SECTION POWER WINDOW CONTROL SYSTEM

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1.OBTAIN INFORMATION ABOUT SYMPTOM	С
Interview the customer to obtain the malfunction information (conditions and environment when the malfunc- tion occurred) as much as possible when the customer brings the vehicle in.	D
>> GO TO 2.	
2. REPRODUCE THE MALFUNCTION INFORMATION	E
Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.	
>> GO TO 3.	F
3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"	
Use "Symptom diagnosis" from the symptom inspection result in step 2. Then identify where to start perform- ing the diagnosis based on possible causes and symptoms.	C
>> GO TO 4.	ŀ
4. IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"	
Perform the diagnosis with "Component diagnosis" of the applicable system.	I
>> GO TO 5.	
5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS	
Repair or replace the specified malfunctioning parts.	P١
>> GO TO 6.	
6.FINAL CHECK	L
Check that malfunctions are not reproduced when obtaining the malfunction information from the customer,	
referring to the symptom inspection result in step 2. <u>Is the malfunctioning part repaired or replaced?</u>	N
YES >> Trouble diagnosis is completed.	
NO $>>$ GO TO 3.	Ν
	4
	C

С

INSPECTION AND ADJUSTMENT

INSPECTION AND ADJUSTMENT ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

When battery negative terminal is disconnected, initialization is necessary.

If any of the following operations are performed, initialization is necessary as well as when battery negative terminal is disconnected.

- Power supply to the power window control unit is cut off by the removal f battery terminal or the battery fuse is blown.
- Disconnection and connection of power window control unit harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of rear power window control unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

The operations as per the following cannot be performed while initialization is not complete.

- AUTO-UP operation
- Anti-pinch function
- Door key cylinder power window function

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INITIALIZATION PROCEDURE

- 1. Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is already fully open.)
- 4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more.
- 5. Initialization procedure is complete.
- 6. Inspect anti-pinch function.

CHECK ANTI-PINCH FUNCTION

- 1. Fully open door glass.
- 2. Place a piece of wood near the fully closed position.
- 3. Close door glass completely using AUTO-UP.
- Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that door glass does not rise when operating power window main switch while lowering.

CAUTION:

- Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to the fail-safe mode if open/close operation is performed continuously without fully closing door glass. Perform initialization in the above situation. Refer to <u>PWC-84, "Fail-safe"</u>.
- Finish initialization. Otherwise, the next operation cannot be done.
- 1. AUTO-UP operation
- 2. Anti-pinch function
- 3. Door key cylinder power window function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000004637321

When the control unit is replaced, initialization is necessary.

If any of the following operations are performed, initialization is necessary as well as when the control unit is disconnected.

PWC-8

INSPECTION AND ADJUSTMENT

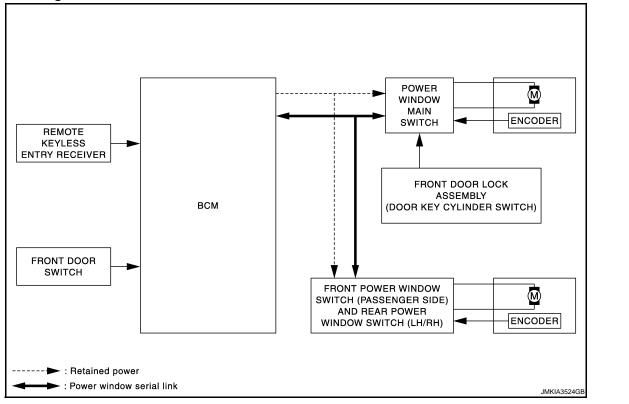
< BASIC INSPECTION >

[FRONT & REAR WINDOW ANTI-PINCH]

• Power supply to the power window control unit is cut off by the removal of battery terminal or the battery fuse is blown.	А
 Disconnection and connection of power window control unit harness connector. 	
 Removal and installation of motor from regulator assembly. 	
Disconnection and connection of battery negative terminal.	В
Removal and installation of rear power window control unit.	D
Removal and installation of door glass. Bemaval and installation of door glass run	
 Removal and installation of door glass run. The following specified operations cannot be performed while initialization is not complete. 	С
 AUTO-UP operation 	C
Anti-pinch function	
Door key cylinder power window function	D
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re-	D
quirement INFOID:00000004637322	Е
INITIALIZATION PROCEDURE	
1. Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute	
or more.	F
2. Turn ignition switch ON.	
3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is	
already fully open.)	G
4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more.	
5. Initialization procedure is complete.	
6. Inspect anti-pinch function.	Н
CHECK ANTI-PINCH FUNCTION	
1. Fully open door glass.	
 Place a piece of wood near the fully closed position. 	
3. Close door glass completely using AUTO-UP.	
• Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops.	
Check that door glass does not rise when operating power window main switch while lowering.	J
 CAUTION: Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally. 	
 Check that AUTO-UP operates before inspection when initialization is performed. 	DIA
• Never check with hands or other body parts because they may be pinched. Never get pinched.	PW
• It may switch to the fail-safe mode if open/close operation is performed continuously without fully	
closing. Perform initialization in the above situation. Refer to <u>PWC-84, "Fail-safe"</u> .	
 Finish initialization. Otherwise, the next operation cannot be done. AUTO-UP operation 	L
2. Anti-pinch function	
3. Door key cylinder power window function	M
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SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram



System Description

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POWER WINDOW SYSTEM

- Power window system is operable during the retained power operation timer after turning ignition switch OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- AUTO UP/DOWN operation can be performed when front power window switch turns to AUTO.
- Power window serial link transmits the signals from power window main switch to each module.
- Power window lock switch can lock all power windows other than driver seat.
- If door glass receives resistance that is the specified value or more while power window of each seat is in AUTO-UP operation, power window of each seat operates in the reverse direction.
- Hold the door key cylinder to the LOCK or UNLOCK direction for 1 second or more to OPEN or CLOSE all
 power windows when ignition switch OFF.
- All power windows open when pressing Intelligent Key unlock button for 3 seconds.

POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when each power window motor 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 for 45 seconds after ignition switch turns OFF.

RETAINED POWER FUNCTION CANCEL CONDITIONS

< SYSTEM DESCRIPTION >

POWER WINDOW SYSTEM

[FRONT & REAR WINDOW ANTI-PINCH]

 Front door CLOSE (door switch OFF) → OPEN (door switch ON). When ignition switch turns ON again. А When timer times out. (45 seconds) POWER WINDOW LOCK FUNCTION Ground circuit inside power window main switch shuts off when power window lock switch is ON. This inhibits power window switch operation except with the power window main switch. POWER WINDOW SERIAL LINK All power window switches and BCM transmit and receive the power window serial link. Power window serial link transmits the power window main switch operation signals and IGN signal to power window main switch module, front power window switch (passenger side) module, and rear power window switches. D ANTI-PINCH OPERATION Pinch the foreign matter in the door glass during AUTO-UP operation is the anti-pinch function that lowers Е the door glass 150 mm (5.9 in) when detected. Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating. Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse sig-F nal if foreign material is trapped in the door glass. · Power window switch controls to lower the door glass for 150 mm (5.9 in) 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: Н Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower. DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating. J **OPERATION CONDITION** Ianition switch OFF. Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door PWC glass. Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass. L KEYLESS POWER WINDOW DOWN FUNCTION All power windows open when the unlock button on Intelligent Key is activated and kept pressed for more than 3^* seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed. Μ 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. Ν When the unlock button is released. While retained power operation activate, keyless power window down function cannot be operated. Kevless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>DLK-52, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u>. NOTE: Use CONSULT-III to change settings. MODE 1 (3 sec) / MODE 2 (OFF) / MODE 3 (5 sec) Ρ

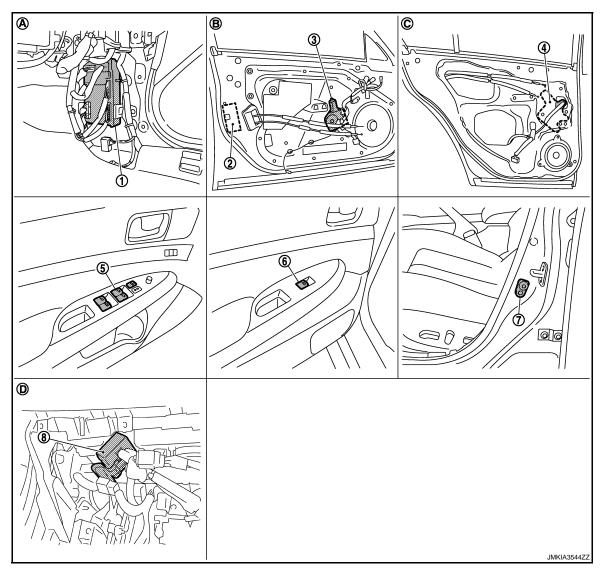
< SYSTEM DESCRIPTION >

POWER WINDOW SYSTEM

[FRONT & REAR WINDOW ANTI-PINCH]

Component Parts Location

INFOID:000000004240587



- 1. BCM M118,M119,M122,M123
- 4. Rear power window motor LH D52
- 7. Front door switch (driver side) B16
- A. View with dash side lower (passenger side)
- D. View with instrument lower panel (passenger side) removed

Component Description

Front door lock assembly (driver side) (door key cylinder switch) D15

2.

- 5. Power window main switch D8,D9 6.
- 8. Remote keyless entry receiver M104
- B. View with front door finisher removed C.
- 3. Front power window motor (driver side) D10
 - Rear power window switch LH D57
 - View with rear door finisher removed

INFOID:000000004240588

Component	Function
BCM	Supplies power supply to power window switch.Controls retained power function.
Power window main switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of power window.
Front power window switch	Controls anti-pinch operation of power window.Controls power window motor of passenger door.

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT & REAR WINDOW ANTI-PINCH]

Component	Function
Rear power window switch	Controls anti-pinch operation of power window.Controls power window motor of rear right and left doors.
Power window motor	 Integrates the ENCODER and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch.
Front door lock assembly (door key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Front door switch	Detects door open/close condition and transmits to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent Key, and then transmits to BCM.

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DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000004667405

APPLICATION ITEM

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

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III opera- tion manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	This function is not used even though it is displayed.

SYSTEM APPLICATION

BCM can perform the following functions for each system. **NOTE:**

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

System	Sub overtain adjustion item		Diagnosis mode	
System	Sub system selection item	Work Support	Data Monitor	Active Test
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
	AIR CONDITONER*			
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
IVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

[FRONT & REAR WINDOW ANTI-PINCH]

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

RETAIND PWR

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

Data monitor

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

INFOID:000000004240590

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< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT BCM

BCM : Diagnosis Procedure

1.CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

	+) CM	(–)	Voltage (Approx.)
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
M118	1	Ground	
M119	11	Ground	Battery voltage

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

ВС	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000004240592

1.CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connectors.
- 3. Turn ignition switch ON.

4. Check voltage between power window main switch harness connector and ground.

INFOID:000000004240591

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Powor	(+)			
Fower	window main switch		(—)	Voltage (V) (Approx.)
Connector	Termina	al		
D8	10		Ground	Battery voltage
D9	19			, <u>.</u>
	ue within the specific	<u>ation?</u>		
ES >> GO TO 3. D >> GO TO 2.				
CHECK POWER SI				
Turn ignition switch Disconnect BCM co				
		connector and pow	er window main sw	vitch harness connector
	CM	Power wind	ow main switch	
Connector	Terminal	Connector	Terminal	Continuity
	2	D9	19	
M118	3	D8	10	Existed
Check continuity be	etween BCM harness	_	_	
Oneok continuity be		connector and grot		
	BCM			Continuity
Connector	Termina	al	Ground	Continuity
M118	2		Cround	Not existed
	3			
ne inspection result	normal?			
	CM. Refer to <u>BCS-82</u>	<u>, "Exploded View"</u> .		
CHECK GROUND C	eplace harness.			
		w main switch harne	ss connector and o	
Turn ignition switch				rouna
Turn ignition switch	etween power window			rouna.
Turn ignition switch Check continuity be				round.
Turn ignition switch Check continuity be Power Connector	window main switch		Ground	Continuity
Turn ignition switch Check continuity be Power Connector D9	window main switch Termina 17			
Turn ignition switch Check continuity be Power Connector D9 ne inspection result i	window main switch Termina 17			Continuity
Turn ignition switch Check continuity be Power Connector D9 ne inspection result in ES >> INSPECTIO	window main switch Termina 17 normal? DN END			Continuity
Turn ignition switch Check continuity be Power Connector D9 he inspection result in ES >> INSPECTION D >> Repair or result of the section result in Constant of the section result in the section resu	etween power windov window main switch Termina 17 normal? ON END eplace harness.	al	Ground	Continuity
Turn ignition switch Check continuity be Power Connector D9 he inspection result in ES >> INSPECTION D >> Repair or result of the section result in Constant of the section result in the section resu	window main switch Termina 17 normal? DN END	al	Ground	Continuity
Turn ignition switch Check continuity be Power Connector D9 ne inspection result i S >> INSPECTIO >> Repair or re ONT POWER	etween power windov window main switch Termina 17 normal? ON END eplace harness. WINDOW SWIT	^{al} ΓCH (PASSENC	Ground	Continuity
Turn ignition switch Check continuity be Power Connector D9 ne inspection result i S >> INSPECTIO >> Repair or re ONT POWER	etween power windov window main switch Termina 17 normal? ON END eplace harness. WINDOW SWIT	^{al} ΓCH (PASSENC	Ground	Continuity Existed gnosis Procedure
Turn ignition switch Check continuity be Power Connector D9 ne inspection result S >> INSPECTIO D >> Repair or re ONT POWER V	etween power windov window main switch Termina 17 normal? ON END eplace harness. WINDOW SWIT VINDOW SWIT	^{al} ΓCH (PASSENC	Ground	Continuity Existed gnosis Procedure
Turn ignition switch Check continuity be Power Connector D9 ne inspection result S >> INSPECTIO O >> Repair or re ONT POWER V ONT POWER V CHECK POWER SU	etween power windov window main switch Termina 17 normal? ON END eplace harness. WINDOW SWIT VINDOW SWIT VINDOW SWIT UPPLY CIRCUIT 1	^{al} ΓCH (PASSENC	Ground	Continuity Existed
Turn ignition switch Check continuity be Power Connector D9 ne inspection result in S >> INSPECTIO ONT POWER ONT POWER V CHECK POWER SU Turn ignition switch	etween power windov window main switch Termina 17 normal? ON END eplace harness. WINDOW SWIT VINDOW SWIT VINDOW SWIT UPPLY CIRCUIT 1	al FCH (PASSENGE CH (PASSENGE	Ground GER SIDE) ER SIDE) : Diag	Continuity Existed gnosis Procedure

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

	vindow switch ger side)	()	Voltage (V) (Approx.)
Connector	Terminal		
D38	10	Ground	Battery voltage

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

2. CHECK POWER SUPPLY CIRCUIT 2

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

B	СМ		window switch ger side)	Continuity
Connector	Terminal	Connector	Terminal	•
M118	2	D38	10	Existed

3. Check continuity between BCM harness connector and ground.

B	CM		
Connector	Terminal	Ground	Continuity
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between front power window switch (passenger side) harness connector and ground.

•	window switch nger side)		Continuity
Connector	Terminal	Ground	
D38	11	_	Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000004240594

1.CHECK POWER SUPPLY CIRCUIT 1

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

	(+) Rear power window switc	h	(-)	Voltage (V) (Approx.)
Con	nector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
LH	D57	10	Ground	Pattony voltage
RH	D77	- 10	Ground	Battery voltage

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

.

2. CHECK POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

Disconnect BCM connector. 2.

Check continuity between BCM harness connector and rear power window switch harness connector. 3.

BC	CM	Re	ear power window swi	itch	Continuity	
Connector	Terminal	Conr	nector	Terminal	Continuity	-
M118	c	LH	D57	10	Existed	L
IVIIIO	2	RH	D77	10	EXISTED	

4. Check continuity between BCM harness connector and ground.

B	CM		Continuity	
Connector	Terminal	Ground	Continuity	F
M118	2		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

Check continuity between rear power window switch harness connector and ground. 2.

•		Rear power window switch	า			
-	Conr	nector	Terminal	Ground	Continuity	
-	LH	D57	11	Ground	Existed	J
	RH	D77	11		Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness. PWC

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[FRONT & REAR WINDOW ANTI-PINCH]

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

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

DRIVER SIDE : Component Function Check

1.CHECK POWER WINDOW MOTOR (DRIVER SIDE) OPERATION

Check front power window motor (driver side) operation with power window main switch.

Is the inspection result normal?

YES >> Power window motor (driver side) is OK.

NO >> Refer to <u>PWC-20, "DRIVER SIDÉ : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004240597

INFOID-00000004240595

INFOID:000000004240596

1.CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor (driver side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (driver side) harness connector and ground.

(+)				
Front power window	w motor (driver side)	()	Condition		Voltage (V) (Approx.)
Connector	Terminal				(
	2			UP	Battery voltage
D10	2	Ground	Power window main switch	DOWN	0
DIO	1	Giouna	Fower window main switch	UP	0
	I			DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power window main switch connector.

3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch	•	window motor er side)	Continuity
Connector	Terminal	Connector	Terminal	*
 D8	8	D10	2	Existed
	11	סום	1	LAISIEU

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

 Power window	w main switch		Continuity
 Connector	Terminal	Ground	Continuity
 D8	8	Ground	Not existed
Do	11		NUL EXISIEU

Is the inspection result normal?

YES >> Replace power window main switch. Refer to <u>PWC-117, "Removal and Installation"</u>.

	SIS >		AR WINDOW ANTI-PINCH]
NO >> Repair or replace			
3.CHECK POWER WINDO			
Check front power window r Refer to <u>PWC-21, "DRIVER</u>	SIDE : Component Inspect	ion".	
Is the inspection result norm YES >> GO TO 4. NO >> Replace front po 4.CHECK INTERMITTENT	ower window motor (driver s	side). Refer to <u>GW-16. "R</u>	emoval and Installation".
Refer to GI-41, "Intermittent	Incident".		
>> INSPECTION E			
DRIVER SIDE : Comp			
			INF01D:000000004240598
1. CHECK POWER WINDO	,		
	window motor (driver side)		er window motor (driver side)
Front power window motor	Term	ninal	Motor operation
(driver side) connector	(+)	(-)	
D10	1 2	2	DOWN UP
Is the inspection result norm		I	01
YES >> Driver side pow NO >> Replace driver s	er window motor is OK. side power window motor. F		
PASSENGER SIDE		tefer to <u>GW-16, "Remova</u>	<u>I and Installation"</u> .
	Description	tefer to <u>GW-16, "Remova</u>	I and Installation".
PASSENGER SIDE PASSENGER SIDE :	·		_
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW	N by receiving the signal po	ower window main switch	INFOID:00000004240599
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side).	N by receiving the signal po Component Function	ower window main switch Check	INFOID:00000004240599 or front power window switch
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side). PASSENGER SIDE : 1. CHECK POWER WINDO Check front power window window switch (passenger s	N by receiving the signal po Component Function DW MOTOR (PASSENGER motor (passenger side) ope ide).	ower window main switch Check SIDE) OPERATION	INFOID:00000004240599 or front power window switch
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side). PASSENGER SIDE : 1. CHECK POWER WINDO Check front power window window switch (passenger side) Is the inspection result norm YES >> Power window	N by receiving the signal po Component Function DW MOTOR (PASSENGER motor (passenger side) ope ide).	ower window main switch Check SIDE) OPERATION eration with power windo K.	INFOID:00000004240599 or front power window switch INFOID:000000004240600
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side). PASSENGER SIDE : 1. CHECK POWER WINDO Check front power window window switch (passenger side) Is the inspection result norm YES >> Power window	N by receiving the signal po Component Function DW MOTOR (PASSENGER motor (passenger side) ope ide). al? notor (passenger side) is O 1, "PASSENGER SIDE : Di	ower window main switch Check SIDE) OPERATION eration with power windo K.	INFOID:00000004240599 or front power window switch INFOID:00000004240600 w main switch or front power
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side). PASSENGER SIDE : 1. CHECK POWER WINDO Check front power window window switch (passenger side) Is the inspection result norm YES >> Power window result norm YES >> Power window result norm YES >> Power window result norm	N by receiving the signal po Component Function DW MOTOR (PASSENGER motor (passenger side) ope ide). <u>al?</u> notor (passenger side) is O <u>1, "PASSENGER SIDE : Di</u> Diagnosis Procedure	ower window main switch Check SIDE) OPERATION eration with power windo K. agnosis Procedure".	INFOID:00000004240599 or front power window switch INFOID:00000004240600 w main switch or front power
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOW (passenger side). PASSENGER SIDE : PASSENGER SIDE : 1. CHECK POWER WINDO Check front power window window switch (passenger side) PASSENGER SIDE : 1s the inspection result norm YES >> Power window r NO >> Refer to PWC-2 PASSENGER SIDE : 1.CHECK FRONT POWER 1. Turn ignition switch OFF 2. Disconnect front power 3. Turn ignition switch ON.	N by receiving the signal po Component Function DW MOTOR (PASSENGER motor (passenger side) ope ide). <u>al?</u> notor (passenger side) is O 1, "PASSENGER SIDE : Di Diagnosis Procedure	ower window main switch Check SIDE) OPERATION eration with power windo K. agnosis Procedure". SIGNAL side) connector.	INFOID:00000004240599 or front power window switch INFOID:00000004240600 w main switch or front power

< DTC/CIRCUIT DIAGNOSIS >

(+) Front power window motor (passenger side)		()	Condition		Voltage (V) (Approx.)
Connector	Terminal				
				UP	Battery voltage
D 40	1	Oneveral	Front power window switch	DOWN	0
D40 2	Ground	(passenger side)	UP	0	
	2		DO	DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window switch (passenger side)		Front power window r	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D38	9	D40	1	Existed
000	8	D40	2	LXISIEU

4. Check continuity between front power window switch (passenger side) connector and ground.

Front power window	switch (passenger side)		Continuity
Connector	Terminal	Ground	Continuity
D38	8	Giouna	Not existed
030	9		

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-117</u>, "<u>Removal and Installa-</u> tion".

NO >> Repair or replace harness.

3.CHECK POWER WINDOW MOTOR

Check front power window motor (passenger side).

Refer to <u>PWC-22</u>, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (passenger side). Refer to <u>GW-16, "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to <u>GI-41, "Intermittent Incident"</u>.

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:000000004240602

1.CHECK POWER WINDOW MOTOR (PASSENGER SIDE)

^{1.} Turn ignition switch OFF.

^{2.} Disconnect front power window motor (passenger side) connector.

^{3.} Check motor operation by connecting the battery voltage directly to front power window motor (passenger side) connector.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Front power window motor (passen	-	Terminal		Motor condition	
ger side) connector	(+)	()		Molo	
D40	2	1		C	DOWN
Dito	1	2			UP
ne inspection result normal? S >> Passenger side pow D >> Replace passenger AR LH AR LH : Description			9 <u>GW-16, "R</u>	emoval and	d Installation".
or glass moves UP/DOWN b tch LH.	y receiving the s	signal from power	window mair	n switch or	rear power win
AR LH : Component F	unction Che	ck			INFOID:00000000
eck rear power window moto	r LH operation	with power window	main switch	n or rear p	ower window sw
ne inspection result normal?					
ES >> Power window moto					
) >> Refer to <u>PWC-23, "F</u>	-	nosis Procedure".			
AR LH : Diagnosis Pro	ocedure				INFOID:00000000
-					
Turn ignition switch OFF.					
Disconnect rear power wind Turn ignition switch ON. Check voltage between rear	ow motor LH co	nnector.	connector a	nd ground.	
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+)	ow motor LH co power window	nnector. motor LH harness		nd ground.	Voltage (V)
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH	ow motor LH co	nnector. motor LH harness	connector a	nd ground.	
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+)	ow motor LH co power window	nnector. motor LH harness		-	Voltage (V) (Approx.)
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH	ow motor LH co power window	nnector. motor LH harness		UP	Voltage (V) (Approx.) Battery voltage
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal	ow motor LH co power window	nnector. motor LH harness	Condition	UP DOWN	Voltage (V) (Approx.)
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal	ow motor LH co	nnector. motor LH harness	Condition	UP	Voltage (V) (Approx.) Battery voltage 0 0
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 3	ow motor LH co power window (–) Ground	nnector. motor LH harness	Condition	UP DOWN UP	Voltage (V) (Approx.) Battery voltage 0
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 3 ne measurement value within ES >> GO TO 3. D >> GO TO 2.	ow motor LH co power window (-) Ground the specificatio	nnector. motor LH harness Rear power window <u>n?</u>	Condition	UP DOWN UP	Voltage (V) (Approx.) Battery voltage 0 0
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal D52 1 D52 3 ne measurement value within ES >> GO TO 3.	ow motor LH co power window (-) Ground the specificatio	nnector. motor LH harness Rear power window <u>n?</u>	Condition	UP DOWN UP	Voltage (V) (Approx.) Battery voltage 0 0
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 3 ne measurement value within ES >> GO TO 3. D >> GO TO 2.	ow motor LH co power window (-) Ground the specificatio	nnector. motor LH harness Rear power window <u>n?</u> T onnector.	Condition	UP DOWN UP DOWN	Voltage (V) (Approx.) Battery voltage 0 0 Battery voltage
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 3 ne measurement value within ES > GO TO 3. D CHECK POWER WINDOW N Turn ignition switch OFF. Disconnect rear power wind Check continuity between real LH harness connector.	ow motor LH co power window (-) Ground the specificatio MOTOR CIRCUI ow switch LH co par power window	nnector. motor LH harness Rear power window <u>n?</u> T onnector. w switch LH harnes	Condition v switch LH	UP DOWN UP DOWN	Voltage (V) (Approx.) Battery voltage 0 Battery voltage
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 1 3 me measurement value within S >> GO TO 3. D >> GO TO 3. D >> GO TO 2. CHECK POWER WINDOW M Turn ignition switch OFF. Disconnect rear power wind Check continuity between re LH harness connector.	ow motor LH co power window (-) Ground the specificatio MOTOR CIRCUI ow switch LH co par power window	nnector. motor LH harness Rear power window <u>n?</u> T onnector.	Condition v switch LH	UP DOWN UP DOWN	Voltage (V) (Approx.) Battery voltage 0 0 Battery voltage
Turn ignition switch OFF. Disconnect rear power wind Turn ignition switch ON. Check voltage between rear (+) Rear power window motor LH Connector Terminal 1 D52 3 ne measurement value within S S GO TO 3. D CHECK POWER WINDOW N Turn ignition switch OFF. Disconnect rear power wind Check continuity between rear LH harness connector.	ow motor LH co power window (-) Ground the specificatio MOTOR CIRCUI ow switch LH co ar power window	nnector. motor LH harness Rear power window <u>n?</u> T onnector. w switch LH harnes Rear power wind	Condition w switch LH SS connector low motor LH	UP DOWN UP DOWN	Voltage (V) (Approx.) Battery voltage 0 Battery voltage

PWC-23

< DTC/CIRCUIT DIAGNOSIS >

Rear power wi	ndow switch LH		Continuity	
Connector	Terminal	Ground	Continuity	
D57	8	Ground	Not existed	
	9		NOT EXISTED	

Is the inspection result normal?

- YES >> Replace rear power window switch LH. Refer to <u>PWC-117, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW MOTOR

Check rear power window motor LH. Refer to <u>PWC-24</u>, "REAR LH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

REAR LH : Component Inspection

INFOID:000000004240606

INFOID:000000004240607

INFOID:000000004240608

1.CHECK REAR POWER WINDOW MOTOR LH

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window motor LH connector.
- Check motor operation by connecting the battery voltage directly to rear power window motor LH connector.

Rear power window motor LH	Terr	Motor condition	
connector	(+)	(-)	
D52 -	1	3	UP
	3	1	DOWN

Is the inspection result normal?

YES >> Power window motor 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 power window main switch or rear power window switch RH.

REAR RH : Component Function Check

1. CHECK POWER WINDOW MOTOR RH OPERATION

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

Is the inspection result normal?

- YES >> Power window motor RH is OK.
- NO >> Refer to <u>PWC-24, "REAR RH : Diagnosis Procedure"</u>.

REAR RH : Diagnosis Procedure

1.CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

INFOID:000000004240609

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

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1. Turn ignition switch OFF.

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

(+) Rear power window motor RH						
		(–) Condition		Condition Voltage (\ (Approx.		
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	1			UP	Battery voltage	
72	70	Cround	Rear power window switch RH	DOWN	0	
D72 3	Ground	Real power window switch RH	UP	0		
	3			DOWN	Battery voltage	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

1. Turn ignition switch OFF.

Disconnect rear power window switch RH connector. 2.

Check continuity between rear power window switch RH harness connector and rear power window motor 3. RH harness connector.

H	Continuity	ndow motor RH	Rear power wi	ndow switch RH	Rear power wir
	Continuity	Terminal	Connector	Terminal	Connector
_	Existed	1	D72	8	D77
	Existed	3	DTZ	9	

Check continuity between rear power window switch RH harness connector and ground. 4

Rear power wir	dow switch RH		Continuity	J
Connector	Terminal	Cround	Continuity	
D77	8	Ground	Not ovisted	PWC
D77	9	-	Not existed	

YES >> Replace rear power window switch RH. Refer to PWC-117, "Removal and Installation".

NO >> Repair or replace harness.

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

Check rear power window motor RH. Refer to PWC-25, "REAR RH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

REAR RH : Component Inspection

1.CHECK REAR POWER WINDOW MOTOR RH

1. Turn ignition switch OFF.

2. Disconnect rear power window motor RH connector. INFOID:000000004240610

< DTC/CIRCUIT DIAGNOSIS >

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

Rear power window motor RH con-	Terr	ninal	Motor condition
nector	(+)	(-)	
D72	1	3	UP
	3	1	DOWN

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>.

			ENCO	DDER			
< DTC/	CIRCUIT DIAGNO	OSIS >		[FRONT & REA	R WINDOW ANTI-PINCH]	
ENC	ODER						٨
DRIV	ER SIDE						A
DRIV	ER SIDE : Des	cription				INFOID:00000004240611	В
	s condition of the fro as the pulse signal.		motor (driv	/er side) op	peration and tran	smits to power window main	
DRIV	ER SIDE : Com	ponent Funct	ion Cheo	ck		INFOID:00000004240612	С
1.сне	ECK ENCODER OF	PERATION					D
Check	driver side door gla	ss perform AUTO	open/close	e operatior	n normally by por	wer window main switch.	D
	nspection result nor						
YES NO	>> Encoder operation of the second se	ation is OK. -27, "DRIVER SID	E : Diagno	osis Proced	dure".		E
DRIV	ER SIDE : Diag					INFOID:00000004240613	
							F
	CK ENCODER SI	-					
	rn ignition switch O eck signal between		ain switch	harness co	onnector and gro	und using oscilloscope.	G
		(+)				Signal	
	Power win	dow main switch		-	(—)	Signal (Reference value)	Η
	Connector	Termina	al				
	D8	9 13		-	Ground	Refer to following signal	I
	Encoder signal 1 4 (Terminal 13) 0 Encoder signal 2 4 (Terminal 9) 0 (Terminal 9) 0	tions → 10 ms Window UP minal 9 starts 1/4 pulses	earlier)	Encoder signa (Terminal 13) Encoder signa (Terminal 9)		1/4 pulses earlier)	J PW
Is the ir	L nspection result nor	mal?				JMKIA2682GB	
YES NO	•	er window main sw	ritch. Refer	r to <u>PWC-1</u>	<u>17, "Removal ar</u>	nd Installation".	M
2.сне	ECK ENCORDER S	GIGNAL CIRCUIT					Ν
1. Tu 2. Dis 3. Ch	rn ignition switch O sconnect power win	FF. dow main switch o veen power windo				otor (driver side) connector. d front power window motor	0
	Power window m	ain switch			window motor er side)	Continuity	Ρ
	Connector	Terminal	Conr	nector	Terminal		
	D8	9 13	D	010	3	Existed	
4. Ch	eck continuity betw	een power window	v main swi	tch harnes	s connector and	ground.	

< DTC/CIRCUIT DIAGNOSIS >

Power windo	w main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	9	Ground	Not existed
	13		NOT EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

1. Connect power window main switch connector.

2. Turn ignition switch ON.

3. Check voltage between front power window motor (driver side) harness connector and ground.

	(+) Front power window motor (driver side)		
Front power windo			Voltage (V) (Approx.)
Connector	Terminal		
D10	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

2. Disconnect power window main switch connector.

3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector	Terminal	Continuity
D8	15	D10	4	Existed

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

Power windo	Power window main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	15		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-117, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector.
- 3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	Power window main switch		Front power window motor (driver side)		
Connector	Terminal	Connector Terminal		Continuity	
D8	2	D10	6	Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

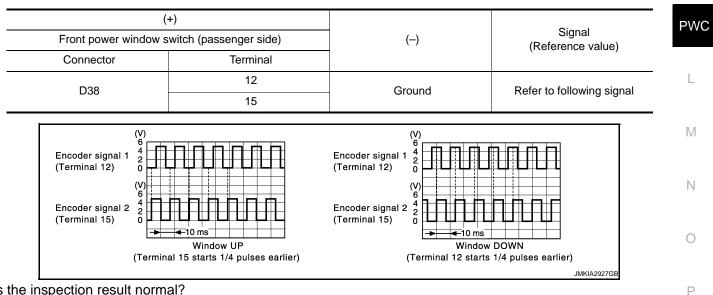
O.CHECK GROUND CIRCUIT 2

< DTC/CIRCUIT DIAGNOSIS >

1. Connect power window main switch connector.

Power windo	Power window main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	2		Existed
	<u>al?</u> ower window motor (driver window main switch. Refer		
PASSENGER SIDE : I	Description		INFOID:0000000424061
Detects condition of the fror window switch (passenger si		assenger side) operation	n and transmits to front powe
N 5			
PASSENGER SIDE : (, 1 0	Check	INFOID:000000042406
	Component Function	Check	INFOID:00000000424061
PASSENGER SIDE : (1.CHECK ENCODER OPE Check passenger side door g or front power window switch	Component Function RATION glass perform AUTO open/ n (passenger side).		
PASSENGER SIDE : (1.CHECK ENCODER OPE Check passenger side door go front power window switch s the inspection result norm YES >> Encoder operati	Component Function RATION glass perform AUTO open/ n (passenger side). al?	close operation normally	
PASSENGER SIDE : (1.CHECK ENCODER OPE Check passenger side door go front power window switch s the inspection result norm YES >> Encoder operati	Component Function RATION glass perform AUTO open/ n (passenger side). al? on is OK. 9, "PASSENGER SIDE : D	close operation normally iagnosis Procedure".	v by power window main switch

oscilloscope.



Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to GW-16, "Removal and Installation". 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

< DTC/CIRCUIT DIAGNOSIS >

- 2. Disconnect front power window switch (passenger side) connector and front power window motor (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	switch (passenger side)	Front power window motor (passenger side)ConnectorTerminal		Continuity
Connector	Terminal			Continuity
D38	12	D40	5	Existed
200	15	D40	3	LXISIEU

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D38	12	Ground	Not existed
	15		NOT EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

1. Connect front power window switch (passenger side) connector.

2. Turn ignition switch ON.

3. Check voltage between front power window motor (passenger side) harness connector and ground.

(+) Front power window motor (passenger side)		()	Voltage (V)	
Connector	Terminal		(Approx.)	
D40	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCORDER POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

2. Disconnect front power window switch (passenger side) connector.

3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	Front power window switch (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
D38	4	D40	4	Existed

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window s	Front power window switch (passenger side)		Continuity
Connector	Terminal	Ground	Continuity
D38	4		Not existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-117. "Removal and Installa-</u> tion".

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

< DTC/CIRCUIT DIAGNOSIS >

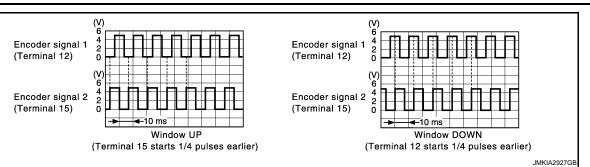
[FRONT & REAR WINDOW ANTI-PINCH]

- 2.
- Disconnect front power window switch (passenger side) connector. Check continuity between front power window switch (passenger side) harness connector and front power 3. А window motor (passenger side) harness connector.

Front power window sv		Front power window m		le) Continuity
Connector	Terminal	Connector	Terminal	
D38	3	D40	6	Existed
	place harness. IRCUIT 2 r window switch (pas	senger side) connect		
2. Check continuity be	tween front power w	indow switch (passen	ger side) harnes	ss connector and ground.
	dow switch (passenger si			Continuity
Connector	Termina	al (Ground	-
D38 Is the inspection result r	3			Existed
REAR LH : Descrip	tion			
Detects condition of the as the pulse signal.	rear power window r		nd transmits to re	INFOID:00000004240617
	rear power window r nent Function C		nd transmits to re	
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas power window switch LH Is the inspection result r YES >> Encoder op	rear power window r nent Function C DPERATION as perform AUTO ope 1. <u>normal?</u> eration is OK.	heck		ear power window switch LH
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas power window switch LH Is the inspection result r YES >> Encoder op NO >> Refer to PW	rear power window r nent Function C DPERATION ss perform AUTO ope 1. hormal? eration is OK. /C-31, "REAR LH : D	heck		ear power window switch LH
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas power window switch LH Is the inspection result r YES >> Encoder op	rear power window r nent Function C DPERATION ss perform AUTO ope 1. <u>normal?</u> eration is OK. <u>/C-31, "REAR LH : D</u> sis Procedure	heck		ear power window switch LH
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas bower window switch LH s the inspection result r YES >> Encoder op NO >> Refer to PM REAR LH : Diagno 1.CHECK ENCODER S 1. Turn ignition switch	rear power window r nent Function C DPERATION ss perform AUTO ope 1. <u>normal?</u> eration is OK. <u>/C-31, "REAR LH : D</u> sis Procedure SIGNAL ON.	heck en/close operation no Diagnosis Procedure".	rmally by power	ear power window switch LH
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas bower window switch LH s the inspection result r YES >> Encoder op NO >> Refer to PM REAR LH : Diagno 1.CHECK ENCODER S 1. Turn ignition switch	rear power window r nent Function C OPERATION ss perform AUTO ope 1. <u>normal?</u> eration is OK. <u>/C-31, "REAR LH : D</u> sis Procedure SIGNAL ON.	heck en/close operation no Diagnosis Procedure".	rmally by power	ear power window switch LH INFOID:00000004240618 window main switch or rear INFOID:000000004240619
Detects condition of the as the pulse signal. REAR LH : Compo I.CHECK ENCODER (Check rear door LH glas bower window switch LH s the inspection result r YES >> Encoder op NO >> Refer to PM REAR LH : Diagno I.CHECK ENCODER S I. Turn ignition switch Check signal betwe	rear power window r nent Function C DPERATION ss perform AUTO ope 1. <u>normal?</u> eration is OK. <u>/C-31, "REAR LH : D</u> sis Procedure SIGNAL ON. en rear power windo	heck en/close operation no Diagnosis Procedure".	rmally by power	ear power window switch LH INFOID:000000004240618 window main switch or rear
Detects condition of the as the pulse signal. REAR LH : Compo 1.CHECK ENCODER (Check rear door LH glas power window switch LH Is the inspection result r YES >> Encoder op NO >> Refer to PW REAR LH : Diagno 1.CHECK ENCODER S 1. Turn ignition switch 2. Check signal betwe	rear power window r nent Function C DPERATION ss perform AUTO ope 1. <u>normal?</u> eration is OK. <u>/C-31, "REAR LH : D</u> sis Procedure SIGNAL ON. en rear power windo	heck en/close operation no Diagnosis Procedure". w switch LH harness	rmally by power	ear power window switch LH INFOID:00000004240618 window main switch or rear INFOID:000000004240619 ground using oscilloscope.

[FRONT & REAR WINDOW ANTI-PINCH]

< DTC/CIRCUIT DIAGNOSIS >



Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to <u>PWC-117, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

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

Rear power v	vindow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D57	12	D52	5	Existed
007	15	052	6	

4. Check continuity rear power window switch LH harness connector and ground.

Rear power w	ndow switch LH		Continuity	
Connector	Terminal	Ground	Continuity	
D57	12	Ground	Not existed	
	15		NUT EXISTED	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

(Rear power w	(+) Rear power window motor LH		Voltage (V) (Approx.)	
Connector	Terminal		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
D52	2	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCORDER POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

- 2. Disconnect rear power window switch LH connector.
- 3. Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Rear power window s	Rear power window switch LH Rear power window		ndow motor LH	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D57	4	D52	2	Existed	
. Check continuity betwee	en rear power win	dow switch LH harne	ess connector and	ground.	
Rear power wi	indow switch LH			Continuity	
Connector	Terminal	(Ground	Continuity	
D57	4			Not existed	
NO >> Repair or replace	wer window switc harness.	ch LH. Refer to <u>PWC</u>	-117, "Removal and	d Installation".	
CHECK GROUND CIRC					
 Turn ignition switch OFF Disconnect rear power v Check continuity betwee LH harness connector. 	window switch LH en rear power win			rear power window moto	
Rear power window s	Terminal	Connector	Terminal	Continuity	
D57	3	D52	4	Existed	
s the inspection result norm	10				
2. Check continuity betwee Rear power wi	en rear power win	dow switch LH harn	ess connector and	ground.	
Connector	Terminal		Ground	Continuity	
D57	3				
s the inspection result norm				Existed	
	wer window moto	or LH. Refer to <u>GW-2</u> ch LH. Refer to <u>PWC</u>		istallation".	
NO >> Replace rear po	wer window moto wer window switc			istallation".	
NO >> Replace rear po REAR RH	wer window moto wer window switc	ch LH. Refer to <u>PWC</u>	-117, "Removal and	istallation". d Installation".	
NO >> Replace rear po REAR RH REAR RH : Descriptio Detects condition of the rea RH as the pulse signal.	wer window moto wer window switc N r power window r	ch LH. Refer to <u>PWC</u> motor RH operation	-117, "Removal and	istallation". d Installation".	
NO >> Replace rear po REAR RH REAR RH : Descriptio Detects condition of the rea	wer window moto wer window switc n r power window r nt Function Cl	ch LH. Refer to <u>PWC</u> motor RH operation	-117, "Removal and	<u>istallation"</u> . <u>d Installation"</u> . INFOID:0000000424062 ear power window switch	
NO >> Replace rear por REAR RH REAR RH : Description Detects condition of the rea RH as the pulse signal. REAR RH : Component I.CHECK ENCODER OPE Check rear door RH glass por	wer window moto wer window switc n r power window r nt Function Cl	ch LH. Refer to <u>PWC</u> motor RH operation heck	and transmits to re	stallation". d Installation". INFOID:00000000424062 ear power window switch	
NO >> Replace rear por REAR RH REAR RH : Description Detects condition of the rear RH as the pulse signal. REAR RH : Component I.CHECK ENCODER OPE Check rear door RH glass pro- power window switch RH.	wer window moto ower window switc n r power window r nt Function Cl RATION erform AUTO ope	ch LH. Refer to <u>PWC</u> motor RH operation heck	and transmits to re	stallation". d Installation". INFOID:00000000424062 ear power window switch	
NO >> Replace rear por REAR RH REAR RH : Description Detects condition of the rea RH as the pulse signal. REAR RH : Component I.CHECK ENCODER OPE Check rear door RH glass pro- power window switch RH. s the inspection result norm	wer window moto wer window switc n r power window r nt Function Cl RATION erform AUTO ope	ch LH. Refer to <u>PWC</u> motor RH operation heck	and transmits to re	stallation". d Installation". INFOID:00000000424062 ear power window switch	
NO >> Replace rear por REAR RH REAR RH : Description Detects condition of the rea RH as the pulse signal. REAR RH : Component I.CHECK ENCODER OPE Check rear door RH glass pro- power window switch RH. s the inspection result norm YES >> Encoder operati	wer window moto wer window switc n r power window r nt Function Cl RATION erform AUTO ope al? ion is OK.	ch LH. Refer to <u>PWC</u> motor RH operation heck	and transmits to re	stallation". d Installation". INFOID:00000000424062 ear power window switch	

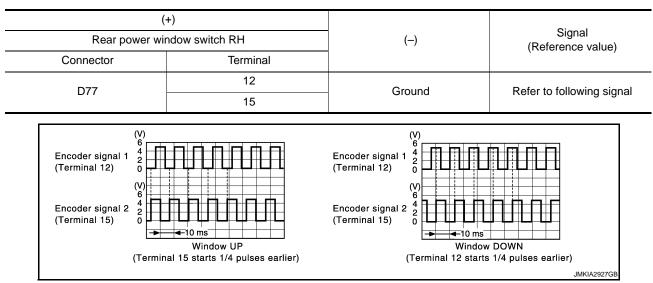
REAR RH : Diagnosis Procedure

INFOID:000000004240622

1.CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

2. Check signal between rear power window switch RH harness connector and ground using oscilloscope.



Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to <u>PWC-117, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

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

Rear power w	Rear power window switch RH		Rear power window motor RH		
Connector	Terminal	Connector Terminal		Continuity	
D77	12	D72	5	Existed	
DIT	15	012	6	LAISteu	

4. Check continuity rear power window switch RH harness connector and ground.

Rear power wi	ndow switch RH		Continuity	
Connector	Terminal	Ground	Continuity	
D77	12	Ground	Not existed	
	15		Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY CIRCUIT 1

1. Connect rear power window switch RH connector.

2. Turn ignition switch ON.

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

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

	(+)					
Rear	power wind	dow motor RH		-	(—)	Voltage (V) (Approx.)
Connector		Termina	al			(
D72		2			Ground	Battery voltage
s the inspection resu		<u>l?</u>				
YES >> GO TO 5 NO >> GO TO 4	-					
CHECK ENCODE	r powe	ER SUPPLY CI	RCUIT 2			
 Turn ignition swit Disconnect rear p Check continuity RH harness conr 	oower wi between				ess connector a	nd rear power window
Rear power	window sw	vitch RH	R	ear power wi	ndow motor RH	Continuity
Connector		Terminal	Coni	nector	Terminal	Continuity
D77		4	D	072	2	Existed
. Check continuity	between	n rear power wi	ndow swite	ch RH harr	ness connector a	and ground.
Rear	power wind	dow switch RH				Continuity
Connector		Termina	al		Ground	Continuity
D77		4				Not existed
the inspection resu (ES >> Replace IO >> Repair or CHECK GROUND	rear pow replace CIRCU	ver window swit harness.	tch RH. Re	efer to <u>PW(</u>	C-117, "Remova	l and Installation".
the inspection resurves YES >> Replace NO >> Repair or CHECK GROUND . Turn ignition switt . Disconnect rear p	rear pow replace CIRCUI ch OFF. power wi between	ver window swit harness. IT 1 ndow switch R	H harness	connector		
the inspection resurves YES >> Replace NO >> Repair or CHECK GROUND Turn ignition swite Disconnect rear p Check continuity RH harness conr	rear pow replace CIRCUI ch OFF. power wi between nector.	ver window swit harness. IT 1 ndow switch R rear power wir	H harness ndow swite	connector ch RH harn	ess connector a	l and Installation".
the inspection resurves YES >> Replace NO >> Repair or CHECK GROUND Turn ignition switt Disconnect rear p Check continuity RH harness conr	rear pow replace CIRCUI ch OFF. power wi between nector.	ver window swit harness. IT 1 ndow switch R n rear power wir	H harness ndow swite	connector ch RH harn lear power wi	ess connector a ndow motor RH	l and Installation".
the inspection resurves YES >> Replace NO >> Repair or O.CHECK GROUND . Turn ignition switt . Disconnect rear p . Check continuity RH harness conr Rear power Connector	rear pow replace CIRCUI ch OFF. power wi between nector.	ver window swit harness. IT 1 ndow switch R rear power wir	H harness ndow swite R Conr	connector ch RH harn lear power wi	ess connector a	<u>I and Installation"</u> . Ind rear power window
the inspection resurves and the inspection resurves and the inspection resurves and the inspection resurves and the inspection of the insp	rear pow replace CIRCUI ch OFF. bower wi between hector.	ver window swith harness. IT 1 ndow switch R rear power win vitch RH Terminal	H harness ndow swite R Conr	connector ch RH harn lear power wi	ess connector a ndow motor RH Terminal	I and Installation". Ind rear power window Continuity
s the inspection resurves YES >> Replace NO >> Repair or D.CHECK GROUND . Turn ignition swite Disconnect rear p . Check continuity RH harness conr Connector D77 s the inspection resurves YES >> GO TO 6 NO >> Repair or	rear pow replace CIRCUI ch OFF. oower wi between hector. window sw	ver window swith harness. IT 1 IT 0 ndow switch R rear power win vitch RH Terminal 3 <u>1?</u> harness.	H harness ndow swite R Conr	connector ch RH harn lear power wi	ess connector a ndow motor RH Terminal	I and Installation". Ind rear power window Continuity
sthe inspection result YES >> Replace NO >> Repair or O.CHECK GROUND Turn ignition switt Disconnect rear p Check continuity RH harness conr Rear power Connector D77 sthe inspection resulty YES >> GO TO 6 NO >> Repair or O.CHECK GROUND	rear pow replace CIRCUI ch OFF. oower wi between hector. window sw	ver window swith harness. IT 1 IT 1 ndow switch R rear power win vitch RH Terminal 3 <u>1?</u> harness. IT 2	H harness ndow swite R Conr D	connector ch RH harn lear power wi nector 172	ess connector a ndow motor RH Terminal	I and Installation". Ind rear power window Continuity
s the inspection result YES >> Replace NO >> Repair or O.CHECK GROUND . Turn ignition switt Disconnect rear p . Check continuity RH harness conr Rear power Connector D77 s the inspection result YES >> GO TO 6 NO >> Repair or	rear pow replace CIRCUI ch OFF. oower wi between hector. window sw lt norma replace CIRCUI	ver window switharness. IT 1 IT 1 Indow switch R in rear power with vitch RH Terminal 3 <u>I?</u> harness. IT 2 ow switch RH h	H harness ndow swite R Conr D	connector ch RH harn lear power wi nector 172	ess connector a ndow motor RH Terminal 4	I and Installation". Ind rear power window Continuity Existed
the inspection resurves YES >> Replace NO >> Repair or • CHECK GROUND • Turn ignition switt Disconnect rear p Check continuity RH harness conr Rear power Connector D77 the inspection resurves YES >> GO TO 6 NO >> Repair or • CHECK GROUND • CHECK GROUND • Check continuity	rear pow replace CIRCUI ch OFF. between hector. window sw lt norma replace CIRCUI ver windo	ver window switharness. IT 1 IT 1 Indow switch R in rear power with vitch RH Terminal 3 <u>I?</u> harness. IT 2 ow switch RH h	H harness ndow swite R Conr D	connector ch RH harn lear power wi nector 172	ess connector a ndow motor RH Terminal 4	I and Installation". Ind rear power window Continuity Existed
the inspection resurves YES >> Replace NO >> Repair or O.CHECK GROUND Turn ignition switt Disconnect rear p Check continuity RH harness conr Rear power Connector D77 the inspection resurves YES >> GO TO 6 NO >> Repair or O.CHECK GROUND Connect rear power Connector D77	rear pow replace CIRCUI ch OFF. between hector. window sw lt norma replace CIRCUI ver windo	ver window swith harness. IT 1 IT 1 Indow switch R rear power wir vitch RH Terminal 3 I? harness. IT 2 ow switch RH h o rear power wir	H harness ndow swite R Coni D narness co ndow swite	connector ch RH harn lear power wi nector 72 onnector. ch RH harr	ess connector a ndow motor RH Terminal 4	I and Installation". Ind rear power window Continuity Existed

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW SERIAL LINK

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

- Front passenger side door window and rear door window 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:000000004638186

INFOID-000000004638185

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT-III. Refer to <u>DLK-51, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

Monitor item	Co	ondition	
CDL LOCK SW	LOCK	: ON	
CDE LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-36</u>, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000004638187

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.

2. Check signal between power window main switch harness connector and ground.

(+) Power window	(+) Power window main switch		Signal (Reference value)	
Connector	Terminal			
D8	14	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

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1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power window main switch harness connector and ground.

(-	(+)		(+)			D
 Power window	w main switch	()	Voltage (V) (Approx.)			
 Connector	Terminal			С		
 D8	14	Ground	Battery voltage	_		

Is the measurement value within the specification?

YES >> Replace power window main switch. Refer to <u>PWC-117, "Removal and Installation"</u>.

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

3. Check continuity between BCM connector and power window main switch connector.

Continuity	w main switch	Power window	CM	BC
Continuity	Terminal	Connector	Terminal	Connector
Existed	14	D8	132	M123

4. Check continuity between BCM connector and ground.

	B	CM		Continuity	
-	Connector	Terminal	Ground	Continuity	
-	M123	132		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Description INFOLD:00000004638188

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window N switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (pas-

- Front passenger side door window and rear door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function Check

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

< DTC/CIRCUIT DIAGNOSIS >

With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT-III. Refer to <u>DLK-51, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-38</u>, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000004638190

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.

2. Check signal between front power window switch (passenger side) harness connector and ground.

	(+) Front power window switch (passenger side) Connector Terminal		nt power window switch (passenger side) (-)		Signal (Reference value)
D38	16	Ground	(V) 15 0 0 10 ms JPMIA0013GB		

Is the inspection result normal?

YES >> Replace front power window switch (passenger side).Refer to <u>PWC-117. "Removal and Installa-</u> tion".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connector and front power window switch (passenger side) connector.

Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

BCM		Front power window switch (passenger side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M123	132	D38	16	Existed	

4. Check continuity between BCM connector and ground.

ВС	CM		Continuity
Connector Terminal		Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

< DTC/CIRCUIT DIAGNOSIS > NO >> Repair or replace harness.

REAR LH

REAR LH : Description

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

- Front passenger side door window and rear door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

REAR LH : Component Function Check

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT-III. Refer to <u>DLK-51, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

- YES >> Power window serial link is OK.
- NO >> Refer to <u>PWC-39</u>, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check signal between rear power window switch LH harness connector and ground.

	(+) Rear power window switch LH		Signal (Reference value)	Ν
Connector	Terminal		(
D57	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	O

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to <u>PWC-117, "Removal and Installation"</u>. NO >> GO TO 2.

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INFOID:000000004240631

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< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector and rear power window switch LH connector.
- 3. Check continuity between BCM harness connector and rear power window switch LH harness connector.

BCM		Rear power window switch LH		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M123	132	D57	16	Existed	

4. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector Terminal		Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

REAR RH

REAR RH : Description

INFOID:000000004240632

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

- Front passenger side door window and rear door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

REAR RH : Component Function Check

INFOID:000000004240633

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(I) With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT-III. Refer to <u>DLK-51, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

- YES >> Power window serial link is OK.
- NO >> Refer to <u>PWC-40</u>, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:000000004240634

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. Turn ignition switch OFF.

2. Check signal between rear power window switch RH harness connector and ground.

PWC-40

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

(+	-)		
Rear power win	dow switch RH	(-)	Signal (Reference value)
Connector	Terminal		
D77	16	Ground	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10
			JPMIA0013GB

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to <u>PWC-117, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect BCM connector and rear power window switch RH connector.
- 3. Check continuity between BCM harness connector and rear power window switch RH harness connector.

	Continuity	ndow switch RH	Rear power wir	BCM		
	Continuity	Terminal	Connector	Terminal	Connector	
H	Existed	16	D77	132	M123	

4. Check continuity between BCM harness connector and ground.

BC	CM		Continuity		
Connector	Terminal	Ground	Continuity		
M123	132		Not existed	J	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

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[FRONT & REAR WINDOW ANTI-PINCH]

ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004667395

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
FR WIPER STOP	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
TURN SIGNAL R	Other than turn signal switch RH	Off
TURIN SIGINAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
HEAD LAIVIP SVV 2	Lighting switch 2ND	On
	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
AUTO LIGHT SW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On
	Rear RH door closed	Off
DOOR SW-RR	Rear LH door opened	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status	
DOOR SW-RL	Rear LH door closed	Off	
JOOK SW-KL	Rear LH door opened	On	
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off	
CDL LOCK SW	Other than power door lock switch LOCK	Off	
DE LOOK SW	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	
JDE UNEOUR SW	Power door lock switch UNLOCK	On	
KEY CYL LK-SW	Other than driver door key cylinder LOCK	Off	
XET GTL LK-SW	Driver door key cylinder LOCK	On	
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off	
VET CTE ON-SW	Driver door key cylinder LOCK	On	
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	
HAZARD SW	Hazard switch is OFF	Off	
	Hazard switch is ON	On	
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off	
FR CANCEL SW	Trunk lid opener cancel switch OFF	Off	
	Trunk lid opener cancel switch ON	On	
FR/BD OPEN SW	Trunk lid opener switch OFF	Off	
	While the trunk lid opener switch is turned ON	On	
FRNK/HAT MNTR	Trunk lid closed	Off	
	Trunk lid opened	On	
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off	
	LOCK button of the Intelligent Key is pressed	On	
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off	
KE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On	
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off	
	TRUNK OPEN button of the Intelligent Key is pressed	On	
	PANIC button of the Intelligent Key is not pressed	On Off On Off On Off On Off On	
RKE-PANIC	PANIC button of the Intelligent Key is pressed	On	
	UNLOCK button of the Intelligent Key is not pressed	Off	
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On	
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off	
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	
	Bright outside of the vehicle	Close to 5 V	
OPTICAL SENSOR	Dark outside of the vehicle		
	Driver door request switch is not pressed	Off	
REQ SW -DR	Driver door request switch is pressed	On	
	Passenger door request switch is not pressed	Off	
REQ SW -AS	Passenger door request switch is pressed	On	

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
	Trunk lid opener request switch is not pressed	Off
REQ SW -DD/TR	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
-038 377	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	V -RR NOTE: The item is indicated, but not monitored. V -RL NOTE: The item is indicated, but not monitored. V -BD/TR Trunk lid opener request switch is not pressed Y -BD/TR Trunk lid opener request switch is not pressed W Push-button ignition switch (push switch) is not pressed W Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position Ignition switch in ON position Y -F/B NOTE: The item is indicated, but not monitored. SW The clutch pedal is depressed The trake pedal is depressed when No. 7 fuse is blown The brake pedal is not depressed when No. 7 fuse is blown. SW 1 The brake pedal is not depressed (M/T models) SW 2 The brake pedal is depressed (M/T models) * Selector lever in any position other than P (Except M/T models) * Selector lever in any position other than P and N Selector lever in any position other than P and N Selector lever in any position CK Steering is unlocked Steering is unlocked Steering is locked LOCK Steering is unlocked Driver door is unlocked Driver door is unlocked <tr< td=""><td>On</td></tr<>	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1		On
PRAKE SW 2 DETE/CANCL SW	The brake pedal is not depressed	Off
BRAKE SVV 2	The brake pedal is depressed	On
DETE/CANCL SW		Off
		On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
	Steering is unlocked	Off
5/L-LUCK	Steering is locked	On
	LY -F/B The item is indicated, but not monitored. 1 SW The clutch pedal is not depressed 1 SW 1 The clutch pedal is depressed when No. 7 fuse is blown 2 SW 1 The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal 2 SW 2 The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal 2 SW 2 The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal 2 SW 2 The brake pedal is not depressed (M/T models) 2 SW 2 Selector lever in P position (Except M/T models) 4 Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models) 5 Selector lever in any position other than P and N Selector lever in any position other than P and N V/N SW Selector lever in P or N position 5 Selector lever in P or N position Selector lever in Selector lever in P or N position 0CK Steering is locked NLOCK Steering is locked Selector lever is unlocked Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position SEN -DR Driver door is locked SW -IPDM Push-button ignition switch (push-switch) is not pressed <td>Off</td>	Off
5/L-UNLOCK		On
	-RL The item is indicated, but not monitored. -BD/TR Trunk lid opener request switch is not pressed W Push-button ignition switch (push switch) is not pressed Push-button ignition switch (push switch) is pressed Push-button ignition switch (push switch) is pressed Push-button ignition switch (push switch) is pressed Push-button ignition switch (push switch) Push-button ignition switch (push switch) Push-button ignition switch (push switch) Push-button ignition switch in ON position (-F/B) The item is indicated, but not monitored. The item is indicated, but not monitored. SW The clutch pedal is depressed The trake pedal is not depressed SW 1 The brake pedal is not depressed The brake pedal is not depressed MNCL SW • Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models) • The clutch pedal is not depressed (M/T models)	Off
D/L RELAT-F/D		On
	Driver door is unlocked	Off
JNER SEN -DR	Driver door is locked	On
	Norm Norm SW -RL Normal is indicated, but not monitored. SW -BD/TR Trunk lid opener request switch is not pressed SW Push-button ignition switch (push switch) is pressed SW Push-button ignition switch (push switch) is pressed LY2 -F/B Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position Ignition switch in OFF or ACC position RLY -F/B NOTE: The fittem is indicated, but not monitored. H SW The clutch pedal is depressed Ime clutch pedal is depressed E SW 1 The brake pedal is ont depressed when No. 7 fuse is blown Ime brake pedal is not depressed F brake pedal is not depressed The brake pedal is depressed Ime clutch pedal is depressed CANCL SW Selector lever in P position (Except M/T models) Ime clutch pedal is depressed (M/T models) * The clutch pedal is inot depressed (M/T models) Ime clutch pedal is indepressed (M/T models) Ime clutch pedal is indepressed (M/T models) * The clutch pedal is in the pressed (M/T models) Ime clutch pedal is in the pressed (M/T models) Ime clutch pedal is in the pressed (M/T models) * The clutch pedal is in the pressed (M/T models) Ime clutch pedal is intoked <td< td=""><td>Off</td></td<>	Off
	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
	Selector lever in P position	On
		Off
		On
SET D MET	Selector lever in any position other than P	Off
SFI M-IVIEI	Selector lever in P position	On
	Selector lever in any position other than N	Off
	Selector lever in N position	On

Revision: 2009 October

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
	While the engine stalls	Stall
LINGINE STATE	At engine cranking	Crank
	Engine running	Run
	Steering is unlocked	Off
5/L LOCK-IPDIVI	Steering is locked	On
	Steering is locked	Off
5/L UNLK-IPDIVI	Steering is unlocked	On
	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
ENGINE STATE S/L LOCK-IPDM S/L UNLK-IPDM S/L RELAY-REQ VEH SPEED 1 VEH SPEED 2 DOOR STAT-DR DOOR STAT-DR DOOR STAT-AS ID OK FLAG PRMT ENG STRT PRMT RKE STRT RKE OPE COUN1 RKE OPE COUN2 CONFRM ID ALL CONFIRM ID4	Wait with selective UNLOCK operation (60 seconds)	READY
	R Priver door is locked Wait with selective UNLOCK operation (60 seconds) Driver door is unlocked Passenger door is locked Wait with selective UNLOCK operation (60 seconds) Passenger door is unlocked Steering is locked Steering is locked Steering is unlocked The engine start is prohibited	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
	Steering is locked	Reset
	Steering is unlocked	Set
	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEV SWA SLOT	The Intelligent Key is not inserted into key slot	Off
NET OW -OLUT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is not recognized by the second key ID registered to BCM. The key ID that the key slot receives is recognized by the second key ID registered to BCM. The key ID that the key slot receives is not recognized by the first key ID registered to BCM. The key ID that the key slot receives is recognized by the first key ID registered to BCM. The key ID that the key slot receives is recognized by the first key ID registered to BCM. The ID of fourth Intelligent Key is not registered to BCM The ID of fourth Intelligent Key is registered to BCM The ID of third Intelligent Key is not registered to BCM The ID of second Intelligent Key is not registered to BCM The ID of first Intelligent Key is not registered to BCM The ID of first Intelligent Key is not registered to BCM The ID of first Intelligent Key is not registered to BCM The ID of first Intelligent Key is registered to BCM The ID of first Intelligent Key is registered to BCM Ignition switch ON (Only when the signal from the transmitter is received) Air p Ignition switch ON (Only when the signal from the transmitter is received) Air p ID of front LH tire transmitter is registered ID of front LH tire transmitter is not registered ID of front LH tire transmitter is not registered ID of front RH tire transmitter is not registered	Done
CONFIRM ID1		Yet
		Done
	The ID of fourth Intelligent Key is not registered to BCM	Yet
P 4 Th P 3	The ID of fourth Intelligent Key is registered to BCM	Done
TD 2	The ID of third Intelligent Key is not registered to BCM	Yet
IP 3	The ID of third Intelligent Key is registered to BCM	Done
TDO	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IPI	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
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	ID of front LH tire transmitter is registered	Done
ID REGOT FLT	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGOT FRI	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
WARINING LAWP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

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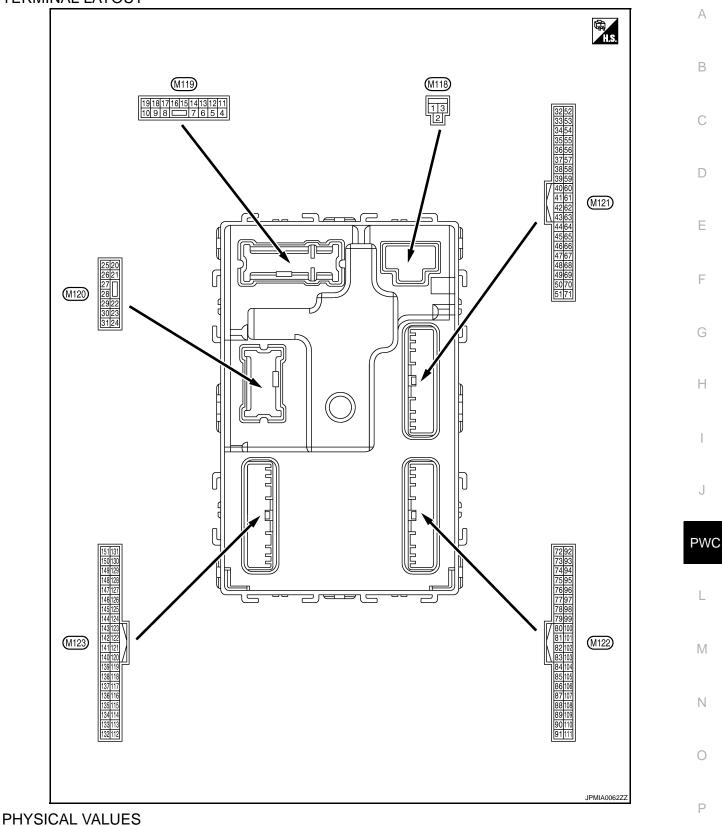
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TERMINAL LAYOUT



< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	e color) —	Signal name	Input/ Output	t		(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (N	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)	Croana	LOCK	Output	door	Other than UNLOCK) Ac- tuator is not activated	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(BR)	Croana		Output		OFF	12 V
8	Ground	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Cround	LOCK	ouput	lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door,	UNLOCK (Actuator is activated)	12 V
(G)	Croana	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and	Output	Rear RH door and rear LH	UNLOCK (Actuator is activated)	12 V
(BR)	Ground	rear LH UNLOCK	Output	door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (N	0 V
					OFF	0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated) ACC	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				\/-l	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					Turn signal switch OFF	0 V	В
17 (W)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 0 1 s PKID0926E 6.5 V	C
					Turn signal switch OFF	0 V	Е
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E	F
10		Deserve the second		1	OFF	6.5 V 12 V	
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	ON	0 V	Н
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 0 1 s PKID0926E 6.5 V	J PW
23					OPEN (Trunk lid opener actuator is activated)	12 V	L
(L)	Ground	Trunk lid open	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V	Μ
					Turn signal switch OFF	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 1 1 1 1 1 1 1 1 1 1 1 1 1	N O P
				Trunk room	ON	6.5 V 0 V	
30	Ground	Trunk room lamp	Output				

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(SB)		()	Cutput	Urr	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1
35	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10
(V)	Ground	(+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10
38	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 10 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10
(B)	Ground	na (–)	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value		
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A	
39		Rear bumper anten-		When the trunk lid opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	B C D	
(W)	Ground	na (+)	Output	utput quest switch is – operated with ignition switch OFF	operated with ignition switch OFF		(V) 15 0 10 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15	E
47		Ignition relay (IPDM			OFF or ACC	12 V	G	
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V		
50 (O)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 0 10 10 ms 10 10 ms 11.8 V	H I J	
					ON (Trunk lid is opened)	0 V		
				Ignition switch ON (A/T mod-	When selector lever is in P or N position When selector lever is not	12 V	PWC	
52	Ground	Starter relay control	Output	els) Ignition switch ON (M/T mod- els)	in P or N position	0 V	L	
(SB)		,			When the clutch pedal is depressed	Battery voltage		
					When the clutch pedal is not depressed	0 V	M	
					ON (Pressed)	0 V		
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 5 10 10 ms JPMIA0016GB 1.0 V	N O P	
~ ~ ~		Intelligent Key warn-		Intelligent Key	Sounding	0 V		
64 (G)	Ground	ing buzzer (Engine room)	Output	warningbuzzer (Engine room)	Not sounding	12 V		

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color) –	Signal name	Input/ Output		Condition	Value (Approx.)
					Pressed	0 V
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					opens)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes) ON (When rear LH door opens)	(V) 15 10 5 0 10 ms J JPMIA0011GB 11.8 V 0 V
					openaj	
72	Ground	Room antenna 2 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10
(R)	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description					
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
73	73 Ground Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 15 15 15 15 15 15 15 15 15	B C D	
(G)	Ground	(Center console)	Capa	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E
74		Passenger door an-	Output	When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 15 15 15 15 15 15 15 15 15 15	G H I
(SB)	Ground	tenna (-)			When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J PWC
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(BR)		enna (+)	Cuput	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	O P

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
76	G Ground Driver door antenna Output Switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB			
(V)	Giouna	()	Guipur	Output switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
77	77 Driver door antenr	Driver door antenna	Output	When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s 0 JMKIA0062GB
(LG)	Ground	(+)		switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (-)	Outout	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

(Wile Gold) Signal name Input/ Output Condition (Approx.) + - Signal name Input/ Output When Intelligent Key is in the passenger compart- ment (V) Imput/ (Instrument panel) Imput/ Output Imput/ Output When Intelligent Key is in the passenger compart- ment Imput/ Imput/ Imput/ Output Imput/ Imput/ Output Imput/ Imput/ Imput/ Output Imput/	Terminal No.		Description				Value
79 (BR) Ground Room antenna 1 (+) (Instrument panel) Output Ignition switch OFF When Intelligent Key is in in the passenger compart. When Intelligent Key is not in the passenger compart. Imput/ Im	. ,	-	Signal name			Condition	
(BR) Ground (Instrument panel) Output OFF When Intelligent Key is not in the passenger compariment Imput for the passenger compariment Imput for the passenger compariment Just after pressing ignition 80 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. 81 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. 82 Ground Ignition relay (Fuse block (J/B)) control Output Ignition switch OFF or ACC 0 V 83 Ground Ignition set keyless entry (Y) Input Output During waiting Output Output Input Output Output Output Output Output Output Output Output OFF or ACC 0 V OV Input Output Input Output Output Output OFF or ACC 0 V Input Output Input Output Input Output Input Output Input Output Input Output <td< td=""><td>79</td><td></td><td>Room antenna 1 (+)</td><td></td><td>lanition switch</td><td>the passenger compart-</td><td></td></td<>	79		Room antenna 1 (+)		lanition switch	the passenger compart-	
B0 (GR) Ground INAL's aritema amp (Built in key slot) Input/ Output During waiting while inserting the Intelli- gent Key into the key slot. switch. Pointer of tester should move. 81 (W) Ground NATS antenna amp (Built in key slot) Input/ Output During waiting Ignition switch is pressed while inserting the Intelli- gent Key into the key slot. Just after pressing ignition switch. Pointer of tester should move. 82 (R) Ground Ignition relay [Fuse block (J/B)] control Output Ignition switch OFF or ACC 0 V 82 (R) Ground Ignition relay [Fuse block (J/B)] control Output Ignition switch OFF or ACC 0 V 83 (Y) Ground Remote keyless entry (Y) Input/ output During waiting During waiting Imput/ Output Imput/ Output During waiting Imput/ Suma Imput/ Suma Imput/ Suma Imput/ Suma Imput/ Suma Imput/ Suma Imput/ Sum Imp	(BR) Grou	und		Output	OFF	in the passenger compart-	
All Statistication Input/ (Built in key slot) Input/ Output During waiting Uning waiting while inserting the Intelli- gent Key into the key slot. switch. Pointer of tester should move. 82 (R) Ground Ignition relay [Fuse block (J/B)] control Output Ignition switch OFF or ACC 0 V 83 (Y) Ground Remote keyless entry receiver communica- tion Input/ Output During waiting Uring	80 (GR) Grou	und			During waiting	while inserting the Intelli-	switch. Pointer of tester should
O2 Ground Ignition relay (ruse block (J/B)] control Output Ignition switch (R) Ground Remote keyless entry receiver communication Input/ Output During waiting Imput/ Output Imput/ Output Imput/ Output 83 (Y) Ground Remote keyless entry receiver communication Input/ Output During waiting Imput/ When operating either button on the Intelli- gent Key (V) Imput/ Imput/ When operating either button on the Intelli- Immut/ Immut/ Immut/ Immut/ Immut/ Immut/ Immut/ Immut/ Imput/ Imput/ Imm		und			During waiting	while inserting the Intelli-	switch. Pointer of tester should
83 (Y) Ground Remote keyless entry receiver communica- tion Input/ Output Input/ Output When operating either button on the Intelli- gent Key (V) 10 10 10 10 10 10 10 10 10 10 10 10 10		und		Output	Ignition switch		-
(Y) tion Utput When operating either button on the Intelli- gent Key	83			Input/	During waiting		
		und				either button on the Intelli-	15 10 5 0 ••••••••••••••••••••••••••••••

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< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire	color) -	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
87 (Y)		Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 2 ms JPMIA0040GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
	88 c Combination switch			All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D	
88				Lighting switch HI (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	E	
(O)	Ground	INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V	G H
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 0 2 ms JPMIA0040GB 1.3 V	J PWC
89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ig- nition switch (push switch)	Pressed Not pressed	0 V Battery voltage	
90 (P)	Ground	CAN-L	Input/ Output		_	_	M
91 (L)	Ground	CAN-H	Input/ Output		_	_	Ν
					OFF	0 V	
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 0 1 5 0 1 5 0 1 1 5 0 1 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1	P
					ON	6.5 V 12 V	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(v)					ON	0 V
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF ACC or ON	0 V 12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)		tion No. 1		g	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)		tion No. 2		g	UNLOCK status	0 V
		Selector lever P posi- tion switch (A/T mod-		Selector lever	P position	0 V
		els)		Selector lever	Any position other than P	12 V
99		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V
(R)* ¹ (BR)* ²	(R)*1 Ground ICC) (BR)*2 ICC clutch switch		Input	switch	ON (Clutch pedal is not depressed)	12 V
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 10 10 10 10 10 10 10
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 10 10 10 10 1.0 V JPMIA0016GB
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)	Ground	lay control	Output	Ignition Switch	ON	12 V
103 (L)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch ()FF	12 V
106	Ground	Steering lock unit	Output	Ignition switch	OFF or ACC	12 V
(W)	Ground	power supply	Supur		ON	0 V

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

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

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< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)					Value	
(Wire	color) –	Signal name	Input/ Output		Condition	(Approx.)	
			Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
108	Ground	Combination switch INPUT 4			Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0038GB 1.3 V	
(R)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
				All switches OFF	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D	
					Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	E
109 (W)		Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 2 ms JPMIA0036GB 1.3 V	G H
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	J PW0
					Front wiper switch HI	(V) 15 0 2 ms 1.3 V	M
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 10 ms JPMIA0012GB 1.1 V	Ρ

< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)
					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 0 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(O)				ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
(R)		switch		switch	ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
		Stop lamp switch 2	- Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Ground			switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)					h OFF (Brake pedal is not ICC brake hold relay OFF	0 V
		(With ICC)			h ON (Brake pedal is de- brake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 10 10 10 1.1 V JPMIA0012GB
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Input	When the Intellig	gent Key is inserted into key	12 V
(SB)	Cround			When the Intellig key slot	gent Key is not inserted into	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)	2.00110			gen ennor	ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	0
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V	B C D
					ON (Door open)	0 V	
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	F
						1.1 V	G
					ON	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C	DN	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10	Η
						JPMIA0013GB 10.2 V	J
				Ignition switch C	DFF or ACC	12 V	
					ON (Tail lamps OFF)	9.5 V	PW
						NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.	L
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	M
					OFF	0 V	
134	Ground	LOCK indicator lamp	Output	LOCK indicator	OFF	Battery voltage	0
(LG)	Ground		Output	lamp	ON	0 V	-
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V	Р
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(V)	Ground	power supply	Juipul		ACC or ON	5.0 V	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire	color)	Signal name	Input/ Output	Condition		(Approx.)	
139 (L)	Ground	Tire pressure receiv- er communication	Input/ Output	Ignition switch ON	Standby state	(V) 6 4 2 0 • • • 0.2s • • 0.2s • • • 0.2s	
					When receiving the signal from the transmitter	(V) 6 4 2 0 •••••••••••••••••••••••••••••••••	
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V	
		position			Except P and N positions ON	0 V 0 V	
141 (R)	Ground	Security indicator	Output	Security indica- tor	Blinking	(V) 15 0 1 s JPMIA0014GB	
					OFF	11.3 V 12 V	
	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V	
					Lighting switch 1ST		
142					Lighting switch HI		
(BR)					Lighting switch 2ND	10 2 ms JPMIA0031GB 10.7 V	
	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V	
143 (P)					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15	
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	JPMIA0032GB 10.7 V	

< ECU DIAGNOSIS INFORMATION >

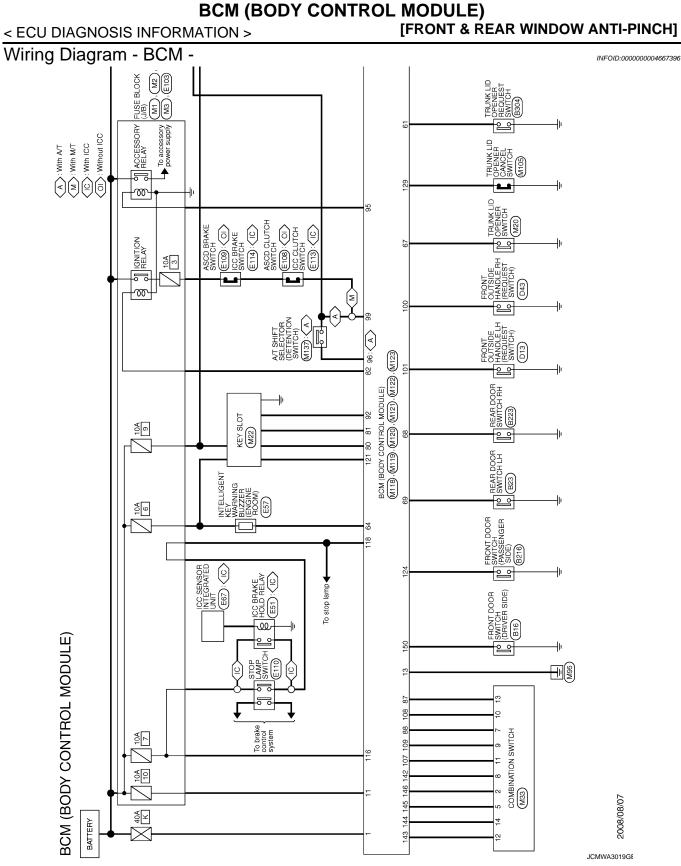
[FRONT & REAR WINDOW ANTI-PINCH]

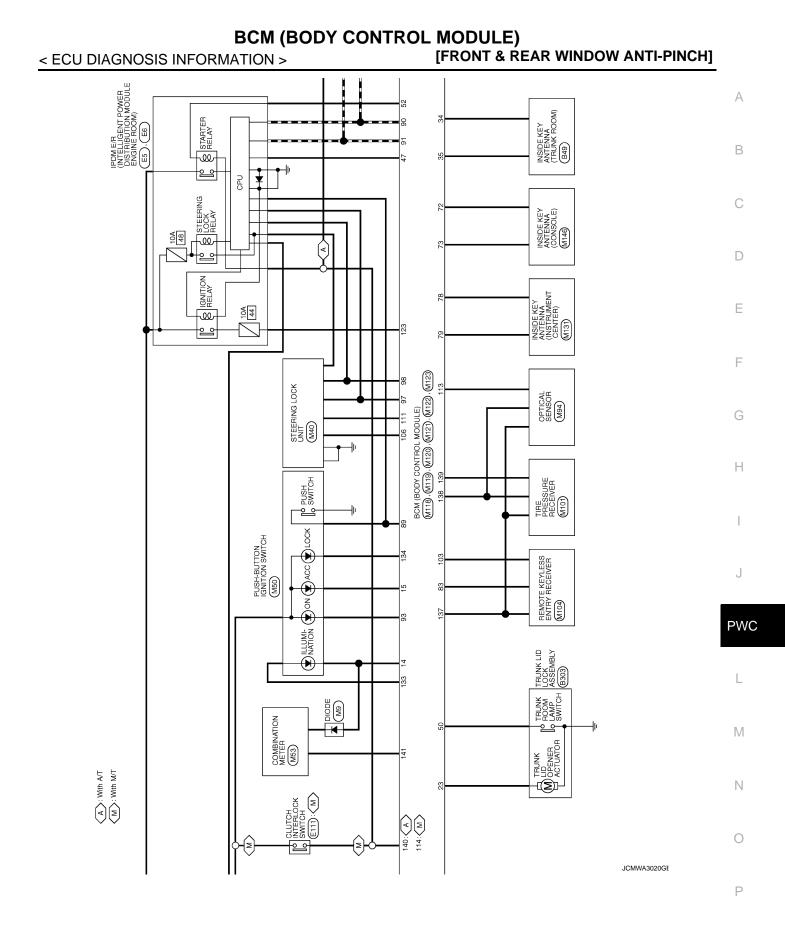
Terminal No. (Wire color) + –		Description		Condition		Value (Approx.)
		Signal name Input/ Output				
					All switches OFF (Wiper intermittent dial 4)	0 V
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	Front washer switch ON (Wiper intermittent dial 4) Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5	(V) 15 10 5 0 2 ms
				1	Wiper intermittent dial 6 All switches OFF	10.7 V 0 V
145 (L)		Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch INT	
					Front wiper switch LO	(V) 15
	Ground				Lighting switch AUTO	10 5 0 2 ms
						10.7 V
	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	(V)
4.40					Lighting switch 2ND Lighting switch PASS	
146 (SB)					Turn signal switch LH	10 5 0 2 ms JPMIA0035GB
						10.7 V
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 ms 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

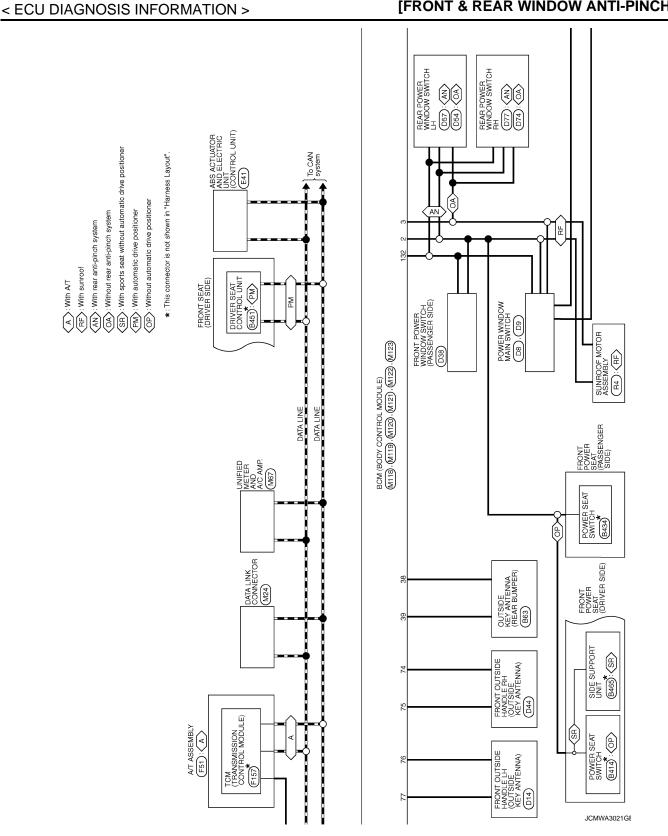
• *1: A/T models

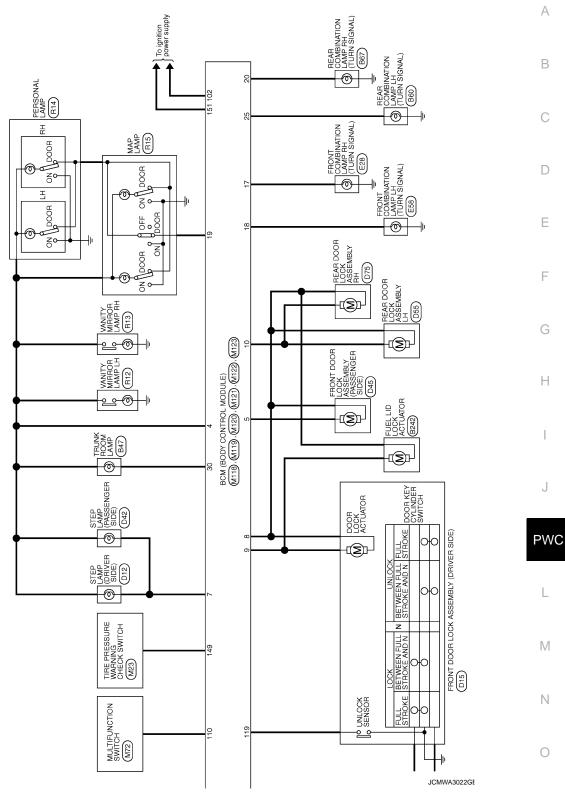
• *2: M/T models

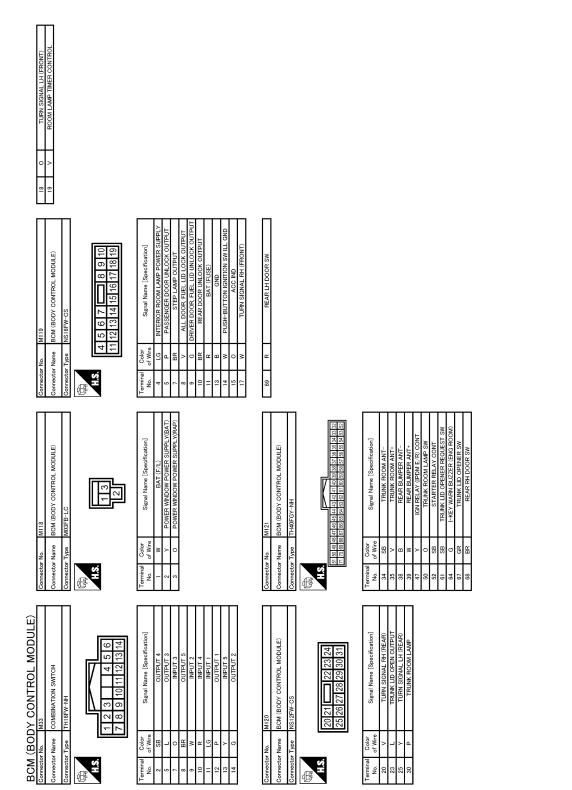
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JCMWA3023GE

SNOSIS INFORMATION >	[FRONT & REAR WINDOW ANTI-PINCH]	
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		Η
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

DN > [FRONT & REAR WINDOW ANTI-PINCH]

FAIL-SAFE CONTROL BY DTC

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

Fail-safe

< ECU DIAGNOSIS INFORMATION >

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

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 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 are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	 Inhibit engine cranking Inhibit steering lock 	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

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

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< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM 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
4	B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2555: STOP LAMP B2555: STOP LAMP B2555: VUHICLE SPEED B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2604: PNP SW B2605: PNP SW B2606: S/L RELAY B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B2609: S/L STATUS B2609: S/L STATUS B2609: STEERING LOCK UNIT B2609: STEERING LOCK UNIT B2609: STEERING LOCK UNIT B2609: STEERING LOCK UNIT B2609: SUS STATUS B2614: ACC RELAY CIRC B2614: BCM B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2615: BCM B2616: IS RELAY

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Priority	DTC	
	 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 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	 B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA 	

DTC Index

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>PWC-125, "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>. PWC

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	L
No DTC is detected. further testing may be required.	_	_	_	_	_	Μ
U1000: CAN COMM	—	—	_	—	BCS-35	
U1010: CONTROL UNIT(CAN)	—	—	_	—	BCS-36	Ν
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-37	
B2013: ID DISCORD BCM-S/L	×	×	—	—	<u>SEC-55</u>	0
B2014: CHAIN OF S/L-BCM	×	×	—	—	<u>SEC-56</u>	0
B2190: NATS ANTENNA AMP	×	—	_	—	<u>SEC-47</u>	
B2191: DIFFERENCE OF KEY	×	—	—	—	<u>SEC-50</u>	Ρ
B2192: ID DISCORD BCM-ECM	×	—	—	—	<u>SEC-51</u>	
B2193: CHAIN OF BCM-ECM	×	—	_	—	<u>SEC-53</u>	
B2195: ANTI SCANNING	×	—	_	_	<u>SEC-54</u>	
B2553: IGNITION RELAY	—	×	_	_	PCS-49	
B2555: STOP LAMP	—	×	_	_	<u>SEC-59</u>	

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< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	—	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	—	×	—	_	BCS-38
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-68</u>
B2603: SHIFT POSI STATUS	×	×	×	—	<u>SEC-70</u>
B2604: PNP SW	×	×	×	—	<u>SEC-73</u>
B2605: PNP SW	×	×	×	_	<u>SEC-75</u>
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×		<u>SEC-80</u>
B2609: S/L STATUS	×	×	×	_	<u>SEC-82</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×	_	<u>SEC-86</u>
B260C: STEERING LOCK UNIT		×	×		SEC-87
B260D: STEERING LOCK UNIT		×	×		<u>SEC-88</u>
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-89</u>
B2612: S/L STATUS	×	×	×		SEC-94
B2614: ACC RELAY CIRC		×	×		PCS-53
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-55
B2616: IGN RELAY CIRC	_	×	×	_	PCS-57
B2617: STARTER RELAY CIRC	×	×	×	_	SEC-98
B2618: BCM	×	×	×	_	PCS-59
B2619: BCM	×	×	×	_	SEC-100
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-101</u>
B2621: INSIDE ANTENNA	_	×	_	_	<u>DLK-59</u>
B2622: INSIDE ANTENNA	_	×	_	_	DLK-61
B2623: INSIDE ANTENNA	_	×	_	_	DLK-63
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-90</u>
B26E9: S/L STATUS	×	×	\times (Turn ON for 15 seconds)	_	<u>SEC-92</u>
B26EA: KEY REGISTRATION	—	×	imes (Turn ON for 15 seconds)	_	<u>SEC-93</u>
C1704: LOW PRESSURE FL	—	—	—	×	
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	_	—	×	<u>WT-17</u>
C1707: LOW PRESSURE RL	_	_	_	×	-

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
C1708: [NO DATA] FL	—	—	—	×		В
C1709: [NO DATA] FR	—	—	_	×	<u>WT-19</u>	
C1710: [NO DATA] RR	—	—	—	×	<u>vv1-19</u>	
C1711: [NO DATA] RL	—	—	—	×		С
C1712: [CHECKSUM ERR] FL	—	—	_	×		
C1713: [CHECKSUM ERR] FR	—	—	_	×	<u>WT-21</u>	D
C1714: [CHECKSUM ERR] RR	—	—	—	×	<u>vv1-21</u>	
C1715: [CHECKSUM ERR] RL	—	—	—	×		
C1716: [PRESSDATA ERR] FL	—	—	_	×		E
C1717: [PRESSDATA ERR] FR	—	—	—	×	WT-24	
C1718: [PRESSDATA ERR] RR	—	—	_	×	<u>VV1-24</u>	F
C1719: [PRESSDATA ERR] RL	—	—	_	×		1
C1720: [CODE ERR] FL	—	—	_	×		
C1721: [CODE ERR] FR	—	—	—	×	<u>WT-26</u>	G
C1722: [CODE ERR] RR	—	—	_	×	<u></u>	
C1723: [CODE ERR] RL	—	—	_	×		Н
C1724: [BATT VOLT LOW] FL	—	—	—	×		17
C1725: [BATT VOLT LOW] FR	—	—	—	×	<u>WT-29</u>	
C1726: [BATT VOLT LOW] RR	—	—	—	×	<u>vv1-29</u>	
C1727: [BATT VOLT LOW] RL	—	—	—	×		
C1729: VHCL SPEED SIG ERR	—	—	—	×	<u>WT-32</u>	
C1734: CONTROL UNIT	—	—	—	×	<u>WT-33</u>	J

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< ECU DIAGNOSIS INFORMATION >

POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000004240642

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		®	
	2 4 5 6 8 9 1011 131415		
			JMKIA0132Z
D8	B. D9		

PHYSICAL VALUES

Power Window Main Switch

	nal No. color)	Description		Condition	Voltage (V)
+	_	Signal name	Input/ Output	Condition	(Approx.)
2 (LG)	Ground	Encoder ground			0
4 (V)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral \rightarrow Locked)	$5 \rightarrow 0$
6 (Y)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral \rightarrow Unlocked)	$5 \rightarrow 0$
8 (L)	Ground	Front driver side power win- dow motor UP signal	Output	When front LH switch in power window main switch is UP at operated.	Battery voltage
9 (O)	Ground	Encoder pulse signal 2	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
				Ignition switch ON	Battery voltage
10	Ground	Rap signal	Input	Within 45 second after ig- nition switch is turned to OFF	Battery voltage
(SB)				When driver side or pas- senger side door is opened during retained power operation	0
11 (G)	Ground	Front driver side power win- dow motor DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	inal No. e color)	Description		Condition	Voltage (V)
+	_	Signal name	Input/ Output	Condition	(Approx.)
13 (P)	Ground	Encoder pulse signal 1	Input	When power window mo- tor operates.	(V) 6 4 2 0 10 ms
14 (V)	Ground	Power window serial link	Input/ Output	Ignition switch ON or pow- er window timer operat- ing.	15 10 5 0 10 ms JPMIA0013GB
15 (B)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	Battery voltage
17 (B)	Ground	Ground	_	_	0
19 (Y)	Ground	Battery power supply	Input	_	Battery voltage

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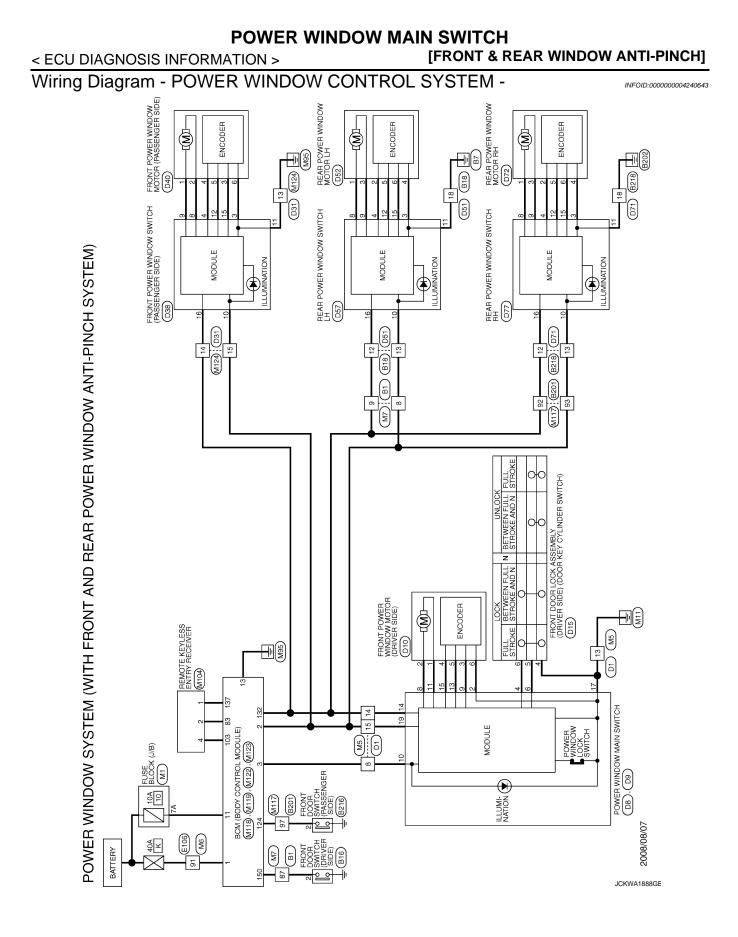
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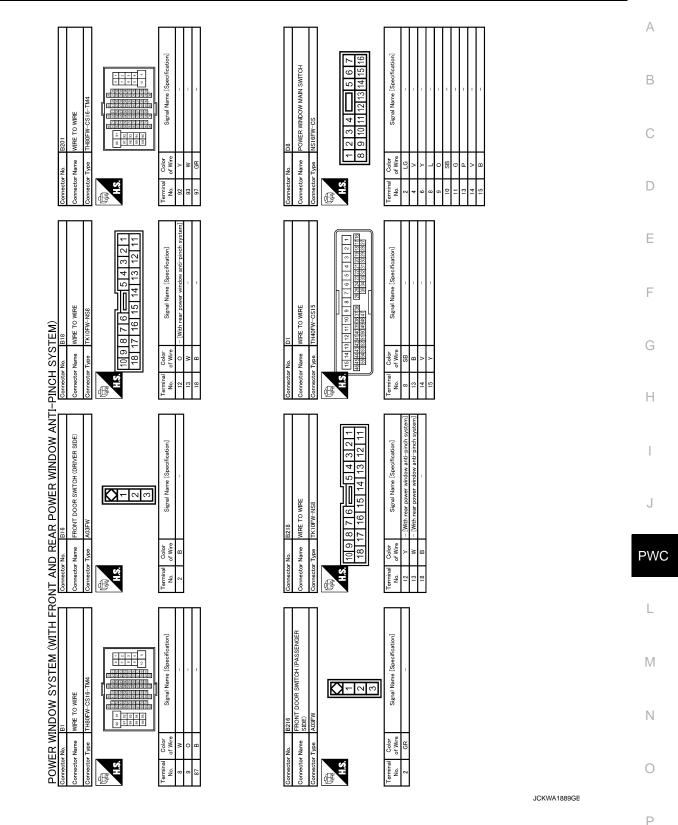
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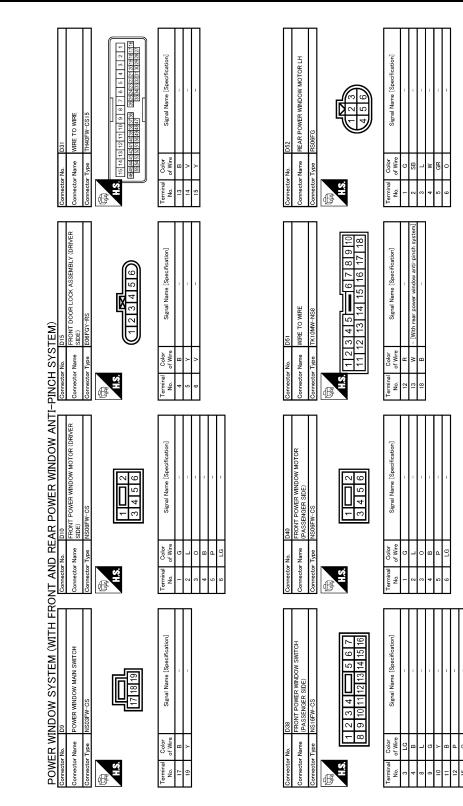


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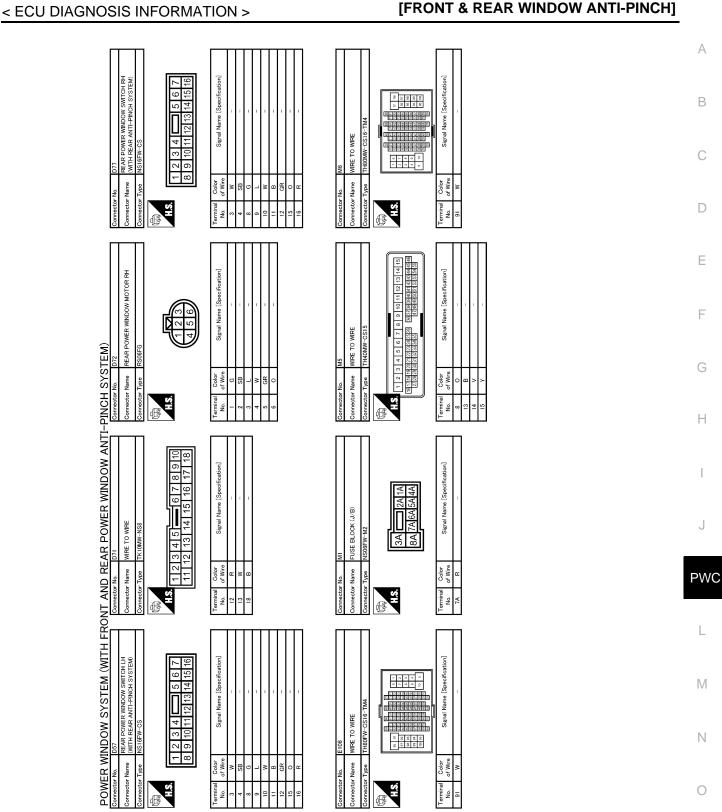
[FRONT & REAR WINDOW ANTI-PINCH]



< ECU DIAGNOSIS INFORMATION >



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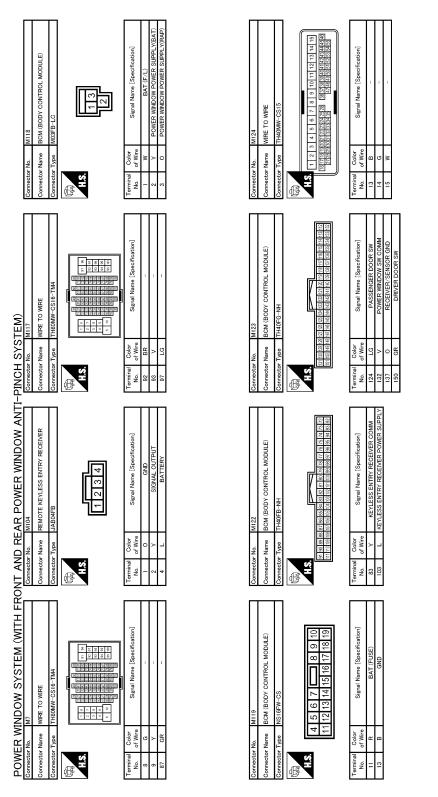


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POWER WINDOW MAIN SWITCH [FRONT & REAR WINDOW ANTI-PINCH]

< ECU DIAGNOSIS INFORMATION >



JCKWA1892GE

INFOID:000000004679443

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunc- tion	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

- Auto-up operation
- Anti-pinch function
- Door key cylinder switch power window function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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< ECU DIAGNOSIS INFORMATION >

FRONT POWER WINDOW SWITCH

Reference Value

1516

JMKIA0134ZZ

3 4 🖂 8 9 10 11 12

PHYSICAL VALUES

Front Power Window Switch

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

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

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[FRONT & REAR WINDOW ANTI-PINCH]

	nal No. color)	Description		Condition	Voltage (V)	А
+	-	Signal name	Input/ Output	Condition	(Approx.)	_
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	B C D
16 (V)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB	E

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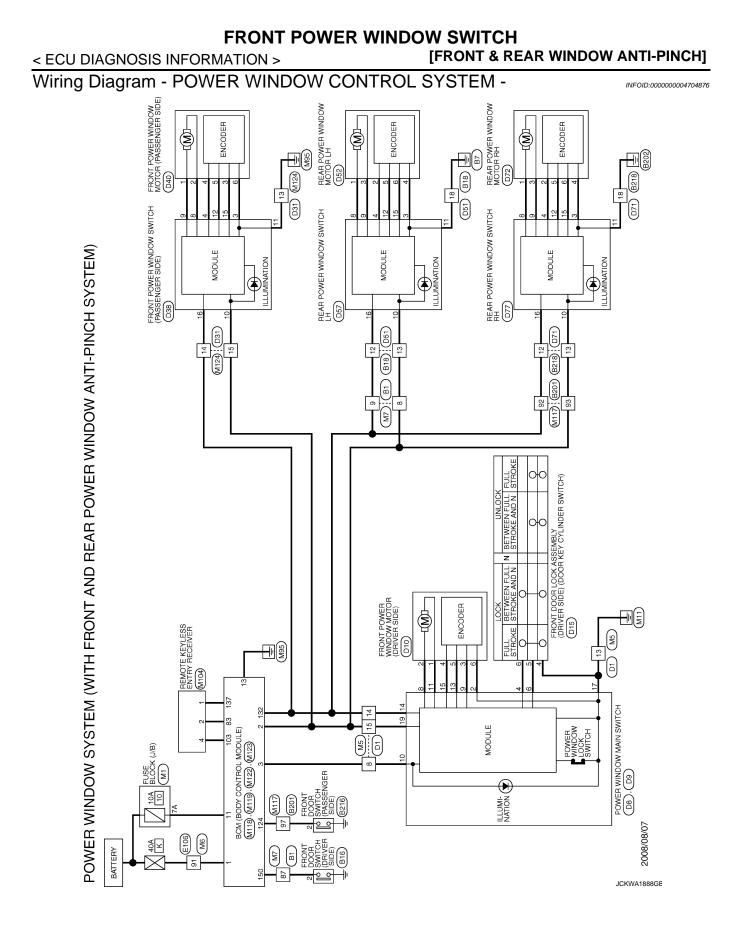
PWC

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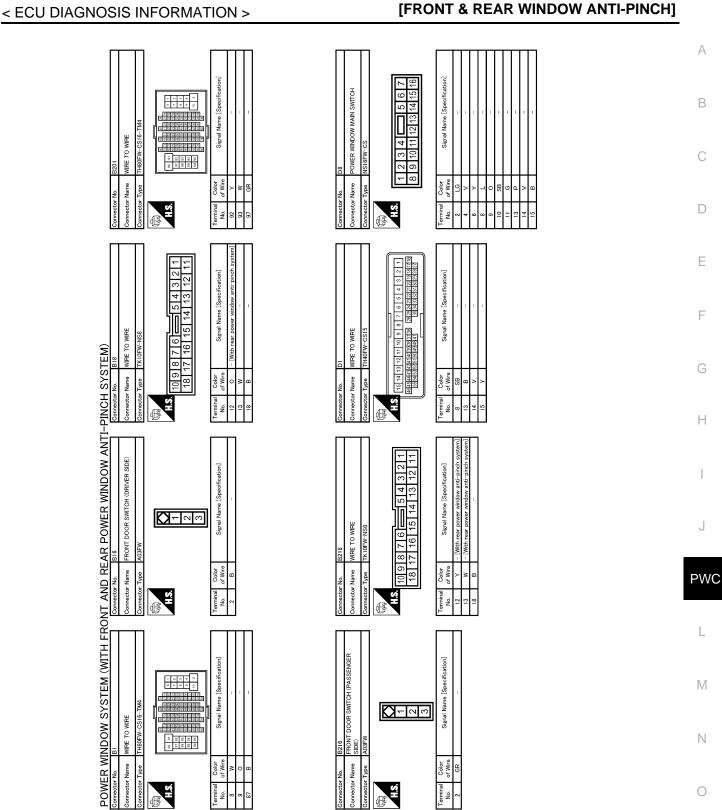
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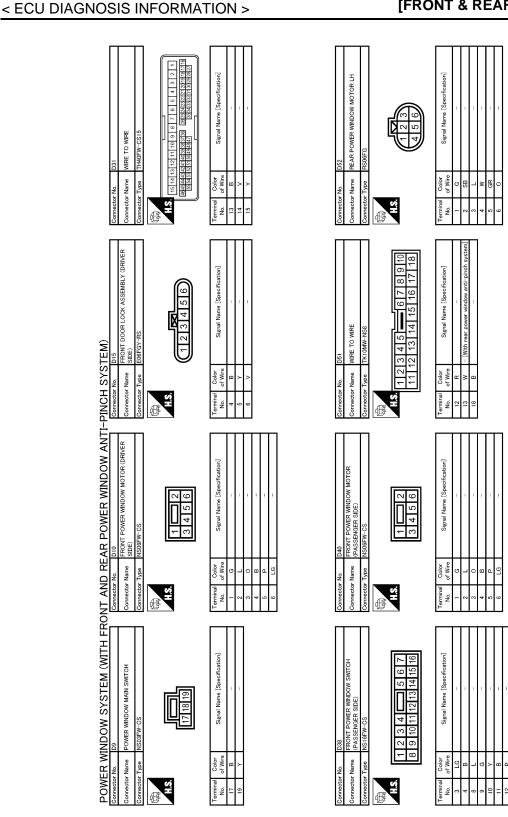
FRONT POWER WINDOW SWITCH



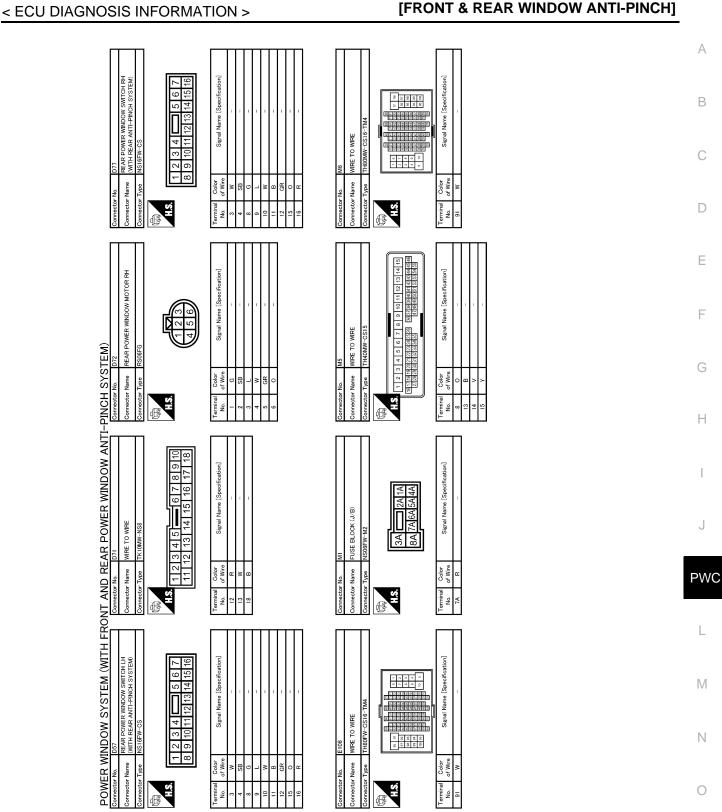
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FRONT POWER WINDOW SWITCH RMATION > [FRONT & REAR WINDOW ANTI-PINCH]



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FRONT POWER WINDOW SWITCH

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FRONT POWER WINDOW SWITCH MATION > [FRONT & REAR WINDOW ANTI-PINCH]

10 11 12 13 14 15 3CM (BODY CONTROL MODULE) Signal Name [Specifi Signal Name [Speci 36372 ----8 9 23 24 25 26 3 34 35 **WIRE TO WIRE** 1 2 3 4 5 6 7 27 28 29 30 31 32 3 Color of Wire connector Name ector Name 3 HS ß 倨 Signal Name [Specification] BCM (BODY CONTROL MODULE) Signal Name [Specifica 222222 WIRE TO WIRE AND REAR POWER WINDOW ANTI-PINCH SYSTEM) 0 A 0 7 Color F Wir-Connector Name Name otor HS. erminal No. rmina No. E REMOTE KEYLESS ENTRY RECEIVER Signal Name [Specification Signal Name [Specification] BCM (BODY CONTROL MODULE) onnector Name Color of Wire nector Name HS. rminal No. ĒŚ C C DOWER WINDOW SYSTEM (WITH FRONT Signal Name [Specification] Signal Name [Specification] BCM (BODY CONTROL MODULE) MRE TO WIRE * 0 0 4 0 × 0 Name Color of Wire onnector Name stor H.S. e A

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INFOID:000000004679444

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

FRONT POWER WINDOW S

Revision: 2009 October

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction Malfunction condition		
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.	
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.	
Pulse direction malfunc- tion	When a pulse signal indicating that window is moving in the opposite direction against the power win dow motor is detected for the specified value or more, while door glass is being operated UP or DOWN.	
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.	
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.	

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

- Auto-up operation
- Anti-pinch function
- Door key cylinder switch power window function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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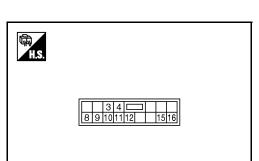
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< ECU DIAGNOSIS INFORMATION >

REAR POWER WINDOW SWITCH

Reference Value



PHYSICAL VALUES

Rear Power Window Switch

Terminal No. (wire color)		Description		Condition	Voltage (V)
+	_	Signal name	Input/ Output	Condition	(Approx.)
3 (W)	Ground	Encoder ground	_	_	0
4 (SB)	Ground	Encoder power supply	Output	When ignition switch ON or pow- er window timer operates	Battery voltage
8 (G)	Ground	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
9 (L)	Ground	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage
10 (W)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground		_	0
12 (GR)	Ground	Encoder pulse signal 1	Input	When power window motor oper- ates.	(V) 6 2 0 10 ms JMKIA0070GB

JMKIA0134ZZ

REAR POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	ninal No. e color)	Description		Condition	Voltage (V)	A
+	_	Signal name	Input/ Output		(Approx.)	
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor oper- ates.	(V) 6 4 2 0 10 ms JMKIA0070GB	B C D
16 (R)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power win- dow timer operating.	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10	E

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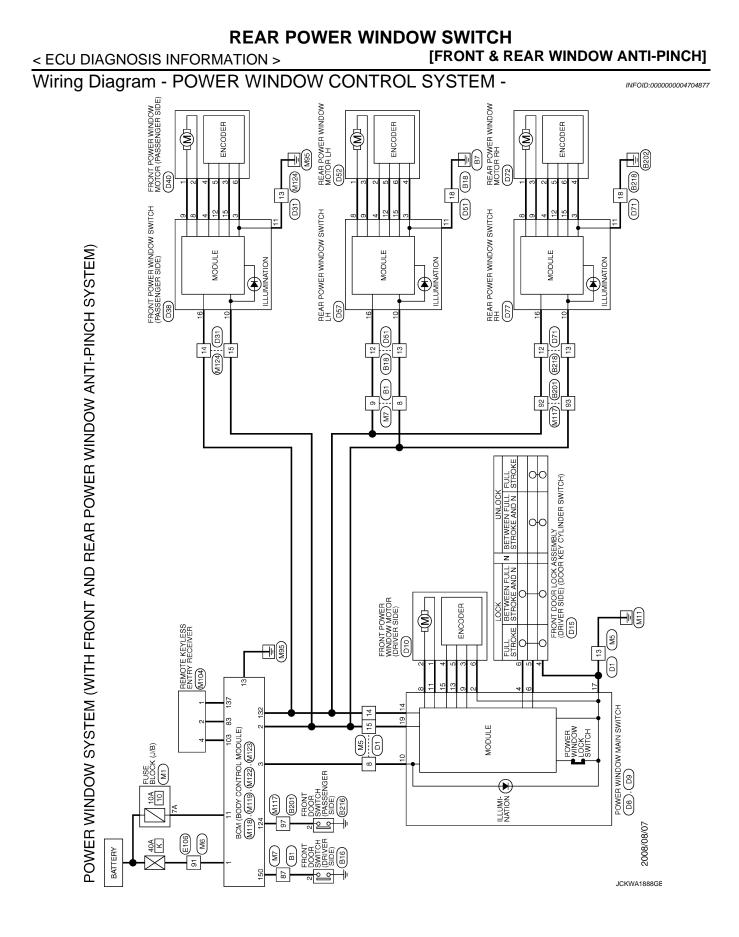
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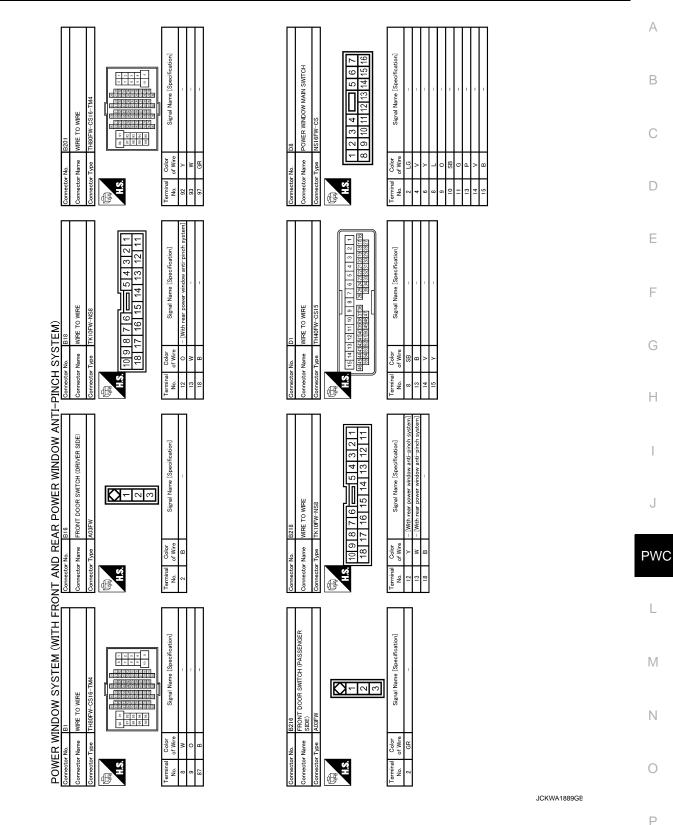
Revision: 2009 October



REAR POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

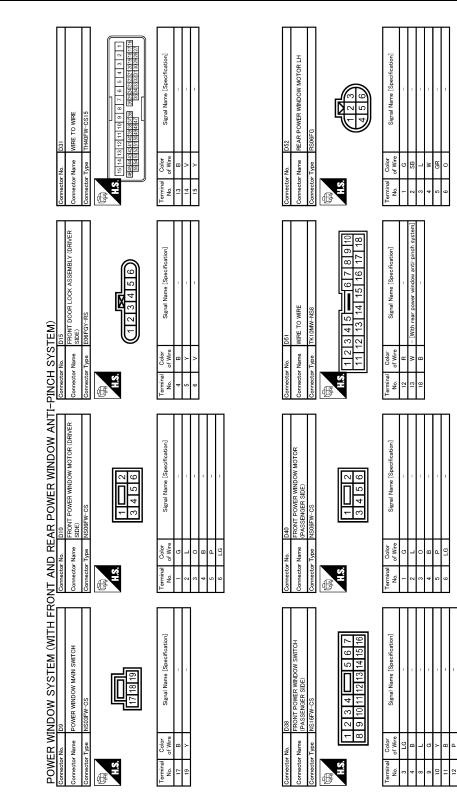
[FRONT & REAR WINDOW ANTI-PINCH]



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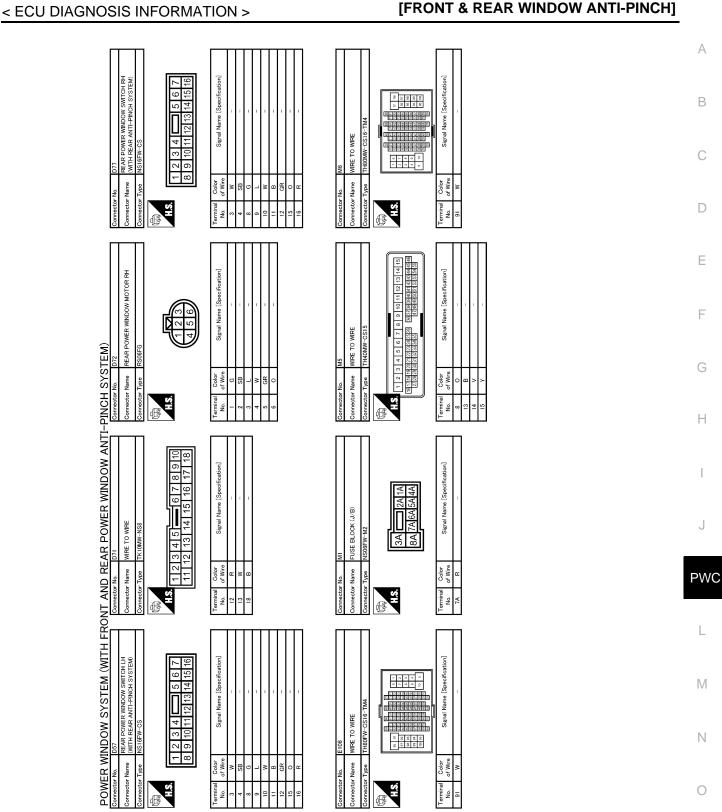


< ECU DIAGNOSIS INFORMATION >



[FRONT & REAR WINDOW ANTI-PINCH]

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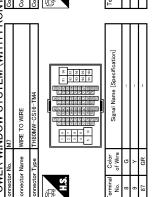
REAR POWER WINDOW SWITCH

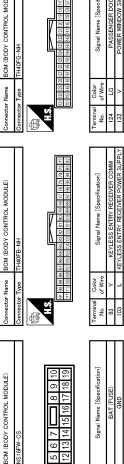
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REAR POWER WINDOW SWITCH < ECU DIAGNOSIS INFORMATION >

10 11 12 13 14 15 3CM (BODY CONTROL MODULE) Signal Name [Specifi Signal Name [Specif 36372 ----8 9 23 24 25 26 3 34 35 **WIRE TO WIRE** 1 2 3 4 5 6 7 27 28 29 30 31 32 3 Color of Wire connector Name ector Name 3 HS ß 倨 Signal Name [Specification] BCM (BODY CONTROL MODULE) Signal Name [Specifica 222222 WIRE TO WIRE AND REAR POWER WINDOW ANTI-PINCH SYSTEM) 0 A 0 7 Color F Wir-Connector Name Name otor HS. erminal No. rmina No. E REMOTE KEYLESS ENTRY RECEIVER Signal Name [Specification Signal Name [Specification] BCM (BODY CONTROL MODULE) onnector Name Color of Wire nector Name HS. rminal No. ĒŚ C C DOWER WINDOW SYSTEM (WITH FRONT





Color of Wire

JCKWA1892GE

INFOID:000000004679445

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

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PWC-100

REAR POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction Malfunction condition	
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
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- Door key cylinder switch power window function

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Revision: 2009 October

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCH-

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< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:000000004240651

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. PWC-16, "BCM : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK POWER WINDOW MAIN SWITCH SERIAL LINK CIRCUIT

Check power window serial link circuit.

Refer to <u>PWC-36. "POWER WINDOW MAIN SWITCH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

- YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.
- NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATION < SYMPTOM DIAGNOSIS >	
DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE	А
Diagnosis Procedure	INFOID:000000004240652
1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT	В
Check power window switch power supply and ground circuit. Refer to PWC-16, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".	
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK DRIVER SIDE POWER WINDOW MOTOR	D
Check driver side power window motor. Refer to <u>PWC-20, "DRIVER SIDE : Component Function Check"</u> .	E
Is the measurement value within the specification?	Lan.
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION	
Confirm the operation again.	G
Is the result normal?	0
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	Н
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FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004240653

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit. Refer to <u>PWC-37, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41. "Intermittent Incident"</u>.

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : Diagnosis Procedure

1.REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side). Refer to <u>PWC-117, "Removal and Installation"</u>

>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED : Diagnosis Procedure

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR-CUIT

Check front power window switch (passenger side) power supply and ground circuit. Refer to <u>PWC-17, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure</u>".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit. Refer to <u>PWC-21, "PASSENGER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}$.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

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PWC-104

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]	
REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE	-
WHEN POWER WINDOW MAIN SWITCH IS OPERATED	A
WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure	6 B
1. CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT	
Check rear power window switch LH serial link circuit. Refer to <u>PWC-39. "REAR LH : Component Function Check"</u> .	C
<u>Is the inspection result normal?</u> YES >> GO TO 2.	D
NO >> Repair or replace the malfunctioning parts.	
2.CONFIRM THE OPERATION	E
Confirm the operation again. Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	F
WHEN REAR POWER WINDOW SWITCH LH IS OPERATED	
WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure	
1. REPLACE REAR POWER WINDOW SWITCH LH	H
Replace rear power window switch LH. Refer to <u>PWC-117, "Removal and Installation"</u>	
>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED	J
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED : Diagnosis Procedure	P۷
1. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT	L
Check rear power window switch power supply and ground circuit.	-
Refer to <u>PWC-18, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> . Is the inspection result normal?	N
YES >> GO TO 2.	
NO >> Repair or replace the malfunctioning parts.	Ν
2.CHECK REAR POWER WINDOW MOTOR LH	-
Check rear power window motor LH. Refer to <u>PWC-23, "REAR LH : Component Function Check"</u> .	C
Is the inspection result normal?	U
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CONFIRM THE OPERATION	P
Confirm the operation again.	-
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004240659

1.CHECK REAR POWER WINDOW SWITCH RH SERIAL LINK CIRCUIT

Check rear power window switch RH serial link circuit. Refer to <u>PWC-40, "REAR RH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41. "Intermittent Incident"</u>.

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure

INFOID:000000004240660

1.REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH. Refer to <u>PWC-117</u>, "Removal and Installation"

>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED : Diagnosis Procedure

1. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit. Refer to <u>PWC-18</u>, "REAR POWER WINDOW SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-24, "REAR RH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMA < SYMPTOM DIAGNOSIS > [FRONT & REAR WIND	
ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY	
DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000004240662
1. CHECK POWER WINDOW AUTO OPERATION	
Check power window auto operation.	
Is the inspection result normal? YES >> GO TO 2.	
NO >> Refer to <u>PWC-109, "DRIVER SIDE : Diagnosis Procedure"</u> .	
2.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	
PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000004240663
1. CHECK POWER WINDOW AUTO OPERATION	
Check power window auto operation.	
Is the inspection result normal?	
YES >> GO TO 2. NO >> Refer to <u>PWC-109</u> , "PASSENGER SIDE : Diagnosis Procedure".	
2.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-41. "Intermittent Incident"</u> .	
NO >> GO TO 1. REAR LH	
REAR LH : Diagnosis Procedure	INFOID:000000004240664
1.CHECK POWER WINDOW AUTO OPERATION	
Check power window auto operation.	
s the inspection result normal? YES >> GO TO 2.	
NO >> Refer to <u>PWC-110, "REAR LH : Diagnosis Procedure"</u> .	
2. CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	
REAR RH	
REAR RH : Diagnosis Procedure	INFOID:000000004240665
1. CHECK POWER WINDOW AUTO OPERATION	
Check power window auto operation.	
Is the inspection result normal?	
YES >> GO TO 2.	

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

NO >> Refer to <u>PWC-110, "REAR RH : Diagnosis Procedure"</u>.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL- LY
< SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY DRIVER SIDE
DRIVER SIDE : Diagnosis Procedure
1.PERFORM INITIALIZATION PROCEDURE
Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-8</u> , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special <u>Repair Requirement"</u> . Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2. 2.CHECK ENCODER (DRIVER SIDE) CIRCUIT
Check encoder (driver side) circuit. Refer to PWC-27, "DRIVER SIDE : Component Function Check". Is the inspection result normal? YES YES
NO >> Repair or replace the malfunctioning parts. G 3.CONFIRM THE OPERATION G
Confirm the operation again. H Is the result normal? YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident". NO >> GO TO 1. I PASSENGER SIDE I
PASSENGER SIDE : Diagnosis Procedure
1.PERFORM INITIALIZAITON PROCEDURE
Initialization procedure is executed and operation is confirmed. Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement". Is the inspection result normal? YES NO >> GO TO 2.
2. CHECK ENCODER (PASSENGER SIDE) CIRCUIT
Check encoder (passenger side) circuit. Refer to <u>PWC-29, "PASSENGER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u>
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. REAR LH

OPERATES NORMAL-

AUTO OPERATION DOES NOT OPERATE	BUT MANUAL OPERATES NORMAL-
< SYMPTOM DIAGNOSIS >	[FRONT & REAR WINDOW ANTI-PINCH]
REAR LH : Diagnosis Procedure	INFOID:00000004240666
1. PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is executed and operation is confi Refer to <u>PWC-8</u> , "ADDITIONAL SERVICE WHEN REM <u>Repair Requirement"</u> . <u>Is the inspection result normal?</u> YES >> INSPECTION END NO >> GO TO 2.	
2. CHECK ENCODER (REAR LH) CIRCUIT	
Check encoder (rear LH) circuit.Refer to PWC-31. "REAR LH : Component Function CherIs the inspection result normal?YES >> GO TO 3.NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION	<u>ck"</u> .
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41. "I</u> NO >> GO TO 1. REAR RH	ntermittent Incident".
REAR RH : Diagnosis Procedure	INFOID:00000004240669
1. PERFORM INITIALIZATION PROCEDURE	
Initialization procedure is executed and operation is confi Refer to <u>PWC-8</u> , "ADDITIONAL SERVICE WHEN REM <u>Repair Requirement"</u> . <u>Is the inspection result normal?</u> YES >> INSPECTION END	

NO >> GO TO 2.

2.CHECK ENCODER (REAR RH) CIRCUIT

Check encoder (rear RH) circuit.

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 $\mathbf{3}$.confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-MALLY

SYMPTOM DIAGNOSIS >	[FRONT & REAR WINDOW ANTI-PINCH]
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POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure	INFOID:00000004240670	В
1. CHECK DOOR SWITCH		D
Check door switch. Refer to <u>DLK-66, "Component Function Check"</u> .		С
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION		D
Confirm the operation again. Is the result normal?		Ε
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.		F
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DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WIN-DOWS

Diagnosis Procedure

INFOID:000000004240671

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : <u>Special</u> <u>Repair Requirement</u>".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. Check driver side door lock assembly (door key cylinder switch)

Check driver side door lock assembly (door key cylinder switch). Refer to <u>DLK-80, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

<pre>KEYLESS POWER WINDOW DOWN DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW]</pre>	ANTI-PINCH]
KEYLESS POWER WINDOW DOWN DOES NOT OPERATE	А
Description	INFOID:000000004596778
Power window down does not operate when pressing unlock button on Intelligent Key.	В
Diagnosis Procedure	INFOID:000000004596779
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	С
Check remote keyless entry function.	
Does door lock/unlock with Intelligent Key button? YES >> GO TO 2. NO >> Refer to DLK-181, "Description".	D
2. CHECK POWER WINDOW OPERATION	E
Check power window operation.	
Does power window operate up/down using power window main switch?	F
YES >> GO TO 3. NO >> Refer to <u>PWC-103, "Diagnosis Procedure"</u> .	I
3. CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"	0
Check "PW DOWN SET" setting in "WORK SUPPORT". Refer to <u>DLK-52, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u> .	G
Is the inspection result normal?	Н
YES >> GO TO 4.	
NO >> Set "PW DOWN SET" setting in "WORK SUPPORT". 4.CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	J
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POWER WINDOW LOCK SWITCH DOES NOT FUNCTION < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000004240672

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to <u>PWC-117, "Removal and Installation"</u>.

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMI < SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW]	
POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMI DRIVER SIDE	=
DRIVER SIDE : Diagnosis Procedure	INFOID:000000004240673
1. REPLACE POWER WINDOW MAIN SWITCH	
Replace power window main switch. Refer to <u>PWC-117, "Removal and Installation"</u> .	
>> INSPECTION END PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000004240674
1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)	
Replace front power window switch (passenger side). Refer to <u>PWC-117, "Removal and Installation"</u> .	
>> INSPECTION END REAR LH	
REAR LH : Diagnosis Procedure	INFOID:000000004240675
1. REPLACE REAR POWER WINDOW SWITCH LH	
Replace rear power window switch LH. Refer to <u>PWC-117, "Removal and Installation"</u> .	
>> INSPECTION END REAR RH	
REAR RH : Diagnosis Procedure	INFOID:000000004240676
1. REPLACE REAR POWER WINDOW SWITCH RH	
Replace rear power window switch RH. Refer to <u>PWC-117, "Removal and Installation"</u> .	
>> INSPECTION END	

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< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

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

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

WARNING:

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

[FRONT & REAR WINDOW ANTI-PINCH]

REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

- 1. Remove the power window main switch finisher (2). Refer to <u>INT-11, "Removal and Installation"</u>.
- 2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-head screw driver (A) etc.



CAUTION:

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

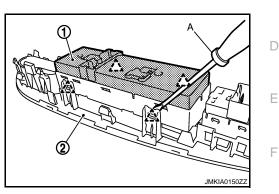
The same procedure is also performed for front power window switch (passenger side) and rear power window switch (LH & RH).

INSTALLATION

Install in the reverse order of removal.

NOTE:

Power window main switch is exchanged or is detached it is necessary to do the initialization procedure. Refer to <u>PWC-9</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".





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BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:000000004240679

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brings the vehicle in.

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

Use "Symptom diagnosis" from the symptom inspection result in step 2. Then identify where to start performing the diagnosis based on possible causes and symptoms.

>> GO TO 4.

4. IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

Perform the diagnosis with "Component diagnosis" of the applicable system.

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 2.

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.

NO >> GO TO 3.

INSPECTION AND ADJUSTMENT

INSPECTION AND ADJUSTMENT А ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description INFOID:000000004637761 When battery negative terminal is disconnected, initialization is necessary. If any of the following operations are performed, initialization is necessary as well as when battery negative terminal is disconnected. Power supply to the power window control unit is cut off by the removal f battery terminal or the battery fuse is blown. D Disconnection and connection of power window control unit harness connector. Removal and installation of motor from regulator assembly. Operation of regulator assembly as an independent unit. Е • Removal and installation of rear power window control unit. Removal and installation of door glass. Removal and installation of door glass run. The operations as per the following cannot be performed while initialization is not complete. F AUTO-UP operation Anti-pinch function • Door key cylinder power window function ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement INFOID:000000004637762 Н INITIALIZATION PROCEDURE Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute or more. 2. Turn ignition switch ON. 3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is already fully open.) J 4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more. 5. Initialization procedure is complete. 6. Inspect anti-pinch function. PWC CHECK ANTI-PINCH FUNCTION 1. Fully open door glass. Place a piece of wood near the fully closed position. 2. 3. Close door glass completely using AUTO-UP. • Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops. Check that door glass does not rise when operating power window main switch while lowering. M CAUTION: Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally. Check that AUTO-UP operates before inspection when initialization is performed. Ν • Never check with hands or other body parts because they may be pinched. Never get pinched. It may switch to the fail-safe mode if open/close operation is performed continuously without fully closing door glass. Perform initialization in the above situation. Refer to PWC-191, "Fail-safe". • Finish initialization. Otherwise, the next operation cannot be done. 1. AUTO-UP operation Anti-pinch function 2. 3. Door key cylinder power window function Ρ ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description INFOID:000000004637763 When the control unit is replaced, initialization is necessary.

If any of the following operations are performed, initialization is necessary as well as when the control unit is disconnected.

PWC-119

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

- Power supply to the power window control unit is cut off by the removal of battery terminal or the battery fuse is blown.
- Disconnection and connection of power window control unit harness connector.
- · Removal and installation of motor from regulator assembly.
- Disconnection and connection of battery negative terminal.
- · Removal and installation of rear power window control unit.
- Removal and installation of door glass.
- Removal and installation of door glass run.

The following specified operations cannot be performed while initialization is not complete.

- AUTO-UP operation
- Anti-pinch function
- Door key cylinder power window function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000004637764

INITIALIZATION PROCEDURE

- Disconnect battery negative terminal or power window control unit connector. Reconnect it after a minute or more.
- 2. Turn ignition switch ON.
- 3. Operate power window switch to fully open door glass. (This operation is unnecessary if door glass is already fully open.)
- 4. Pull and hold power window switch UP (AUTO-UP operation). Even after door glass stops at the fully closed position, pull the switch for 2 seconds or more.
- Initialization procedure is complete. 5.
- Inspect anti-pinch function. 6.

CHECK ANTI-PINCH FUNCTION

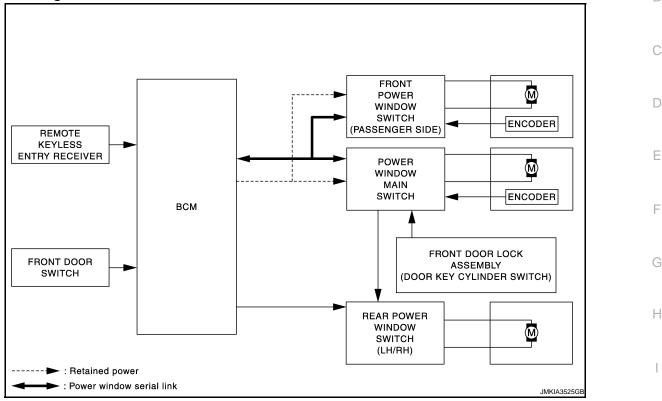
- 1. Fully open door glass.
- Place a piece of wood near the fully closed position. 2.
- Close door glass completely using AUTO-UP. 3
- Check that door glass lowers approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that door glass does not rise when operating power window main switch while lowering.

CAUTION:

- Perform initialization when AUTO-UP operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to the fail-safe mode if open/close operation is performed continuously without fully closing. Perform initialization in the above situation. Refer to PWC-191, "Fail-safe".
- Finish initialization. Otherwise, the next operation cannot be done.
- 1. AUTO-UP operation
- 2. Anti-pinch function
- 3. Door key cylinder power window function

SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram



System Description

POWER WINDOW SYSTEM

- Power window system is operable during the retained power operation timer after turning ignition switch OFF.
- Power window main switch can open/close door glass.
- Front and rear power window switch can open/close the corresponding door glass.
- AUTO UP/DOWN operation can be performed when front power window switch turns to AUTO.
- Power window lock switch can lock all power windows other than driver seat.
- Power window serial link transmits the signals from power window main switch to front power window switch (passenger side).
- If door glass receives resistance that is the specified value or more while power window of front seat is in AUTO-UP operation, power window of front seat operates in the reverse direction.
- Hold the door key cylinder to the LOCK or UNLOCK direction for 1 second or more to OPEN or CLOSE front power windows when ignition switch OFF.
- Front power windows open when pressing Intelligent Key unlock button for 3 seconds.

POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when front power window motor 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 for 45 seconds after ignition switch turns OFF.

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PWC-121

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

RETAINED POWER FUNCTION CANCEL CONDITIONS

- Front door CLOSE (door switch OFF) \rightarrow OPEN (door switch ON).
- When ignition switch turns ON again.
- When timer times out. (45 seconds)

POWER WINDOW LOCK FUNCTION

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

POWER WINDOW SERIAL LINK

- Front power window switches and BCM transmit and receive the power window serial link.
- Power window serial link transmits the power window main switch operation signals and IGN signal to power window main switch module, front power window switch (passenger side) module.

ANTI-PINCH OPERATION

- Pinch the foreign matter in the door glass during AUTO-UP operation is the anti-pinch function that lowers the door glass 150 mm (5.9 in) 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 door glass for 150 mm (5.9 in) after it detects encoder pulse signal frequency change.
- OPERATION CONDITION
- When front 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.

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE front power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEU-TRAL when operating.

OPERATION CONDITION

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

While retained power operation activate, keyless power window down function cannot be operated. Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>DLK-52, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)"</u>. **NOTE:**

Use CONSULT-III to change settings.

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

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

Component Parts Location

[FRONT WINDOW ANTI-PINCH]

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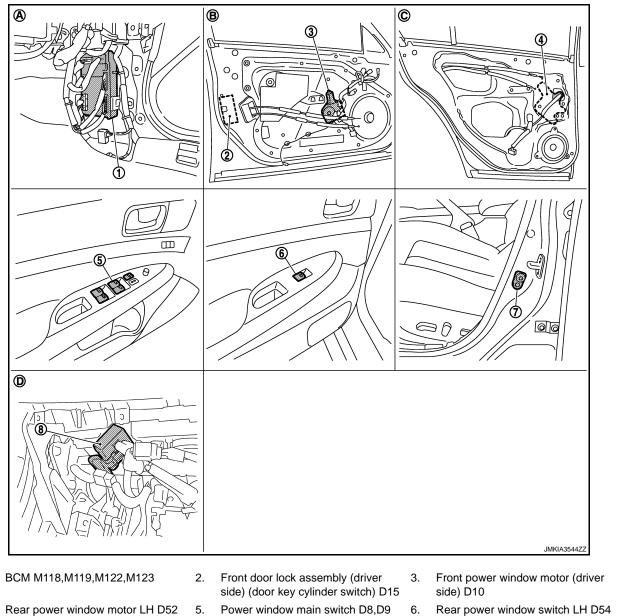
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- 7. Front door switch (driver side) B16
- Α. View with dash side lower (passenger side)
- D. View with instrument lower panel (passenger side) removed
- **Component Description**

1.

4.

- 8. Remote keyless entry receiver M104
- В. View with front door finisher removed C.

View with rear door finisher removed

- Ν
- INFOID:000000004637760

Component	Function	P
BCM	Supplies power supply to power window switch.Controls retained power function.	
Power window main switch	Directly controls all power window motor of all doors.Controls anti-pinch operation of power window.	
Front power window switch	Controls anti-pinch operation of power window.Controls power window motor of passenger door.	

Revision: 2009 October

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

Component	Function
Rear power window switch	Controls power window motor of rear right and left doors.
Power window motor	 Integrates the ENCODER and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch.
Front door lock assembly (door key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Front door switch	Detects door open/close condition and transmits to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent Key, and then transmits to BCM.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

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INFOID:000000004667406

[FRONT WINDOW ANTI-PINCH]

APPLICATION ITEM

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

Diagnosis mode	Function Description	
Work Support	Changes the setting for each system function.	
Self Diagnostic Result	Displays the diagnosis results judged by BCM.	D
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III opera- tion manual.	_
Data Monitor	The BCM input/output signals are displayed.	
Active Test	The signals used to activate each device are forcibly supplied from BCM.	
Ecu Identification	The BCM part number is displayed.	F
Configuration	This function is not used even though it is displayed.	

SYSTEM APPLICATION

BCM can perform the following functions for each system.

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

Sustan	Out austana a la stian itana	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		×	×	J
Interior room lamp timer	INT LAMP	×	×	×	
Exterior lamp	HEAD LAMP	×	×	×	DIA
Wiper and washer	WIPER	×	×	×	PW
Turn signal and hazard warning lamps	FLASHER	×	×	×	
	AIR CONDITONER*				L
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		M
Body control system	BCM	×			
IVIS - NATS	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	Ν
Trunk lid open	TRUNK		×	×	
Vehicle security system	THEFT ALM	×	×	×	0
RAP system	RETAINED PWR		×		_
Signal buffer system	SIGNAL BUFFER		×	×	
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×	Ρ

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

CONSULT screen item	Indication/Unit	Description		
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected		
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected		
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	OFF>ACC		While turning power supply position from "OFF" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steer- ing is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	 The number of times that ignition switch is turned ON after DTC is detected The number is 0 when a malfunction is detected now. The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The number is fixed to 39 until the self-diagnosis results are erased if it is over 39. 		

RETAIND PWR

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

INFOID:000000004240689

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.

POW	ER SUPPLY AN	D GROUND CI	RCUIT
< DTC/CIRCUIT DIAGNOSIS >			[FRONT WINDOW ANTI-PINCH]
DTC/CIRCUIT DIA	GNOSIS		
POWER SUPPLY AND BCM	GROUND CIR	CUIT	A
BCM : Diagnosis Procedu	re		INF0/D:000000004240690
1.CHECK FUSE AND FUSIBLE	LINK		С
Check that the following fuse and	fusible link are not blo	own.	
Terminal No.	Signal	name	Fuse and fusible link No.
1	Battery power supply		K (40 A)
11	Battery power supply		10 (10 A)
 2.CHECK POWER SUPPLY CIF 1. Turn ignition switch OFF. 2. Disconnect BCM connectors. 3. Check voltage between BCM 		nd ground.	G
	(+)		Voltage
Connector	Terminal	(-)	(Approx.)
M118	1	Crownd	
M119	11	Ground	Battery voltage
Is the measurement value normalYES>> GO TO 3.NO>> Repair harness or co 3. CHECK GROUND CIRCUITCheck continuity between BCM h	nnector.	ground.	PWC
BCM			
Connector	Terminal	Ground	Continuity
M119	13		Existed
Does continuity exist? YES >> INSPECTION END NO >> Repair harness or co POWER WINDOW MAIN	SWITCH		N
POWER WINDOW MAIN	-	osis procedure	INFOID:000000004240691
1.CHECK POWER SUPPLY CIF	RCUIT 1		
 Turn ignition switch OFF. Disconnect power window ma Turn ignition switch ON. Check voltage between power 			and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

(Power windo	+) w main switch	()	Voltage (V) (Approx.)	
Connector	Terminal			
D8	10	Ground	Pottony voltago	
D9	19	Giouna	Battery voltage	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT 2

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connector.
- 3. Check continuity between BCM harness connector and power window main switch harness connector.

E	BCM	Power windo	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M118	2	D9	19	Existed
IVI I I O	3	D8	10	Existed

4. Check continuity between BCM harness connector and ground.

B	CM		Continuity
Connector	Terminal	Ground	Continuity
M118	2	Ground	Not existed
INIT IO	3		NUL EXISTED

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

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

Power windo	w main switch		Continuity
 Connector	Terminal	Ground	Continuity
 D9	17		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000004240692

1.CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition switch OFF.

- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check voltage between front power window switch (passenger side) harness connector and ground.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

	(+)			
	ower window switch		()	Voltage (V)
(p Connector	bassenger side)	minal		(Approx.)
D38	10		Ground	Battery voltage
s the measurement val	_	ation?	Cround	Lattery renage
YES >> GO TO 3. NO >> GO TO 2.				
 Disconnect BCM continuity be ness connector. 		s connector and fro	ont power window sv	vitch (passenger side) har-
BC	BCM Front power window s (passenger side)			Continuity
Connector	Terminal	Connector	Terminal	
M118	2	D38	10	Existed
. Check continuity be	etween BCM harness	connector and gro	ound.	
	BCM			
Connector	Termina	al	Ground	Continuity
M118	2			Not existed
	ower window switch bassenger side)			Continuity
Connector	Termina	al	Ground	Continuity
D38	11			Existed
the inspection result YES >> INSPECTIONO >> Repair or re REAR POWER W	ON END eplace harness.	СН		
REAR POWER W		H : Diagnosis F	Procedure	INFOID:000000004240693
 Turn ignition switch 	wer window switch Ll			
	(+)			
	(+) Rear power window switch	า	()	Voltage (V)
	nector	Terminal		(Approx.)
LH	D54			
RH	D74	1	Ground	Battery voltage

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

2. Disconnect BCM connector.

3. Check continuity between BCM harness connector and rear power window switch harness connector.

B	CM	Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	Continuity
M118	2	LH	D54	1	Existed
IVI I O	3	RH	D74	- 1	Existed

4. Check continuity between BCM harness connector and ground.

BC	CM		Continuity
Connector	Terminal	Ground	Continuity
M118	3	*	Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

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

	Rear power window switch			Continuity	
Conr	Connector		Ground	Continuity	
LH	D54	7	Ground	Existed	
RH	D74	7		Existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

REAR POWER WINDOW SWITCH

Description

- BCM supplies power.
- Rear power window motor will be operated if rear power window switch is operated. Rear power window switch.

Component Function Check

1. CHECK REAR POWER WINDOW OPERATION

Check rear power window motor operation with rear power window switch. Is the inspection result normal?

- YES >> Rear power window switch is OK.
- NO >> Refer to <u>PWC-131</u>, "Diagnosis Procedure".

Diagnosis Procedure

1.CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

	(+)								
		switch (–)		r power window switch		(–) Condition		Voltage (V) (Approx.)	
Conr	nector	Terminal				(
		2			UP	Battery voltage			
LH	DE4	_	Power window main switch	DOWN	0				
LH			3		(rear LH)	UP	0		
				Oracial		DOWN	Battery voltage		
		2	Ground		UP	Battery voltage			
	D74			2	Power window main s			Power window main switch	DOWN
RH	D74		(rear RH)	UP	0				
		3		-	DOWN	Battery voltage			

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK REAR POWER WINDOW SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check continuity between power window main switch harness connector and rear power window switch harness connector.

	Continuity	tch	Rear power window switch Connector		w main switch	Power window
	- Continuity	Terminal			Terminal	Connector
-		2	D54		1	
	Evieted	3	D54	LH	3	Da
	Existed	3	D74		5	D8 -
	1	2	D74	RH	7	-

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

PWC-131

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REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

main switch		Continuity
Terminal		Continuity
1	Ground	
3	Giouna	Not existed
5		
7		
	Terminal 1 3	Terminal 1 Ground

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-216, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-132, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window switch. Refer to <u>PWC-216. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to <u>GI-41, "Intermittent Incident"</u>

>> INSPECTION END

Component Inspection

INFOID:000000004240697

1.CHECK REAR POWER WINDOW SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch terminals.
- 3. Check rear power window switch.

Rear power window switch	Terminal		Power window switch condition	Continuity	
	1	5	UP		
	3	4	UF UF		
D54 (LH)	3	4	NEUTRAL	Existed	
D74 (RH)	5	2	NEOTRAL	Existed	
	1	4	DOWN		
	5	2	DOWN		

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to <u>PWC-216. "Removal and Installation"</u>.

< DTC/CIRCUIT DIAGNOSIS > POWER WINDOW MOTOR А DRIVER SIDE DRIVER SIDE : Description INFOID:000000004240698 В Door glass moves UP/DOWN by receiving the signal from power window main switch. DRIVER SIDE : Component Function Check INFOID:000000004240699 **1.**CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) OPERATION Check front power window motor (driver side) operation with power window main switch. D Is the inspection result normal? YES >> Power window motor (driver side) is OK. >> Refer to PWC-133, "DRIVER SIDE : Diagnosis Procedure". NO DRIVER SIDE : Diagnosis Procedure INFOID:000000004240700 1.CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL F 1. Turn ignition switch OFF. 2. Disconnect front power window motor (driver side) connector. 3. Turn ignition switch ON. Check voltage between front power window motor (driver side) harness connector and ground. 4. (+)Н Voltage (V) Front power window motor (driver side) (-) Condition (Approx.) Terminal Connector UP Battery voltage 2 DOWN 0 D10 Ground Power window main switch UP 0 1 DOWN Battery voltage Is the measurement value within the specification? PWC YES >> GO TO 3. NO >> GO TO 2. 2.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE) CIRCUIT Turn ignition switch OFF. 1. 2. Disconnect power window main switch connector. Check continuity between power window main switch harness connector and front power window motor 3. Μ (driver side) harness connector. Front power window motor Power window main switch (driver side) Ν Continuity Connector Terminal Connector Terminal 2 8 D8 D10 Existed 11 1 Check continuity between power window main switch harness connector and ground. 4 Power window main switch Continuity Connector Terminal Ground 8 D8 Not existed 11 Is the inspection result normal?

>> Replace power window main switch. Refer to PWC-117, "Removal and Installation". YES

< DTC/CIRCUIT DIAGNOSIS >

NO >> Repair or replace harness.

3.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).

Refer to <u>PWC-134, "DRIVER SIDE : Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (driver side). Refer to <u>GW-16. "Removal and Installation"</u>.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:000000004240701

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor (driver side) connector.
- 3. Check motor operation by connecting the battery voltage directly to front power window motor (driver side) terminals.

Front power window motor	Terr	Motor operation	
(driver side) connector	(+)	()	
D10	1	2	DOWN
DIO	2	1	UP

Is the inspection result normal?

YES >> Front power window motor (driver side) is OK.

NO >> Replace front power window motor (driver side). Refer to <u>GW-16, "Removal and Installation"</u>. PASSENGER SIDE

PASSENGER SIDE : Description

Door glass moves UP/DOWN by receiving the signal power window main switch or front power window switch (passenger side).

PASSENGER SIDE : Component Function Check

1. CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) OPERATION

Check front power window motor (passenger side) operation with power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Power window motor (passenger side) is OK.

NO >> Refer to <u>PWC-134</u>, "PÄSSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

1.CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window motor (passenger side) connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between front power window motor (passenger side) harness connector and ground.

INFOID:000000004240702

INFOID:000000004240703

INFOID:000000004240704

PWC-134

< DTC/CIRCUIT DIAGNOSIS >

(-	+)					
	window motor ger side)	()		Condition		Voltage (V) (Approx.)
Connector	Terminal					
	1				UP	Battery voltage
D40		Ground		window switch	DOWN	0
2.0	2	0.00.00	(passenger s	ide)	UP	0
	-				DOWN	Battery voltage
s the measurement		pecification?				
YES >> GO TO 3						
NO >> GO TO :						
CHECK POWER	WINDOW MOTO	R (PASSENGE	ER SIDE) CI	RCUIT		
. Turn ignition swi						
	power window sv					
	/ between front po bassenger side) ha			nger side) harr	iess conne	ector and front power
	assenger side) na		l01.			
Front power windo	w switch (passenger s	side) Front	power window	motor (passenger	side)	Continuity
Connector	Terminal	C	onnector	Termina	I	Continuity
D38	9		D40	1		Existed
030	8		D40	2		EXISTED
Check continuity	/ between front po	wer window sv	witch (passe	nger side) con	nector and	ground.
Front power	window switch (passe	enger side)				Continuity
Connector		Terminal		Ground		Continuity
D38		8		Croana		Not existed
200		9				Not oxiotod
NO >> Repair of NO Source Structure CHECK FRONT I	e front power wind or replace harness POWER WINDOV	V MOTOR (PA	-	·	/ <u>C-117, "</u> R	emoval and Installa-
Check front power w						
Refer to <u>PWC-135,</u> "			nt inspection	<u>.</u> .		
s the inspection res						
YES >> GO TO 4 NO >> Replace		ow motor (nase	senger side)	Refer to GW-	16. "Remo	oval and Installation".
1. CHECK INTERM	-					
		I				
Refer to <u>GI-41, "Inte</u>	mittent Incident".					
>> INSPEC	TION END					
PASSENGER S	IDE : Compor	nent Inspect	tion			INFOID:000000004240705
CHECK FRONT	-	-		SIDE)		
1. Turn ignition swi						
	t nower window m	otor (nassona	ar sida) conn	ector		

2. Disconnect front power window motor (passenger side) connector.

3. Check motor operation by connecting the battery voltage directly to front power window motor (passenger side) terminals.

PWC-135

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WIND	OW ANTI-PINCH]
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Front power window motor (passen-	Terr	minal	Motor condition	
ger side) connector	(+)	()		
D40	2	1	DOWN	
D40	1	2	UP	

Is the inspection result normal?

YES >> Front power window motor (passenger side) is OK.

NO >> Replace front power window motor (passenger side). Refer to <u>GW-16, "Removal and Installation"</u>. REAR LH

REAR LH : Description

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

REAR LH : Component Function Check

1.CHECK REAR POWER WINDOW MOTOR LH OPERATION

Check rear power window motor LH operation with power window main switch or rear power window switch LH.

Is the inspection result normal?

YES >> Power window motor LH is OK.

NO >> Refer to <u>PWC-136</u>, "REAR LH : Diagnosis Procedure"

REAR LH : Diagnosis Procedure

1.CHECK REAR POWER WINDOW MOTOR INPUT 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 harness connector and ground.

(+ Rear power wir	•	()	Condition		Voltage (V) (Approx.)
Connector	Terminal	_			(Applox.)
	1		UP		Battery voltage
DEO	I	Ground	DOWN	DOWN	0
D52	2	Ground	Rear power window switch LH	UP	0
	3			DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect rear power window switch LH connector.

 Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power v	vindow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D54	5	D52	1	Existed
D34	4	052	3	Existed

4. Check continuity between rear power window switch LH harness connector and ground.

PWC-136

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INFOID:000000004240707

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Rear power wind	dow switch LH			Orationity
Connector	Terminal		round	Continuity
D54	5		ound	Not existed
	4			
the inspection result normal? YES >> Replace rear power wi NO >> Repair or replace harn		r to <u>PWC-216, "Re</u>	emoval and	Installation".
CHECK REAR POWER WINDO				
heck rear power window motor Ll efer to <u>PWC-137, "REAR LH : Co</u>				
the inspection result normal? YES >> GO TO 4. NO >> Replace rear power wi	ndow motor LH. Refe	to GW-22. "Remo	oval and Ins	stallation".
.CHECK INTERMITTENT INCID				
efer to GI-41, "Intermittent Incider				
>> INSPECTION END				
EAR LH : Component Ins	pection			INFOID:00000000424070
.CHECK REAR POWER WINDO	W MOTOR LH			
Check motor operation by con nals.			ear power v	window motor LH termi
	Termir	nal		window motor LH termi-
nals. Rear power window motor LH con- nector				
nals. Rear power window motor LH con- nector D52	Termir (+)	nal (-)		Motor condition
nals. Rear power window motor LH connector D52 the inspection result normal? (ES >> Rear power window m NO >> Replace rear power wi EAR RH	Termir (+) 3 1 otor LH is OK.	nal (–) 1 3	-	Motor condition DOWN UP Stallation".
nals. Rear power window motor LH connector D52 the inspection result normal? (FES >> Rear power window model) YES >> Replace rear power window model NO >> Replace rear power window model EAR RH EAR RH : Description	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer	nal (–) 1 3		Motor condition DOWN UP Stallation".
nals. Rear power window motor LH connector D52 the inspection result normal? (ES >> Rear power window m NO >> Replace rear power wi EAR RH	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer	nal (–) 1 3		Motor condition DOWN UP Stallation".
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window m NO >> Replace rear power window m EAR RH EAR RH EAR RH : Description oor glass moves UP/DOWN by r witch RH. No	Termin (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal fro	nal (–) 1 3		Motor condition DOWN UP Stallation".
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power wi EAR RH Description oor glass moves UP/DOWN by r vitch RH. EAR RH : Component Full	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal fro	nal (-) 1 3 • to <u>GW-22, "Remo</u>		Motor condition DOWN UP Stallation".
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window m NO >> Replace rear power window m Soor glass moves UP/DOWN by r vitch RH. EAR RH : Component Full . CHECK REAR POWER WINDOW	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal fro nction Check OW MOTOR RH OPE	nal (-) 1 3 • to <u>GW-22, "Remo</u> om power window to RATION	wal and Ins	Motor condition DOWN UP Stallation". INFOID:00000000424071 th or rear power window
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power wi EAR RH Description oor glass moves UP/DOWN by r vitch RH. EAR RH : Component Full	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal fro nction Check OW MOTOR RH OPE	nal (-) 1 3 • to <u>GW-22, "Remo</u> om power window to RATION	wal and Ins	Motor condition DOWN UP Stallation". INFOID:00000000424071 th or rear power window
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window m NO >> Replace rear power window m NO >> Replace rear power window m Oor glass moves UP/DOWN by r vitch RH. EAR RH : Component Full . CHECK REAR POWER WINDOW heck rear power window motor R H. the inspection result normal?	Termin (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal from nction Check OW MOTOR RH OPE RH operation with pow	nal (-) 1 3 • to <u>GW-22, "Remo</u> om power window to RATION	wal and Ins	Motor condition DOWN UP Stallation". INFOID:00000000424071 th or rear power window
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window motor F CHECK REAR POWER WINDO . He inspection result normal? . YES >> Power window motor F	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal from nction Check OW MOTOR RH OPE RH operation with pow	nal (-) 1 3 • to <u>GW-22, "Remo</u> om power window RATION er window main sy	wal and Ins	Motor condition DOWN UP Stallation". INFOID:00000000424071 th or rear power window
Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window m NO >> Replace rear power window m Oor glass moves UP/DOWN by r vitch RH. EAR RH : Description oor glass moves UP/DOWN by r vitch RH. EAR RH : Component Full . CHECK REAR POWER WINDO heck rear power window motor Full . CHECK REAR POWER WINDO heck rear power window motor Full . CHECK REAR POWER WINDO heck rear power window motor Full . CHECK REAR POWER WINDO heck rear power window motor Full . CHECK REAR POWER WINDO heck rear power window motor Full . CHECK REAR POWER WINDO . CHECK REAR POWER WINDO	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal from nction Check OW MOTOR RH OPE RH operation with pow RH is OK. EAR RH : Diagnosis F	nal (-) 1 3 • to <u>GW-22, "Remo</u> om power window RATION er window main sy	wal and Ins	Motor condition DOWN UP Stallation". INFOID:00000000424071 th or rear power window
nals. Rear power window motor LH connector D52 the inspection result normal? YES >> Rear power window m NO >> Replace rear power window motor F CHECK REAR POWER WINDO . He inspection result normal? . YES >> Power window motor F	Termir (+) 3 1 otor LH is OK. ndow motor LH. Refer eceiving the signal from nction Check OW MOTOR RH OPE RH operation with power RH is OK. EAR RH : Diagnosis From redure	nal (-) 1 3 to <u>GW-22, "Remo</u> om power window the set of the	wal and Ins	Motor condition DOWN UP Stallation". INFOID:0000000424071 th or rear power window INFOID:0000000424071 ar power window switch

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

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

	+) ndow motor RH	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal	1			(/ (pp/0x.)
	1		UP		Battery voltage
D72	I	Ground	Rear power window switch RH	DOWN	0
DTZ	3	Giouna	Real power window switch RH	UP	0
	3			DOWN	Battery voltage

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect rear power window switch RH connector.

3. Check continuity between rear power window switch RH harness connector and rear power window motor RH harness connector.

Rear power w	indow switch RH	Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D74	5	D72	1	Existed
014	4	DIZ	3	Existed

4. Check continuity between rear power window switch RH harness connector and ground.

Rear power w	Rear power window switch RH		Continuity
Connector	Terminal	Ground	Continuity
D74	5	Giouria	Not existed
D74	4		NOT EXISTED

Is the inspection result normal?

- YES >> Replace rear power window switch RH. Refer to <u>PWC-216, "Removal and Installation"</u>.
- NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to <u>PWC-138</u>, "REAR RH : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END

REAR RH : Component Inspection

1.CHECK REAR POWER WINDOW MOTOR RH

1. Turn ignition switch OFF.

2. Disconnect rear power window motor RH connector.

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PWC-138

2009 G37 Sedan

INFOID:000000004240713

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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

Rear power window motor RH con-	Terminal		Motor condition	-
nector	(+)	(-)		E
D72	3	1	DOWN	-
DTZ	1	3	UP	
		÷	·	. (

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

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

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< DTC/CIRCUIT DIAGNOSIS > ENCODER

DRIVER SIDE

DRIVER SIDE : Description

Detects condition of the front power window motor (driver side) operation and transmits to power window main switch as the pulse signal.

DRIVER SIDE : Component Function Check

1.CHECK ENCODER OPERATION

Check driver side door glass perform AUTO open/close operation normally by power window main switch. <u>Is the inspection result normal?</u>

- YES >> Encoder is OK.
- NO >> Refer to <u>PWC-140</u>, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004240716

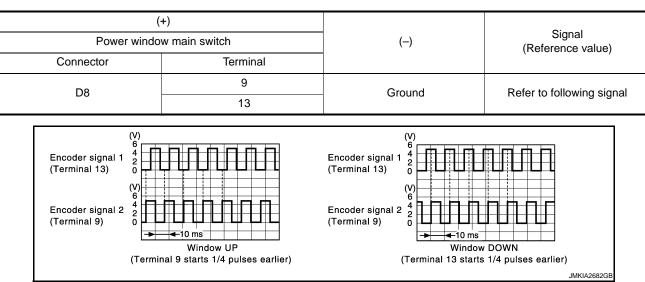
INFOID:000000004240714

INFOID:000000004240715

1.CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

2. Check signal between power window main switch harness connector and ground using oscilloscope.



Is the inspection result normal?

YES >> Replace power window main switch. Refer to <u>PWC-216, "Removal and Installation"</u>. NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector and front power window motor (driver side) connector.
- 3. Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector	Terminal	
D8	9	D10	3	Existed
Do	13		5	Existed

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

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Power wi	ndow main switch			
Connector	Terminal			Continuity
D8	9 13		Ground —	Not existed
s the inspection result no	<u>irmal?</u>			
YES >> GO TO 3. NO >> Repair or rep CHECK ENCORDER				
. Connect power windo 2. Turn ignition switch C 3. Check voltage betwee	DN.		ide) harness connec	tor and ground.
	(+)			
Front power win	ndow motor (driver side)		(—)	Voltage (V) (Approx.)
Connector	Terminal			(11 -)
D10	4		Ground	Battery voltage
s the inspection result no YES >> GO TO 5. NO >> GO TO 4.	<u>rmal?</u>			
LCHECK ENCORDER	POWER SUPPLY C	IRCUIT 2		
Power window r Connector	main switch Terminal	Front power wind Connector	dow motor (driver side)	Continuity
D8	15	D10	4	Existed
. Check continuity betw		-		
	-		_	
	ndow main switch		Continui	
Connector D8	Terminal 15		Ground	Not existed
s the inspection result no				
YES >> Replace pow	er window main swit	ch. Refer to <u>PWC</u>	-216, "Removal and	
YES >> Replace pow	er window main swit lace harness.	ch. Refer to <u>PWC</u>	-216. "Removal and	
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF I. Turn ignition switch C 2. Disconnect power wit	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window	onnector.		
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF Turn ignition switch C Disconnect power wir Check continuity bet	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window connector.	onnector. / main switch harn		Installation".
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF Turn ignition switch C Disconnect power wir Check continuity betw (driver side) harness	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window connector.	onnector. / main switch harn	ness connector and t	Installation".
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF Disconnect power win Check continuity betw (driver side) harness	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window connector.	onnector. / main switch harn Front power winc	ness connector and t	Installation".
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF Disconnect power wir Check continuity betw (driver side) harness Power window r	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window connector. main switch Terminal 2	onnector. / main switch harn Front power wind Connector	dow motor (driver side)	Installation". Front power window moto
YES >> Replace pow NO >> Repair or rep D.CHECK GROUND CIF Disconnect power with Check continuity betw (driver side) harness Power window r Connector D8	er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window connector. main switch Terminal 2 prmal?	onnector. / main switch harn Front power wind Connector	dow motor (driver side)	Installation". Front power window moto

< DTC/CIRCUIT DIAGNOSIS >

1. Connect power window main switch connector.

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

Power windo	w main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	2		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-16, "Removal and Installation"</u>.

NO >> Replace power window main switch. Refer to <u>PWC-216. "Removal and Installation"</u>.

PASSENGER SIDE

PASSENGER SIDE : Description

Detects condition of the front power window motor (passenger side) operation and transmits to front power window switch (passenger side) as the pulse signal.

PASSENGER SIDE : Component Function Check

1.CHECK ENCODER OPERATION

Check passenger side door glass perform AUTO open/close operation normally by power window main switch or front power window switch (passenger side).

Is the inspection result normal?

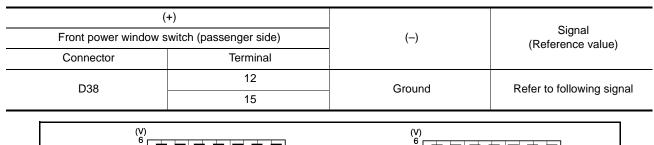
YES >> Encoder is OK.

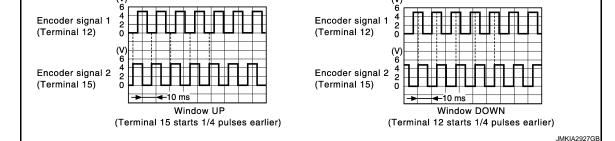
NO >> Refer to <u>PWC-142</u>, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

1.CHECK ENCODER SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between front power window switch (passenger side) harness connector and ground using oscilloscope.





Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-216. "Removal and Installa-</u> tion".

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

PWC-142

INFOID:000000004240717

INFOID:000000004240718

INFOID:000000004240719

< DTC/CIRCUIT DIAGNOSIS >

- [FRONT WINDOW ANTI-PINCH]
- Disconnect front power window switch (passenger side) connector and front power window motor (passenger side) connector.
 Check continuity between front power window switch (passenger side) harness connector and front power
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window switch (passenger side) Front power window motor (passenger side)			Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
D38	12	D40	5	- Existed	
	15	D40	3	Existed	

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window	switch (passenger side)	Ground	Continuity
Connector	Terminal		
D38	12		Not existed
030	15		NOL EXISTED

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

- 1. Connect front power window switch (passenger side) connector.
- 2. Turn ignition switch ON.
- 3. Check voltage between front power window motor (passenger side) harness connector and ground.

(+) Front power window motor (passenger side)			Voltage (V) (Approx.)	1
		()		
Connector	Terminal			
D40	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK ENCODER POWER SUPPLY CIRCUIT 2

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	Front power window switch (passenger side)		Front power window motor (passenger side)		-
Connector	Terminal	Connector	Terminal	Continuity	
D38	4	D40	4	Existed	Ν

4. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window s	Front power window switch (passenger side)		0	
Connector	Terminal	Ground	Continuity	
D38	4		Not existed	Р

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-216. "Removal and Installa-</u> tion".

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.

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< DTC/CIRCUIT DIAGNOSIS >

- 2. Disconnect front power window switch (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window switch (passenger side)		Front power window motor (passenger side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D38	3	D40	6	Existed	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

1. Connect front power window switch (passenger side) connector.

2. Check continuity between front power window switch (passenger side) harness connector and ground.

Front power window sw		Continuity		
Connector	Terminal	Ground	Continuity	
D38	3	-	Existed	

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-16, "Removal and Installation"</u>.

NO >> Replace front power window switch (passenger side). Refer to <u>PWC-216, "Removal and Installa-</u> tion".

	OSIS >		[FRONT WINDOW ANTI-PINCH
	V SERIAL LIN	IK	
POWER WINDOW	MAIN SWITCH	4	
POWER WINDOW I	MAIN SWITCH	: Description	INFOID:000000046395
Power window main swite		dow switch (passe	enger side) and BCM transmit and receive th
	elow is transmitted	from BCM to pov	wer window main switch, front power window
	ow is transmitted fro		main switch to front power window switch (pas
Power window control b Power window lock swit Retained power operation	ch signal	h signal	
POWER WINDOW I	MAIN SWITCH	: Component	Function Check INFOID:000000046373
CHECK POWER WIND	DOW SWITCH OUT	PUT SIGNAI	
With CONSULT-III		-	
Check ("CDL LOCK SW "	, "CDL UNLOCK S\ Refer to <u>DLK-51, "D</u> O	N") in "DATA MON DOR LOCK : CON	NITOR" mode for "POWER DOOR LOCK SYS NSULT-III Function (BCM - DOOR LOCK)".
Monitor i	item		Condition
CDL LOCK SW		LO	CK : ON
CDL LOCK SW		UNL	OCK : OFF
CDL UNLOCK SW		LO	CK : OFF
		UNL	OCK : ON
	rmal2		
s the inspection result no			
YES >> Power windov	w serial link is OK.		
YES >> Power window NO >> Refer to PWC	w serial link is OK. 2-145, "POWER WII		ITCH : Diagnosis Procedure".
YES >> Power windov	w serial link is OK. 2-145, "POWER WII		
YES >> Power window NO >> Refer to PWC	w serial link is OK. 2-145, "POWER WII MAIN SWITCH	: Diagnosis P	
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I CHECK POWER WIND	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN.	: Diagnosis P PUT SIGNAL	rocedure INFOID:000000046373
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I I.CHECK POWER WIND	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN.	: Diagnosis P PUT SIGNAL	
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I I.CHECK POWER WIND	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN.	: Diagnosis P PUT SIGNAL	rocedure INFOID:0000000046373 connector and ground.
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I I.CHECK POWER WINI I. Turn ignition switch C 2. Check signal betweer	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma	: Diagnosis P PUT SIGNAL	rocedure INFOID:000000046373
YES >> Power window NO >> Refer to PWC POWER WINDOW I I.CHECK POWER WIND I. Turn ignition switch (2) Check signal betweer (+)	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma	: Diagnosis P PUT SIGNAL in switch harness	rocedure INFOID:0000000046373 connector and ground.
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I I.CHECK POWER WINE I. Turn ignition switch (2. Check signal betweer (+) Power window	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma	: Diagnosis P PUT SIGNAL in switch harness	rocedure INFOID:0000000046373 connector and ground. Signal (Reference value)
YES >> Power window NO >> Refer to <u>PWC</u> POWER WINDOW I I.CHECK POWER WINE I. Turn ignition switch (2. Check signal betweer (+) Power window	w serial link is OK. C-145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma	: Diagnosis P PUT SIGNAL in switch harness	rocedure INFOID:0000000046373 connector and ground. Signal (Reference value) (V) 15 10 0 0 10 10 10 10 10 10 10
YES >> Power window NO >> Refer to PWC POWER WINDOW I I.CHECK POWER WIND I. Turn ignition switch C Check signal betweer (+) Power window Connector	w serial link is OK. -145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma main switch Terminal 12	: Diagnosis P PUT SIGNAL in switch harness (-)	rocedure INFOID:000000046373 connector and ground. Signal (Reference value) (V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0
YES >> Power window NO >> Refer to PWC POWER WINDOW I I.CHECK POWER WIND I. Turn ignition switch O Check signal betweer (+) Power window Connector D8	w serial link is OK. -145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma main switch Terminal 12	: Diagnosis P PUT SIGNAL in switch harness (-)	rocedure INFOID:0000000046373 connector and ground. Signal (Reference value) (V) 15 10 0 0 10 10 10 10 10 10 10
YES >> Power window NO >> Refer to PWC POWER WINDOW I I.CHECK POWER WIND I. Turn ignition switch C Check signal betweer (+) Power window Connector	w serial link is OK. -145, "POWER WII MAIN SWITCH DOW SWITCH OUT DN. n power window ma main switch Terminal 12	: Diagnosis P PUT SIGNAL in switch harness (-)	rocedure INFOID:0000000046373 connector and ground. Signal (Reference value) (V) 15 10 0 0 10 10 10 10 10 10 10

POWER WINDOW SERIAL LINK

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

- 2. Disconnect power window main switch connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between power window main switch harness connector and ground.

((+) Power window main switch		Voltage (V) (Approx.)
Power windo			
Connector	Terminal		
D8	12	Ground	Battery voltage

Is the measurement value within the specification?

YES >> Replace power window main switch. Refer to PWC-216, "Removal and Installation".

NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

3. Check continuity between BCM connector and power window main switch connector.

B	BCM		Power window main switch	
Connector	Terminal	Connector	Terminal	Continuity
M123	132	D8	12	Existed

4. Check continuity between BCM connector and ground.

BCM			Continuity
Connector Terminal		Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-41, "Intermittent Incident".

>> INSPECTION END FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Description INFOID:000000046335597

Power window main switch, front power window switch (passenger side) and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side).

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side).

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

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function Check

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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PWC-146

2009 G37 Sedan

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

With CONSULT-III

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT-III. Refer to<u>DLK-51, "DOOR LOCK : CONSULT-III Function (BCM - DOOR LOCK)"</u>.

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

Is the inspection result normal?

- YES >> Power window serial link is OK.
- NO >> Refer to <u>PWC-147</u>, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000004637395

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1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between front power window switch (passenger side) harness connector and ground.

(+)			Signal	
Front power window sw	vitch (passenger side)	(-)	(Reference value)	Н
Connector	Terminal	-	(
			(V) 15	I
D38	16	Ground	10 5 0 10 ms	J
			JPMIA0013GB	ΡW

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to <u>PWC-216. "Removal and Installa-tion"</u>.
 NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect BCM connector.

3. Check continuity between BCM connector and front power window switch (passenger side) connector.

	BC	CM	Front power window s	witch (passenger side)	Continuity	• N
-	Connector	Terminal	Connector	Terminal	Continuity	
	M123	132	D38	16	Existed	0

4. Check continuity between BCM connector and ground.

B	BCM		Continuity
Connector	Terminal	Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000004667400

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
OOR SW-RL	Rear LH door closed	Off
	Rear LH door opened	On
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
DL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK	Off
	Driver door key cylinder LOCK	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK	Off
	Driver door key cylinder LOCK	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
AZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
R CANCEL SW	Trunk lid opener cancel switch OFF	Off
	Trunk lid opener cancel switch ON	On
R/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
RNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
KE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
JI HUAL JENJUK	Dark outside of the vehicle	Close to 0 V
	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
REQ 3W -BD/TR	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
-038 300	Push-button ignition switch (push switch) is pressed	On
GN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
	The clutch pedal is not depressed	Off
CLUCH SW	The clutch pedal is depressed	On
	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On
BRAKE SW 2	The brake pedal is not depressed	Off
SKAKE SVV Z	The brake pedal is depressed	On
	Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models)	Off
DETE/CANCL SW	 Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models) 	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
S/L -LOCK	Steering is unlocked	Off
5/L-LUCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
B/L -UNLOCK	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
D/L RELAT-F/D	Ignition switch in ON position	On
JNLK SEN -DR	Driver door is unlocked	Off
JINER JEIN -DR	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
GN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
	Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models)	Off
SFT PN -IPDM	Selector lever in P or N position (Except M/T models) The clutch pedal is depressed (M/T models)	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
DORFLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
FRIMITEING STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEV SWA SLOT	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

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Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
1P 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
IP 5	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
TP 2	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
IFI	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
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 of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGOT FRI	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
ID REGOT KRT	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

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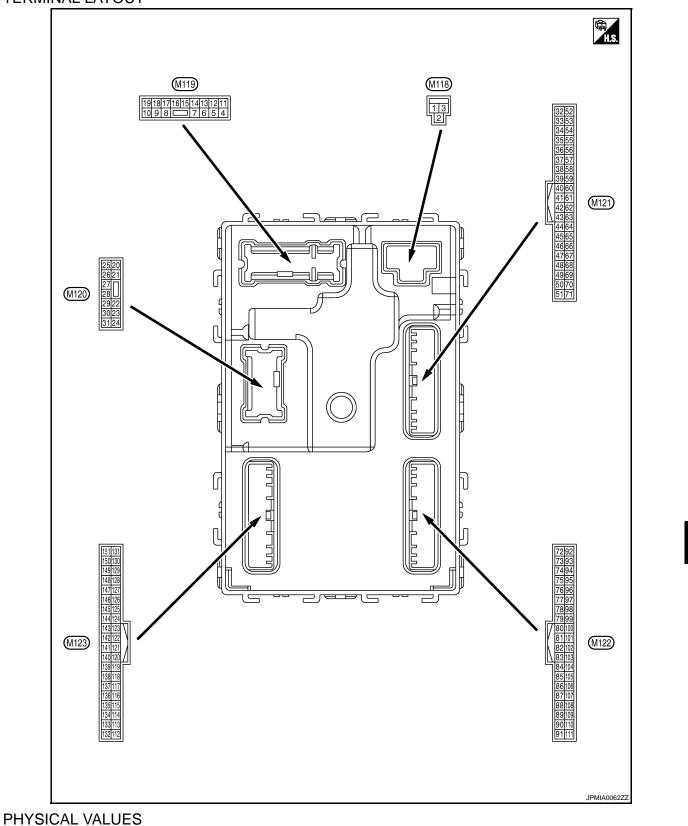
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TERMINAL LAYOUT



< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (DFF	12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (NC	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (LG)	Ground	Interior room lamp power supply	Output	vated.	mp battery saver is not acti- erior room lamp power sup-	12 V
5	Ground	Passenger door UN-	Output	Passenger	UNLOCK (Actuator is activated)	12 V
(P)		LOCK	-	door	Other than UNLOCK) Ac- tuator is not activated	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(BR)				F	OFF	12 V
8	Ground	All doors, fuel lid	Output	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Cround	LOCK		lid	Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V
10	Crownd	Rear RH door and	Output	Rear RH door	UNLOCK (Actuator is activated)	12 V
(BR)	Ground	rear LH UNLOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (NC	0 V
					OFF	0 V
14 (W)			Output	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated) ACC	JSNIA0010GB Battery voltage 0 V

< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description				Value		
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					Turn signal switch OFF	0 V	В
17 (W)	Ground	Turn signal RH (Front)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 0 10 10 10 10 10 10 10 10 10	D
					Turn signal switch OFF	0 V	Е
18 (O)	Ground	Turn signal LH (Front)	Output	lgnition switch ON	Turn signal switch LH	(V) 15 0 1 1 1 1 1 1 1 1 1 1	F
					055	6.5 V	
19 (V)	Ground	Room lamp timer control	Output	Interior room lamp	OFF ON	12 V 0 V	Η
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	lgnition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	J PW0
					OPEN (Trunk lid opener actuator is activated)	12 V	L
23 (L)	Ground	Trunk lid open	Output	Trunk lid	Other than OPEN (Trunk lid opener actuator is not activated)	0 V	M
					Turn signal switch OFF	0 V	
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	N O P
30 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON OFF	0 V 12 V	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
34	Ground	Trunk room antenna	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB	
(SB)		()		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s 0 JMKIA0063GB	
35	Ground	Trunk room antenna (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0062GB	
(V)				OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s JMKIA0063GB	
38	Ground	Rear bumper anten- na (-)		When the trunk lid opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s 0 JMKIA0062GB	
(B)			Output		When Intelligent Key is not in the antenna detection area	(V) 15 0 0 1 s 0 JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

(ININ SUD) Signal name Input/ Output Condition (Approx.) Input/ (Approx.)		nal No.	Description				Value	
39 (W) Ground Rear bumper anten- na (+) Output When the trunk is operated with ignition switch When the trunk is operated with ignition switch When the trunk is operated with ignition switch Imput <		color)	Signal name			Condition	Value (Approx.)	A
(W) Ground na (+) Output Quest switch is operated with ignition switch OFF When Intelligent Key is not interaction is area Image: Construct of the anterna detection is area F 47 Ground Ignition relay (IPDM E/R) control Output Ignition switch OFF or ACC 12 V G 50 Ground Trunk room lamp switch Input Trunk room lamp switch OFF (Trunk lid is closed) Image: Construct of the switch of the s	20		Door humper opten			the antenna detection		С
47 (Y) Ground Ignition relay (IPDM E/R) control Output Ignition switch OPP of ACC 12 V 50 (O) Ground Trunk room lamp switch Input Input Trunk room lamp switch OFF (Trunk lid is closed) Imput H 50 (O) Ground Trunk room lamp switch Input Trunk room lamp switch OFF (Trunk lid is closed) Imput H 52 (SB) Ground Starter relay control Output Ignition switch ON (A/T mod- els) ON (Trunk lid is opened) 0 V PWC 52 (SB) Ground Starter relay control Output Ignition switch ON (M/T mod- els) When selector lever is not in P or N position 0 V L 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch ON (Pressed) 0 V M 61 (SB) Ground Intelligent Key warn- ing buzzer (Engine Output Intelligent Key warningbuzzer Sounding 0 V 0 V		Ground		Output	quest switch is operated with ignition switch OFF	in the antenna detection		
(Y) Cround E/R) control Output Ignition switch ON 0 V 50 (O) Ground Trunk room lamp switch Input Trunk room lamp switch OFF (Trunk lid is closed) Imput Imput Imput Trunk room lamp switch OFF (Trunk lid is closed) Imput I	47		Ignition relay (IPDM			OFF or ACC	12 V	G
50 (O) Ground Trunk room lamp switch Input Trunk room lamp switch OFF (Trunk lid is closed) Imput set is closed) <		Ground		Output	Ignition switch	ON	0 V	
52 (SB) Ground Starter relay control Ignition switch ON (A/T mod- els) When selector lever is in P or N position 12 V PWC 52 (SB) Ground Starter relay control Output Ignition switch ON (M/T mod- els) When selector lever is not in P or N position 0 V L 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch ON (Pressed) 0 V N 64 (C) Ground Intelligent Key warn- ing buzzer (Engine Output Intelligent Key warningbuzzer Sounding 0 V N		Ground		Input			15 10 50 10 ms JPMIA0011GB 11.8 V	I
52 (SB) Ground Starter relay control Output Ignition switch oN (A/T mod- els) or N position 0 V L 1 Men selector lever is not in P or N position 0 V L 1 Ignition switch oN (M/T mod- els) When the clutch pedal is depressed Battery voltage L 1 Ignition switch ON (M/T mod- els) When the clutch pedal is not depressed 0 V M 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch OFF (Not pressed) 0 V N 64 (O) Ground Intelligent Key warn- ing buzzer (Engine Output Intelligent Key warning buzzer Intelligent Key warning buzzer Sounding 0 V						,	0 V	
Ground Starter relay control Output Ignition switch ON (M/T mod- els) When the clutch pedal is depressed Battery voltage 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch ON (Pressed) 0 V M 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch OFF (Not pressed) 0FF (Not pressed) 0 N 64 (G) Ground Intelligent Key warn- ing buzzer (Engine Output Intelligent Key warningbuzzer Sounding 0 V N	52				ON (A/T mod-	or N position When selector lever is not		PWC
ON (M/T mod- els) When the clutch pedal is not depressed 0 V M 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch ON (Pressed) 0 V N 61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch OFF (Not pressed) 0FF (Not pressed) 0 64 (C) Ground Intelligent Key warn- ing buzzer (Engine Output Intelligent Key warning buzzer Sounding 0 V	(SB)	Ground	Starter relay control	Output		When the clutch pedal is	Battery voltage	L
61 (SB) Ground Trunk lid opener re- quest switch Input Trunk lid open- er request switch OFF (Not pressed) Input I						When the clutch pedal is	0 V	Μ
Ground ing buzzer (Engine Output warning buzzer		Ground		Input	er request		(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	0
(C) Ground Ing buzzer (Engine Output warning buzzer	64					Sounding	0 V	
		Ground		Output		Not sounding	12 V	

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					Pressed	0 V
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes) ON (When rear RH door	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					opens)	0 V
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	(V) 15 10 5 0 10 ms 10 ms JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72	Ground	Room antenna 2 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 5 10 5 0 1 5 10 10 10 10 10 10 10 10 10 10 10 10 10
72 (R)		(Center console)	- sput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 s 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description)/-	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	А
73		Room antenna 2 (+)		Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	B C D
(G) '	Ground	(Center console)	Output	ŎFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E
74	Ground	round Passenger door an- tenna (−)		When the pas- senger door re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	G H I
(SB)	Ground		Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J PWC
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(BR)		tenna (+)	Cuput	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 15 10 15 10 15 10 15 10 15 10 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	P

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description		_		Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
76	Ground	Driver door antenna	Output	When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 15 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15	
(V)	Ground	()	Output	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
77	Ground	Driver door antenna		When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 1 5 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	
(LG)		(+)	Output	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0063GB	
78	Ground	Room antenna 1 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(Y)	Cround	(Instrument panel)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	nal No.	Description				Value	A
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	~
79	0	Room antenna 1 (+)	0.4-14	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 15 15 15 15 15 15 15 15 15 15 15	B C D
(BR)	Ground	(Instrument panel)	Output	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	E
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	G
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.	Н
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V	I
83	Ground	Remote keyless entry	Input/	During waiting		(V) 15 0 1 ms JMKIA0064GB	J PV
(Y)	Ground	receiver communica- tion	Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 	M

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[FRONT WINDOW ANTI-PINCH]

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 6 2 ms JPMIA0040GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

Imput/ Signal name Imput/ Output Condition (Approx.) B * - Signal name Imput/ Output All switches OFF (Wiper intermittent dial 4) Imput/		Terminal No. Description				Value		
88 Ground Combination switch (NPUT 3 Input Combination switch Combination (Wiper intermittent dial 4) Imput (Wiper int			Signal name			Condition		A
88 (O) Ground Combination switch INPUT 3 Input Combination switch Combination switch Combination switch Imput Combination switch Imput Combination switch Imput							2 ms	С
(i) Ground INPUT 3 Input switch Lighting switch 2ND (Wiper intermittent dial 4) (i) (i							10 0 2 ms JPMIA0036GB	
Any of the conditions be- low with all switches OFF Wiper intermittent dial 1 Impute the conditions be- low with all switches OFF Wiper intermittent dial 1 Impute the conditions be- low with all switches OFF Impute the conditions of the conditions of the conditions be- low with all switches OFF Impute the conditions of the condit of the conditions of the conditions of t		Ground		Innut	switch		(V) 15 10 5 0 2 ms JPMIA0037GB	
89 (BR) Ground Push-button ignition switch (Push switch) Input inition switch (push switch) Not pressed Battery voltage M 90 (P) Ground CAN-L Input/ Output — — — — M 91 (L) Ground CAN-H Input/ Output — — — N 91 (L) Ground CAN-H Input/ Output — — — N 92 (LG) Ground Key slot illumination Output Key slot illumi- nation Blinking Is an input/ Is an input/						low with all switches OFFWiper intermittent dial 1Wiper intermittent dial 2	15 10 5 0 2 ms JPMIA0040GB	J PW0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	89 (BR)	Ground	Push-button ignition switch (Push switch)	Input	nition switch		0 V	М
(L) Ground CAN-H Output 92 (LG) Ground Key slot illumination Output Key slot illumination OFF 0 V 92 (LG) Ground Key slot illumination Output Key slot illumination Blinking Image: Canonic structure Image: Ca		Ground	CAN-L			<u> </u>		
92 (LG) Ground Key slot illumination Output Key slot illumination Blinking Blinking Output A Sector Contraction Co		Ground	CAN-H			_	_	Ν
92 (LG) Ground Key slot illumination Output Key slot illumination Blinking Blinking P						OFF	0 V	\sim
	92 (LG)	Ground	d Key slot illumination Output	Output		Blinking	15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	
						ON		

< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)				Valua	
(Wire +	color) –	Signal name	Input/ Output		Condition	Value (Approx.)
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(V)					ON	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ground	ACC relay control	Output	Ignition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V
(L)	Croana	tion No. 1	mput	Clocking look	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	Cround	tion No. 2	mput	electing leck	UNLOCK status	0 V
		Selector lever P posi- tion switch (A/T mod-		Solostar lovar	P position	0 V
		els)		Selector lever	Any position other than P	12 V
99		ASCD clutch switch		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V
(R)* ¹ (BR)* ²		Input	switch	ON (Clutch pedal is not depressed)	12 V	
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V
					ON (Pressed)	0 V
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 10 10 10 10 10 10 10 10 10 10
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)	Cround	lay control	Culput	ignition switch	ON	12 V
103 (L)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch (DFF	12 V
106	Ground	Steering lock unit	Output	Ignition switch	OFF or ACC	12 V
(W)	Ground	power supply	Culput		ON	0 V

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

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

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< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
			All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMA0041GB 1.4 V		
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMA0038GB 1.3 V
(R)		INPUT 4		switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMA0036GB 1.3 V
				Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	nal No.	Description				\ <i>\</i>	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					All switches OFF	(V) 15 10 2 ms JPMA0041GB 1.4 V	B C D
					Lighting switch PASS	(V) 15 0 2 ms 1.3 V	E
109 (W)		Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB 1.3 V	G H I
					Front wiper switch INT	(V) 15 0 2 ms JPMIA0038GB 1.3 V	J PWC
					Front wiper switch HI	(V) 15 0 2 ms JPMIA0040GB 1.3 V	M
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 0 10 ms JDMIA0012GB 1.1 V	Ρ

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< ECU DIAGNOSIS INFORMATION >

	nal No.	Description Signal name Input/ Output		Condition		Value
(Wire +	color)					(Approx.)
-					LOCK status	12 V
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(O)	Croana		mput	ON	When dark outside of the vehicle	Close to 0 V
114	Ground	Clutch interlock	Input	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch swit		switch	ON (Clutch pedal is de- pressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	_		Battery voltage
		Stop lamp switch 2 (Without ICC) Stop lamp switch 2 (With ICC)		Stop lamp	OFF (Brake pedal is not depressed)	0 V
118	Ground		– Input	switch	ON (Brake pedal is de- pressed)	Battery voltage
(BR)	Ground			Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is de- pressed) or ICC brake hold relay ON		Battery voltage
119 (SB)	Ground	Front door lock as- sembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 10 10 10 11 11 12 12 12 12 12 12 12 12
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Koy olot owitch	lant	When the Intellig	gent Key is inserted into key	12 V
(SB)	Ground	Key slot switch	Input	When the Intellig	gent Key is not inserted into	0 V
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(W)				3	ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description					
(Wire +	color) –	Signal name	Input/ Output	Condition		Value (Approx.)	А
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 JPMIA0011GB 11.8 V	B C D
					ON (Door open)	0 V	
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	F
						1.1 V	G
					ON	0 V	
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 10 10 10 10 10 10 10 10	H
						10.2 V	J
				Ignition switch OFF or ACC		12 V	
					ON (Tail lamps OFF)	9.5 V	PWC
						NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.	L
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	(V) 15 10 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5	M
					OFF	0 V	
134	Ground	LOCK indicator lama	Output	LOCK indicator	OFF	Battery voltage	0
(LG)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V	
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch C		0 V	Ρ
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V	
(V)		power supply			ACC or ON	5.0 V	

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	
(Wire +	color)	Signal name	Input/ Output	Condition		(Approx.)	
139	Ground	Cround Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 2 0 ••• 0.2s OCC3881D	
(L)	Clouin	er communication	Output	ON	When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s • • 0.2s • • 0.2s • • 0.2s	
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V	
(GR)	Ground	position	input	Selector level	Except P and N positions	0 V	
					ON	0 V	
141 (R)	Ground	Security indicator	Output	Security indica- tor	Blinking	(V) 15 0 10 15 15 0 15 15 15 15 15 15 15 15 15 15	
					OFF	12 V	
					All switches OFF	0 V	
					Lighting switch 1ST		
				Combination	Lighting switch HI	(V) 15	
142 (BR)	Ground	Combination switch	Output	switch	Lighting switch 2ND		
	Clouid	OUTPUT 5	Output	(Wiper intermit- tent dial 4)	Turn signal switch RH	0 2 ms JPMIA0031GB 10.7 V	
					All switches OFF (Wiper intermittent dial 4)	0 V	
					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15	
143 (P)	Ground	ound Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	10 5 0 2 ms 10.7 V	

< ECU DIAGNOSIS INFORMATION >

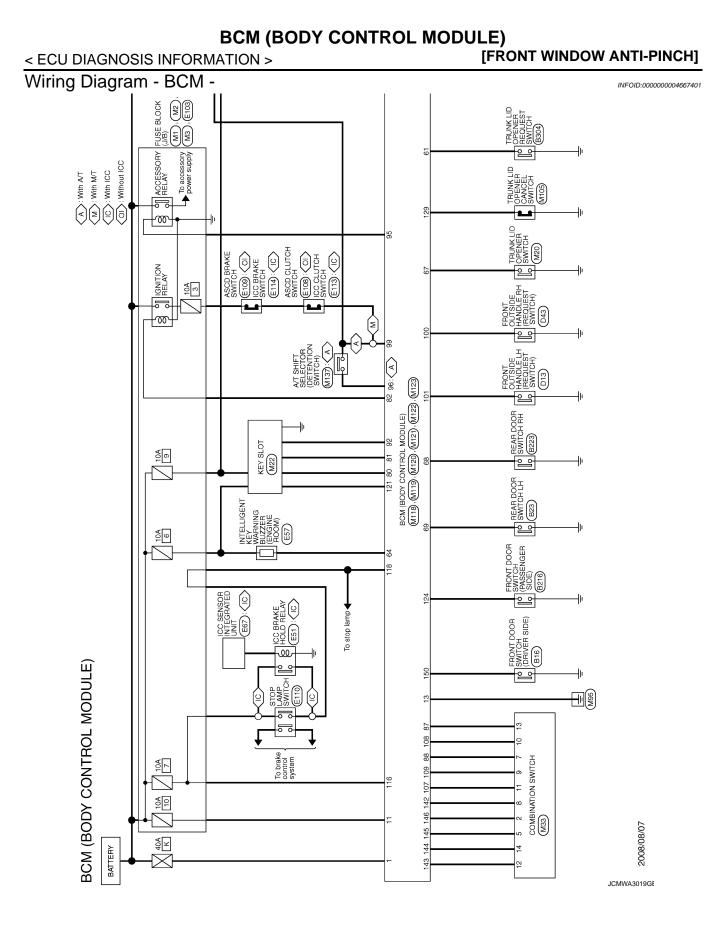
[FRONT WINDOW ANTI-PINCH]

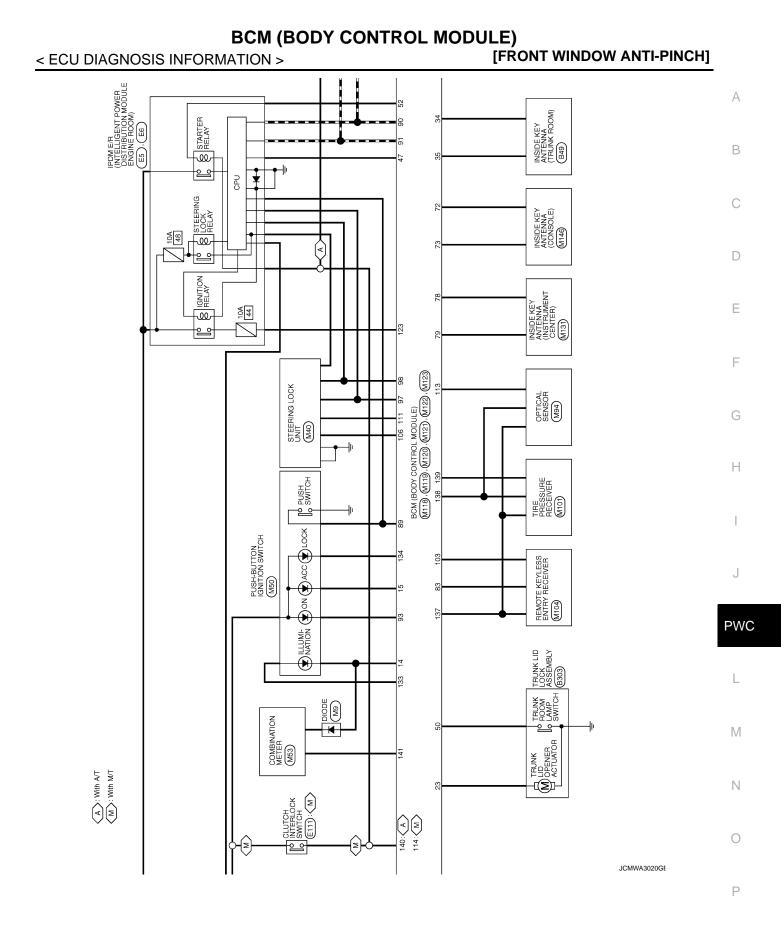
Terminal No. (Wire color)		Description				Value						
(vvire +		Signal name	Input/ Output	Condition		(Approx.)						
					All switches OFF (Wiper intermittent dial 4)	0 V						
144	Ground	Combination switch	Output	Combination	Front washer switch ON (Wiper intermittent dial 4)							
(G)	Giodila	OUTPUT 2	Output	switch	 Any of the conditions be- low with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 5 Wiper intermittent dial 6 	10 5 0 2 ms 10.7 V						
					All switches OFF	0 V						
					Front wiper switch INT							
				Combination	Front wiper switch LO	(V) 15						
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms. JPMIA0034GB						
						10.7 V						
					All switches OFF	0 V						
		Combination quitab	Output Output (Wiper intermit tent dial 4)		Front fog lamp switch ON	(V)						
4.40					Lighting switch 2ND Lighting switch PASS	15						
146 (SB)	Ground	Combination switch OUTPUT 4		Output (W	Output	Output	Output	Output	Output	(Wiper intermit-	(Wiper intermit-	Turn signal switch LH
						10.7 V						
149 (W)	Ground	Tire pressure warning check switch	Input		_	12 V						
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 10 ms JDMIA0011GB 11.8 V						
					ON (Door open)	0 V						
151	Ground	Rear window defog-	Output	Rear window	Active	0 V						
(G)	Ground	ger relay control	Culpul	defogger	Not activated	Battery voltage						

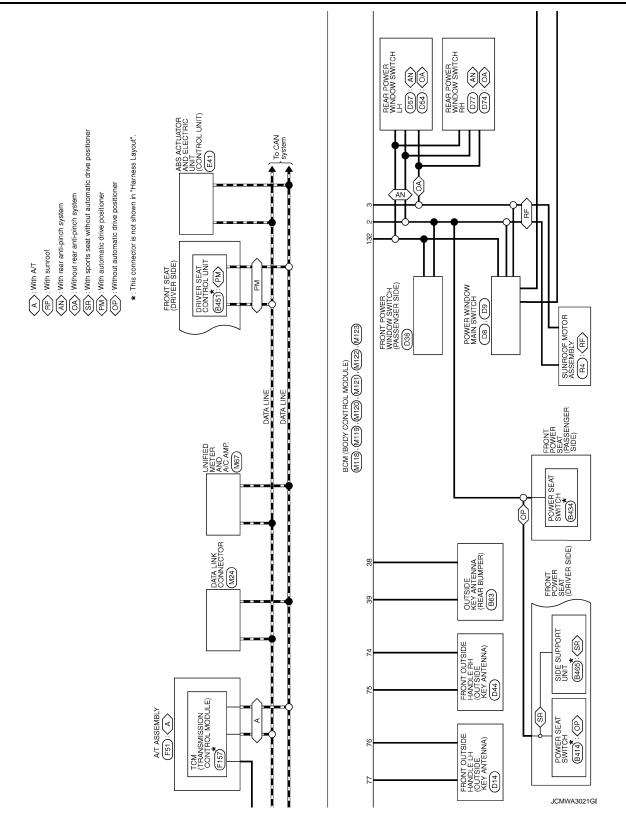
• *1: A/T models

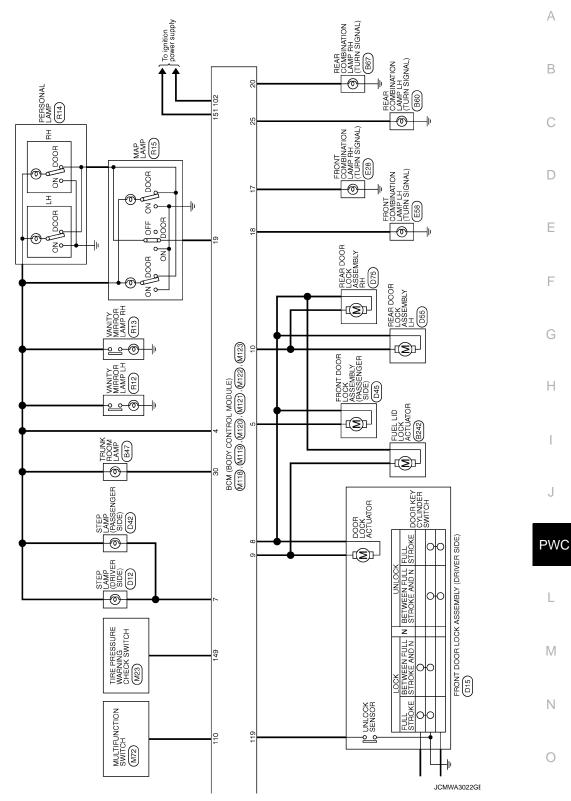
• *2: M/T models

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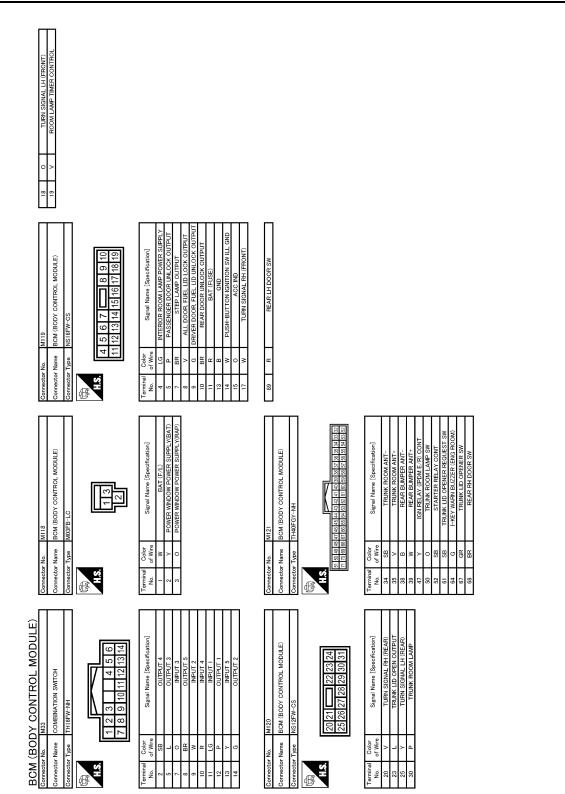








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< ECU DIAGNOSIS INFORMATION >	[FRONT WINDOW ANTI-PINCH]
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Fail-safe

FAIL-SAFE CONTROL BY DTC

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

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< ECU DIAGNOSIS INFORMATION >

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

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status has becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 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 are fulfilledPower position changes to ACCReceives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage)
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

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

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< ECU DIAGNOSIS INFORMATION >

Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM 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
4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B22553: IGNITION RELAY B22555: STOP LAMP B22565: PUSH-BTN IGN SW B22577: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2604: PNP SW B2606: SL RELAY B2606: SL RELAY B2607: SL RELAY B2608: STARTER RELAY B2609: SL STATUS B2609: SL STATUS B2609: SL RELAY B2609: STARTER RELAY B2609: STARTER RELAY B2609: STEERING LOCK UNIT B26001: STEERING LOCK UNIT B26002: STEERING LOCK UNIT B26011: STEERING LOCK UNIT B26021: STATE SIG LOST B2614: ACC RELAY CIRC B2615: BLOWER RELAY CIRC B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: ISTARTER RELAY CIRC B2617: STARTER RELAY CIRC B2619: BCM B2619: BCM B2619: BCM B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2615: BLOWER RELAY CIRC B2616: ISTARTER RELAY CIRC B2617: STARTER RELAY CIRC B2616: ISTARTER RELAY CIRC B2617: STARTER RELAY CIRC B2619: BCM B2619: BCM B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2614: PUSH-BTN IGN SW B2615: BLOWER RELAY CIRC B2616: ISTARTER RELAY CIRC B2617: STARTER RELAY CIRC B2618: BCM B2619: BCM
	U0415: VEHICLE SPEED SIG

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

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

DTC Index

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>PWC-125, "COM-</u> <u>MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>. PWC

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	ļ
No DTC is detected. further testing may be required.	_	_	_		_	ľ
U1000: CAN COMM	_	—		—	BCS-35	
U1010: CONTROL UNIT(CAN)	_	—		—	BCS-36	ľ
U0415: VEHICLE SPEED SIG	—	_		—	BCS-37	
B2013: ID DISCORD BCM-S/L	×	×		—	<u>SEC-55</u>	(
B2014: CHAIN OF S/L-BCM	×	×		—	<u>SEC-56</u>	
B2190: NATS ANTENNA AMP	×	—		—	<u>SEC-47</u>	
B2191: DIFFERENCE OF KEY	×	—	—	—	<u>SEC-50</u>	
B2192: ID DISCORD BCM-ECM	×	—	—	—	<u>SEC-51</u>	
B2193: CHAIN OF BCM-ECM	×	—	—	—	<u>SEC-53</u>	
B2195: ANTI SCANNING	×	—			<u>SEC-54</u>	
B2553: IGNITION RELAY	—	×	—		PCS-49	
B2555: STOP LAMP	—	×		—	SEC-59	

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
B2556: PUSH-BTN IGN SW	—	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	_	×			BCS-38
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×	_	<u>SEC-68</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-70</u>
B2604: PNP SW	×	×	×	_	<u>SEC-73</u>
B2605: PNP SW	×	×	×	_	<u>SEC-75</u>
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×	_	<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×	_	<u>SEC-80</u>
B2609: S/L STATUS	×	×	×	_	<u>SEC-82</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-51
B260B: STEERING LOCK UNIT	_	×	×		<u>SEC-86</u>
B260C: STEERING LOCK UNIT	_	×	×		<u>SEC-87</u>
B260D: STEERING LOCK UNIT	_	×	×		<u>SEC-88</u>
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-89</u>
B2612: S/L STATUS	×	×	×		<u>SEC-94</u>
B2614: ACC RELAY CIRC	_	×	×		PCS-53
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-55
B2616: IGN RELAY CIRC	_	×	×		PCS-57
B2617: STARTER RELAY CIRC	×	×	×	_	<u>SEC-98</u>
B2618: BCM	×	×	×	_	PCS-59
B2619: BCM	×	×	×		<u>SEC-100</u>
B261A: PUSH-BTN IGN SW	_	×	×	_	PCS-60
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-101</u>
B2621: INSIDE ANTENNA	—	×		_	DLK-59
B2622: INSIDE ANTENNA	—	×		_	DLK-61
B2623: INSIDE ANTENNA	—	×		_	DLK-63
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-90</u>
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-92</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	_	<u>SEC-93</u>
C1704: LOW PRESSURE FL	—	—	—	×	
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	_	—	×	<u>WT-17</u>
C1707: LOW PRESSURE RL	—	—	—	×	1

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
C1708: [NO DATA] FL	—	—	—	×		В
C1709: [NO DATA] FR	—	—		×	<u>WT-19</u>	
C1710: [NO DATA] RR	—	—	_	×	<u>vvi-i9</u>	_
C1711: [NO DATA] RL	—	—		×	-	С
C1712: [CHECKSUM ERR] FL	—	—	—	×		
C1713: [CHECKSUM ERR] FR	—	—		×	WT 21	D
C1714: [CHECKSUM ERR] RR	—	—	—	×	<u>WT-21</u>	
C1715: [CHECKSUM ERR] RL	—	—	_	×		
C1716: [PRESSDATA ERR] FL	—	—		×		E
C1717: [PRESSDATA ERR] FR	—	—		×		
C1718: [PRESSDATA ERR] RR	—	—		×	<u>WT-24</u>	F
C1719: [PRESSDATA ERR] RL	—	—		×	-	1
C1720: [CODE ERR] FL	—	—	_	×		
C1721: [CODE ERR] FR	—	—	_	×	WT-26	G
C1722: [CODE ERR] RR	—	—	_	×	<u>vv1-20</u>	
C1723: [CODE ERR] RL	—	—	_	×	-	Н
C1724: [BATT VOLT LOW] FL	—	—	_	×		
C1725: [BATT VOLT LOW] FR	—	—		×	WT 20	
C1726: [BATT VOLT LOW] RR	—	-	—	×	<u>WT-29</u>	
C1727: [BATT VOLT LOW] RL	—	—		×		
C1729: VHCL SPEED SIG ERR	—	—	—	×	<u>WT-32</u>	
C1734: CONTROL UNIT	—	—		×	<u>WT-33</u>	J

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POWER WINDOW MAIN SWITCH ATION > [FRONT WINDOW ANTI-PINCH]

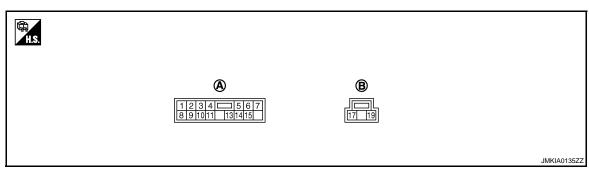
< ECU DIAGNOSIS INFORMATION >

POWER WINDOW MAIN SWITCH

Reference Value

INFOID:000000004240733

TERMINAL LAYOUT



A. D8

B. D9

PHYSICAL VALUES

Power Window Main Switch

	inal No. e color)	Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (W)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in pow- er window main switch is DOWN at operated.	Battery voltage
2 (LG)	Ground	Encoder ground	_	_	0
3 (GR)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in pow- er window main switch is UP at operated.	Battery voltage
4 (V)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral \rightarrow Locked)	$5 \rightarrow 0$
5 (O)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in pow- er window main switch is UP at operated.	Battery voltage
6 (Y)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral \rightarrow Unlocked)	$5 \rightarrow 0$
7 (BR)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in pow- er window main switch is DOWN at operated.	Battery voltage
8 (L)	Ground	Front driver side power window motor UP signal	Output	When front LH switch in power window main switch is UP at operated.	Battery voltage
9 (O)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

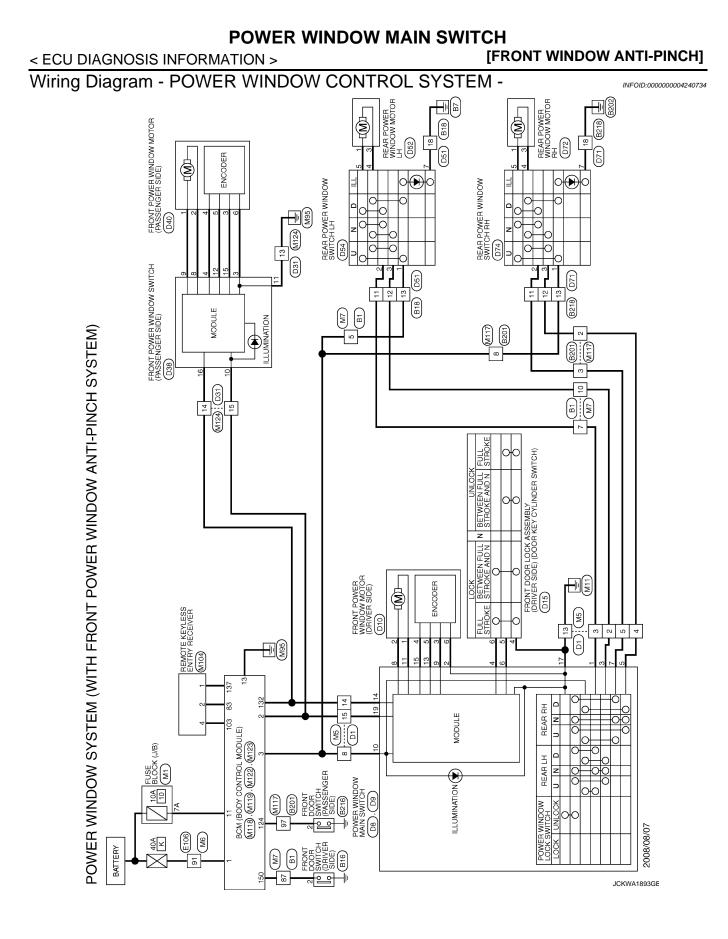
	iinal No. e color)	Description		Condition	Voltage (V)	A
+	-	Signal name	Input/ Output	Condition	(Approx.)	
				Ignition switch ON	Battery voltage	В
10	Ground	Rap signal	Input	Within 45 second after igni- tion switch is turned to OFF	Battery voltage	
(SB)				When driver side or passen- ger side door is opened dur- ing retained power operation	0	С
11 (G)	Ground	Front driver side power window motor DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	Battery voltage	D
13 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	E F G
14 (V)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB	H
15 (B)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer oper- ates.	Battery voltage	J
17 (B)	Ground	Ground		_	0	PW
19 (Y)	Ground	Battery power supply	Input	_	Battery voltage	

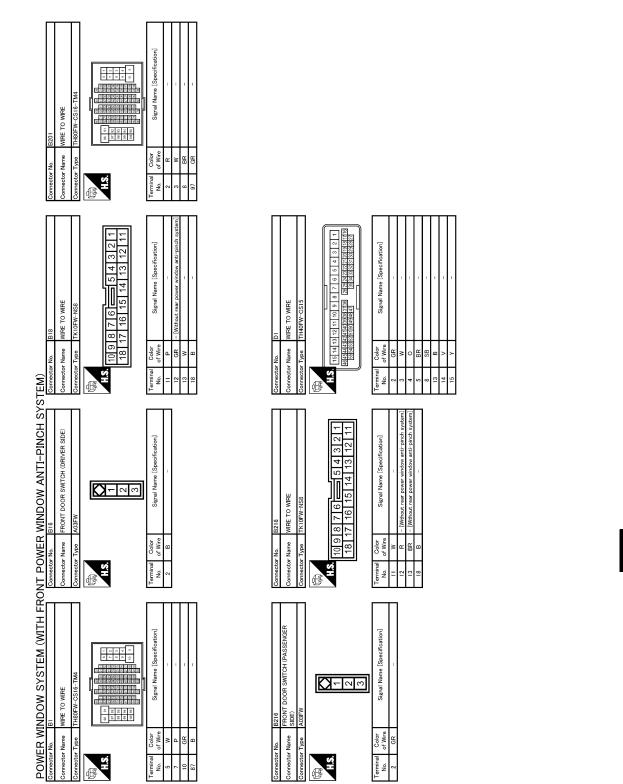
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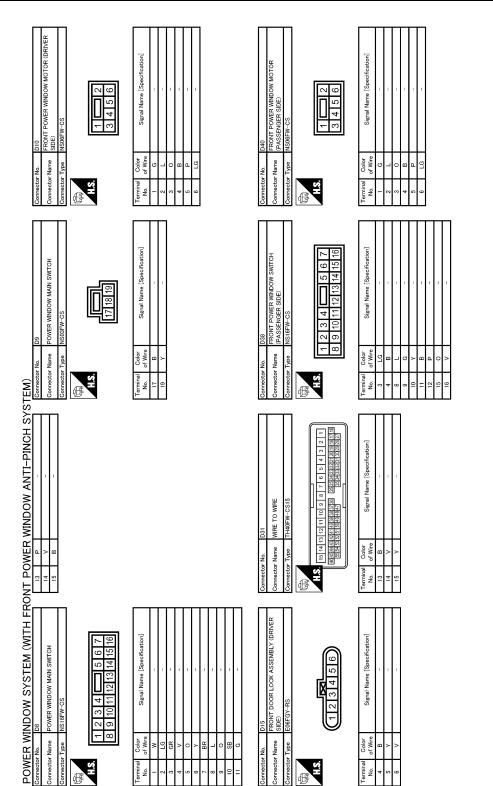
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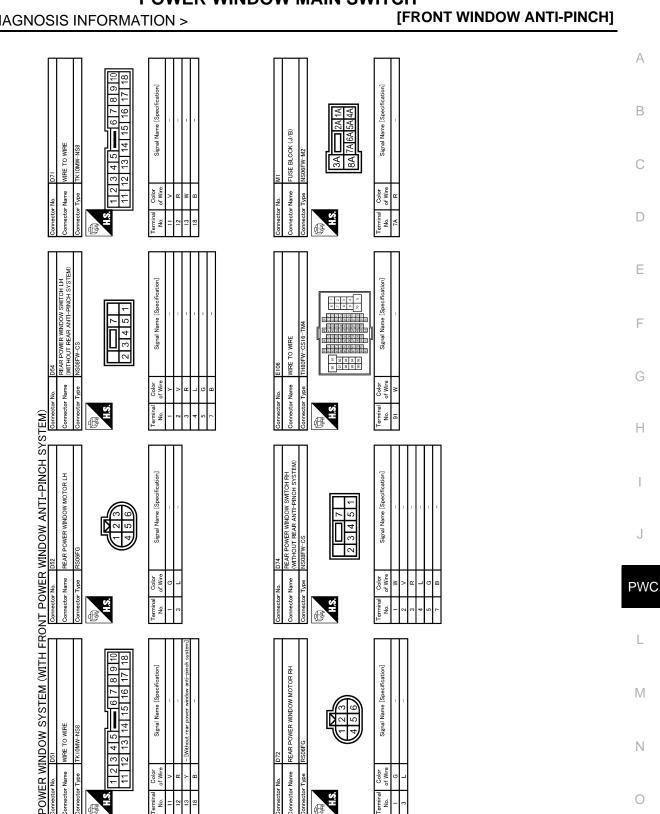
POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]



JCKWA1895GE



POWER WINDOW MAIN SWITCH

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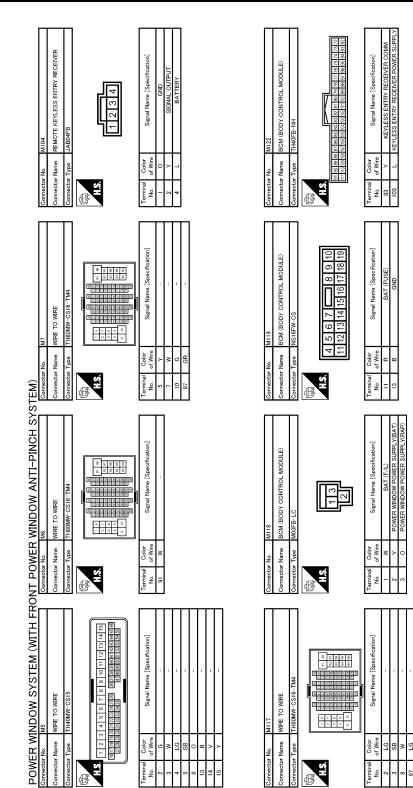
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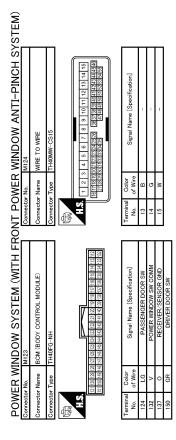
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Fail-safe

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FAIL-SAFE CONTROL

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

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS INFORMATION >

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunc- tion	When a pulse signal indicating that window is moving in the opposite direction against the power win- dow motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

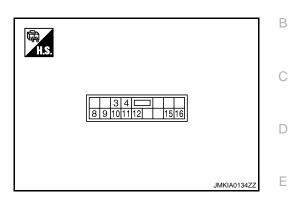
- Auto-up operation
- Anti-pinch function
- Door key cylinder switch power window function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

< ECU DIAGNOSIS INFORMATION >

FRONT POWER WINDOW SWITCH

Reference Value



PHYSICAL VALUES

FRONT POWER WINDOW SWITCH

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

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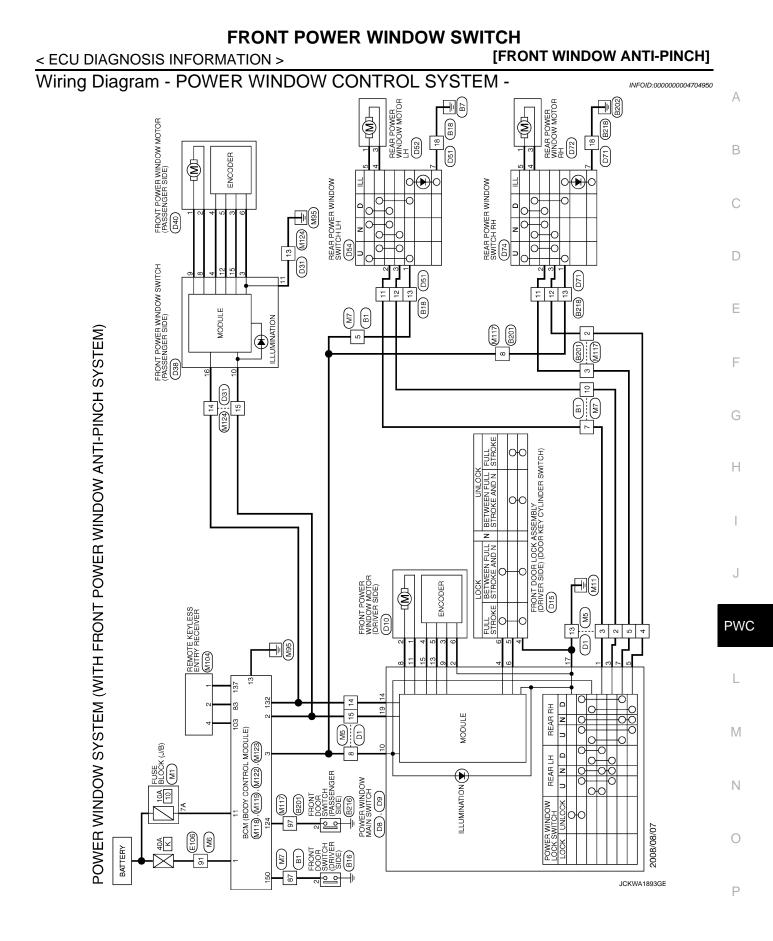
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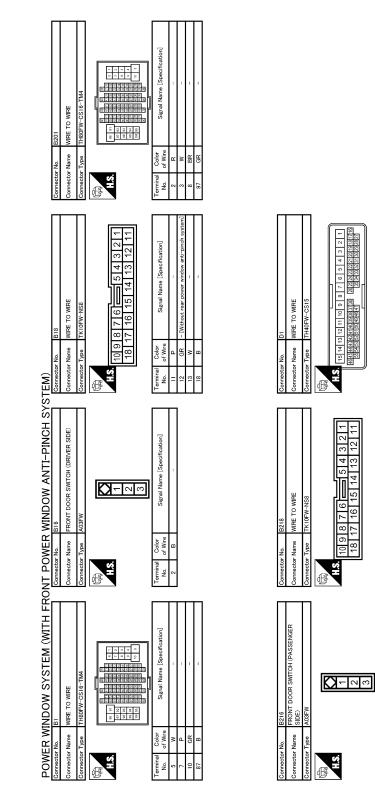
FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Termir (wire	nal No. color)	Description		Condition	Voltage (V)
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor oper- ates.	(V) 6 2 0 10 ms JMKIA0070GB
16 (V)	Ground	Power window serial link	Input/ Output	Ignition switch ON or power win- dow timer operating.	(V) 15 10 5 0 10 ms JPMA0013GB







Signal Name [Specification]

Color of Wire

Terminal No.

Signal Name [Specification]

Color of Wire

erminal No.

Signal Name [Specification]

Color of Wire

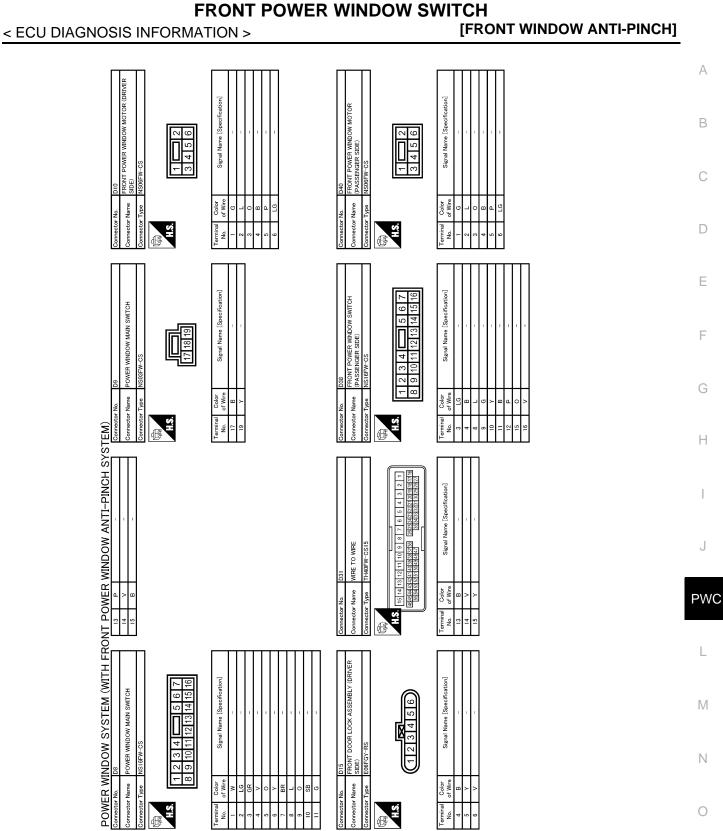
Terminal No. ≥∝ଞ

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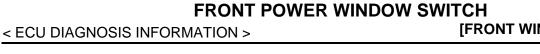
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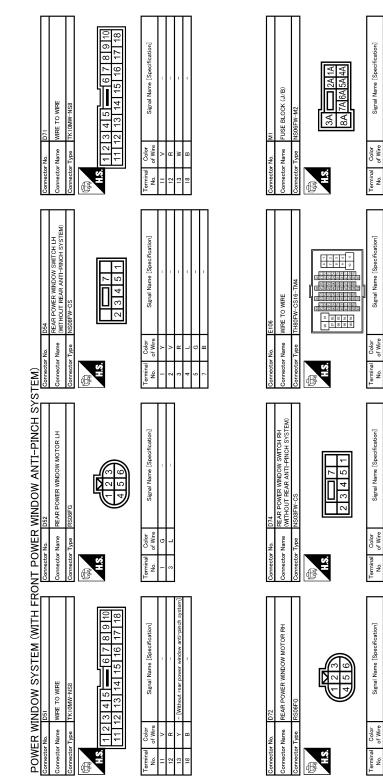
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JCKWA1895GE

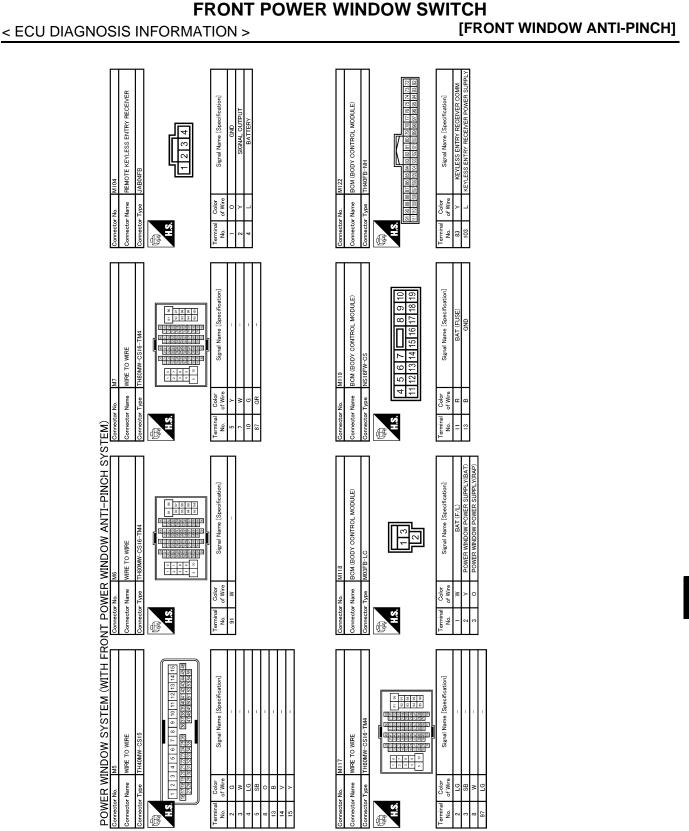


[FRONT WINDOW ANTI-PINCH]



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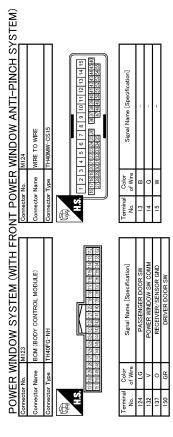
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Fail-safe

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INFOID:000000004679447

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 a signal that is out of the specified value is detected between the fully closed position and the actual position of the glass.

PWC-200

FRONT POWER WINDOW SWITCH

< ECU DIAGNOSIS INFORMATION >

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunc- tion	When a pulse signal indicating that window is moving in the opposite direction against the power win- dow motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

If fail-safe control, the system changes to a non-initialized condition and the following function do not operate.

- Auto-up operation
- Anti-pinch function
- Door key cylinder switch power window function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

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POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCH-ES

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:000000004240739

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to <u>PWC-16</u>, "BCM : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERAT < SYMPTOM DIAGNOSIS >	_
DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE	A
Diagnosis Procedure	INFOID:000000004240740
1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT	В
Check power window switch power supply and ground circuit. Refer to PWC-127, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".	
Is the inspection result normal?	С
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK DRIVER SIDE POWER WINDOW MOTOR	D
Check driver side power window motor. Refer to <u>PWC-133, "DRIVER SIDE : Component Function Check"</u> .	E
Is the measurement value within the specification?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	F
3.CONFIRM THE OPERATION	
Confirm the operation again.	0
Is the result normal?	G
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> .	
NO >> GO TO 1.	Н

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

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID-000000004240741

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit. Refer to PWC-146, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.confirm the operation

Confirm the operation again.

Is the result normal?

>> Check intermittent incident. Refer to GI-41, "Intermittent Incident". YES NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED : **Diagnosis** Procedure

INFOID:000000004240742

1.REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side). Refer to PWC-216, "Removal and Installation"

>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED : Diagnosis Procedure INFOID:000000004240743

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIR-CUIT

Check front power window switch (passenger side) power supply and ground circuit. Refer to PWC-128, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit.

Refer to PWC-134, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${
m 3.}$ CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

>> Check intermittent incident. Refer to GI-41, "Intermittent Incident". YES

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

NO >> GO TO 1.

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

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000004240744

1.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch . Refer to <u>PWC-131, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED : Diagnosis Procedure

INFOID:000000004240745

1.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit. Refer to <u>PWC-129, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH. Refer to <u>PWC-216, "Removal and Installation"</u>.

>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED : Diagnosis Procedure

1.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH. Refer to <u>PWC-136, "REAR LH : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

PWC-206

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE
< SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]
REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE
WHEN POWER WINDOW MAIN SWITCH IS OPERATED
WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure
1.CHECK REAR POWER WINDOW SWITCH
Check rear power window switch . Refer to PWC-131, "Component Function Check".
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.
2.CONFIRM THE OPERATION
Confirm the operation again. Is the result normal?
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . F NO >> GO TO 1.
WHEN REAR POWER WINDOW SWITCH RH IS OPERATED
WHEN REAR POWER WINDOW SWITCH RH IS OPERATED : Diagnosis Procedure
1. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT
Check rear power window switch power supply and ground circuit. Refer to <u>PWC-129, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u> .
Is the inspection result normal?
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.
2. REPLACE REAR POWER WINDOW SWITCH RH
Replace rear power window switch RH. Refer to PWC-216, "Removal and Installation". PW
>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW MORE SWITCH RH ARE OPERATED : Diagnosis Procedure
1.CHECK REAR POWER WINDOW MOTOR RH
Check rear power window motor RH. Refer to PWC-137, "REAR RH : Component Function Check".
Is the inspection result normal?
YES >> GO TO 2.
NO >> Repair or replace the malfunctioning parts.
Confirm the operation again.
Is the result normal?
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY

< SYMPTOM DIAGNOSIS >

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure	
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INFOID:000000004240750

[FRONT WINDOW ANTI-PINCH]

1.CHECK POWER WINDOW AUTO OPERATION

Check power window auto operation.

Is the inspection result normal?

YES >> GO TO 2.

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

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1. PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004240751

1.CHECK POWER WINDOW AUTO OPERATION

Check power window auto operation.

Is the inspection result normal?

YES >> GO TO 2.

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

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL- LY
< SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY DRIVER SIDE
DRIVER SIDE : Diagnosis Procedure
1. PERFORM INITIALIZATION PROCEDURE
Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-119</u> , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special <u>Repair Requirement"</u> . <u>Is the inspection result normal?</u> YES >> INSPECTION END NO >> GO TO 2. 2. CHECK ENCODER (DRIVER SIDE) CIRCUIT
Check encoder (driver side) circuit.
Refer to <u>PWC-140, "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u>
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION
Confirm the operation again.
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. PASSENGER SIDE
PASSENGER SIDE : Diagnosis Procedure
1. PERFORM INITIALIZAITON PROCEDURE
Initialization procedure is executed and operation is confirmed. Refer to PWC-119, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".
Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2.
2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT
Check encoder (passenger side) circuit. Refer to <u>PWC-142, "PASSENGER SIDE : Component Function Check"</u> .
<u>Is the inspection result normal?</u> YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.
3. CONFIRM THE OPERATION
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-MALLY

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure

INFOID:000000004240754

1.CHECK DOOR SWITCH

Check door switch. Refer to <u>DLK-66, "Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

<pre> SYMPTOM DIAGNOSIS > [FRONT WINDOWS [FRONT WINDOW ANTI-PINCH] </pre>	
DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WIN- DOWS	A
Diagnosis Procedure	В
1. PERFORM INITIALIZATION PROCEDURE	D
Initialization procedure is executed and operation is confirmed. Refer to PWC-119, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".	С
Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2.	D
2. CHECK DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH)	Е
Check driver side door lock assembly (door key cylinder switch). Refer to <u>DLK-80, "Component Function Check"</u> .	_
Is the inspection result normal? YES >> GO TO 3.	F
NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION	G
Confirm the operation again.	
Is the result normal?	Н
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	

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KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Description

Power window down does not operate when pressing unlock button on Intelligent Key.

Diagnosis Procedure

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.

NO >> Refer to <u>DLK-181, "Description"</u>.

2. CHECK POWER WINDOW OPERATION

Check power window operation.

Does power window operate up/down using power window main switch?

YES >> GO TO 3.

NO >> Refer to <u>PWC-203</u>, "Diagnosis Procedure".

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

Check "PW DOWN SET" setting in "WORK SUPPORT". Refer to DLK-52, "INTELLIGENT KEY : CONSULT-III Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> GO TO 1.

INFOID:000000004596780

[FRONT WINDOW ANTI-PINCH]

INFOID:000000004596781

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION < SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH] POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

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Diagnosis Procedure	INFOID:000000004240756	~
1.REPLACE POWER WINDOW MAIN SWITCH		В
Replace power window main switch.		
>> Refer to PWC-216, "Removal and Installation".		С

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POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE PTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE DRIVER SIDE

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to <u>PWC-216, "Removal and Installation"</u>.

>> INSPECTION END PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

1.REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side). Refer to <u>PWC-216, "Removal and Installation"</u>.

>> INSPECTION END

REAR LH

REAR LH : Diagnosis Procedure

1.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit. Refer to <u>PWC-129. "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH. Refer to <u>PWC-216, "Removal and Installation"</u>.

>> INSPECTION END

REAR RH

REAR RH : Diagnosis Procedure

1.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit. Refer to <u>PWC-129, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH. Refer to <u>PWC-216, "Removal and Installation"</u>.

>> INSPECTRION END

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INFOID:000000004240758

INFOID:000000004240757

INFOID:000000004240759

< PRECAUTION > PRECAUTION PRECAUTIONS

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

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

WARNING:

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

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

WARNING:

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



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REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

- Remove the power window main switch finisher (2). Refer to <u>INT-11, "Removal and Installation"</u>.
- 2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-head screw driver (A) etc.



CAUTION:

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

The same procedure is also performed for front power window switch (passenger side) and rear power window switch (LH & RH).

INSTALLATION

Install in the reverse order of removal.

NOTE:

Power window main switch is exchanged or is detached it is necessary to do the initialization procedure. Refer to <u>PWC-120</u>, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

