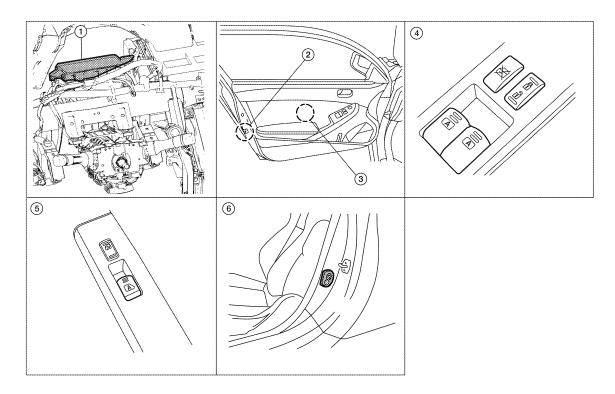
NOTE:

Use CONSULT-III to change settings.

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

Component Parts Location

INFOID:000000004205072



1. BCM M16, M17, M18, M19 (view with instrument panel removed)

4. Main power window and door lock/ 5. unlock switch D7

Component Description

POWER WINDOW ANTI-PINCH SYSTEM

2.

switch) D10

switch RH D105

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

INFOID:000000004205073

Door lock assembly LH (key cylinder 3.

Power window and door lock/unlock 6.

< FUNCTION DIAGNOSIS >

POWER WINDOW SYSTEM

[LH&RH FRONT ANTI-PINCH-COUPE]

Component	Function
ВСМ	Supplies power to power window switches.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	Starts operating with signals from main power window and door lock/unlock switch & 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-III FUNCTION

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

Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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	x x		×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	

COMMON ITEM : CONSULT-III Function

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-91. "DTC Index"</u>. INFOID:000000004498126

INFOID:000000004498127

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

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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.	
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< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT

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

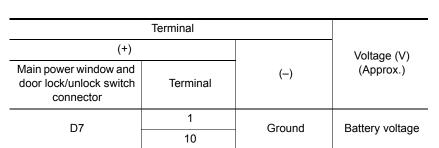
Does power window motor operate with main power window and door lock/unlock switch operation? Is the inspection result normal?

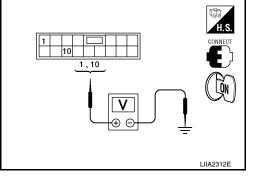
YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK. NO >> Refer to PWC-198, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

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 and ground.





Is the measurement value within the specification?

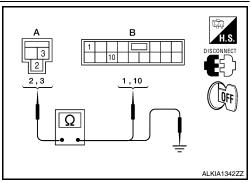
YES >> GO TO 3

NO >> GO TO 2

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M16 (A)	3	D7 (B)	10	Yes
	2	ы (в)	1	163

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



[LH&RH FRONT ANTI-PINCH-COUPE]

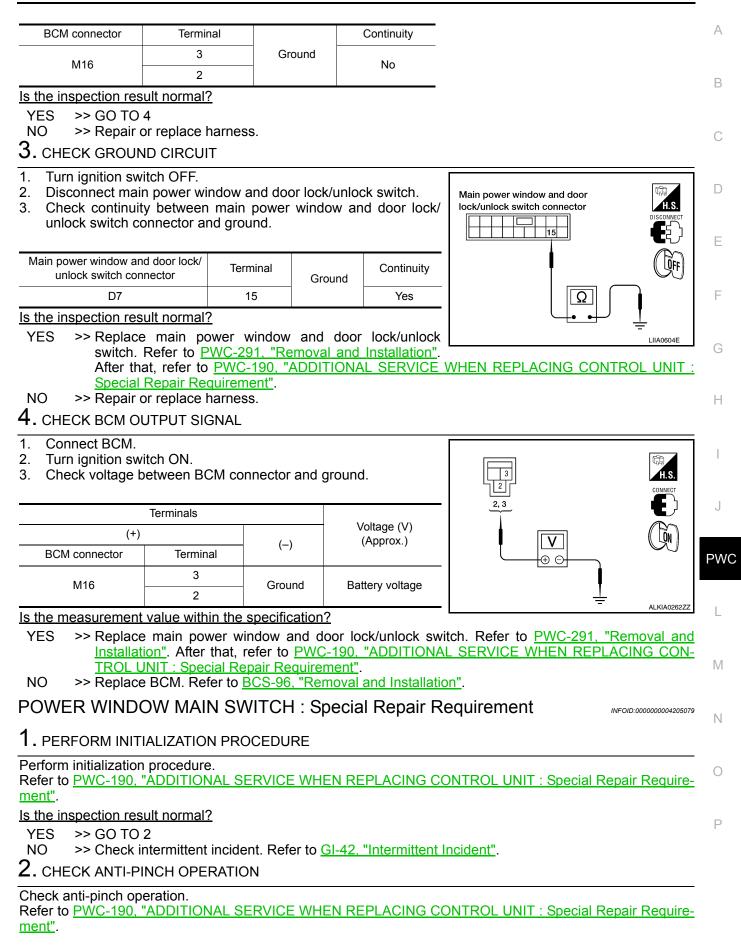
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< COMPONENT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]



< COMPONENT DIAGNOSIS >

<u>Is the inspection result normal?</u> YES >> Inspection end.

NO >> Refer to <u>PUC-206, "DRIVER SIDE : Component Function Check"</u>.

PASSENGER SIDE

PASSENGER SIDE : Description

• BCM supplies power.

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

PASSENGER SIDE : Component Function Check

Power Window And Door Lock/Unlock Switch RH

1. CHECK POWER WINDOW MOTOR RH FUNCTION

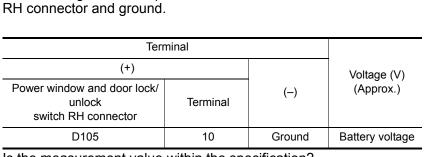
Does power window motor RH operate with power window and door lock/unlock switch RH operation? <u>Is the inspection result normal?</u>

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK. NO >> Refer to <u>PWC-200</u>, "<u>PASSENGER SIDE</u> : <u>Diagnosis Procedure</u>".

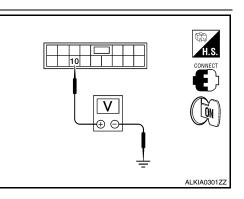
PASSENGER SIDE : Diagnosis Procedure

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



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 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

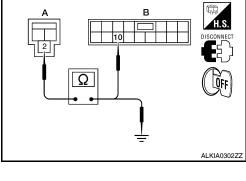
4. Check continuity between BCM connector (A) and ground.

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

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.



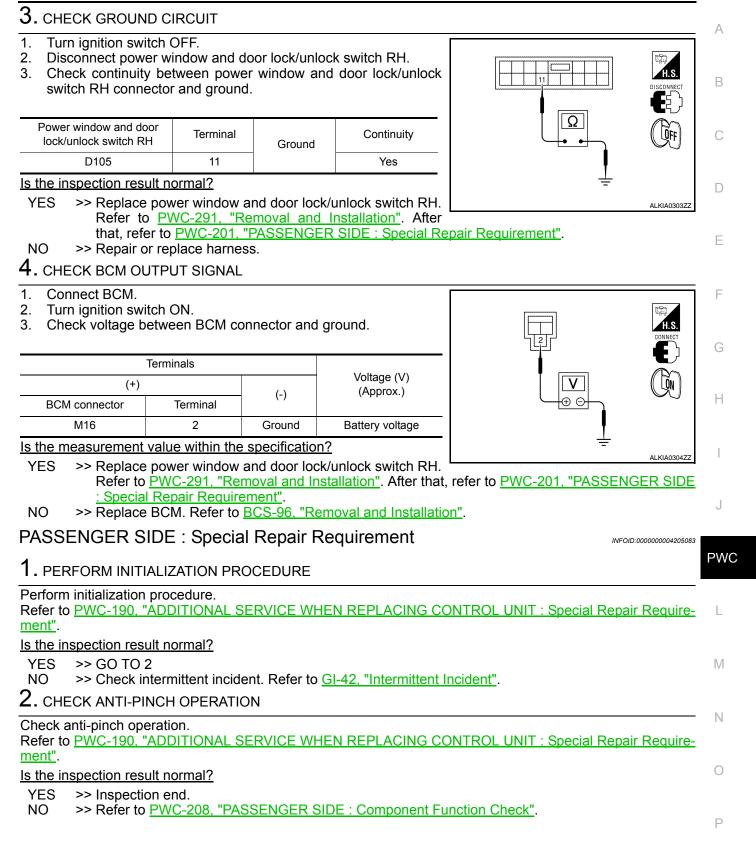
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< COMPONENT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]



POWER WINDOW MOTOR

< COMPONENT 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

Does power window motor LH operate 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-202, "DRIVER SIDE : Diagnosis Procedure"</u>.

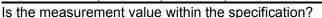
DRIVER SIDE : Diagnosis Procedure

Power Window Motor LH Circuit Check

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

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

Terminal			Main navyanyin		
(+)			Main power win- dow and door lock/	Voltage (V)	
Power window motor LH con- nector	Terminal	(–)	unlock switch con- dition	(Approx.)	
	D91		UP	Battery voltage	
מח		Ground	DOWN	0	
59		Giounu	UP	0	
			DOWN	Battery voltage	



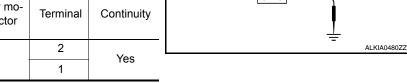
YES >> GO TO 2

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-291, "Removal and</u> <u>Installation"</u>. After that, refer to <u>PWC-199, "POWER WINDOW MAIN SWITCH : Special Repair</u> <u>Requirement"</u>.

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	D3 (D)	1	165



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

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[LH&RH FRONT ANTI-PINCH-COUPE]

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

Main power window and door lock/unlock switch connector	Terminal		Continuity		
D7 (A)	8 11	Ground	No		
s the inspection result norr YES >> GO TO 3 NO >> Repair or repla 3. CHECK POWER WIND	ace harness.	2			
Check power window moto Refer to <u>PWC-203, "DRIVE</u>	ER SIDE : Co	mponent Insp	ection".		
s the inspection result norr YES >> Check intermit NO >> Replace power <u>PWC-203, "DR</u>	tent incident. r window mot	tor LH. Refer t	o <u>GW-19, "Ren</u>	noval and Installatio	<u>n"</u> . After that, refer to
DRIVER SIDE : Com	ponent Ins	spection			INFOID:000000004205087
COMPONENT INSPECT 1. CHECK POWER WIND Does motor operate by con	DOW MOTOF		directly to pow	ver window motor?	
	Term	inal			_
	(+)	(-)		Motor condition	
	1	2		DOWN	
	2	1		UP	
s the inspection result norr YES >> Power window NO >> Replace power <u>PWC-203. "DR</u> ORIVER SIDE : Spec	r motor LH is r window mot RIVER SIDE :	tor LH. Refer t Special Repa	ir Requirement		n". After that, refer to
. PERFORM INITIALIZA	TION PROCE	EDURE			
Perform initialization procee Refer to <u>PWC-190, "ADDIT</u> <u>nent"</u> . <u>s the inspection result norr</u> YES >> GO TO 2 NO >> Check intermitt 2. CHECK ANTI-PINCH C	<u>FIONAL SER</u> mal? tent incident.				ecial Repair Require-
Check anti-pinch operation Refer to <u>PWC-190, "ADDIT</u> <u>nent"</u> .	<u>FIONAL SER</u>	VICE WHEN F	REPLACING CO	ONTROL UNIT : Sp	ecial Repair Require-
s the inspection result norr YES >> Inspection End					
NO >> Refer to <u>PWC-</u> PASSENGER SIDE		R SIDE : Com	ponent Functio	on Check".	

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.

< COMPONENT DIAGNOSIS >

PASSENGER SIDE : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCIUT

Does power window motor operate 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 PWC-204, "PASSENGER SIDE : Diagnosis Procedure".

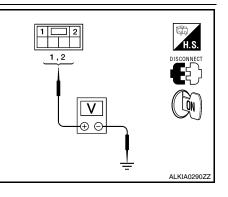
PASSENGER SIDE : Diagnosis Procedure

Power Window Motor RH Circuit Check

1. CHECK POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Terminal			_		
(+)			Power window motor RH con-	Voltage (V)	
Power window mo- tor RH connector	Terminal	(-)	dition	(Approx.)	
	2		UP	Battery voltage	
D104	2	2	Ground	DOWN	0
D104	1	Giouna	UP	0	
	I		DOWN	Battery voltage	



Is the measurement value within the specification?

YES >> GO TO 2

NO >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-291, "Removal and Instal-</u> lation". After that, refer to <u>PWC-201, "PASSENGER SIDE : Special Repair Requirement"</u>.

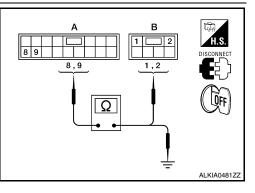
2. CHECK HARNESS CONTINUITY

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 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)	9	D104 (D)	1	Tes



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
D105 (A)	8		No
D100 (A)	9		NO

Is the inspection result normal?

YES >> GO TO 3

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >		[LH&RH FRONT AN	TI-PINCH-COUPE]
NO >> Repair or replace harness			
3. CHECK POWER WINDOW MOTO	RRH		
Check power window motor RH. Refer to <u>PWC-205, "PASSENGER SID</u>	E : Component Inspec	tion".	
Is the inspection result normal?			
YES >> Check intermittent inciden NO >> Replace power window mo <u>PWC-205, "PASSENGER</u>	otor RH. Refer to <u>GW-1</u>	9, "Removal and Installatio	n". After that, refer to
PASSENGER SIDE : Compon	ent Inspection		INFOID:000000004205092
COMPONENT INSPECTION			
1. CHECK POWER WINDOW MOTO	RRH		
Does motor operate by connecting the	battery voltage directly	to power window motor RH	1?
Ter	minal	Motor condition	—
(+)	(-)		
1	2	DOWN	
ls the inspection result normal?	1	UP	
YES >> Power window motor RH is NO >> Replace power window mo <u>PWC-205, "PASSENGER</u> PASSENGER SIDE : Special I	otor RH. Refer to <u>GW-1</u> SIDE : Special Repair I	Requirement".	n". After that, refer to
1. PERFORM INITIALIZATION PROC	EDURE		
Perform initialization procedure. Refer to <u>PWC-190, "ADDITIONAL SEF</u> ment".	RVICE WHEN REPLAC	CING CONTROL UNIT : Spe	ecial Repair Require-
Is the inspection result normal?			
YES >> GO TO 2			
NO >> Check intermittent incident 2		<u>mittent Incident"</u> .	
2. CHECK ANTI-PINCH OPERATION			
Check anti-pinch operation. Refer to <u>PWC-190, "ADDITIONAL SER</u> <u>ment"</u> .	<u>RVICE WHEN REPLAC</u>	CING CONTROL UNIT : Sp	ecial Repair Require-
Is the inspection result normal?			
YES >> Inspection End. NO >> Refer to <u>PWC-208, "PASS</u>	ENGER SIDE : Compo	nent Function Check".	

< COMPONENT 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

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

Is the inspection result normal?

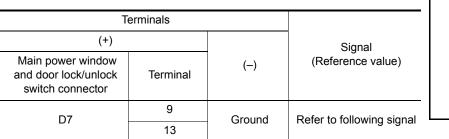
YES >> Encoder operation is OK.

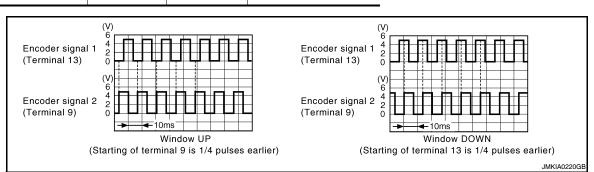
NO >> Refer to <u>PWC-206</u>, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

Encoder Circuit Check

- 1. CHECK ENCODER OPERATION
- 1. Turn ignition switch ON.
- 2. Check signal between main power window and door lock/unlock switch connector and ground with oscilloscope.





Is the inspection result normal?

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

NO >> GO TO 2

2. CHECK POWER WINDOW MOTOR LH POWER SUPPLY

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- 1. Turn ignition switch ON.
- 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

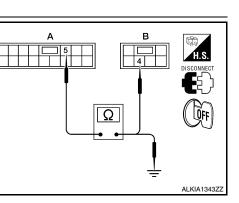
Is the measurement value within the specification?

YES >> GO TO 4 3

3. CHECK HARNESS CONTINUITY 1

- Turn ignition switch OFF. 1.
- 2. Disconnect main power window and door lock/unlock switch and 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



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
D7 (A) 5

Is the inspection result normal?

- PWC YES >> Replace main power window and door lock/unlock switch. Refer to PWC-291, "Removal and Installation". After that, refer to PWC-199, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".
- 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. Power window motor LH Ω **Ö**FF Terminal Continuity connector Ground D9 Yes 6 Is the inspection result normal? YES >> GO TO 6 ALKIA0298ZZ NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2

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[LH&RH FRONT ANTI-PINCH-COUPE]

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< COMPONENT 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

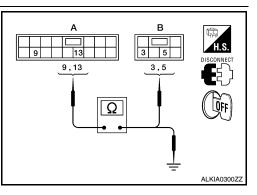
Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-291</u>, "Removal and Installation". After that, refer to <u>PWC-199</u>, "POWER WINDOW MAIN SWITCH : Special Repair Requirement".
- 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
D7 (A)	13	D9 (D)	3	165



 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 power window motor LH. Refer to <u>GW-19, "Removal and Installation"</u>. After that, refer to <u>PWC-203, "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

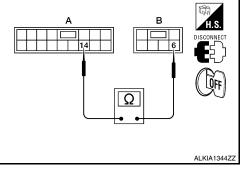
Does door glass RH perform AUTO open/close operation normally when operating power window and door lock/unlock switch RH?

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to <u>PWC-209</u>, "PASSENGER SIDE : Diagnosis Procedure".

[LH&RH FRONT ANTI-PINCH-COUPE]

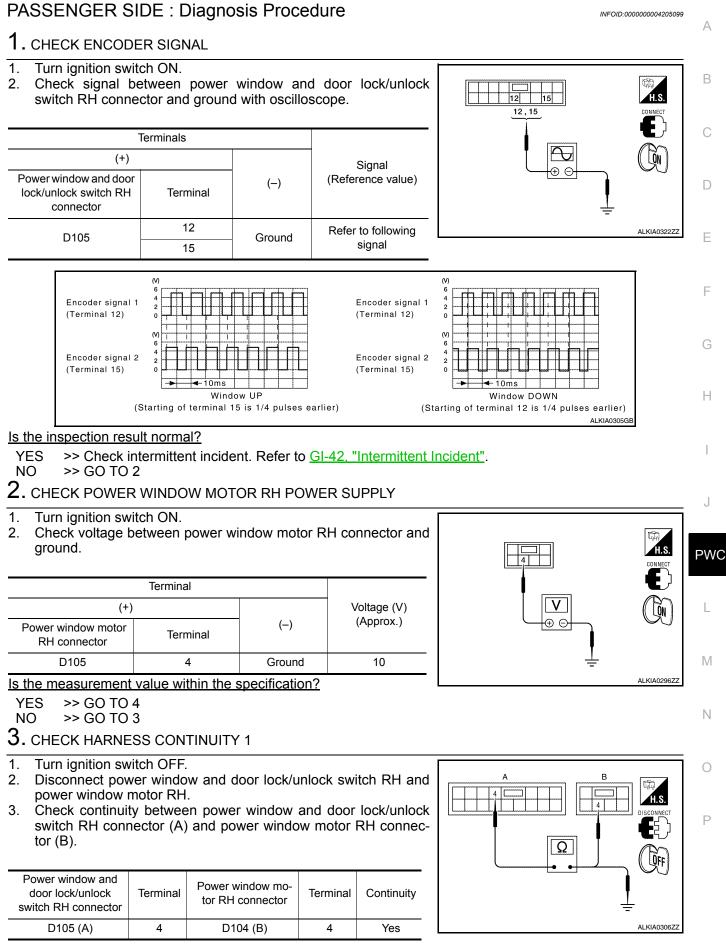


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< COMPONENT DIAGNOSIS >

PASSENGER SIDE : Diagnosis Procedure



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< COMPONENT DIAGNOSIS >

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

	.,					
Power window and do unlock switch RH con		erminal	Ground	Cor	ntinuity	
D105 (A)		4			No	
Is the inspection re-	<u>sult norma</u>	l?				
NO >> Repair	After that, or replace	refer to <u>P\</u> harness.	door loo NC-201,	k/unlock <u>PASSE</u>	switch RH. NGER SIDE	Refer to PWC-291, "Removal and Instal- <u>E : Special Repair Requirement"</u> .
4. CHECK GROU	ND CIRCL	JIT				
 Turn ignition sv Disconnect pov Check continuand ground. 	ver windov			notor RH	connector	
Power window motor nector	RH con-	Terminal	Grou	nd	ontinuity	
D104		6	1		Yes	
Is the inspection re	sult norma	l?		1		│ <u>┦</u> │
YES >> GO TO NO >> GO TO						- ALKIA0298ZZ
5. CHECK HARN	ESS CON	TINUITY 2				
 Disconnect pov Check continuit switch RH con tor (B). 	ity betwee	n power w	indow a	nd door	ock/unlock	
Power window and doo lock/unlock switch RI connector	-		ndow mo- connector	Termina	Continuity	
D105 (A)	3	D10	4 (B)	6	Yes	
Is the inspection re-						ALKIA0307ZZ
YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-291</u> , " <u>Removal and Installation</u> ". After that, refer to <u>PWC-201</u> , " <u>PASSENGER SIDE</u> : <u>Special Repair Requirement</u> ". NO >> Repair or replace harness. 6. CHECK HARNESS CONTINUITY 3						
1. Disconnect pov			lock/un	ock switc	h RH.	
 Check continui switch RH con tor (B). 	ity betwee	n power w	indow a	nd door	ock/unlock	A B B B B B B B B B B B B B B B B B B B
Power window and door lock/unlock switch RH connector	Terminal	Power wind tor RH co		Terminal	Continuity	
D105 (A)	12 15	D104	(B)	3 5	Yes	ALKIA0308ZZ
3. Check continui	tv betwee	n nower w	indow a	nd door	ock/unlock	ALNIAU30822

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

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< COMPONENT DIAGNOSIS >

Power window and door lock/unlock switch RH con- nector	Terminal	Ground	Continuity		
D105 (A)	12		No		
2100 (77)	15				
Is the inspection result no					
				temoval and Installation". After that, refer to	
NO >> Repair or rep			ial Repair Requ	<u>irement</u> .	

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< COMPONENT 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-III. Refer to <u>BCS-34</u>, "RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)".

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

Is the inspection result normal?

YES >> Door switch circuit is OK.

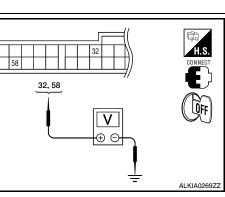
NO >> Refer to <u>PWC-212</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

	Terminals		Door condition			
(+)					Voltage (V)	
BCM connector	Terminal	(–)			(Approx.)	
	32		Front door	OPEN	0	
M18	52	Ground	RH	CLOSE	Battery voltage	
58	Gibunu	Front door	OPEN	0		
	58	LH	CLOSE	Battery voltage	P	



Is the measurement value within the specification?

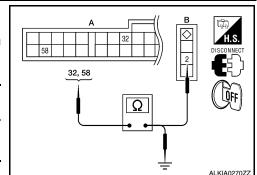
YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>. NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Door switch connector	Terminal	Continuity	
M18 (A)	32	RH: B108 (B)	2	Yes	
MIG (A)	58	LH: B8 (B)	2	165	

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



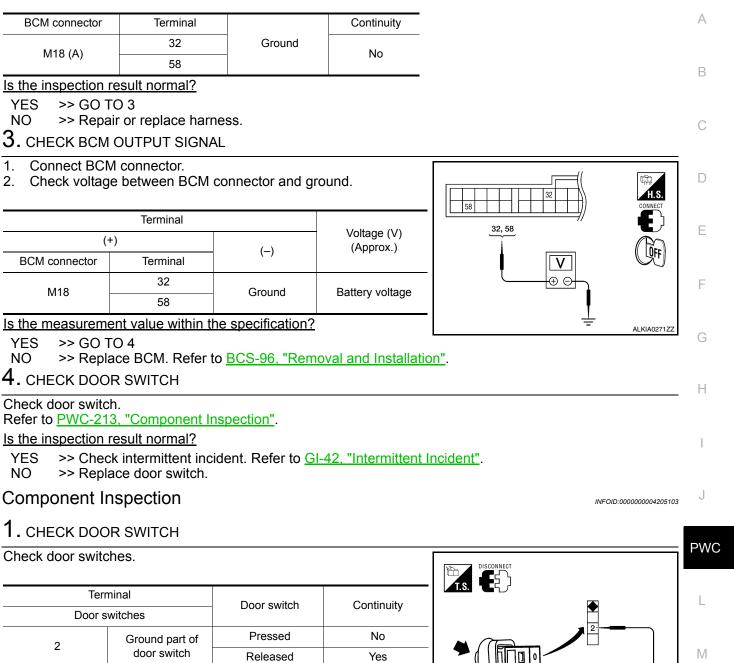
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[LH&RH FRONT ANTI-PINCH-COUPE]

DOOR SWITCH

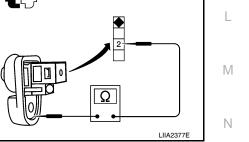
< COMPONENT DIAGNOSIS >



Is the inspection result normal?

YES >> Door switch is OK.

NO >> Replace door switch.



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< COMPONENT 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-III. Refer to <u>BCS-19, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	Co	ondition
KEY CYL LK-SW	Lock	: ON
REF GTL LK-SW	Neutral / Unlock	: OFF
	Unlock	: ON
KEY CYL UN-SW	Neutral / Lock	: OFF

Is the inspection result normal?

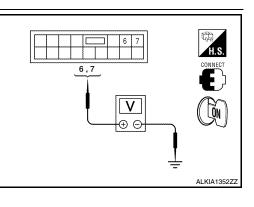
- YES >> Key cylinder switch is OK.
- NO >> Refer to <u>PWC-214</u>, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

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

Terminals				
(+) Main power window and door lock/unlock switch connector				Voltage (V)
		(–)	Key position	(Approx.)
	6	6	Lock	0
D7			Neutral/Unlock	5
זט	7	Ground	Unlock	0
			Neutral/Lock	5



Is the measurement value within the specification?

YES >> Replace main power window and door lock/unlock switch. After that, refer to <u>PWC-199</u>, "<u>POWER</u> <u>WINDOW MAIN SWITCH : Special Repair Requirement</u>".

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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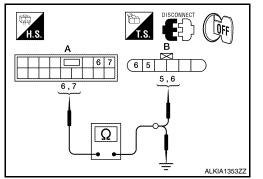
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DOOR KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 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	
DT (A)	7	D10(B)	5	165	



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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	Quant	Continuity	
D7 (A)	6	Ground	No	
DT (A)	7	1	INO	

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-215, "Component Inspection".

Is the inspection result normal?

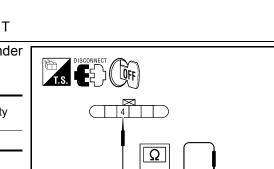
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace door lock assembly LH (door key cylinder switch). After that, refer to <u>PWC-216</u>, <u>"Special</u> <u>Repair Requirement"</u>.

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

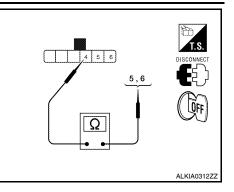


DOOR KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

Check door lock assembly LH (key cylinder switch).

Terminal		Key position	Continuity
Door lock assembly LH (key cylinder switch) connector			
5	4	Unlock	Yes
		Neutral/Lock	No
6		Lock	Yes
		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-216, "Special</u> <u>Repair Requirement"</u>.

Special Repair Requirement

INFOID:000000004205108

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-190</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : 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

< COMPONENT DIAGNOSIS > POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

B 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-III. Refer to <u>BCS-19, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	(Condition	
CDL LOCK SW	LOCK	: ON	
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
ODE DIVEOUR SW	UNLOCK	: ON	

Is the inspection result normal?

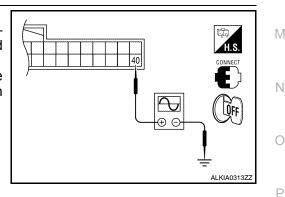
YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-217, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"</u>.

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

Power Window Serial Link Check

- 1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK 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".



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INFOID:000000004205109

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POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

	Terminal			
(+)		()	Signal (Reference value)	
BCM connector	Terminal	()	()	
M18	40	Ground	(V) 15 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	

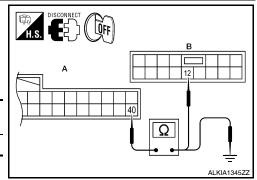
Is the inspection result normal?

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.
- 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	Terminal	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-291</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-199</u>, "<u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair</u> <u>Requirement</u>".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000004205112

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:000000004205113

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

POWER WINDOW SERIAL LINK

< COMPONENT 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-III. Refer to <u>BCS-19, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Signal

Monitor item	0	Condition	
	LOCK	: ON	В
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNECCR SW	UNLOCK	: ON	C

Is the inspection result normal?

- YES >> Power window serial link is OK.
- NO >> Refer to <u>PWC-219</u>, "PASSENGER SIDE : Diagnosis Procedure".

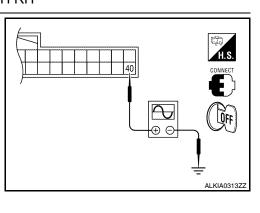
PASSENGER SIDE : Diagnosis Procedure

Power Window Serial Link Check

Terminal

(...)

- 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
- 1. Remove Intelligent Key, and close the 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".



(+)		(-)	(Reference value)
BCM connector	Terminal	()	
M18	40	Ground	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10

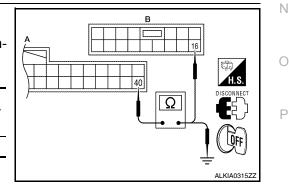
Is the inspection result normal?

YES >> Power window serial link is OK.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- 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.

PWC-219

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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-291</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-199</u>, "<u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair</u> <u>Requirement</u>".

NO >> Repair or replace harness.

POWER WINDOW LOCK SWITCH

< COMPONENT 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. <u>Does power window lock operate?</u> YES >> Replace main power window and door lock/unlock switch. Refer to PWC-291. "Removal

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-291</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-221</u>, "<u>Special Repair Requirement</u>".
- NO >> Check condition of harness and connector.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-190, "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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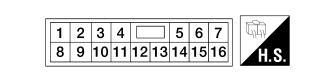
ECU DIAGNOSIS POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000004205119

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TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termina	al No.	Description			Voltage [V]
+	_	Signal name	Input/ Output	Condition	(Approx.)
1 (R/Y)	Ground	Battery power supply	Input	_	Battery voltage
5 (G/R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
6 (L/B)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral \rightarrow Locked)	$5 \rightarrow 0$
7 (L/R)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral \rightarrow Unlocked)	$5 \rightarrow 0$
8 (L/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 (G/Y)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 2 0 10 ms JMKIA0070GB
				IGN SW ON	Battery voltage
10 (L/W)	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 (L/B)	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

[LH&RH FRONT ANTI-PINCH-COUPE]

Termina	al No.	Description			Voltage IV/I	0
+	_	Signal name	Input/ Output	Condition	Voltage [V] (Approx.)	А
12 (Y/G)	Ground	Power window serial link	Input/ Output	IGN SW ON or power win- dow timer operating.	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1	B
						D
13 (G/W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 2 0 	E
					JMKIA0070GB	Г
14 (W/B)	Ground	Encoder ground		_	0	G
15 (B)	Ground	Ground		_	0	0

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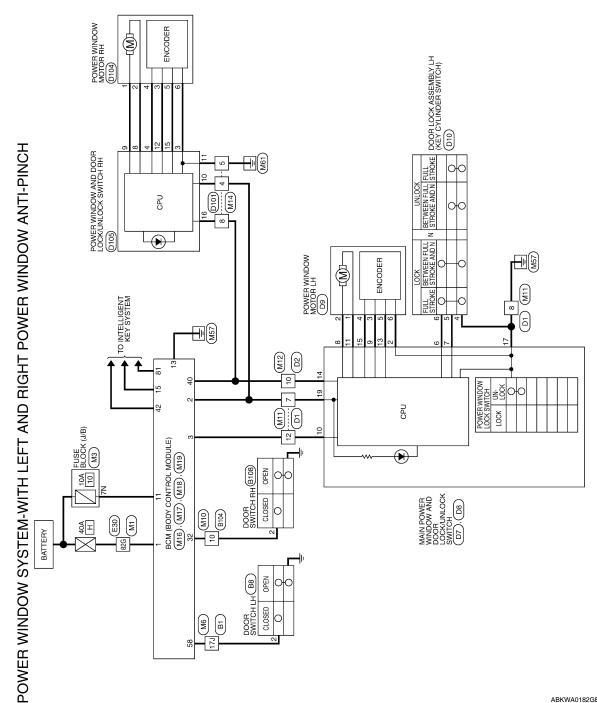
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Wiring Diagram

INFOID:000000004205120



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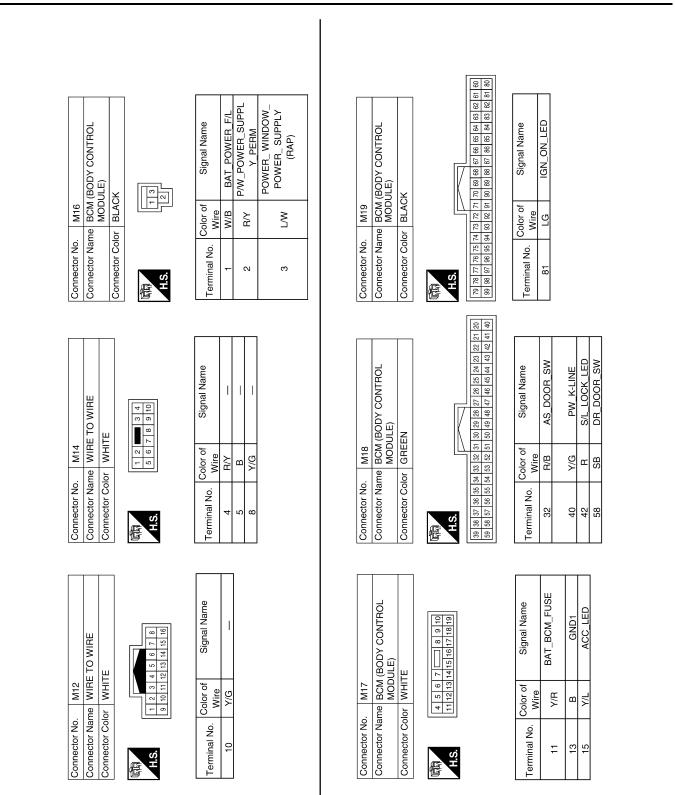
			А
			В
	Signal Name	Signal Name IIIII	С
W ANTI-PINCH M6 WIRE TO WIRE WHITE W			D
	No. Color of Wire SB	No. Wire Mire B L/W	Е
OWER WINDO Connector Name Connector Name	Terminal No.	Terminal No. 7 12 12	F
			G
ONNECTORS - WITH LEFT AND RIGHT DOWER WINDOW ANTI-PINCH Connector No. M3 Connector No. M6 Connector Name FUSE BLOCK (J/B) Connector Name WIE TO WIRE Management Mage Management Mage Management Mage Management Mage Management Mage Mage Mage	Signal Name	111 I'IRE TO WIRE 1111E 1311112 1311115 1516	Н
	Color of Wire Y/R	Number M11 Nor WHIT 12 10	Ι
ORS - WITH Connector No. Connector Name Connector Color	Terminal No. 7N	Connector No. M11 Connector Name WIRE TO WIRE Connector Color WHITE	J
			PWC
STEM CON VIRE 26 4/6 36 376 366 366 376 366 366 376 366 366 456 440 439 426 456 440 439 426 456 440 439 626 526 516 356 526 516 356 526 516 356 526 516	Signal Name -	Signal Name	L
M1 M1 M1 ame WIRE TO WIRE Dior WHITE 36 85 705 144 170 166 366 576 360 586 360 586 360 586 360 586 360 586 360 586 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 576 586 586 586 586 586 586 586	Signa	3 2 0WN 0WN 10 9 7 Signal 10	M
POWER WINDOW SYSTEM C Connector No. M1 Connector Name WIRE TO WIRE Mile State State State	D. Color of Wire W/B	Alight Alight Alight Alight	Ν
VER WIND Connector No. Connector Name Sada Sada Sada Sada Sada Sada Sada Sad	Terminal No. 82G	Connector No. Connector Name Connector Color A.S. Terminal No. Color 10 F	0
		ABKIA0599GB	0

POWER WINDOW MAIN SWITCH

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[LH&RH FRONT ANTI-PINCH-COUPE]

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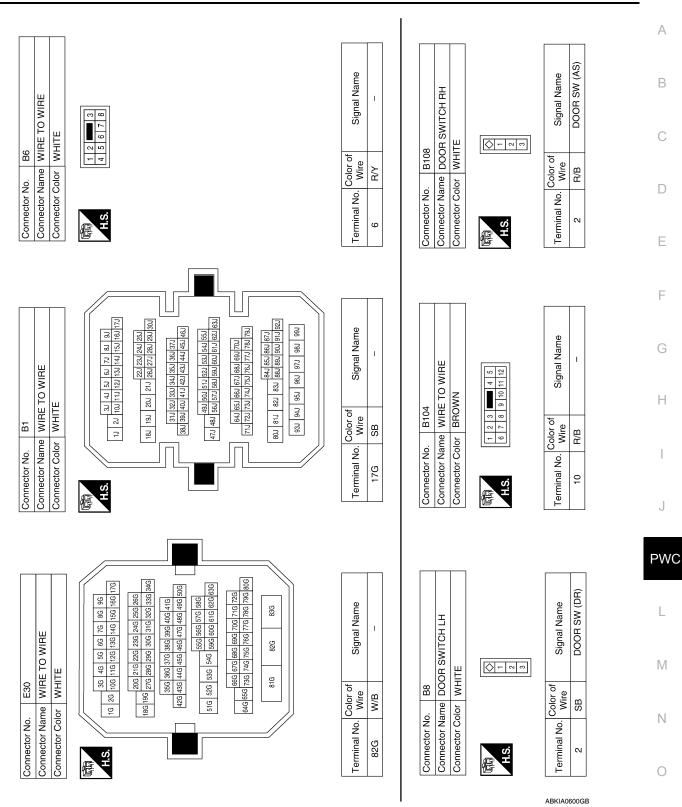


POWER WINDOW MAIN SWITCH

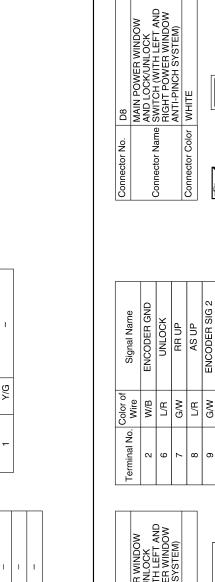
< ECU DIAGNOSIS >

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POWER WINDOW MAIN SWITCH [LH&RH FRONT ANTI-PINCH-COUPE]



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Signal Name

Color of Wire

Terminal No.

Signal Name

Color of Wire

Terminal No.

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Connector Name WIRE TO WIRE

Connector Name WIRE TO WIRE Connector Color WHITE

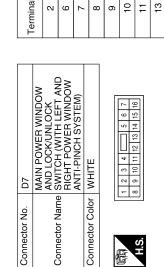
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Connector No.

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Connector No.

Connector Color WHITE



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[LH&RH FRONT ANTI-PINCH-COUPE]

Signal Name GND BAT

Color of

Wire

Terminal No. 7 19

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ENCODER SIG

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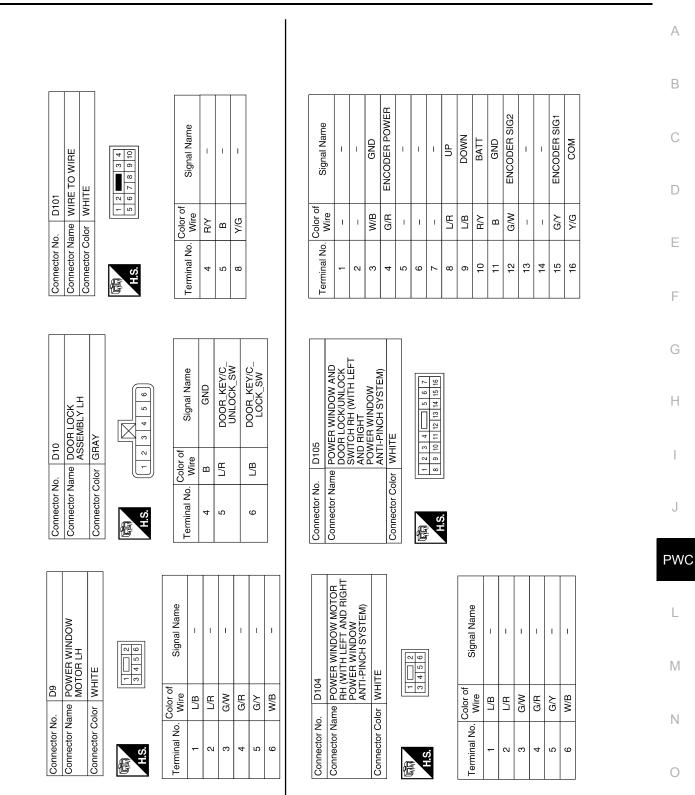
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Fail Safe

INFOID:000000004205121

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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.

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

POWER WINDOW MAIN SWITCH

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).

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.

FRONT POWER WINDOW SWITCH

Reference Value

INFOID:000000004205122

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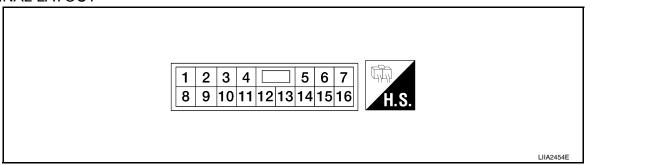
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PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

– Ground	Signal name	Input/ Output	Condition	Voltage [V] (Approx.)	
Ground		Signal name		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	H
	Encoder ground	_	_	0	
Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10	
9	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage	J
8	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage	
Ground	Battery power supply	Input	_	Battery voltage	P۷
Ground	Ground		_	0	L
3	Encoder pulse signal 2	Input	When power window motor op- erates.	(V) 6 4 2 0 	N
	9 8 Ground Ground	9 Power window motor UP signal 8 Power window motor DOWN signal Ground Battery power supply Ground Ground	9Power window motor UP signalOutput8Power window motor DOWN signalOutputGroundBattery power supplyInputGroundGround—	Ground Encoder power supply Output power window timer operates 9 Power window motor UP signal Output When power window motor is UP at operated. 8 Power window motor DOWN signal Output When power window motor is DOWN at operated. Ground Battery power supply Input — Ground Ground — — 3 Encoder pulse signal 2 Input When power window motor op-	Ground Encoder power supply Output power window timer operates TO 9 Power window motor UP signal Output When power window motor is UP at operated. Battery voltage 8 Power window motor DOWN signal Output When power window motor is DOWN at operated. Battery voltage Ground Battery power supply Input — Battery voltage Ground Ground — — 0 3 Encoder pulse signal 2 Input When power window motor op- erates. $\begin{pmatrix} V \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\$

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FRONT POWER WINDOW SWITCH

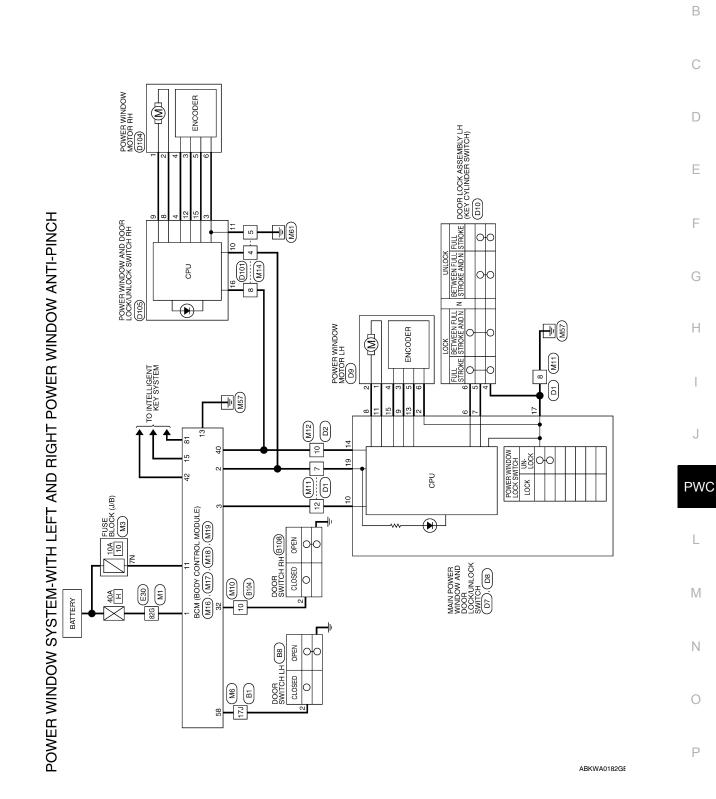
< ECU DIAGNOSIS >

Termi	nal No.	Description			Voltage [V]		
+	_	Signal name	Input/ Output	Condition	(Approx.)		
15 (G/Y)	3	Encoder pulse signal 1	Input	When power window motor op- erates.	(V) 6 2 0 ••••• 10 ms JMKIA0070GB		
16 (Y/G)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 0 0 10 ms JPMIA0013GB		

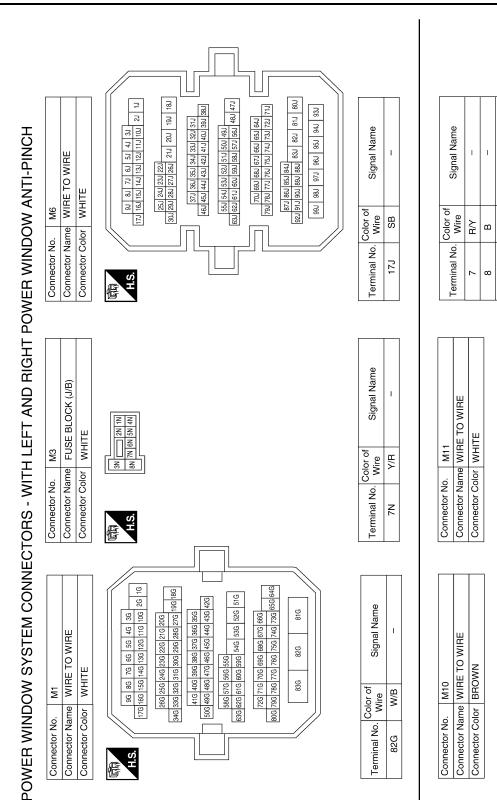
Wiring Diagram



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FRONT POWER WINDOW SWITCH



Terminal No. Color of Signal Name 10 R/B -

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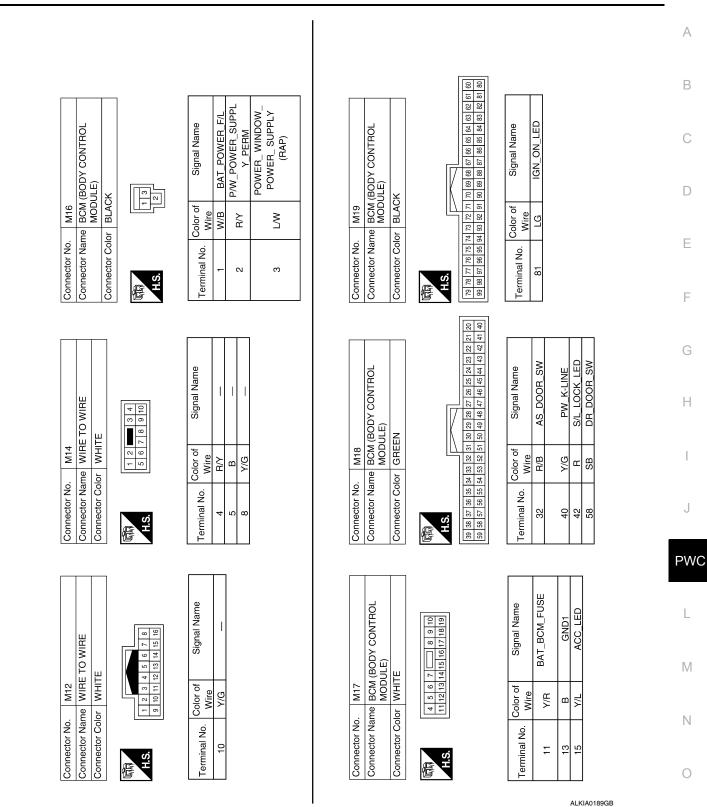
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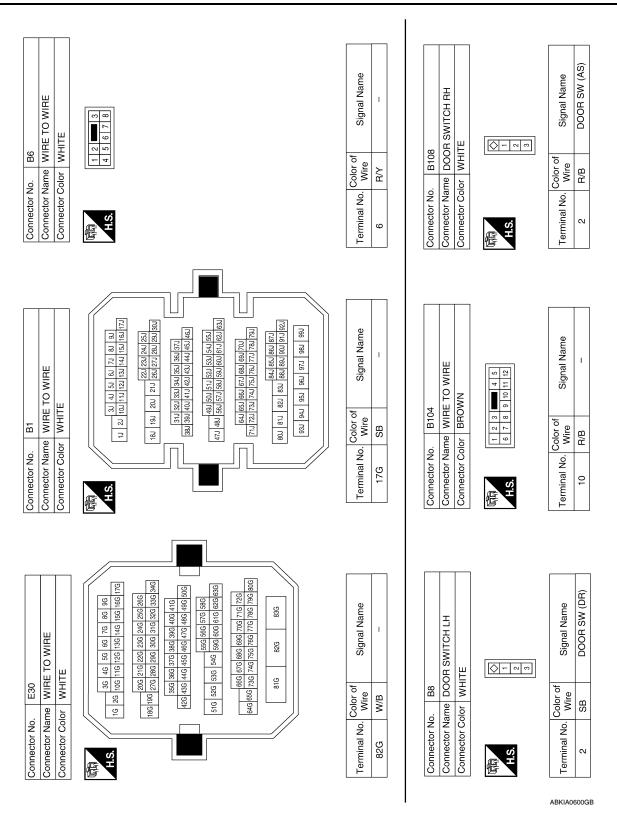


FRONT POWER WINDOW SWITCH

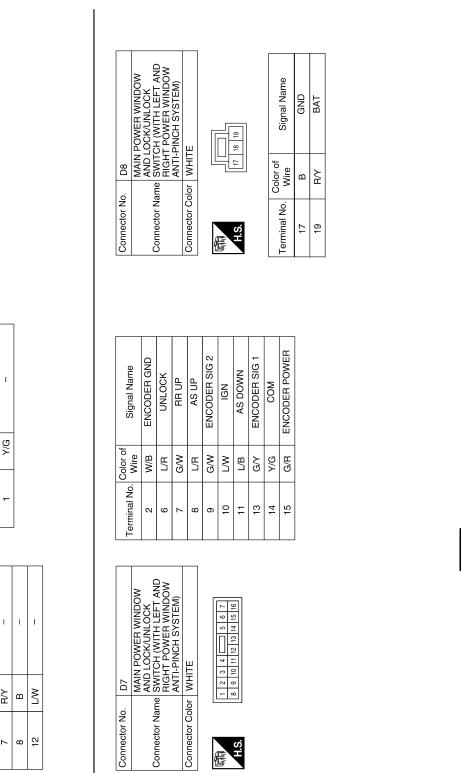
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[LH&RH FRONT ANTI-PINCH-COUPE]

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FRONT POWER WINDOW SWITCH [LH&RH FRONT ANTI-PINCH-COUPE]



Connector Name WIRE TO WIRE Connector Color WHITE Connector No. H.S. E
 7
 6
 5
 4
 3
 2
 1

 16
 15
 14
 13
 12
 11
 10
 9
 8
 Connector Name WIRE TO WIRE Connector Color WHITE 5 Connector No. H.S.

E

Signal Name L Color of Wire RУ Terminal No. \sim

Signal Name

Color of Wire

Terminal No.

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D101 WIRE TO WIRE WHITE	1 2 4 1 7 8 9 10	Signal Name		I	I	I			Signal Name	I	1	GND	ENCODER POWER	I	I	I	UP	DOWN	BATT	GND	ENCODER SIG2	1	I	ENCODER SIG1	COM
	2 0 5	Color of	WIre	R/Y	B	γ/G			Color of	- NIC	1	W/B	G/R	I	I	I	L/R	L/B	RY	в	G/W	1	1	G/Y	γ/G
Connector No. Connector Name Connector Color	H.S.	Terminal No		4	£	8			Terminal No	1	2	e	4	5	6	7	8	6	10	11	12	13	14	15	16
Connector No. D10 Connector Name DOOR LOCK ASSEMBLY LH Connector Color GRAY	-	Terminal No. Color of Signal Name	MIG	<u>י</u> מ			6 L/B DUUN KEY/C LOCK_SW		Connector No. D105	Connector Name POWER WINDOW AND DOOR LOCKUNLOCK			Connector Color WHITE			8 9 10 11 12 13 14									
D9 POWER WINDOW MOTOR LH WHITE	3	Signal Name	I	I	I	I	I	1	4	POWER WINDOW MOTOR RH (WITH LEFT AND RIGHT	VER WINDOW	ITE			4 5			Signal Name	,	I	1	I	I	I	1
or ae		Ŭ,	L/B	ЦЛ	G/W	G/R	G/Y	W/B	o. D104	Connector Name POV RH (POV	Connector Color WHITE	_		e			Color of	Alle	р Г		G/W	G/R	G∕	W/B
Connector No Connector Na Connector Co	1	Terminal No.		T			1		Connector No.	Ιž		10	5					Terminal No.		T	T				

Fail Safe

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FAIL-SAFE CONTROL

< ECU DIAGNOSIS >

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.

FRONT POWER WINDOW SWITCH

[LH&RH FRONT ANTI-PINCH-COUPE]

FRONT POWER WINDOW SWITCH

[LH&RH FRONT ANTI-PINCH-COUPE]

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).

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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BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status			
FR WIPER HI	Other than front wiper switch HI	OFF			
	Front wiper switch HI	ON			
	Other than front wiper switch LO	OFF			
FR WIPER LOW	Front wiper switch LO	ON			
	Front washer switch OFF	OFF			
FR WASHER SW	Front washer switch ON	ON			
	Other than front wiper switch INT	OFF			
FR WIPER INT	Front wiper switch INT	ON			
	Front wiper is not in STOP position	OFF			
FR WIPER STOP	Front wiper is in STOP position	ON			
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position			
	Other than turn signal switch RH	OFF			
TURN SIGNAL R	Turn signal switch RH	ON			
	Other than turn signal switch LH	OFF			
TURN SIGNAL L	Turn signal switch LH	ON			
	Other than lighting switch 1ST and 2ND	OFF			
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON			
	Other than lighting switch HI	OFF			
HI BEAM SW	Lighting switch HI	ON			
	Other than lighting switch 2ND	OFF			
HEAD LAMP SW 1	Lighting switch 2ND	ON			
	Other than lighting switch 2ND	OFF			
HEAD LAMP SW 2	Lighting switch 2ND	ON			
	Other than lighting switch PASS	OFF			
PASSING SW	Lighting switch PASS	ON			
	Other than lighting switch AUTO	OFF			
AUTO LIGHT SW	Lighting switch AUTO	ON			
	Front fog lamp switch OFF	OFF			
FR FOG SW	Front fog lamp switch ON	ON			
	Driver door closed	OFF			
DOOR SW-DR	Driver door opened	ON			
	Passenger door closed	OFF			
DOOR SW-AS	Passenger door opened	ON			
	Rear door RH closed	OFF			
DOOR SW-RR	Rear door RH opened	ON			
	Rear door LH closed	OFF			
DOOR SW-RL	Rear door LH opened	ON			
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF			

[LH&RH FRONT ANTI-PINCH-COUPE]

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< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

Monitor Item	Condition	Value/Status	
	Other than power door lock switch LOCK	OFF	А
CDL LOCK SW	Power door lock switch LOCK	ON	
	Other than power door lock switch UNLOCK	OFF	В
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	С
	Other than driver door key cylinder UNLOCK position	OFF	
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	ON	D
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF	
	When hazard switch is not pressed	OFF	Е
HAZARD SW	When hazard switch is pressed	ON	
REAR DEF SW	When rear window defogger switch is pressed	ON	
	Trunk lid opener cancel switch OFF	OFF	F
TR CANCEL SW	Trunk lid opener cancel switch ON	ON	
	Trunk lid opener switch OFF	OFF	G
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON	G
	Trunk lid closed	OFF	
TRNK/HAT MNTR	Trunk lid opened	ON	Н
	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	I
RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON	
	When TRUNK OPEN button of Intelligent Key is not pressed	OFF	J
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	PW
	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	L
	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	M
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V	
OF HORE SENSOR	When outside of the vehicle is dark	Close to 0 V	Ν
REQ SW-DR	When driver door request switch is not pressed	OFF	
REQ 3W-DR	When driver door request switch is pressed	ON	\cap
REQ SW-AS	When passenger door request switch is not pressed	OFF	0
REQ 3W-AS	When passenger door request switch is pressed	ON	
	When trunk request switch is not pressed	OFF	Ρ
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	
IGN RLY2-F/B	Ignition switch ON	ON	

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
	Ignition switch OFF	OFF
ACC RLY-F/B	Ignition switch ACC or ON	ON
	When the clutch pedal is not depressed	OFF
CLUTCH SW	When the clutch pedal is depressed	ON
	When the brake pedal is not depressed	ON
BRAKE SW 1	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
PUSH SW-IPDM	When engine switch (push switch) is not pressed	OFF
	When engine switch (push switch) is pressed	ON
IGN RLY1 F/B	Ignition switch OFF or ACC	OFF
IGN KLT I F/D	Ignition switch ON	ON
DETE SW -IPDM	When selector lever is in P position	OFF
	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
SFT P-MET	When selector lever is in any position other than P	OFF
SFT P-IVIET	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

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

Monitor Item	Condition	Value/Status		
	Driver door LOCK status	LOCK	_	
OOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY		
	Driver door UNLOCK status	UNLK		
	Passenger door LOCK status	LOCK		
OOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY		
	Passenger door UNLOCK status	UNLK		
	Ignition switch ACC or ON	RESET		
D OK FLAG	Ignition switch OFF	SET		
	When the engine start is prohibited	RESET		
RMT ENG STAT	When the engine start is permitted	SET		
PRMT RKE STAT	NOTE:	RESET		
RWH RRE STAT	This item is displayed, but cannot be monitored.		-	
EY SW -SLOT	When Intelligent Key is not inserted into key slot	OFF	_	
	When Intelligent Key is inserted into key slot	ON	_	
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key	_	
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key		
	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET		
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE		
	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET		
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE		
	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET		
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE		
	The key ID that the key slot receives does not accord with the sec- ond key ID registered to BCM.	YET		
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE		
	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET		
CONFIRM ID1	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE		
D 4	The ID of fourth key is not registered to BCM	YET		
P 4	The ID of fourth key is registered to BCM	DONE		
	The ID of third key is not registered to BCM	YET		
P 3	The ID of third key is registered to BCM	DONE		
.	The ID of second key is not registered to BCM	YET		
P 2	The ID of second key is registered to BCM	DONE		
	The ID of first key is not registered to BCM	YET		
P 1	The ID of first key is registered to BCM	DONE		
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is re- ceived)	Air pressure of front LH tire		
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is re- ceived)	Air pressure of front RH tire		

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

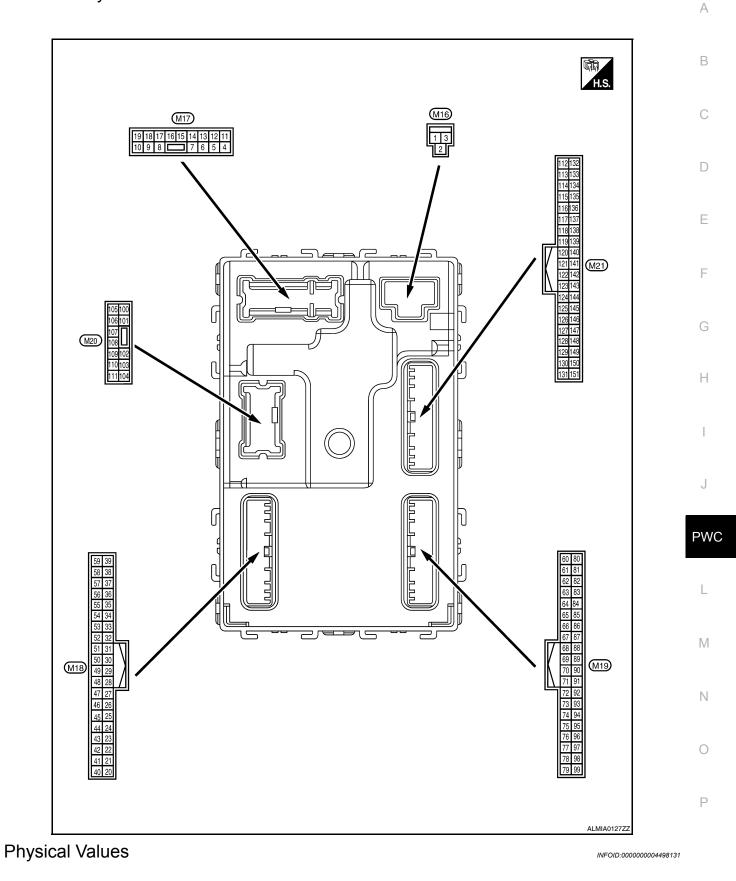
< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE
ID REGST LT	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
ID REGGI FRI	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
ID REGGI REI	When ID of rear LH tire transmitter is not registered	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
	Tire pressure indicator ON	ON
BUZZER	Tire pressure warning alarm is not sounding	OFF
DULLER	Tire pressure warning alarm is sounding	ON

Terminal Layout

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

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BCM (BODY CONTROL MODULE)

	inal No.	Description				Value
(vvire (+)	e color) (-)	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	Ground	Interior room lamp	Output	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	Ground	Front door RH UN-	Output		UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actuator is not activated)	0V
7	Ground	Step lamp	Output	Step lamp	ON	OV
(R/W)	Glound	Step lamp	Output	Stephanip	OFF	Battery voltage
8	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activat- ed)	Battery voltage
(V)	Ground	All doors LOCK	Output	All doors	Other than LOCK (actuator is not activated)	0V
9	Cround	Front door LH UN-	Outout	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	Output	and rear door LH	Other than UNLOCK (actu- ator 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		٥V
					OFF	0V
14 (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 (V) 10 0 2 ms JSNIA0010GB
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	ACC or ON	0V

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

Terminal No.						Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	А
(+)	(-)		Output		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 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15	B C D
					Turn signal switch OFF	0V	Е
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	F
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	Battery voltage	Н
21				Ignition switch	When outside of the vehi- cle is bright	Close to 5V	I
(P/B)	Ground	Optical sensor signal	Input	ŎN	When outside of the vehi- cle is dark	Close to 0V	
22 (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V	J
(101)					ON (clutch pedal is de- pressed)	Battery voltage	PWC
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	L
(O/L)	Cround		mput		ON (brake pedal is de- pressed)	Battery voltage	М
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 11.8V	N
					UNLOCK status	0V	Ρ
29 (Y)	Ground	Key slot switch	Input	_	ey is inserted into key slot	Battery voltage	
30					ey is not inserted into key slot OFF	0	
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage	

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value
	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	-	Output			21/
31 (G)	Ground	Rear window defog- ger feedback signal	Input	Rear window de- fogger switch	OFF	0V
(0)		ger reeuback signal		logger switch	ON	Battery voltage
32 (R/B)	Ground	Front door RH switch		Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (when front door RH opens)	0V
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	5V
(SB)	Ciouna	nal	mput	VO SWICH	ON	0V
34 ²	Cross-	Front door lock as-	ا	Front door lock	OFF (neutral)	5V
(L/R)	Ground	sembly LH (key cylin- der switch) (unlock)	Input	assembly LH (key cylinder switch)	ON (unlock)	0V
36 ²	Cround	Lock switch signal	Input	Door lock/unlock	Lock	Battery voltage
(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 0 10 ms JPMIA0012GB 1.1V
					ON	OV
38		Rear window defog-	1	Rear window de-	OFF	5V
(GR/ W)	Ground	ger ON signal	Input	fogger switch	ON	0V
39 ²	Ground	Unlock switch signal	Input	Door lock/unlock	Unlock	Battery voltage
(GR/ R)	Giouna	Uniock switch signal	input	switch	Lock	0V
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB 10.2V
				Ignition switch OFF	F or ACC	0V
				Engine switch	ON	5.5V
41 (W)	Ground	Engine switch (push switch) illumination	Output	(push switch) illu- mination	OFF	0V
42	0		0	LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
	ı					1

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Terminal No.		Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)	
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V	В
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF ACC or ON	0V 5.0V	0
47 (G/O)	Ground	Tire pressure receiv- er signal	Input/ Output	Ignition switch ON	Standby state	(V) 6 4 0 • • 0.2s 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C D E
					When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s OCC3860D	F G H
48 (R/G)	Ground	Selector lever P/N position signal	Input	Selector lever	P or N position	12.0V	
(R/G)					Except P and N positions ON	0V 0V	
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB 11.3V	J PW
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	OFF All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND	Battery voltage 0V (V) 15 10 5 0 2 ms JPMIA0031GB	M

BCM (BODY CONTROL MODULE)

Terminal No.		Description				Value
(Wire color)		Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	Signal name	Output			
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	٥V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
					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	15 0 2 ms JPMIA0032GB
	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0V
					Front washer switch ON (Wiper intermittent dial 4)	(<u>)</u>
52 (G/B)					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • WIper intermittent dial 5 • Wiper intermittent dial 6	15 10 5 0 2 ms 10.7V
					All switch OFF	0V
	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	
					Front wiper switch LO	(V)
53 (LG/ R)					Lighting switch AUTO	15 0 2 ms JPMIA0034GB
					All switch OFF	10.7V
	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	Front fog lamp switch ON	
					Lighting switch 2ND	
54 (G/Y)					Lighting switch flash-to- pass	
()					Turn signal switch LH	2 ms JPMIA0035GB 10.7∨
55 (BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	ON	Battery voltage
					OFF	0V
56 ²		Front door lock as-		Front door lock assembly LH (key cylinder switch)	OFF (neutral)	5V
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input		ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input			5V

BCM (BODY CONTROL MODULE)

Terminal No. (Wire color)		Description Signal name Input/		Condition		Value (Approx.)	
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	B C D
					ON (front door LH OPEN)	0V	
59		Rear window defog-	0.1.1	Rear window de-	Active	Battery voltage	Е
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V	
	Ground	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	F
60						JMKIA0062GB	
60 (B/R)							Η
(2/13)					When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 S JMKIA0063GB	l J
61 (W/R)	Ground	Center console an- tenna 2 (+)		Ignition switch OFF		(V)	P٧
					When Intelligent Key is in the passenger compart- ment		L
						JMKIA0062GB	N
			Output				
					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0	Ν
							С
						JMKIA0063GB	
			<u> </u>				F

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value	
(+)	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)	
624	Ground	Front outside handle RH antenna (-)	Output	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 0 1 s JMKIA0062GB	
(B/Y)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
63 ⁴	Ground	Front outside handle RH antenna (+)	Output	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 10 5 0 1 s JMKIA0062GB	
(LG)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
64 ⁴	Ground	Ground Front outside handle Outp	0.4-14	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(V)			Cutput	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
65 ⁴		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	B C D
(P)	Ground	LH antenna (+)	Output	switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
66	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB	G H I
(R)		tenna (-)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	J PWC
67	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M
(G)		tenna (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB	P

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

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		10313 >			-	-
	inal No. e color)	Description	Input/		Condition	Value
(+)	(-)	Signal name	Output			(Approx.)
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	•	5	ON	Battery voltage
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1
(L/O)	Ground	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4V
75 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 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 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3V

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BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value	٨
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 0 2.ms JPMIA0041GB 1.4V	B C D
76	Ground	Combination switch	Input	Combination	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3V	E
(R/G)	Glound	INPUT 3	mput	switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3V	G H I
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1 2)/	J PWC
77	Ground	Engine switch (push	Input	Engine switch	Pressed	1.3V 0V	L
(BR)	Ground	switch)		(push switch)	Not pressed	Battery voltage	M
78 (P)	Ground	CAN-L	Input/ Output		_	-	
79 (L)	Ground	CAN-H	Input/ Output		_	_	Ν
					OFF	OV	
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 0 1 s JPMIA0015GB 6.5V	O
					ON	Battery voltage	
			1	i	1		

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BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value
(VVire (+)	e color) (-)	Signal name Input/ Output OFF or ACC		(Approx.)		
81					OFF or ACC	0V
(LG)	Ground	ON indicator lamp	Output	Ignition switch	ON	Battery voltage
83	Ground	ACC relay control	Output			0V
(L)	Giouna	ACC Telay control	Output	Ignition Switch	ACC or ON	Battery voltage
84 (Y/R)	Ground	CVT device	Output		_	Battery voltage
85	Cround	Electronic steering	المعربة	Electronic steer-	Lock status	0V
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage
86	Oraciad	Electronic steering	la a d	Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V
87	Ground	Selector lever P posi-	Input	Selector lever	P position	0V
(G/B)	Glound	tion switch	input		Any position other than P	Battery voltage
					ON (pressed)	0V
88 ⁴ (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 0 0 10 ms JPMIA0016GB 1.0V
					ON (pressed)	0V
89 ⁴ (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		Blower fan motor re-			OFF or ACC	0V
90 (Y)	Ground	lay control	Output	Ignition switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFF	=	Battery voltage
94	Ground	Steering wheel lock	Output	Ignition switch	OFF or ACC	Battery voltage
(G/Y)	Cround	unit power supply	Caiput	Sincer Switch	ON	0V

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

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V	B C D
					Turn signal switch LH	(V) 15 0 2 ms JPMIA0037GB 1.3V	E
95 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 2 ms JPMIA0036GB 1.3V	G H
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V	J PWC
					Front washer switch ON	(V) 15 10 5 2 ms JPMIA0039GB 1.3V	M
							0

BCM (BODY CONTROL MODULE) [LH&RH FRONT /

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
96	Ground	Combination switch INPUT 4	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 10 0 2 ms JPMIA0038GB 1.3V
(P/B)				switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 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 2 ms JPMIA0039GB 1.3V

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

< ECU DIAGNOSIS >

Description

Terminal No.

Value А (Wire color) Condition Input/ (Approx.) Signal name (+) (-) Output В (V 15 10 Ō All switch OFF С 2 ms JPMIA0041GB D 1.4V (۷ Е 15 10 Lighting switch flash-to-C pass F 2 ms JPMIA0037GB 1.3V G (۷ 15 Combination 10 Н Combination switch 97 switch Lighting switch 2ND n Ground Input INPUT 2 (R/B) (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3V J (۷ 15 10 0 Front wiper switch INT PWC 2 ms JPMIA0038GB L 1.3V 15 Μ Front wiper switch HI 0 Ν 2 ms JPMIA0040GB 1.3V Ο Pressed 0 V Ρ 98 Ground Hazard switch Input Hazard switch (G/O) Not pressed 10 ms JPMIA0012GB 1.1V

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BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

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

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				Value
(vvire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
115	0	Rear parcel shelf an-	0.4-1	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 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 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15
(W)	Ground	tenna 1 (+)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB
118 ⁴		Rear bumper anten-		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)	Ground	na (-)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15
119 ⁴ (BR/	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
(BR/ W)	Siduna	na (+)	Catput	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

	inal No.	Description				
	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	oignaí name	Output		Γ	
127 (BR/	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage
W)	Giouna	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 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (trunk is open)	0V
				Ignition 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		0V
					ON (pressed)	0V
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
144 ⁴	Cround	Intelligent Key warn-	Quitaut	Request switch	Sounding	0V
(GR)	Ground	ing buzzer	Output	buzzer	Not sounding	Battery voltage
144 ⁵	Ground	Outside warning	Output	Outside warning	Sounding	0V
(GR)	Ground	buzzer	Output	buzzer	Not sounding	Battery voltage
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	OV
(L/R)	Giouna	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 0 10 10 10 10 10 11.8V
					ON (when rear door RH opens)	0V

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

Terminal N	-	Description				Value	^
(Wire colo (+) (-	or) -)	Signal name	Input/ Output		Condition	(Approx.)	A
149 ¹ Gro	und	Rear door LH switch	Input	Rear door LH	OFF (when rear door LH closes)	(V) 15 10 5 0	B
(R/B)	unu		mput	switch	ON (when rear door LH opens)	10 ms JPMIA0011GB 11.8V	D

1: Sedan only

2: With LH front window anti-pinch

3: With LH and RH front window anti-pinch

4: With Intelligent Key

5: Without Intelligent Key

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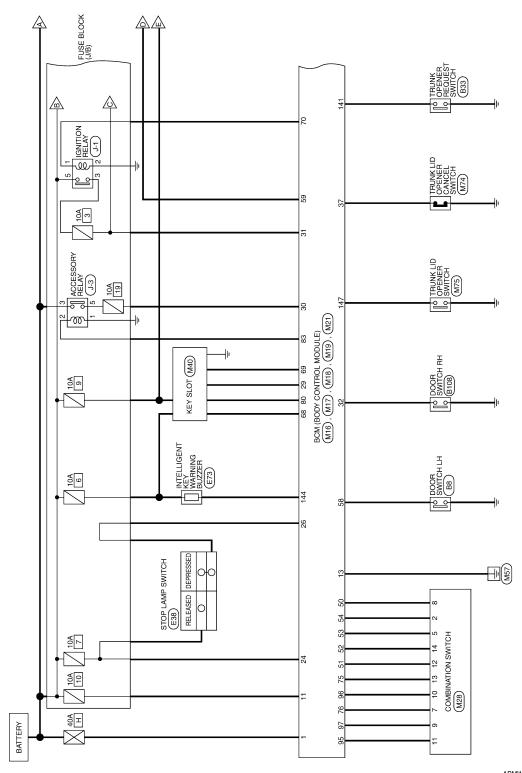
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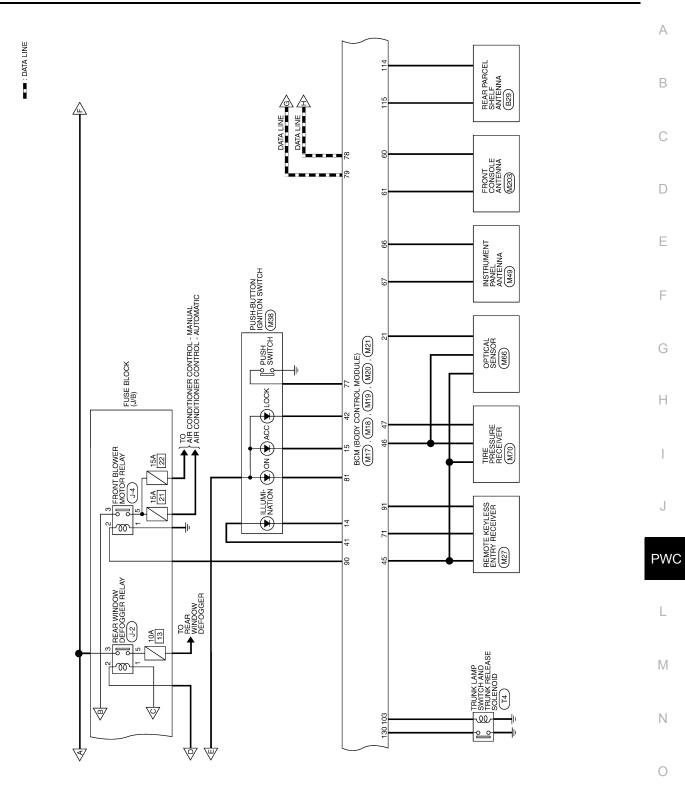
BCM (BODY CONTROL MODULE)

Wiring Diagram-Coupe

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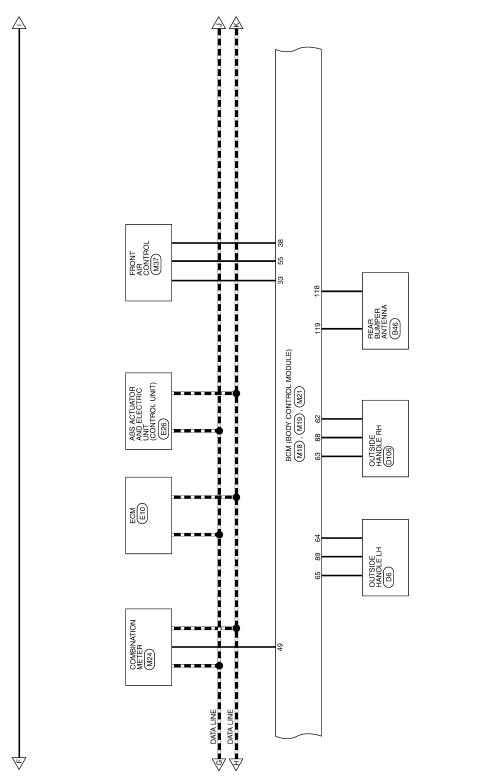


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DATA LINE



AAMWA0057GI

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

< ECU DIAGNOSIS >

(√T): WITH CVT
(√X): WITH QR25DE AND CVT DEPRESSED А ЮЮ CLUTCH INTERLOCK SWITCH E36: M DATA LINE : DATA LINE В Ю 10A 31 52
 M
 : WITH M/T

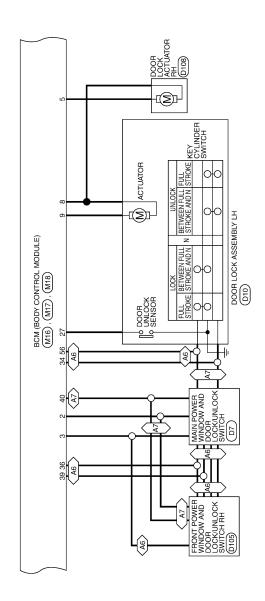
 VC
 : EXCEPT Va3SDE

 VMTH CVT

 VMTH VQ3SDE

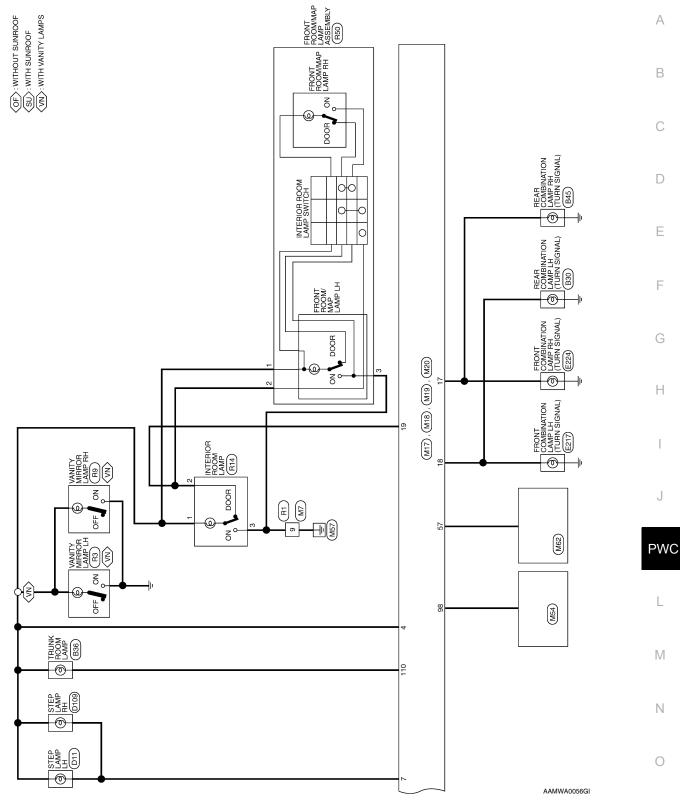
 С IPDM E/R INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) (E17), (E18), (F10) PARKNEUTRAL POSITION (PNP) SWITCH (F32): M 60 D \cap Ε PARK/ NEUTRAL POSITION SWITCH (PNP) SWITCH (Z55) 10A 33 ⊵ F 0 ю P R N D L Č(Š Ο ю -Ē E STARTER CONTROL RELAY ю TCM (TFANSMISSION CONTROL MODULE) (F16): (VR) TO STARTING SYSTEM G RELAY BCM (BODY CONTROL MODULE) (M1B), (M19), (M21) 2 $\left[\Sigma \right]$ ⊵ Н [≥ í۶ 49 PARK POSITION DEVICE SWITCH M23: (VT) Ŧ J RELAY-1 TO CAN SYSTEM PWC СРU Ş ₽ 84 5 L 87 Ĭ. Ï STEERING LOCK RELAY 132 127 Μ DATA LINE DATA LINE 40 40 W ____ Ν 86 ELECTRONIC STEERING COLUMN LOCK M32 Ľ 85 66 ∀ Ο 94 \forall V -11 ۲ ABMWA0156GI

 $\overline{\rm A6}$): with left power window anti-pinch system $\overline{\rm A7}$): with left and right power window anti-pinch system



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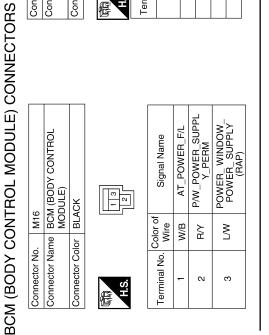
BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-COUPE]

ame	R/FL	L_BACK	I_FUSE		1	USH_LE	ED		HER	HER	OUTPUT
Signal Name	CDL_DR/FL	CDL_RR_RL_BACK	BAT_BCM_FUSE	1	GND1	LOW_SIDE_PUSH_LE D_OUTPUT	ACC_LED	I	FR_FLASHER	FL_FLASHER	ROOM_LAMP_OUTPUT
Color of Wire	σ	G∖	Y/R	I	в	R/Y	۲/۲	I	G/B	G/Y	≻
Terminal No. Color of Wire	6	10	11	12	13	14	15	16	17	18	19

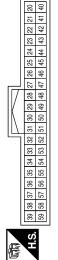
Signal Name	A/L_SENS_KEYLESS_ TUNER_POWER_SUP PLY	KEYLESS_TUNER_SI	SHIFT_N/P	IMMO_LED	INPUT_5	INPUT_1	INPUT_2	INPUT_3	INPUT_4	BLOWER_FAN_SW	DOOR_KEY/C_LOCKSW	TPMS_MODE_TRIGG ER_SW	DR_DOOR_SW	REAR_DEFOGGER_ RLY
Color of Wire	M/N	G/O	R/G	9	LG/B	۲W	G/B	LG/R	G/Y	BR/W	L/B	Ν	SB	G/R
Terminal No.	46	47	48	49	50	51	52	53	54	55	56	57	58	59

Connector No.	. M17	
Connector Name	_	BCM (BODY CONTROL MODULE)
Connector Color	lor WHITE	TE
雨 H.S.	4 5 6 11 12 13	5 6 7 1 8 9 10 12 13 14 15 16 17 18 19
Terminal No.	Color of Wire	Signal Name
4	P/W	ROOM_LAMP_BAT_ SAVER
5	G/Y	CDL_AS
9	I	I
7	МЛ	STEP_LAMP_OUTPUT
8	>	CDL_COMMON

Signal Name	FOB_IN_SW_1	ACC_F/B	IGN_F/B	AS_DOOR_SW	AIRCON_SW	DOOR_KEY/C_ UNLOCK_SW_	I	CENTRAL_UNLOCK_SW	TRUNK_CANCEL_SW	REAR_DEFOGGER_SW	CENTRAL_UNLOCK_SW	PW_K-LINE	PUSH_LED	S/L_LOCK_LED	1	I	GND_RF2_A/L
Color of Wire	Y	γ\٧	σ	R/B	SB	L/R	ı	GR	0	GR/W	GR/R	Y/G	×	œ	ı	I	٩
Terminal No.	59	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45







Signal Name	-	AUTO_LIGHT_SENSO R_INPUT1	CLUTCH_SW	I	STOP_LAMP_LOW_SW	-	STOP_LAMP_HIGH_SW	DOOR_LOCK_STATUS	I
Color of Wire	I	P/B	R/Y	I	R/W	Ι	0/L	G/W	Ι
Terminal No.	20	21	22	23	24	25	26	27	28

ABMIA0468GB

Connector No.		M19 BCM (BODY CONTROL	Terminal No.	Color of Wire	Signal Name	Terminal No
			86	G/O	HAZARD_SW	82
Connector Color	-		66	ΓΛ	S/L_K-LINE	83
	-	:	66	œ	ROOM ANT 1 B	84
			67	: 0		85
1444m			89	G/O	ប	86
H.S.			69	0	FOB READER DATA	87
79 78 77 76 75 74	74 73 77 71	70 69 68 67 66 65 64 63 62 61		R/B	IGN ELEC CONT	88
96 95	92 91	<u>20 20 27 30 32 37 33 32</u> 89 88 87 86 85 84 83 82	808	Г/О	RF1_TUNER_SIGNAL	
	11		72	Ι	I	89
	Color of	Signal Name	73	I	I	0
Terminal No.	Wire		75	R/Y	OUTPUT_5	6
U9	B/B	ROOM ANT 2 B	76	R/G	OUTPUT_3	6
61	N/B	1 0	77	BR	ENG_START_SW	33
. 9	γa	AS DOOR ANT R	78	Ρ	CAN-L	94
- E		AS DOOR ANT A	79	L	CAN-H	-
64	>		80	R/L	FOB_SLOT_	95
65	٩	DR DOOR ANT A			ILLUMINATION	96
			81	ГG	IGN_ON_LED	97
Connector No.	M20			Color of	Signal Name	
Connector Nam	ne BCM (Connector Name BCM (BODY CONTROL	I erminal No.	Wire	,	
		JLE)	100	I	I	
Connector Color	or WHITE	ш	101	I	I	
			102	I	I	
	1001001	1004004001	103	>	CDL BACK TRUNK	
1514 bi	105 106 107	105106107108109110111	104	I	1	
H.S.	101 001 001		105	I	I	
			106	I	I	
			107	I	I	
			001			

Color o Wire	Ι	٦	Y/R	L/0	G/R	G/B	ľd	-		B/W	>	L/B	I	T	ΥÐ		R/М	P/B	R/B	
Terminal No.	82	83	84	85	86	87	88	8		89	06	91	66	93	94		95	96	97	
al Name	RD SW	K-LINE			- ī		DER_DAIA		ER SIGNAL	I	I	PUT_5	PUT_3	FART_SW	AN-L	AN-H	_SLOT_	IINATION	ON_LED	

Signal Name	I	ACC_CONT	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	SHIFT_P	AS_REQUEST SWITCH	DR_REQUEST SWITCH	IGN2_CONT	RF1_POWER_SUPPLY	I		S/L_POWER_SUPPLY_ 12V	OUTPUT_1	OUTPUT_4	OUTPUT_2
Color of Wire	1	L	Y/R	۲0	G/R	G/B	P/L	B/W	Y	L/R	I	I	G/Y	R/W	P/B	R/B
nal No.	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97

B/W	≻	L/R	ı	ı	G∕Y	R/W	P/B	R/B					
89	06	91	92	93	94	95	96	67					
								_	_				
BNAL				MS		1	Z					NK	

Signal Name	I	I	I	CDL_BACK_TRUNK	I	I	I	I	I	I	TRUNK_LAMP_OUTPL	I	
Color of Wire	I	-	-	٨	-	I	I	I	I	I	V/W	I	
Terminal No.	100	101	102	103	104	105	106	107	108	109	110	111	

Signal Name	I	1	I	CDL_BACK_TRUNK	1	1	1	1	1	I	TRUNK_LAMP_OUTPUT	I	
Color of Wire	I	I	I	^	ı	T	I	I	I	I	V/N	I	
No.													

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BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-COUPE]

PWC-271

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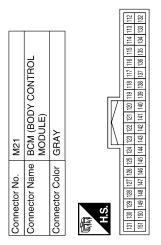
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Connector No. M28 Connector Name COMBINATION SWITCH Connector Color WHITE

Signal Name	WASH_MTR	INPUT_4	INPUT_3	GND	OUTPUT_3	INPUT_5	OUTPUT_2	OUTPUT_4	OUTPUT_1	INPUT_1	OUTPUT_5	OUTPUT_2
Color of Wire	R/L	G∕	LG/R	в	R/G	LG/B	B/B	P/B	R/W	L/W	Яγ	G/B
Terminal No.	-	2	5	9	7	8	6	10	11	12	13	14

Signal Name	I	1	I	IGN_USM_CONT1	I	I	TRUNK_SW	I	ST_CONT_USM	I	I	I	I	I	I	I	I	TRUNK_REQUEST_SW	Ι	I	BUZZER	Ι	I	BACK_TRUNK_ OPENER	I	I	I	I
Color of Wire	I	I	I	BR/W	-	I	γ/G	I	н	I	I	I	I	I	I	-	I	G/R	-	I	G/R	-	I	L/R	I	I	I	I
Terminal No.	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151



Fail Safe

Signal Name	I	I	TRUNK_ANT_1_B	TRUNK_ANT_1_A	I	I	BACK_DOOR_ANT_B	BACK_DOOR_ANT_A	I	I	I
Color of Wire	I	ı	в	Μ	I	I	Г/О	BR/W	I	I	Ι
Terminal No. Color of Wire	112	113	114	115	116	117	118	119	120	121	123

ABMIA0469GB

INFOID:000000004498133

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

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
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 ful- filled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more
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/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status 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)

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

Display contents of CONSULT	Fail-safe	Cancellation
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
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
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)

DTC Inspection Priority Chart

INFOID:000000004498134

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

INFOID:000000004498135

	IUSIS >	
Priority		DTC
4	 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 POSI STATUS 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 B26004: IGNITION RELAY B2609: S/L STATUS B2609: S/L STATUS B26005: STEERING LOCK UNIT B260107: STEERING LOCK UNIT B260107: STATUS B26017: STATE SIG LOST B26112: S/L STATUS B26112: S/L STATUS B26113: BLOWER RELAY CIRC B26113: BLOWER RELAY CIRC B26113: BCM B26114: ACC RELAY CIRC B26115: BLOWER RELAY CIRC B26115: BLOWER RELAY CIRC B26114: ACC RELAY CIRC B26115: BLOWER RELAY CIRC B26115: BLOWER RELAY CIRC B26114: ACC RELAY CIRC B26115: BLOWER RELAY CIRC B26115: BLOWER RELAY CIRC B26115: BLOWER RELAY CIRC B26114: ACC RELAY CIRC B26115: BLOWER RELAY CIRC B26115: BLOWER RELAY CIRC B26114: ACC RELAY CIRC B26115: BLOWER RELAY CI	
5	 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] RR C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] FR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL 	
6	C1734: CONTROL UNIT B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

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-38
U1010: CONTROL UNIT (CAN)			—	BCS-39
U0415: VEHICLE SPEED SIG			—	<u>BCS-40</u>
B2013: ID DISCORD BCM-S/L	×	_	_	<u>SEC-38</u>
B2014: CHAIN OF S/L-BCM	×		—	<u>SEC-39</u>
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-64</u>
B2191: DIFFERENCE OF KEY	×	_	_	<u>SEC-67</u>
B2192: ID DISCORD BCM-ECM	×			<u>SEC-68</u>
B2193: CHAIN OF BCM-ECM	×		_	<u>SEC-69</u>
B2553: IGNITION RELAY	_		_	PCS-60
B2555: STOP LAMP	_		_	<u>SEC-70</u>
B2556: PUSH-BTN IGN SW	_	×	_	<u>SEC-72</u>
B2557: VEHICLE SPEED	×	×	_	<u>SEC-74</u>
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-75</u>
B2562: LOW VOLTAGE	_	_	_	<u>BCS-41</u>
B2601: SHIFT POSITION	×	×		<u>SEC-76</u>
B2602: SHIFT POSITION	×	×	_	<u>SEC-79</u>
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-81</u>
B2604: PNP SW	×	×	_	<u>SEC-84</u>
B2605: PNP SW	×	×	_	<u>SEC-86</u>
B2606: S/L RELAY	×	×	_	<u>SEC-88</u>
B2607: S/L RELAY	×	×	_	<u>SEC-89</u>
B2608: STARTER RELAY	×	×	_	<u>SEC-91</u>
B2609: S/L STATUS	×	×	_	<u>SEC-93</u>
B260A: IGNITION RELAY	×	×	_	PCS-62
B260B: STEERING LOCK UNIT	_	×	_	<u>SEC-97</u>
B260C: STEERING LOCK UNIT	_	×	_	<u>SEC-98</u>
B260D: STEERING LOCK UNIT	_	×	_	<u>SEC-99</u>
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-100</u>
B2612: S/L STATUS	×	×		<u>SEC-101</u>
B2614: ACC RELAY CIRC		×		PCS-65
B2615: BLOWER RELAY CIRC		×		PCS-68
B2616: IGN RELAY CIRC		×		PCS-71
B2617: STARTER RELAY CIRC	×	×		<u>SEC-105</u>
B2618: BCM	×	×		PCS-74

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

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	_	<u>SEC-107</u>
B261A: PUSH-BTN IGN SW	_	×	_	<u>SEC-108</u>
B2621: INSIDE ANTENNA		_	_	<u>DLK-59</u>
B2622: INSIDE ANTENNA		—	—	DLK-62
B2623: INSIDE ANTENNA		—	—	<u>DLK-65</u>
B26E1: ENG STATE NO RES	×	×	—	<u>SEC-110</u>
C1704: LOW PRESSURE FL		_	×	<u>WT-52</u>
C1705: LOW PRESSURE FR			×	<u>WT-52</u>
C1706: LOW PRESSURE RR	—	—	×	<u>WT-52</u>
C1707: LOW PRESSURE RL	—	—	×	<u>WT-52</u>
C1708: [NO DATA] FL	—	—	×	<u>WT-14</u>
C1709: [NO DATA] FR		_	×	<u>WT-14</u>
C1710: [NO DATA] RR		_	×	<u>WT-14</u>
C1711: [NO DATA] RL	_	_	×	<u>WT-14</u>
C1712: [CHECKSUM ERR] FL			×	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR			×	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL	_	—	×	<u>WT-16</u>
C1716: [PRESSDATA ERR] FL	_	—	×	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	—	×	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	_	—	×	<u>WT-18</u>
C1720: [CODE ERR] FL	_	—	×	<u>WT-16</u>
C1721: [CODE ERR] FR	—	_	×	<u>WT-16</u>
C1722: [CODE ERR] RR	_	—	×	<u>WT-16</u>
C1723: [CODE ERR] RL	_	—	×	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	—	—	×	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	_	—	×	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	_	—	×	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL	_	_	×	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR	_	_	×	<u>WT-19</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-20</u>

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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.

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000004499257

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

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.
- 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 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-III.

PWC-278

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	A
SWITCH	В
Diagnosis Procedure	D
1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT	С
Check BCM power supply and ground circuit.	
Refer to <u>BCS-42, "Diagnosis Procedure"</u> . <u>Is the inspection result normal?</u>	D
YES >> GO TO 2	
NO \rightarrow Repair or replace the malfunctioning parts. 2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND	Ε
GROUND CIRCUIT	
Check power window switch main power supply and ground circuit.	F
Refer to <u>PWC-198, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> . <u>Is the inspection result normal?</u>	
YES >> GO TO 3	G
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.	Н
Refer to <u>PWC-198, "POWER WINDOW MAIN SWITCH : Component Function Check"</u> .	
<u>Is the inspection result normal?</u> YES >> GO TO 4	I
YES >> GO TO 4 NO >> Repair or replace the malfunctioning parts.	
4. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	J
Check main power window and door lock/unlock switch. Refer to PWC-198, "POWER WINDOW MAIN SWITCH : Component Function Check".	-
	ΡW
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
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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:000000004205126

1. CHECK POWER WINDOW MOTOR LH

Check power window motor LH.

Refer to PWC-202, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-COUPE] PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE	
Diagnosis Procedure	А
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH	В
Check power window and door lock/unlock switch RH. Refer to PWC-200, "PASSENGER SIDE : Component Function Check".	
Is the inspection result normal?	С
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-218, "PASSENGER SIDE : Component Function Check"</u> .	Е
<u>Is the inspection result normal?</u> 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-204, "PASSENGER SIDE : Component Function Check"</u> .	G
Is the inspection result normal?	
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> .	Н

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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:000000004205128

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-190, "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 PWC-206, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

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	В
1. PERFORM INITIALIZATION PROCEDURE	D
Perform initialization procedure. Refer to <u>PWC-190, "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	Е
 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? 	F
YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts. 3. CHECK ENCODER CIRCUIT	G
Check encoder circuit. Refer to <u>PWC-208, "PASSENGER SIDE : Component Function Check"</u> . Is the inspection result normal?	Н
YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	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:000000004205130

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-190, "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 ENCODER

Check encoder.

Refer to PWC-206, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

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

< SYMPTOM DIAGNOSIS > [LH	&RH FRONT ANTI-PINCH-COUPE]
AUTO OPERATION DOES NOT OPERATE B NORMALLY (PASSENGER SIDE)	UT MANUAL OPERATES
Diagnosis Procedure	INFOID:00000004205131
1. PERFORM INITIALIZATION PROCEDURE	D
Perform initialization procedure. Refer to <u>PWC-190, "ADDITIONAL SERVICE WHEN REPLACING COM ment"</u> .	NTROL 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 ENCODER	E
Check encoder. Refer to <u>PWC-208. "PASSENGER SIDE : Component Function Check</u> "	
<u>Is the inspection result normal?</u> YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent In</u>	cident".

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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:000000004205132

1. CHECK DOOR SWITCH

Check door switch. Refer to <u>PWC-212, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection End.

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

DOES NOT OPERATE BY KEY	
< SYMPTOM DIAGNOSIS >	[LH&RH FRONT ANTI-PINCH-COUPE]
DOES NOT OPERATE BY KEY CYLINDER	SWITCH
Diagnosis Procedure	INFCID:00000004205133
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to <u>PWC-190, "ADDITIONAL SERVICE WHEN REPLAC</u>	ING CONTROL UNIT : Special Repair Require-
<u>ment"</u> . Is the inspection result normal?	
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.	
2. CHECK DOOR LOCK ASSEMBLY LH (KEY CYLINDER S	WITCH)
Check door lock assembly LH (key cylinder switch). Refer to <u>PWC-214, "Component Function Check"</u> .	
Is the inspection result normal? YES >> Inspection End.	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intern</u>	<u>nittent Incident"</u> .

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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:000000004205134

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to <u>SEC-16, "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-96. "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	А
Diagnosis Procedure	
1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	В
Replace main power window and door lock/unlock switch. Refer to <u>PWC-291</u> , " <u>Removal and Installation</u> ". After that, <u>PWC-199</u> , " <u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair Requirement</u> ".	С
Is the inspection result normal?	
 YES >> Inspection End. NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u>. 	D
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ON-VEHICLE MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.

2. Check the following parts.

• Fuse/circuit breaker blown.

• Poor connection, open or short circuit of harness connector.

• Battery voltage.

Is the inspection result normal?

YES >> Inspection end.

NO >> Repair or replace the malfunctioning parts.

ON-VEHICLE REPAIR

POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

1. Remove the power window main switch finisher (2). Refer to INT-12, "Removal and Installation".

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2. Power window main switch (1) is removed from power window main switch finisher (2) using a suitable tool (A).

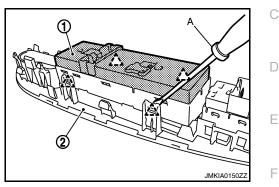
CAUTION:

Do not fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for front power window and door lock/unlock switch RH, and rear power window switch (LH & RH).

INSTALLATION

Installation is in the reverse order of removal.



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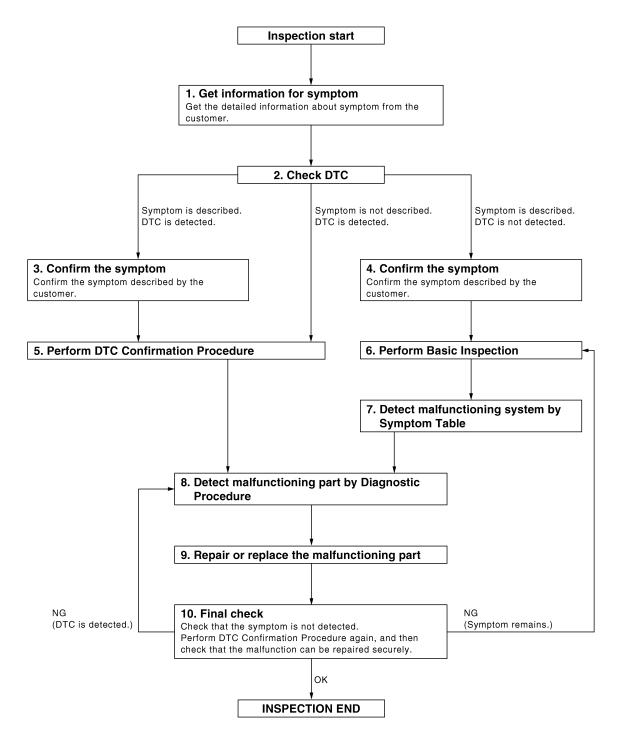
В

BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004205139

OVERALL SEQUENCE



< BASIC INSPECTION >

I. 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
	В
>> GO TO 2	
2. CHECK DTC	C
 Check DTC. Perform the following procedure if DTC is displayed. Record DTC and freeze frame data (Print them out with CONSULT-III.) 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?	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-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.	G
>> GO TO 5	Н
4. CONFIRM THE SYMPTOM	
Confirm the symptom described by the customer. Connect CONSULT-III to the vehicle in "DATA MONITOR" mode and check real time diagnosis results. Verify relation between the symptom and the condition when the symptom is detected.	I
>> GO TO 6	J
5. PERFORM DTC CONFIRMATION PROCEDURE	
	PWC
At this time, always connect CONSULT-III to the vehicle, and check diagnostic results in real time. If two or more DTCs are detected, refer to <u>BCS-90, "DTC Inspection Priority Chart"</u> and determine trouble diagnosis order.	L
 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. 	Μ
Is DTC detected?	Ν
YES >> GO TO 8 NO >> Refer to <u>GI-42, "Intermittent Incident</u> ".	
6. PERFORM BASIC INSPECTION	0
Perform PWC-292, "Work Flow".	
	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-III.

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 E	BATTERY NEGATIVE TERMINAL
ADDITIONAL SERVICE WHEN REMOVING BA	TTERY NEGATIVE TERMINAL : De-
Initial setting is necessary when battery terminal is removed.	
CAUTION: The following specified operations are not performed und • Auto-up operation • Anti-pinch function	der the non-initialized condition.
 Retained power operation 	
ADDITIONAL SERVICE WHEN REMOVING BA cial Repair Requirement	TTERY NEGATIVE TERMINAL : Spe-
INITIALIZATION PROCEDURE	
 Disconnect battery minus terminal or power window main more. Turn ignition switch ON. 	switch connector. Reconnect it after a minute or
3. Operate power window switch to fully open the window. already fully open)	(This operation is unnecessary if the window is
 Continue pulling the power window switch UP (AUTO-UP position, keep pulling the switch for 4 seconds or more. Inspect anti-pinch function. 	operation). Even after glass stops at fully closed
CHECK ANTI-PINCH FUNCTION 1. Fully open the door window. 2. 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 sec Check that glass does not rise when operating the power w CAUTION: 	
 Do not check with hands and other part of body becaus Check that AUTO-UP operates before inspection when a It may switch to fail-safe mode if open/close operation is ting in that situation. Refer to <u>PWC-345</u>, "Fail Safe". 	system initialization is performed.
 Perform initial setting when auto-up operation or anti-p Finish initial setting. Otherwise, next operation cannot I Auto-up operation 	
 Anti-pinch function Retained power operation when ignition switch is OF ADDITIONAL SERVICE WHEN REPLACING 	
ADDITIONAL SERVICE WHEN REPLACING C	
Initial setting is necessary when replacing power window main CAUTION:	n switch.
 The following specified operations are not performed und Auto-up operation Anti-pinch function 	der the non-initialized condition.
 Detained newer energies 	l l l l l l l l l l l l l l l l l l l
 Retained power operation ADDITIONAL SERVICE WHEN REPLACING C 	

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.

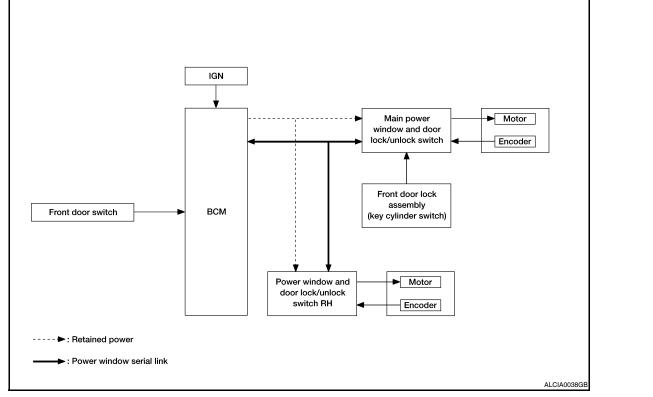
CAUTION:

- 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-345, "Fail Safe"</u>.
- 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.

FUNCTION DIAGNOSIS 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 seconds over)		
Encoder	Encoder pulse signal		
Main power window and door lock/unlock switch	Front power window motor LH UP/ DOWN signal	Power window control	Front power window motor
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal		
BCM	RAP signal		
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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< FUNCTION DIAGNOSIS >

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	Power window control	Front power window motor RH
Encoder	Encoder pulse signal	•	
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) \rightarrow 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

< FUNCTION DIAGNOSIS >

[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-18, "COMMON ITEM : CONSULT-III Function"</u>.

NOTE:

Use CONSULT-III to change settings.

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

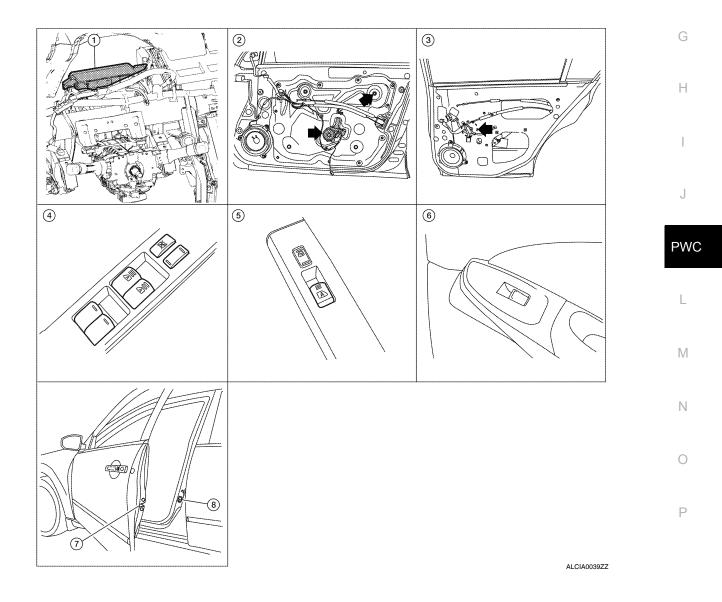
Component Parts Location

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< FUNCTION DIAGNOSIS >

3.

- 1. BCM M16, M17, M18, M19 (view with instrument panel removed)
- 4. Main power window and door lock/ unlock switch D7, D8
- 7. Front door lock assembly LH (key cylinder switch) D10

Component Description

- 2. 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 to power window switches.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	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 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-III FUNCTION

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

Diagnosis mode	Function Description	
WORK SUPPORT	Changes the setting for each system function.	
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 austom aslastian 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	MUTI REMOTE ENT	×	×	×
Exterior lamp	HEADLAMP	×	×	×
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-III Function

ECU IDENTIFICATION Displays the BCM part No.

SELF-DIAG RESULT Refer to <u>BCS-91. "DTC Index"</u>. А

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DIAGNOSIS SYSTEM (BCM) [LH&RH FRONT ANTI-PINCH-SEDAN]

< FUNCTION DIAGNOSIS >

RETAINED PWR

RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)

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Data monitor

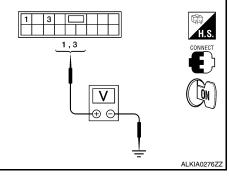
Monitor Item [Unit]	Description
DOOR SW-DR [ON/OFF]	Indicates condition of front door switch LH.
DOOR SW-AS [ON/OFF]	Indicates condition of front door switch RH.

B 1 • • • •						
_	NOSIS >			[L	H&RH FRONT ANTI-I	PINCH-SEDAN]
IEN	T DIAG	NOS	IS			
PPLY	AND G	ROUN	D CIR	CUIT		
DOW	/ MAIN S	WITCH				
DOW	MAIN SW	/ITCH :	Descri	ption		INFOID:000000004205150
						window move up/
•						INFOID:000000004205151
dow A	nd Door Lo	ck/unloci	k Switch			
						eration?
	•					
power	window and					t are OK.
					-	
DOM	MAIN SW	/ITCH :	Diagno	osis Proced	dure	INFOID:000000004205152
dow A	nd Door Lo	ck/unlocl	k Switch	Power Supp	bly Circuit Check	
				1.1.	-	
switch						
je betv				d door lock/		B CONNECT
je betv conne	veen main p			d door lock/	A	В
je betv conne	veen main p ctors (A and		ound.			
je betv conne	veen main p ctors (A and		ound.	d door lock/ Voltage (V) (Approx.)		B CONNECT
je betv conne Te (+) and	veen main p ctors (A and erminal	B) and gr (–)	round.	Voltage (V) (Approx.)		
je betv conne Te (+) and	veen main p ctors (A and erminal Terminal	B) and gr	round.	Voltage (V)		
re betv conne Te (+) and itch ent valu	veen main p ctors (A and erminal Terminal	B) and gr (–) Grour	round.	Voltage (V) (Approx.)		
re conne (+) and itch ent valu	veen main p ctors (A and erminal Terminal 10 19	B) and gr (–) Grour	round.	Voltage (V) (Approx.)		
re conne (+) and itch ent valu O 3 O 2	veen main p ctors (A and erminal Terminal 10 19 ie within the s	B) and gr (–) Grour	round.	Voltage (V) (Approx.)		
re betv conne Te (+) and itch itch O 3 O 2 NESS (switch (veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF.	B) and gr (–) Grour specificati	ion?	Voltage (V) (Approx.) attery voltage		
re betv conne Te (+) and itch itch O 3 O 2 NESS (switch (veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF.	B) and gr (–) Grour specificati	ion?	Voltage (V) (Approx.)		
re betv conne Te (+) and itch itch 0 3 0 2 NESS (Switch (CM an uity be	veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF. d main powe tween BCM	B) and gr (-) Grour specificati , er window connecto	round.	Voltage (V) (Approx.) attery voltage		
re betv conne Te (+) and itch itch 0 3 0 2 NESS (Switch (CM an uity be	veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF. d main powe	B) and gr (-) Grour specificati , er window connecto	round.	Voltage (V) (Approx.) attery voltage		
re betv conne Te (+) and itch itch 0 3 0 2 NESS (Switch (CM an uity be	veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF. d main powe tween BCM ck/unlock swi	B) and gr (-) Grour specificati , er window connecto tch conne	round.	Voltage (V) (Approx.) attery voltage		
re betv conne Te (+) and itch itch 0 3 0 2 NESS (Switch (CM an uity be	veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF. d main power tween BCM ck/unlock swi	B) and gr (-) Grour specificati , er window connecto tch conne indow and ock switch	round.	Voltage (V) (Approx.) attery voltage		
re betv conne (+) and itch itch 0 3 0 2 NESS (Switch (CM an uity be loor loc	veen main p ctors (A and erminal Terminal 10 19 ie within the s CONTINUITY OFF. d main power tween BCM ck/unlock swi	B) and gr (-) Grour specificati , er window connecto tch conne tch conne tch conne	round.	Voltage (V) (Approx.) attery voltage or lock/unlock main power and C).		
	PPL) DOW ower. power n power DOW dow A POWI bow mot esult n power to <u>PW</u> DOW dow A ER SU	PPLY AND GI DOW MAIN SW DOW MAIN SW ower. power window mot n power window and DOW MAIN SW dow And Door Low POWER WINDOW wotor operate w esult normal? power window and to <u>PWC-303</u> , "POV DOW MAIN SW dow And Door Low ER SUPPLY CIRCL	PPLY AND GROUN DOW MAIN SWITCH DOW MAIN SWITCH : ower. power window motor via cor n power window and door loc DOW MAIN SWITCH : dow And Door Lock/unloc POWER WINDOW AND DO power window and door lock to <u>PWC-303</u> , "POWER WIN DOW MAIN SWITCH : dow And Door Lock/unloc ER SUPPLY CIRCUIT	PPLY AND GROUND CIRC DOW MAIN SWITCH DOW MAIN SWITCH : Descri ower. power window motor via correspondi n power window and door lock/unlock DOW MAIN SWITCH : Compo dow And Door Lock/unlock Switch POWER WINDOW AND DOOR LOC ow motor operate with main power win esult normal? power window and door lock/unlock s to <u>PWC-303</u> , "POWER WINDOW MA DOW MAIN SWITCH : Diagno dow And Door Lock/unlock Switch ER SUPPLY CIRCUIT	PPLY AND GROUND CIRCUIT DOW MAIN SWITCH DOW MAIN SWITCH : Description ower. power window motor via corresponding power windo n power window and door lock/unlock switch is ope DOW MAIN SWITCH : Component Fund dow And Door Lock/unlock Switch POWER WINDOW AND DOOR LOCK/UNLOCK S ow motor operate with main power window and doo esult normal? power window and door lock/unlock switch power s to <u>PWC-303</u> , "POWER WINDOW MAIN SWITCH : DOW MAIN SWITCH : Diagnosis Proceed dow And Door Lock/unlock Switch Power Supp ER SUPPLY CIRCUIT	PPLY AND GROUND CIRCUIT DOW MAIN SWITCH DOW MAIN SWITCH : Description ower. In power window motor via corresponding power window switch and makes of in power window and door lock/unlock switch is operated. DOW MAIN SWITCH : Component Function Check dow And Door Lock/unlock Switch POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION ow motor operate with main power window and door lock/unlock switch oper esult normal? power window and door lock/unlock switch power supply and ground circuit to <u>PWC-303</u> , "POWER WINDOW MAIN SWITCH : Diagnosis Procedure". DOW MAIN SWITCH : Diagnosis Procedure dow And Door Lock/unlock Switch Power Supply Circuit Check ER SUPPLY CIRCUIT

< COMPONENT DIAGNOSIS >

BCM connector	Terminal		Continuity		
M16 (A)	3	Ground	No		
	2		140		
Is the inspection res	ult normal?				
YES >> GO TO					
	or replace harnes	S.			
3. CHECK GROUN					
3. Check continuit	n power window	power windo	unlock switch. w and door lock/		H.S.
Main power window an unlock switch cor	ler	minal Grou	Continuity		OFF
D8		17	Yes		
Is the inspection res	<u>ult normal?</u>			-	
 CHECK BCM O Connect BCM. Turn ignition sw 			round.		H.S.
	Terminals			2, 3	
(+)		()	Voltage (V) (Approx.)		(Côn)
BCM connector	Terminal	(-)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\mathbf{v}
M16	3	Ground	Battery voltage		
Is the measurement	value within the	specification?			ALKIA0262ZZ
YES >> Check r LH) GO		ow and door l	ock/unlock switch	output signal (rear power wind	dow switch
RH) GC) TO 6			output signal (rear power wind	dow switch
			oval and Installation		
		AND DOOR	LOCK/UNLOCK S	WITCH OUTPUT SIGNAL (RE	EAR POW-
ER WINDOW SWIT	,				
 Turn ignition sw Check voltage 		nower window	v and door lock/		
2. UNEUK VUILAYE	Detween main	power windov		1 3 🗔	

Check voltage between main power window and door locl unlock switch connector and ground.



< COMPONENT DIAGNOSIS >

Те	erminal			
(+)			Window	Window Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	(–)	condition	(Approx.)
	1		UP	Battery voltage
D7	I	Ground	DOWN	0
DT		Ground	UP	0

DOWN

Is the measurement value within the specification?

3

YES >> GO TO 7

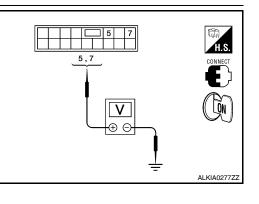
NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-411, "Removal and</u> E <u>Installation"</u>. After that, refer to <u>PWC-307, "POWER WINDOW MAIN SWITCH : Special Repair</u> <u>Requirement"</u>.

Battery voltage

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POW- \models ER WINDOW SWITCH RH)

- 1. Turn ignition switch ON.
- 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 condition	Voltage (V) (Approx.)
	7		UP	Battery voltage
D7		Ground	DOWN	0
DI	5	Giouna	UP	0
	5		DOWN	Battery voltage



в

2,3

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1,3

Is the measurement value within the specification?

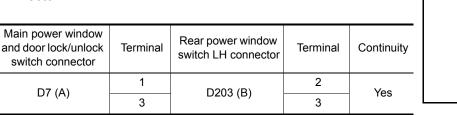
YES >> GO TO 8

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-411. "Removal and</u> <u>Installation"</u>.

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

1. Turn ignition switch OFF.

- 2. Disconnect rear power window switch LH.
- Check continuity between main power window and door lock/ unlock switch connector and rear power window switch LH connector.



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

PWC-305



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< COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

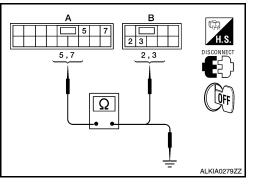
YES >> GO TO 9

NO >> Repair or replace harness.

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

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

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connector	Terminal	Continuity
D7 (A)	5	D303 (B)	3	Yes
07 (A)	7	D303 (B)	2	165



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

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

Is the inspection result normal?

YES >> GO TO 9

NO >> Repair or replace harness.

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

Check main power window and door lock/unlock switch. Refer to <u>PWC-306</u>, "POWER WINDOW MAIN SWITCH : Component Inspection".

Is the inspection result normal?

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

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-411, "Removal and</u> <u>Installation"</u>..After that, refer to <u>PWC-307, "POWER WINDOW MAIN SWITCH : Special Repair</u> <u>Requirement"</u>.

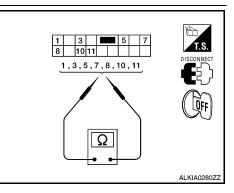
POWER WINDOW MAIN SWITCH : Component Inspection

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

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

er	minal	Main power wind lock swit	Continuity	
	1	Rear LH	UP	
	7	Rear RH		
	3	Rear LH	NEUTRAL	Yes
	7	Rear RH	NEUTRAL	165
	3	Rear LH	DOWN	
	5	Rear RH	DOWN	



< COMPONENT DIAGNOSIS >

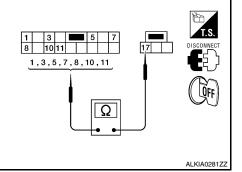
2. Check continuity between main power window and door lock/ unlock switch (power window lock switch). (Lock operation).

Tern	ninal	Main power window and door lock/unlock switch condition		Continuity
3		Rear LH	UP	
5		Rear RH	01	
1		Rear LH		
3	17	Rear RH	NEUTRAL	No
5				NO
7		Real IXII		
1		Rear LH	DOWN	
7		Rear RH	DOWN	

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

Terr	ninal	Main power window and door lock/unlock switch condition		Continuity
3		Rear LH	UP	
5		Rear RH	ÜF	
1		Rear LH		
3	17	Rear RH	NEUTRAL	Yes
5	17			
7		i i cai i ci i		
1		Rear LH	DOWN	
7		Rear RH	BOWN	



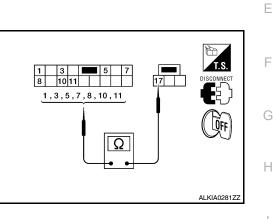


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[LH&RH FRONT ANTI-PINCH-SEDAN]



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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 PWC-411, "Removal and PV	N
	Installation". After that, refer to PWC-307, "POWER WINDOW MAIN SWITCH : Special Repair	
	Requirement".	

POWER WINDOW MAIN SWITCH : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement". Ν

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-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to PWC-320, "DRIVER SIDE : Component Function Check".

FRONT POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

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

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Power Window And Door Lock/unlock Switch RH

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

Does front power window motor RH operate with power window and door lock/unlock switch RH operation? Is the inspection result normal?

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

NO >> Refer to <u>PWC-308, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

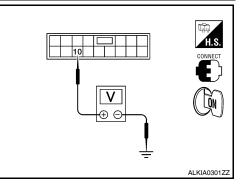
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Power Window And Door Lock/unlock Switch RH Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

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

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



Is the measurement value within the specification?

YES >> GO TO 3

NO >> GO TO 2

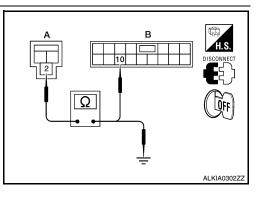
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.

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



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.

 $\mathbf{3.}$ CHECK GROUND CIRCUIT

[LH&RH FRONT ANTI-PINCH-SEDAN]

< COMPONENT DIAGNOSIS >

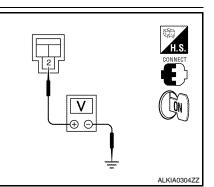
- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH. 3. Check continuity between power window and door lock/unlock
- switch RH connector and ground.

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

Is the inspection result normal?

- YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-411, "Removal and Installation". After that, refer to PWC-309, "FRONT POWER WINDOW SWITCH : Special Repair Requirement".
- NO >> Repair or replace harness.
- CHECK BCM OUTPUT SIGNAL
- Connect BCM. 1.
- 2. Turn ignition switch ON.
- Check voltage between BCM connector and ground. 3.

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



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Is the measurement value within the specification?

- YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-411, "Removal and Installation"</u>. After that, refer to <u>PWC-309, "FRONT POWER</u> <u>WINDOW SWITCH : Special Repair Requirement"</u>.
- NO >> Replace BCM. Refer to BCS-96, "Removal and Installation".

FRONT POWER WINDOW SWITCH : Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

	PWC
Perform initialization procedure.	PVVC
Refer to PWC-295. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-	
<u>ment"</u> .	
Is the inspection result normal?	L
YES >> GO TO 2	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	
2. CHECK ANTI-PINCH OPERATION	Μ
Check anti-pinch operation.	
Refer to PWC-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-	Ν
<u>ment"</u> .	14
Is the inspection result normal?	
YES >> Inspection end.	\bigcirc
NO >> Refer to <u>PWC-322</u> , "PASSENGER SIDE : Component Function Check".	0
REAR POWER WINDOW SWITCH	
REAR POWER WINDOW SWITCH : Description	Р

BCM supplies power.

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

[LH&RH FRONT ANTI-PINCH-SEDAN]

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< COMPONENT DIAGNOSIS >

REAR POWER WINDOW SWITCH : Component Function Check

Rear Power Window Switch

CHECK REAR POWER WINDOW MOTOR FUNCTION

Does rear power window motor operate with rear power window switch operation?

Is the inspection result normal?

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

NO >> Refer to PWC-310, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

REAR POWER WINDOW SWITCH : Diagnosis Procedure

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power win ground.				dow switch c	onnector and	() H.S.
	Terr	minal				
	(+)			Condition	Voltage (V)	
	ver window connector	Terminal	(-)		(Approx.)	(Côn)
LH	D203	1	Ground	Ignition switch	Potton voltago	
RH	D303		Giouna	ON	Battery voltage	
Is the mea	asurement	value withi	n the spec	ification?		ALKIA0287ZZ

YES

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

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

NO >> GO TO 4

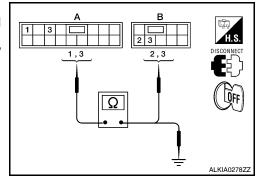
$\mathbf{2}.$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

Turn ignition switch OFF. 1.

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).

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



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

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

Is the inspection result normal?

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

NO >> Repair or replace harness.

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

PWC-310

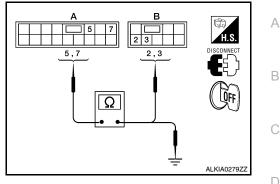
[LH&RH FRONT ANTI-PINCH-SEDAN]

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

< COMPONENT DIAGNOSIS >

- 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
D7 (A)	7	D303 (B)	2	165



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

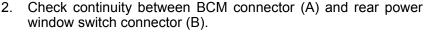
Main power window and door lock/unlock switch connector	Terminal		Continuity	
D7 (A)	5	Ground	No	
D7 (A)	7		NO	

Is the inspection result normal?

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

CHECK HARNESS CONTINUITY

1. Disconnect BCM and rear power window switch.



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

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

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

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch. Refer to PWC-311, "REAR POWER WINDOW SWITCH : Component Inspection".

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to GI-42. "Intermittent Incident".
- >> Replace rear power window switch. Refer to PWC-411, "Removal and Installation". NO

REAR POWER WINDOW SWITCH : Component Inspection

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COMPONENT INSPECTION

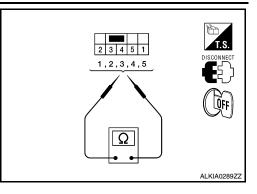
1.CHECK REAR POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Check rear power window switch.

Terr	Terminal Power window switch condition		Continuity
1	5	UP	
3	4	Ur	
3	4	NEUTRAL Yes	Ves
5	2		105
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-411, "Removal and Installation"</u>.

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE : Description

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

DRIVER SIDE : Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

Does front power window motor LH operate with operating main power window and door lock/unlock switch? Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Refer to <u>PWC-313</u>, "DRIVER SIDE : Diagnosis Procedure".

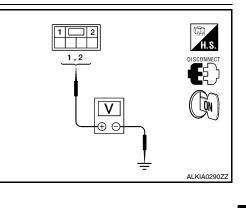
DRIVER SIDE : Diagnosis Procedure

Front Power Window Motor LH Circuit Check

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

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

Т	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	
	1		DOWN	Battery voltage	



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Is the measurement value within the specification?

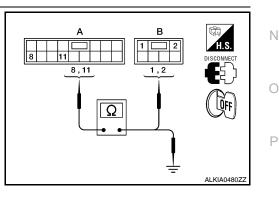
YES >> GO TO 2

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-411. "Removal and</u> <u>Installation"</u>. After that, refer to <u>PWC-314, "DRIVER SIDE : Special Repair Requirement"</u>.

2. CHECK HARNESS CONTINUITY

- 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
D7 (A)	11	03(0)	1	163



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

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK POWER WINDOW MOTOR

Check front power window motor LH.

Refer to <u>PWC-314</u>, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

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

NO >> Replace power window motor LH. Refer to <u>GW-19</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-314</u>, "<u>DRIVER SIDE</u> : <u>Special Repair Requirement</u>".

DRIVER SIDE : Component Inspection

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COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Does motor operate 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-19, "Removal and Installation"</u>. After that, refer to <u>PWC-314, "DRIVER SIDE : Special Repair Requirement"</u>.

DRIVER SIDE : Special Repair Requirement

INFOID:000000004205167

INFOID:000000004205168

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-295</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-295</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

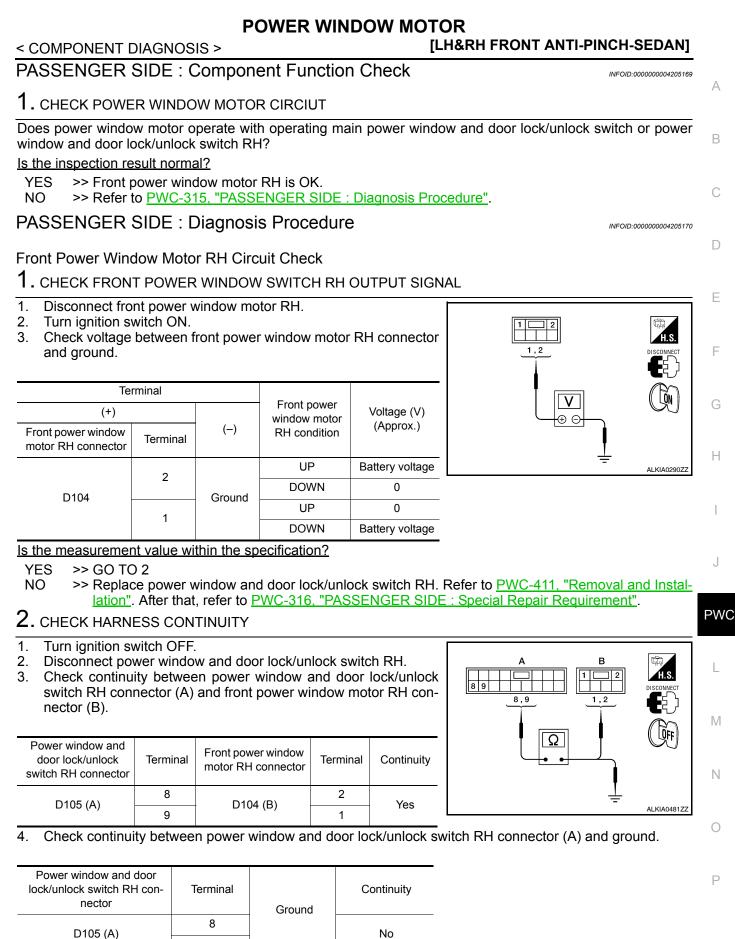
Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to <u>PWC-320</u>, "<u>DRIVER SIDE</u> : <u>Component Function Check</u>". PASSENGER SIDE

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.



Is the inspection result normal?

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YES >> GO TO 3

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-316, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

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

>> Replace front power window motor RH. Refer to GW-19, "Removal and Installation". After that, NO refer to PWC-316, "PASSENGER SIDE : Special Repair Requirement".

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR RH

Does motor operate by connecting the battery voltage directly to front power window motor RH?

Terr	ninal	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 GW-19, "Removal and Installation". After that, refer to PWC-316, "PASSENGER SIDE : Special Repair Requirement".

PASSENGER SIDE : Special Repair Requirement

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-295, "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-295. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-322, "PASSENGER SIDE : Component Function Check".

REAR LH

REAR LH : Description

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

REAR LH : Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

Does rear power window motor LH operate with main power window and door lock/unlock switch or rear power window switch LH?

Is the inspection result normal?

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PWC-316

1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

>> Refer to PWC-317, "REAR LH : Diagnosis Procedure"

1. Disconnect rear power window motor LH connector.

>> Rear power window motor LH is OK.

Turn ignition switch ON. 2.

< COMPONENT DIAGNOSIS >

REAR LH : Diagnosis Procedure

Power Window Motor Circuit Check

YES

NO

Check voltage between rear power window motor LH connector 3. and ground.

Те	rminal			
(+)			Window	Voltage (V)
Rear power window motor LH connector	Terminal	(-)	condition	(Approx.)
	1		UP	Battery voltage
D204	I	Ground	DOWN	0
D204	3	Giouna	UP	0
	5		DOWN	Battery voltage

Is the measurement value within the specification?

- YES >> GO TO 2 NO
 - >> Check rear power window switch LH. Refer to PWC-311, "REAR POWER WINDOW SWITCH : Component Inspection".
- 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

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

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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

Check rear power window motor LH.

Refer to PWC-318, "REAR LH : Component Inspection".

Is the inspection result normal?

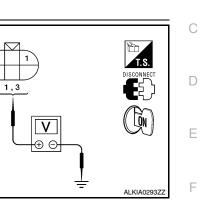
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> Replace rear power window motor LH. Refer to GW-14, "Removal and Installation".

POWER WINDOW MOTOR

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REAR LH : Component Inspection

COMPONENT INSPECTION

< COMPONENT DIAGNOSIS >

1. CHECK REAR POWER WINDOW MOTOR LH

Does motor operate by connecting the battery voltage directly to rear power window motor LH?

Terr	ninal	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-14, "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 REAR POWER WINDOW MOTOR RH CIRCUIT

Does rear power window motor RH operate with operating main power window and door lock/unlock switch or rear power window switch RH?

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to <u>PWC-318. "REAR RH : Diagnosis Procedure"</u>.

REAR RH : Diagnosis Procedure

Rear Power Window Motor RH Circuit Check

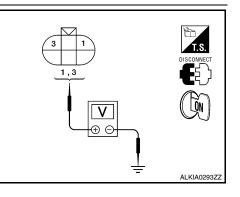
- **1.** CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL
- 1. Disconnect rear power window motor RH.
- 2. Turn ignition switch ON.
- Check voltage between rear power window motor RH connector and ground.

Ter	minal		Descent	
(+)			Rear power window switch	Voltage (V)
Rear power window motor RH connector	Terminal	()	RH condition	(Approx.)
	1		UP	Battery voltage
D304	I	Ground	DOWN	0
0504	3	Ground	UP	0
	3		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 2

- NO >> Check rear power window switch RH. Refer to <u>PWC-311</u>, "<u>REAR POWER WINDOW SWITCH</u>: <u>Component Inspection</u>".
- 2. CHECK HARNESS CONTINUITY



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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

- 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
D303 (A)	4	D304 (B)	3	165

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

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

Is the inspection result normal?

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

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-319</u>, "REAR RH : 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 RH. Refer to <u>GW-14</u>, "Removal and Installation".

REAR RH : Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Does motor operate by connecting the battery voltage directly to rear power window motor RH?

Terr	minal	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-14, "Removal and Installation"</u>.

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[LH&RH FRONT ANTI-PINCH-SEDAN]

< COMPONENT DIAGNOSIS >

ENCODER DRIVER SIDE

DRIVER SIDE : Description

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

1. CHECK ENCODER OPERATION

Does 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?

YES >> Encoder operation is OK.

>> Refer to PWC-320, "DRIVER SIDE : Diagnosis Procedure". NO

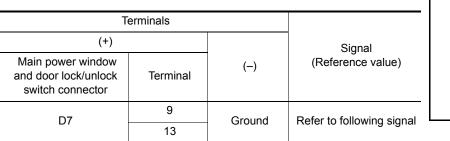
DRIVER SIDE : Diagnosis Procedure

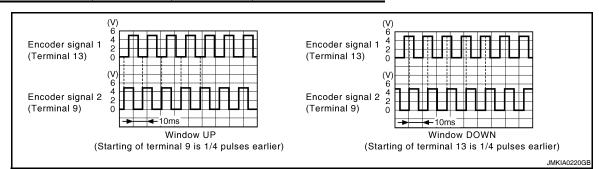
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Encoder Circuit Check

- 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.





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

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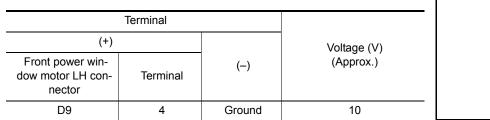
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< COMPONENT DIAGNOSIS >

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



Is the measurement value within the specification?

YES >> GO TO 4

NO >> GO TO 3

3. CHECK HARNESS CONTINUITY 1

- 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 LH 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 <u>PWC-411</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-307</u>, "<u>POWER WINDOW MAIN SWITCH : Special Repair</u> <u>Requirement</u>".
- 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 connector and ground.

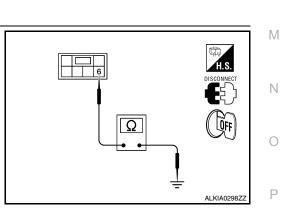
Front power window motor LH connector	Terminal	Ground	Continuity
D9	6		Yes

Is the inspection result normal?

YES >> GO TO 6

NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2



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[LH&RH FRONT ANTI-PINCH-SEDAN]

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< COMPONENT 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 win- dow motor LH con- nector	Terminal	Continuity
D7 (A)	2	D9 (B)	6	Yes

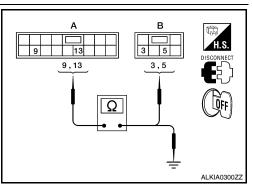
Is the inspection result normal?

- YES >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-411, "Removal and Installation"</u>. After that, refer to <u>PWC-307, "POWER</u> <u>WINDOW MAIN SWITCH : Special Repair Requirement"</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 window motor LH connector	Terminal	Continuity
D7 (A)	9	D9 (B)	3	Yes
D7 (A)	13	D9 (D)	5	165



 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-19, "Removal and Installation"</u>. After that, refer to <u>PWC-314, "DRIVER SIDE : Special Repair Requirement"</u>.

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

Does 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.

NO >> Refer to PWC-323, "PASSENGER SIDE : Diagnosis Procedure".

[LH&RH FRONT ANTI-PINCH-SEDAN]

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< COMPONENT DIAGNOSIS >

PASSENGER SIDE : Diagnosis Procedure

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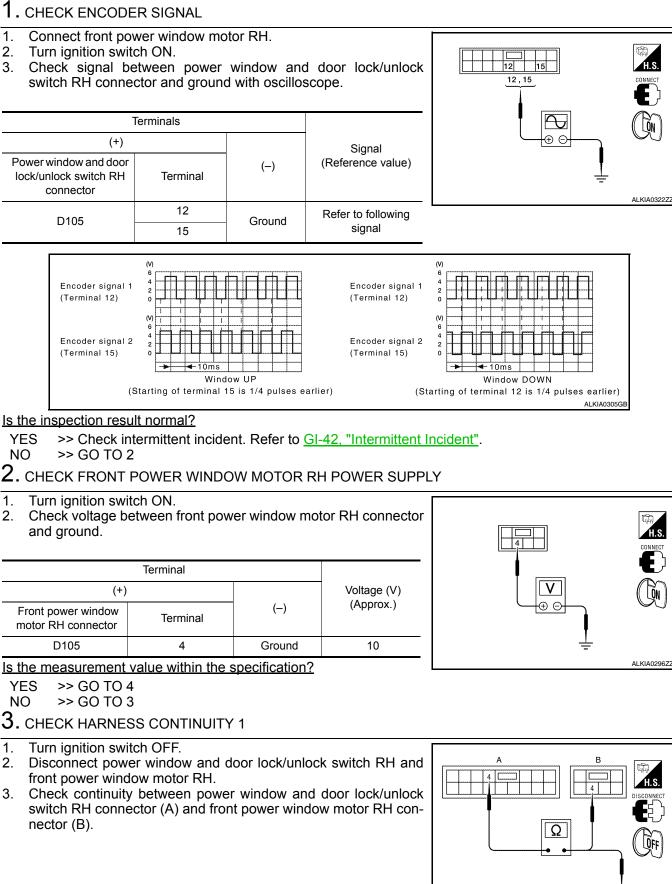
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[LH&RH FRONT ANTI-PINCH-SEDAN]

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Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105 (A)	4	D104 (B)	4	Yes

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

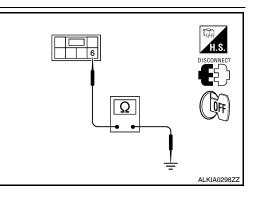
Power window and door lock/ unlock switch RH connector	Terminal	Ground	Continuity
D105 (A)	4		No

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-411, "Removal and Instal-</u> <u>lation"</u>. After that, refer to <u>PWC-309, "FRONT POWER WINDOW SWITCH : Special Repair</u> <u>Requirement"</u>.

- NO >> Repair or replace harness.
- **4.** CHECK GROUND CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor RH.
- 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.
- Check continuity between power window and door lock/unlock switch RH connector (A) and front power window motor RH connector (B).

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Power window and door
lock/unlock switch RH
connectorTerminalFront power window
motor RH connectorTerminalContinuityD105 (A)3D104 (B)6Yes

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-411, "Removal and Installation"</u>. After that, refer to <u>PWC-309, "FRONT POWER</u> <u>WINDOW SWITCH : Special Repair Requirement"</u>.

NO >> Repair or replace harness.

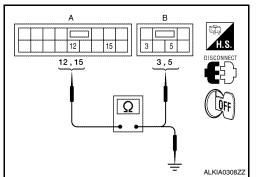
6. CHECK HARNESS CONTINUITY 3

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< COMPONENT 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	
D105 (A)	12	D104 (B)	5	Yes	
D105 (A)	15	D104 (B)	3	res	



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
D105 (A)	12		No
D105 (A)	15		NO

Is the inspection result normal?

- YES >> Replace front power window motor RH. Refer to <u>GW-19. "Removal and Installation"</u>. After that, refer to <u>PWC-316. "PASSENGER SIDE : Special Repair Requirement"</u>.
- NO >> Repair or replace harness.

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PWC-325

[LH&RH FRONT ANTI-PINCH-SEDAN]

< COMPONENT 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-III. Refer to <u>BCS-</u> 34, "RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)".

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

Is the inspection result normal?

YES >> Front door switch circuit is OK.

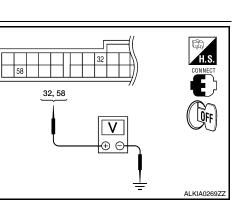
NO >> Refer to PWC-326, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK HARNESS CONTINUITY

Check voltage between BCM connector and ground.

Terminals						
(+)			Door c	ondition	Voltage (V)	
BCM connector	Terminal	(-)			(Approx.)	
	32		Front door	OPEN	0	
M18	52	Cround	RH	CLOSE	Battery voltage	
IVITO	58	Giounu	Ground Front door	OPEN	0	
	50		LH	CLOSE	Battery voltage	

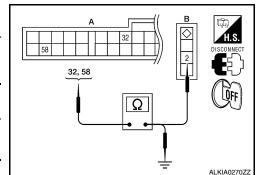


Is the measurement value within the specification?

- YES >> Replace BCM. Refer to <u>BCS-96, "Removal and Installation"</u>. NO >> GO TO 2
- 2. CHECK HARNESS CONTINUITY
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM and front door switch.
- Check continuity between BCM connector (A) and front door switch connector (B).

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18 (A)	32	RH: B108 (B)	2	Yes
	58	LH: B8 (B)	2	163

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



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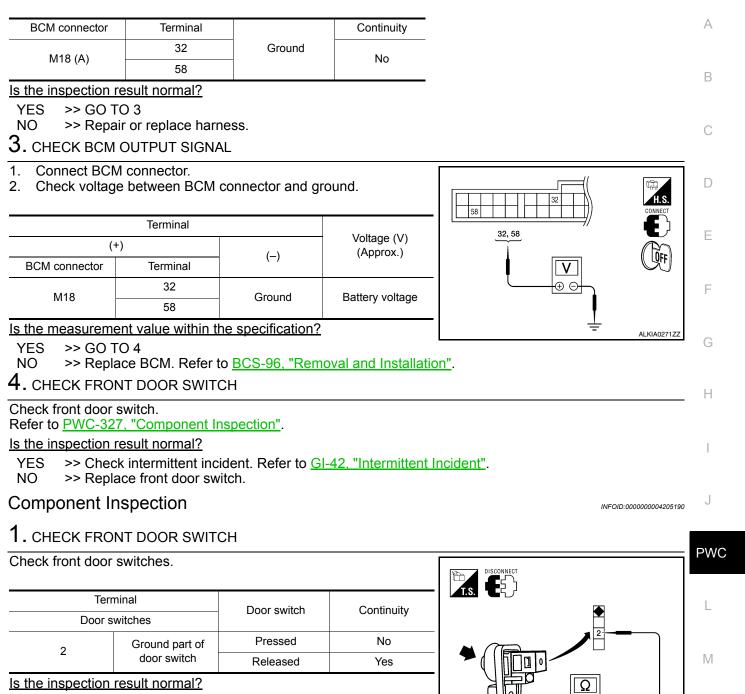
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[LH&RH FRONT ANTI-PINCH-SEDAN]

DOOR SWITCH

< COMPONENT DIAGNOSIS >



YES >> Front door switch is OK.

NO >> Replace front door switch.

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DOOR KEY CYLINDER SWITCH

< COMPONENT 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 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-III. Refer to <u>BCS-19</u>, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

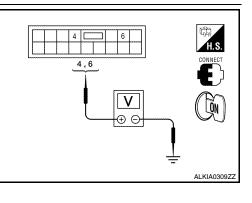
- YES >> Key cylinder switch is OK.
- NO >> Refer to <u>PWC-328</u>, "Diagnosis Procedure".

Diagnosis Procedure

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.

T	erminals			
(+) Main power window and door lock/unlock switch connector			Kouposition	Voltage (V)
		(—)	Key position	(Approx.)
	4	Ground	Lock	0
D7	4		Neutral/Unlock	5
	6	Giouna	Unlock	0
	0		Neutral/Lock	5



Is the measurement value within the specification?

YES >> Replace main power window and door lock/unlock switch. After that, refer to <u>PWC-307</u>, "POWER <u>WINDOW MAIN SWITCH : Special Repair Requirement"</u>.

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

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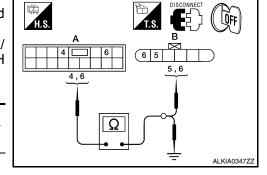
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DOOR KEY CYLINDER SWITCH

< COMPONENT 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).
- 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 (P)	6	Voc
D7 (A)	6	D10 (B)	5	Yes



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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
	6		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

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 normal?				

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.

Refer to PWC-329, "Component Inspection".

Is the inspection result normal?

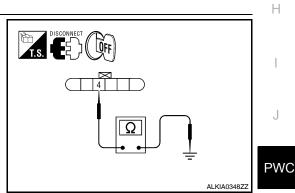
YES >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>.

NO >> Replace front door lock assembly LH (door key cylinder switch). After that, refer to <u>PWC-330</u>, <u>"Special Repair Requirement"</u>.

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH



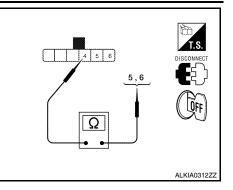
DOOR KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Check front door lock assembly LH (key cylinder switch).

Terminal				
Front door lock assembly LH (key cylinder switch) connector		Key position	Continuity	
5	5 4	Unlock	Yes	
5		Neutral/Lock	No	
6		Lock	Yes	
0		Neutral/Unlock	No	



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-330, "Special</u> <u>Repair Requirement"</u>.

Special Repair Requirement

INFOID:000000004205195

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-295</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

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

POWER WINDOW SERIAL LINK

< COMPONENT 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

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-III. Refer to <u>BCS-19, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

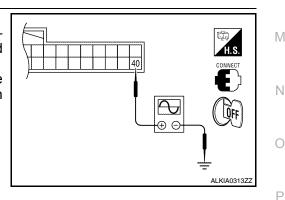
YES >> Power window serial link is OK.

NO >> Refer to PWC-331, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

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".



[LH&RH FRONT ANTI-PINCH-SEDAN]

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POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

	Terminal		
(+)		()	Signal (Reference value)
BCM connector	Terminal	()	(,
M18	40	Ground	(V) 15 10 0 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10
	14	10	

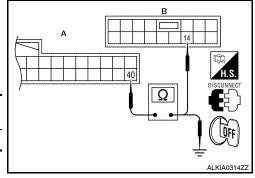
Is the inspection result normal?

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.
- 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	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-411, "Removal and</u> <u>Installation"</u>. After that, refer to <u>PWC-307, "POWER WINDOW MAIN SWITCH : Special Repair</u> <u>Requirement"</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

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

PWC-332

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POWER WINDOW SERIAL LINK

< COMPONENT 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-III. Refer to <u>BCS-19, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	0	Condition	
CDL LOCK SW	LOCK	: ON	В
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
	UNLOCK	: ON	C

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-333, "FRONT POWER WINDOW SWITCH : Diagnosis Procedure".

Signal

FRONT POWER WINDOW SWITCH : Diagnosis Procedure

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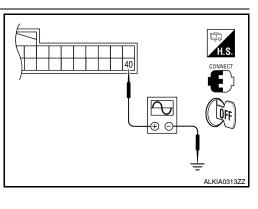
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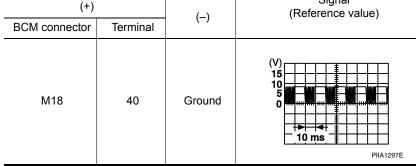
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Power Window Serial Link Check

Terminal

- 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".





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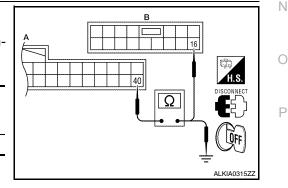
Is the inspection result normal?

YES >> Power window serial link is OK.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- 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-411</u>, "<u>Removal and</u> <u>Installation</u>". After that, refer to <u>PWC-307</u>, "<u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair</u> <u>Requirement</u>".

NO >> Repair or replace harness.

POWER WINDOW LOCK SWITCH

< COMPONENT 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 PWC-411, "Removal and Installation". After that, refer to PWC-335, "Special Repair Requirement".
- NO >> Check condition of harness and connector.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to PWC-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

NO >> Check intermittenrt incident. Refer to GI-42, "Intermittent Incident". А

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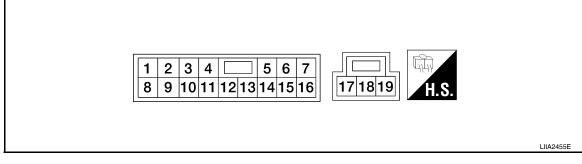
[LH&RH FRONT ANTI-PINCH-SEDAN]

ECU DIAGNOSIS POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000004205206

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termina	al No.	Description			Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (G/B)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
2 (W/B)	Ground	Encoder ground		_	0
3 (G/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/B)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral \rightarrow Locked)	$5 \rightarrow 0$
5 (G/R)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
6 (L/R)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral \rightarrow Unlocked)	$5 \rightarrow 0$
7 (G/W)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (L/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 (G/W)	2	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 2 0 10 ms JMKIA0070GB

< ECU DIAGNOSIS >

POWER WINDOW MAIN SWITCH [LH&RH FRONT ANTI-PINCH-SEDAN]

Terminal No. Description Voltage [V] А Condition Input/ (Approx.) + Signal name -Output IGN SW ON Battery voltage В Within 45 second after ignition switch is turned to Battery voltage 10 OFF. RAP signal Ground Input (L/W) С When front LH or RH door is opened during retained 0 power operation. D When front LH switch in 11 Front door power window mo-8 Output power window main switch Battery voltage (L/B) tor LH DOWN signal is operated DOWN. Е (V)6 4 13 When power window mo-

13 (G/Y)	2	Encoder pulse signal 1	Input	When power window mo- tor operates.	2 0 10 ms JMKIA0070GB
14 (Y/G)	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
15 (G/R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	10
17 (B)	Ground	Ground	_	_	0
19 (R/Y)		Battery power supply	Input	_	Battery voltage

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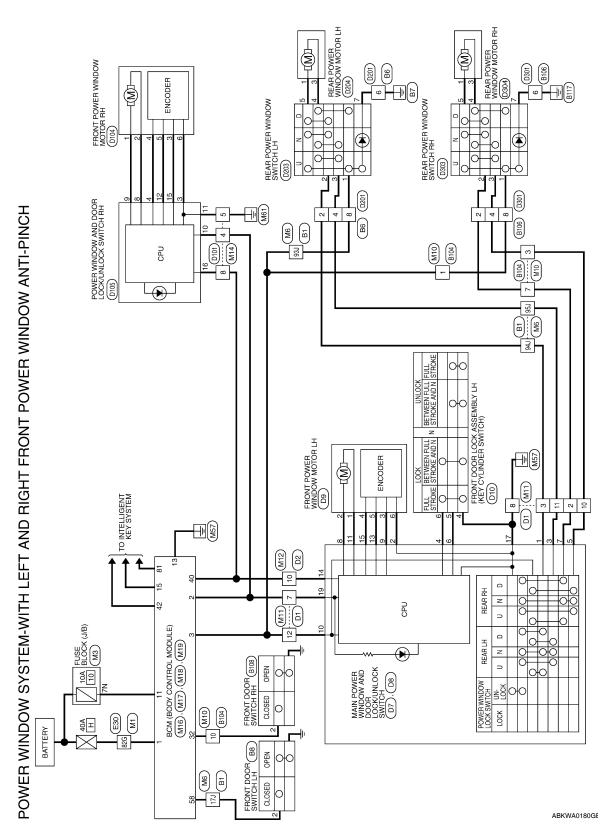
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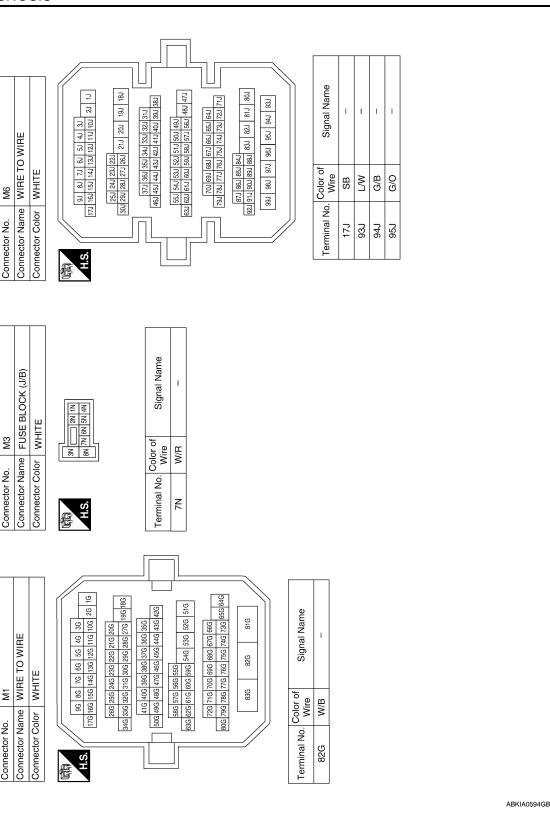
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Wiring Diagram

INFOID:000000004205207







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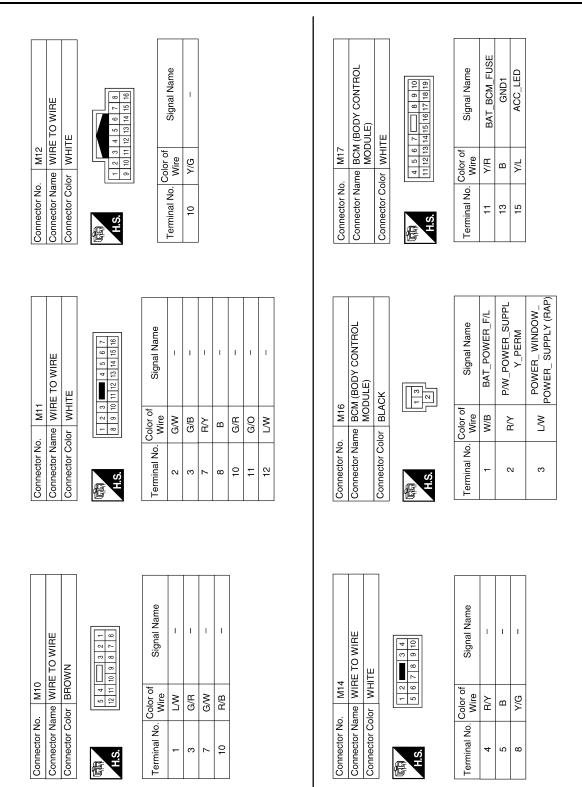
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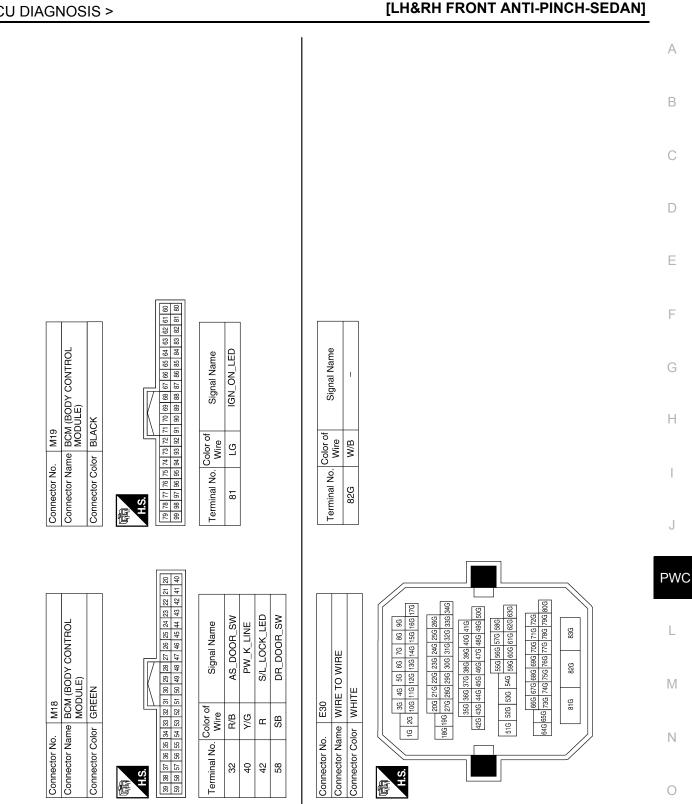
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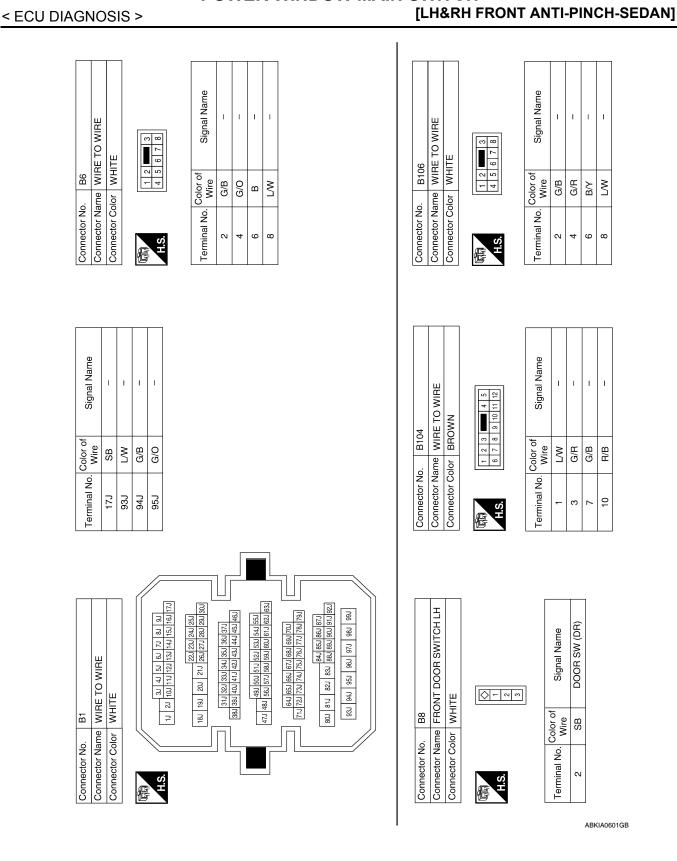


POWER WINDOW MAIN SWITCH

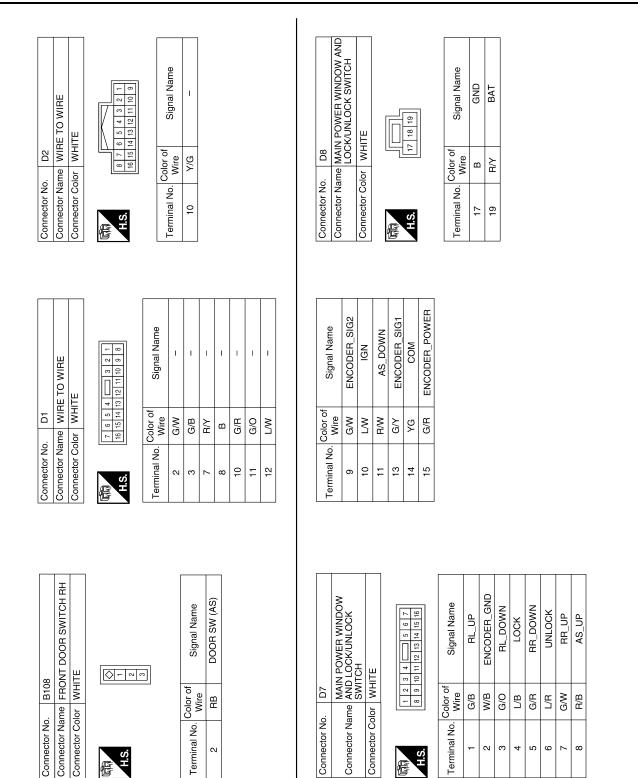
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POWER WINDOW MAIN SWITCH



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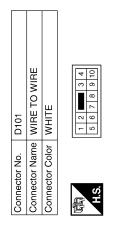
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Signal Name	UP	DOWN	BATT	GND	ENCODER SIG1	Н	Ι	ENCODER SIG2	COM
Color of Wire	L/R	L/B	R/Υ	в	G/Y	I	I	G/W	Y/G
Terminal No.	80	6	10	.	12	13	14	15	16

Connector No.). D10	
Connector Name		FRONT DOOR LOCK ASSEMBLY LH
Connector Color GRAY	olor GR.	٩Y
品. H.S.	1	3 4 5 6
Terminal No.	Color of Wire	Signal Name
4	В	GND
1	!	DOOR KEV/C

Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW	DOOR_KEY/C_ LOCK_SW	
Color of Wire	ш	L/R	L/B	
Terminal No. Color of Wire	4	5	9	

Connector Name	me MO	FRONT POWER WINDOW MOTOR LH
Connector Color	lor WHITE	ITE
国 H.S.		3 4 5 8
Terminal No.	Color of Wire	Signal Name
-	L/B	-
2	H/J	-
3	G/W	I
4	G/R	-
5	G∕Y	I

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Connector No.

	DWER WINDOW		
D104	FRONT POV MOTOR RH	WHITE	1 2 3 4 5 6
Connector No.	Connector Name FRONT POWER WINDOW MOTOR RH	Connector Color WHITE	国 H.S.

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POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Connector Name Connector Color

D105

Connector No.

WHITE

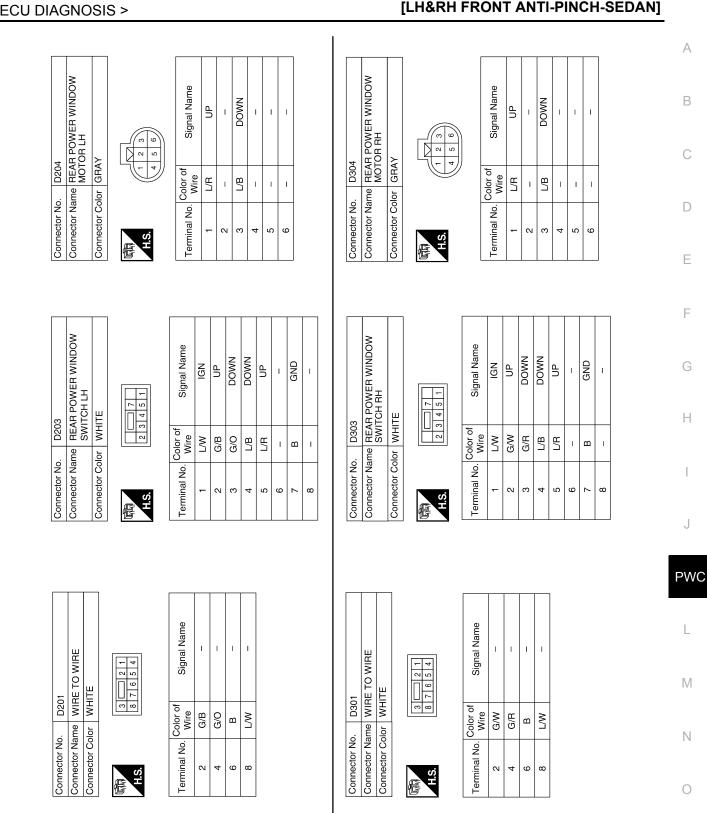


Signal Name	Ι	I	I	I	I	I
 Wire	L/B	LЛ	G/W	G/R	G/Y	W/B
Terminal No. Wire	-	2	e	4	5	9

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Signal Name	I	-	GND	ENCDER POWE
8 - 1	Color of Wire	I	I	W/B	G/R
印 H.S.	Terminal No.	-	2	e	4



Fail Safe

Ρ INFOID:000000004205208

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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.

PWC-345

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

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POWER WINDOW MAIN SWITCH

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).

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

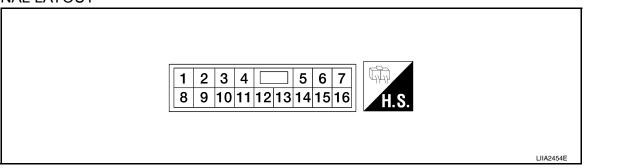
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

FRONT POWER WINDOW SWITCH

Reference Value

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TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Termi	nal No.	Description			Voltago N/J	
+	-	Signal name	Input/ Output	Condition	Voltage [V] (Approx.)	
3 (W/B)	Ground	Encoder ground	_	_	0	
4 (G/R)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10	
8 (L/R)	9	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage	
9 (L/B)	8	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage	
10 (R/Y)	Ground	Battery power supply	Input	_	Battery voltage	
11 (B)	Ground	Ground	_	_	0	
12 (G/Y)	3	Encoder pulse signal 1	Input	When power window motor op- erates.	(V) 6 4 2 0 10 ms	

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[LH&RH FRONT ANTI-PINCH-SEDAN]

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FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Termi	nal No.	Description			Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (G/W)	3	Encoder pulse signal 2	Input	When power window motor op- erates.	(V) 6 2 0 10 ms JMKIA0070GB
16 (Y/G)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB

FRONT POWER WINDOW SWITCH [LH&RH FRONT ANTI-PINCH-SEDAN]

< ECU DIAGNOSIS >

Wiring Diagram



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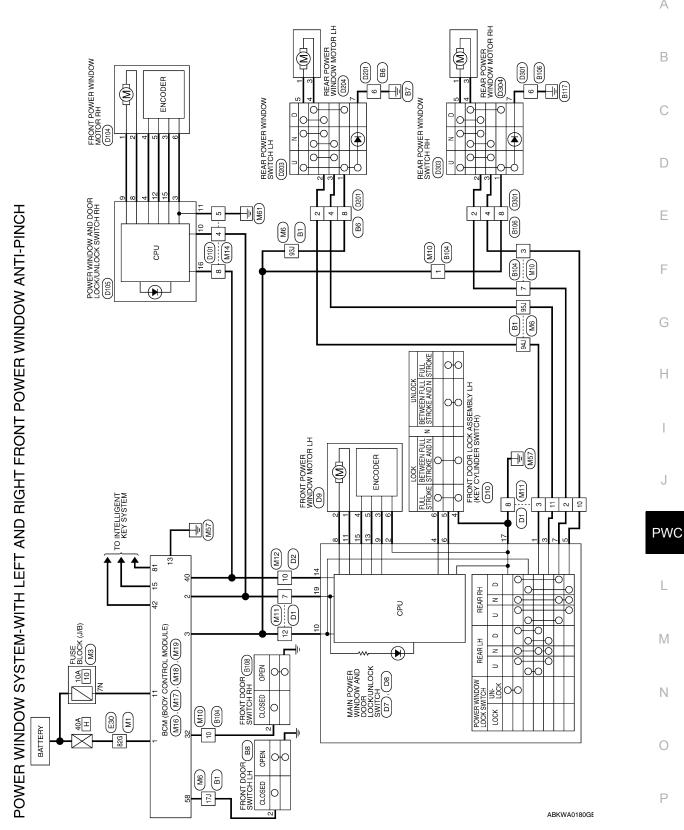
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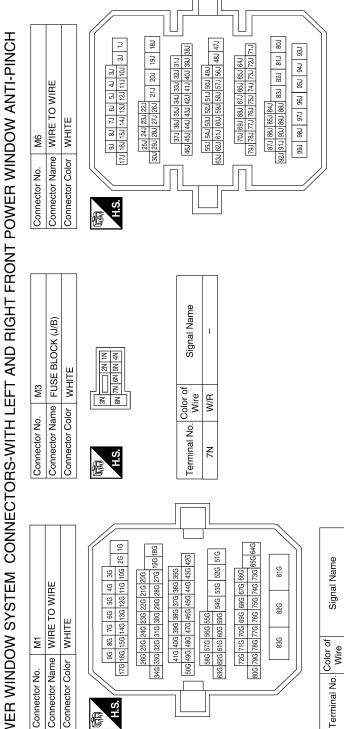
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Signal Name

Color of

Wire

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Terminal No. 82G L L

Ň G/B

SB

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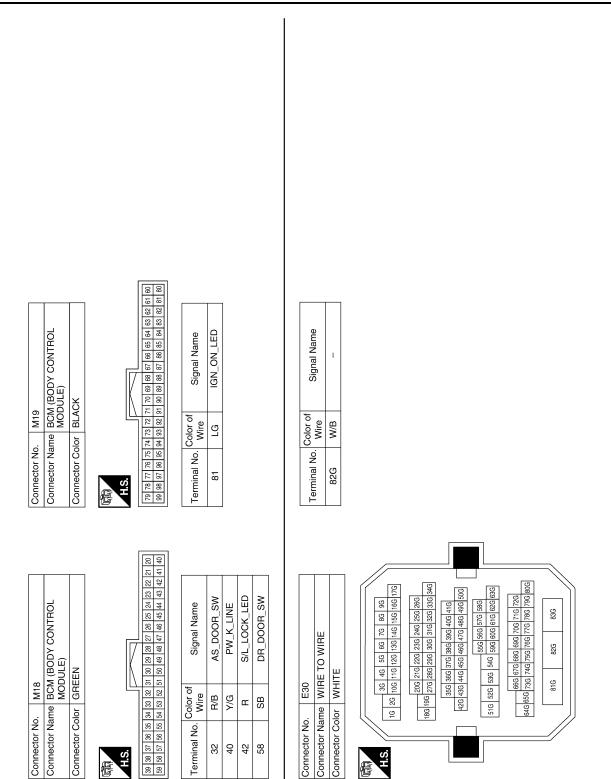
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[LH&RH FRONT ANTI-PINCH-SEDAN]

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Connector No. M12 Connector Name WIRE TO WIRE Connector Color WHITE	H.S. 9 10 11 12 13 14 15 16	Terminal No. Color of Wire Signal Name 10 Y/G -	Connector No. M17	Connector Name BCM (BODY CONTROL Connector Color WHITE A.S. (11121314115161771819)	Terminal No.Color of WireSignal Name11Y/RBAT_BCM_FUSE13BGND115Y/LACC_LED	A B C D
Connector No.M11Connector NameWIRE TO WIREConnector ColorWHITE	H.S.	Terminal No. Color of Wire Signal Name 2 G/W - 3 G/B - 7 R/Y - 8 B - 10 G/R -		Connector Color BLACK	Terminal No. Color of Wire Signal Name 1 W/B BAT_POWER_F/L 2 R/Y P/W_POWER_SUPPL 3 L/W POWER_WINDOW_	F G H J
Connector No. M10 Connector Name WIRE TO WIRE Connector Color BROWN	研え H.S.	Terminal No.Color of WireSignal Name1L/W-3G/R-7G/W-10R/B-	Connector No. M14		Terminal No. Color of Mire 3ignal Name 8 7/G 1	PWC L M N O P

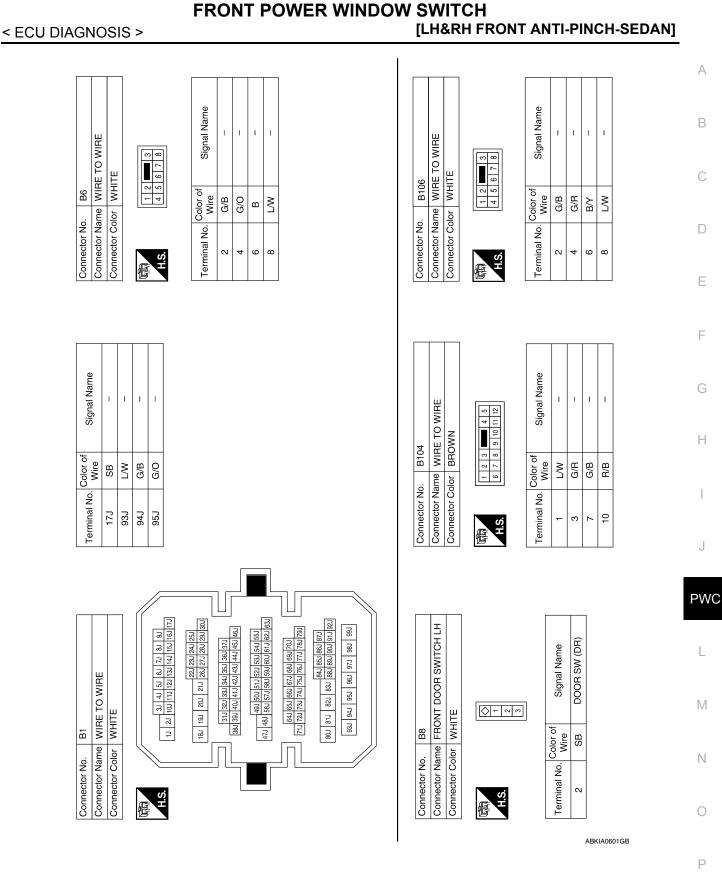
FRONT POWER WINDOW SWITCH [LH&RH FRONT ANTI-PINCH-SEDAN]



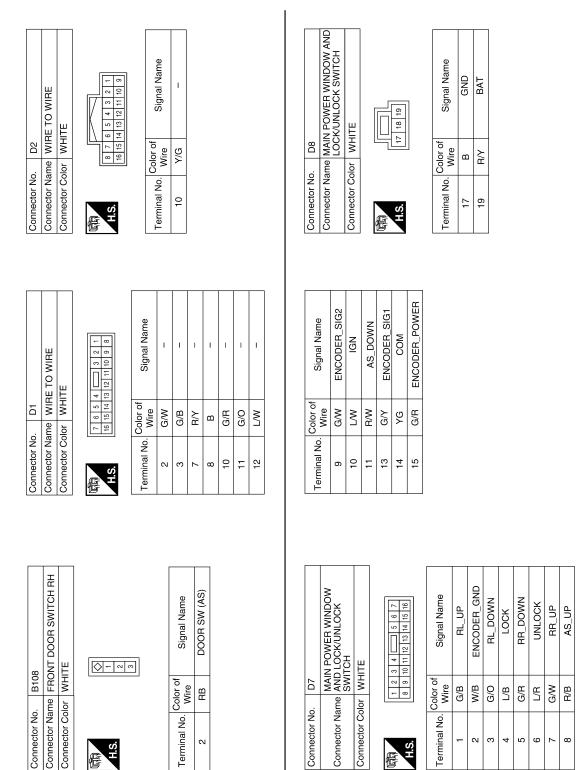
FRONT POWER WINDOW SWITCH

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Connector No.

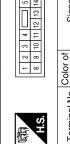


Connector Name Connector No.

Terminal No. N

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Connector Color

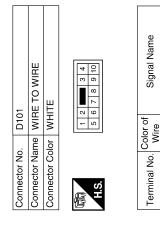


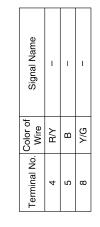
Signal Name	RL_UP	ENCODER_GND	RL_DOWN	LOCK	RR_DOWN	NNLOCK	RR_UP	AS_UP	
Color of Wire	G/B	W/B	G/O	L/B	G/R	L/R	G/W	R/B	
Terminal No.	1	2	3	4	5	6	7	8	

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Connector No. D10

FRONT POWER WINDOW SWITCH [LH&RH FRONT ANTI-PINCH-SEDAN]





		_							
Signal Name	UP	DOWN	BATT	GND	ENCODER SIG1	I	I	ENCODER SIG2	COM
Color of Wire	L/R	L/B	R/Y	В	G∕Y	I	I	G/W	У/G
Terminal No.	8	6	10	11	12	13	14	15	16

Connector Na	me FRC ASS	Connector Name FRONT DOOR LOCK ASSEMBLY LH
Connector Color GRAY	lor GR/	٩Y
国 H.S.	1 2	3 4 5 6
Terminal No.	Color of Wire	Signal Name
4	В	GND
L	Ç -	DOOR KEY/C

Signal Name	GND	DOOR_KEY/C_ UNLOCK_SW	DOOR_KEY/C_ LOCK_SW
Color of Wire	В	L/R	L/B
Terminal No. Color of Wire	4	5	9

Connector No.	D9
Connector Nam	Connector Name FRONT POWER WINDOW MOTOR LH
Connector Color WHITE	WHITE
同 H.S.	3456
Terminal No.	Color of Signal Name Wire

Signal Name	I	I	I	I	I	I	
Color of Wire	L/B	L/R	G/W	G/R	G∕Y	W/B	
Terminal No. Wire	+	2	з	4	5	6	

Connector No.	D104
Connector Name	Connector Name FRONT POWER WINDOW MOTOR RH
Connector Color WHITE	WHITE
SH E	1 2 3 4 5 6

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Connector Name Connector No.

D105





Signal Name	I	I	I	I	I	I
Color of Wire	L/B	L/R	G/W	G/R	G∖∕	W/B
Terminal No. Color of Wire	Ļ	2	e	4	5	9

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Terminal No.	-	2	ю	4	5	9	7
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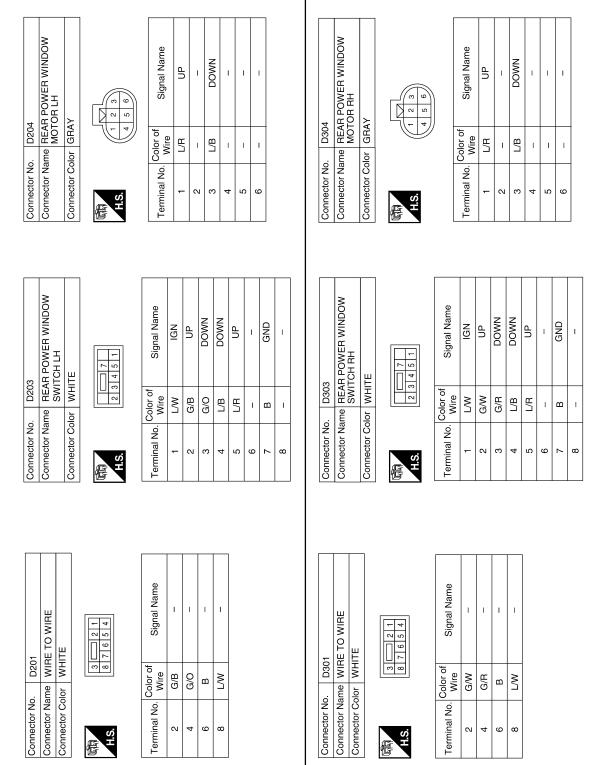
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	Signal Na	I	-	GND	ENCDER P	Τ
	Color of Wire	I	I	W/B	G/R	I
0.1	Terminal No. Color of Wire	-	2	e	4	ç

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¥		2	6		Color of Wire	
olor		-	8		K Colc	:
S C C					No.	
Connector Color	ſ		Ċ	ò	Terminal No.	
Con	ſ	E			Terr	
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FAIL-SAFE CONTROL

Fail Safe

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.

[LH&RH FR

< ECU DIAGNOSIS >

FRONT POWER WINDOW SWITCH

[LH&RH FRONT ANTI-PINCH-SEDAN]

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).

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 >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status
	Other than front wiper switch HI	OFF
FR WIPER HI	Front wiper switch HI	ON
	Other than front wiper switch LO	OFF
FR WIPER LOW	Front wiper switch LO	ON
	Front washer switch OFF	OFF
FR WASHER SW	Front washer switch ON	ON
	Other than front wiper switch INT	OFF
FR WIPER INT	Front wiper switch INT	ON
	Front wiper is not in STOP position	OFF
FR WIPER STOP	Front wiper is in STOP position	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than turn signal switch RH	OFF
TURN SIGNAL R	Turn signal switch RH	ON
	Other than turn signal switch LH	OFF
TURN SIGNAL L	Turn signal switch LH	ON
	Other than lighting switch 1ST and 2ND	OFF
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON
	Other than lighting switch HI	OFF
HI BEAM SW	Lighting switch HI	ON
	Other than lighting switch 2ND	OFF
HEAD LAMP SW 1	Lighting switch 2ND	ON
	Other than lighting switch 2ND	OFF
HEAD LAMP SW 2	Lighting switch 2ND	ON
	Other than lighting switch PASS	OFF
PASSING SW	Lighting switch PASS	ON
	Other than lighting switch AUTO	OFF
AUTO LIGHT SW	Lighting switch AUTO	ON
	Front fog lamp switch OFF	OFF
FR FOG SW	Front fog lamp switch ON	ON
	Driver door closed	OFF
DOOR SW-DR	Driver door opened	ON
	Passenger door closed	OFF
DOOR SW-AS	Passenger door opened	ON
	Rear door RH closed	OFF
DOOR SW-RR	Rear door RH opened	ON
	Rear door LH closed	OFF
DOOR SW-RL	Rear door LH opened	ON
DOOR SW-BK	NOTE: This item is displayed, but cannot be monitored.	OFF

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status	_
	Other than power door lock switch LOCK	OFF	- A
CDL LOCK SW	Power door lock switch LOCK	ON	_
	Other than power door lock switch UNLOCK	OFF	B
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	С
	Other than driver door key cylinder UNLOCK position	OFF	_
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	ON	_
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF	
	When hazard switch is not pressed	OFF	E
HAZARD SW	When hazard switch is pressed	ON	_
REAR DEF SW	When rear window defogger switch is pressed	ON	_
	Trunk lid opener cancel switch OFF	OFF	F
TR CANCEL SW	Trunk lid opener cancel switch ON	ON	_
	Trunk lid opener switch OFF	OFF	0
TR/BD OPEN SW	While the trunk lid opener switch is turned ON	ON	G
	Trunk lid closed	OFF	_
TRNK/HAT MNTR	Trunk lid opened	ON	Н
	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	J
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	PW
	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	Μ
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V	_
OPTICAL SENSOR	When outside of the vehicle is dark	Close to 0 V	Ν
	When driver door request switch is not pressed	OFF	_
REQ SW-DR	When driver door request switch is pressed	ON	
	When passenger door request switch is not pressed	OFF	- 0
REQ SW-AS	When passenger door request switch is pressed	ON	_
	When trunk request switch is not pressed	OFF	P
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	
IGN RLY2-F/B	Ignition switch ON	ON	-

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
	Ignition switch OFF	OFF
ACC RLY-F/B	Ignition switch ACC or ON	ON
	When the clutch pedal is not depressed	OFF
CLUTCH SW	When the clutch pedal is depressed	ON
	When the brake pedal is not depressed	ON
BRAKE SW 1	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
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
0	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
0.4.1.0.4.5555	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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Monitor Item	Condition	Value/Status
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
	Ignition switch ACC or ON	RESET
D OK FLAG	Ignition switch OFF	SET
	When the engine start is prohibited	RESET
PRMT ENG STAT	When the engine start is permitted	SET
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET
	When Intelligent Key is not inserted into key slot	OFF
KEY 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
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key
	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIRM ID2	The key ID that the key slot receives does not accord with the sec- ond key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
P 4	The ID of fourth key is not registered to BCM	YET
	The ID of fourth key is registered to BCM	DONE
Р 3	The ID of third key is not registered to BCM	YET
	The ID of third key is registered to BCM	DONE
P 2	The ID of second key is not registered to BCM	YET
	The ID of second key is registered to BCM	DONE
·D 1	The ID of first key is not registered to BCM	YET
P 1	The ID of first key is registered to BCM	DONE
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire

BCM (BODY CONTROL MODULE)

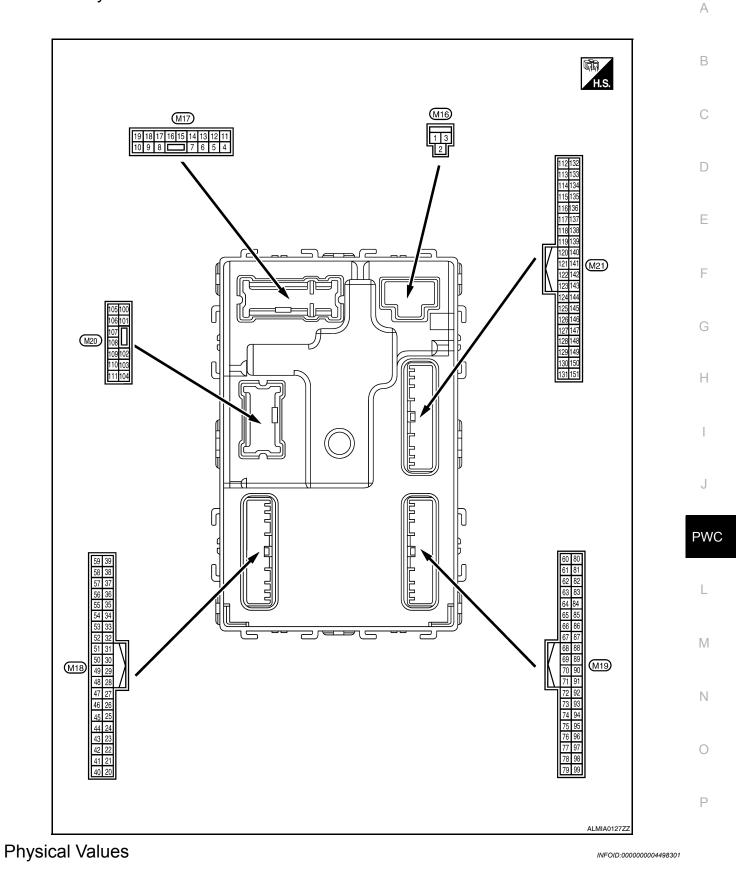
< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE
ID REGGITET	When ID of front LH tire transmitter is not registered	YET
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE
ID REGST FRT	When ID of front RH tire transmitter is not registered	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE
ID REGOT RRT	When ID of rear RH tire transmitter is not registered	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE
ID REGOT RET	When ID of rear LH tire transmitter is not registered	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
WARNING LAWP	Tire pressure indicator ON	ON
BUZZER	Tire pressure warning alarm is not sounding	OFF
DULLER	Tire pressure warning alarm is sounding	ON

Terminal Layout

BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-SEDAN]

INFOID:000000004498300



BCM (BODY CONTROL MODULE)

	inal No.	Description				Value
(+)	e color) (-)	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	Ground	Interior room lamp	Outout	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	Ground	Front door RH UN-	Output		UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	Front door RH	Other than UNLOCK (actu- ator is not activated)	OV
7	Ground	Step lamp	Output	Step lamp	ON	0V
(R/W)	Ciouna		Output	Step lamp	OFF	Battery voltage
8	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activat- ed)	Battery voltage
(V)	Cround		Output		Other than LOCK (actuator is not activated)	٥V
9	Ground	Front door LH UN-	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Output		Other than UNLOCK (actu- ator is not activated)	٥V
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	Output	and rear door LH	Other than UNLOCK (actu- ator 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
14 (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 JSNIA0010GB
15	Ground	ACC indicator lamp	Outout	Ignition switch	OFF	Battery voltage
(Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	ACC or ON	0V

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					Turn signal switch OFF	0V	_
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 10 15 0 15 0 15 0 FKID0926E 6.5 V	B C D
					Turn signal switch OFF	0V	Е
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	F
19	Ground	Room lamp timer	Output	Interior room	OFF	Battery voltage	Н
(Y)	Ground	control	Output	lamp	ON	0V	
21 (P/B)	Ground	Optical sensor signal	Input	Ignition switch ON	When outside of the vehi- cle is bright	Close to 5V	
(Р/Б)	(B) create operation rights		ON	When outside of the vehi- cle is dark	Close to 0V		
22 (R/Y)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (clutch pedal is not depressed)	0V	J
(R/T)		SWICH		Switch	ON (clutch pedal is de- pressed)	Battery voltage	PWC
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)	٥V	L
(O/L)	Ground		input		ON (brake pedal is de- pressed)	Battery voltage	M
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 11.8V	N
				When Intelligent K	Ley is inserted into key slot	Battery voltage	Ρ
29 (Y)	Ground	Key slot switch	Input		ey is not inserted into key slot	OV	
30					OFF	0	
30 (V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage	

BCM (BODY CONTROL MODULE)

[LH&RH FRONT ANTI-PINCH-SEDAN]

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	inal No. e color)	Description	Input/		Condition	Value	
(+)	(-)	Signal name	Output			(Approx.)	
31	Ground	Rear window defog-	Input	Rear window de-	OFF	0V	
(G)		ger feedback signal		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 10 ms JPMIA0011GB 11.8 V	
					ON (when front door RH opens)	0V	
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	5V	
(SB)	Cround	nal	input	, v O Switch	ON	0V	
34 ²	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	5V	
(L/R)	Giouna	der switch) (unlock)	Input	cylinder switch)	ON (unlock)	0V	
36 ²	Ground	Lock switch signal	Input	Door lock/unlock	Lock	Battery voltage	
(GR)				switch	Unlock	0V	
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 10 10 10 11 11 11 11 11 11 11	
					ON	0V	
38 (GR/	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF ON	5V 0V	
W)		ge: e:: e:g::e:					
39 ² (GR/	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery voltage	
R)				Switch	Lock	0V	
40 ³ (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 10 10 10 10.2V	
				Ignition switch OFI	F or ACC	0V	
A 4		Engine switch (such		Engine switch	ON	5.5V	
41 (W)	Ground	Engine switch (push switch) illumination	Output	(push switch) illu- mination			
					OFF	0V	
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0V	
(13)				amp	OFF	Battery voltage	

BCM (BODY CONTROL MODULE)

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[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value			
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A		
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V	В		
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	OFF ACC or ON	0V 5.0V	С		
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 4 2 0 • • 0.2s OCC3881D	D		
(G/O)	Glound	er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 2 0 • • 0.2s OCC3880D	F G		
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V			
(R/G)		position signal	•		Except P and N positions	0V			
49 (L/O)	Ground	Security indicator sig- nal	Output	Security indicator	ON Blinking	0V	J PW		
					OFF	Battery voltage			
					All switch OFF	0V	B. 6		
					Lighting switch 1ST		M		
	50			Combination	Lighting switch high-beam	(V) 15			
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	switch	switch (Wiper intermit-	Output switch (Wiper intermit-	Lighting switch 2ND Turn signal switch RH	10 5 0 	N
					JPMIA0031GB 10.7V)			

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BCM (BODY CONTROL MODULE)

	inal No.	Description				
	e color)	Signal name	Input/	Condition		Value (Approx.)
(+)	(-)	olgharname	Output			
					All switch OFF (Wiper intermittent dial 4)	٥V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	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	15 0 2 ms JPMIA0032GB
					All switch OFF (Wiper intermittent dial 4)	٥V
				_	Front washer switch ON (Wiper intermittent dial 4)	(V) 15
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination 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
					All switch OFF	0V
					Front wiper switch INT	
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO Lighting switch AUTO	(V) 15 10 5 0 2 ms JPMIA0034GB 10.7V
					All switch OFF	0V
					Front fog lamp switch ON	
					Lighting switch 2ND	(V)
54		Combination switch		Combination switch	Lighting switch flash-to-	15 10 5
(G/Y)	Ground	OUTPUT 4	Output	(Wiper intermit-	pass	
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB 10.7V
55				Front blower mo-	ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input	tor switch	OFF	0V
56 ²	Organisat	Front door lock as-	المرجور	assembly LH (kev	OFF (neutral)	5V
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input		ON (lock)	0V
57 (W)	Ground	Tire pressure warn- ing check switch	Input		_	5V

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value	
	e color)	Signal name	Input/		Condition	(Approx.)	А
(+)	(-)		Output				
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	B C D
					ON (front door LH OPEN)	0V	
59		Rear window defog-		Rear window de-	Active	Battery voltage	F
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V	E
					When Intelligent Key is in the passenger compart- ment	(V) 15 0 1 s JMKIA0062GB	F
60 (B/R)	Ground	Front console anten- na 2 (-)	Output	Ignition switch OFF			Н
		11a 2 (*)			When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	l J
							PWC
					When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	L
61 (W/R)	Ground	Center console an- tenna 2 (+)	Output	Ignition switch OFF			
(W/R)		tenna 2 (+)			When Intelligent Key is not in the passenger compart- ment	(V) 15 0 15 15 15 15 15 15 15 15 15 15	N
							Р

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
62 ⁴	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB
(B/Y)		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 s JMKIA0063GB
63 ⁴	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB
(LG)		RH antenna (+)		switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 5 0 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5
64 ⁴	Ground	Front outside handle	Output	When the front door LH request	When Intelligent Key is in the antenna detection area	(V) 15 0 1 5 0 1 5 1 5 JMKIA0062GB
(V)	Ground	LH antenna (-)	Cutput	switch is operat- ed with ignition switch OFF		(V) 15 0 5 0 1 s JMKIA0063GB

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value	٨
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	A
65 ⁴		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	B C D
(P)	Ground	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 1 1 1 5 0 JMKIA0063GB	E
66	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H I
(R)		tenna (-)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	J PWC
67	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M
(G)		tenna (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	O P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
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 1 1 1 1 1 1 1 1 1 1 1
(L/O)	Glound	receiver signal	Output	When operating ei	ther button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB
					All switch OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms 10 2 ms 10 10 10 10 10 10 10 10 10 10 10 10 10
75 (R/Y)		Combination switch INPUT 5	Input	ut Combination switch	Front fog lamp switch ON (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 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMIA0040GB 1.3V

BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-SEDAN]

$ \begin{array}{ c c c c c c c } \hline (+) & (-) & \operatorname{Signal name} & \operatorname{Input} & \operatorname{Conduct} & (Approx.) \\ \hline (+) & (-) & \operatorname{Signal name} & \operatorname{Input} & \operatorname{Conduct} & (Approx.) \\ \hline (+) & (-) $		inal No.	Description				Value	
$ \begin{array}{c c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$			Signal name	Input/ Output		Condition		
							15 10 5 0 2 ms JPMIA0041GB	
(r03) INPOTS INPOTS SWICH Input SWICH<	76	Ground					2 ms	
$ \begin{array}{ c c c c c } \hline & & & & & & & & & & & & & & & & & & $	(R/G)	Giouna	INPUT 3				15 0 2 ms JPMIA0037GB	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						with all switch OFFWiper intermittent dial 1Wiper intermittent dial 2	2 ms	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Ground		Input				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	78	Ground						
80 (R/L) Ground Key slot illumination Output Key slot illumina- tion OFF OV 80 Ground Key slot illumination Output Key slot illumina- tion Blinking Image: Comparison of the second	79	Ground	CAN-H	Input/		_	_	
80 (R/L) Ground Key slot illumination Output Key slot illumina- tion Blinking Image: Comparison of the state of the st	. ,					OFF	0V	
		Ground	Key slot illumination	Output		Blinking	15 10 5 0 ••••••••••••••••••••••••••••••	
						ON		

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BCM (BODY CONTROL MODULE)

	inal No.	Description				Value				
(vvire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)				
81		ON indiactor lamp	Output	lopition owitch	OFF or ACC	0V				
(LG)	Ground	ON indicator lamp	Output	Ignition switch	ON	Battery voltage				
83	Ground	ACC relay control	Output	Ignition switch	OFF	0V				
(L)	Ciouna		Output	Ignition Switch	ACC or ON	Battery voltage				
84 (Y/R)	Ground	CVT device	Output		_	Battery voltage				
85	Ground	Electronic steering column lock condition	Input	Electronic steer-	Lock status	0V				
(L/O)	Giouna	No. 1	Input	ing column lock	Unlock status	Battery voltage				
86	0	Electronic steering	1	Electronic steer-	Lock status	Battery voltage				
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V				
87	Ground	Selector lever P posi-	Input	Selector lever	P position	0V				
(G/B)	Cround	tion switch	mput		Any position other than P ON (pressed)	Battery voltage				
88 ⁴ (P/L)	Ground	Front door RH re- quest switch	Input	Front door RH re- quest switch	OFF (not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10				
					ON (pressed)	0V				
89 ⁴ (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		Blower fan motor re-			OFF or ACC	0V				
(Y)	Ground	lay control	Output	Ignition switch	ON	Battery voltage				
91 (L/R)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch OFI	F	Battery voltage				
94	Ground	Steering wheel lock	Output	Ignition switch	OFF or ACC	Battery voltage				
(G/Y)	Cround	unit power supply	Caiput	-Sinton Switch	ON	0V				

< ECU DIAGNOSIS >

Term	inal No.	Description				Value	^
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF	(V) 15 0 2 ms JPMIA0041GB 1.4V	B C D
		nd Combination switch Input Switch (Wiper in			Turn signal switch LH	(V) 15 0 2 ms JPMIA0037GB 1.3V	E
95 (R/W)	Ground			Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V	G H
					Front wiper switch LO	(V) 15 0 2 ms 10 2 ms JPMIA0038GB 1.3V	J PWC
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3V	M
							0

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BCM (BODY CONTROL MODULE)

	inal No. e color)	Description	1	-		Value			
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)			
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0041GB 1.4V			
96 (P/B)	Ground	Combination switch INPUT 4	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 10 0 2 ms JPMIA0038GB 1.3V			
(P/B)				switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 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 0 2 ms JPMIA0039GB 1.3V			

< ECU DIAGNOSIS >

	inal No.	Description				Value				
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А			
					All switch OFF	(V) 15 10 0 2 ms JPMIA0041GB 1.4V	B C D			
	97 (R/B) Ground		Input		Lighting switch flash-to- pass	(V) 15 10 2 ms JPMIA0037GB 1.3V	E F			
97 (R/B)		Combination switch INPUT 2		Combination switch (Wiper intermit- tent dial 4) Lighting switch 2ND		(V) 15 0 2 ms JPMIA0036GB 1.3V				
					Front wiper switch INT	(V) 15 10 2 ms JPMIA0038GB 1.3V	J PW			
			Front wiper switch HI Pressed		Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3V	M			
					0 V	0				
98 (G/O)	Ground Hazard switch Input		Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1V	Ρ				

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value				
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)				
					LOCK status	Battery voltage				
99 (L/Y)	Ground	Electronic steering column lock unit com- munication	Input/ Output	Electronic steer- ing column lock	LOCK or UNLOCK	(V) 15 0 50 50 ms JMKIA0066GB				
					For 15 seconds after UN- LOCK	Battery voltage				
					15 seconds or later after UNLOCK	0V				
103	Cround	Trunk lid opening	Quitout	Trunk lid	Open (trunk lid opener ac- tuator is activated)	Battery voltage				
(V)	Ground	Trunk liu openling	Output		Close (trunk lid opener ac- tuator is not activated)	0V				
110	Cround	Trunk room lomp	Qutout		ON	0V				
(V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	Battery voltage				
114	Ground	Rear parcel shelf an-	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB				
(B)	Ground	tenna 1 (-)	Output	ÕFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB				

BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-SEDAN]

	inal No.	Description				Value				
(VVire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	/			
115		Rear parcel shelf an-		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	(
(W)	Ground	tenna 1 (+)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	ł			
118 ⁴ (L/O) Gro		Rear bumper anten-		When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s 10 5 0 1 s 5 JMKIA0062GB	(
	Ground	na (-)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	, P'			
119 ⁴		Rear bumper anten-		When the trunk lid request switch	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s 10 5 0 1 s 5 JMKIA0062GB	1			
119 ⁴ (BR/ G W)	Ground	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 1 s JMKIA0063GB	(

BCM (BODY CONTROL MODULE)

	inal No.	Description				Value			
	e color)	Signal name	Input/		Condition	value (Approx.)			
(+)	(-)	Signarhame	Output						
127 (BR/	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	Battery voltage			
W)	Giouna	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 10 5 0 10 ms JPMIA0011GB 11.8V			
					ON (trunk is open)	0V			
				Ignition switch OFF (M/T vehi-	When the clutch pedal is depressed	Battery voltage			
				cle)	When the clutch pedal is not depressed	٥V			
132 (R)	Ground	Starter motor relay control	Output	Ignition switch ON (other than M/	When selector lever is in P or N position and the brake is depressed	Battery voltage			
				T vehicle)	When selector lever is in P or N position and the brake is not depressed	0V			
-					ON (pressed)	0V			
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V			
144 ⁴	Ground	Intelligent Key warn-	Output	Request switch	Sounding	0V			
(GR)	Cround	ing buzzer	Sutput	buzzer	Not sounding	Battery voltage			
144 ⁵	Ground	Outside warning	Output	Outside warning	Sounding	0V			
(GR)	Ciouna	buzzer	Output	buzzer	Not sounding	Battery voltage			
147	Ground	Trunk lid opener	Input	Trunk lid opener	Pressed	0V			
(L/R)	Clound	switch	mpat	switch	Not pressed	Battery voltage			
148 ¹ (R/W)	Ground	Rear door RH switch	Rear door RH C		OFF (when rear door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V			
					ON (when rear door RH opens)	0V			

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Terminal No. (Wire color)	Description				Value				
color)	Signal name	Input/ Output		Condition	(Approx.)	A			
(+) (-) Olgina					(V) 15	В			
149 ¹ (R/B) Ground Rear door		Input	Rear door LH switch	OFF (when rear door LH closes)	10 ms	С			
					JPMIA0011GB 11.8V	D			
				ON (when rear door LH opens)	0V				
	color) (-)	color) (-) Signal name	color) (-) Signal name Input/ Output	Color) Signal name Input/ Output Rear door LH switch Input Rear door LH	color) Signal name Input/ Output Condition Ground Rear door LH switch Input Rear door LH switch OFF (when rear door LH closes) Ground Rear door LH switch Input Rear door LH switch OFF (when rear door LH closes)	color) Signal name Input/ Output Condition Value (Approx.) Ground Rear door LH switch Input Rear door LH switch OFF (when rear door LH closes) OFF (when rear door LH closes) Imput Impu Impu Impu Impu Impu Impu			

1: Sedan only

2: With LH front window anti-pinch

3: With LH and RH front window anti-pinch

4: With Intelligent Key

5: Without Intelligent Key

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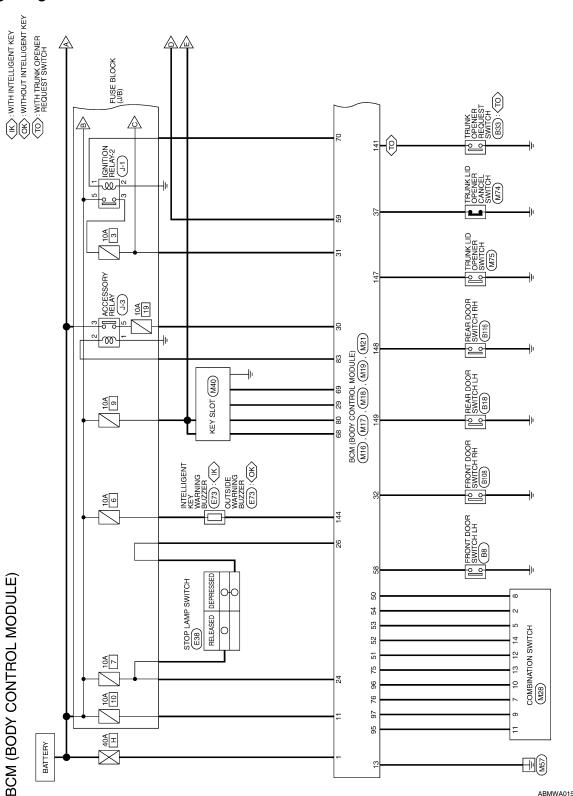
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Wiring Diagram-Sedan

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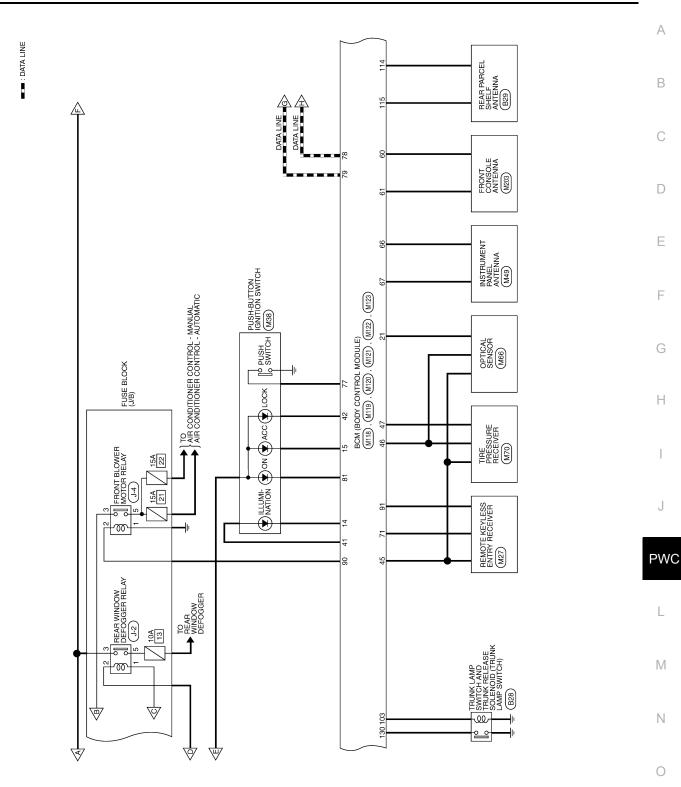


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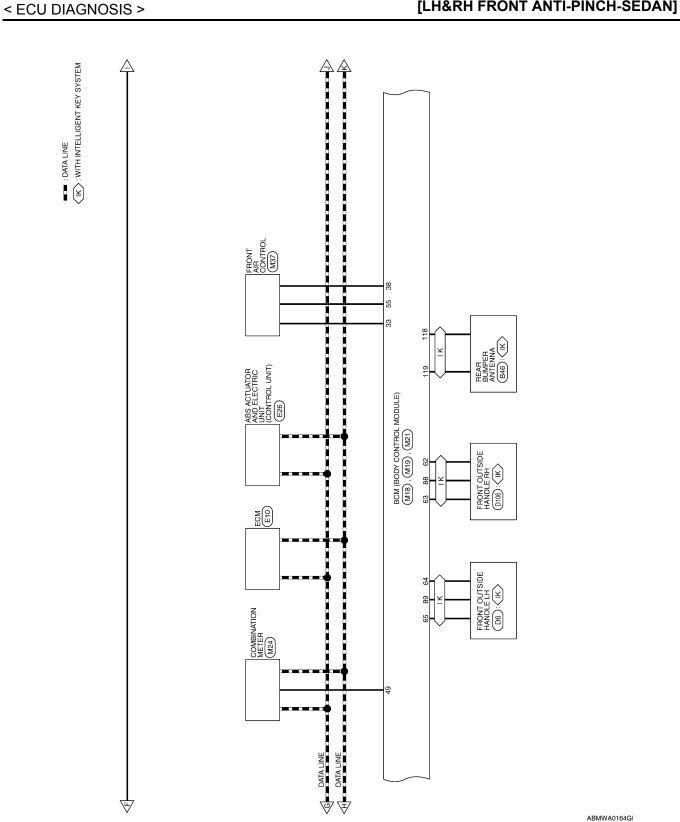
PWC-382

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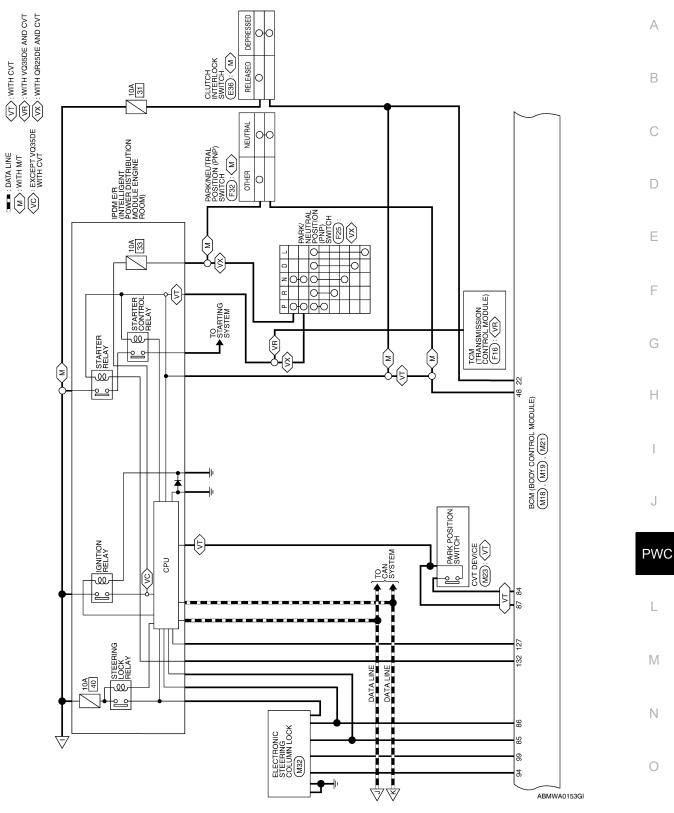


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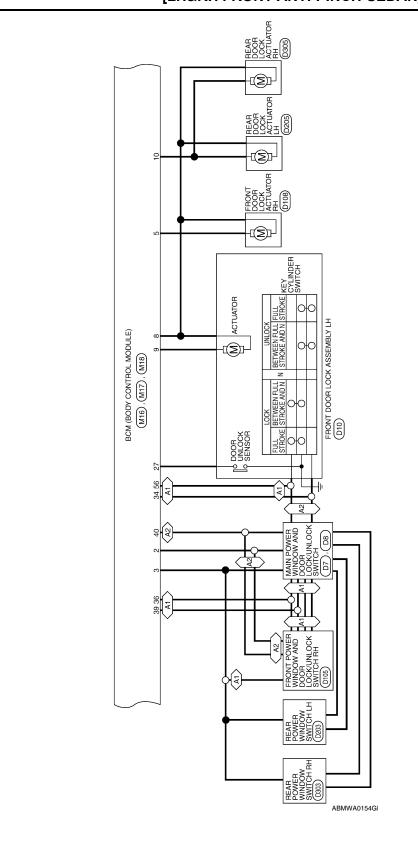


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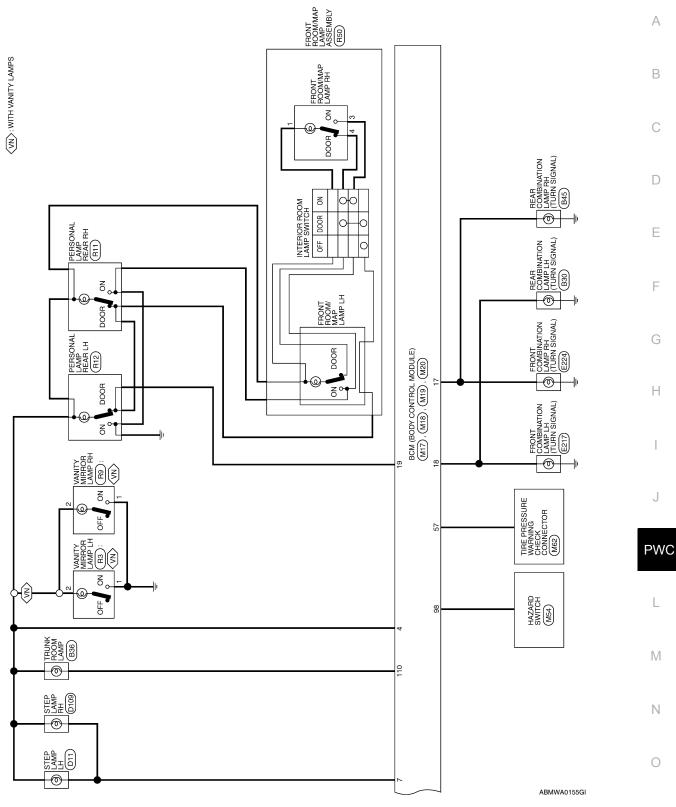


(41): WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM (42): WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM

BCM (BODY CONTROL MODULE) SIS > [LH&RH F

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]



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Signal Name	CDL_DR/FL	CDL_RR_RL_BACK	BAT_BCM_FUSE	I	GND1	LOW_SIDE_PUSH_LE D_OUTPUT	ACC_LED	I	FR_FLASHER	FL_FLASHER	ROOM_LAMP_OUTPUT
Color of Wire	g	G/Y	Y/R	I	в	R/Y	Y/L	I	G/B	G/Y	٢
Terminal No.	6	10	11	12	13	14	15	16	17	18	19

	Signal Name	KEYLESS_TUNER_SI	SHIFT_N/P	IMMO ⁻ LED	INPUT_5		INPUT_2	INPUT_3	1NPUT_4	BLOWER_FAN_SW	SW DOOR_KEY/C_LOCK_	TPMS_MODE_TRIGG ER_SW	DR_DOOR_SW	REAR_DEFOGGER_ RLY
	Color of Wire	G/O	R/G	Г/0	LG/B	L/W	G/B	LG/R	G/Y	BR/W	L/B	8	SB	G/R
	Terminal No.	47	48	49	50	51	52	53	54	55	56	57	58	59

						-		-	-	_
	Connector Name BCM (BODY CONTROL MODULE)	Щ	4 5 6 7 8 9 10 111 12 13 14 15 16 17 18 19	Signal Name	ROOM_LAMP_BAT_ SAVER	CDL_AS	-	STEP_LAMP_OUTPUT	CDL_COMMON	
M17		r WHI	4 5 6 1112131	Color of Wire	M/H	G/Y	T	ВW	>	
Connector No.	Connector Nam	Connector Color WHITE	H.S.	Terminal No.	4	5	9	7	ω	

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H.S. F

CDL_COMMON	Signal Name	DOOR_LOCK_STATUS	-	FOB_IN_SW_1	ACC_F/B	IGN_F/B	AS_DOOR_SW	AIRCON_SW	UNLOCK_SW DOOR_KEY/C_	-	CENTRAL_UNLOCK_SW	TRUNK_CANCEL_SW	REAR_DEFOGGER_SW	CENTRAL_UNLOCK_SW	PW_K-LINE	PUSH_LED	S/L_LOCK_LED	1	-	GND_RF2_A/L	A/L_SENS_KEYLESS_ TUNER_POWER_SUP	ΡLΥ	
>	Color of Wire	G/W	Ι	۲	۲/Y	ŋ	R/B	SB	H/J	Т	GR	0	GR/W	GR/R	Y/G	Μ	щ	I	I	Р	M/N		
8	Terminal No.	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46		

	SH	11 12 13 14 15 16 17	4 15 16 17
	Terminal No.	Color of Wire	S
	4	P/W	ROON
	ъ	G/Y	
1	9	I	
	7	R/W	STEP_
	8	٧	CD

P/W_POWER_SUPPL Y_PERM

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BAT_POWER_F/L Signal Name

Color of Wire W/B RУ

Terminal No.

POWER_ WINDOW_ POWER_ SUPPLY (RAP)

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M18	Connector Name BCM (BODY CONTROL MODULE)	GREEN	
Connector No.	Connector Name	Connector Color GREEN	

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21 2	41				
39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20	59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40				AUTO LIGHT SENSO
23	43				Ĭž
24	44		Signal Name		0
25	45		Ra		⊨
26	46		a a	1	16
27	47		g		Ē
28	48		S I		lc
29	49				15
30	50				∢
31	51				\vdash
32	52		olor o Wire		
33	53		Color of Wire		1
34	54		0		
35	55		ġ		
36	56				
37	57		ina	20	
38	58		Terminal No.		
39	59		l 🖁		

Signal Name	-	AUTO_LIGHT_SENSO R_INPUT1	CLUTCH_SW	I	STOP_LAMP_LOW_SW	I	STOP_LAMP_HIGH_SW
Color of Wire	-	P/B	R/Y	I	M/A	I	O/L
Terminal No.	20	21	22	23	24	25	26

AWMIA0292GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE) CONNECTORS

Connector Name BCM (BODY CONTROL MODULE)

M16

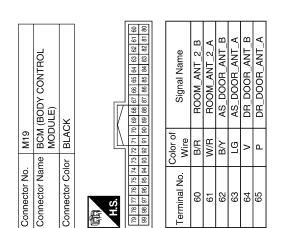
Connector No.

Connector Color BLACK

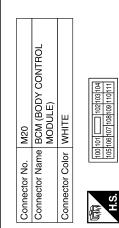
[LH&RH FRONT ANTI-PINCH-SEDAN]

				_						_						
Signal Name	AT_DEVICE_OUT	S/L_CONDITION_1	S/L_CONDITION_2	d_TTIHS	AS_REQUEST SWITCH	DR_REQUEST SWITCH	IGN2_CONT	RF1_POWER_SUPPLY	1	1	S/L_POWER_SUPPLY_ 12V		OUTPUT_4	OUTPUT_2	HAZARD_SW	S/L_K-LINE
Color of Wire	Y/R	L/0	G/R	G/B	P/L	B/W	≻	L/R	I	I	G/Y	R/W	P/B	R/B	G/O	Z
Terminal No.	84	85	86	87	88	89	06	91	92	63	94	95	96	97	98	66

Signal Name	ROOM_ANT_1_B	ROOM_ANT_1_A	FOB_READER_CLOCK	FOB_READER_DATA	IGN_ELEC_CONT	RF1_TUNER_SIGNAL	I	1	OUTPUT_5	OUTPUT_3	ENG_START_SW	CAN-L	CAN-H	FOB_SLOT_ ILLUMINATION	IGN_ON_LED	1	ACC_CONT
Color of Wire	щ	G	G/O	0	R/B	Г/О	ı	I	R/Y	R/G	BR	٩	_	R/L	ГG	I	L
Terminal No.	66	67	68	69	70	71	72	73	75	76	77	78	79	80	81	82	83



Signal Name	T	I	I	CDL_BACK_TRUNK	-	1	1	-	Ι	I	TRUNK_LAMP_OUTPUT	I
Color of Wire	I	Т	I	٨	-	-	I	-	-	I	M/N	T
Terminal No.	100	101	102	103	104	105	106	107	108	109	110	111





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Connector No.	M28
Connector Name	Connector Name COMBINATION SWITCH
Connector Color WHITE	WHITE
佢	
H C	56
2	8 0 10 11 19 13 14 14

10 11 12 13 14	Signal Name	WASH_MTR	OUTPUT_4	OUTPUT_3	GND	INPUT_3	OUTPUT_5	INPUT_2	INPUT_4	INPUT_1	OUTPU_1	INPUT_5	OUTPUT_2
7 8 9 1	Color of Wire	R/L	G∖∕	LG/R	в	R/G	LG/B	R/B	P/B	R/W	۲W	R/Y	G/B
S.H	Terminal No.	-	2	5	9	7	8	6	10	11	12	13	14

Terminal No.	Color of Wire	Signal Name
119	BR/W	BACK_DOOR_ANT_A
120	I	I
121	I	I
122	I	1
123	I	1
124	I	I
125	-	I
126	-	I
127	BR/W	IGN_USM_CONT1
128	Ι	I
129	-	I
130	9/Л	TRUNK_SW
131	-	I
132	В	ST_CONT_USM
133	I	I
134	I	I
135	I	I
136	I	I
137	Ι	I
138	-	I
139	Ι	I
140	-	I
141	G/R	TRUNK_REQUEST_SW
142	Ι	I
143	Ι	I
144	GR	BUZZER
145	-	I
145	I	I
147	L/R	BACK_TRUNK_OPENER
148	R/W	RR_DOOR_SW
149	R/B	RL_DOOR_SW
150	I	I
151	-	I

BACK_DOOR_ANT_B

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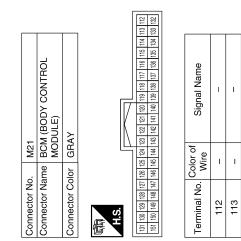
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115 116 117

TRUNK_ANT_1_B TRUNK_ANT_1_A

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Fail	Safe
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INFOID:000000004498304

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation		
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 ful- filled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 /h or more 		
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/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON 		
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status 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) 		

BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-SEDAN]

Display contents of CONSULT	Fail-safe	Cancellation
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
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
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions is fulfilledPower position changes to ACCReceives engine status signal (CAN)

DTC Inspection Priority Chart

INFOID:000000004498305

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

[LH&RH FRONT ANTI-PINCH-SEDAN]

INFOID:000000004498306

Priority	DTC	
4	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: STOP LAMP B2555: VSH-BTN IGN SW B2557: VEHICLE SPEED B2500: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2604: SHIFT POSI STATUS B2605: PNP SW B2605: PNP SW B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B2609: S/L STATUS B2609: S/L STATUS B26009: S/L STATUS B26019: BCM B26119: BCM B261100000	
5	 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 C17112: [CHECKSUM ERR] FL C1712: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] FR C1719: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] RR C1722: [CODE ERR] RR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1726: [BATT VOLT LOW] FR C1727: [BATT VOLT LOW] RL 	
6	C1734: CONTROL UNIT B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

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	_	_	_	<u>BCS-38</u>
U1010: CONTROL UNIT (CAN)		_	—	<u>BCS-39</u>
U0415: VEHICLE SPEED SIG		_	—	BCS-40
B2013: ID DISCORD BCM-S/L	×	_	—	<u>SEC-38</u>
B2014: CHAIN OF S/L-BCM	×	_	_	<u>SEC-39</u>
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-64</u>
B2191: DIFFERENCE OF KEY	×	_	_	<u>SEC-67</u>
B2192: ID DISCORD BCM-ECM	×	_		<u>SEC-68</u>
B2193: CHAIN OF BCM-ECM	×	_	_	<u>SEC-69</u>
B2553: IGNITION RELAY	_	_	_	PCS-60
B2555: STOP LAMP	_	_	_	SEC-70
B2556: PUSH-BTN IGN SW	_	×	_	<u>SEC-72</u>
B2557: VEHICLE SPEED	×	×	_	<u>SEC-74</u>
B2560: STARTER CONT RELAY	×	×	_	<u>SEC-75</u>
B2562: LOW VOLTAGE	_	_		BCS-41
B2601: SHIFT POSITION	×	×		<u>SEC-76</u>
B2602: SHIFT POSITION	×	×	_	<u>SEC-79</u>
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-81</u>
B2604: PNP SW	×	×	_	<u>SEC-84</u>
B2605: PNP SW	×	×		<u>SEC-86</u>
B2606: S/L RELAY	×	×	_	<u>SEC-88</u>
B2607: S/L RELAY	×	×		<u>SEC-89</u>
B2608: STARTER RELAY	×	×	_	<u>SEC-91</u>
B2609: S/L STATUS	×	×	_	<u>SEC-93</u>
B260A: IGNITION RELAY	×	×	_	PCS-62
B260B: STEERING LOCK UNIT	_	×		<u>SEC-97</u>
B260C: STEERING LOCK UNIT		×		<u>SEC-98</u>
B260D: STEERING LOCK UNIT		×		<u>SEC-99</u>
B260F: ENG STATE SIG LOST	×	×		<u>SEC-100</u>
B2612: S/L STATUS	×	×		<u>SEC-101</u>
B2614: ACC RELAY CIRC		×		PCS-65
B2615: BLOWER RELAY CIRC		×		PCS-68
B2616: IGN RELAY CIRC		×		PCS-71
B2617: STARTER RELAY CIRC	×	×		<u>SEC-105</u>
B2618: BCM	×	×		PCS-74

BCM (BODY CONTROL MODULE) [LH&RH FRONT ANTI-PINCH-SEDAN]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	_	<u>SEC-107</u>
B261A: PUSH-BTN IGN SW		×	—	<u>SEC-108</u>
B2621: INSIDE ANTENNA	_	_		<u>DLK-59</u>
B2622: INSIDE ANTENNA		_	—	DLK-62
B2623: INSIDE ANTENNA		—	—	DLK-65
B26E1: ENG STATE NO RES	×	×	—	<u>SEC-110</u>
C1704: LOW PRESSURE FL	_	_	×	<u>WT-52</u>
C1705: LOW PRESSURE FR		_	×	<u>WT-52</u>
C1706: LOW PRESSURE RR	—	—	×	<u>WT-52</u>
C1707: LOW PRESSURE RL	—	—	×	<u>WT-52</u>
C1708: [NO DATA] FL	—	_	×	<u>WT-14</u>
C1709: [NO DATA] FR	_	_	×	<u>WT-14</u>
C1710: [NO DATA] RR		—	×	<u>WT-14</u>
C1711: [NO DATA] RL	_	_	×	<u>WT-14</u>
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR	_		×	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL	_	_	×	<u>WT-16</u>
C1716: [PRESSDATA ERR] FL	_	_	×	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	_	×	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	_	-	×	<u>WT-18</u>
C1720: [CODE ERR] FL	_	_	×	<u>WT-16</u>
C1721: [CODE ERR] FR	_	_	×	<u>WT-16</u>
C1722: [CODE ERR] RR	-		×	<u>WT-16</u>
C1723: [CODE ERR] RL	-	_	×	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	_	_	×	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	-		×	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL		_	×	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR		_	×	<u>WT-19</u>
C1734: CONTROL UNIT		_	×	<u>WT-20</u>

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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.

Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:000000004499258

NOTE:

- Before removing and installing any control units, first turn the push-button ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

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.
- 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 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-III.

[LH&RH FRONT ANTI-PINCH-SEDAN]
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INFOID:000000004205212
JPPLY AND GROUND CIRCUIT
d ground circuit. Procedure".
e the malfunctioning parts. WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND
WINDOW AND DOOR LOOKONLOCK SWITCH FOWER SUPPLY AND
main power supply and ground circuit.
WINDOW MAIN SWITCH : Component Function Check".
e the malfunctioning parts.
VINDOW AND DOOR LOCK/UNLOCK SWITCH SERIAL CIRCUIT
nd door lock/unlock switch serial circuit. WINDOW MAIN SWITCH : Component Function Check".
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e the malfunctioning parts.
/INDOW AND DOOR LOCK/UNLOCK SWITCH
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WINDOW MAIN SWITCH : Component Function Check".
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nt incident. Refer to <u>GI-42, "Intermittent Incident"</u> .

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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:000000004205213

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH. Refer to <u>PWC-313</u>, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

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:000000004205214	В
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH		
Check power window and door lock/unlock switch RH. Refer to <u>PWC-308, "FRONT POWER WINDOW SWITCH : Component Function Check"</u> . Is the inspection result normal?		С
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH SERIAL LINK CIRCU	UIT	D
Check power window and door lock/unlock switch RH serial link circuit. Refer to <u>PWC-332, "FRONT POWER WINDOW SWITCH : Component Function Check"</u> .		E
Is the inspection result normal? YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts. 3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT		F
Check front power window motor RH circuit. Refer to <u>PWC-315, "PASSENGER SIDE : Component Function Check"</u> . Is the inspection result normal?		G
YES >> Inspection end. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .		H

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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:000000004205215

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH. Refer to PWC-310, "REAR POWER WINDOW SWITCH : Component Function Check".

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-316</u>, "REAR LH : Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-SEDAN] REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure	A 205216
1. CHECK REAR POWER WINDOW SWITCH RH	В
Check rear power winodw switch RH. Refer to <u>PWC-310, "REAR POWER WINDOW SWITCH : Component Function Check"</u> .	
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-318, "REAR RH : Component Function Check"</u> .	E
<u>Is the inspection result normal?</u> YES >> Inspection end.	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	F
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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:000000004205217

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-295</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 PWC-320, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

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	В
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to <u>PWC-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u> ment".	С
Is the inspection result normal? YES >> GO TO 2	D
NO >> Repair or replace the malfunctioning parts.	
2. CHECK DOOR WINDOW SLIDING PART	Ε
 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. 	F
Is the inspection result normal?	
YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts.	G
3. CHECK ENCODER CIRCUIT	
Check encoder circuit. Refer to <u>PWC-322, "PASSENGER SIDE : Component Function Check"</u> .	Н
Is the inspection result normal?	
 YES >> Inspection end. NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u>. 	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-SEDAN]

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

Diagnosis Procedure

INFOID:000000004205219

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure. Refer to <u>PWC-295, "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 ENCODER

Check encoder.

Refer to PWC-320, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

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

< SYMPTOM DIAGNOSIS > [LH&RH	FRONT ANTI-PINCH-SEDAN]
AUTO OPERATION DOES NOT OPERATE BUT	MANUAL OPERATES
NORMALLY (PASSENGER SIDE)	A
Diagnosis Procedure	INFOID:00000004205220
1. PERFORM INITIALIZATION PROCEDURE	
Perform initialization procedure. Refer to <u>PWC-295</u> , "ADDITIONAL SERVICE WHEN REPLACING CONTRO <u>ment"</u> .	DL UNIT : Special Repair Require-
Is the inspection result normal?	D
YES >> GO TO 2	
NO >> Repair or replace the malfunctioning parts.	
2. CHECK ENCODER	E
Check encoder. Refer to <u>PWC-322, "PASSENGER SIDE : Component Function Check"</u> .	
Is the inspection result normal?	F
YES >> Inspection end.	
NO >> Check intermittent incident. Refer to GI-42, "Intermittent Inciden	<u>t"</u> .

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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:000000004205221

1. CHECK FRONT DOOR SWITCH

Check front door switch. Refer to <u>PWC-326</u>, "Component Function Check".

Is the inspection result normal?

YES >> Inspection end.

DOES NOT OPERATE BY KEY CYLINDER SWITCH	
< SYMPTOM DIAGNOSIS > [LH&RH FRONT ANTI-PINCH-SEDAN]	
DOES NOT OPERATE BY KEY CYLINDER SWITCH	Δ
Diagnosis Procedure	A
1. PERFORM INITIALIZATION PROCEDURE	В
Perform initialization procedure. Refer to PWC-295, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-	
ment".	С
Is the inspection result normal?	
YES >> GO TO 2	_
NO >> Repair or replace the malfunctioning parts.	D
2. CHECK FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)	
Check front door lock assembly LH (key cylinder switch).	Е
Refer to <u>PWC-328. "Component Function Check"</u> .	
<u>Is the inspection result normal?</u> YES >> Inspection end.	
NO >> Check intermittent incident. Refer to <u>GI-42, "Intermittent Incident"</u> .	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:000000004205223

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to <u>DLK-340</u>, "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-96. "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	А
Diagnosis Procedure	
1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	В
Replace main power window and door lock/unlock switch. Refer to <u>PWC-411</u> , " <u>Removal and Installation</u> ". After that, <u>PWC-307</u> , " <u>POWER WINDOW MAIN SWITCH</u> : <u>Special Repair Requirement</u> ". Is the inspection result normal?	С
YES >> Inspection end. NO >> Check intermittent incident. Refer to <u>GI-42. "Intermittent Incident"</u> .	D
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ON-VEHICLE MAINTENANCE PRE-INSPECTION FOR DIAGNOSTIC

Basic Inspection

BASIC INSPECTION

1.INSPECTION START

1. Check the service history.

2. Check the following parts.

• Fuse/circuit breaker blown.

• Poor connection, open or short circuit of harness connector.

• Battery voltage.

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace the malfunctioning parts.

INFOID:000000004205226

ON-VEHICLE REPAIR POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

1. Remove the power window main switch finisher (2). Refer to INT-34, "Removal and Installation".

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2. Power window main switch (1) is removed from power window main switch finisher (2) using a suitable tool (A).

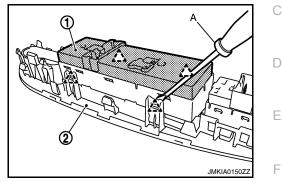
CAUTION:

Do not fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for front power window and door lock/unlock switch RH, and rear power window switch (LH & RH).

INSTALLATION

Installation is in the reverse order of removal.



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