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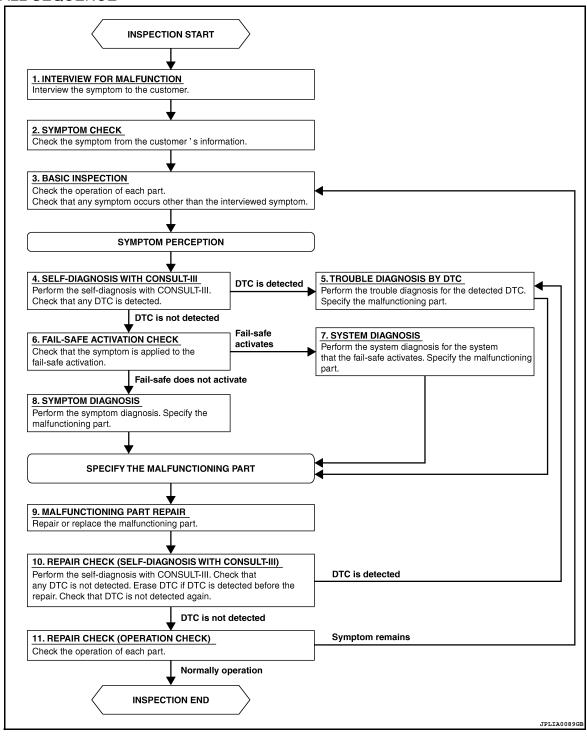
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

OVERALL SEQUENCE



DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > [LH ONLY WINDO	
DETAILED FLOW 1. INTERVIEW FOR MALFUNCTION	
Interview the symptom to the customer.	
>> GO TO 2	
2. SYMPTOM CHECK	
Check the symptom from the customer's information.	
>> GO TO 3	
3. BASIC INSPECTION	
Check the operation of each part. Check that any symptom occurs other than the interviewed	ed symptom.
>> GO TO 4	
4. SELF-DIAGNOSIS WITH CONSULT-III	
Perform the self-diagnosis with CONSULT-III. Check that any DTC is detected.	
Is any DTC detected?	
YES >> GO TO 5 NO >> GO TO 6	
5. TROUBLE DIAGNOSIS BY DTC	
Perform the trouble diagnosis for the detected DTC. Specify the malfunctioning part.	
>> GO TO 9	
6. FAIL-SAFE ACTIVATION CHECK Check that the symptom is applied to the fail cofe estimation	
Check that the symptom is applied to the fail-safe activation. Does the fail-safe activate?	
YES >> GO TO 7	
NO >> GO TO 8 7	
7. SYSTEM DIAGNOSIS	
Perform the system diagnosis for the system that the fail-safe activates. Specify the malfund	stioning part.
>> GO TO 9	
8. SYMPTOM DIAGNOSIS	
Perform the symptom diagnosis. Specify the malfunctioning part.	
3	
>> GO TO 9	
9. MALFUNCTION PART REPAIR	
Repair or replace the malfunctioning part.	
>> GO TO 10	
10. REPAIR CHECK (SELF-DIAGNOSIS WITH CONSULT-III)	

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YES >> GO TO 5

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[LH ONLY WINDOW ANTI-PINCH]

NO >> GO TO 11

11. REPAIR CHECK (OPERATION CHECK)

Check the operation of each part.

Does it operate normally?

YES >> Inspection End.

NO >> GO TO 3

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH ONLY WINDOW ANTI-PINCH]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description INFOID:0000000005439630

Initial setting is necessary when battery terminal is disconnected.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement INFOID:0000000005439631

INITIALIZATION PROCEDURE

- 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.
- 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 PWC-41, "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
- 3. Retained power operation when ignition switch is OFF.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000005439632

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:0000000005439633

INITIALIZATION PROCEDURE

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

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH ONLY WINDOW ANTI-PINCH]

- 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 main power window and door lock/unlock switch while lowering.

CAUTION:

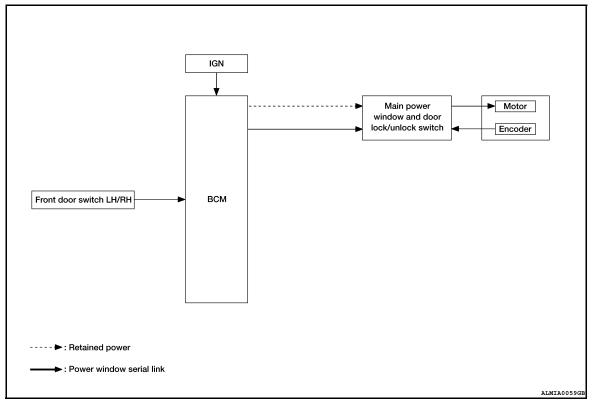
- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-41, "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.

FUNCTION DIAGNOSIS

POWER WINDOW SYSTEM

System Diagram

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM



System Description

INFOID:0000000005439635

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 nower window motor
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	Power window control	Front power window motor
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)

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POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

- 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)

NOTE:

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

Component Parts Location

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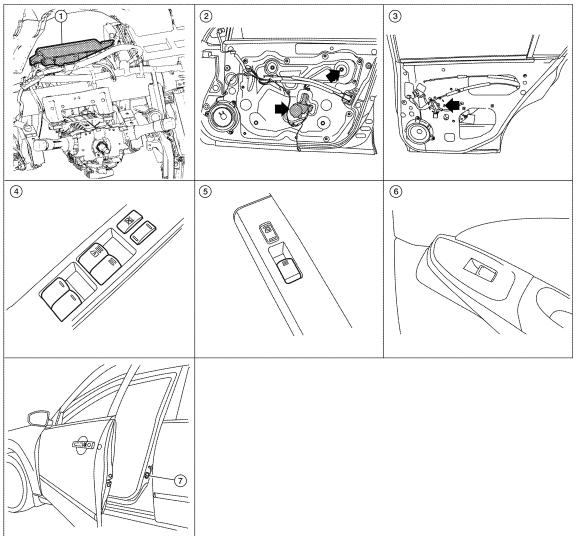
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- BCM M16, M17, M18 (view with instrument panel removed)
- 4. Main power window and door lock/ unlock switch D8, D12
- 7. Front door switch LH B8, RH B108
- Front power window motor LH D9, RH D104
- Power window and door lock/unlock 6. switch RH D110
- Rear power window motor LH D204, RH D304
- . Rear power window switch LH D203, RH D303

Component Description

INFOID:0000000005439637

FRONT POWER WINDOW LH ANTI-PINCH SYSTEM

Component	Function
ВСМ	Supplies power supply to power window switch.Controls retained power.
Main power window and door lock/un-lock switch	 Directly controls all power window motor of all doors. Controls anti-pinch operation of 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 >

[LH ONLY WINDOW ANTI-PINCH]

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

INFOID:0000000005804740

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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-DIAGNOSTIC RESULT	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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

System	Sub system coloction item	Diagnosis mode			
System Sub system selection item		WORK SUPPORT	DATA MONITOR	ACTIVE TEST	
Door lock	DOOR LOCK	×	×	×	
Rear window defogger	REAR DEFOGGER		×	×	
Warning chime	BUZZER		×	×	
Interior room lamp timer	INT LAMP	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	
Wiper and washer	WIPER	×	×	×	
Turn signal and hazard warning lamps	FLASHER	×	×	×	
Air conditioner	AIR CONDITONER		×		
Intelligent Key system	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		
BCM	BCM	×			
Immobilizer	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Trunk open	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	
RAP system	RETAINED PWR		×		
Signal buffer system	SIGNAL BUFFER		×	×	
TPMS	AIR PRESSURE MONITOR	×	×	×	

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

INFOID:0000000005804741

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to BCS-68, "DTC Index".

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

RETAINED PWR

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

INFOID:0000000005804742

DATA MONITOR

Monitor item	Description	
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.	
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.	

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

$oldsymbol{1}$. 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-17, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

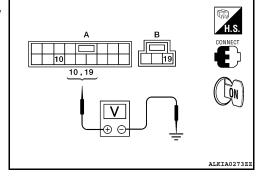
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

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

1. CHECK POWER SUPPLY CIRCUIT

- Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connectors (A and B) and ground.

Ter				
(+)		Voltage (V)		
Main power window and door lock/unlock switch connector	Terminal	(-)	(Approx.)	
D12 (A)	10	Ground	Battery voltage	
D8 (B)	19	Giouna	Dattery Voltage	



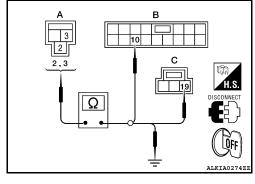
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Main power window and door lock/unlock switch connector	Terminal	Continuity
M16 (A)	3	D12 (B)	10	Yes
WITO (A)	2	D8 (C)	19	163



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< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

4. Check continuity between BCM connector and ground.

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

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

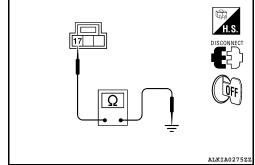
3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

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

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

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



Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation".

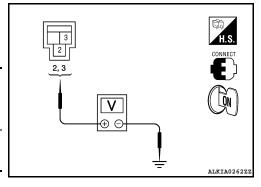
After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

NO >> Repair or replace harness.

4. CHECK BCM OUTPUT SIGNAL

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

Term			
(+)	(-)	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	(1-1 /
M16	3	Ground	Battery voltage
	2	around	Dattery voltage

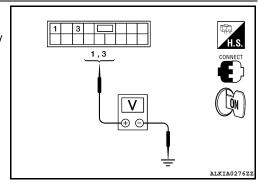


Is the measurement value within the specification?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6
- NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

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

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



Teri				
(+)			Window	Voltage (V)
Main power window and door lock/unlock switch connector	Terminal	(–)	condition	(Approx.)
			UP	Battery voltage
D12	'	Ground	DOWN	0
DIZ	3	Ground	UP	0
	3		DOWN	Battery voltage

Is the measurement value within the specification?

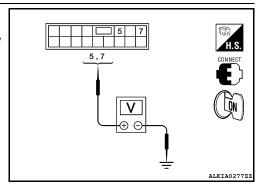
YES >> GO TO 7

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

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

- 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.

Te					
(+)			Window	Voltage (V)	
Main power window and door lock/unlock switch connector	r lock/unlock Terminal		condition	(Approx.)	
	7	7		UP	Battery voltage
D12		Ground	DOWN	0	
DIZ	_	Giodila	UP	0	
	5		DOWN	Battery voltage	



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Is the measurement value within the specification?

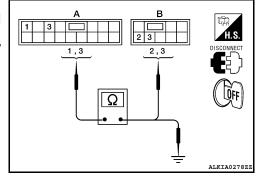
YES >> GO TO 8

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROLUNIT: Special Repair Requirement".

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

- 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
D12 (A)	1	D203 (B)	2	Yes
D12 (A)	3	D203 (B)	3	162



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

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[LH ONLY WINDOW ANTI-PINCH]

< COMPONENT DIAGNOSIS >

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12 (A)	1	No	
D12 (A)	3		INO

Is the inspection result normal?

YES >> GO TO 9

NO >> Repair or replace harness.

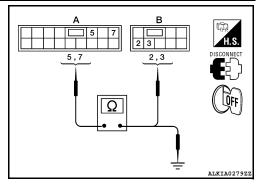
8. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

1. Turn ignition switch OFF.

2. Disconnect 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
_	D12 (A)	5	D303 (B)	3	Yes
	D12 (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		Continuity
D12 (A)	5	Ground	No
D12 (A)	7		INO

Is the inspection result normal?

YES >> GO TO 9

NO

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 PWC-20, "POWER WINDOW MAIN SWITCH: Component 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 <u>PWC-86</u>. "Removal and Installation". After that, refer to <u>PWC-9</u>. "ADDITIONAL SERVICE WHEN REPLACING CONTROL <u>UNIT</u>: Special Repair Requirement".

POWER WINDOW MAIN SWITCH: Component Inspection

INFOID:0000000005439644

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

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

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

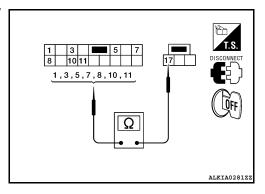
1,3,5,7,8,10,11

1,3,5,7,8,10,11

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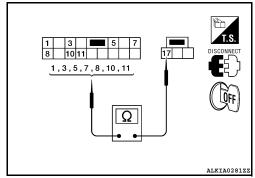
2. Check continuity between main power window and door lock/ unlock switch (power window lock switch) (Lock operation).

Terr	minal	Main power window and door lock/unlock switch condition		Continuity
3		Rear LH		
5		Rear RH	UP	
11		Front RH		
1		Rear LH		
3		Heal Lil		
5	17	Rear RH	NEUTRAL	No
7	17	ricarriir	NEOTIAL	
8		Front RH		
11		TIOHERIT		
1		Rear LH		
7		Rear RH	DOWN	
8		Front RH		



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

Terr	reminal :		Main power window and door lock/un- lock switch condition	
3		Rear LH		
5		Rear RH	UP	
11		Front RH		
1		Rear LH		
3		neai Ln		
5	17	17 Rear RH NEUTRAL		Yes
7	17	neal mi	NEOTHAL	165
8		Front RH		
11		FIUILED		
1		Rear LH		
7		Rear RH	DOWN	
8		Front RH		



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< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

POWER WINDOW MAIN SWITCH: Special Repair Requirement

INFOID:0000000005439645

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-9</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 GI-42, "Intermittent Incident".

2. CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-17, "POWER WINDOW MAIN SWITCH: Component Function Check".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

INFOID:0000000005439646

- · BCM supplies power.
- Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH : Component Function Check

INFOID:0000000005439647

Power Window And Door Lock/unlock Switch RH

${f 1}$. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

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

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

NO >> Refer to PWC-22, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure".

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000005439648

Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

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

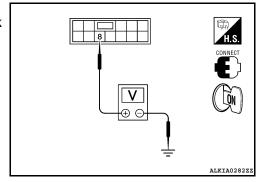
1. CHECK POWER SUPPLY CIRCUIT (POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH)

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

Ti				
(+)		Voltage (V)		
Power window and door lock/unlock Terminal switch RH connector		(–)	(Approx.)	
D110	8	Ground	Battery voltage	



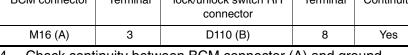
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect BCM and power window and door lock/unlock switch 2. 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	D110 (B)	8	Yes



Check continuity between BCM connector (A) and ground.

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

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Is the inspection result normal?

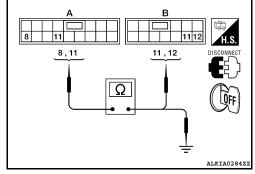
YES >> Refer to PWC-17, "POWER WINDOW MAIN SWITCH: Component Function Check".

NO >> Repair or replace harness.

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

- Turn ignition switch OFF.
- 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
D12 (A)	11	D110 (B)	11	Yes
D12 (A)	8	D110 (B)	12	162



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
D12 (A)	8		No
D12 (A)	11		

Is the inspection result normal?

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< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

YES >> GO TO 4

NO >> Repair or replace harness.

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

Check power window and door lock/unlock switch RH.

Refer to PWC-24, "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 PWC-87, "Removal and Installation".

FRONT POWER WINDOW SWITCH: Component Inspection

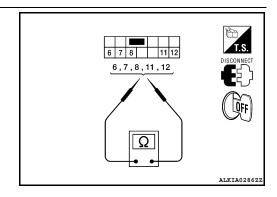
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COMPONENT INSPECTION

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

Check power window and door lock/unlock switch RH.

Terr	minal	Power window switch condition	Continuity
8	6	UP	
12	7	OF OF	
12	7	NEUTRAL	Yes
6	11	NEOTIAL	163
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 PWC-87, "Removal and Installation".

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Description

INFOID:0000000005439650

- 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

INFOID:0000000005439651

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?

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

NO >> Refer to PWC-107, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000005439652

Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

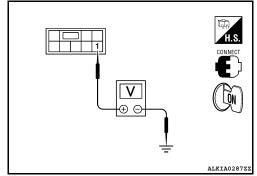
Turn ignition switch ON.

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Check voltage between rear power window switch connector and ground.

	Term	inal				
	(+)			Condition	Condition	Voltage (V)
•	wer window connector	Terminal	(–)		(Approx.)	
LH	D203	-1	Ground	1 Ground	Ignition switch	Battery
RH	D303	'			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

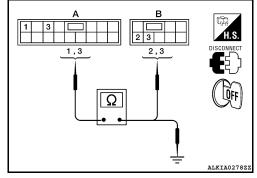
${f 2}.$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

1. Turn ignition switch OFF.

2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.

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

-	Main power window and door lock/unlock switch connector	Terminal	Rear power win- dow switch LH connector	Terminal	Continuity
	D12 (A)	1	D203 (B)	2	Yes
	DIZ (A)	3	D203 (B)	3	163



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

Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity	
D12 (A)	1		No	
D12 (A)	3		INO	

Is the inspection result normal?

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

NO >> Repair or replace harness.

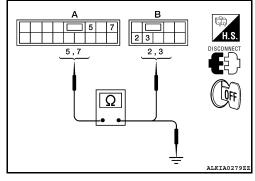
3. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

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
D12 (A)	5	D303 (B)	3	Yes
D12 (A)	7	D303 (B)	2	163



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

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Main power window and door lock/unlock switch connector	Terminal	Ground	Continuity
D12 (A)	5		No
D12 (A)	7	=	INO

Is the inspection result normal?

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

NO >> Repair or replace harness.

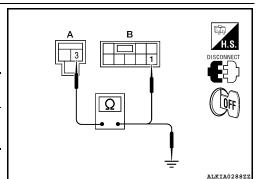
4. CHECK HARNESS CONTINUITY

- 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
IVI IO (A)	3	RH	D303 (B)	'	165



BCM connector	Terminal	Ground	Continuity
M16	3	Giodila	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-108, "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 PWC-88, "Removal and Installation - Rear Door <a href="Switch".

REAR POWER WINDOW SWITCH: Component Inspection

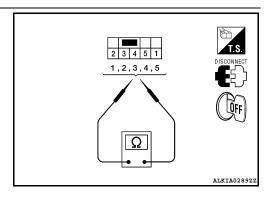
INFOID:0000000005439653

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Terr	ninal	Power window switch condition	Continuity	
1	5	UP		
3	4	Or Or		
3	4	NEUTRAL	Yes	
2	5	NEOTIAL	163	
1	4	DOWN		
2	5	DOWN		



Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to PWC-88, "Removal and Installation - Rear Door <a href="Switch".

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE : Description

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

DRIVER SIDE : Component Function Check

INFOID:0000000005439655

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 PWC-27, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005439656

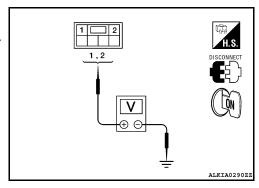
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

Front Power Window Motor LH Circuit Check

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

- Turn ignition switch OFF.
- 2. Disconnect front power window motor LH.
- 3. 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	_	Ground	DOWN	0
D9	4		UP	0
	1		DOWN	Battery voltage
			'.'' .' O	



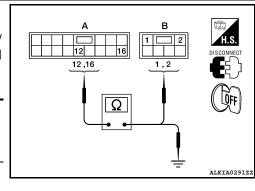
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- 3. 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
D12 (A)	16	D9 (B)	2	Yes
D12 (A)	12	D3 (D)	1	165



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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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
D10 (A)	16		No
D12 (A)	12		INO

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to PWC-111, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

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

NO >> Replace front power window motor LH. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-9</u>, "<u>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: Special Repair Requirement".

DRIVER SIDE : Component Inspection

INFOID:0000000005439657

COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

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

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

Is the inspection result normal?

NO

YES >> Front power window motor LH is OK.

>> Replace front power window motor LH. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-9</u>, "<u>ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT</u>: <u>Special Repair Requirement</u>".

DRIVER SIDE : Special Repair Requirement

INFOID:0000000005439658

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-9, "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-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-34, "DRIVER SIDE : Component Function Check".

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.

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 PWC-29, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE: Diagnosis Procedure

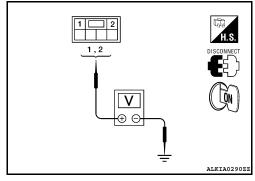
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

Front Power Window Motor RH Circuit Check

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

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

Terminal					
(+)			Front power window motor	Voltage (V)	
Front power window motor RH connector	Terminal	(–)	RH condition	(Approx.)	
	1 Gi		UP	Battery voltage	
D104		•	Ground	DOWN	0
D104		0	Giouna	UP	0
	2		DOWN	Battery voltage	



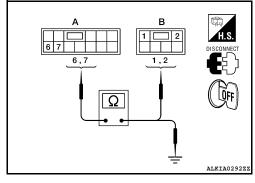
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D110 (A)	6	D104 (B)	1	Yes
D110 (A)	7	D 104 (B)	2	163



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INFOID:000000005439659

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POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

Power window and door lock/ unlock switch RH connector	Terminal		Continuity	
D110 (A)	6	Ground	No	
D110 (A)	7		NO	

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-87, "Removal and Installation".

NO >> Repair or replace harness.

${f 3.}$ CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-30, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

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

NO >> Replace front power window motor RH. Refer to PWC-87, "Removal and Installation".

PASSENGER SIDE: Component Inspection

INFOID:0000000005439662

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?

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

Is the inspection result normal?

YES >> Power window motor is OK.

NO >> Replace front power window motor RH. Refer to <u>GW-17</u>, "Removal and Installation".

REAR LH

REAR LH: Description

INFOID:0000000005439663

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

REAR LH: Component Function Check

INFOID:0000000005439664

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?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-30, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

INFOID:0000000005439665

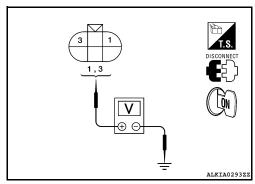
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

Rear Power Window Motor LH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH LH OUTPUT SIGNAL

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

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



Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 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 (D)	3	165

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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		INO	

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-30, "REAR LH: Component Function Check".

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-31, "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-22, "Removal and Installation".

REAR LH: Component Inspection

COMPONENT INSPECTION

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INFOID:0000000005439667

INFOID:0000000005439668

INFOID:000000005439669

${f 1}$. CHECK REAR POWER WINDOW MOTOR LH

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

Terminal		Motor condition
(+)	(-)	Wiotor 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-22, "Removal and Installation"</u>.

REAR RH

REAR RH: Description

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

REAR RH: Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

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 >> Power window motor is OK.

NO >> Refer to PWC-32, "REAR RH: Diagnosis Procedure".

REAR RH: Diagnosis Procedure

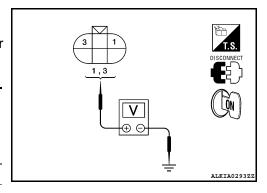
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Terminal			_		
(+)			Rear power windowswitch	Voltage (V)	
Rear power window motor RH connector	Terminal	(–)	RH condition	(Approx.)	
	3		UP	Battery voltage	
D304		Ground	DOWN	0	
D304			UP	0	
	3		DOWN	Battery voltage	



Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

CHECK HARNESS CONTINUITY

POWER WINDOW MOTOR

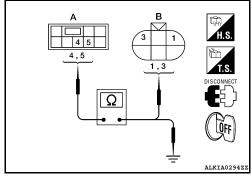
< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

- 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
D000 (A)	4	D304 (B)	3	163

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



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

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-32, "REAR RH: Component Function Check".

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-33, "REAR RH: Component Inspection".

Is the inspection result normal?

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

NO >> Replace rear power window motor RH. Refer to GW-22, "Removal and Installation".

REAR RH: Component Inspection

INFOID:0000000005439670

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	
(+)	(–)	- Wiotor Cornation	
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-22, "Removal and Installation"</u>.

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ENCODER

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000005439671

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

DRIVER SIDE: Component Function Check

INFOID:0000000005439672

CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.

NO >> Refer to PWC-34, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005439673

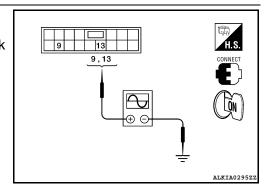
Regarding Wiring Diagram information, refer to PWC-68, "Wiring Diagram".

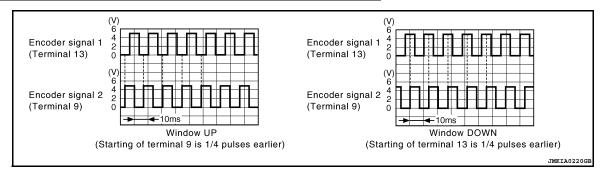
Encoder Circuit Check

1. CHECK ENCODER OPERATION

- 1. Connect front power window motor LH.
- 2. Turn ignition switch ON.
- 3. Check signal between main power window and door lock/unlock switch connector and ground with oscilloscope.

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(+)				
Main power window and door lock/unlock switch connector	Terminal	(–)	Signal (Reference value)	
D12	9	Ground	Refer to following signal	
	13	Ground	Tierer to following signal	





Is the inspection result normal?

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

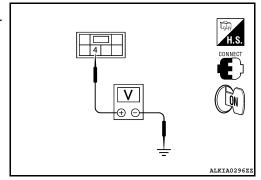
NO >> GO TO 2

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

[LH ONLY WINDOW ANTI-PINCH]

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

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



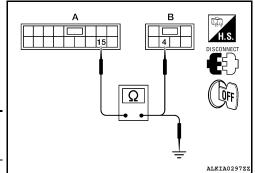
Is the measurement value within the specification?

YES >> GO TO 4 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 connector (B).

Main power window and door lock/unlock switch connector	Terminal	Front power window motor LH connector	Terminal	Continuity
D12 (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
D12 (A)	15		No

Is the inspection result normal?

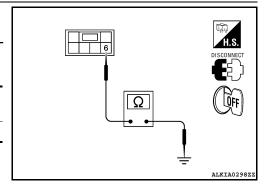
YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROLUNIT: Special Repair Requirement".

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 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

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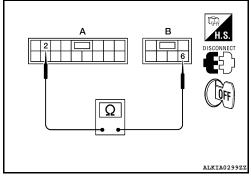
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[LH ONLY WINDOW ANTI-PINCH]

- 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
D12 (A)	2	D9 (B)	6	Yes



Is the inspection result normal?

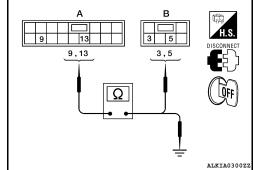
YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

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 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
D12 (A)	9	D9 (B)	3	Yes
	13	D9 (B)	5	



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
D12 (A)	9		No
	13		140

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>GW-17, "Removal and Installation"</u>. After that, refer to <u>PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"</u>.

NO >> Repair or replace harness.

DRIVER SIDE : Special Repair Requirement

INFOID:0000000005439674

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"

Is the inspection result normal?

YES >> Inspection End.

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

[LH ONLY WINDOW ANTI-PINCH]

DOOR SWITCH

Description INFOID:000000005439675

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-32</u>, "RETAINED PWR: CONSULT-III Function (BCM - RETAINED PWR)".

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

Is the inspection result normal?

YES >> Front door switch circuit is OK.

NO >> Refer to PWC-37, "Diagnosis Procedure".

Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-68. "Wiring Diagram".

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	0Z	Ground	RH	CLOSE	Battery voltage	
IVITO	58	Ground	Front door	OPEN	0	
	56		LH	CLOSE	Battery voltage	

Is the measurement value within the specification?

YES >> Replace BCM. Refer to BCS-83, "Removal and Installation".

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18	32	RH: B108	2	Yes
W10	58	LH: B8	2	165

4. Check continuity between BCM connector and ground.

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< COMPONENT DIAGNOSIS >

BCM connector	Terminal		Continuity
M18	32	Ground	No
IVI I O	58		140

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK BCM OUTPUT SIGNAL

- Connect BCM connector.
- 2. Check voltage between BCM connector and ground.

	Terminal		Mallace AA
(+)		(-)	Voltage (V) (Approx.)
BCM connector	Terminal	(-)	, , ,
M18	32	Ground	Battery voltage
IVI IO	58	Giodila	Ballery Vollage

Is the measurement value within the specification?

YES >> GO TO 4

NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

4. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-38, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace front door switch.

Component Inspection

INFOID:0000000005439678

1. CHECK FRONT DOOR SWITCH

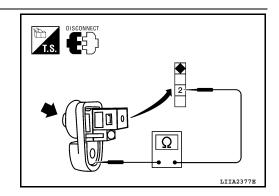
Check front door switches.

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

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace front door switch.



POWER WINDOW LOCK SWITCH

< COMPONENT DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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-86, "Removal and Installation". After that, PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

NO >> Check condition of harness and connector.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-9</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

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

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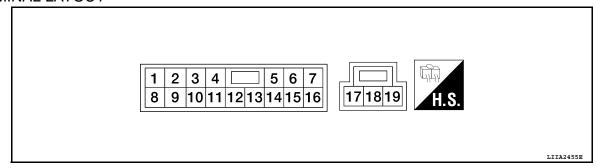
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ECU DIAGNOSIS

POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

	nal No. color)	Description		Condition	Voltage [V]
+	_	Signal name	Input/ Output	Gondidon	(Approx.)
1 (Y)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
2 (G)	Ground	Encoder ground		_	0
3 (O)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage
5 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
7 (P)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (BR)	11	Front power window motor RH UP signal	Output	When front RH switch in power window main switch is operated UP.	Battery voltage
9 (W)	2	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Termir (Wire		Description		Condition	Voltage [V]
+	1	Signal name	Input/ Output	Goridinon	(Approx.)
				IGN SW ON	Battery voltage
10	Ground	RAP signal	Input	Within 45 second after ignition switch is turned to OFF.	Battery voltage
(V)		Ü	·	When driver side or passenger side door is opened during retained power operation.	0
11 (L)	8	Front power window motor RH DOWN signal	Output	When front RH switch in power window main switch is operated DOWN.	Battery voltage
12 (LG)	16	Front power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage
13 (SB)	2	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
15 (GR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
16 (R)	12	Front power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
17 (B)	Ground	Ground	_		0
19 (W)	Ground	Battery power supply	Input	_	Battery voltage

Fail Safe

FAIL-SAFE CONTROL

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

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

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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

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

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

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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BCM (BODY CONTROL MODULE)

Reference Value INFOID:0000000005804848

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
FR WIPER HI	Other than front wiper switch HI	OFF	С
EN WIFEN FII	Front wiper switch HI	ON	
FR WIPER LOW	Other than front wiper switch LO	OFF	
FR WIFER LOW	Front wiper switch LO	ON	
ED WACHED CW	Front washer switch OFF	OFF	_
FR WASHER SW	Front washer switch ON	ON	Е
ED WIDED INT	Other than front wiper switch INT	OFF	
FR WIPER INT	Front wiper switch INT	ON	
ED WIDED STOD	Front wiper is not in STOP position	OFF	- F
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
TUDNI CIONIAL D	Other than turn signal switch RH	OFF	
TURN SIGNAL R	Turn signal switch RH	ON	
TUDNI CIONIAL I	Other than turn signal switch LH	OFF	— Н
TURN SIGNAL L	Turn signal switch LH	ON	
TALL LAND OW	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	PWC
	Other than lighting switch 2ND	OFF	_ FWC
HEAD LAMP SW 2	Lighting switch 2ND	ON	
	Other than lighting switch PASS	OFF	L
PASSING SW	Lighting switch PASS	ON	
ALITO LIQUIT OW	Other than lighting switch AUTO	OFF	
AUTO LIGHT SW	Lighting switch AUTO	ON	— M
	Front door LH closed	OFF	_
DOOR SW-DR	Front door LH opened	ON	N
	Front door RH closed	OFF	_
DOOR SW-AS	Front door RH opened	ON	
	Rear door RH closed	OFF	0
DOOR SW-RR	Rear door RH opened	ON	
	Rear door LH closed	OFF	— Р
DOOR SW-RL	Rear door LH opened	ON	
	Other than power door lock switch LOCK	OFF	
CDL LOCK SW	Door lock/unlock switch LOCK	ON	
	Other than door lock/unlock switch UNLOCK	OFF	
CDL UNLOCK SW	Door lock/unlock switch UNLOCK	ON	

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Monitor Item	Condition	Value/Status
KEY CYL LK-SW	Other than front door LH key cylinder LOCK position	OFF
KET CTL LK-SW	Front door LH key cylinder LOCK position	ON
KEY CYL UN-SW	Other than front door LH key cylinder UNLOCK position	OFF
KET CTL ON-SW	Front door LH key cylinder UNLOCK position	ON
HAZARD SW	When hazard switch is not pressed	OFF
HAZAND SW	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
FAN ON SIG	When AUTO switch or fan switch is pressed	ON
AIR COND SW	When A/C switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
TH CANCLE SW	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
TH/BD OPEN 3W	While the trunk lid opener switch is turned ON	ON
TONK/HAT MAITO	Trunk lid closed	OFF
TRNK/HAT MNTR	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
NKE-LOCK	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
HRE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
NKE-TN/DD	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
NKE-FAINIC	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
NKE-F/W OFEN	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
nke-wode ond	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
OF HOAL SLINSON	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When front door LH request switch is not pressed	OFF
neg ow-bh	When front door LH request switch is pressed	ON
REQ SW-AS	When front door RH request switch is not pressed	OFF
neg ow-Ao	When front door RH request switch is pressed	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
TIEQ 3W-DD/TH	When trunk request switch is pressed	ON
DI ICH CW	When push-button ignition switch is not pressed	OFF
PUSH SW	When push-button ignition switch is pressed	ON
IGN RLY -F/B	Ignition switch OFF or ACC	OFF
IGN DLT -F/D	Ignition switch ON	ON
ACC DIV E/D	Ignition switch OFF	OFF
ACC RLY -F/B	Ignition switch ACC or ON	ON
	When the brake pedal is not depressed	ON
BRAKE SW 1	The training production that depressed	_

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status
DETE/CANCL SW	When selector lever is in P position	OFF
DETE/CANCE 3W	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
DET FIN/IN SVV	When selector lever is in P or N position	ON
JNLK SEN-DR	Front door LH UNLOCK status	OFF
UNLK SEN-DR	Front door LH LOCK status	ON
PUSH SW -IPDM	When push-button ignition switch is not pressed (IPDM E/R sends via CAN)	OFF
r OSIT SW -IF DIVI	When push-button ignition switch is pressed (IPDM E/R sends via CAN)	ON
ION DIVI E/D	Ignition switch OFF or ACC	OFF
GN RLY1 F/B	Ignition switch ON	ON
	When selector lever is in P position (IPDM E/R sends via CAN)	OFF
DETE SW -IPDM	When selector lever is in any position other than P (IPDM E/R sends via CAN)	ON
SFT PN -IPDM	When selector lever is in any position other than P or N (IPDM E/R sends via CAN)	OFF
	When selector lever is in P or N position (IPDM E/R sends via CAN)	ON
OFT D. MET	When selector lever is in any position other than P (combination meter sends via CAN)	OFF
SFT P -MET	When selector lever is in P position (combination meter sends via CAN)	ON
OFT N. MET	When selector lever is in any position other than N (combination meter sends via CAN)	OFF
SFT N -MET	When selector lever is in N position (combination meter sends via CAN)	ON
	Engine stopped	STOP
TAICING OTATE	While the engine stalls	STALL
ENGINE STATE	At engine cranking	CRANK
	Engine running	RUN
/EH SPEED 1	While driving	Equivalent to speedometer reading
/EH SPEED 2	While driving	Equivalent to speedometer reading
	Front door LH LOCK status	LOCK
OR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY
	Front door LH UNLOCK status	UNLK
	Front door RH LOCK status	LOCK
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY
	Front door RH UNLOCK status	UNLK
	Ignition switch ACC or ON	RESET
D OK FLAG	Ignition switch OFF	SET
	When the hybrid system start is prohibited	RESET
	Wildir the hybrid dystern start is prombited	
PRMT ENG STAT		SET
PRMT ENG STAT	When the hybrid system start is permitted	
	When the hybrid system start is permitted When Intelligent Key is not inserted into key slot	OFF
PRMT ENG STAT KEY SW -SLOT RKE OPE COUN1	When the hybrid system start is permitted	

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Monitor Item	Condition	Value/Status
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	When ID of front LH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE
ID NEGOT I ET	When ID of front LH tire transmitter is not registered (refer to <u>WT-6</u> . <u>"ID Registration Procedure"</u>)	YET
ID REGST FR1	When ID of front RH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE
ID NEGOT FNT	When ID of front RH tire transmitter is not registered (refer to <u>WT-6.</u> "ID Registration Procedure")	YET
ID REGST RR1	When ID of rear RH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE
ID NEGOT NAT	When ID of rear RH tire transmitter is not registered (refer to WT-6. "ID Registration Procedure")	YET
ID REGST RL1	When ID of rear LH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE
ID NEGOT NET	When ID of rear LH tire transmitter is not registered (refer to WT-6, "ID Registration Procedure")	YET
WARNING LAMP	Tire pressure indicator OFF	OFF
WAITINING LAWII	Tire pressure indicator ON	ON
BUZZER	Tire pressure warning alarm is not sounding	OFF
DOLLLII	Tire pressure warning alarm is sounding	ON

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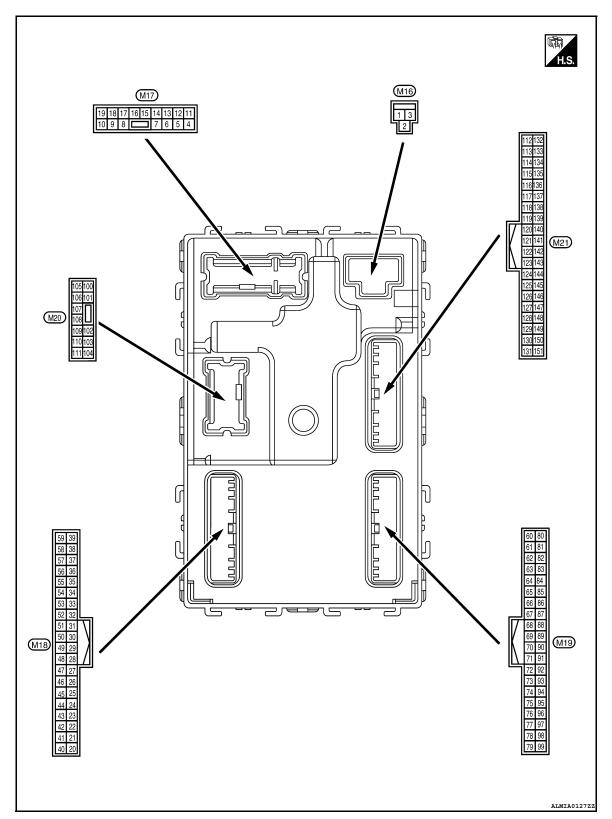
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Terminal Layout



Physical Values

	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	Output	After passing the ir er operation time	nterior room lamp battery sav-	ov
(P/W)	Ground	power supply	Odiput	Any other time after lamp battery saver	er passing the interior room roperation time	Battery voltage
5	Ground	Front door RH UN-	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage
(G/Y)	Ground	LOCK	Output	T TOTIL GOOT THE	Other than UNLOCK (actuator is not activated)	ov
7	Ground	Step lamp	Output	Room lamp timer	ON	Battery voltage
(R/W)	Ground	Gtop lamp	Output	Troom amp amor	OFF	OV
8	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage
(V)	Ground	All doors Look	Output		Other than LOCK (actuator is not activated)	ov
9	(-round	Front door LH UN-	Output	ut Front door LH	UNLOCK (actuator is activated)	Battery voltage
(G)	Ground	LOCK	Carpar		Other than UNLOCK (actuator is not activated)	ov
10	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 (actuator is not activated)	ov
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		ov
					OFF	OV
14 (R/Y)	Ground	Push-button ignition switch illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB
15 (Y/L)	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage
(1/1)					ACC	0V

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	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF Turn signal switch RH	0V (V) 15 10 5 0
				Time signal suitab OFF	1 s PKID0926E 6.5V	
					Turn signal switch OFF	0V
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s
					Lamps fully OFF	6.5V Battery voltage
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	Lamps fully ON	0V
21				Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(P/B)	Ground	Optical sensor signal	Input	ON	When outside of the vehi- cle is dark	Close to 0V
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 depressed)	OV
(O/L)	G. Carra				ON (brake pedal is depressed)	Battery voltage
27 (G/W)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0
					LINII OOK	JPMIA0011GB
				Mhon Intollines 1	UNLOCK status	0V Pottoni voltogo
29 (Y)	Ground	Key slot switch	Input	_	(ey is inserted into key slot	Battery voltage
30	0	ACC for all and a local	le !		ey is not inserted into key slot OFF	0
(V/Y)	Ground	ACC feedback signal	Input	Ignition switch	ACC or ON	Battery voltage
31	Ground	Ignition relay-2 feed-	Input	Ignition switch	OFF	OV
(G)	Giodila	back signal	put	.g.m.o.r. ownorr	ON	Battery voltage

	inal No. e color)	Description	les: .t/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 JPMIA0011GB 11.8V
					ON (when front door RH opens)	0V
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	Battery voltage
(SB)	around	nal	mpar		ON	0V
34*	Ground	Front door lock as- sembly LH (key cylin-	Input	Front door lock assembly LH (key	OFF (neutral)	Battery voltage
(L/R)	Ground	der switch) (unlock)	put	cylinder switch)	ON (unlock)	OV
36*	Ground	Lock switch signal	Input	Door lock/unlock	Lock	Battery Voltage
(GR)	Ground	250K OWNOT Signal	mpat	switch	Unlock	0V
37 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB
					ON	OV
38 (GR/	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF	Battery Voltage V
W)					ON	OV
39* (GR/ R)	Ground	Unlock switch signal	Input	Door lock/unlock switch	Unlock	Battery Voltage 0V
40* (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 10 ms 10.2V
				Ignition switch OF	F or ACC	0V
41	Ground	Push-button ignition	Output	Engine switch (push switch) illu-	ON	5.5V
(W)	Ground	switch illumination	Output	mination	OFF	OV
42	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0V
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		0V

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Terminal No. (Wire color)		Description				Value	
		Signal name	Input/ Output		Condition	(Approx.)	F
(+)	(-)	Desciver 9 concer	Output		OFF	OV	
46 (V/W)	Ground	Receiver & sensor power supply output	Output	Ignition switch	ACC or ON	5.0V	E
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s	() []
(G/O)	Ground	er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 • • 0.2s	F
48	Ground	Selector lever P/N	Innut	Salastar layer	P or N position	12.0V	-
(R/B)	Ground	position signal	Input	Selector lever	Except P and N positions	OV	
					ON	OV	
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB	P\
					OFF	Battery voltage	
					All switch OFF	OV	L
					Lighting switch 1ST		
				Combination	Lighting switch high-beam	(V)	N
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND Turn signal switch RH	10 5 0 2 ms JPMIA0031GB	1
						10.7V	,
					All switch OFF (Wiper intermittent dial 4)	OV	(
					Front wiper switch HI (Wiper intermittent dial 4)	(V)	ı
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 10 5 0 2 ms JPMIA0032GB	

Term	inal No.	Description				
	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	Signal name	Output			\ FF - 7
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	0V (V) 15 10 5 0 2 ms JPMIA0033GB 10.7V
					All switch OFF	OV
					Front wiper switch INT	
				Combination	Front wiper switch LO	(V)
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB
-					All switch OFF	OV
				Combination	Lighting switch flash-to- pass	(V) 15
54 (G/Y)	Ground Combination switch OUTPUT 4 Output Combination switch (Wiper intermittent dial 4)	switch (Wiper intermit-	Turn signal switch LH	10 5 0 2 ms JPMIA0035GB		
 55					ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	OFF	0V
		Front door lock as-		Front door lock	OFF (neutral)	Battery voltage
56 (L/B)	Ground	sembly LH (key cylinder switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	ov ov
57 (W)	Ground	Tire pressure warning check switch	Input		_	Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	Battery voltage
(3/11)		go. 1010,		99	Not activated	0V

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	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	Α
60	Ground	Front console anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S JMKIA0062GB	B C D
(B/R)	R) Ground na 2 (-)		Сири	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	E F
61	Ground	Center console antenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S JMKIA0062GB	G H I
(W/R)	Glound				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMXIA0063GB	PWC
62	Ground	Front outside handle		When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	M N
(B/Y)	Ground	RH antenna (-)	Output	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	O P

	inal No. e color)	Description			O and this are	Value (Approx.)	
(+)	(-)	Signal name	Input/ Output		Condition		
63	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(LG)	Glouliu	RH antenna (+)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 MKIA0063GB	
64	Ground	Front outside handle	Output When the front door LH request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0062GB		
(V)	Ground	LH antenna (-)		ed with ignition	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 MKIA0063GB	
65		Front outside handle		When the front door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	
(P)	Ground	LH antenna (+)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 MKIA0063GB	

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	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 Intelligent 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 Intelligent 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	0V Battery voltage
71		Remote keyless entry	During waiti			(V) 15 10 1
(L/O) Ground		receiver signal	Output	When operating either button on Intelligent Key		(V) 15 10 5 0 1 ms JMKIA0065GB
75 (R/Y) Ground		Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0
	Ground				Wiper intermittent dial 4	(V) 15 10 5 0 2 ms JPMIA0037GB
					Any of the conditions below with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 6 Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3V

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
76 (R/G)					Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
(173)					Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
					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
78 (P)	Ground	CAN-L	Input/ Output		_	_
79 (L)	Ground	CAN-H	Input/ Output		_	_
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	OFF	(V) 15 10 5 0 JPMIA0015GB
81 (LG)	Ground	ON indicator lamp	Output	Ignition switch	ON OFF or ACC ON	Battery voltage Battery voltage 0V

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[LH ONLY WINDOW ANTI-PINCH]

	inal No.	Description				Value	
(+)	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)	
83	Cravinal	ACC valou control	Outnut	Lamitian avvitah	OFF	OV	
(L)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage	
84 (Y/R)	Ground	CTV shift selector (detent switch)	Output		_	Battery voltage	
87	Ground	CTV shift selector	Input	Selector lever	P position	OV	
(G/B)	aloulia	(detent switch)	iliput	Selector level	Any position other than P	Battery voltage	
					ON (pressed)	OV	
88 (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V	
					ON (pressed)	OV	
89 (B/W)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V	
90	0	Front blower motor	0	Lauriai aurau susianda	OFF or ACC	OV	
(Y)	Ground	relay control	Output	Ignition switch	ON	Battery voltage	
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFI	=	Battery voltage	

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

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[LH ONLY WINDOW ANTI-PINCH]

	ninal No. e color)	Description			Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 4		t Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
96	Ground				Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V
(P/B)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
					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

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Terminal No. Description (Wire color)					Value	
(+)	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
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
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Terminal No. (Wire color)		Description			0 100	Value	А			
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	/ \			
103	Ground	Trunk lid opening	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage	В			
(V)	around	Trunk ild opening	Output	Trunk iid	Close (trunk lid opener actuator is not activated)	ov				
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0V	С			
(V/VV)		-	-		OFF	Battery voltage				
			Output					When Intelligent Key is in the passenger compartment	(V) 15 10 1	D E F
114 (B)	Ground	Trunk room antenna 1 (-)		Ignition switch OFF						
(-)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0	G			
						1 s	Н			
					When Intelligent Key is in the passenger compart-	(V) 15 10 5 0	J			
445		Two why we can a contain a		lowition ovitals	ment	1 S JMKIA0062GB	PWC			
115 (W)	Ground	Trunk room antenna 1 (+)	Output	Ignition switch OFF			L			
					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0	М			
						JMKIA0063GB	Ν			

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Terminal No.		Description				Value	
(Wire	e color) (-)	Signal name	Input/ Output	Condition		(Approx.)	
118		Rear bumper anten-		When the trunk	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 1	
119		Poor humper enten		When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(BR/ W)	Ground	Rear bumper antenna (+)	Output	lid request switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB	
127		Ignition relay (IPDM	_		OFF or ACC	Battery voltage	
(BR/ W)	Ground	E/R) control	Output	Ignition switch	ON	OV	
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)	OV	
132	Ground	und Start signal	Output	Ignition switch ON	When selector lever is in P or N position and the brake peddle is not depressed	OV	
(R)	Ground				When selector lever is in P or N position and the brake peddle is depressed	Battery voltage	

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

	inal No. e color)	Description Input/			Condition	Value										
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)										
140	Ground	Push-button ignition	Input	Engine switch	Pressed	OV										
(BR)	BR) Switch		прис	(push switch)	Not pressed	Battery voltage										
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed) OFF (not pressed)	(V) 15 10 5 10 ms JPMIA0016GB 1.0V										
144		Request switch buzz-	.	Request switch	Sounding	OV										
(GR)	Ground	er	Output	buzzer	Not sounding	Battery voltage										
147	0	Trunk lid opener	lanat	Trunk lid opener	Pressed	OV										
(L/R)	Ground	switch	Input	switch	Not pressed	Battery voltage										
148 (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										
								ı							ON (when rear door RH opens)	OV
149 (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB										
					ON (when rear door LH opens)	ov										

^{*:} With LH and RH front window anti-pinch system

Fail Safe INFOID:0000000005804852

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit hybrid system cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit hybrid system cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit hybrid system cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit hybrid system cranking	Erase DTC

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< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Display contents of CONSULT	Fail-safe	Cancellation
B2195: ANTI-SCANNING	Inhibit hybrid system cranking	Erase DTC
B2562: LOW VOLTAGE	Inhibit hybrid system cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2563: HI VOLTAGE	Inhibit hybrid system cranking	500 ms after the power supply voltage decreases to less than 18 V
B260A: IGNITION RELAY	Inhibit hybrid system 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 fulfilled • Power position changes to ACC • Receives hybrid system status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit hybrid system cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit hybrid system cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit hybrid system cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit hybrid system cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives hybrid system status signal (CAN)

DTC Inspection Priority Chart

INFOID:0000000005804853

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 B2563: HI VOLTAGE B261E: VEHICLE TYPE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

Priority	DTC	
	 B2553: IGNITION RELAY B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2601: SHIFT POSITION B2602: SHIFT POSITION 	
	 B2603: SHIFT POSI STATUS B2604: TRANSMISSION RANGE SWITCH B260A: IGNITION RELAY B260F: ENG STATE SIG LOST 	
4	 B2611: ACC RELAY B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC 	
	 B2617: STARTER RELAY CIRC B2618: BCM B261A: PUSH-BTN IGN SW B261E: VEHICLE TYPE B26E1: ENG STATE NO RECIV 	
	B26EA: KEY REGISTRATION C1729: VHCL SPEED SIG ERR U0415: VEHICLE SPEED SIG	
	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL 	
	 C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR 	
5	 C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RL C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR 	_
	 C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RL C1720: [CODE ERR] FL 	F
	 C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL 	
	 C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RL C1734: CONTROL UNIT 	
6	B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

INFOID:0000000005804854

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

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

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-36
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-37
U0415: VEHICLE SPEED SIG	_	_	_	BCS-38
B2190: NATS ANTENNA AMP	×	_	_	SEC-30
B2191: DIFFERENCE OF KEY	×	_	_	SEC-33
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-34
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-35
B2195: ANTI SCANNING	×	_	_	SEC-36
B2553: IGNITION RELAY	_	_	_	PCS-50
B2555: STOP LAMP	_	_	_	SEC-37
B2556: PUSH-BTN IGN SW	_	×	_	SEC-40
B2557: VEHICLE SPEED	×	×	_	SEC-42
B2562: LOW VOLTAGE	_	_	_	BCS-39
B2563: HI VOLTAGE	×	×	_	BCS-40
B2601: SHIFT POSITION	×	×		SEC-43
B2602: SHIFT POSITION	×	×	_	SEC-46
B2603: SHIFT POSI STATUS	×	×	_	SEC-49
B2604: TRANSMISSION RANGE SWITCH	×	×	_	SEC-52
B260A: IGNITION RELAY	×	×	_	PCS-52
B260F: ENG STATE SIG LOST	×	×	_	SEC-54
B2611: ACC RELAY	_	_	_	PCS-53
B2614: ACC RELAY CIRC	_	×		PCS-55
B2615: BLOWER RELAY CIRC	_	×	_	PCS-58
B2616: IGN RELAY CIRC	_	×	_	PCS-61
B2617: STARTER RELAY CIRC	×	×	_	SEC-56
B2618: BCM	×	×	_	PCS-64
B261A: PUSH-BTN IGN SW	<u> </u>	×	_	SEC-58
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-60
B2622: INSIDE ANTENNA	_	_	_	DLK-55
B2623: INSIDE ANTENNA	_	_	_	DLK-58
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-55, "Descrip- tion"
C1704: LOW PRESSURE FL	_	_	×	<u>WT-8</u>
C1705: LOW PRESSURE FR	_	_	×	<u>WT-8</u>
C1706: LOW PRESSURE RR	_	_	×	<u>WT-8</u>
C1707: LOW PRESSURE RL	_	_	×	<u>WT-8</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>

< ECU DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
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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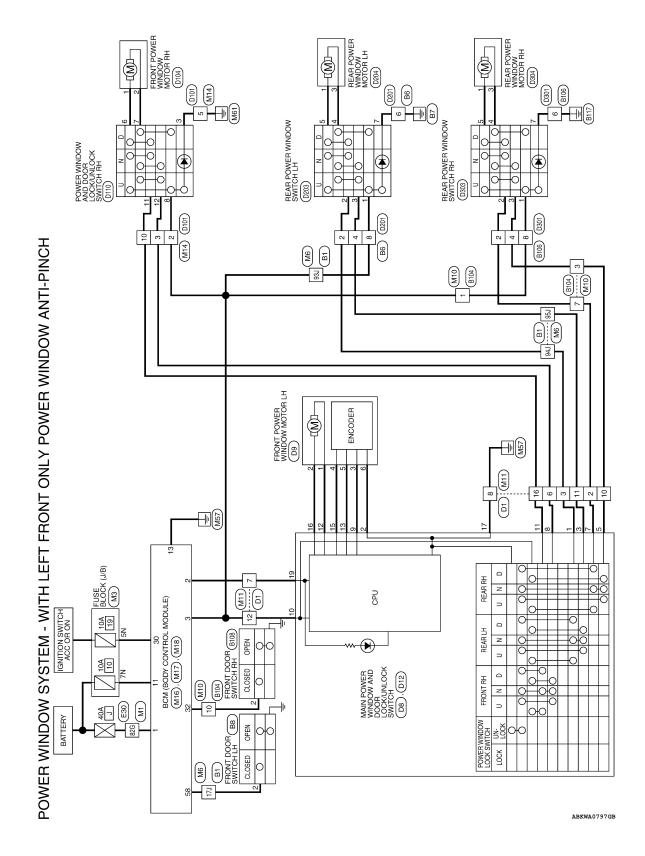
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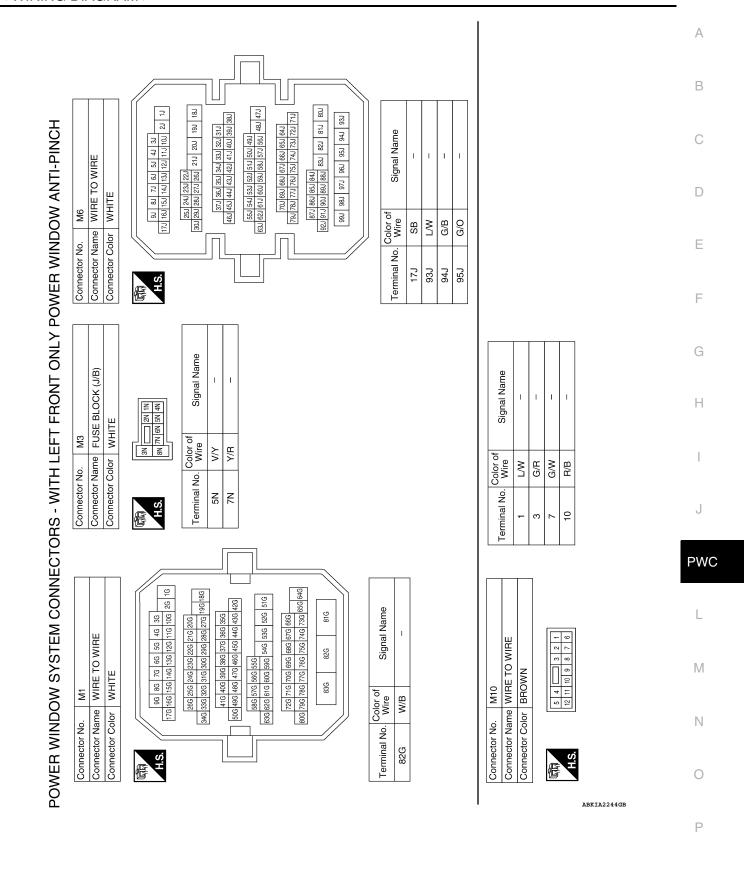
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WIRING DIAGRAM

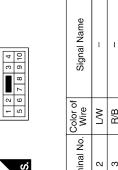
POWER WINDOW SYSTEM

Wiring Diagram







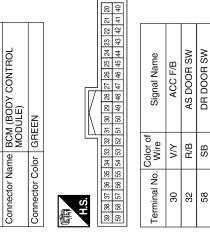




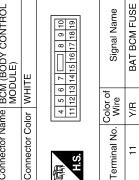
Signal Name	1	1	1	1	1	ı	
Color of Wire	Ρ/Υ	В	G/R	G/O	M/I	W/H	
Terminal No. Wire	7	8	10	11	12	16	

Connector No.). M11	_
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	<u> </u>
语 E	1 2 3 8 9 10	3
Terminal No.	Color of Wire	Signal Name
2	G/W	_
3	g/b	-
9	B/B	I

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COLLIECTO INO.	M18
Connector Name	Connector Name BCM (BODY CONTROL
	MODÙLE)
Connector Color GREEN	GREEN

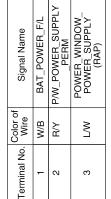


M17	Connector Name BCM (BODY CONTROL MODULE)	WHITE	
Connector No.	Connector Name	Connector Color WHITE	



	ODY CONTROL E)		
M16	BCM (B MODUL	BLACK	
Connector No.	Connector Name BCM (BODY CONTROL MODULE)	Connector Color BLACK	





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[LH ONLY WINDOW ANTI-PINCH]

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Signal Name	B104 WIRE TO WIRE BROWN 2 3
Wire SB R R R R R R R R R R R R R R R R R R	
93J 94J 94J 95J	Connector No. Connector Name Connector Color H.S. Terminal No. Will No. Terminal No. Terminal No. Terminal No. Will No. Terminal No. Terminal No. Will Olive
Connector Name WIRE TO WIRE	Connector No. B8 Connector Name FRONT DOOR SWITCH LH Connector Color WHITE Terminal No. Color of Signal Name 2 SB -
Connector Name WIRE TO WIRE	Connector No. B6 Connector Name WIRE TO WIRE Connector Color WHITE H.S. 1 2

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WIRE			
MIRE TO WIRE WHITE WHITE 5 4	1	_	I
N N N N N N N N N N	0	>	_
Connector No. Connector Name Connector Color H.S. Terminal No. W 2	11	12	16

_				
Connector Name FRONT DOOR SWITCH RH	ІТЕ	<u></u>	Signal Name	ı
me FR(lor WH		Color of Wire	a.
Connector Na	Connector Color WHITE	明 H.S.	Terminal No.	٥

Connector No. B108

or Or	WIRE TO WIRE	IITE	8 2	Signal Name	-	1	-	-
000	me WI	lor WH	1 4 5	Color of Wire	Χ	SB	B/W	Ж
	Connector Name	Connector Color WHITE	H.S.	Terminal No.	2	4	9	8

	FRONT POWER WINDOW MOTOR LH	ПЕ	3 4 5 0	Signal Name	1	ı	ı	ı	ı	ı
60		or WHITE	<u> </u>	Color of Wire	LG	<u>~</u>	>	GR	SB	g
Connector No.	Connector Name	Connector Color	「南南 H.S.	Terminal No.	-	2	က	4	5	9
							,			
	₽					1				

	MAIN POWER WINDOW AND Connector Name DOOR LOCK/UNLOCK SWITCH	TE .	18 19	Signal Name	GND	BAT
8 - -	MAIN DOOF SWIT	lor WHITE	4	Color of Wire	В	W
Connector No.	Connector Na	Connector Color	师 H.S.	Terminal No.	17	19

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			_											
1	RE TO WIRE	TF.		2 3 4	6 8 2				Signal Name	1	ı	1	1	
D101	ne WIF	or WHITE		-	- 10				Color of Wire	SB	X	: B	C)
Connector No.	Connector Name WIRE TO WIRE	Connector Color			O II	115			Terminal No. Wire	2	m	, rc	10	,
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	

Signal Name	RL UP	ENCODER GND	RL DOWN	RR DOWN	RR UP	AS UP	ENCODER SIG2	NSI	AS DOWN	DR DOWN	ENCODER SIG1	ENCODER POWER	DR-UP
Color of Wire	>	g	0	SB	۵	BR	8	>	٦	ГG	SB	GR	œ
Terminal No.	-	2	3	9	7	8	6	10	11	12	13	15	16

Connector No.	D12
Connector Name	MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH (WITH LEFT FRONI ONLY POWER WINDOW ANTI-PINCH SYSTEM)
Connector Color WHITE	WHITE
原原 H.S.	1 2 3 4 6 7 5 6 7 8 9 10 11 12 13 14 15 16





Connector No.		D201	
Connector Name		WIRE TO WIRE	
Connector Color		WHITE	
	[m		
H.S.	∞]	7 6 5 4	
Terminal No.	Color of Wire	Signal Name	
2	۵	ı	
4	SB	ı	
9	В	-	
8	а	1	

0	POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH (WITH LEFT FRONT ONLY POWER WINDOW ANTI-PINCH SYSTEM)	WHITE	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Signal Name	GND	DOWN	UP	NSI	NMOG	d۸
. D110			9 2 2	Color of Wire	В	LG	_	SB	0	M
Connector No.	Connector Name	Connector Color	崎 H.S.	Terminal No.	က	9	7	8	11	12

	Connector Name FRONT POWER WINDOW MOTOR RH	Е	4 5 6 2	Signal Name	1
4010	me FRON	lor WHIT	<u>+ 8</u>	Color of Wire	ГG
Connector No.	Connector Na	Connector Color WHITE	原 H.S.	Terminal No.	1

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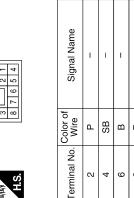
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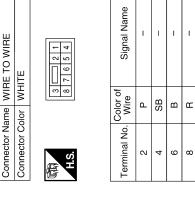
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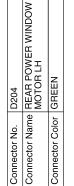
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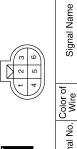
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13	REAR POWER WINDOW SWITCH LH	WHITE	3 4 5 1	Signal Name	NÐI	UP	DOWN	DOWN
D203			2	Color of Wire	ж	۵	SB	re
Connector No.	Connector Name	Connector Color	赋 H.S.	Terminal No.	1	2	3	4

4	Connector Name REAR POWER WINDOW MOTOR RH	EEN	2 2 4 1 2 5 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Signal Name
D304	me RE/ MO	lor GRE		Color of Wire
Connector No.	Connector Na	Connector Color GREEN	麻 H.S.	Terminal No.

Signal Name	NSI	UP	DOWN	DOWN	UP	GND
Color of Wire	œ	Ь	SB	ГG	٦	В
Terminal No. Wire	-	2	3	4	2	7

ector No.	D303
ector Name	ector Name REAR POWER WINDOW SWITCH RH
ector Color WHITE	WHITE
	-



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NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [LH ONLY WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

 $oldsymbol{1}$. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to BCS-41, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. Check main power window and door lock/unlock switch power supply and **GROUND CIRCUIT**

Check main power window and door lock/unlock switch power supply and ground circuit.

Refer to PWC-17, "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-17, "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".

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DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005439693

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to PWC-27, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-ATE

INFOID:0000000005439694

Diagnosis Procedure

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

Check power window and door lock/unlock switch RH.

Refer to PWC-22, "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 PWC-29, "PASSENGER SIDE: 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 LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005439695

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to PWC-24, "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-30, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Is the inspection result normal?

>> Inspection End.

YES

NO

Refer to PWC-32, "REAR RH: Component Function Check".

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

[LH ONLY WINDOW ANTI-PINCH]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE Diagnosis Procedure 1. CHECK REAR POWER WINDOW SWITCH RH Check rear power window switch RH. Refer to PWC-24, "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.

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:0000000005439697

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-9, "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-17, "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)

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000005439698

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-17, "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".

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000005439699

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-37, "Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH ONLY WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000005439700

1.REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH Replace main power window and door lock/unlock switch.

Refer to PWC-86, "Removal and Installation". After that, PWC-9, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

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

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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.

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PRE-INSPECTION FOR DIAGNOSTIC

< ON-VEHICLE MAINTENANCE >

[LH ONLY WINDOW ANTI-PINCH]

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.

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ON-VEHICLE REPAIR

POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:0000000005809071

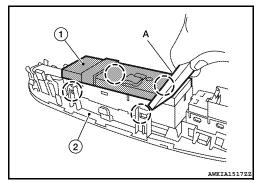
REMOVAL

- 1. Remove the power window main switch finisher (2) from the door finisher, refer to INT-12, "Exploded View".
- 2. Release the four tabs (two on each side) with a suitable tool (A), then separate the power window main switch (1) from the switch finisher (2).

(); Pawl

CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.

FRONT POWER WINDOW SWITCH

Removal and Installation

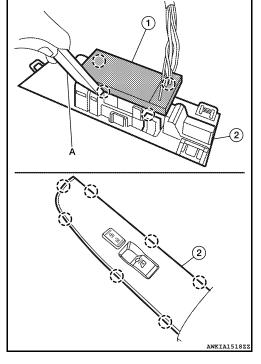
REMOVAL

1. Remove the front power window switch finisher (2) from the front door finisher RH. Refer to INT-12. "Exploded View".

2. Release the four tabs (two on each side) with a suitable tool (A), then separate the front power window switch (1) from the switch finisher (2).

(): Pawl CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.

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REAR POWER WINDOW SWITCH

Removal and Installation - Rear Door Switch

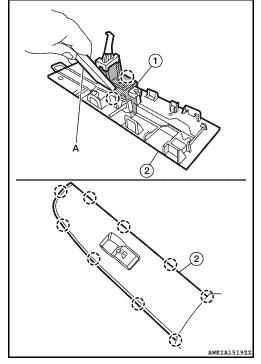
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REMOVAL

- 1. Remove the rear power window switch finisher (2) from the rear door finisher. Refer to INT-12, "Exploded View".
- 2. Release the tab (one on each side) with a suitable tool (A), then separate the rear power window switch (1) from the switch finisher (2).

(): Pawl CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.

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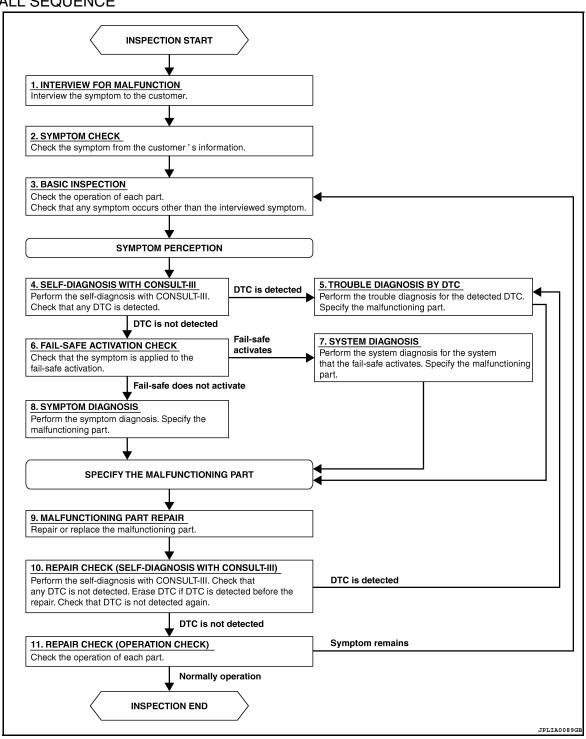
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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow (INFOID:0000000005439705 B

OVERALL SEQUENCE



[LH&RH FRONT WINDOW ANTI-PINCH]

< BASIC INSPECTION >

DETAILED FLOW

1. INTERVIEW FOR MALFUNCTION

Interview the symptom to the customer.

>> GO TO 2

2. SYMPTOM CHECK

Check the symptom from the customer's information.

>> GO TO 3

3. BASIC INSPECTION

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

>> GO TO 4

4. SELF-DIAGNOSIS WITH CONSULT-III

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

Is any DTC detected?

YES >> GO TO 5

NO >> GO TO 6

TROUBLE DIAGNOSIS BY DTC

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

>> GO TO 9

6. FAIL-SAFE ACTIVATION CHECK

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

Does the fail-safe activate?

YES >> GO TO 7

NO >> GO TO 8

7. SYSTEM DIAGNOSIS

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

>> GO TO 9

8. SYMPTOM DIAGNOSIS

Perform the symptom diagnosis. Specify the malfunctioning part.

>> GO TO 9

9. MALFUNCTIONING PART REPAIR

Repair or replace the malfunctioning part.

>> GO TO 10

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

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

Is any DTC detected?

YES >> GO TO 5

DIAGNOSIS AND REPAIR WORKFLOW								
< BASIC INSPECTION >	[LH&RH FRONT WINDOW ANTI-PINCH]							
NO >> GO TO 11								
11. REPAIR CHECK (OPERATION CHECK)	A							
Check the operation of each part.								
Does it operate normally?	В							
YES >> Inspection End. NO >> GO TO 3								
NO >> GO 10 3								
	C							
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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[LH&RH FRONT WINDOW ANTI-PINCH]

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 disconnected.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement

INITIALIZATION PROCEDURE

- 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.
- 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</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.

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

INFOID:0000000005439708

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 WINDOW ANTI-PINCH]

- 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 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 PWC-135, "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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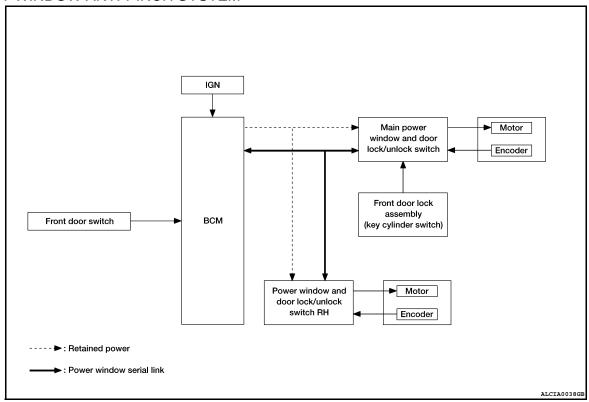
Revision: September 2009 PWC-93 2010 Altima HEV

FUNCTION DIAGNOSIS

POWER WINDOW SYSTEM

System Diagram

FRONT WINDOW ANTI-PINCH SYSTEM



System Description

INFOID:0000000005439711

POWER WINDOW MAIN SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator		
Key cylinder switch	LOCK/UNLOCK signal (more than 1.5 seconds over)				
Encoder	Encoder pulse signal				
Main power window and door lock/unlock switch	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	Power window control			
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 WINDOW ANTI-PINCH]

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		The state of the s	
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 and door lock unlock switch RH & rear power window switches LH and RH can open/close
 the corresponding windows.

POWER WINDOW AUTO-OPERATION (FRONT LH & RH)

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

RETAINED POWER OPERATION

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

Retained power function cancel conditions

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

POWER WINDOW LOCK

Ground circuit inside 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 & 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

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POWER WINDOW SYSTEM

OWER WINDOW

[LH&RH FRONT WINDOW ANTI-PINCH]

- < FUNCTION DIAGNOSIS >
- Hold door key cylinder to LOCK position for more than 1 second to perform CLOSE operation of the door glass.
- 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 BCS-25, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

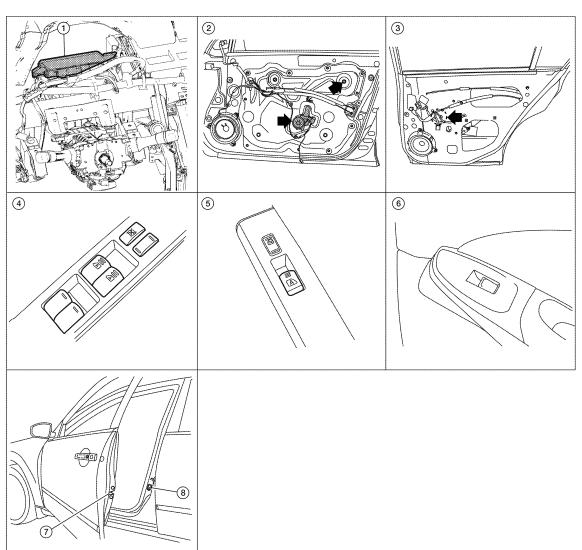
NOTE:

Use CONSULT-III to change settings.

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

Component Parts Location

INFOID:0000000005439712



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POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

- 1. BCM M16, M17, M18 (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
- 2. Front power window motor LH D9, RH D104
- Power window and door lock/unlock 6. switch RH D105
- 8. Front door switch LH B8, RH B108
- 3. Rear power window motor LH D204, RH D304
- 6. Rear power window switch LH D203, RH D303

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Component Description

FRONT WINDOW ANTI-PINCH SYSTEM

Component	Function
BCM	Supplies power supply to power window switch.Controls retained power.
Main power window and door lock/unlock 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.

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DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: Diagnosis Description

INFOID:0000000005804855

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-DIAGNOSTIC RESULT	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	 Read and save the vehicle specification. Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE

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

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

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

INFOID:0000000005804856

ECU IDENTIFICATION

Displays the BCM part No.

SELF-DIAG RESULT

Refer to BCS-68, "DTC Index".

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

RETAINED PWR

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

INFOID:0000000005804857

DATA MONITOR

Monitor item	Description
DOOR SW-DR	Indicates [ON/OFF] condition of driver side door switch.
DOOR SW-AS	Indicates [ON/OFF] condition of passenger side door switch.

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COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

INFOID:0000000005439717

- 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

INFOID:0000000005439718

Main Power Window And Door Lock/Unlock Switch

${f 1}$. 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? <u>Is the inspection result normal?</u>

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

NO >> Refer to PWC-100, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000005439719

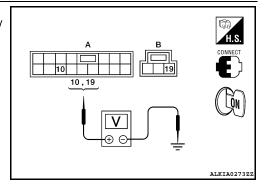
Regarding Wiring Diagram information, refer to PWC-164.

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

1. CHECK POWER SUPPLY CIRCUIT

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

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



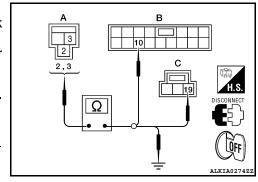
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

$2.\,$ CHECK HARNESS CONTINUITY

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

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



POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

BCM connector	Terminal		Continuity
M16	3	Ground	No
	2		NO

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

${f 3.}$ CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation".

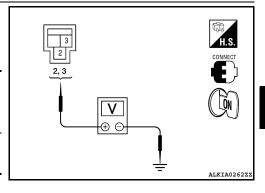
After that, refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

NO >> Repair or replace harness.

4. CHECK BCM OUTPUT SIGNAL

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

	V II			
(+)	Voltage (V) (Approx.)			
BCM connector	Terminal	(-)	(11)	
M16	3	Ground	Battery voltage	
IVITO	2	Ground	Dattery Voltage	

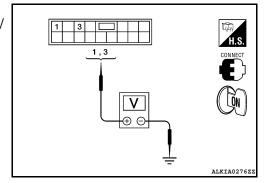


Is the measurement value within the specification?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6
- NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

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

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



DISCONNECT OFF

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Te	erminal				
(+)			Window	Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(-)	condition	(Approx.)	
	1		UP	Battery voltage	
D7			0		
<i>D1</i>	3	UP	0		
	3		DOWN	Battery voltage	

Is the measurement value within the specification?

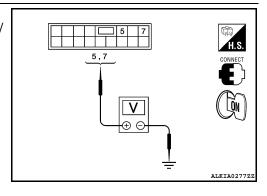
YES >> GO TO 7

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

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

- 1. Turn ignition switch ON.
- 2. 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	Battery voltage	
D7	,	Ground	DOWN	0
D1	5	Ground	UP	0
	3		DOWN	Battery voltage



Is the measurement value within the specification?

YES >> GO TO 8

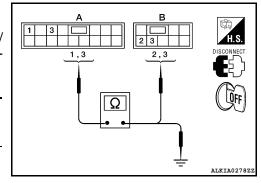
NO

>> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROLUNIT: Special Repair Requirement".

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.

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
<i>D7</i> (A)	3	D203 (B)	3	162



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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Main power window and door lock/unlock switch connector	Terminal	01	Continuity
D7 (A)	1	Ground	No
DT (A)	3		INO

Is the inspection result normal?

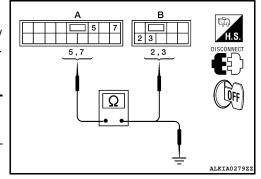
YES >> GO TO 9

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
D7 (A)	7	Б303 (В)	2	162



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

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

Is the inspection result normal?

YES >> GO TO 9

NO >> Repair or replace harness.

$oldsymbol{9}.$ 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 Inspection".

Is the inspection result normal?

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

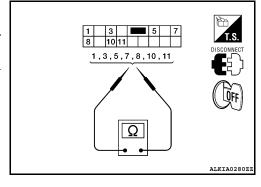
NO >> Replace main power window and door lock/unlock switch. After that, refer to PWC-92, "ADDI-TIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement.

POWER WINDOW MAIN SWITCH: Component Inspection

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Check main power window and door lock/unlock switch.

Terr	ninal	Main power windo lock swite	Continuity	
10	1	Rear LH	UP	
10	7	Rear RH	OI OI	
1	3	Rear LH	NEUTRAL	Yes
5	7	Rear RH	NEOTHAL	163
10	3	Rear LH	DOWN	
10	5	Rear RH	BOWN	



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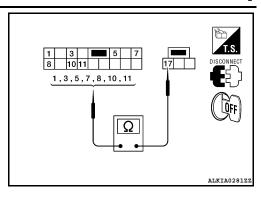
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

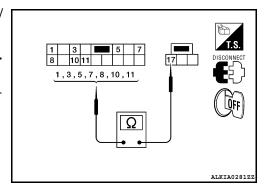
Check continuity between main power window and door lock/ unlock switch (power window lock switch). (Lock operation).

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	near Lit	NEUTRAL	No
5	17	Rear RH	1120111112	110
7		ricarriir		
1		Rear LH	DOWN	
7		Rear RH	DOWN	



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

Terr	minal	Main power window and door lock/unlock switch condition		Continuity
3		Rear LH	UP	
5		Rear RH	O1	
1		Rear I H	Rear LH	
3	17	rical El I	NEUTRAL	Yes
5	17	Rear RH		
7		ricarriir		
1		Rear LH	DOWN	
7		Rear RH	BOWN	



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-86</u>, "Removal and Installation". After that, refer to <u>PWC-104</u>, "<u>POWER WINDOW MAIN SWITCH</u>: Special Repair Requirement".

POWER WINDOW MAIN SWITCH: Special Repair Requirement

INFOID:0000000005439721

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "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 <u>PWC-92</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection end.

NO >> Refer to PWC-118, "DRIVER SIDE : Component Function Check".

FRONT POWER WINDOW SWITCH

- FRONT POWER WINDOW SWITCH: Description
- BCM supplies power. Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH: Component Function Check

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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.

>> Refer to PWC-105, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure". NO

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

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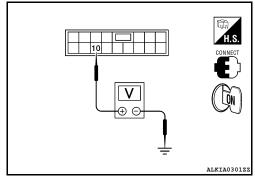
Regarding Wiring Diagram information, refer to PWC-164.

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

CHECK POWER SUPPLY CIRCUIT

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

Terr			
(+)		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

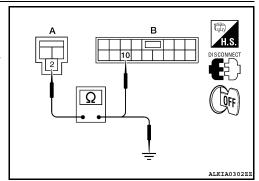
$2.\,$ CHECK HARNESS CONTINUITY

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

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

Check continuity between BCM connector (A) and ground.

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



Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

PWC-105 2010 Altima HEV Revision: September 2009

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POWER SUPPLY AND GROUND CIRCUIT

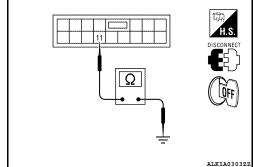
< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

3. CHECK GROUND CIRCUIT

- 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-87, "Removal and Installation". After that,

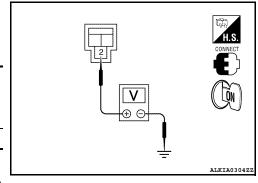
refer to PWC-106, "FRONT POWER WINDOW SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

f 4. CHECK BCM OUTPUT SIGNAL

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

(+)		(-)	Voltage (V) (Approx.)
BCM connector	Terminal	()	(11 /
M16	2	Ground	Battery voltage



Is the measurement value within the specification?

YES >> Replace power window and door lock/unlock switch RH.

Refer to <u>PWC-87</u>, "Removal and Installation". After that, refer to <u>PWC-106</u>, "FRONT <u>POWER WINDOW SWITCH</u>: Special Repair Requirement".

NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

FRONT POWER WINDOW SWITCH: Special Repair Requirement

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INFOID:0000000005439726

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-92</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 GI-42, "Intermittent Incident".

$2.\,$ CHECK ANTI-PINCH OPERATION

Check anti-pinch operation.

Refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-120, "PASSENGER SIDE : Component Function Check".

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.

Revision: September 2009 PWC-106 2010 Altima HEV

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

REAR POWER WINDOW SWITCH: Component Function Check

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Rear Power Window Switch

${f 1}$. 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-107, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000005439728

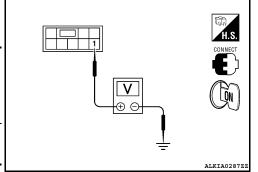
Regarding Wiring Diagram information, refer to PWC-164.

Rear Power Window Switch Power Supply Circuit Check

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between rear power window switch connector and ground.

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



Is the measurement value within the specification?

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

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

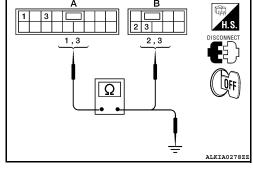
NO >> GO TO 4

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

Turn ignition switch OFF.

- 2. Disconnect main power window and door lock/unlock switch and 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
DI (A)	3	D203 (B)	3	



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

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

Is the inspection result normal?

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

NO >> Repair or replace harness.

PWC-107 2010 Altima HEV Revision: September 2009

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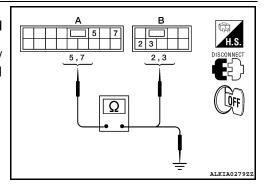
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$\bf 3.$ CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

- 1. Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch and 2. 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 connec- tor	Terminal	Continuity
D7 (A)	5	D303 (B)	3	Yes
DT (A)	7	D303 (B)	2	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)	5	Ground	No	
Dr (A)	7		140	

Is the inspection result normal?

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

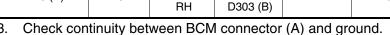
NO >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY

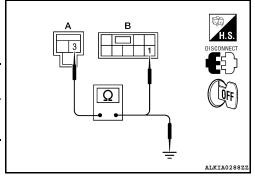
Disconnect BCM and rear power window switch.

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)		RH	D303 (B)		



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



Is the inspection result normal?

YES >> GO TO 5

NO

NO >> Repair or replace harness.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-108, "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-88, "Removal and Installation - Rear Door Switch".

REAR POWER WINDOW SWITCH: Component Inspection

INFOID:0000000005439729

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

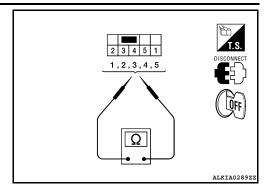
POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Check rear power window switch.

Terminal		Power window switch condition	Continuity
1	5	UP	
3	4	OI	
3	4	NEUTRAL	Yes
5	2	NEOTIAL	163
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 PWC-88, "Removal and Installation - Rear Door <a href="Switch".

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DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000005439730

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

DRIVER SIDE: Component Function Check

INFOID:0000000005439731

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 PWC-110, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005439732

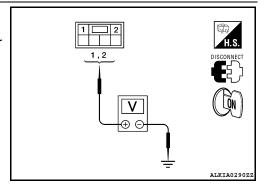
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Front Power Window Motor LH Circuit Check

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

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

7	erminal			
(+)			Main power win- dow and door lock/	Voltage (V)
Power window motor LH con- nector	Terminal	(–)	unlock switch con- dition	(Approx.)
	2	2 Ground	UP	Battery voltage
D9	2		DOWN	0
D9	4	Ground	UP	0
	1		DOWN	Battery voltage



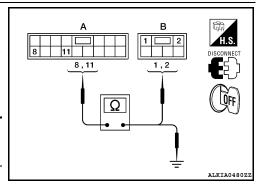
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch and 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
<i>D1</i> (A)	11	D9 (B)	1	165



< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

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

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

3. CHECK POWER WINDOW MOTOR

Check front power window motor LH.

Refer to PWC-111, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

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

>> Replace power window motor LH. Refer to GW-17, "Removal and Installation". After that, refer to NO PWC-111, "DRIVER SIDE: Special Repair Requirement".

DRIVER SIDE : Component Inspection

COMPONENT INSPECTION

$oldsymbol{1}$. 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 GW-17, "Removal and Installation". After that, refer to PWC-111, "DRIVER SIDE: Special Repair Requirement".

DRIVER SIDE: Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "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-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-118, "DRIVER SIDE: Component Function Check".

PASSENGER SIDE

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PASSENGER SIDE: Description

INFOID:0000000005439735

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

INFOID:0000000005439736

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 >> Front power window motor RH is OK.

NO >> Refer to PWC-112, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000005439737

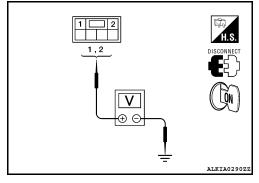
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Front Power Window Motor RH Circuit Check

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

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



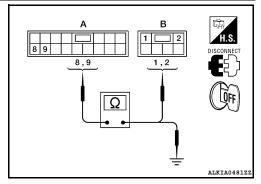
Is the measurement value within the specification?

YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105 (A)	8	D104 (B)	2	Yes
D103 (A)	9	D 104 (B)	1	163



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

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Power window and door lock/unlock switch RH connector	Terminal		Continuity	A	\	
	8	Ground		В	2	
D105 (A)	9		No		,	
Is the inspection result no	ormal?					
•		nd door lock/u	ınlock switch RH. Refer to	PWC-87, "Removal and Installa-)	
<u>tion"</u> . After	that, refer to			OOW SWITCH: Special Repair		
Requirement NO >> Repair or rep				D)	
3. CHECK FRONT POV			11		,	
		WINDIORR	П 			
Check front power windo Refer to PWC-113, "PAS)F · Compone	ant Inspection"	E	-	
Is the inspection result no		<u> </u>				
•		t. Refer to GI	-42, "Intermittent Incident		_	
NO >> Replace fror	nt power wind	low motor Rh	H. Refer to GW-17, "Rem	noval and Installation". After that,		
refer to PWC	<u>:-113, "PASSI</u>	ENGER SIDE	: Special Repair Require	<u>ment"</u> .		
PASSENGER SIDE	: Compor	nent Inspe	ction	INFOID:000000005439738 G	à	
COMPONENT INSPEC						
1. CHECK FRONT POV	VER WINDO	W MOTOR R	Н	Н	1	
Does motor operate by c	onnecting the	battery volta	ge directly to front power	window motor RH?		
				I		
Terminal			Motor condition			
(+)	(-)					
1	2		DOWN	J	1	
2	1		UP	_		
Is the inspection result no				PV	N (
YES >> Front power NO >> Replace fror			J Defer to CW 17 "Dem			
·			E : Special Repair Require	noval and Installation". After that, ement".		
PASSENGER SIDE	: Special	Ronair Ro	quirement		-	
1 AGOLINGEIT GIDE	opeciai	riepaii rie	quirement	INFOID:000000005439739		
1. PERFORM INITIALIZ	ZATION PRO	CEDURE		M	/	
Perform initialization prod	cedure.					
Refer to PWC-92, "ADDI		RVICE WHEN	I REPLACING CONTRO	L UNIT : Special Repair Require-		
ment".	10			N		
Is the inspection result no	ormal'?					
YES >> GO TO 2 NO >> Check intern	nittent inciden	t Refer to GI	-42, "Intermittent Incident		`	
2. CHECK ANTI-PINCH			, mommon modern		1	
Check anti-pinch operation Refer to PWC-92. "ADDI		RVICE WHEN	REPLACING CONTROL	L UNIT : Special Repair Require-)	
ment".			,			
	ormal?					

Is the inspection result normal?

YES >> Inspection End.

NO >> Refer to PWC-120, "PASSENGER SIDE : Component Function Check".

REAR LH

REAR LH: Description

INFOID:0000000005439740

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

INFOID:0000000005439741

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?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-114, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

INFOID:0000000005439742

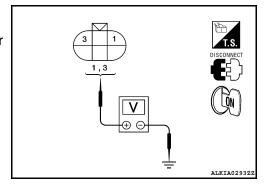
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Power Window Motor Circuit Check

${f 1}$. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

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

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



Is the measurement value within the specification?

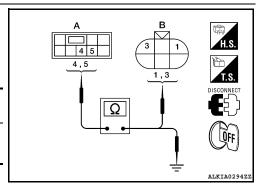
YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 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
D200 (A)	4	D204 (D)	3	163

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



< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Rear power window switch LH connector	Terminal		Continuity		Α
D000 (4)	5	Ground			
D203 (A)	4		No		В
Is the inspection result	normal?				
<u>Componen</u>	r power window t Function Checleplace harness.		fer to PWC-107.	"REAR POWER WINDOW SWITCH :	С
3. CHECK REAR POV	•	AOTOR III			
		WOTOR LA			D
Check rear power window Refer to <u>PWC-115, "RE</u> Is the inspection result in	AR LH : Compo	nent Inspectio	<u>n"</u> .		Е
•		Refer to GI-4	2, "Intermittent Inc	vident"	
				emoval and Installation".	
REAR LH : Compo	onent Inspec	tion		INFOID:000000005439743	F
rte/tit Err. oompe	more mopos			IIVFOID.000000003439743	
COMPONENT INSPE	ECTION				
1. CHECK REAR POV	VER WINDOW N	MOTOR LH			G
Does motor operate by	connecting the b	pattery voltage	directly to rear po	ower window motor LH?	
,	J	, 3	, ,		Н
Termina	al	Ma	ator condition	_	
(+)	(-)	IVIC	otor condition		
3	1		DOWN	_	- 1
1	3		UP		
Is the inspection result	normal?				J
	r window motor I		ofor to CM 00 "D	omeyel and installation!	
REAR RH	ar power window	motor Lm. Re	eler to <u>GW-22, Ri</u>	emoval and Installation".	ΡW
REAR RH : Descri	ption			INFOID:000000005439744	
Door glass moves UP/I rear power window swit		ing the signal	from main power	window and door lock/unlock switch or	L
REAR RH : Comp	onent Function	on Check		INFOID:000000005439745	M
1. CHECK REAR POV			IRCUIT		101
rear power window swit	tch RH?	rate with opera	ating main power	window and door lock/unlock switch or	Ν
Is the inspection result		DIII 6:1			
	r window motor I NC-115, "REAR		s Procedure".		0
REAR RH : Diagno	osis Procedu	re		INFOID:000000005439746	Р
					1
Regarding Wiring Diagr	am information	refer to PWC-	164 "Wiring Diag	ram"	

Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Rear Power Window Motor RH Circuit Check

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

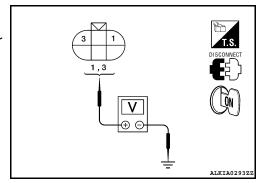
Revision: September 2009 PWC-115 2010 Altima HEV

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

Ter	minal	D		
(+)	(–)	Rear power window switch	Voltage (V)	
Rear power window motor RH connector		RH condition	(Approx.)	
	1		UP	Battery voltage
D304	•	Ground	DOWN	0
D304	3	Ground	UP	0
	5		DOWN	Battery voltage



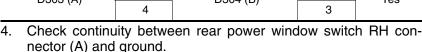
Is the measurement value within the specification?

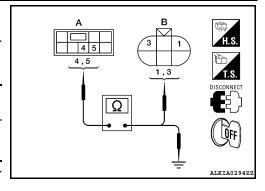
YES >> GO TO 3 NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 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





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

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-107, "REAR POWER WINDOW SWITCH: Component Function Check".

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-116, "REAR RH: Component Inspection".

Is the inspection result normal?

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

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

REAR RH: Component Inspection

INFOID:0000000005439747

COMPONENT INSPECTION

${f 1}$.CHECK REAR POWER WINDOW MOTOR RH

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

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

Α

В

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

С

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

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ENCODER

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000005439748

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

DRIVER SIDE: Component Function Check

INFOID:0000000005439749

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.

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

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000005439750

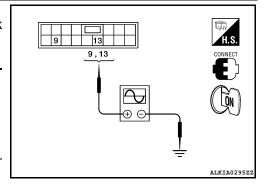
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

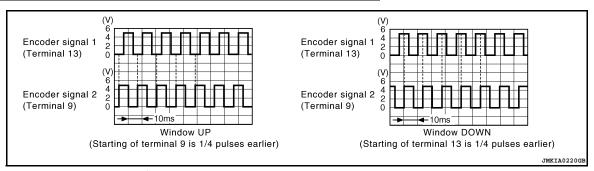
Encoder Circuit Check

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.

Т			
(+)			Signal
Main power window and door lock/unlock switch connector	Terminal	(–)	(Reference value)
D7	9	Ground	Refer to following signal
51	13	around	Troid to following digital





Is the inspection result normal?

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

NO >> GO TO 2

2. CHECK FRONT POWER WINDOW MOTOR LH POWER SUPPLY

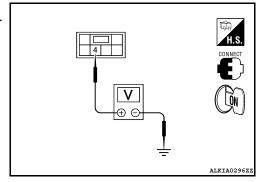
ENCODER

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

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



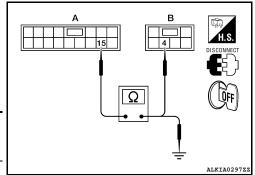
Is the measurement value within the specification?

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?

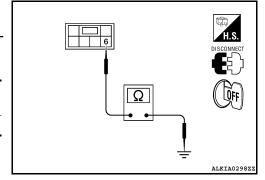
YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

- 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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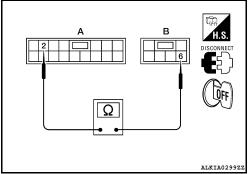
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[LH&RH FRONT WINDOW ANTI-PINCH]

- 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?

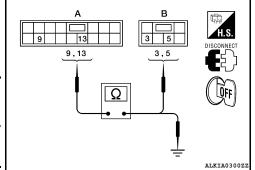
YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

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 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 (B)	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	_	Continuity
D7 (A)	9	Ground	No
DT (A)	13		110

Is the inspection result normal?

YES >> Replace front power window motor LH. Refer to <u>PWC-87</u>, "Removal and Installation". After that, refer to PWC-111, "DRIVER SIDE: Special Repair Requirement".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000005439751

INFOID:0000000005439752

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-120, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

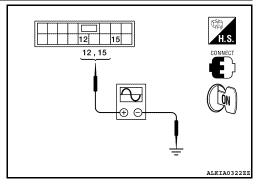
INFOID:0000000005439753

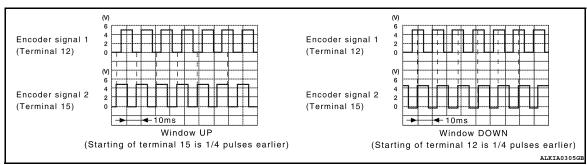
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

1. CHECK ENCODER SIGNAL

- 1. Connect front power window motor RH.
- 2. Turn ignition switch ON.
- 3. Check signal between power window and door lock/unlock switch RH connector and ground with oscilloscope.

-			
(+)			Signal
Power window and door lock/unlock switch RH connector	Terminal	(–)	(Reference value)
D105	12	Ground	Refer to following
D105	15	Giouna	signal





Is the inspection result normal?

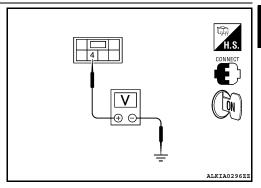
YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".

NO >> GO TO 2

2. CHECK FRONT POWER WINDOW MOTOR RH POWER SUPPLY

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

(+) Voltage (App. 1975) Front power window motor RH connector Terminal Terminal 1975 D105 4 Ground 1	Terminal				
motor RH connector Terminal	(+)				
D105 4 Ground 1	IEI				
D105 4 Glound 1	105				



Is the measurement value within the specification?

YES >> GO TO 4 NO >> GO TO 3

3. CHECK HARNESS CONTINUITY 1

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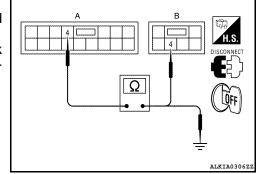
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[LH&RH FRONT WINDOW ANTI-PINCH]

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

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?

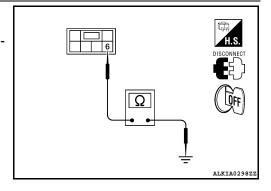
YES >> Replace power window and door lock/unlock switch RH. Refer to <u>PWC-87</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-106</u>, "<u>FRONT POWER WINDOW SWITCH</u>: <u>Special Repair Requirement</u>".

NO >> Repair or replace harness.

4. CHECK GROUND CIRCUIT

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

Front power window motor RH connector	Terminal	Ground	Continuity
D104	6		Yes



Is the inspection result normal?

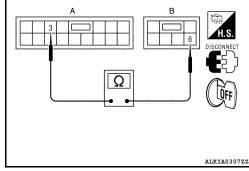
YES >> GO TO 6 NO >> GO TO 5

5. CHECK HARNESS CONTINUITY 2

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)	3	D104 (B)	6	Yes



Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH.

Refer to PWC-87, "Removal and Installation". After that, refer to PWC-106, "FRONT POWER WINDOW SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

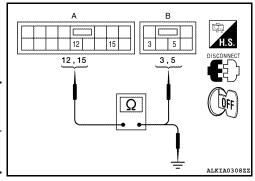
ENCODER

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

- 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).

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	D 104 (B)	3	165



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)	12		No
D105 (A)	15		INO

Is the inspection result normal?

YES >> Replace front power window motor RH. Refer to <u>GW-17</u>, "<u>Removal and Installation</u>". After that, refer to <u>PWC-113</u>, "<u>PASSENGER SIDE</u>: <u>Special Repair Requirement</u>".

NO >> Repair or replace harness.

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DOOR SWITCH

Description INFOID:000000005439754

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

Component Function Check

INFOID:0000000005439755

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

Check ("DOOR SW-DR" and "DOOR SW-AS") in "DATA MONITOR" mode with CONSULT-III. Refer to BCS-32, "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	
DOOR SW-AS	CLOSE	: OFF	

Is the inspection result normal?

YES >> Front door switch circuit is OK.

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

Diagnosis Procedure

INFOID:0000000005439756

Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

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	JZ	Ground	RH	CLOSE	Battery voltage	
58	Front door	Front door	OPEN	0		
	36		LH	CLOSE	Battery voltage	

Is the measurement value within the specification?

YES >> Replace BCM. Refer to BCS-83, "Removal and Installation".

NO >> GO TO 2

2. CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Front door switch connector	Terminal	Continuity
M18	32	RH: B108	2	Vos
IVI 18	58	LH: B8	2	Yes

4. Check continuity between BCM connector and ground.

[LH&RH FRONT WINDOW ANTI-PINCH]

BCM connector	Terminal		Continuity
M18	32	Ground	No
	58		NO

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM connector.
- 2. Check voltage between BCM connector and ground.

	Mallace (A)		
(-	+)	(-)	Voltage (V) (Approx.)
BCM connector	Terminal	()	, , ,
M18	32	Ground	Battery voltage
WITO	58	Ground	Dattery voltage

Is the measurement value within the specification?

YES >> GO TO 4

NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

4. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-125, "Component Inspection".

Is the inspection result normal?

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

NO >> Replace front door switch.

Component Inspection

1. CHECK FRONT DOOR SWITCH

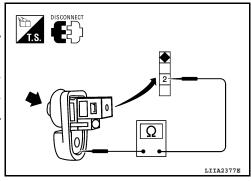
Check front door switches.

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

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace front door switch.



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INFOID:0000000005439757

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DOOR KEY CYLINDER SWITCH

Description INFOID.000000005439758

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

INFOID:0000000005439759

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to BCS-19, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET OTE ER-SW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
NET OTL OIN-OW	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Key cylinder switch is OK.

NO >> Refer to PWC-126, "Diagnosis Procedure".

Diagnosis Procedure

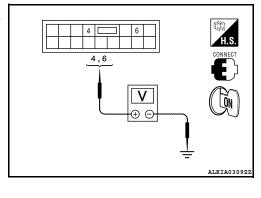
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Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

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.

Te	erminals				
(+)				Voltage (V)	
Main power window and door lock/unlock switch connector	Terminal	(–)	Key position	(Approx.)	
	4	Ground	Lock	0	
D7			Neutral/Unlock	5	
<i>D1</i>			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 PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

NO >> GO TO 2

2. CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

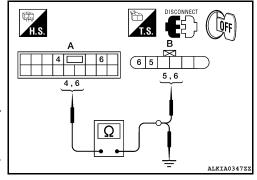
DOOR KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

Main power window and door lock/unlock switch connector	Terminal	Front door lock as- sembly LH (key cylin- der switch) connector		Continuity
D7 (A)	4	D10 (B)	6	Yes
D7 (A)	6	D10 (В)	5	163



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

Main power window and door lock/unlock switch connector	Terminal	0	Continuity
D7 (A)	4	Ground	No
D7 (A)	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

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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-127, "Component Inspection".

Is the inspection result normal?

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

>> Replace front door lock assembly LH (door key cylinder switch). After that, refer to PWC-128, "Special Repair Requirement".

PWC-127

Component Inspection

NO

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

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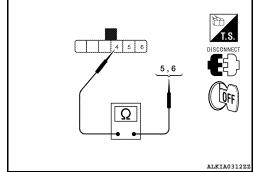
DOOR KEY CYLINDER SWITCH

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

Term	inal			
Front door lock assembly LH (key cylinder switch) connector		Key position	Continuity	
5		Unlock	Yes	
3	4	Neutral/Lock	No	
6	6	Lock	Yes	
6		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 PWC-128, "Special Repair Requirement".

Special Repair Requirement

INFOID:0000000005439762

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-92</u>, "<u>ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL</u>: <u>Special</u> 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 >

[LH&RH FRONT WINDOW ANTI-PINCH]

POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

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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

INFOID:0000000005439764

 ${f 1}$. 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 BCS-19, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	Condition	
CDL LOCK SW	LOCK	: ON
ODE 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-129, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

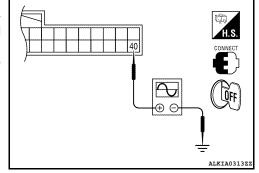
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Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Power Window Serial Link Check

$oldsymbol{1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

- Remove Intelligent Key, and close front door LH and RH.
- 2. 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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Terminal			Signal (Reference value)	
(+)		()		
BCM connector	Terminal	(–)	,	
M18	40	Ground	(V) 15 10 5 0 10 ms	

Is the inspection result normal?

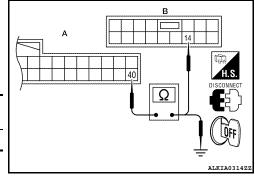
YES >> Power window serial link is OK.

NO >> GO TO 2

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 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	Giodila	No

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-86, "Removal and Installation". After that, refer to PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

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

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

Keyless power window down signal

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

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

FRONT POWER WINDOW SWITCH: Component Function Check

INFOID:0000000005439767

INFOID:0000000005439766

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

POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to BCS-19, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-131, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure".

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

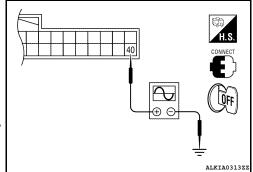
Regarding Wiring Diagram information, refer to PWC-164, "Wiring Diagram".

Power Window Serial Link Check

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

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

	Terminal	Signal (Reference value)	
(+)			
BCM connector	Terminal	(–)	(1.0.0.0.0.0)
M18	40	Ground	(V) 15 10 5 0 10 ms



Is the inspection result normal?

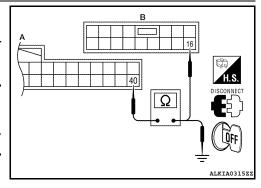
YES >> Power window serial link is OK.

NO >> GO TO 2

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



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POWER WINDOW SERIAL LINK

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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 PWC-86, "Removal and Installation". After that, refer to PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

NO >> Repair or replace harness.

POWER WINDOW LOCK SWITCH

< COMPONENT DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH

Description INFOID:0000000005439769

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-86, "Removal and Installation". After that, refer to PWC-133, "Special Repair Requirement".

NO >> Check condition of harness and connector.

Special Repair Requirement

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

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

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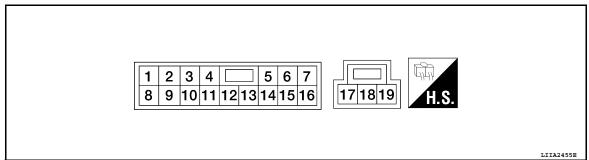
[LH&RH FRONT WINDOW ANTI-PINCH]

ECU DIAGNOSIS

POWER WINDOW MAIN SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Termina	al No.	Description			Voltogo [V]
+	_	Signal name	Input/ Output	Condition	Voltage [V] (Approx.)
1 (Y)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated UP.	Battery voltage
2 (G)	Ground	Encoder ground	_	_	0
3 (O)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated DOWN.	Battery voltage
4 (L/B)	Ground	Door key cylinder switch LH LOCK signal	Input	Key position (Neutral → Locked)	5 → 0
5 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN.	Battery voltage
6 (L/R)	Ground	Door key cylinder switch LH UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
7 (P)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP.	Battery voltage
8 (R)	11	Front door power window motor LH UP signal	Output	When front LH switch in power window main switch is operated UP.	Battery voltage
9 (W)	2	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB

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

< ECU DIAGNOSIS >

Termina	al No.	Description			Voltage [V]
+	_	Signal name	Input/ Output	Condition	(Approx.)
				IGN SW ON	Battery voltage
10 (V)	Ground	RAP signal	Input	Within 45 second after ignition switch is turned to OFF.	Battery voltage
				When front LH or RH door is opened during retained power operation.	0
11 (LG)	8	Front door power window motor LH DOWN signal	Output	When front LH switch in power window main switch is operated DOWN.	Battery voltage
13 (SB)	2	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
14 (BR)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms 10 ms
15 (GR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	10
17 (B)	Ground	Ground	_	_	0
19 (W)	Ground	Battery power supply	Input	_	Battery voltage

Fail Safe

FAIL-SAFE CONTROL

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

Error	Error condition	
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.	
Both pulse sensors mal- function	When both pulse signals have not been detected for more than the specified value during glass open/close operation.	
Pulse direction malfunction	When the pulse signal that is detected during glass open/close operation detects the opposite condition of power window motor operating direction.	
Glass recognition position malfunction 1	When it detects the error between glass fully closed position in power window switch memory and actual fully closed position during glass open/close operation is more than the specified value.	

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POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Error	Error condition		
Glass recognition position malfunction 2	When it detects pulse count more than the value of glass full stroke during glass open/close operation.		
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 fail-safe control.

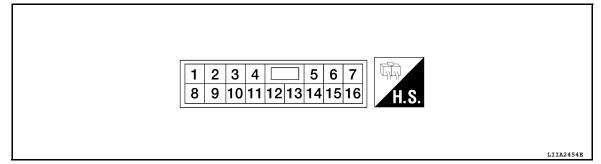
- Auto-up operation
- Anti-pinch function
- Retained power function

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

FRONT POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH

Termi	nal No.	Description			Voltage [V]
+	_	Signal name	Input/ Output	Condition	(Approx.)
3 (W)	Ground	Encoder ground	_	_	0
4 (BR)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	10
8 (L)	9	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
9 (LG)	8	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage
10 (P)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (Y)	3	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB

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FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

	Termi	nal No.	Description			Voltage [V]
٠	+	_	Signal name	Input/ Output	Condition	(Approx.)
	15 (G)	3	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
	16 (R)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms

Fail Safe

FAIL-SAFE CONTROL

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

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

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 >

[LH&RH FRONT WINDOW ANTI-PINCH]

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BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	-
	Other than front wiper switch HI	OFF	С
FR WIPER HI	Front wiper switch HI	ON	_
FR WIPER LOW	Other than front wiper switch LO	OFF	
	Front wiper switch LO	ON	– D
ED MACHED OM	Front washer switch OFF	OFF	=
FR WASHER SW	Front washer switch ON	ON	Е
ED MUDED INT	Other than front wiper switch INT	OFF	=
FR WIPER INT	Front wiper switch INT	ON	_
ED WIDER CTOR	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
TUDNI CIONAL D	Other than turn signal switch RH	OFF	_
TURN SIGNAL R	Turn signal switch RH	ON	_
TUDNI CIONAL I	Other than turn signal switch LH	OFF	- H
TURN SIGNAL L	Turn signal switch LH	ON	_
TAIL LAMP CVV	Other than lighting switch 1ST and 2ND	OFF	_
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON	
LIL DE AM CM	Other than lighting switch HI	OFF	_
HI BEAM SW	Lighting switch HI	ON	J
LIEAD LAMB CW 4	Other than lighting switch 2ND	OFF	_
HEAD LAMP SW 1	Lighting switch 2ND	ON	PW
HEAD LAMP SW 2	Other than lighting switch 2ND	OFF	. **
HEAD LAIMP SW 2	Lighting switch 2ND	ON	_
PASSING SW	Other than lighting switch PASS	OFF	L
PASSING SW	Lighting switch PASS	ON	_
AUTO LIGHT SW	Other than lighting switch AUTO	OFF	- M
AUTO LIGHT SW	Lighting switch AUTO	ON	IVI
DOOR SW-DR	Front door LH closed	OFF	_
DOON SW-DN	Front door LH opened	ON	N
DOOR SW-AS	Front door RH closed	OFF	
D00110W-A0	Front door RH opened	ON	
DOOR SW-RR	Rear door RH closed	OFF	0
DOOR SW-RR	Rear door RH opened	ON	
DOOR SW-RL	Rear door LH closed	OFF	Р
	Rear door LH opened	ON	_
CDL LOCK SW	Other than power door lock switch LOCK	OFF	_
ODL LOOK OVV	Door lock/unlock switch LOCK	ON	
CDI TINI OCK 6/M	Other than door lock/unlock switch UNLOCK	OFF	_
CDL UNLOCK SW	Door lock/unlock switch UNLOCK	ON	_

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

ACT Commonstrate	Monitor Item	Condition	Value/Status
Front door LH key cylinder LOCK position	KEN OM TROM	Other than front door LH key cylinder LOCK position	OFF
Front door LH key cylinder UNLOCK position When hazard switch is not pressed OPF When hazard switch is pressed ON REAR DEF SW When AUTO switch or fan switch is pressed ON AIR COND SW When AUTO switch or fan switch is pressed ON AIR COND SW When AUTO switch or fan switch is pressed ON AIR COND SW When AUTO switch is pressed ON AIR COND SW When AUTO switch is pressed ON Trunk lid opener cancel switch OFF Trunk lid opener cancel switch OFF Trunk lid opener switch OFF OPF OPF Trunk lid opener switch OPF OPF OPF Trunk lid opener switch OPF	KEY CYL LK-SW	Front door LH key cylinder LOCK position	ON
Front door LH key cylinder UNLOCK position ON	ICEN ON LINEON	Other than front door LH key cylinder UNLOCK position	OFF
When hazard switch is pressed	KEY CYL UN-SW	Front door LH key cylinder UNLOCK position	ON
When hazard switch is pressed ON FAN ON SIG When raw window defoger switch is pressed ON AIR COND SW When A/C switch is pressed ON Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch ON ON TRIBO OPEN SW Trunk lid opener cancel switch OFF OFF Trunk lid opener cancel switch ON ON TRINKHAT MNTR Trunk lid opener switch OFF OFF Trunk lid opener switch OFF Trunk lid opener on ON Intelligent Key is not pressed on ON Trunk lid opener on		When hazard switch is not pressed	OFF
FAIN ON SIG	HAZAKD SW	When hazard switch is pressed	ON
AIR COND SW	REAR DEF SW	When rear window defogger switch is pressed	ON
Trunk lid opener cancel switch OFF	FAN ON SIG	When AUTO switch or fan switch is pressed	ON
Trunk lid opener cancel switch ON ON Trunk lid opener switch OFF While the trunk lid opener switch OFF While the trunk lid opener switch is turned ON ON TRINK/HAT MNTR Trunk lid closed Trunk lid opener 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 OFF When UNLOCK button of Intelligent Key is pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is pressed When PANIC button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is not pressed When PANIC button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed ON RKE-PW OPEN When UNLOCK button of Intelligent Key is not pressed and held OFF When UNLOCK button of Intelligent Key is not pressed and held ON When LOCK/UNLOCK button of Intelligent Key is not pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held ON OPTICAL SENSOR When LOCK/UNLOCK button of Intelligent Key is pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held ON OPTICAL SENSOR When front door LH request switch is not pressed OFF When outside of the vehicle is bright Close to 5 V When front door LH request switch is not pressed OFF When front door LH request switch is not pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is not pressed OFF When trunk request switch is pressed ON When trunk request switch is pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF Ignition switch	AIR COND SW	When A/C switch is pressed	ON
Trunk lid opener switch OFF	TD CANCEL OW	Trunk lid opener cancel switch OFF	OFF
TRIBD OPEN SW While the trunk lid opener switch is turned ON ON TRINK/HAT MNTR Trunk lid closed Trunk lid opened ON When LOCK button of Intelligent Key is not pressed OFF When LOCK button of Intelligent Key is not pressed OPF When UNLOCK button of Intelligent Key is not pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is not pressed When UNLOCK button of Intelligent Key is pressed ON RKE-TR/BD When TRUNK OPEN button of Intelligent Key is pressed When TRUNK OPEN button of Intelligent Key is pressed OPF When PANIC button of Intelligent Key is pressed OPF When PANIC button of Intelligent Key is pressed OPF When PANIC button of Intelligent Key is not pressed OPF When UNLOCK button of Intelligent Key is not pressed OPF When UNLOCK button of Intelligent Key is pressed ON RKE-PW OPEN When UNLOCK button of Intelligent Key is not pressed and held When UNLOCK button of Intelligent Key is pressed and held OPF When LOCK/UNLOCK button of Intelligent Key is not pressed and held OPF When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When outside of the vehicle is bright Close to 5 V When front door LH request switch is not pressed OPF When front door LH request switch is pressed ON REQ SW-AS When front door HH request switch is not pressed OPF When front door HH request switch is pressed ON When trunk request switch is pressed ON When trunk request switch is pressed ON When push-button ignition switch is pressed OPF When trunk request switch is pressed ON IGN RLY -F/B Ignition switch OFF or ACC Ignition switch OFF Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depress	TH CANCEL SW	Trunk lid opener cancel switch ON	ON
While the trunk lid obsend STURN (In Core Service Serv	TD/DD ODEN CW	Trunk lid opener switch OFF	OFF
TRINK/HAT MNTR Trunk lid opened ON When LOCK button of Intelligent Key is not pressed OFF When LOCK button of Intelligent Key is pressed ON RKE-UNLOCK When UNLOCK button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is pressed OFF When TRUNK OPEN button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is not pressed OFF When PANIC button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed and held OFF When UNLOCK button of Intelligent Key is not pressed and held ON When LOCK/UNLOCK button of Intelligent Key is not pressed and held ON When LOCK/UNLOCK button of Intelligent Key is not pressed and held on When LOCK/UNLOCK button of Intelligent Key is pressed OFF When LOCK/UNLOCK button of Intelligent Key is pressed OFF When outside of the vehicle is bright Close to 5 V When outside of the vehicle is bright Close to 5 V When outside of the vehicle is bright Close to 0 V REQ SW-DR When front door LH request switch is not pressed OFF When front door LH request switch is pressed ON REQ SW-AS When front door HH request switch is pressed OFF When front door HH request switch is pressed OFF When front door HH request switch is not pressed OFF When front door HH request switch is pressed OFF When front door HH request switch is pressed OFF When front door HH request switch is not pressed OFF When push-button ignition switc	I K/BD OPEN SW	While the trunk lid opener switch is turned ON	ON
Trunk id opened ON RKE-LOCK When LOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When PANIC button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is pressed ON RKE-P/W OPEN When UNLOCK button of Intelligent Key is pressed and held OFF When UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is not pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held Simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed OFF When outside of the vehicle is bright Close to 5 V When OFF When OFF When front door LH request switch is not pressed OFF When front door LH request switch is pressed OFF When front door RH request switch is pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is not pressed OFF When trunk request switch is pressed OFF When trunk request switch is pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF Ignition switch OFF or ACC OFF Ignition switch OFF OF ORC Ignition switch OFF Ignition switch OFF Ignition switch OFF Ignition switch OFC ON When the brake pedal is not depressed ON	TONIC/LIAT MANTO	Trunk lid closed	OFF
RKE-LOCK When LOCK button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is not pressed OFF When UNLOCK button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON RKE-PANIC When PANIC button of Intelligent Key is pressed ON When UNLOCK button of Intelligent Key is pressed ON When UNLOCK button of Intelligent Key is pressed And held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When Outside of the vehicle is bright Close to 5 V When outside of the vehicle is dark Close to 0 V When front door LH request switch is not pressed OFF When front door He request switch is pressed OFF When front door He request switch is pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is not pressed OFF When trunk request switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC OFF Ignition switch OFF Ignition switch OFF Ignition switch OFF When the brake pedal is not depressed ON	THNK/HAT MINTH	Trunk lid opened	ON
When LOCK button of Intelligent Key is pressed OPF	DVE LOOK	When LOCK button of Intelligent Key is not pressed	OFF
RKE-UNLOCK When UNLOCK button of Intelligent Key is pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When TRUNK OPEN button of Intelligent Key is not pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When PANIC button of Intelligent Key is pressed OFF When UNLOCK button of Intelligent Key is not pressed and held When UNLOCK button of Intelligent Key is pressed and held OFF When UNLOCK button of Intelligent Key is pressed and held OFF When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright OPTICAL SENSOR When front door LH request switch is not pressed OFF When front door LH request switch is not pressed OFF When front door LH request switch is pressed OFF When front door RH request switch is pressed OFF When front door RH request switch is pressed OFF When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF USH SW When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch OFF Ignition switch OFF Ignition switch OFF OFF Ignition switch OFF OFF Ignition switch OFF OFF Ignition switch OFF ON ON	HKE-LOCK	When LOCK button of Intelligent Key is pressed	ON
When UNLOCK button of Intelligent Key is pressed OF	DIVE LINII OOK	When UNLOCK button of Intelligent Key is not pressed	OFF
### RKE-TR/BD When TRUNK OPEN button of Intelligent Key is pressed When PANIC button of Intelligent Key is not pressed When PANIC button of Intelligent Key is not pressed ON RKE-PW OPEN When UNLOCK button of Intelligent Key is not pressed and held When UNLOCK button of Intelligent Key is pressed and held When LOCK/UNLOCK button of Intelligent Key is not pressed and held When LOCK/UNLOCK button of Intelligent Key is not pressed and held When LOCK/UNLOCK button of Intelligent Key is pressed and held Simultaneously When outside of the vehicle is bright When outside of the vehicle is bright When outside of the vehicle is dark When front door LH request switch is not pressed OFF When front door LH request switch is pressed ON ### When front door RH request switch is not pressed When front door RH request switch is not pressed OFF When front door RH request switch is not pressed OFF When trunk request switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch OFF Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON	RKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
When TRUNK OPEN button of Intelligent Key is pressed OPF When PANIC button of Intelligent Key is not pressed OPF When PANIC button of Intelligent Key is pressed ON RKE-PW OPEN When UNLOCK button of Intelligent Key is pressed and held OFF When UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is pressed and held of ismultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright Close to 5 V When outside of the vehicle is bright Close to 5 V When front door LH request switch is not pressed OFF When front door LH request switch is pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is pressed OFF When front door RH request switch is pressed OFF When frunk request switch is not pressed OFF When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON IGN RLY -F/B Ignition switch OFF Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON	DVE TD/DD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
RKE-PANIC When PANIC button of Intelligent Key is pressed When UNLOCK button of Intelligent Key is not pressed and held When UNLOCK button of Intelligent Key is pressed and held When UNLOCK button of Intelligent Key is not pressed and held When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright Close to 5 V When outside of the vehicle is dark REQ SW-DR When front door LH request switch is not pressed When front door LH request switch is pressed ON REQ SW-AS When front door RH request switch is not pressed When front door RH request switch is pressed ON REQ SW-BD/TR When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When trunk request switch is not pressed ON UNLED SW When push-button ignition switch is not pressed ON Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch ACC or ON When the brake pedal is not depressed ON When the brake pedal is not depressed ON	HKE-TH/BD	When TRUNK OPEN button of Intelligent Key is pressed	ON
When PANIC button of Intelligent Key is pressed ON When UNLOCK button of Intelligent Key is not pressed and held OFF When UNLOCK button of Intelligent Key is pressed and held ON When LOCK/UNLOCK button of Intelligent Key is not pressed and held on OFF When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright Close to 5 V When outside of the vehicle is dark Close to 0 V When front door LH request switch is not pressed OFF When front door LH request switch is pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is pressed OFF When front door RH request switch is pressed OFF When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed OFF Ignition switch OFF or ACC Ignition switch OFF Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON When the brake pedal is not depressed ON When the brake pedal is not depressed ON	DICE DANIO	When PANIC button of Intelligent Key is not pressed	OFF
RKE-P/W OPEN When UNLOCK button of Intelligent Key is pressed and held When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright Close to 5 V When outside of the vehicle is dark Close to 0 V When front door LH request switch is not pressed When front door LH request switch is pressed OFF When front door RH request switch is not pressed OFF When front door RH request switch is pressed ON REQ SW-BD/TR When front door RH request switch is pressed OFF When trunk request switch is not pressed OFF When trunk request switch is pressed OFF When push-button ignition switch is not pressed OFF When push-button ignition switch is not pressed OFF Ignition switch OFF or ACC Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed	RKE-PANIC	When PANIC button of Intelligent Key is pressed	ON
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When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously When outside of the vehicle is bright When outside of the vehicle is dark Close to 5 V When outside of the vehicle is dark Close to 0 V When front door LH request switch is not pressed When front door LH request switch is pressed ON REQ SW-AS When front door RH request switch is not pressed When front door RH request switch is pressed ON REQ SW-BD/TR When trunk request switch is not pressed OFF When trunk request switch is not pressed OFF When trunk request switch is pressed ON PUSH SW When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed OFF OFF Ignition switch OFF Ignition switch OFF Ignition switch OFF OFF When the brake pedal is not depressed ON ON ON ON ON ON ON ON ON O	DKE WODE OHO		OFF
When outside of the vehicle is dark REQ SW-DR When front door LH request switch is not pressed When front door LH request switch is pressed When front door RH request switch is not pressed When front door RH request switch is not pressed When front door RH request switch is pressed ON REQ SW-AS When front door RH request switch is pressed When front door RH request switch is pressed ON When trunk request switch is not pressed When trunk request switch is pressed ON When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON When the brake pedal is not depressed ON When the brake pedal is not depressed ON ON When the brake pedal is not depressed	ARE-MODE ONG		ON
When outside of the vehicle is dark Close to 0 V When front door LH request switch is not pressed When front door LH request switch is pressed ON When front door RH request switch is not pressed When front door RH request switch is pressed ON REQ SW-AS When front door RH request switch is pressed ON When trunk request switch is not pressed OFF When trunk request switch is pressed ON PUSH SW When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch ON ON ACC RLY -F/B Ignition switch ACC or ON When the brake pedal is not depressed OFF OFF ON ON ON When the brake pedal is not depressed ON ON ON	ODTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
REQ SW-DR When front door LH request switch is pressed When front door RH request switch is not pressed When front door RH request switch is pressed ON REQ SW-BD/TR When trunk request switch is not pressed OFF When trunk request switch is not pressed ON When trunk request switch is pressed ON When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch ACC or ON When the brake pedal is not depressed ON ON ON ON ON ON ON ON ON O	OF HOAL SENSON	When outside of the vehicle is dark	Close to 0 V
When front door LH request switch is pressed ON REQ SW-AS When front door RH request switch is not pressed OFF When front door RH request switch is pressed ON REQ SW-BD/TR When trunk request switch is not pressed OFF When trunk request switch is pressed ON PUSH SW When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON IGN RLY -F/B Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch ACC or ON When the brake pedal is not depressed ON	DEO SWDB	When front door LH request switch is not pressed	OFF
When front door RH request switch is pressed When trunk request switch is not pressed OFF When trunk request switch is pressed ON When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON IGN RLY -F/B Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON ON ON ON ON ON ON ON ON O	NEQ 3W-DN	When front door LH request switch is pressed	ON
When front door RH request switch is pressed ON REQ SW-BD/TR When trunk request switch is not pressed ON When trunk request switch is pressed ON When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON IGN RLY -F/B Ignition switch OFF or ACC OFF Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON	DEO CW AC	When front door RH request switch is not pressed	OFF
REQ SW-BD/TR When trunk request switch is pressed ON When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch OFF Ignition switch OFF OFF OFF ON When the brake pedal is not depressed ON ON ON ON ON ON ON ON ON O	REQ SW-AS	When front door RH request switch is pressed	ON
When trunk request switch is pressed ON PUSH SW When push-button ignition switch is not pressed OFF When push-button ignition switch is pressed ON IGN RLY -F/B Ignition switch OFF or ACC OFF Ignition switch ON ON ACC RLY -F/B Ignition switch OFF Ignition switch OFF OFF OFF ON When the brake pedal is not depressed ON	DEO CW DD/TD	When trunk request switch is not pressed	OFF
PUSH SW When push-button ignition switch is pressed ON Ignition switch OFF or ACC Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch OFF Ignition switch OFF OFF Ignition switch ACC or ON When the brake pedal is not depressed ON ON ON ON	NEQ 3W-DD/TN	When trunk request switch is pressed	ON
When push-button ignition switch is pressed ON Ignition switch OFF or ACC OFF Ignition switch ON ON ACC RLY -F/B Ignition switch OFF Ignition switch OFF Ignition switch ACC or ON ON When the brake pedal is not depressed ON	DIICH CW	When push-button ignition switch is not pressed	OFF
IGN RLY -F/B Ignition switch ON ACC RLY -F/B Ignition switch OFF Ignition switch ACC or ON When the brake pedal is not depressed ON ON ON	PUSH 3W	When push-button ignition switch is pressed	ON
Ignition switch ON	ION DLV E/D	Ignition switch OFF or ACC	OFF
ACC RLY -F/B Ignition switch ACC or ON ON When the brake pedal is not depressed ON	IGIN DLT -F/D	Ignition switch ON	ON
Ignition switch ACC or ON ON When the brake pedal is not depressed ON BRAKE SW 1	ACC DIV E/D	Ignition switch OFF	OFF
BRAKE SW 1	AUU HLY -F/B	Ignition switch ACC or ON	ON
When the brake pedal is depressed OFF	DDAKE OM 1	When the brake pedal is not depressed	ON
	DUNIE ON I	When the brake pedal is depressed	OFF

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status	
DETE/CANOL OW	When selector lever is in P position	OFF	
DETE/CANCL SW	When selector lever is in any position other than P	ON	
OFT DNI/NI OW	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	
LINILIZ CENLOD	Front door LH UNLOCK status	OFF	
UNLK SEN-DR	Front door LH LOCK status	ON	
PUSH SW -IPDM	When push-button ignition switch is not pressed (IPDM E/R sends via CAN)	OFF	
FOSH SW -IFDIVI	When push-button ignition switch is pressed (IPDM E/R sends via CAN)	ON	
IGN RLY1 F/B	Ignition switch OFF or ACC	OFF	
IGN ALT I F/D	Ignition switch ON	ON	
	When selector lever is in P position (IPDM E/R sends via CAN)	OFF	
DETE SW -IPDM	When selector lever is in any position other than P (IPDM E/R sends via CAN)	ON	
SFT PN -IPDM	When selector lever is in any position other than P or N (IPDM E/R sends via CAN)	OFF	
	When selector lever is in P or N position (IPDM E/R sends via CAN)	ON	
SFT P -MET	When selector lever is in any position other than P (combination meter sends via CAN)	OFF	
SFIF-WEI	When selector lever is in P position (combination meter sends via CAN)	ON	
SFT N -MET	When selector lever is in any position other than N (combination meter sends via CAN)	OFF	
	When selector lever is in N position (combination meter sends via CAN)	ON	
	Engine stopped	STOP	
ENGINE STATE	While the engine stalls	STALL	
ENGINE OTATE	At engine cranking	CRANK	
	Engine running	RUN	
VEH SPEED 1	While driving	Equivalent to speedometer reading	
VEH SPEED 2	While driving	Equivalent to speedometer reading	
	Front door LH LOCK status	LOCK	
DR DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Front door LH UNLOCK status	UNLK	
	Front door RH LOCK status	LOCK	
AS DOOR STATE	Wait with selective UNLOCK operation (5 seconds)	READY	
	Front door RH UNLOCK status	UNLK	
ID OK FLAG	Ignition switch ACC or ON	RESET	
D ON FLAG	Ignition switch OFF	SET	
PRMT ENG STAT	When the hybrid system start is prohibited	RESET	
FINITENG STAT	When the hybrid system start is permitted	SET	
KEY SW. 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	
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire	

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status	
- World Roll		value/ diatus	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	
ID REGST FL1	When ID of front LH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE	
ID NEGOT FET	When ID of front LH tire transmitter is not registered (refer to <u>WT-6.</u> "ID Registration Procedure")	YET	
ID REGST FR1	When ID of front RH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE	
ID NEGOT FRI	When ID of front RH tire transmitter is not registered (refer to WT-6. "ID Registration Procedure")	YET	
ID REGST RR1	When ID of rear RH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE	
ID NEGOT NAT	When ID of rear RH tire transmitter is not registered (refer to WT-6. "ID Registration Procedure")	YET	
ID REGST RL1	When ID of rear LH tire transmitter is registered (refer to WT-6, "ID Registration Procedure")	DONE	
ID REGOT RET	When ID of rear LH tire transmitter is not registered (refer to WT-6, "ID Registration Procedure")	YET	
MA DAUNO LAMB	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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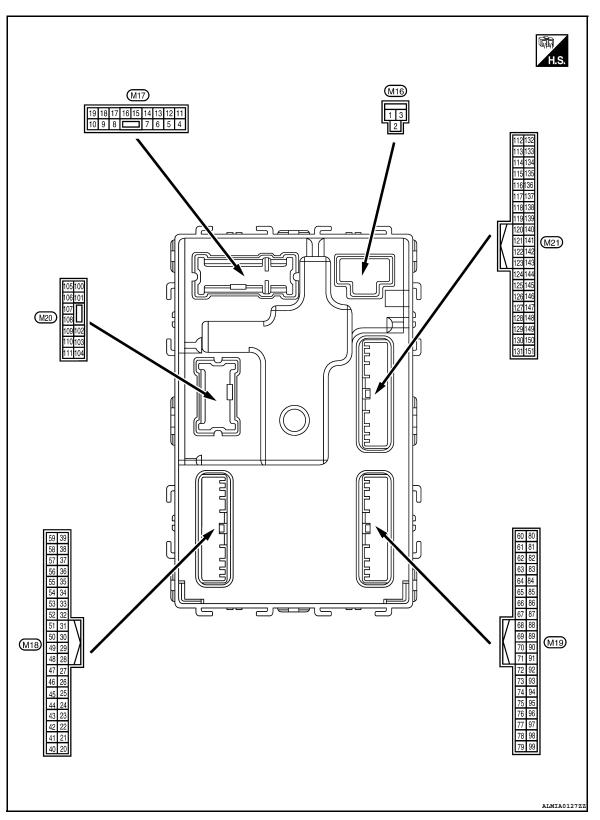
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Terminal Layout



Physical Values

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

Terminal No.		Description				Value	
(Wire color)		Signal name	Input/	Condition		(Approx.)	
(+)	(-)		Output				
(W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage	
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OFF		Battery voltage	
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage	
4	Cround	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		ov	
(P/W)	Ground			Any other time after passing the interior room lamp battery saver operation time		Battery voltage	
5 (G/Y)	Ground	Front door RH UN- LOCK	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage	
					Other than UNLOCK (actuator is not activated)	ov	
7		Step lamp	Output	Room lamp timer	ON	Battery voltage	
(R/W)	Ground				OFF	OV	
8 (V)	Cravind	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage	
	Ground				Other than LOCK (actuator is not activated)	ov	
9 (G)	Ground	Front door LH UN- LOCK	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage	
					Other than UNLOCK (actuator is not activated)	ov	
10 (G/Y)	Cround	Rear door RH and rear door LH UN- LOCK	Output	Rear door RH and rear door LH	UNLOCK (actuator is activated)	Battery voltage	
	Ground				Other than UNLOCK (actuator is not activated)	ov	
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage	
13 (B)	Ground	Ground	-	Ignition switch ON		ov	
					OFF	OV	
14 (R/Y)	Ground	Push-button ignition switch illumination ground	Input	Tail lamp	ON	NOTE: When the illumination brightening/dimming level is in the neutral position (V) 10 2 ms JSNIA0010GB	
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage	
(Y/L)		F	Ji	3	ACC	0V	

< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
4					Turn signal switch OFF	0V (V) 15 10
17 (G/B)	(G/B) Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch RH	1 s PKID0926E 6.5V
					Turn signal switch OFF	OV
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s
19		Room lamp timer	•	Interior room	Lamps fully OFF	6.5V Battery voltage
(Y)	Ground	control	Output	lamp	Lamps fully ON	OV
21	Cround	Optical cancer signal	Innut	Ignition switch	When outside of the vehi- cle is bright	Close to 5V
(P/B)	Ground	Optical sensor signal	Input	ON	When outside of the vehi- cle is dark	Close to 0V
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 depressed)	OV
(O/L)	Ground	Stop lamp Switch 2	Прис	Ctop tamp switch	ON (brake pedal is depressed)	Battery voltage
27 (G/W)	Ground	Front door lock as- sembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0
						JPMTA0011GB 11.8V
				Whon Intalligent I	UNLOCK status	0V Pottony voltago
29 (Y)	Ground	Key slot switch	Input	_	Ley is inserted into key slot ey is not inserted into key slot	Battery voltage OV
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0
(V/Y)	Giouna	AGO IEEUDACK SIGIIAI	при	ignition switch	ACC or ON	Battery voltage
31	Ground	Ignition relay-2 feed-	Input	Ignition switch	OFF	OV
(G)		back signal		J	ON	Battery voltage

	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 JPMIA0011GB 11.8V
					ON (when front door RH opens)	oV
33	Ground	Compressor ON sig-	Input	A/C switch	OFF	Battery voltage
(SB)	Ground	nal	input	A O SWILCH	ON	OV
34*	Ground	Front door lock as- sembly LH (key cylin-	Innut	Front door lock	OFF (neutral)	Battery voltage
(L/R)	Ground	der switch) (unlock)	Input	ut assembly LH (key cylinder switch)	ON (unlock)	OV
36*	Cround	Look awitah aignal	Innut	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 5 0 10 ms 10 ms JPMIA0012GB
38 (GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	ON OFF ON	OV Battery Voltage V OV
39*					Unlock	Battery Voltage
(GR/	Ground	Unlock switch signal	Input	Door lock/unlock switch		OV
40* (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JpmIa0013GB
				Ignition switch OF		0V
41 (W)	Ground	Push-button ignition switch illumination	Output	Engine switch (push switch) illu- mination	ON OFF	5.5V 0V
42	0	LOCK in the standard	O. ata	LOCK indicator	ON	OV
(R)	Ground	LOCK indicator lamp	Output	lamp	OFF	Battery voltage
45 (P)	Ground	Receiver & sensor ground	Input	Ignition switch ON		ov

< ECU DIAGNOSIS >

	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
46		Receiver & sensor	-		OFF	0V
(V/W)	Ground	power supply output	Output	Ignition switch	ACC or ON	5.0V
47		Tira prossura raggiv	Input/	Ignition switch	Standby state	(V) 6 4 2 0 + 0.2s
4/ (G/O)		ON Switch	When receiving the signal from the transmitter	(V) 6 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
48	Ground	Selector lever P/N	Input	Selector lever	P or N position	12.0V
(R/B)	Giound	position signal	Input	Selector lever	Except P and N positions	OV
					ON	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 11.3V
					OFF	Battery voltage
					All switch OFF	OV
					Lighting switch 1ST	
50 (LG/ B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch high-beam Lighting switch 2ND Turn signal switch RH	(V) 15 10 5 0
					All switch OFF	
					(Wiper intermittent dial 4)	0V
					Front wiper switch HI (Wiper intermittent dial 4)	(V)[
51 (L/W) Groun	Ground	ound 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	(V) 15 10 5 0 2 ms JPMIA0032GB

Term	inal No.	Description				
(Wire	e color)	Signal name	Input/		Condition	Value (Approx.)
(+)	(-)	Signal name	Output			(* * * * * * * * * * * * * * * * * * *
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4) Front washer switch ON (Wiper intermittent dial 4) Any of the conditions below with all switch OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6	0V (V) 15 10 5 0 2 ms JPMIA0033GB 10.7V
					All switch OFF	0V
					Front wiper switch INT	
				Combination	Front wiper switch LO	(V)
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	put Combination switch (Wiper intermittent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB
					All switch OFF	OV
		Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch flash-to- pass	(V) 15
54 (G/Y)	Ground				Turn signal switch LH	10 5 0 2 ms JPMIA0035GB
55					ON	Battery voltage
(BR/ W)	Ground	Front blower monitor	Input	Front blower mo- tor switch	OFF	OV OV
56		Front door lock as-		Front door lock	OFF (neutral)	Battery voltage
(L/B)	Ground	sembly LH (key cylin- der switch) (lock)	Input	assembly LH (key cylinder switch)	ON (lock)	OV
57 (W)	Ground	Tire pressure warning check switch	Input		_	Battery voltage
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8V
					ON (front door LH OPEN)	0V
59 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de-	Active	Battery voltage
(U/n)		yei lelay		fogger	Not activated	0V

< ECU DIAGNOSIS >

	inal No.	Description				Value	
(Wire (+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	А
60 (B/R) Ground		Front console anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S JMKIA0062GB	B C D
	na 2 (-)	·	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	E F	
61 (W/R) Gro	Ground	Center console antenna 2 (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S JMKIA0062GB	G H I
	Glound				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMXIA0063GB	PWC
62 (B/Y)	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 JMKIA0062GB	M N
	Giounu				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P

	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
63	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 JMKIA0062GB
(LG)	Glound				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
64	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 10 5 1 1 s JMKIA0062GB
(V)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 11 1 s JMKIA0063GB
65	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 10 5 0 MKIA0062GB
(P)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS >

Term	inal No.	Description					
-	e color)	Signal name	Input/		Condition	Value (Approx.)	/
(+) 68 (G/O)	(-) Ground	NATS antenna amp (built in key slot)	Output Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent 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 Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	(
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC	0V Battery voltage	[
71 Demote keyle		Remote keyless entry	Input/	During waiting		(V) 15 10 5 1 ms JMXIA0064GB	I
71 (L/O) Ground	Ground	receiver signal	Output	When operating either button on Intelligent Key		(V) 15 10 1 ms JMKIA0065GB	
75 (R/Y) Groun		Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPNIA0041GB 1.4V	Ρ
	Ground				Wiper intermittent dial 4	(V) 15 10 5 0 2 ms JPMIA0037GB	ľ
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB	

	inal No.	Description				Value	
	e color)	Signal name	Input/ Output		Condition	(Approx.)	
(+)	(-)	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0041GB 1.4V	
76	Ground				Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB	
(R/G)					Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	
					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 2 ms JPMIA0040GB	
78 (P)	Ground	CAN-L	Input/ Output		_	_	
79 (L)	Ground	CAN-H	Input/ Output			_	
(L)			Output		OFF	OV	
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 1 1 1 1 1 1 1 1 1 1	
					ON	Battery voltage	
81 (LC)	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	Battery voltage	
(LG)			-		ON	OV	

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

	inal No.	Description				Value
(+)	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
83	Cravinal	ACC valou control	Outnut	Lamition assitate	OFF	OV
(L)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	Battery voltage
84 (Y/R)	Ground	CTV shift selector (detent switch)	Output		_	Battery voltage
87	Ground	CTV shift selector	Input	Selector lever	P position	OV
(G/B)	aloulia	(detent switch)	iliput	Selector level	Any position other than P	Battery voltage
					ON (pressed)	OV
88 (P/L)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
			Input	Front door LH request switch	ON (pressed)	OV
89 (B/W)	Ground	Front door LH request switch			OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0V
90	0	Front blower motor	0	Lauriai aurantianta	OFF or ACC	OV
(Y)	Ground	relay control	Output	Ignition switch	ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFI	=	Battery voltage

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

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[LH&RH FRONT WINDOW ANTI-PINCH]

	inal No.	Description				Value	
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)	
	Ground				All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GE	
96 (P/B)		Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GE 1.3V	
					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GE	
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JpmIa0039GE 1.3V	

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	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4V
					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 2 ms JPMIA0036GB
					Front wiper switch INT	(V) 15 10 5 2 ms JPMIA0038GB 1.3V
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB
					Pressed	0 V
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 10 10 ms JPMIA0012GB 1.1V

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[LH&RH FRONT WINDOW ANTI-PINCH]

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	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
103	Ground	Trunk lid opening	Outout	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage
(V)	Ground	Trunk lid opening	Output	Trunk IId	Close (trunk lid opener actuator is not activated)	ov
110 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	ON OFF	0V
114	Canada	Trunk room antenna	Outout	Ignition switch	When Intelligent Key is in the passenger compartment	Battery voltage (V) 15 10 5 0 JMKIA0062GB
(B)	Ground	1 (-)	Output	ŎFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
115	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 11 1 s JMKIA0062GB
(W)	Giound	1 (+)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

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Signal name		inal No.	Description				Value
Title (LO) Ground Rear bumper antenna (-) Output If ground (-) Ground (-	Signal name			Condition	
Council Coun			Rear humner anten-				15 10 5 0
When Intelligent Key is in the antenna detection area When Intelligent Key is in the antenna detection area When Intelligent Key is in the antenna detection area When Intelligent Key is not in the antenna detection area When Intelligent Key is not in the antenna detection area When Intelligent Key is not in the antenna detection area OFF or ACC ON OFF (trunk is closed) OFF (trunk is closed) OFF (trunk is closed) ON ON (trunk is open) OV When selector lever is in P or N position and the brake OV		Ground		Output	is operated with ignition switch	in the antenna detection	15 10 5 0
Compared the property of the control of the contr	119		Doubleman				15 10 5 0
(BR/ W) Ground E/R) control Output Ignition switch ON OV Trunk room lamp switch Input Trunk room lamp switch OFF (trunk is closed) OFF (trunk is open) OV When selector lever is in P or N position and the brake OV		Ground		Output	is operated with ignition switch	in the antenna detection	+
W) E/H) control Trunk room lamp switch Trunk room lamp switch Trunk room lamp switch OFF (trunk is closed) ON OV ON ON OV When selector lever is in P or N position and the brake OV ON ON OV OV ON ON OV ON ON		Ground		Output	lanition switch	OFF or ACC	Battery voltage
Trunk room lamp switch Trunk room lamp switch Trunk room lamp switch OFF (trunk is closed) ON (trunk is open) When selector lever is in P or N position and the brake OV		Ground	E/R) control	Jaiput	.g.m.on owiton	ON	0V
When selector lever is in P or N position and the brake 0V		Ground		Input		OFF (trunk is closed)	15 10 5 0 10 ms
132 (R) Ground Start signal Output Ignition switch ON When selector lever is in P or N position and the brake Battery voltage		Ground	Start signal	Output	Ignition switch ON	When selector lever is in P or N position and the brake peddle is not depressed When selector lever is in P	OV

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[LH&RH FRONT WINDOW ANTI-PINCH]

	inal No. e color)	Description	Innut/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
140	Ground	Push-button ignition	Input	Engine switch	Pressed	OV
(BR)	Ground	switch	прис	(push switch)	Not pressed	Battery voltage
141 (G/R)	Ground	Trunk request switch	Input	Trunk request switch	ON (pressed) OFF (not pressed)	(V) 15 10 5 10 ms JPMIA0016GB 1.0V
144		Request switch buzz-	.	Request switch	Sounding	OV
(GR)	Ground	er	Output	buzzer	Not sounding	Battery voltage
147	0	Trunk lid opener	la a d	Trunk lid opener	Pressed	OV
(L/R)	Ground	switch	Input	switch	Not pressed	Battery voltage
148 (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
					ON (when rear door RH opens)	OV
149 (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB
					ON (when rear door LH opens)	ov

^{*:} With LH and RH front window anti-pinch system

Fail Safe

Fail-safe	Cancellation
Inhibit hybrid system cranking	Erase DTC
Inhibit hybrid system cranking	Erase DTC
Inhibit hybrid system cranking	Erase DTC
Inhibit hybrid system cranking	Erase DTC
	Inhibit hybrid system cranking Inhibit hybrid system cranking Inhibit hybrid system cranking Inhibit hybrid system cranking

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

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2195: ANTI-SCANNING	Inhibit hybrid system cranking	Erase DTC
B2562: LOW VOLTAGE	Inhibit hybrid system cranking	100 ms after the power supply voltage increases to more than 8.8 V
B2563: HI VOLTAGE	Inhibit hybrid system cranking	500 ms after the power supply voltage decreases to less than 18 V
B260A: IGNITION RELAY	Inhibit hybrid system 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 fulfilled • Power position changes to ACC • Receives hybrid system status signal (CAN)
B2617: STARTER RELAY CIRC	Inhibit hybrid system cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit hybrid system cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit hybrid system cranking	BCM initialization
B26E1: ENG STATE NO RECIV	Inhibit hybrid system cranking	When any of the following conditions is fulfilled • Power position changes to ACC • Receives hybrid system status signal (CAN)

DTC Inspection Priority Chart

INFOID:0000000005804863

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 B2563: HI VOLTAGE B261E: VEHICLE TYPE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

Priority	DTC	
	B2553: IGNITION RELAY	
	B2555: STOP LAMP B2556: PUSH-BTN IGN SW	
	B2557: VEHICLE SPEED	
	B2601: SHIFT POSITION	
	B2602: SHIFT POSITION	
	B2603: SHIFT POSI STATUS	
	B2604: TRANSMISSION RANGE SWITCH	
	B260A: IGNITION RELAY B260F: ENG STATE SIG LOST	
	B260F. ENG STATE SIG LOST B2611: ACC RELAY	
4	B2614: ACC RELAY CIRC	
	B2615: BLOWER RELAY CIRC	
	B2616: IGN RELAY CIRC	
	B2617: STARTER RELAY CIRC B2618: B26	
	B2618: BCM B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E1: ENG STATE NO RECIV	
	B26EA: KEY REGISTRATION	
	C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	
	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR	
	C1703: LOW PRESSURE RR C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	C1708: [NO DATA] FL	
	C1709: [NO DATA] FR	
	C1710: [NO DATA] RR C1711: [NO DATA] RL	
	C1711: [NO DATA] RE C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
_	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] ER	
	C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL	
	C1720: [CODE ERR] FL	
	• C1721: [CODE ERR] FR	
	C1722: [CODE ERR] RR C4773: [CODE ERR] RI	
	C1723: [CODE ERR] RL C1724: [BATT VOLT LOW] FL	
	C1724: [BATT VOLT LOW] TE C1725: [BATT VOLT LOW] FR	
	• C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
6	B2622: INSIDE ANTENNA B0603: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

INFOID:0000000005804864

NOTE:

Details of time display

CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.

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

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

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-36
U1010: CONTROL UNIT (CAN)			_	BCS-37
U0415: VEHICLE SPEED SIG			_	BCS-38
B2190: NATS ANTENNA AMP	×	_		SEC-30
B2191: DIFFERENCE OF KEY	×		_	SEC-33
B2192: ID DISCORD BCM-ECM	×	_	<u> </u>	SEC-34
B2193: CHAIN OF BCM-ECM	×			SEC-35
B2195: ANTI SCANNING	×			SEC-36
B2553: IGNITION RELAY	<u> </u>	_		PCS-50
B2555: STOP LAMP	_	_	<u> </u>	SEC-37
B2556: PUSH-BTN IGN SW	_	_	<u> </u>	SEC-40
-	-	×	_	
B2557: VEHICLE SPEED	×	×	_	SEC-42
B2562: LOW VOLTAGE	_	_	_	BCS-39
B2563: HI VOLTAGE	×	×	-	BCS-40
B2601: SHIFT POSITION	×	×	_	<u>SEC-43</u>
B2602: SHIFT POSITION	×	×	_	<u>SEC-46</u>
B2603: SHIFT POSI STATUS	×	×	_	<u>SEC-49</u>
B2604: TRANSMISSION RANGE SWITCH	×	×	_	<u>SEC-52</u>
B260A: IGNITION RELAY	×	×	_	PCS-52
B260F: ENG STATE SIG LOST	×	×	_	<u>SEC-54</u>
B2611: ACC RELAY	_	_	_	PCS-53
B2614: ACC RELAY CIRC	_	×	_	PCS-55
B2615: BLOWER RELAY CIRC	_	×	_	PCS-58
B2616: IGN RELAY CIRC	_	×	_	PCS-61
B2617: STARTER RELAY CIRC	×	×	_	<u>SEC-56</u>
B2618: BCM	×	×	_	PCS-64
B261A: PUSH-BTN IGN SW	_	×	_	<u>SEC-58</u>
B261E: VEHICLE TYPE	×	× (Turn ON for 15 seconds)	_	SEC-60
B2622: INSIDE ANTENNA	_	_	_	<u>DLK-55</u>
B2623: INSIDE ANTENNA	_	_	_	<u>DLK-58</u>
B26EA: KEY REGISTRATION	×	× (Turn ON for 15 seconds)	_	SEC-55, "Descrip- tion"
C1704: LOW PRESSURE FL	_	_	×	<u>WT-8</u>
C1705: LOW PRESSURE FR	_	_	×	<u>WT-8</u>
C1706: LOW PRESSURE RR	_	_	×	<u>WT-8</u>
C1707: LOW PRESSURE RL	_	_	×	<u>WT-8</u>
C1708: [NO DATA] FL	<u> </u>	_	×	WT-14
C1709: [NO DATA] FR	<u> </u>	_	×	WT-14
C1710: [NO DATA] RR	_	_	×	WT-14
C1711: [NO DATA] RL	_	_	×	WT-14

< ECU DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
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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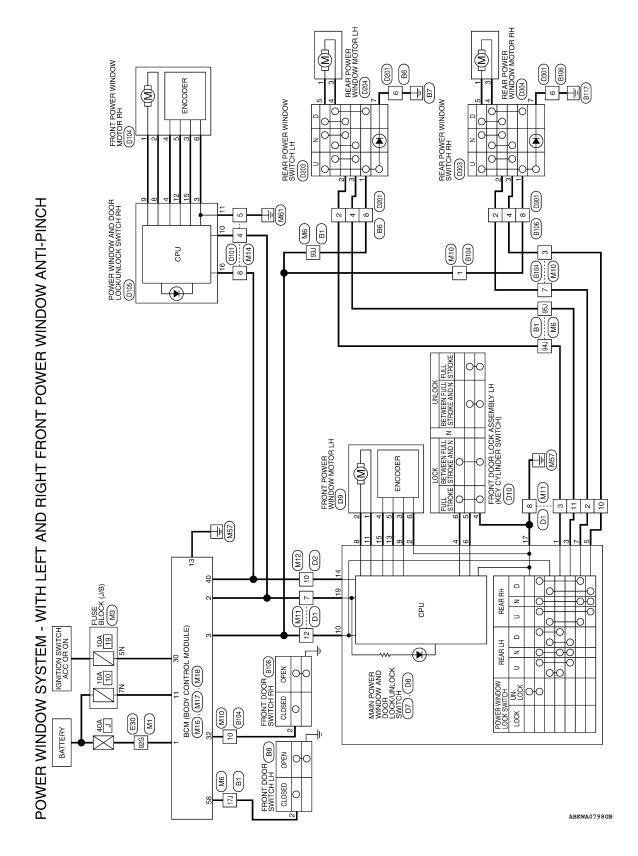
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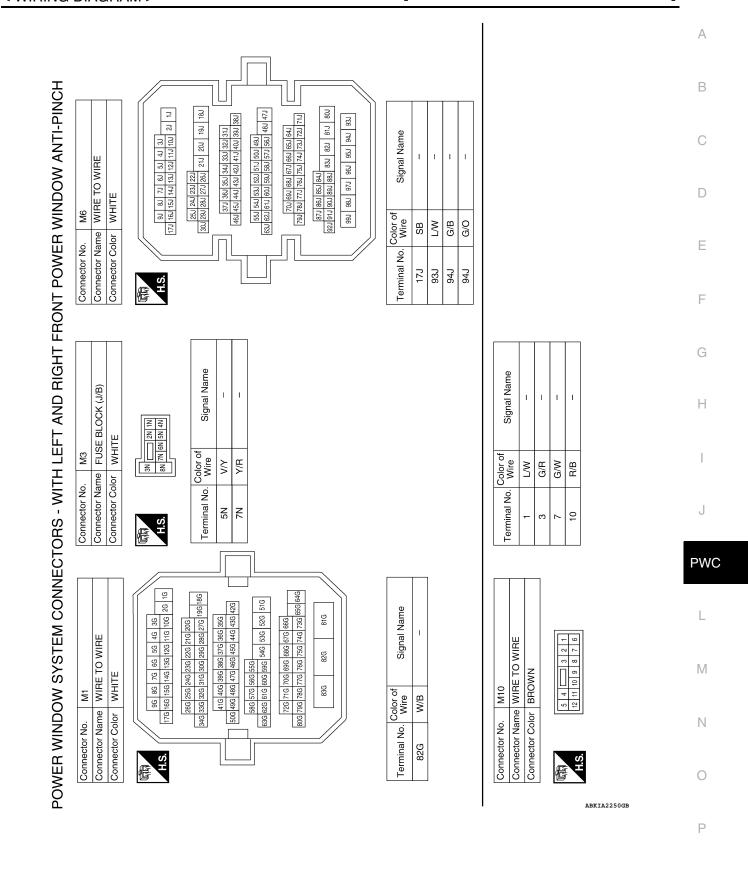
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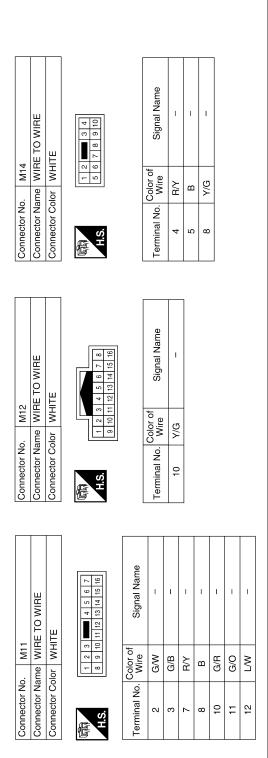
WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram







			1	21 20 41 40					
8	BCM (BODY CONTROL MODULE)	GREEN		31 30 29 28 27 26 25 24 23 22 51 50 49 48 47 46 45 44 43 42	Signal Name	ACC F/B	AS DOOR SW	PW K-LINE	WS HOOD HO
M18		-		33 32 53 52	Color of Wire	V/Y	VR/B	Y/G	SB
Connector No.	Connector Name	Connector Color	H.S.	39 38 37 36 35 34 59 58 57 56 55 54	Terminal No.	30	32	40	28

Connector No.	o. M17	7
Connector N	ame BC MC	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	olor Wł	НТЕ
南 H.S.	4 11 12	4 5 6 7 6 9 10 11 12 13 14 15 16 17 18 19
Terminal No.	Color of Wire	Signal Name
11	Y/R	BAT BCM FUSE
13	В	GND1

Connector No.). M16	
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color	olor BLACK	CK
H.S.		
Terminal No.	Color of Wire	Signal Name
-	M/B	BAT_POWER_F/L
2	R/Y	P/W_POWER_SUPPLY _PERM
ď	WI	POWER_WINDOW_

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POWER WINDOW SYSTEM

		Α
Signal Name	B104 WIRE TO WIRE BROWN 2 3 4 5	В
Color of Wire SB SB R B SB S		С
17J 93J 94J 95J	nector No nector No nector No nector Co nector Co nector Co 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D
<u> </u>		Е
		F
WIRE TO WIRE WHITE WHITE WHITE WHITE WHITE Standard	PB8 WHITE Vol Signal Name B	G
WHITE WHITE WHITE 3.1 4.1 5.1 6.1 3.1 4.1 5.1 6.1 3.1 13.1 13.1 13.1 13.1 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.2 13.3 13.4 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.4 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.3 13.5 13.5 3.1 13.5 13.5 3	WHITE Sic	Н
10. B1 Value WIRE Solor WHITE Solor WHITE 10. 2u 10u 380. 381/3 sol 481/66 80. 81. 1 sol 64/66 80. 81. 1 sol 681/66 80. 81. 1 sol 681/66 80. 81. 1 sol		I
Connector No. Connector Name Connector Color	Connector No. Connector Name Connector Color Terminal No. Will	J
		PWC
E30 WHITE State	WIRE Signal Name	L
E30 WINE TO WIRE	WIRE TO V WHITE Strong	M
No. E30 Name WIR Color WHI Color WHI Color WHI Color WHI Color WHI Color	No. B6 No. B6 No. B6 No. B6 No. B6 No. No.	Ν
Connector No. Connector Name Connector Color 16 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Connector No. B6	0
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Revision: September 2009 PWC-167 2010 Altima HEV

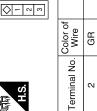


Signal Name	I	I	ı	-	I	I	1
Color of Wire	۵	>	*	В	SB	0	^
Terminal No. Wire	2	က	7	8	10	11	12

	Signal Name	RL_UP	ENCODER_GND	RL_DOWN	LOCK	
	Color of Wire	\	В	0	L/B	-
	Terminal No. Wire	-	2	3	4	

Signal Name	RL_UP	ENCODER_GND	RL_DOWN	TOCK	RR_DOWN	NNFOCK	RR_UP	AN_AS	ENCODER_SIG2	IGN	AS_DOWN	ENCODER_SIG1	WOO	ENCODER_POWER
Color of Wire	>	ŋ	0	L/B	SB	L/R	۵	В	>	>	LG	SB	BR	GR
Terminal No.	-	2	3	4	5	9	7	8	6	10	11	13	14	15
	•				•									

Connector No.	B108
Connector Name	Connector Name FRONT DOOR SWITCH RI
Connector Color WHITE	WHITE
	⊘ -

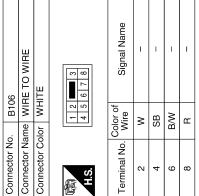


Signal Name

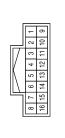
4	MAIN POWER WINDOW AND DOOR LOCKUNLOCK SWITCH (WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM)	HITE	
Connector No. D7	M AI Connector Name RI W W	Connector Color WHITE	

E C	H.S.





D2	WIRE TO WIRE	WHITE	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	



Signal Name	ı	
Color of Wire	BR	
Terminal No.	10	

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P10 FRONT DOOR LOCK ASSEMBLY LH (WITH LEFT FRONT PROWER WANDOW, ANTI DINICH	WINDOW ANTI-FINCH SYSTEM) GRAY		2 3 4 5 6		Signal Name	GND	DOOR_KEY/C_		DOOR KEY/C_ LOCK_SW		D105	POWER WINDOW AND DOOR LOCK/UNLOCK	ND RIGHT FRONT POWER	WINDOW ANTI-PINCH SYSTEM)	WHITE	1 2 3 4 6 7		of Signal Name		ENCODER POWER	UP	DOWN	BAT	GND	ENCODER SIG1	ENCODER SIG2	COM
Connector No. F Connector Name A	S Connector Color		H.S.	200	Terminal No. Wire	4		2 C/H	6 L/B		Connector No. D		Connector Name A	× Ø	Connector Color V		H.S.	Terminal No. Wire			8	9T 6	10 P	11 B	12 Y	15 G	16 R
Connector No. D9 Connector Name FRONT POWER WINDOW MOTOR LH Connector Color WHITE		H.S.	Terminal No. Wire Signal Name	1 LG –	2 R -	3 W –	4 GR –	5 SB –	- 5 9	ΙĪ		Connector Name FRONT POWER WINDOW MOTOR RH	Connector Color WHITE		3 4 5 6		Terminal No. Wire Signal Name	1 LG -	2 L –		BB	+	- M 9				
	onnector Color WHITE	H.S.	Color of Color	al No. Wire Sig	В	19 W BAT					onnector No. D101	onnector Name WIRE TO WIRE	_	2	H.S.		erminal No. Wire Signal Name	- Б	В	88 8							

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Connector No. D204 Connector Name REAR POWER WINDOW MOTOR LH Connector Color GREEN	(F 4)	of Signal Name	ı				D304	REAR POWER WINDOW MOTOR RH	GREEN	(L 4) (S 7) (2) (E 8)	Signal Name	ı	ı			
Connector No. D204 Connector Name REAR P MOTOR		nal No. Wire	PI				Connector No. D3		Connector Color GI		Color of Wire	_	P			
Connec	H.S.	Terminal 1	က				Connec	Conne	Connec	H.S.	Terminal No.		က			
D203 REAR POWER WINDOW SWITCH LH	3 7 1 1 1 1 1 1 1 1 1	Signal Name IGN	- OP	DOWN	UP	GND		Connector Name REAR POWER WINDOW SWITCH RH	1	4 7 1	Signal Name	IGN	UP	DOWN	DOWN	<u>:</u>
		Color of Wire	: 4	SB C	2 _	В	Jo. D303	Jame REA SWI	color WHI	2 3	Color of Wire	æ	Ь	SB	re	_
Connector No. Connector Name	(所)	Terminal No.	- 0	ი -	5		Connector No.	Connector N	Connector Color WHITE	H.S.	Terminal No.	-	2	က	4	
											0					
D201 WIRE TO WIRE WHITE	7 6 5 4	Signal Name	1	1				WIRE TO WIRE		7 6 5 4	Signal Name	1	ı	1	_	
	8 3	Color of Wire P	SB	a c	c		o. D301		_	8 7	Color of Wire	۵	SB	В	Я	
ector No. ector Name		inal No.	1 4	9 0			ector No.	ector Name			inal No.	2	4	9	8	

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NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [LH&RH FRONT WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

 $oldsymbol{1}$. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to BCS-41, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. check main power window and door lock/unlock switch power supply and **GROUND CIRCUIT**

Check power window switch main power supply and ground circuit.

Refer to PWC-100, "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 SERIAL CIRCUIT

Check main power window and door lock/unlock switch serial circuit.

Refer to PWC-100, "POWER WINDOW MAIN SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace the malfunctioning parts.

 $oldsymbol{4}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Check main power window and door lock/unlock switch.

Refer to PWC-100, "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". **PWC**

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INFOID:0000000005439785

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DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005439786

1. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

Refer to PWC-110, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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FRONT PASSENGER SIDE POWER WINDOW ATE	ALONE DOES NOT OPER-	А
Diagnosis Procedure	INFOID:000000005439787	В
1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITC	H RH	
Check power window and door lock/unlock switch RH. Refer to PWC-105, "FRONT POWER WINDOW SWITCH: Compone	ent Function Check".	С
Is the inspection result normal? YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts. 2. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITC	H RH SERIAL LINK CIRCUIT	D
Check power window and door lock/unlock switch RH serial link circu Refer to PWC-130, "FRONT POWER WINDOW SWITCH: Compone	it.	Е
Is the inspection result normal? YES >> GO TO 3 NO >> Repair or replace the malfunctioning parts.		F
3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT		G
Check front power window motor RH circuit. Refer to PWC-112 , "PASSENGER SIDE : Component Function Chec	<u>k"</u> .	
Is the inspection result normal? YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-42, "Intermittent I	Incident"	Н
NO >> Check intermittent incluent. Nerel to G1-42. Intermittent	incluent.	I

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Revision: September 2009 PWC-173 2010 Altima HEV

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005439788

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to PWC-107, "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-114, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

1. CHECK REAR POWER WINDOW SWITCH RH

Check rear power window switch RH.

Refer to PWC-107, "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 PWC-115, "REAR RH: 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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Revision: September 2009 PWC-175 2010 Altima HEV

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

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

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

Diagnosis Procedure

INFOID:0000000005439790

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "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-118, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "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-120, "PASSENGER SIDE: 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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PWC-177 2010 Altima HEV Revision: September 2009

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

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY (DRIVER SIDE)

Diagnosis Procedure

INFOID:0000000005439792

1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-118, "DRIVER SIDE: 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 OPERATE NORMAL-LY (PASSENGER SIDE)

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY (PASSENGER SIDE)

Diagnosis Procedure

INFOID:0000000005439793

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to PWC-92, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK ENCODER

Check encoder.

Refer to PWC-120, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

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Revision: September 2009 PWC-179 2010 Altima HEV

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000005439794

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-124, "Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

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

DOES NOT OPERATE BY KEY CYLINDER SWITCH

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

DOES NOT OPERATE BY KEY CYLINDER SWITCH

Diagnosis Procedure

INFOID:0000000005439795

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1. PERFORM INITIALIZATION PROCEDURE

Perform initialization procedure.

Refer to <u>PWC-92</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 FRONT DOOR LOCK ASSEMBLY LH (KEY CYLINDER SWITCH)

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

Refer to PWC-126, "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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Revision: September 2009 PWC-181 2010 Altima HEV

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000005439796

1. CHECK INTELLIGENT KEY FUNCTION

Check Intelligent Key function.

Refer to DLK-111, "Component Function Check".

Is the inspection result normal?

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

NO >> Replace BCM. Refer to BCS-83, "Removal and Installation".

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[LH&RH FRONT WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000005439797

 ${f 1}$. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Replace main power window and door lock/unlock switch.

Refer to PWC-86, "Removal and Installation". After that, PWC-104, "POWER WINDOW MAIN SWITCH: Special Repair Requirement".

Is the inspection result normal?

YES >> Inspection End.

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

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PRECAUTIONS

[LH&RH FRONT WINDOW ANTI-PINCH]

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

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

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

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PRE-INSPECTION FOR DIAGNOSTIC

< ON-VEHICLE MAINTENANCE >

[LH&RH FRONT WINDOW ANTI-PINCH]

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/fusible link 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.

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[LH&RH FRONT WINDOW ANTI-PINCH]

ON-VEHICLE REPAIR

POWER WINDOW MAIN SWITCH

Removal and Installation

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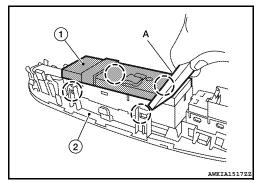
REMOVAL

- Remove the power window main switch finisher (2) from the door finisher, refer to <u>INT-12</u>, "<u>Exploded View</u>".
- 2. Release the four tabs (two on each side) with a suitable tool (A), then separate the power window main switch (1) from the switch finisher (2).

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CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.

FRONT POWER WINDOW SWITCH

< ON-VEHICLE REPAIR >

[LH&RH FRONT WINDOW ANTI-PINCH]

FRONT POWER WINDOW SWITCH

Removal and Installation

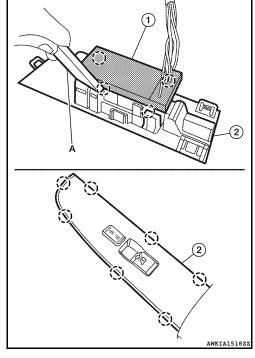
REMOVAL

1. Remove the front power window switch finisher (2) from the front door finisher RH. Refer to INT-12. "Exploded View".

2. Release the four tabs (two on each side) with a suitable tool (A), then separate the front power window switch (1) from the switch finisher (2).

(): Pawl CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.

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REAR POWER WINDOW SWITCH

Removal and Installation - Rear Door Switch

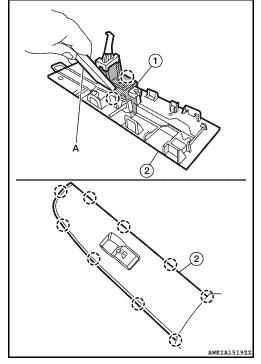
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REMOVAL

- 1. Remove the rear power window switch finisher (2) from the rear door finisher. Refer to INT-12, "Exploded View".
- 2. Release the tab (one on each side) with a suitable tool (A), then separate the rear power window switch (1) from the switch finisher (2).

(): Pawl CAUTION:

Do not fold the pawl of switch finisher.



INSTALLATION

Installation is in the reverse order of removal.