# SECTION PWC В POWER WINDOW CONTROL SYSTEM

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# BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

DETAILED FLOW

## **1.**OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much malfunction information (conditions and environment when the malfunction occurs) 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 conditions 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 and then identify where to start performing the diagnosis based on possible causes and symptoms.

#### >> GO TO 4.

#### **4.** IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

Diagnose 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.

Are the malfunctions corrected?

YES >> INSPECTION END NO >> GO TO 3.

## **INSPECTION AND ADJUSTMENT**

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

When the battery negative terminal is disconnected, the initialization is necessary.

• Disconnection and connection of power window switch harness connector.

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De-

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

· Power supply to the power window switch or power window motor is cut off by removal of battery terminal or

scription

Auto-up, manual-up does not operate when door is open

Key cylinder switch power window function

 Removal and installation of motor from regulator assembly. Operation of regulator assembly as an independent unit.

Removal and installation of door glass or door glass run.

#### ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement INFOID:0000000010837736

The following specified operations cannot be performed under the non initialized condition.

## 

1. Disconnect battery negative terminal or power window switch connector. Reconnect it after a minute or more.	I
2. Door switch is OFF (close).	
3. Turn ignition switch ON.	
4. Operate power window switch to fully open the window. (This operation is unnecessary if the window is	J
already fully open.) 5. Continue pulling the power window switch AUTO-UP. Even after glass stops at the fully closed position,	
keep pulling the switch for 3 seconds or more.	
6. Initializing procedure is completed.	PWC
7. Inspect anti-pinch function.	FVVC
CAUTION:	
When initialization is not complete, power window UP does not operate while door is open.	
	L
CHECK ANTI-PINCH FUNCTION	
1. Fully open the door window.	
<ol><li>Place a piece of wood near the fully closed position.</li></ol>	Μ
<ol><li>Close door glass completely with AUTO-UP.</li></ol>	
<ul> <li>Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.</li> </ul>	
<ul> <li>Check that glass does not rise when operating the power window main switch while lowering.</li> </ul>	N.I.
CAUTION:	Ν
<ul> <li>Never check with hands and other part of body because they may be pinched. Never get pinched.</li> </ul>	
<ul> <li>Check that AUTO-UP operates before inspection when system initialization is performed.</li> </ul>	
• Perform initial setting when auto-up operation or anti-pinch function does not operate normally.	0
• Finish initial setting. Otherwise, next operation cannot be performed.	
1. Auto-up operation	
2. Anti-pinch function	Р
3. Key cylinder switch power window function	
4. Automatic window adjusting function	
5. Auto-up, manual-up does not operate when door is open	

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

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#### < BASIC INSPECTION > INSPECTION AND ADJUSTMENT

battery terminal is disconnected.

if the battery fuse is blown.

 Auto-up operation Anti-pinch function

## **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION >

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

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[COUPE]

When the control unit is replaced, the initialization is necessary.

If any of the following operations are performed, the initialization is necessary and the control unit must be disconnected.

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

• Removal and installation of door glass or door glass run.

The following specified operations cannot be performed under the non initialized condition.

- Auto-up operation
- Anti-pinch function
- Key cylinder switch power window function
- Automatic window adjusting function
- · Auto-up, manual-up does not operate when door is open

## ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Re-

#### quirement

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#### INITIALIZATION PROCEDURE

- 1. Disconnect battery negative terminal or power window switch connector. Reconnect it after a minute or more.
- 2. Door switch is OFF (close).
- 3. Turn ignition switch ON.
- 4. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open.)
- 5. Continue pulling the power window switch AUTO-UP. Even after glass stops at the fully closed position, keep pulling the switch for 3 seconds or more.
- 6. Initializing procedure is completed.
- 7. Inspect anti-pinch function.

#### **CAUTION:**

#### When initialization is not complete, power window UP does not operate while door is open.

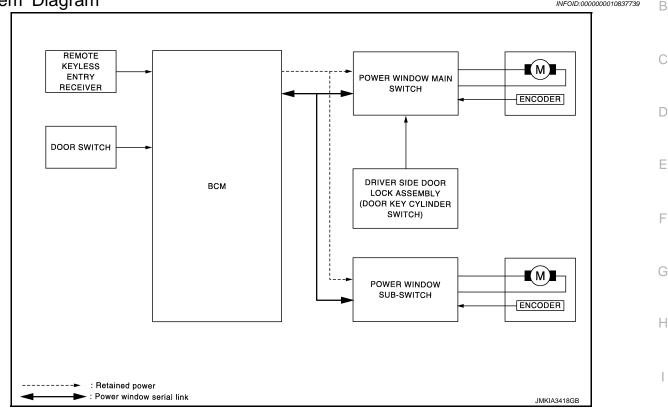
#### CHECK ANTI-PINCH FUNCTION

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

**CAUTION:** 

- Never check with hands and other part of body because they may be pinched. Never get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be performed.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Key cylinder switch power window function
- 4. Automatic window adjusting function
- 5. Auto-up, manual-up does not operate when door is open

## < SYSTEM DESCRIPTION > SYSTEM DESCRIPTION POWER WINDOW SYSTEM



## System Description

#### POWER WINDOW SYSTEM

- PWC Power window system is activated by power window switch operation when ignition switch is turned ON and during the retained power operation, after ignition switch turned OFF.
- Power window main switch can open/close all windows.
- Power window sub-switch can open/close the passenger side windows.
- AUTO operation can be activated by operating the power window switch once.
- It transmits and receives the signal between BCM and power window main switch or power window sub switch, via serial communication.
- When pressing power window lock switch, operation other than power window main switch becomes impossible.
- When detecting the pinching resistance of foreign materials, etc. during power window AUTO UP operation, it lowers door glass to the specified value.
- When opening driver side or passenger side door while door glass is being fully closed, it lowers door glass of the door a little from the closed position. When closing the door, it return door glass to the fully closed position.
- All power windows open or close when Intelligent Key unlock button is pressed for 3seconds.
- Hold the door key cylinder to the UNLOCK direction for 1 second or more to OPEN all power windows when ignition switch OFF.

#### POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when power window main switch 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 the fully open/closed position.
- Auto function is inoperable if encoder is malfunctioning.

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#### < SYSTEM DESCRIPTION >

#### POWER WINDOW SERIAL LINK

Power window main switch, power window sub-switch and BCM transmit and receive the signal by power window serial link.

The under mentioned signal is transmitted from BCM to power window main switch.

- Driver side door switch signal.
- Keyless power window down signal.
- Retained power operation signal.

The under mentioned signal is transmitted from BCM to power window sub-switch.

- Passenger side door switch signal.
- Keyless power window down signal.
- Retained power operation signal.

The following signal is transmitted from power window main switch to power window sub-switch.

- Passenger side door window operation signal.
- Power window lock signal.
- Power window control by key cylinder switch signal.

#### 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

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

#### POWER WINDOW LOCK FUNCTION

Switch operation other than power window main switch is prohibited when power window lock switch is ON. Power window main switch does not operate any power window other than driver power window.

#### ANTI-PINCH FUNCTION

- The anti-pinch function detects foreign matter being pinched in the door glass, during AUTO-UP operation, and lowers the door glass 150 mm (5.9in).
- 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 (5.9in) after it detects encoder pulse signal frequency change.

OPERATION CONDITION

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

#### NOTE:

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

#### AUTOMATIC WINDOW ADJUSTING FUNCTION

When the driver/passenger door(s) is open, the window of the opened door is lowered approximately 10 mm (0.39 in).

When the door is closed, the window is raised to the fully closed position.

Automatic window adjusting function system (opening operation) does not operate when the following item occurs.

• The window is 10 mm (0.39 in) or more open from the fully closed position.

Automatic window adjusting function system (closing operation) does not operate when the following item occurs.

• The automatic window adjusting function system (opening operation) operation.

#### DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION

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

#### OPERATION CONDITION

• Ignition switch OFF.

 Hold door key cylinder to the LOCK position for 1 second or more to perform CLOSE operation of the door glass.

#### **PWC-10**

#### < SYSTEM DESCRIPTION >

Hold door key cylinder in the UNLOCK position for 1 second or more to perform OPEN operation of the door glass.
 KEYLESS POWER WINDOW DOWN FUNCTION
 All power windows open when the unlock button on Intelligent Key is activated and pressed and held 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 function stops when the following operations are performed.

- When the unlock button is pressed and held for 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 activates, 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-43</u>, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Coupe)".

#### NOTE:

Use CONSULT to change settings. MODE 1 (3 sec) / MODE 2 (OFF) / MODE 3 (5 sec)

#### POWER CONSUMPTION CONTROL SYSTEM

Power window switch incorporates a power consumption control function that reduces the power consumption according the vehicle status.

LOW POWER CONSUMPTION MODE

- Ignition switch OFF.
- Power window main switch and power window sub-switch do not receive a signal from serial link.
- Power window motor does not move.
- If any of the following conditions are satisfied, the low power consumption mode is released.
- Ignition switch ON.
- When door key cylinder switch signal is received.
- When the signal is received from serial link.
- When door open/close signal is received.
- When power window switch door lock is operated.

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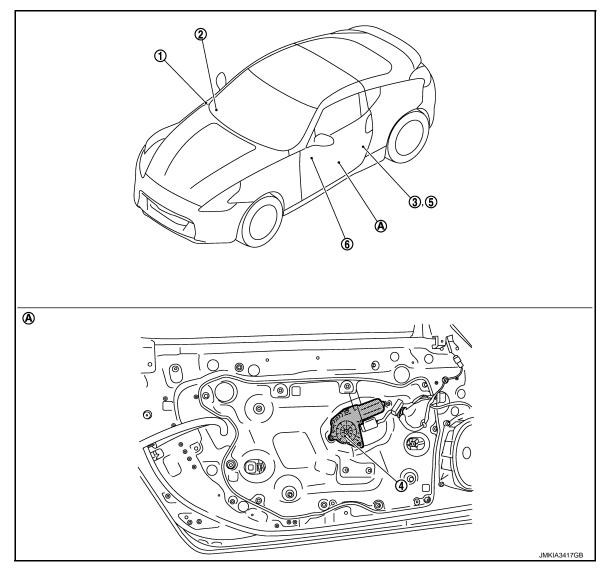
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## < SYSTEM DESCRIPTION >

## **Component Parts Location**

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[COUPE]



1. BCM M118, M119, M122, M123 BCS-10, "Component Parts Location" Remote keyless entry receiver M104 3. DLK-17, "INTELLIGENT KEY SYS-TEM : Component Parts Location"

Driver side door switch B16

2.

Driver side door lock assembly (door key cylinder switch) D15

6. Power window main switch D8

- 4. Driver side power window motor D10 5.
- A. View with door finisher removed

## **Component Description**

INFOID:000000010837742

Component	Function
BCM	<ul><li>Supplies power to power window switches.</li><li>Controls retained power function</li></ul>
Power window main switch	<ul><li>Directly controls all power window motors in all doors.</li><li>Controls anti-pinch operation of power window.</li></ul>
Power window sub-switch	<ul><li>Controls anti-pinch operation of power window.</li><li>Controls power window motor of passenger door.</li></ul>
Power window motor	<ul> <li>Integrates the encoder and window motor.</li> <li>Starts operating with signals from each power window switch.</li> <li>Transmits power window motor rotation as a pulse signal to power window switch.</li> </ul>

#### < SYSTEM DESCRIPTION >

## [COUPE]

Component	Function	
Driver side door lock assembly (door key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.	- F
Remote keyless entry receiver	Receives lock/unlock signal from intelligent key, and then transmits to BCM.	
Door switch	Detects door open/close condition and transmits to BCM.	

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# DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

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[COUPE]

## APPLICATION ITEM

CONSULT 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.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	<ul><li>Read and save the vehicle specification.</li><li>Write the vehicle specification when replacing BCM.</li></ul>

#### SYSTEM APPLICATION

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

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

Curatara	Cub sustam as lastion 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*				
<ul><li>Intelligent Key system</li><li>Engine start system</li></ul>	INTELLIGENT KEY	×	×	×	
Combination switch	COMB SW		×		
Body control system	BCM	×			
NVIS - NATS	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	
Back door/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.

## **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

#### [COUPE]

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"*)	В	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	С	
	LOCK>ACC		While turning power supply position from "LOCK"* to "ACC"		
	ACC>ON		While turning power supply position from "ACC" to "IGN"	D	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Except emergency stop operation)	D	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	Е	
RUN>URGEN	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)	_	
	ACC>OFF	Power supply position status of the moment a particular DTC is de- tected	While turning power supply position from "ACC" to "OFF"	— F	
Vehicle Condition OF	OFF>LOCK		While turning power supply position from "OFF" to "LOCK"*		
	OFF>ACC		While turning power supply position from "OFF" to "ACC"	G	
	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	Н	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply posi- tion is "LOCK"*.) to low power consumption mode		
	LOCK		Power supply position is "LOCK"*		
	OFF		Power supply position is "OFF" (Ignition switch OFF)		
	ACC		Power supply position is "ACC" (Ignition switch ACC)	1	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	0	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	ΡW	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)		
IGN Counter	0 - 39	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> </ul>			
			39 until the self-diagnosis results are erased if it is over 39.	M	

\*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

## RETAINED PWR

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

INFOID:000000010837744

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#### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

## **PWC-15**

## **DIAGNOSIS SYSTEM (BCM)**

#### < SYSTEM DESCRIPTION >

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.

< DTC/CIRCUIT DIAGNOSIS				[COUPE]
DTC/CIRCUIT D	IAGNOSIS			
POWER SUPPLY AN BCM	ID GROUND CIR	CUIT		
BCM : Diagnosis Proce	dure		INFO	ID:000000010837745
1.CHECK FUSE AND FUSIB				
Check that the following fuse a		0.000		
		Own.		
Terminal No.	Signa	l name	Fuse and fusible link N	0.
1	Battery po	wer supply	K (40A)	
s the fuse fusing?			10 (10A)	
blown. NO >> GO TO 2. 2.CHECK POWER SUPPLY 1. Turn ignition switch OFF. 2. Disconnect BCM connector 3. Check voltage between B	Drs.	nd ground		
	Civinamess connector a	na grouna.		
(+)			Voltage	
Connector	/ Terminal	(–) (Approx.)		
M118	1			
M119	11	Ground	Battery volta	ge
s the measurement value nor YES >> GO TO 3. NO >> Repair or replace CHECK GROUND CIRCUI Check continuity between BCI	harness. T	l ground.		F
BCN	Λ			
Connector	Terminal	Ground	Continuity	
M119	13		Existed	
Does continuity exist? YES >> INSPECTION EN NO >> Repair harness or POWER WINDOW MA POWER WINDOW MAI	connector. IN SWITCH N SWITCH : Diagn	osis Procedure	e INFO	ID:000000010837746
1.CHECK POWER SUPPLY	CIRCUIT 1			
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect power window</li> <li>Turn ignition switch ON.</li> <li>Check voltage between point</li> </ol>		harness connecto	or and ground.	

POWER SUPPLY AND GROUND CIRCUIT

## POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

[COUPE]

(+) Power window main switch		()	Voltage (V) (Approx.)	
Connector	Terminal		(	
	D8 1 Ground		12	
Do			12	
Is the measurement value w	ithin the specification?			
YES >> GO TO 3. NO >> GO TO 2.				
2. CHECK POWER SUPPL	Y 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 window main switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M118	2	D8	1	Existed	
WITTO	3	0	10	LAISIEU	

4. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M118	2	Ground	Not existed
WITO	3		NOT EXISTED

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-106, "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 window main switch			Continuity
Connector	Terminal	Ground	Continuity
D8	15		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

POWER WINDOW SUB-SWITCH

## POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:000000010837747

## 1.CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition switch OFF.

2. Disconnect power window sub-switch connector.

3. Check voltage between power window sub-switch harness connector and ground.

(+)		(-)	Voltage (V)
Power window s Connector	Terminal		Voltage (V) (Approx.)
D38	10	Ground	12

**PWC-19** 

D38 11

Is the inspection result normal?

Connector

YES >> INSPECTION END

NO >> Repair or replace harness.

# 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.

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

	Continuity	ow sub-switch	Power windo	CM	В
D	Continuity	Terminal	Connector	Terminal	Connector
D	Existed	10	D38	2	M118

4. Check continuity between BCM harness connector and ground.

BC	BCM		Continuity
Connector	Terminal	Ground	Continuity
M118	2		Not existed

Ground

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-106, "Exploded View"</u>.

Power window sub-switch

Check continuity between power window sub-switch harness connector and ground.

Terminal

NO >> Repair or replace harness.

# 3. CHECK GROUND CIRCUIT

[COUPE]

А

В

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Н

Continuity

Existed

J

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< 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 CIRCUIT

Check driver side power window motor operation with power window main switch.

Is the inspection result normal?

YES >> Driver side power window motor is OK.

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

**DRIVER SIDE : Diagnosis Procedure** 

**1.**CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

	(+) ower window motor (-) Co		dition	Voltage (V) (Approx.)		
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	6	Ground			UP	12
D10	6		Power window	DOWN	0	
DIO	2		main switch	UP	0	
	3			DOWN	12	

Is the measurement value within the specification?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK POWER WINDOW MOTOR

Check driver side power window motor.

Refer to <u>PWC-21. "DRIVER SIDE : Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 4.

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

## **3.**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 driver side power window motor harness connector.

Power windo	w main switch	Driver side pow	er window motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
 D8	8	D10	6	Existed
Do	11	010	3	EXISTED

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

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INFOID:000000010837748

INFOID:000000010837750

#### < DTC/CIRCUIT DIAGNOSIS >

[COUPE]

Power window	w main switch		
Connector	Terminal	Ground	Continuity
D8	8	- Ground	Not existed
s the inspection result norma YES >> Replace power v		to DWC 112 "Romoval a	nd Installation"
NO >> Repair or replace	e harness.	r to <u>PWC-113, "Removal a</u>	no mstallation .
<b>1.</b> CHECK INTERMITTENT			
Refer to <u>GI-44, "Intermittent I</u>	Incident".		
>> INSPECTION E	ND		
DRIVER SIDE : Comp	onent Inspection		INFOID:00000001083775
COMPONENT INSPECTIO	ON		
1.CHECK DRIVER SIDE PO			
. Turn ignition switch OFF.			
	ower window motor conne by connecting the battery v		de power window motor con-
Driver side power window mo-	Terr	minal	Motor energies
tor connector	(+)	(-)	Motor operation
D10	3	6	DOWN
	6	3	UP
		Refer to <u>GW-22, "Remova</u>	l and Installation".
Door glass moves UP/DOWN	N by receiving the signal p	ower window main switch	or power window sub-switch.
PASSENGER SIDE : (	Component Function	Check	INFOID:000000010837753
1. CHECK POWER WINDC	•		
		with power window main	switch or power window sub
switch.			
Is the inspection result norma		,	
	power window motor is Oł 1, "PASSENGER SIDE : D		
PASSENGER SIDE : [	Diagnosis Procedure	•	INFOID:000000010837754
1.CHECK POWER WINDO	W SUB-SWITCH OUTPU	T SIGNAL	
<ol> <li>Turn ignition switch OFF</li> <li>Disconnect passenger si</li> </ol>			

4. Check voltage between passenger side power window motor harness connector and ground.

#### < DTC/CIRCUIT DIAGNOSIS >

(+) Passenger side power window motor		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal	-			
	6			UP	12
D40	0	Ground	Power window sub-	DOWN	0
D40	3	Ground	switch	UP	0
	3			DOWN	12

Is the measurement value within the specification?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.

Refer to PWC-22, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

 ${\it 3.}$  check power window motor circuit

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

Power windo	ow sub-switch	Passenger side po	ower window motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
D38	9	D40	3	Existed
030	8	040	6	LAISIEU

4. Check continuity between power window sub-switch connector and ground.

Power windo	ow sub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	8	Ground	Not existed
030	9		NUL EXISIEU

#### Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-113. "Removal and Installation".

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

#### >> INSPECTION END

#### PASSENGER SIDE : Component Inspection

INFOID:000000010837755

#### COMPONENT INSPECTION

1.CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

#### < DTC/CIRCUIT DIAGNOSIS >

## [COUPE]

ssenger side power window	Te	erminal	Motor condition
motor connector	(+)	()	
D40	3	6	DOWN
D40	6	3	UP
inspection result normal	?		
		DK. notor. Refer to <u>GW-22, "Re</u>	emoval and Installation".

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## < DTC/CIRCUIT DIAGNOSIS > ENCODER

# DRIVER SIDE

## **DRIVER SIDE : Description**

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

**DRIVER SIDE : Component Function Check** 

## **1.**CHECK ENCODER OPERATION

Check that driver side door glass performs AUTO open/close operation normally with power window main switch.

Is the inspection result normal?

YES >> Encoder operation is OK.

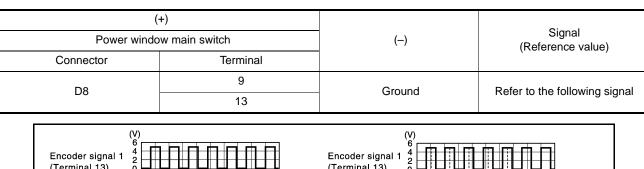
NO >> Refer to <u>PWC-24</u>, "DRIVER SIDE : Diagnosis Procedure".

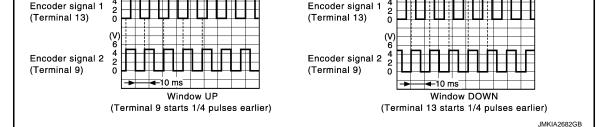
## **DRIVER SIDE : Diagnosis Procedure**

INFOID:000000010837758

## **1.**CHECK ENCODER OPERATION

- 1. Turn ignition switch ON.
- 2. Check signal between power window main switch harness connector and ground with oscilloscope.





#### Is the inspection result normal?

YES >> Replace power window main switch. Refer to <u>PWC-113</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

## 2.check encoder signal circuit

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

Power wind	low main switch	Driver side pow	er window motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
D8	9	- D10	5	Existed
Do	13		2	Existed

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

INFOID:000000010837756

INFOID:000000010837757

## < DTC/CIRCUIT DIAGNOSIS >

Power wi					Continuity
Connector	Terminal	1	Ground		Continuity
D8	9		Crouit		Not existed
20	13				Not existed
the inspection result no	<u>prmal?</u>				
ES >> GO TO 3. O >> Repair or rep	laco harnoss				
CHECK ENCODER P					
Connect power windo Turn ignition switch C		iector.			
Check voltage betwee		r window r	notor harness o	connector ar	nd ground.
	(.)				
Driver side r	(+)				Voltage (V)
Connector	Terminal		()		(Approx.)
D10	4		Ground	4	12
the measurement value	-	ation?	0.00.00		·-
ES >> GO TO 5.					
0 >> GO TO 4.					
CHECK ENCODER PO	OWER SUPPLY CIF	RCUIT 2			
Turn ignition switch C Disconnect power wir	DFF. ndow main switch co	onnector.			
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne	DFF. ndow main switch co ween power window ector.	onnector. v main sw			d driver side power wind
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r	DFF. ndow main switch co ween power window ector. main switch	onnector. v main sw Driv	ver side power win	dow motor	d driver side power wind Continuity
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector	DFF. ndow main switch co ween power window ector. main switch Terminal	onnector. v main sw Driv Conn	ver side power win	idow motor Terminal	Continuity
Turn ignition switch C         Disconnect power wir         Check continuity betw         motor harness conne         Power window r         Connector         D8	DFF. ndow main switch co ween power window ector. main switch Terminal 5	onnector. v main sw Driv Conn D <sup>r</sup>	ver side power win ector 0	idow motor Terminal 4	Continuity Existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector	DFF. ndow main switch co ween power window ector. main switch Terminal 5	onnector. v main sw Driv Conn D <sup>r</sup>	ver side power win ector 0	idow motor Terminal 4	Continuity Existed
Turn ignition switch C         Disconnect power win         Check continuity betw         motor harness conne         Power window r         Connector         D8         Check continuity betw	DFF. ndow main switch co ween power window ector. main switch Terminal 5	onnector. v main sw Driv Conn D <sup>r</sup>	ver side power win ector 0	idow motor Terminal 4	Continuity Existed ground.
Turn ignition switch C         Disconnect power win         Check continuity betw         motor harness conne         Power window r         Connector         D8         Check continuity betw	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window	onnector. v main sw Driv Conn D <sup>r</sup> main swit	ver side power win ector 0	idow motor Terminal 4 nnector and	Continuity Existed
Turn ignition switch C         Disconnect power win         Check continuity bety         motor harness conne         Power window r         Connector         D8         Check continuity bety         Check continuity bety         Power window r	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window	onnector. v main sw Driv Conn D <sup>r</sup> main swit	ver side power win ector 0 ch harness cor	idow motor Terminal 4 nnector and	Continuity Existed ground.
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector D8 Check continuity betw Power win Connector D8 the inspection result no	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window indow main switch Terminal 5 prmal?	onnector. v main sw Driv Conn D' main swit	ver side power win ector 0 ch harness cor Groun	ndow motor Terminal 4 nnector and	Continuity Existed ground. Continuity Not existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector D8 Check continuity betw Power win Connector D8 the inspection result no ES >> Replace power	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window ndow main switch Terminal 5 prmal? er window main swit	onnector. v main sw Driv Conn D' main swit	ver side power win ector 0 ch harness cor Groun	ndow motor Terminal 4 nnector and	Continuity Existed ground. Continuity Not existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conner Power window r Connector D8 Check continuity betw Power wir Connector D8 the inspection result no ES >> Replace power O >> Repair or rep	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window indow main switch Terminal 5 prmal? er window main swit lace harness.	onnector. v main sw Driv Conn D' main swit	ver side power win ector 0 ch harness cor Groun	ndow motor Terminal 4 nnector and	Continuity Existed ground. Continuity Not existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector D8 Check continuity betw Power wi Connector D8 the inspection result no ES >> Replace power O >> Repair or rep CHECK GROUND CIF	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window indow main switch Terminal 5 prmal? rer window main swit lace harness. RCUIT 1	onnector. v main sw Driv Conn D' main swit	ver side power win ector 0 ch harness cor Groun	ndow motor Terminal 4 nnector and	Continuity Existed ground. Continuity Not existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector D8 Check continuity betw Power wir Connector D8 the inspection result no ES >> Replace power O >> Repair or rep CHECK GROUND CIF Turn ignition switch C Disconnect power wir	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window indow main switch cormal? er window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window	onnector. v main sw Conn Driv Conn Dr main swit	ver side power win ector 0 ch harness cor Groun to <u>PWC-113. "</u>	Idow motor Terminal 4 Innector and Ind	Continuity Existed ground. Continuity Not existed d Installation".
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conner Power window r Connector D8 Check continuity betw Power wir Connector D8 the inspection result no ES >> Replace power O >> Repair or rep CHECK GROUND CIF Turn ignition switch C Disconnect power wir Check continuity betw motor harness conner	DFF. ndow main switch co ween power window actor. main switch Terminal 5 ween power window indow main switch Cormal? rer window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window actor.	onnector. v main sw Conn Driv Conn r main swit	ver side power win ector 0 ch harness cor Groun to <u>PWC-113. "</u> tch harness co	Idow motor Terminal 4 Innector and Ind Removal and	Continuity Existed ground. Continuity Not existed
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne Power window r Connector D8 Check continuity betw Power wir Connector D8 the inspection result no ES >> Replace power O >> Repair or rep CHECK GROUND CIF Turn ignition switch C Disconnect power wir Check continuity betw motor harness conne	DFF. ndow main switch co ween power window ector. main switch Terminal 5 ween power window indow main switch cormal? er window main switch lace harness. RCUIT 1 DFF. ndow main switch co ween power window ector.	onnector. v main sw Conn D' main swit I tch. Refer onnector. v main sw	ver side power win ector 0 ch harness cor Groun to <u>PWC-113.</u> " tch harness co	idow motor Terminal 4 Innector and Ind Removal and Donnector and	Continuity Existed ground. Continuity Not existed d Installation".
Turn ignition switch C Disconnect power wir Check continuity betw motor harness conner Power window r Connector D8 Check continuity betw Power wir Connector D8 the inspection result no ES >> Replace power O >> Repair or rep CHECK GROUND CIF Turn ignition switch C Disconnect power wir Check continuity betw motor harness conner	DFF. ndow main switch co ween power window actor. main switch Terminal 5 ween power window indow main switch Cormal? rer window main swit lace harness. RCUIT 1 DFF. ndow main switch co ween power window actor.	onnector. v main sw Conn Driv Conn r main swit	rer side power win ector 0 ch harness cor Groun to <u>PWC-113. "</u> tch harness co rer side power win ector	Idow motor Terminal 4 Innector and Ind Removal and	Continuity Existed ground. Continuity Not existed d Installation".

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

C

#### < 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	14		Existed

Is the inspection result normal?

YES >> Replace driver side power window motor. Refer to <u>PWC-113, "Removal and Installation"</u>.

NO >> Replace power window main switch. Refer to <u>PWC-113, "Removal and Installation"</u>.

## PASSENGER SIDE

## PASSENGER SIDE : Description

Detects condition of the passenger side power window motor operation and transmits to power window subswitch as the pulse signal.

## **PASSENGER SIDE : Component Function Check**

## **1.**CHECK ENCODER OPERATION

Check that passenger side door glass performs AUTO open operation normally with power window main switch or power window sub-switch.

#### Is the inspection result normal?

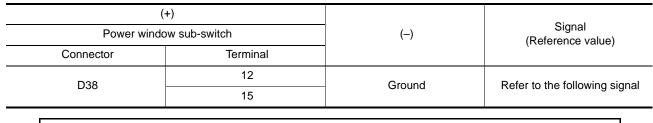
YES >> Encoder operation is OK.

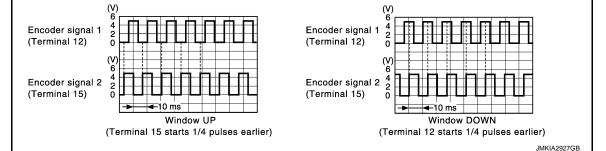
NO >> Refer to <u>PWC-26, "PASSENGER SIDE : Diagnosis Procedure"</u>.

## PASSENGER SIDE : Diagnosis Procedure

## **1.**CHECK ENCODER SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between power window sub-switch harness connector and ground with oscilloscope.





Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to <u>PWC-113</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

# 2. CHECK ENCODER SIGNAL CIRCUIT

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

## **PWC-26**

INFOID:0000000010837759

INFOID:000000010837760

INFOID:000000010837761

#### < DTC/CIRCUIT DIAGNOSIS >

Connector D38	Forminal	-		<b>-</b> · ·	Continuity
D38	Terminal	Connec	ctor	Terminal	
	12	D40		2	Existed
	15			5	
Check continuity be	tween power window	w sub-switch	connector and g	ground.	
Power	window sub-switch				
Connector	Termin	Terminal			Continuity
	12		Ground		
D38	15	15		Not existed	
ne inspection result r	normal?				
:S >> GO TO 3.					
>> Repair or re	place harness.				
CHECK ENCODER	POWER SUPPLY C	IRCUIT 1			
	dow sub-switch conr				
Turn ignition switch		iector.			
	een passenger side	power windo	w motor harnes	s connect	or and ground.
_	(+)				Voltage (V)
Passenger s	ide power window motor		(-)		(Approx.)
		- I			
Connector	Termina				
D40 ne measurement val S >> GO TO 5. D >> GO TO 4.	ue within the specific	cation?	Ground		12
D40 The measurement val TS >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo	cation? IRCUIT 2 onnector.		ector and	
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector.	cation? IRCUIT 2 onnector. w sub-switch			passenger side pow
D40 te measurement val SS >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector.	cation? IRCUIT 2 onnector. w sub-switch	n harness conne		
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector.	Cation? IRCUIT 2 Donnector. W sub-switch Passen	n harness conne ger side power wind	low motor	passenger side pow
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo Connector D38	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector. w sub-switch Terminal 4	Cation? IRCUIT 2 Donnector. W sub-switch Passen Connec D40	n harness conne ger side power wind	low motor Terminal 4	Dassenger side pow Continuity Existed
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo Connector D38	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector. w sub-switch Terminal	Cation? IRCUIT 2 Donnector. W sub-switch Passen Connec D40	n harness conne ger side power wind	low motor Terminal 4	Dassenger side pow Continuity Existed
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo Connector D38 Check continuity be	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector. w sub-switch Terminal 4	Cation? IRCUIT 2 Donnector. W sub-switch Passen Connec D40	n harness conne ger side power wind	low motor Terminal 4	Continuity Continuity Existed
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo Connector D38 Check continuity be	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector. w sub-switch Terminal 4 etween power window	Cation? IRCUIT 2 IRCUIT 2 IRCU	n harness conne ger side power wind	low motor Terminal 4	Dassenger side pow Continuity Existed
D40 te measurement val S >> GO TO 5. D >> GO TO 4. CHECK ENCODER Turn ignition switch Disconnect power v Check continuity be dow motor harness Power windo Connector D38 Check continuity be Power	4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co etween power windo connector. w sub-switch Terminal 4 tween power window window sub-switch	Cation? IRCUIT 2 IRCUIT 2 IRCU	a harness conne	low motor Terminal 4	Continuity Continuity Existed

## < DTC/CIRCUIT DIAGNOSIS >

Power windo	ow sub-switch	Passenger side po	ower window motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
D38	3	D40	1	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

1. Connect power window sub-switch connector.

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

Power windo	w sub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	3		Existed

Is the inspection result normal?

>> Replace passenger side power window motor. Refer to <u>PWC-113</u>, "<u>Removal and Installation</u>". >> Replace power window sub-switch. Refer to <u>PWC-113</u>, "<u>Removal and Installation</u>". YES

NO

	POWER		
< DTC/CIRCUIT DIAGN			[COUPI
POWER WINDOW	MAIN SWITCH	4	
POWER WINDOW	MAIN SWITCH	: Description	INFCID:00000001083
Power window main swite dow serial link.	ch, power window su	Ib-switch and BC	<i>I</i> transmit and receive the signal by power wi
The signal mentioned be switch. • Keyless power window		from BCM to por	wer window main switch, power window su
	low is transmitted fro oor window operatio by key cylinder switc tch signal	n signal	main switch to power window sub-switch.
POWER WINDOW	MAIN SWITCH	: Component	Function Check
		•	
1.CHECK POWER WIN	DOW SWITCH OUT	PUT SIGNAL	
With CONSULT     Check ("CDL LOCK SW     TEM" with CONSULT. R     Coupe)".	", "CDL UNLOCK S\ efer to <u>DLK-41, "DC</u>	N") in "Data Moi Dor Lock : Co	NTOR" mode for "POWER DOOR LOCK SY NSULT Function (BCM - DOOR LOCK) (F
Monitor	itom		Condition
	liem	LO	
CDL LOCK SW		UNL	
		LO	CK : OFF
CDL UNLOCK SW		UNL	DCK : ON
NO >> Refer to <u>PW</u> POWER WINDOW 1.CHECK POWER WIN 1. Turn ignition switch	w serial link is OK. <u>C-29, "POWER WIN</u> MAIN SWITCH DOW SWITCH OUT ON.	: Diagnosis P PUT SIGNAL	CH : Diagnosis Procedure". rocedure
(+)	)		
Power window		(-) Signal (Reference value)	
Connector	Terminal		(
D8	12	Ground	(V) 15 10 5 0

Is the inspection result normal?

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

 $2. {\sf CHECK POWER WINDOW SERIAL LINK SIGNAL}$ 

JPMIA0013GB

## 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.)	
Connector	Terminal			
D8	12	Ground	12	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-113, "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.

BCM		Power window main switch		Continuity
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-106, "Removal and Installation"</u>.

NO >> Repair or replace harness.

#### **4.**CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

#### >> INSPECTION END POWER WINDOW SUB-SWITCH

## **POWER WINDOW SUB-SWITCH : Description**

Power window main switch, power window sub-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, power window sub-switch.

• Keyless power window down signal

- The signal mentioned below is transmitted from power window main switch to power window sub-switch.
- Front passenger side door window operation signal
- Power window control by key cylinder switch signal
- Power window lock switch signal
- Retained power operation signal

POWER WINDOW SUB-SWITCH : Component Function Check

INFOID:000000010837766

INFOID:000000010837765

**1.**CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT

## POWER WINDOW SERIAL LINK

#### < DTC/CIRCUIT DIAGNOSIS >

Check ("CDL LOCK SW ", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYS-TEM" with CONSULT. Refer to <u>DLK-41, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (For</u> <u>Coupe)</u>".

Monitor iter		Conditio	n	
CDL LOCK SW			LOCK	: ON
		U	NLOCK	: OFF
CDL UNLOCK SW		LOCK : OFF		: OFF
CDE UNLOCK SW		U	NLOCK	: ON
s the inspection result norm	al?			
YES >> Power windows NO >> Refer to PWC-3				)recodure"
			-	<u>rocedure</u> .
POWER WINDOW SU	JB-SWITCH :	Diagnosis	Procedure	INFOID:0000000108377
CHECK POWER WINDC	W SWITCH OUT	PUT SIGNAL		
. Turn ignition switch ON.				
. Check signal between p		-switch harnes	s connector and g	ound.
(+)				
Power window su	b-switch	()		Signal
Connector	Terminal		(	Reference value)
			(V) 15	
Dee	40		10	
D38	16	Ground	0	
				▶ <del>                                    </del>
			JPMIA0013GB	
s the inspection result norm	al?			
YES >> Replace power	window sub-swite	h. Refer to PN	/C-113, "Removal a	ind Installation".
CHECK POWER WINDO		SIGNAL		
. Turn ignition switch OFF . Disconnect power windo		nector.		
. Turn ignition switch ON.				
. Check voltage between	power window su	b-switch harne	ess connector and g	ground.
(	+)			
Power windo	ow sub-switch		(—)	Voltage (V) (Approx.)
Connector	Terminal			(Appion.)
D38	16		Ground	12
s the inspection result norm	al?			
YES >> Replace power NO >> GO TO 3.	window main swit	ch. Refer to <u>P\</u>	<u> WC-113, "Removal</u>	and Installation".
<b>B.</b> CHECK POWER WINDC	W SERIAL LINK	CIRCUIT		
I Urn ignition switch OFF				
<ul> <li>Turn ignition switch OFF</li> <li>Disconnect BCM conne</li> <li>Check continuity between</li> </ul>	ctor and power wi			

[COUPE]

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## **POWER WINDOW SERIAL LINK**

#### < DTC/CIRCUIT DIAGNOSIS >

BCM		Power window sub-switch		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
M123	132	D38	16	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-106, "Removal and Installation"</u>.

NO >> Repair or replace harness.

Revision: 2014 September

## **BCM (BODY CONTROL MODULE)**

# ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

## **Reference Value**

#### VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

С The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

#### CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status	D
FR WIPER HI	Other than front wiper switch HI	Off	
	Front wiper switch HI	On	E
	Other than front wiper switch LO	Off	
FR WIPER LOW	Front wiper switch LO	On	_
FR WASHER SW	Front washer switch OFF	Off	F
FR WASHER SW	Front washer switch ON	On	
FR WIPER INT	Other than front wiper switch INT	Off	G
	Front wiper switch INT	On	
FR WIPER STOP	Front wiper is not in STOP position	Off	
FR WIFER STOP	Front wiper is in STOP position	On	Н
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	
IURIN SIGNAL R	Turn signal switch RH	On	
TURN SIGNAL L	Other than turn signal switch LH	Off	J
TURIN SIGNAL L	Turn signal switch LH	On	
TAIL LAMP SW	Other than lighting switch 1ST and 2ND	Off	
TAIL LAWP SW	Lighting switch 1ST or 2ND	On	PWC
HI BEAM SW	Other than lighting switch HI	Off	
	Lighting switch HI	On	L
HEAD LAMP SW 1	Other than lighting switch 2ND	Off	
HEAD LAWF SVV I	Lighting switch 2ND	On	
HEAD LAMP SW 2	Other than lighting switch 2ND	Off	M
HEAD LAWF SW 2	Lighting switch 2ND	On	
PASSING SW	Other than lighting switch PASS	Off	N
PASSING SW	Lighting switch PASS	On	IN
AUTO LIGHT SW	Other than lighting switch AUTO	Off	
AUTO LIGITI SW	Lighting switch AUTO	On	0
FR FOG SW	NOTE: The item is indicated, but not monitored.	Off	
RR FOG SW	Rear fog lamp switch OFF	Off	Ρ
KK FUG 3W	Rear fog lamp switch ON	On	
DOOR SW-DR	Driver door closed	Off	
	Driver door opened	On	
	Passenger door closed	Off	
DOOR SW-AS	Passenger door opened	On	

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INFOID:000000011282538 В

# **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-RR	NOTE: The item is indicated, but not monitored.	Off
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off
	<ul><li>Back door closed (Coupe models)</li><li>Trunk lid closed (Roadster models)</li></ul>	Off
DOOR SW-BK	<ul><li>Back door opened (Coupe models)</li><li>Trunk lid opened (Roadster models)</li></ul>	On
CDL LOCK SW	Other than door lock and unlock switch LOCK	Off
UDL LOCK SVV	Door lock and unlock switch LOCK	On
	Other than door lock and unlock switch UNLOCK	Off
CDL UNLOCK SW	Door lock and unlock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
HAZARD SW	Hazard switch is ON	On
REAR DEF SW	Rear window defogger switch OFF	Off
NOTE: For models with NAVI this item s not monitored.	Rear window defogger switch ON	On
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
TR CANCEL SW	Trunk lid opener cancel switch ON	On
	<ul> <li>Back door opener switch OFF (Coupe models)</li> <li>Trunk lid opener switch OFF (Roadster models)</li> </ul>	Off
TR/BD OPEN SW	<ul> <li>While the back door opener switch is turned ON (Coupe models)</li> <li>While the trunk lid opener switch is turned ON (Roadster models)</li> </ul>	On
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off
	LOCK button of the Intelligent Key is not pressed	Off
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On
	UNLOCK button of the Intelligent Key is not pressed	Off
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
NOTE: For Coupe models this item is not monitored.	TRUNK OPEN of the Intelligent Key is pressed	On
	PANIC button of the Intelligent Key is not pressed	Off
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
	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simul- taneously	Off
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is pressed and held simulta- neously	On

# **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF HEAL SENSOR	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	<ul><li>Back door request switch is not pressed (Coupe models)</li><li>Trunk lid door request switch is not pressed (Roadster models)</li></ul>	Off
REQ SW -DD/TR	<ul> <li>Back door request switch is pressed (Coupe models)</li> <li>Trunk lid door request switch is pressed (Roadster models)</li> </ul>	On
	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
<b>NOTE:</b> For A/T models this item is not monitored.	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 normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
DETE/CANCL SW	<ul> <li>Selector lever in P position (A/T models)</li> <li>The clutch pedal is depressed (M/T models without SynchroRev Match mode)</li> </ul>	Off
For M/T models with Synchro- Rev Match mode this item is not monitored.	<ul> <li>Selector lever in any position other than P (A/T models)</li> <li>The clutch pedal is not depressed (M/T models without SynchroRev Match mode)</li> </ul>	On
SFT PN/N SW <b>NOTE:</b> For roadster M/T models and	<ul> <li>Selector lever in any position other than P and N (A/T models)</li> <li>Control lever in any position other than neutral position (Coupe M/T models with SynchroRev Match mode)</li> </ul>	Off
coupe M/T models without SynchroRev Match mode this item is not monitored.	<ul> <li>Selector lever in P or N position (A/T models)</li> <li>Control lever in neutral position (Coupe M/T models with SynchroRev Match mode)</li> </ul>	On
S/L -LOCK	NOTE: The item is indicated but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated but not monitored.	Off
	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On

## **BCM (BODY CONTROL MODULE)**

## < ECU DIAGNOSIS INFORMATION >

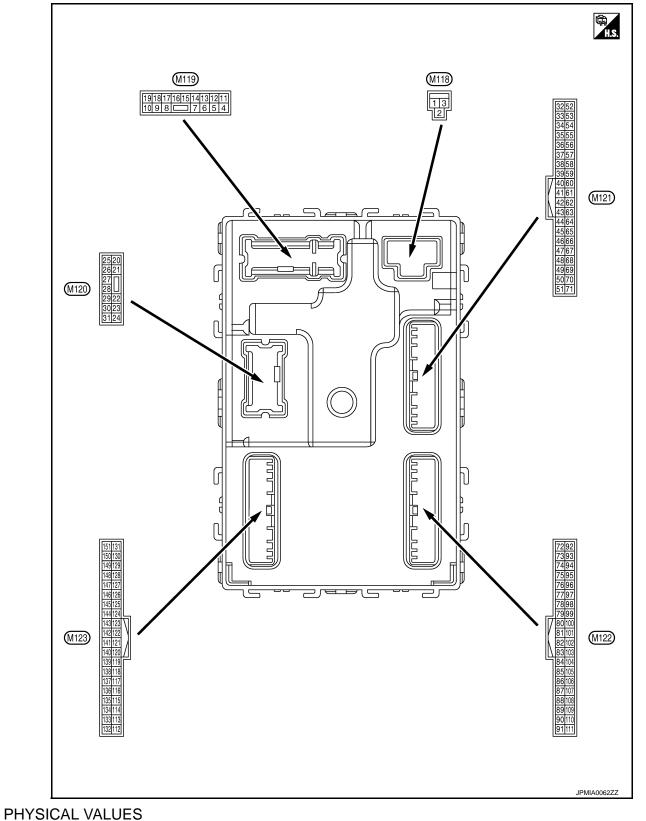
Monitor Item	Condition	Value/Status
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
IGN KLY I -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
SFT PN -IPDM	<ul> <li>Selector lever in any position other than P and N (A/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	Off
	<ul> <li>Selector lever in P or N position (A/T models)</li> <li>The clutch pedal is depressed (M/T models)</li> </ul>	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On
	Engine stopped	Stop
	While the engine stalls	Stall
ENGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speedom- eter reading
VEH SPEED 2	While driving	Equivalent to speedom- eter 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	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
	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	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key

### < ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
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
CONFIRM ID4	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 reg- istered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID reg- istered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID reg- istered to BCM.	Done
	The key ID that the key slot receives is not recognized by the first key ID reg- istered to BCM.	Yet
CONFIRM ID1	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
12 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
	The ID of third Intelligent Key is registered to BCM	Done
	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
TD /	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	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 of front RH tire transmitter is registered	Done
ID REGST FR1	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
ID REGST RR1	ID of rear RH tire transmitter is not registered	Yet
	ID of rear LH tire transmitter is registered	Done
ID REGST RL1	ID of rear LH tire transmitter is not registered	Yet
	Tire pressure indicator OFF	Off
WARNING LAMP	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



### < ECU DIAGNOSIS INFORMATION >

[COUPE]

	nal No.	Description				Value
(vvire +	e color)	Signal name	Input/ Output	Condition		(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (	OFF	Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch (	OFF	12 V
3 (Y)	Ground	P/W power supply (IGN)	Output	Ignition switch (	NC	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (R)	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
(G)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V
8	Oneveral	All doors, fuel lid	Quitaut	All doors, fuel	LOCK (Actuator is activated)	12 V
(V)	Ground	LOCK		lid	Other than LOCK (Actuator is not activated)	0 V
9	Onestad	Driver door, fuel lid	Quitaut	Output Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V
11 (BR)	Ground	Battery power supply	Input	Ignition switch (	OFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (	NC	0 V
					OFF	0 V
14 (R)	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	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	JSNIA0010GB Battery voltage
(Y)			-		ACC	0 V

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### < ECU DIAGNOSIS INFORMATION >

	erminal No. Description					Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
17 (W)	Ground	Turn signal RH (Front and side)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
					Turn signal switch OFF	0 V	
18 (O)	Ground	Turn signal LH (Front and side)	Output	lgnition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s 1 s 1 s 1 s 1 s 1 s 1 s 1 s	
19	Ground	Interior room lamp	Output	Interior room	OFF	12 V	
(P)	Ground	control	Output	lamp	ON	0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 1 1 1 1 1 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0	
23		Back door/Trunk lid		Back door/	OPEN (Back door/Trunk lid open- er actuator is activated)	12 V	
(L)* <sup>1</sup> (Y)* <sup>2</sup>	Ground	open	Output	Trunk lid	Other than OPEN (Back door/Trunk lid open- er actuator is not activat- ed)	0 V	
24* <sup>8</sup>	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V	
(O)	Croand		Carput		ON	12 V	
					Turn signal switch OFF	0 V	
25 (LG)	Ground	Turn signal LH (Rear)	Output	lgnition switch ON	Turn signal switch LH	(V) 10 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
30		Luggage room/Trunk			ON	0 V	
(R)	Ground	room lamp	Output	Trunk room lamp	OFF	12 V	

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
34	Ground	Luggage room/Trunk	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(G)		room antenna (–)	Guipur	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	E
35	Ground	Luggage room/Trunk	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(R)		room antenna (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	J PWC
38	Ground	Rear bumper anten-	Output	When the back door/trunk lid door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(B)		na ()	Caput	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	O P

### < ECU DIAGNOSIS INFORMATION >

	minal No. Description					Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
39	Ground	Rear bumper anten-	Output	When the back door/trunk lid door request	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	
(W)	Giouna	na (+)	Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 0 15 10 0 15 10 0 15 10 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V	
(V)	Ground	E/R) control	Output	Ignition Switch	ON	0 V	
		ound Starter relay control	Output	Ignition switch ON (A/T mod- els)	When selector lever is in P or N position	12 V	
52					When selector lever is not in P or N position	0 V	
(SB)	Ground			Ignition switch ON (M/T mod-	When the clutch pedal is depressed	Battery voltage	
				els)	When the clutch pedal is not depressed	0 V	
60	Ground	Push-button ignition	Input	Push-button ig- nition switch	Pressed	0 V	
(BR)		switch (Push switch)		(push switch)	Not pressed	Battery voltage	
					ON (Pressed)	0 V	
61 (W)	Ground	Back door/Trunk Lid door request switch	Input	Back door/ Trunk lid door request switch	OFF (Not pressed)	(V) 15 10 5 10 10 ms JPMIA0016GB 1.0 V	
64	Ground	Intelligent Key warn-	Output	Intelligent Key	Sounding	0 V	
(G)	Ground	ing buzzer	Sulput	warning buzzer	Not sounding	12 V	
66 (R)	Ground	Back door/Trunk room lamp switch	Input	Back door/ Trunk room lamp switch	OFF (Door close)	(V) 15 0 10 10 10 10 10 10 10 10 10 10 10 10 1	
					ON (Door open)	0 V	
					· · /		

### < ECU DIAGNOSIS INFORMATION >

[COUPE]

Input/ +       Input/ Output       Condition       (Approx.)         *       -       Signal name       Input/ Output       Pressed       0 V       B         67 (GR)       Ground       Back door/Trunk lid opener switch       Input       Back door/ Trunk lid open- er switch       Not pressed       0 V       B         72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       When Intelligent Key is not in the passenger compart. ment       Imput/ Trunk lid open- er switch       Imput/ Trunk lid open- er switch       Imput/ Trunk lid open- er switch       Imput/ Trunk lid open- er switch       Mot pressed       Imput/ Trunk lid open- er switch       Imput/ Trunk lid open-		nal No.	Description				Value	
67 (GR)       Ground       Back door/Trunk lid opener switch       Input       Back door/ Trunk lid open- er switch       Not pressed       Imput       Back door/ Trunk lid open- er switch       Not pressed       Imput       C         72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       When Intelligent Key is in the passenger compart- ment       Imput       Imput       Ignition switch OFF       Imput			Signal name			Condition		A
67 (GR)       Ground       Back door/Trunk lid opener switch       Input       Input       Input       Input       Input       Input       Not pressed       Input       Inpu						Pressed		В
72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       When Intelligent Key is in the passenger compart- ment       Ignition switch (V)       Ignition swich (V)       Ignition switch (V)       Ignition		Ground		Input	Trunk lid open-	Not pressed	10 5 0 10 ms JPMIA0011GB	
72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       When Intelligent Key is in the passenger compart.       Image: Center console in the passe							11.8 V	_
72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       Imment								
72 (L)       Ground       Room antenna 2 (-) (Center console)       Output       Ignition switch OFF       When Intelligent Key is not in the passenger compart- ment       Image: Center console in the passenger compart- ment       Image: Center console								
73 (P)     Ground     Room antenna 2 (+) (Center console)     Output     Ignition switch OFF     When Intelligent Key is not in the passenger compart- ment     (V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10		Ground		Output				G
73 (P)     Ground     Room antenna 2 (+) (Center console)     Output     Ignition switch OFF     When Intelligent Key is not in the passenger compart- ment     Image: Compart- sent     Image: Compar							(V) 15 10 5 0	Н
73 (P)     Ground     Room antenna 2 (+) (Center console)     Output     Ignition switch OFF     Ignition switch OFF     Ignition switch When Intelligent Key is not in the passenger compart- ment     Ignition switch Ignition switch Ignition switch OFF     Ignition switch OFF     Ignition switch Ignition switch Ignition switch Ignition switch OFF     Ignition switch Ignition switch Ign						ment		I
73 (P)     Ground     Room antenna 2 (+) (Center console)     Output     Ignition switch OFF     Ignition switch OFF     Ignition switch When Intelligent Key is not in the passenger compart- ment     Ignition switch Ignition switch Ignition switch OFF     Ignition switch OFF     Ignition switch Ignition switch Ignition switch Ignition switch OFF     Ignition switch Ignition switch Ign	. <u> </u>							J
73 (P)     Ground     Room antenna 2 (+) (Center console)     Output     Ignition switch OFF     Igniti						the passenger compart-		PW0
(P) Ground (Center console) OFF M When Intelligent Key is not in the passenger compart- ment N	73		Room antenna 2 (+)		lanition switch	ment		L
ment	(P)		OFF		(V)	M		
						in the passenger compart-		Ν
								0

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### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
74		When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB				
(SB)		tenna (-)		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	
75	Ground	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 0 1 s JMKIA0062GB	
(BR)		tenna (+)			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	
76	Driver deer entenne er door reque	When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 15 0 15 0 15 0 15 0 15 0 15 0			
(V)		()	Suput	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 1 s JMKIA0063GB	

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
77	Ground	Driver door antenna	Output	When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB	B C D
(LG)	Ground	(+)	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	E
78* <sup>2</sup>	Ground	Room antenna 1 (–)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15	G H
(L)		(Instrument panel)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 10 10 10 10 10 10 10 10 10	J PWC
79* <sup>2</sup>	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M
(R)	Ground	(Instrument panel)	Jouput	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 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 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 10 10 10 10 10 10 10 10 10 10 10	O P

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	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.
81 (W)	Ground	NATS antenna amp.	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 ON	0 V 12 V
83		Remote keyless entry	Input/	During waiting		(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
(GR)	Ground	receiver (front) com- munication	Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 ms JMKIA0065GB
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 2 ms JPMIA0038GB 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 0 2 ms JPMIA0040GB 1.3 V

### < ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire +	e color) -	Signal name	Input/ Output		Condition	(Approx.)	A
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	B C D
88	Ground	Combination switch	laput	Combination	Lighting switch HI (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	E F
(V)	Ground	INPUT 3	INPUT 3 switch	nput Switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V	G H I
						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
90 (P)	Ground	CAN-L	Input/ Output			_	
91 (L)	Ground	CAN-H	Input/ Output		OFF	0 V	M
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB 6.5 V	N O P
					ON OFF (LOCK indicator is	12 V	
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	not illuminated)	Battery voltage	
					ON	0 V	

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	0.00.00	-	o aip ai	-grimer e triteri	ACC or ON	12 V
96* <sup>3</sup> (Y)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V
		Selector lever P posi- tion switch (A/T mod-		Selector lever	P position	0 V
0		els)		Selector level	Any position other than P	12 V
99* <sup>6</sup> (R)	Ground	Clutch pedal position switch (M/T models	Input	Clutch pedal	OFF (Clutch pedal is de- pressed)	0 V
	without SynchroRev Match mode)		position switch	ON (Clutch pedal is not depressed)	Battery voltage	
				ON (Pressed)	0 V	
100 (GR)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (Y)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 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)	Ground	lay control	Supur	ignition switch	ON	12 V
103 (LG)	Ground	Remote keyless entry receiver (front) power supply	Output	Ignition switch C	DFF	12 V

### < ECU DIAGNOSIS INFORMATION >

[COUPE]

	erminal No. Description Wire color)					Value	
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	
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	
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	

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# < ECU DIAGNOSIS INFORMATION >

Termir	nal No.	Description		<b>0</b>		Value	
+	color) -	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V	
108	Ground	Id Combination switch INPUT 4 Input	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 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					
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)	A
					All switches OFF	(V) 15 10 2 ms JPMIA0041GB 1.4 V	B C D
					Lighting switch PASS	(V) 15 0 2 ms JPMIA0037GB 1.3 V	E
109 (Y)	Ground	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 L
					Front wiper switch HI	(V) 15 10 2 ms JPMIA0040GB 1.3 V	M
					ON	0 V	0
110 (P)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 0 10 10 10 10 1.1 V JPMIA0012GB	Ρ

### < ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(O)	Cround			ON	When dark outside of the vehicle	Close to 0 V
114* <sup>4</sup>	Ground	Clutch interlock	Input	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V
(R)		switch		switch	ON (Clutch pedal is de- pressed)	Battery voltage
115* <sup>9</sup> (O)		—	_		_	_
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
118	Ground	Stop lamp switch 2	Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(P)	0.00.00			switch	ON (Brake pedal is de- pressed)	Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 10 10 10 10 10 11 12 12 12 12 12 12 12 12 12
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground		lanut	When the Intellig	gent Key is inserted into key	12 V
(R)	Ground	Key slot switch	Input	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)					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 10 10 10 10 10 11.8 V
					ON (Door open)	0 V

### < ECU DIAGNOSIS INFORMATION >

Input/ +     Input/ Output     Condition     (A       129*2     Ground     Trunk lid opener can- Input     Trunk lid open- er cancel     CANCEL     0	Value A Approx.) B
129*2 Ground Trunk lid opener can-	В
(O) cer switch switch	JPMIA0012GB
ON	1.1 V D
130*7 (L)     Ground     Rear window defog- ger switch     Input     Ignition switch ON     Rear window defogger switch OFF     Input	F
	JPMIA0012GB G
switch ON	0 V H
132     Power window switch and soft top control unit communication     Input/ Output     Ignition switch ON     Ignition switch ON	
	JPMIA0013GB 10.2 V
Ignition switch OFF or ACC	12 V PW0
ON (Tail lamps OFF)	9.5 V
The pulse with a varied by the	NOTE: ridth of this wave is illumination bright- limming level.
133 (G)GroundPush-button ignition switch illuminationOutputPush-button ig- nition switch il- luminationON (Tail lamps ON)15 10 10 10	
	JPMIA0159GB
OFF	0 V
Crowned I OCI/ indicator lamon Output ECONTINUOUO	ery voltage
(GR) Ground LOCK indicator lamp Output lamp ON	0 V
137 (P) Ground Receiver and sensor ground Input Ignition switch ON	0 V P
138 (v) Ground Receiver and sensor Output Ignition switch OFF	0 V
(V) Bround power supply Output Ignition switch ACC or ON	5.0 V

### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
		Fround Tire pressure receiver er communication		Ignition switch OFF (Remote key-	During waiting	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
139 (L)	Ground		Input/ Output	less entry re- ceiver communica- tion)	When operating either button on the Intelligent Key	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
				Ignition switch ON (Tire pressure receiver com- munication)	Standby state	(V) 4 2 0 • • 0.2s DCC3881D
					When receiving the signal from the transmitter	(V) 6 2 0 + 0.2s OCC3860D
		Selector lever P/N		Selector lever	P or N position	12 V
140* <sup>5</sup>		position (A/T models)	Input		Except P and N positions	0 V
(G)	Ground	Park/neutral position switch (Coupe M/T		Ignition switch ON	Control lever in neutral po- sition	Battery voltage
		models with Synchro- Rev Match mode)			Control lever in any posi- tion other than neutral	0 V
					ON	0 V
141 (Y)	Ground	Security indicator lamp	Output	Security indica- tor lamp	Blinking	(V) 15 0 1 s JPMIA0014GB 11.3 V
					OFF	12 V
	1			1		

### < ECU DIAGNOSIS INFORMATION >

(Wire color)       Signal name       Input Output       Condition       A (Approx.)       A         142 (0)       Ground       Combination switch OUTPUT 5       Output       All switches OFF       0 V       B         143 (P)       Ground       Combination switch OUTPUT 5       Output       Combination (Wiper intermitted toti dial 4)       All switches OFF       0 V       B         143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Output       All switches OFF (Wiper intermittent dial 4)       0 V       E         143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Combination switch       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V       F         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V       F         145 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V       F         145 (G)       Ground       Combination switch (U) PUT 2       Output       Combination switch	Terminal No.		Description				Volue	0
142 (O)     Ground     Combination switch OUTPUT 5     Output     Combination switch Work internit- tent dial 4)     Lighting switch 1ST Ughting switch RH     If the switch ST Ughting switch RH     If the switch ST Ughting switch RH     C       143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     If witches OFF (Wiper intermitten dial 4)     0 V     E       143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     Combination Switch     If witches OFF (Wiper intermitten dial 4)     0 V     E       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     If witches OFF (Wiper intermitten dial 4)     Viper intermitten dial 4)     Viper intermitten dial 4)       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     If combination switch     All switches OFF (Wiper intermitten dial 4)     Viper intermitten dial 4)       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     All switches OFF (Wiper intermitten dial 6)     Viper intermitten dial 6)       145 (B)     Ground     Combination switch OUTPUT 3     Output     Combination switch     If switches OFF (Wiper intermitten dial 6)     Viper intermitten dial 6)       146 (B)     Ground     Combination switch OUTPUT 3     Output     Combination switch     I		1	Signal name			Condition	Value (Approx.)	A
142 (O)     Ground     Combination switch OUTPUT S     Output     Combination switch heri dial 4)     Lighting switch 1ST Lighting switch 2ND     View 10.7V     C       143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0 V     E       143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0 V     E       144 (P)     Ground     Combination switch OUTPUT 2     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0 V     F       144 (C)     Ground     Combination switch OUTPUT 2     Output     Combination switch     Combination switch     May of the conditons be- low with all switches OFF (Wiper intermittent dial 4)     0 V     F       144 (C)     Ground     Combination switch OUTPUT 2     Output     Combination switch     May of the conditons be- low with all switches OFF (Wiper intermittent dial 4)     0 V     F       145 (S)     Ground     Combination switch OUTPUT 3     Output     Combination switch with all 4)     All switches OFF (Wiper intermittent dial 5)     Viper intermittent dial 6)     Viper intermittent dial 6)       146 (S)     Ground     Combination switch OUTPUT 3     Output     Combination switch with all 4)     All switches OFF (Wiper intermitten						All switches OFF	0 V	D
142 (O)       Ground       Combination switch OUTPUT 5       Combination Switch (Wper intermittent dial 4)       Lighting switch 2ND Turn signal switch 2ND       10 0       Combination Switch (Wper intermittent dial 4)       C         143 (P)       Ground       Combination switch OUTPUT 1       Combination Switch       Combination Switch       Combination Switch       Combination (Wper intermittent dial 4)       0 V       E         143 (P)       Ground       Combination Switch OUTPUT 1       Output       Combination Switch						Lighting switch 1ST		В
142 (O)       Ground       Combination switch OUTPUT 5       Output       witch Weight intermit- tion dial 4)       Lighting switch 2ND       19 2 new construe 10.7 V       C         143 (P)       Ground       Combination switch OUTPUT 1       All switches OFF (Mpor intermitten dial 4)       0 V       E         143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Combination switch       Combination switch       Combination Switch       F       OV       E         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Combination Switch       F       OV       F         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Combination switch       F       OV       F         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Combination switch       F       OV       F         145 (C)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch       Combination switch       All switches OFF       O V       F         145 (C)       Ground       Combination switch OUTPUT 3					Combination	Lighting switch HI		
(O)       0.0000       CUTPUT 5       0.00000       (Wiper intermitter tield 4)         Turn signal switch RH       Turn signal switch RH       0.7V       0         14.3       Ground       Combination switch OUTPUT 1       Output       Combination switch OUTPUT 1       0.04put       Combination Switch OUTPUT 2       0.04put       Combination Switch OUTPUT 3       0.04put       Combination Switch OUTPUT 4       0.04put       Combination Switch OUTPUT 3       0.04put       Combination Switch OUTPUT 3       0.04put       Combination Switch OUTPUT 4       0.04put       Combination Switch OUTPUT 4       0	142	Cround	Combination switch	Output		Lighting switch 2ND		С
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Combination switch Output       Combination switch Switch       Front Wiper switch HI (P)       (V) (P)       Front Wiper intermittent dial 4)       (V)       Front Wiper intermittent dial 4)       (V)	(O)	Ground		Output		Turn signal switch RH	0 2 ms JPMIA0031GB	D
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Combination switch       Any of the conditions be- wither intermittent dial 2 . Wiper intermittent dial 3 . Wiper intermittent dial 4 . Wiper intermittent dial 4       V)       Image: Combination Switch OUTPUT 2       F         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination Switch       Combination Switch OI (Wiper intermittent dial 4)       0 V       H         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination Switch       Combination Switch OI (Wiper intermittent dial 4)       0 V       H         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination Switch       Combination Switch       Font washer switch OI (Wiper intermittent dial 5)       Image: Switch SOFF       0 V       PW         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination Switch       Combination Switch OI       Image: Switch INT       Image: Switch INT <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>0 V</td><td>E</td></t<>							0 V	E
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Any of the conditions be- wither intermittent dial 2 · Wiper intermittent dial 3 · Wiper intermittent dial 4       Image: Combination output       G         144       Ground       Combination switch OUTPUT 2       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V       H         144       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination sbe- low with all switches OFF · Wiper intermittent dial 4)       0 V       Image: Combination switch       Image: Combination Sw							( <u>)</u> []	_
144       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination Switch       Front washer switch ON (Wiper intermittent dial 4)       0 V         144       (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Any of the conditions be- low with all switches OFF       0 V         145       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch Output       All switches OFF       0 V         145       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch       Combination switch OUTPUT 3       Output       Combination switch       All switches OFF       0 V         146       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch OUTPUT 3       Output       All switches OFF       0 V         146       Ground       Combination switch OUTPUT 4       Output       Combination switch OUTPUT 4       Output       All switches OFF       0 V         146       Ground       Combination switch OUTPUT 4       Output       Combination Switch OUTPUT 4       All switches OFF       0 V       OUTPUT 4         146       Ground       Combination switch OUTPUT 4       Output       Combination Sw		Ground		Output		low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6	10 0 2 ms JPMIA0032GB	G
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       (Wiper intermittent dial 4)       (Wiper intermittent dial 4)         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Any of the conditions be- low with all switches OFF • Wiper intermittent dial 5       Umput       Image: Combination switch OUTPUT 3       Image: Combination switch OUTPUT 4       Image: Combination switch ON       Image: Combination Switch							0 V	Η
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5       10       Image: Combination switch 0       J         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination 0       Any of the conditions be- low with all switches OFF • Wiper intermittent dial 5       Image: Combination 0       J         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       All switches OFF Fort wiper switch LO       Image: Combination 10       Image: Combination 10       M         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       All switches OFF Rear fog lamp switch ON       OV       M         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       Turn signal switch LH       Image: Combination switch LH       <								
145       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       L         145       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       Front wiper switch LO Lighting switch AUTO       Uput       Image: Combination Switch (Wiper intermit- tent dial 4)       Rear fog lamp switch ON       Image: Combination Switch ON       M         146       Ground       Combination switch OUTPUT 4       Output       Combination Switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       Image: Combination Switch ON       N         146       Ground       Combination switch OUTPUT 4       Output       Combination Switch (Wiper intermit- tent dial 4)       Image: Combination Switch INT       Image: Combination Switch INT       Image: Combination Switch INT       N         146       Ground       Combination Switch OUTPUT 4       Output       Combination Switch (Wiper intermit- tent dial 4)       Image: Combination Switch LH       Image: Combination Switc		Ground		Output		<ul><li>low with all switches OFF</li><li>Wiper intermittent dial 1</li><li>Wiper intermittent dial 5</li></ul>	10 5 0 2 ms	J
145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       Front wiper switch INT Front wiper switch LO Lighting switch AUTO       Image: Combination Switch (Wiper intermit- tent dial 4)       M         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination Switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       M         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination Switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       O         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Turn signal switch LH       Image: Combiner switch LH								PVVC
145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       Front wiper switch LO Lighting switch AUTO       Image: Combination Lighting switch ON       Image: Combination Lighting switch ON       Image: Combination Lighting switch ON       Image: Combination Lighting switch ON       Image: Combination Lighting switch PASS       Image: Combination Lighting switch LH       Image: Combi						All switches OFF	0 V	
145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       Lighting switch AUTO       15 4 4       Image: Combination Switch (Wiper intermit- tent dial 4)       M         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination Switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       N         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       O         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Turn signal switch LH       Image: Combination Super combination switch LH       Image: Combination swi						-	(10)	L
(L)       OUTPUT 3       Output (Wiper intermittent dial 4)       Rear fog lamp switch ON       Image: Combination switch (Wiper intermittent dial 4)       M         Rear fog lamp switch ON       Image: Combination switch (Wiper intermittent dial 4)       Rear fog lamp switch ON       Image: Combination switch (Wiper intermittent dial 4)       N         146       Ground       Combination switch (Wiper intermittent dial 4)       Output       Combination switch (Wiper intermittent dial 4)       Image: Combination switch (W							15	
146 (SB)       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V       0         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       Turn signal switch LH       Image: Combination switch (SB)       Output       Output       Output       Combination switch (Wiper intermit- tent dial 4)       Turn signal switch LH       Image: Combination switch (SB)       Output       Output       Output       Output       Image: Combination switch (SB)       Turn signal switch LH       Image: Combination switch (SB)       Output       Image: Combination switch (SB)       Image: Combinatio		Ground		Output		Lighting switch AUTO		вл
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     All switches OFF     0 V       146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch PASS     0 V	(=)					Rear fog lamp switch ON	2 ms	
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch 2ND     Image: Combination Lighting switch PASS     Image: Combination Subject tent dial 4)     Image: Combination Switch (Wiper intermit- tent dial 4)     Image: Combination Turn signal switch LH     Image: Combination Subject tent dial 4)     Image: Combi								IN
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch PASS     (V) 15 10 5 0     Image: Combination 15 10 5 0     P							0 V	
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Combination switch (Wiper intermit- tent dial 4)     Turn signal switch LH     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     16 10 5 0     16 10 10 10     16 10 10     16 10 10     16 10 10     16 10 10     16 10 10     16 10     16							()/)	0
		Ground		Output	switch (Wiper intermit-		15 10 5 0 •••••• 2 ms	Ρ

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

Terminal No.		Description				Value
(Wire +	color) –	Signal name	Input/ Output	Condition		(Approx.)
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151	Ground	Rear window defog-	Output	Rear window	Active	0 V
(G)	Giouna		defogger	Not activated	Battery voltage	

\*1: Coupe models

\*2: Roadster models

\*3: A/T models

\*4: M/T models

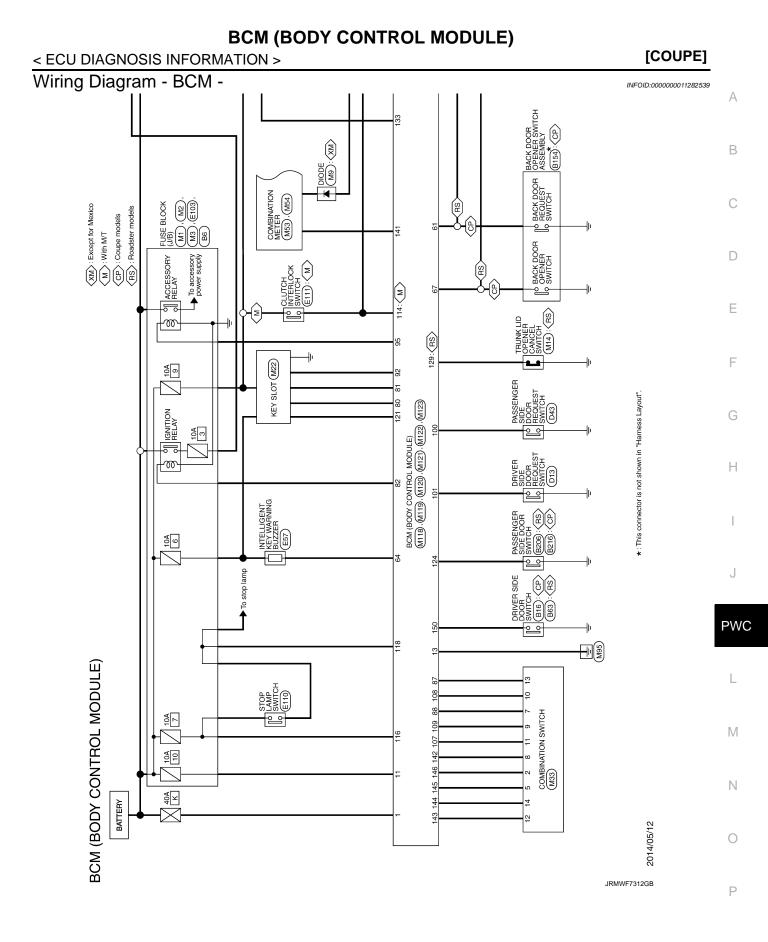
\*5: With A/T or coupe models with M/T and SynchroRev Match mode

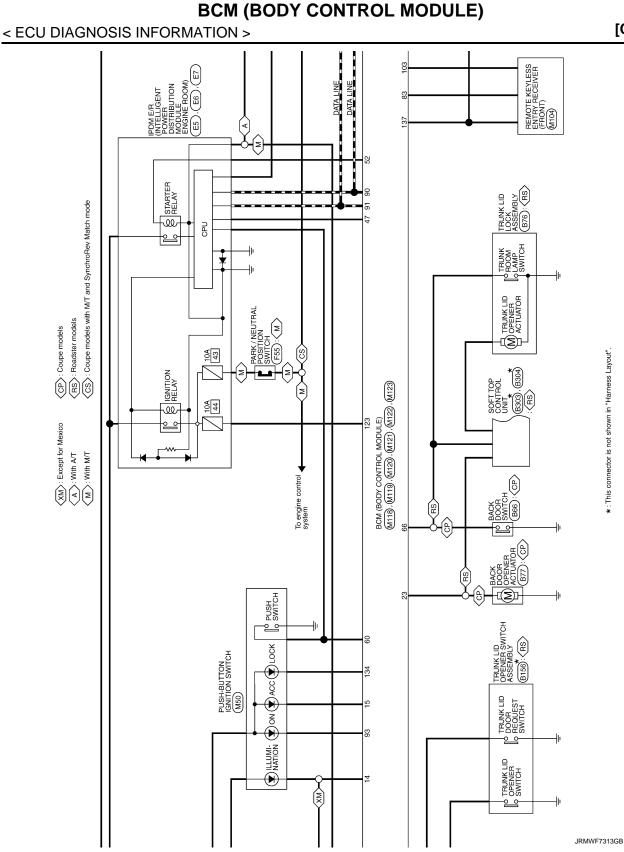
\*6: With A/T or with M/T without SynchroRev Match mode

\*7: Without NAVI

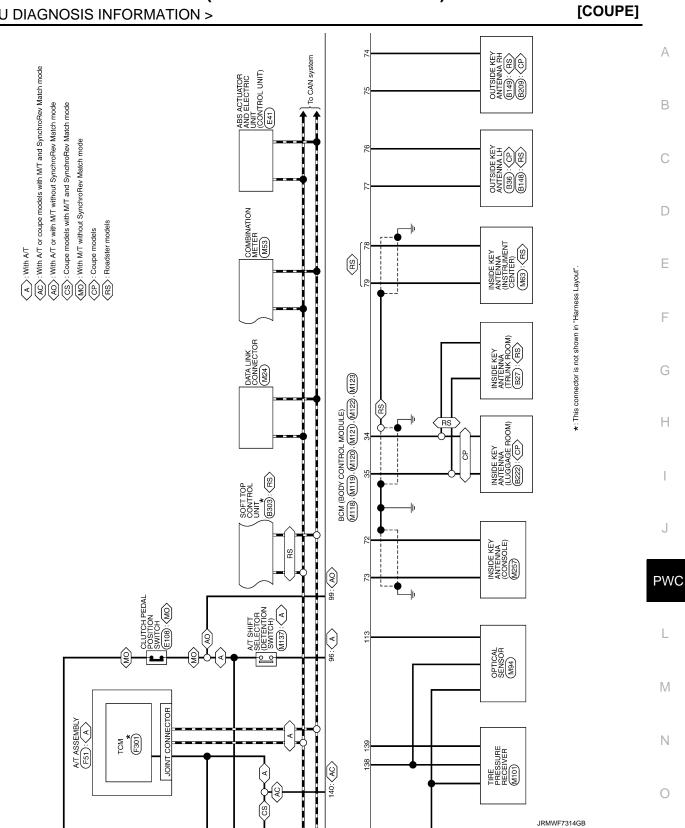
\*8: With rear fog lamp

\*9: BCM does not use this terminal for control.





\*: This connector is not shown in "Harness Layout".



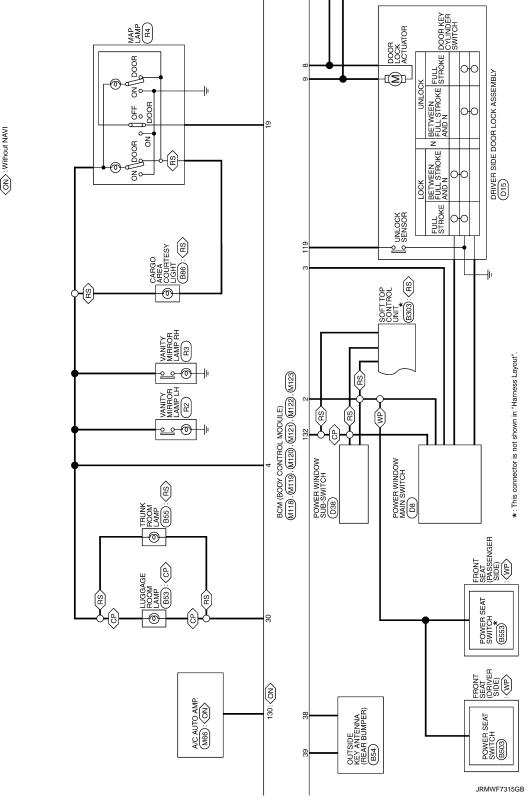
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### **BCM (BODY CONTROL MODULE)**

#### < ECU DIAGNOSIS INFORMATION >

### < ECU DIAGNOSIS INFORMATION >

[COUPE]

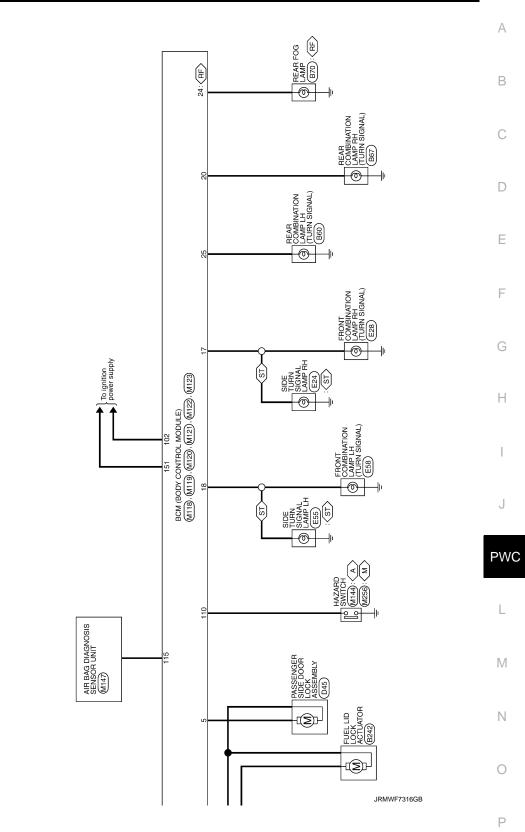


⟨CP⟩: Coupe models
 ⟨RS⟩: Roadster models
 ⟨WP⟩: With power seat
 ⟨ON⟩: Without NAVI

### [COUPE]

### **BCM (BODY CONTROL MODULE)**

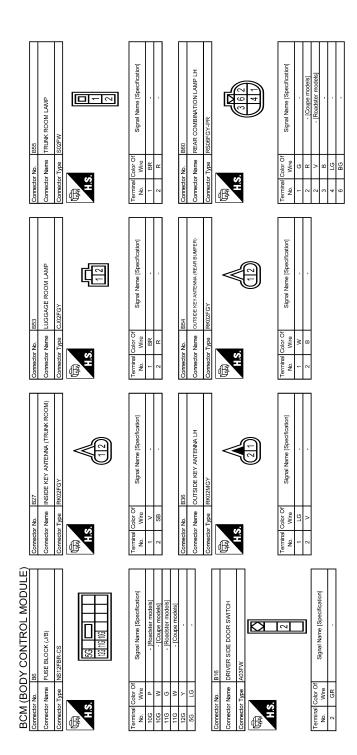
### < ECU DIAGNOSIS INFORMATION >



▲ . With A/T
 ▲ . With M/T
 ▲ . With ward the famp
 ▲ . With side turn signal lamp

Revision: 2014 September

[COUPE]



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	A
Paperfication	В
Comector No.     BIS       Connector No.     BIS       Connector No.     CARGO AREA COURTESY LIGHT       Connector No.     CARGO AREA COURTESY LIGHT       Connector No.     Canadian       Immini     Connector No.       Immini	С
Connector No. I Connector No. I Connector No. I Connector No. I Connector No. I Connector No. I No. I	D
BELY Infrastroni	E
B76 R1UMK LID LOCK ASSEMBLY NOVEWLS B87 B87 B87 B87 B87 B87 B87 B87	F
Connector Nue Connector Nue Connector Nue Connector Nue Connector Nue Connector Nue Connector Nue Connector Nue Connector Nue Nue Connector Nue Nue Connector Nue Nue Connector Nue Connector Nue Connec	G
	Η
Ba7     Ba7       REAR COMBINATION LAMP RH     REAR COMBINATION LAMP RH       Reconficiention     Signal Name [Specification]       Signal Name [Specification]     .	I
867 820 820 820 820 820 80 80 80 80 80 80 80 80 80 80 80 80 80	J
	PW
BCM (BODY CONTROL MODULE       Corrector Na.     Bits       Corrector Name     Privers SIDE       Corrector Name     Privers SIDE       Corrector Name     Bits       Signal Name (Septification)       Corrector Name       Corrector Name       Signal Name (Septification)       Corrector Name       One of Name       Name       Original Name (Septification)	L
BCM (BODY CONTROL MO comeace Name PRIVER SIDE DOOR SWITCH Connector Name 2 BR3 2 BR 2 BR3 2 BR 2 BR3 2 BR	Μ
BCM (BOC connector No. 1 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ν
	0

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С

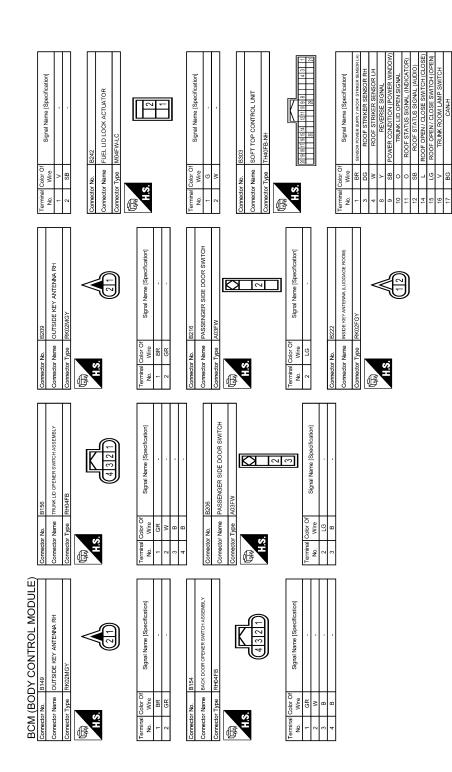
BCM (BODY CONTROL MODULE)

### < ECU DIAGNOSIS INFORMATION >

[COUPE]

Revision: 2014 September

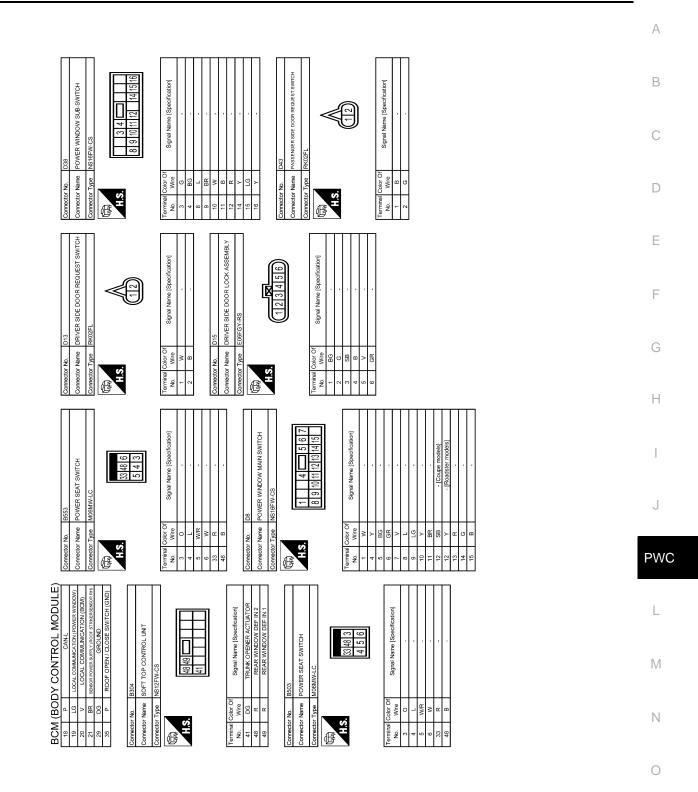
#### < ECU DIAGNOSIS INFORMATION >



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< ECU DIAGNOSIS INFORMATION >

[COUPE]

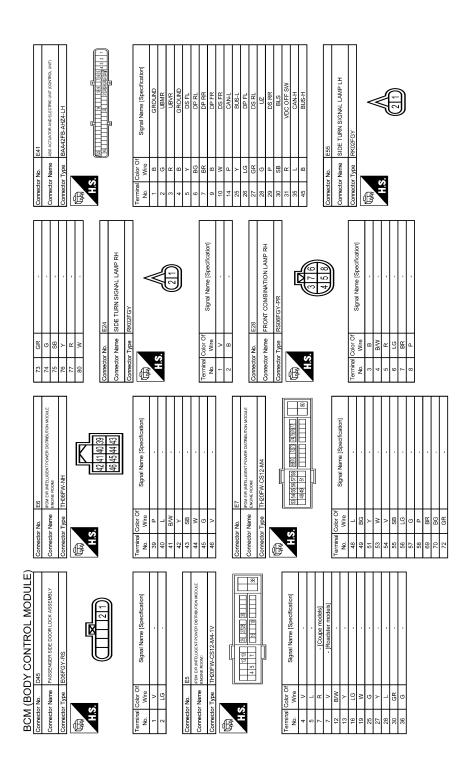


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#### < ECU DIAGNOSIS INFORMATION >

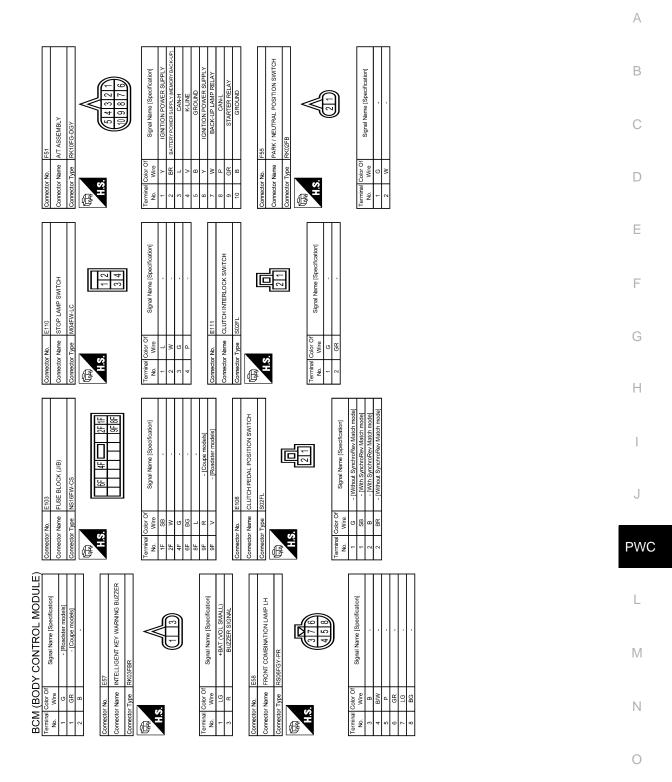
[COUPE]



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#### < ECU DIAGNOSIS INFORMATION >

[COUPE]



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#### < ECU DIAGNOSIS INFORMATION >

Signal Name [Specification] Signal Name [Specification] 9 Connector Name DATA LINK CONNECTOR 45 7 KEY SLOT BD16FV M22 Connector No. M24 Terminal Color Of No. Wire Color Of Wire Connector Type Connector Name Connector No. ЪŔ вĽС 9 υÿ H.S. H.S. 16 Ň ß E TRUNK LID OPENER CANCEL SWITCH Signal Name [Specification] Signal Name [Specification] 12 DIODE β Terminal Color Of No. Wire Color Of Wire nector Name ector No. ≥ ∝ nector No. nnector Name H.S. AHS. Terminal ( No. E E Signal Name [Specification] Signal Name [Specification] 68 4B 3B 0 0 120 110 100 90C FUSE BLOCK (J/B) FUSE BLOCK (J/B) Connector No. M3 Color Of Wire Color Of Wire R B ector Name Connector Name Type С - 9 c LΟ ector No. H.S. H.S. Terminal No. Terminal No. 11C 12C 6C 6C 8C 9C E ſ BCM (BODY CONTROL MODULE) Signal Name [Specification] Signal Name [Specification] VITION POWER SUPP OWER SUPPLY (MEMORY JP L CAN-L STARTER RELAY GROUND R-LIN-GROUND IGNITION POWER SI 3A 24 14 8A 7A 6A 5A 4A 6789 FUSE BLOCK (J/B) TCM Connector No. M1 Color Of Wire olor Of Wire G ≥ m ∝ o o n R ∀/B ⊢ ⊐ ≻ ₩ − Connector Name Connector Name Type H.S. H.S. Connector Terminal No. 4A 5A 6A 7A 8A 90 rminal No. 3A 14 F ß

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eeffication) eeffication eeffication sister and a second a s	E
BINATION METER EW-LAH EW-LAH EW-LAH EW-LAH EW-LAH EW-LEPERS 10 333 4 35 35 37 333 4 35 37 333 4 35 37 333 4 35 37 333 4 35 37 33 4 35 37 33 4 35 37 34 5 5 5 5 5 5 7 7 8 7 10 1 2 5 11 10 1 2 5 11	F
Connector No. M54 Connector Name COMBIN Connector Name COMBIN Connector Name COMBIN Connector Name COMBIN Connector Name Color Of 25 W 05 23 O PACK 23 O PACK 20 O PAC	G
	Н
	I
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Connector Mana         Connector Mana           Connector Name         Connector Name           Connector Name         Connector Name           1         N           1	PWC
	L
Dyst control         Mode           main         consumments           consumments         consumments           main         consumments <td>Μ</td>	Μ
BCM (BOD) connector ham of connector ham of connector ham of the field of the fie	Ν

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# **BCM (BODY CONTROL MODULE)**

### < ECU DIAGNOSIS INFORMATION >

### < ECU DIAGNOSIS INFORMATION >

 
 S1 50
 88 57
 23 82 81 80 74 73 72

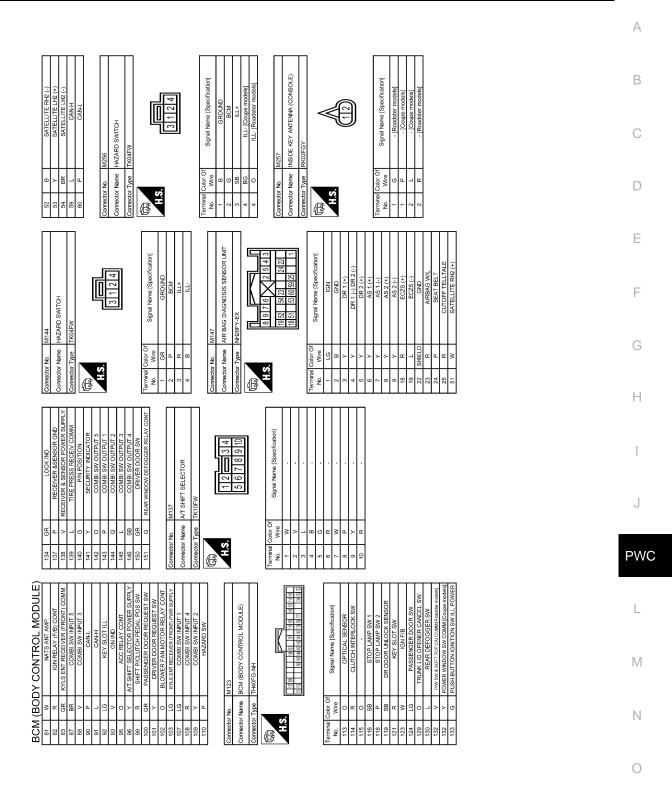
 Na1 75 100
 88 57
 103 102 101 80 75 101 73 172
 BCM (BODY CONTROL MODULE) BCM (BODY CONTROL MODULE) Signal Name [Specification] Signal Name [Specification] PASSENGER DOOR AI PASSENGER DOOR AIN DRIVER DOOR AINT DRIVER DOOR AINT ROOM ANT 1-ROOM ANT 1+ NATS AINT AMP. REAR BUMPER AN IGN RELAY (IPDM E/R) STARTER RELAY CO UGGAGE/TRUNK ROC ROOM ANT WARN BUZZER BACK DOOR/TRUNK TH40FB-NH I-KEY BACK [ BACK [ Terminal Color Of No. Wire olor Of Wire Connector Name Connector Name Connector Type - с 89 89 > 9 - с 89 89 - с 89 89 - с 89 nnector Type ġ Connector No. H.S. H.S. 73 76 77 77 79 80 80 rminal No. 72 64 66 47 8 8 E Ø BCM (BODY CONTROL MODULE) BCM (BODY CONTROL MODULE) Signal Name [Specification] Signal Name [Specification] FURN SIGNAL RH (REAR) LID OPEN OUTPUT [Reads REAR FOG OUTPUT TURN SIGNAL LH (REAR GETRUNK ROOM LAMP C 6 23 24 TURN SIGNAL RH (FRONT, TURN SIGNAL LH (FRONT, ROOM LAMP TIMER CON ω 30 KT (FUSE)  $\Box$ 45 nnector Type NS12FW-CS Terminal Color Of No. Wire > 0 % B B K > ≥ 0 d ≻ o ol a Connector Name mector Name צ ט Wire ector No. H.S. H.S. <u>e</u> 17 ġ 20 E E APPI Y (BA REMOTE KEYLESS ENTRY RECEIVER (FRONT) BCM (BODY CONTROL MODULE) Signal Name [Specification] Signal Name [Specification] BAT (F/L) POWER WINDOW POWER SL POWER WINDOW POWER GROUND SIGNAL OUTPUT BATTT 12 4 13 Connector Type M03FB-LC M104 Connector No. M118 Terminal Color Of No. Wire Color Of Wire GR P × × Connector Name Connector Name nector Type ector No. H.S. H.S. 4 Terminal No. 1 2 E E BCM (BODY CONTROL MODULE) Signal Name [Specification] Signal Name [Specification] 1214 TIRE PRESSURE RECEIVER GROUND SIGNAL BATTERY 123 POWER OUTPUT GROUND OPTICAL SENSOR Connector Type TK04FW nnector No. M101 Color Of Wire Color Of Wire Connector Name Connector Name >|0| H.S. H.S. Terminal ( No. Terminal No. E ß

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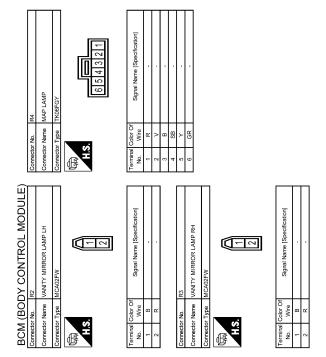
< ECU DIAGNOSIS INFORMATION >

[COUPE]



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[COUPE]

### Fail-safe

#### FAIL-SAFE CONTROL BY DTC

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

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

Display contents of CONSULT	Fail-safe	Cancellation
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 $ON \rightarrow OFF$
B2560: STARTER CONT RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following CAN signal communication status be- comes consistent</li> <li>Starter control relay signal</li> <li>Starter relay status signal</li> </ul>
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul><li>When any of the following conditions are fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>
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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	<ul> <li>When any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Clutch switch signal (CAN from ECM): ON</li> <li>Clutch interlock switch signal: OFF (0 V)</li> <li>Status 2</li> <li>Clutch switch signal (CAN from ECM): OFF</li> <li>Clutch interlock switch signal: ON (Battery voltage)</li> </ul>

## DTC Inspection Priority Chart

INFOID:0000000011282541

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

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

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#### < ECU DIAGNOSIS INFORMATION >

Priority	DTC
4	<ul> <li>B2553: IGNITION RELAY</li> <li>B2555: STOP LAMP</li> <li>B2556: PUSH-BTN IGN SW</li> <li>B2557: VEHICLE SPEED</li> <li>B2560: STARTER CONT RELAY</li> <li>B2601: SHIFT POSITION</li> <li>B2602: SHIFT POSITION</li> <li>B2603: SHIFT POSI STATUS</li> <li>B2604: PNP SW</li> <li>B2608: STARTER RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2608: STARTER RELAY</li> <li>B2607: ENG STATE SIG LOST</li> <li>B2614: BCM</li> <li>B2614: BCM</li> <li>B2616: BCM</li> <li>B2617: BCM</li> <li>B2617: BCM</li> <li>B2617: BCM</li> <li>B2617: DCH</li> <li>B2618: BCM</li> <li>B2617: VEHICLE TYPE</li> <li>B26E8: CLUTCH SW</li> <li>B26E8: CLUTCH SW</li> <li>B26E8: CLUTCH SW</li> <li>U0415: VEHICLE SPEED SIG</li> </ul>
5	<ul> <li>C1704: LOW PRESSURE FL</li> <li>C1705: LOW PRESSURE FR</li> <li>C1706: LOW PRESSURE RR</li> <li>C1707: LOW PRESSURE RL</li> <li>C1708: [NO DATA] FL</li> <li>C1709: [NO DATA] FR</li> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> <li>C1716: [PRESSDATA ERR] FL</li> <li>C1717: [PRESSDATA ERR] FR</li> <li>C1718: [PRESSDATA ERR] RR</li> <li>C1719: [PRESSDATA ERR] RL</li> <li>C1734: CONTROL UNIT</li> </ul>
6	<ul> <li>B2621: INSIDE ANTENNA</li> <li>B2622: INSIDE ANTENNA</li> <li>B2623: INSIDE ANTENNA</li> </ul>

# 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-14, "COM-MON ITEM : CONSULT Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference
No DTC is detected. further testing may be required.	_	_	_	_	_
U1000: CAN COMM CIRCUIT	—	—	_	—	<u>BCS-49</u>
U1010: CONTROL UNIT (CAN)	—	—		_	BCS-50
U0415: VEHICLE SPEED SIG	—	—	_	—	BCS-51

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#### < ECU DIAGNOSIS INFORMATION >

#### [COUPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference	A
B2190: NATS ANTENNA AMP	×				<u>SEC-42</u>	В
B2191: DIFFERENCE OF KEY	×	_			<u>SEC-45</u>	
B2192: ID DISCORD BCM-ECM	×	_			<u>SEC-46</u>	С
B2193: CHAIN OF BCM-ECM	×				<u>SEC-48</u>	
B2195: ANTI SCANNING	×	_			<u>SEC-49</u>	_
B2553: IGNITION RELAY	_	×			PCS-54	D
B2555: STOP LAMP	_	×			<u>SEC-50</u>	
B2556: PUSH-BTN IGN SW	_	×	×		<u>SEC-52</u>	Е
B2557: VEHICLE SPEED	×	×	×		<u>SEC-54</u>	
B2560: STARTER CONT RELAY	×	×	×		<u>SEC-55</u>	
B2562: LOW VOLTAGE	—	×	—	—	<u>BCS-52</u>	F
B2601: SHIFT POSITION	×	×	×	_	<u>SEC-56</u>	
B2602: SHIFT POSITION	×	×	×		<u>SEC-59</u>	G
B2603: SHIFT POSI STATUS	×	×	×		<u>SEC-62</u>	0
B2604: PNP SW	×	×	×		<u>SEC-65</u>	
B2605: PNP SW	×	×	×		<u>SEC-67</u>	Н
B2608: STARTER RELAY	×	×	×		<u>SEC-69</u>	
B260A: IGNITION RELAY	×	×	×		PCS-56	I
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-71</u>	1
B2614: BCM	—	×	×		PCS-58	
B2615: BCM		×	×		PCS-61	J
B2616: BCM	—	×	×		PCS-64	
B2617: BCM	×	×	×		<u>SEC-75</u>	
B2618: BCM	×	×	×		PCS-67	PW
B261A: PUSH-BTN IGN SW	—	×	×	_	PCS-68	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	<u>SEC-78</u>	L
B2621: INSIDE ANTENNA	_	×			DLK-282	
B2622: INSIDE ANTENNA	_	×	_	_	• <u>DLK-85</u> (Coupe) • <u>DLK-284</u> (Road- ster)	Μ
B2623: INSIDE ANTENNA	_	×	_	—	• <u>DLK-87</u> (Coupe) • <u>DLK-286</u> (Road- ster)	Ν
B26E8: CLUTCH SW	×	×	×	_	<u>SEC-72</u>	0
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	—	<u>SEC-74</u>	U
C1704: LOW PRESSURE FL	_	_	—	×		Р
C1705: LOW PRESSURE FR	_	_		×		ii.
C1706: LOW PRESSURE RR	_			×	<u>WT-24</u>	
C1707: LOW PRESSURE RL	_	_	_	×		

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference
C1708: [NO DATA] FL	—	—	_	×	
C1709: [NO DATA] FR	—	—	_	×	WT-26
C1710: [NO DATA] RR	_	_		×	<u>vv1-20</u>
C1711: [NO DATA] RL	_	—	_	×	
C1716: [PRESSDATA ERR] FL	_	_	_	×	
C1717: [PRESSDATA ERR] FR	_	_	_	×	WT-29
C1718: [PRESSDATA ERR] RR	_	—	_	×	<u></u>
C1719: [PRESSDATA ERR] RL	_	_		×	
C1729: VHCL SPEED SIG ERR			_	×	<u>WT-31</u>
C1734: CONTROL UNIT	_			×	<u>WT-33</u>

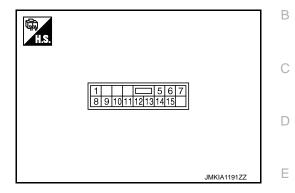
# < ECU DIAGNOSIS INFORMATION >

# POWER WINDOW MAIN SWITCH

**Reference Value** 

**TERMINAL LAYOUT** 

PHYSICAL VALUES



#### POWER WINDOW MAIN SWITCH

	nal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	_	12
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window ad- justing operates	12
6 (GR)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral $\rightarrow$ Locked)	$5 \rightarrow 0$
7 (V)	Ground	Door key cylinder switch UN- LOCK signal	Input	Key position (Neutral $\rightarrow$ Unlocked)	$5 \rightarrow 0$
8 (L)	Ground	Driver side power window motor UP signal	Output	When power window main switch (Driver side) is op- erated UP	12
9 (LG)	Ground	Encoder pulse signal 2	Input	When power window mo- tor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
10	Ground	Ignition switch power signal	Input	IGN SW ON	12
(Y)	Ground		input	IGN SW OFF	0
11 (BR)	Ground	Driver side power window motor DOWN signal	Output	When power window main switch (Driver side) is op- erated DOWN	12
12 (SB)	Ground	Power window serial link	Input/ Output	Ignition switch ON	(V) 15 0 0 10 10 10 10 10 10 10 10

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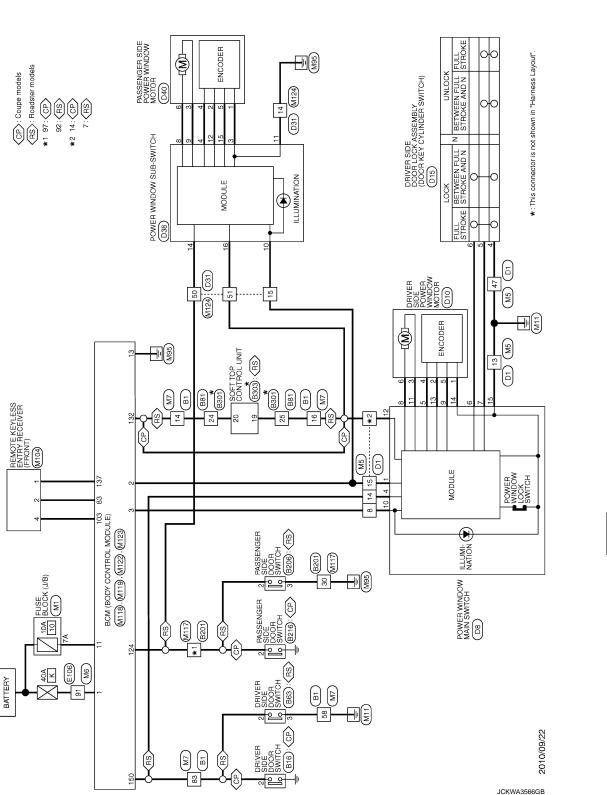
#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

	inal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Contantion	(Approx.)
13 (R)	Ground	Encoder pulse signal 1	Input	When power window mo- tor operates	(V) 64 20 10 ms JMKIA0070GB
14 (G)	Ground	Encoder ground		_	0
15 (B)	Ground	Ground	—	—	0

#### < ECU DIAGNOSIS INFORMATION >

# Wiring Diagram - POWER WINDOW CONTROL SYSTEM -



[COUPE]

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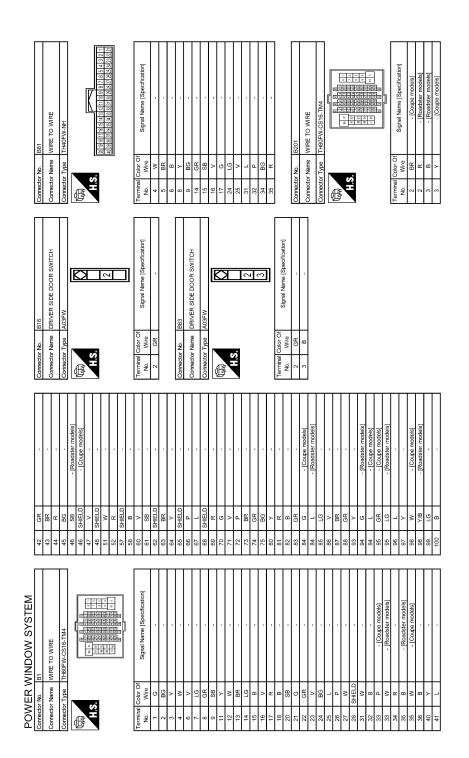
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POWER WINDOW SYSTEM

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]



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M         Signal Name (Specification)         23         Do           5         Connector Name         Connector Name         Connector Name         Connector Name           -         -         -         -         -         -         -           -
Signal Name (Specification)         Corrector Name           -         -         -           -         -
Corrector No.     Corrector No.     Corrector No.       .     .     .       . <t< td=""></t<>
Corrector Name     Corrector Name
Corrector Type         Corrector Type
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1         1
1         1
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Mile         Mile         Mile           B303         Soler TOP CONTROL UNT         10         Bile           Soler TOP CONTROL UNT         11         P         Y           Hundreb.NH         11         P         11         P           Mile         11         P         11         P         11           Mile         13         11         P         11         P           Mile         13         13         13         14         Y           Mile         Specification         12         1         Y         14         Y           Mile         Specification         13         14         Y         Y         15         Y         15         Y         16         17         17         16         17         17         17         17         17         17         17         17         17         14         Y         Y         16         17         17         17         14         17         17         14         17         17         14         17         14         14         15         16         16         16         16         16         16         16         16         1
8303         6         7         7           8303         50FT TOP CONTROL LNIT         9         6         9           9         6         11         12         1         7           13         13         13         13         1         7         7           14         1         13         13         1         1         7         1           14         13         13         13         1         1         7         1           15         14         14         1
8303         9         6         7           B803         10         9         6         7           Imure International State         11         12         11         7           Imure International State         13         13         13         13         14         7           Imure International State         13         13         13         13         14         7         14         7           Imure International State         13         14         14         7         15         14         7         15         14         7         15         14         7         15         16         17         15         16         16         16         17         16         17         17         16         17         17         16         17         16         17         17         16         17         17         16         17         17         16         17         17         16         17         17         17         17         17         16         17         17         17         17         17         17         17         17         17         17         17         17         17         17
300-17 OP CONTROL UNT         10         8G           300-17 OP CONTROL UNT         11         11           11440FB-MH         11         12         L           11         13         13         13         14           11         14         14         15         14           11         14         14         15         14           15         14         15         14         15           16         14         13         15         14         15           16         14         13         15         14         15         15           17         36         14         13         15         14         15         15         15         15         15         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         16         17         17         16         17         17         16         16         16         17         17         16         16         16         16         16         16         16         16         16         16         16
SOFT TOP: CONTROL UNIT         11         0           IHMOFE-NH         11         1         1           13         1         1         1         1           14         1         1         1         1         1           15         1         1         1         1         1         1           16         1
THACFE-NH         11         V           12         L         12         L           13         L         13         L         14         SB           14         SB         14         Y         15         W         15         W           16         Main         B         14         Y         15         W         15         W           16         Saman Head         Saman Head         Saman Head         15         W         16         Y         17         17         18         19         11         13         11         13         13         14         Y         16         W         16         W         16         W         16         17         11         15         W         16         17         11         15         W         16         17         13         13         16
Non-state         State
Non-control         State
Example 2 and
Color Of Wire         Signal Mane [Specification]         14         Y           Color Of Wire         Signal Mane [Specification]         25         Y B           Signal Mane [Specification]         35         6         8           Mine         Signal Mane [Specification]         35         7         8           Mine         Signal Mane [Specification]         35         6         8           Mine         Mine         35         6         8         8           Mine         Mine         35         6         8 <td< td=""></td<>
00113(8)         <
Color Of Signal Name (Specification) 23 Color Of Signal Name (Specification) 25 Color Of Signal Name (Specification) 25 R R R R R R R R R R R R R R R R R R R
25 Color Of Signal Name (Specification) 25 Wire Signal Name (Specification) 25 BR seasor rowners supry (recor straters season up 06 PROF STRATES SEASON RH 47 W PROF STRATES RESION RH 47
23 Color Of Wine Signal Name [Specification] 25 BR assort rowns sperv (rocor strings assort u) 44 u drocor strings ESESON RH 44 u drocor strings ESESON RH
Color Of Signal Name [Specification] 25 Wire Signal Name [Specification] 26 BR season Fower sum v recore stream season un 06 ROOF STINKE SENSOR RH 47 W ADOF STINKE SENSOR RH 47
Color Of Write         Signal Name (Specification)         Z6           Write         Signal Name (Specification)         35           BR         sassare nower and reserve reserves the second number of the second numer of the second number of the second number of the
Mire Sgral Name (Specification) 35     BR sensor Foriers samont vision 135     DG ROOF STRIKER SENSOR ILH 47     DG ROOF STRIKER SENSOR ILH 40
WITE 200 200 200 200 200 200 200 200 200 20
BR SENSOR FOWER SUPPLY (ROOF STRIKER SENSOR LH) 44 DG ROOF STRIKER SENSOR RH 47 M 0000 FORTURED EXENSOR RH 47
M POOF STRIKER SENSOR RH 47
ę
8 Y REVERSE SIGNAL 49 W

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# POWER WINDOW MAIN SWITCH

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

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PWC

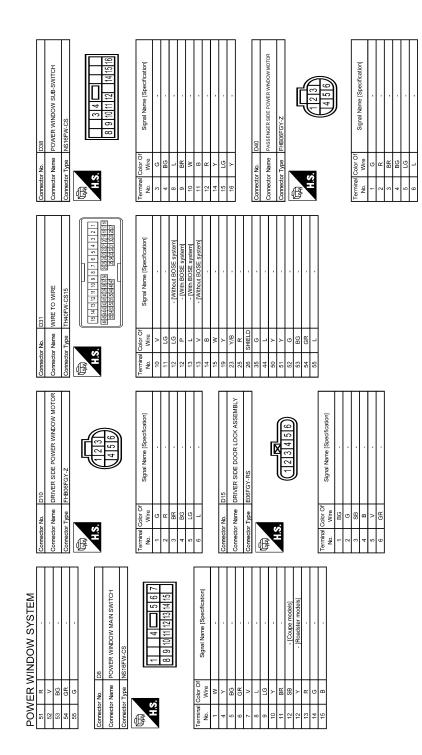
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#### < ECU DIAGNOSIS INFORMATION >

[COUPE]



JRKWD6472GB

#### < ECU DIAGNOSIS INFORMATION >

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Connector No.         In           No.         Wire           1         1           1	D
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tetor Name tetor Name	G
Commeton         Commeton           Commeton         Commeton           Commeton         Commeton           S         S <tr< td=""><td>Н</td></tr<>	Н
Bgnal Name [Specification]	I
	J
82         C           85         85           85         85           85         85           85         85           85         85           85         85           85         85           85         85           86         85           87         87           89         92           99         100           99         105           99         105           99         106           99         105           1         1           1         1           1         1           1         1	PWC
3.1 EM	L
Dimension (kall         Connector	Μ
Connector Nun.         Main         Connector Nun.         Main           Connector Name         V         V         V         V           Connector Name         V         V         V         V         V           Name         V         V         V         V         V         V         V           Sign         V<	Ν

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Signal Name [Specification]		- [Coupe models]	<ul> <li>[Roadster models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>	<ul> <li>[Coupe models]</li> </ul>	т	<ul> <li>[Coupe models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>							ı		-			-	-			-		<ul> <li>[Coupe models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>	- [Coupe models]											-		,							[Cauna madala]	- [Coupe models]
Terminal Color Of	Wire	н В	ŋ	m	0	×	ŋ	≻	ГG	≻	۲	σ	~	m	0	≻	G	-	SB	۲	U	SHIELD	PG LG	>	SHIELD	σ	٩	L	۲	m	×	Ъ	m ;	<u>,</u> .	_ (	و	0:	>	۵.	-	L	B	-	m			-			٩
Terminal	ġ	~	7	m	m	4	7	7	∞	6	11	20	21	30	40	41	42	43	44	51	52	53	54	55	56	57	57	58	58	59	60	61	62	5	64	8	99	/9	89	69	70	71	72	73	74	75	76	22	: 6	76
	•	- [Roadster models]	<ul> <li>[Coupe models]</li> </ul>	<ul> <li>[Coupe models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>	-	<ul> <li>[Coupe models]</li> </ul>	<ul> <li>[Roadster models]</li> </ul>	<ul> <li>[Coupe models]</li> </ul>	- [Roadster models]					M104	REMOTE KEYLESS ENTRY RECEIVER (FRONT)		JAB04FB					1 2 4				Signal Name [Specification]		GROUND	SIGNAL OUTPUT	BATTERY			/11W	Connector Name WIRE TO WIRE		TH80MW-CS16-TM4	[			1 5 122 1242 1282 1282 31 56 • • • 1281 1344 1318 1348			100         100         200 <td>13 23 43 53 53 24 25 24 25 24 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25</td> <td></td> <td></td> <td></td> <td></td> <td></td>	13 23 43 53 53 24 25 24 25 24 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25					
B	<u>}</u>		SB	GR	N	-	CG	×	BG	Y/B	×	8				Connector Name		or Type			,	5					0	Wire	٩	ВGR	PC				or Name	,	Connector Type			,	5									
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POWEK WINDOW SYSIEM	84 L -	85 BR -	+	_	+	91 W -	+	93 P -	94 Y -	96 P	_	- ·	_	100 R -			Connector No. M7	Connector Name WIRE TO WIRE		Connector Type TH80MW-CS16-TM4			<u> </u>			5 10 回知 100 100 100 100 100 100 100 100 100 10			al	0	1 BR -	2 0	+	+	, 	+	. SB	+	+	-	13 BR -	14 V -	┝		17 R -	$\vdash$	20 SB	┝		-

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151         6           151         6           Connector Name         Connector Name           Connector Name         Connector Name           11         0           12         V           13         V           13         V           25         SHELD           53         V/B           53         V           54         G           55         G	D
DR REQUEST SW R REQUEST SW W INDUT 1       R NOR RELVEST SW W INDUT 1       W INDUT 2       W INDUT 1       W INDUT 2       W OUTPUT	E
PASSENGER DOOR REQUEST SW BUORRYER DOOR REQUEST SW BUORRYER DOOR REQUEST SW BUORRYER DOOR REQUEST SW BUORRYER SWORT REAL SCI SW ALL SCIENCE IN REQUEST SW BUORRY SWINPUT 1       M123     COMBI SW INPUT 1       M123     COMBI SW INPUT 1       BUORRY CONTROL MODULE)     H4ZARD SW H4ZARD SW       M124     COMBI SW INPUT 1       BUORRY CONTROL MODULE)     H4ZARD SW       M125     COMBI SW INPUT 1       BUORRY CONTROL MODULE)     H4ZARD SW       M126     COMBI SW INPUT 1       BUORRY CONTROL MODULE)     H4ZARD SW       Signal Name [Specification]     Signal Name [Specification]       Signal Name [Specification]     Signal Name [Specification]       Signal Name [Specification]     COMBI SW UNDOK SW       M122     Signal Name [Specification]       Signal Name [Specification]     Signal Name [Specification]       Signal Name [Specification]     COMBI SW UNDOK SW       M122     Signal Name [Specification]       Signal Name [Specification]     Signal Name [Specification]       Signal Name [Specification]     COMBI SW UNDOK SW       M122     Signal Name [Specification]       Signal Name [Specification]     COMBI SW UNDOK SW       M123     COMBI SW UNDOK SW       M244     COMMI SW SUPPLIAN       M244     Signal Name [Specification]       M244     COMMI SW UNDOK SW	F
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	G
Peovication Peovication Peovication Peovication Peovication Distributions output Distributions output Distribution Distr	
Signal Name (Specification) Signal Name (Specification) Additional Signal Name (Specification) Additional Signal Name (Specification) EVEN-BUTTON IGNTION SIGNL EN LIP LICKON CONTENT DARK ROOK AND CONTENT DARK ROOK AND CONTENT PACE IN CONTENT PACE IN CONTENT PACE IN CONTENT ITHRN SIGNL EN LIP (FRONT, SIDE) TURN SIGNL EN LIP (FRONT, SIDE) ROOM ANT 2- ROOM ANT 2- ROOM ANT 2- ROOM ANT 2- ROOM ANT 2- ROOM ANT 2- ROOM ANT 1- MATS ANT AMARE INHOUT 5 COMBI SW INPUT 5 COMPL ANT 1- MATS ANT AMARE NATS ANT AMARE NATS ANT AMARE NATS ANT AMARE NATS ANT AMARE NATS ANT AMARE NATS ANT ANARE NATS ANT ANARE NATS ANT ANARE NATS ANT ANARE ANT ANT ANT ANT ANT ANT ANT ANT ANT ANT	J
Terminal No.         Color of Nore           A.         No.           A.         No.           B         No.           13         B           13         B           14         N           15         V           16         V           17         V           18         Nore           17         V           18         Nore           73         P           74         SB           75         B           90         C           91         L           92         C           93         C           96         V           99         R	PWC
STEM modes] modes m	L
POWER MINDOW SYSTEM       3     Ic     Iconstant model       39     R     - (Foundation model)       39     R     - (Econstant model)       30     V     - (Econstant model)       30     R     - (Econstant model)       30     R     - (Econstant model)       30     R     - (Econstant model)       31     V     - (Econstant model)       31     R     - (Econstant model)       32     W     Econstant model       33     Powert Name     Econ (RODULE)       33     Powert Namoon Powert Supel.u       31     11     11	Μ
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#### FAIL-SAFE CONTROL

Fail-safe

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when 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 >

[COUPE]

#### < ECU DIAGNOSIS INFORMATION >

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signals 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 sensor mal- function	When both pulse signal 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 indicating that the 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 the specified value is detected compared to the door glass fully closed position memorized in module, while door is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

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

- AUTO UP operation
- Anti-pinch function
- Automatic window adjusting function

When fail-safe control is activated, perform initializing operation to recover. If a malfunction is detected in power window switch, fail-safe control is activated again.

#### < ECU DIAGNOSIS INFORMATION >

# POWER WINDOW SUB-SWITCH

## **Reference Value**

#### **TERMINAL LAYOUT**

<b>确</b> H.S.		В
		С
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	ЈМК	IA0134ZZ E

#### PHYSICAL VALUES

	inal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (G)	Ground	Encoder ground	_	_	0
4 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window operates adjusting	12
8 (L)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	12
9 (BR)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	12
10 (W)	Ground	Battery power supply	Input	_	12
11 (B)	Ground	Ground	_	_	0
12 (R)	Ground	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 2 0 10 ms JMKIA0070GB

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#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

	inal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (LG)	Ground	Encoder pulse signal 2	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (Y)	Ground	Power window serial link	Input/ Output	Ignition switch ON	(V) 15 10 5 0 10 ms JPMIA0013GB

## < ECU DIAGNOSIS INFORMATION >

# Wiring Diagram - POWER WINDOW CONTROL SYSTEM -



INFOID:000000011282543

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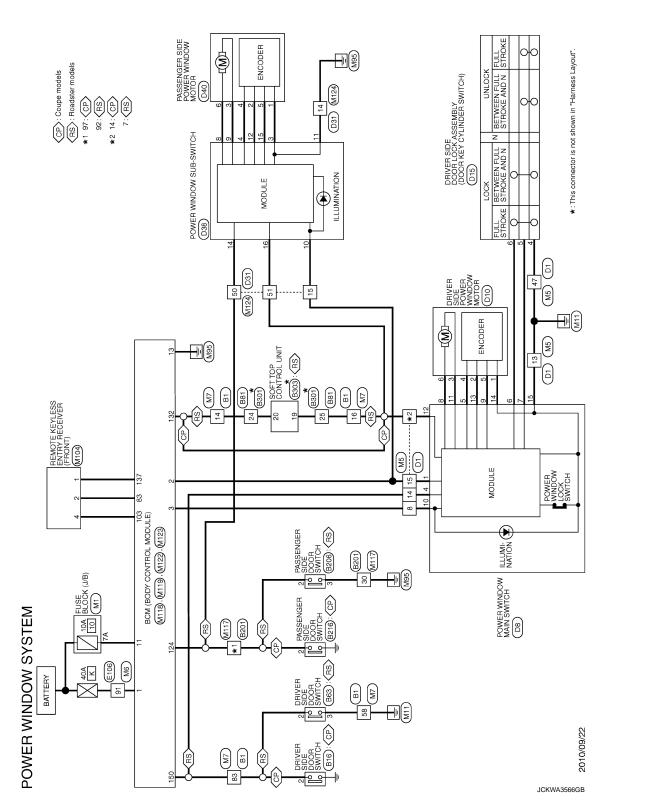
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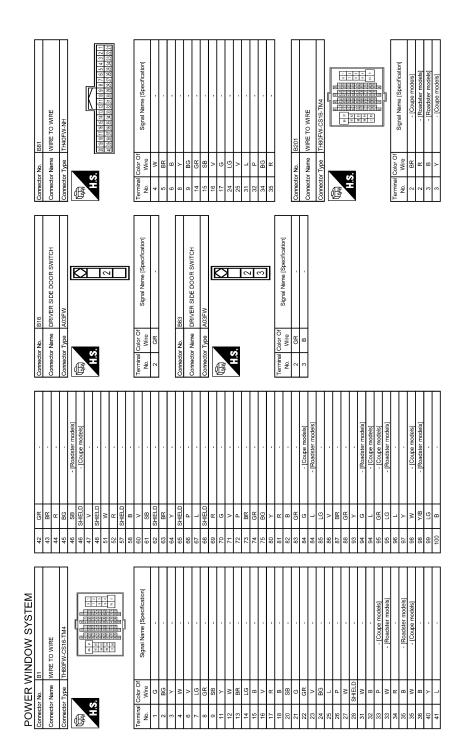
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#### < ECU DIAGNOSIS INFORMATION >

[COUPE]



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POWER WINDOW SYSTEM	- [Coupe models]				,	'	,	'		1							'n		- [Poine modele]		- [Roadster models]						-			1	, ,		- [Roadster models]	- [Coupe mode	- [Roadster models]			- [Roadster models]		•	- [Coupe mode				- [Coupe models]	
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#### < ECU DIAGNOSIS INFORMATION >

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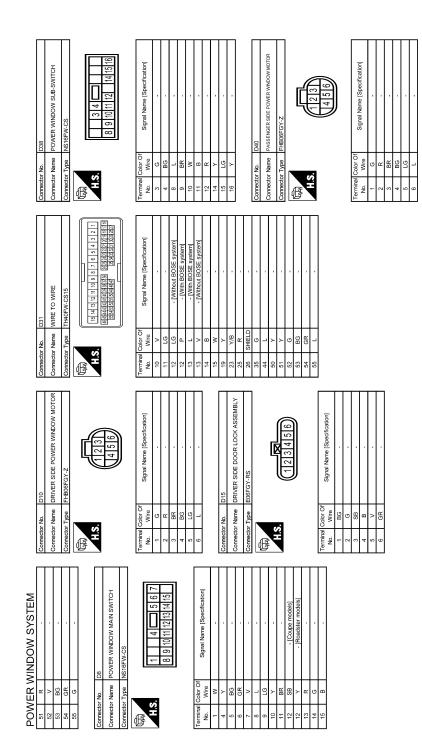
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#### < ECU DIAGNOSIS INFORMATION >

[COUPE]



JRKWD6472GB

#### < ECU DIAGNOSIS INFORMATION >

[COUPE]

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	G
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	J
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100         CR           101         V           102         V           103         LG           104         N           105         LG           113         N           114         R           115         P           116         P           118         P           119         N           111         N           1111         N           1111 <td>G</td>	G
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INFOID:000000011282544

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## FAIL-SAFE CONTROL

Fail-safe

Switches to fail-safe control when malfunction is detected in encoder signal that detects up/down speed and direction of door glass. Switches to fail-safe control when 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 SUB-SWITCH

< ECU DIAGNOSIS INFORMATION >

[COUPE]

**PWC-95** 

#### < ECU DIAGNOSIS INFORMATION >

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signals 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 sensor mal- function	When both pulse signal 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 indicating that the 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 the specified value is detected compared to the door glass fully closed position memorized in module, while door is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

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

- AUTO UP operation
- Anti-pinch function
- Automatic window adjusting function

When fail-safe control is activated, perform initializing operation to recover. If a malfunction is detected in power window switch, fail-safe control is activated again.

# POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCH-ES < SYMPTOM DIAGNOSIS > [COUPE] SYMPTOM DIAGNOSIS POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES Description All power windows do not operate via power window main switch and power window sub-switch. Diagnosis Procedure INFOLX00001083770 1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to <u>PWC-17</u>, "BCM : Diagnosis Procedure". Is the inspection result normal?

	>> GO TO 2. >> Repair or replace the malfunctioning parts.	_
2.CONF	IRM THE OPERATION	F
Confirm t	he operation again.	
Is the res	sult normal?	G
	Oberstein termeitten tim einlandt. Defen te OL 44. Un termeitten tim einlandt	

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>. NO >> GO TO 1.

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## DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

#### < SYMPTOM DIAGNOSIS >

# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

## Description

INFOID:000000010837781

[COUPE]

Driver side power window does not operate using power window main switch.

#### Diagnosis Procedure

INFOID:000000010837782

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

Check power window main switch power supply and ground circuit. Refer to <u>PWC-17, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

- YES >> GO TO 2.
- NO >> Repair or replace the malfunctioning parts.

2. CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor. Refer to PWC-20, "DRIVER SIDE : Component Function Check".

Is the measurement value within the specification?

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-44, "Intermittent Incident"</u>.
- NO >> GO TO 1.

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS > [COUPE]	
PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED	А
WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Description	В
Passenger side power window operates using power window sub-switch but does not operate using power window main switch.	D
WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure	С
1. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY AND GROUND CIRCUIT	D
Check power window sub-switch power supply and ground circuit. Refer to <u>PWC-18, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure"</u> . Is the inspection result normal?	Е
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2. CHECK POWER WINDOW SUB-SWITCH SERIAL LINK CIRCUIT	F
Check power window sub-switch serial link circuit. Refer to <u>PWC-30, "POWER WINDOW SUB-SWITCH : Component Function Check"</u> . <u>Is the inspection result normal?</u>	G
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. <b>3.</b> CONFIRM THE OPERATION	Η
Confirm the operation again. Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> . NO >> GO TO 1. WHEN POWER WINDOW SUB-SWITCH IS OPERATED	J
WHEN POWER WINDOW SUB-SWITCH IS OPERATED : Description	
	PW
WHEN POWER WINDOW SUB-SWITCH IS OPERATED : Diagnosis Procedure	L
1. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY AND GROUND CIRCUIT	M
Check power window sub-switch power supply and ground circuit. Refer to <u>PWC-18, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure"</u> .	
Is the inspection result normal?         YES       >> GO TO 2.         NO       >> Repair or replace the malfunctioning parts.	Ν
2.CONFIRM THE OPERATION	0
Confirm the operation again. <u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> . NO >> GO TO 1.	Ρ
WITH BOTH POWER WINDOW MAIN SWITCH AND POWER WINDOW SUB- SWITCH	
WITH BOTH POWER WINDOW MAIN SWITCH AND POWER WINDOW SUB-	

## **PWC-99**

#### PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE PTOM DIAGNOSIS > [COUPE]

< SYMPTOM DIAGNOSIS >

SWITCH : Description

INFOID:000000010837787

Passenger side power window operates using power window main switch and power window sub-switch.

## WITH BOTH POWER WINDOW MAIN SWITCH AND POWER WINDOW SUB-SWITCH : Diagnosis Procedure

**1.**CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

Is the measurement value within the specification?

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-44, "Intermittent Incident"</u>.

NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	[COUPE]
ANTI-PINCH FUNCTION DOES NOT OPERATE DRIVER SIDE	
DRIVER SIDE : Description	INFOID:000000010837789
Anti-pinch function does not operate when power window up operated.	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000010837790
1.CHECK AUTO UP OPERATION	
Check AUTO UP operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2. NO >> Refer to <u>PWC-102, "DRIVER SIDE : Diagnosis Procedure"</u> . <b>2.</b> CONFIRM THE OPERATION	
Confirm the operation again.         Is the result normal?         YES       >> Check intermittent incident. Refer to GI-44. "Intermittent Incident".	
NO >> GO TO 1. PASSENGER SIDE	
PASSENGER SIDE : Description	INFOID:0000000010837791
Anti-pinch function does not operate when power window up operated.	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000010837792
1. CHECK AUTO UP OPERATION	
Check AUTO UP operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2. NO >> Refer to <u>PWC-102, "PASSENGER SIDE : Diagnosis Procedure"</u> . <b>2.</b> CONFIRM THE OPERATION	
Confirm the operation again. <u>Is the result normal?</u>	
YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> . NO >> GO TO 1.	

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#### AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY

< SYMPTOM DIAGNOSIS >

[COUPE]

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000010837793

**1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to <u>PWC-7</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 <u>PWC-24, "DRIVER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${\it 3.}$  confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000010837794

### **1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed. Refer to <u>PWC-7</u>, "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-26, "PASSENGER SIDE : 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 GI-44, "Intermittent Incident".

NO >> GO TO 1.

# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-

< SYMPTOM DIAGNOSIS > [COUPE]	ĺ
POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY	A
Description	<sup>5</sup> B
Retained power function does not operate after ignition switch turns OFF.	
Diagnosis Procedure	6 C
1.CHECK DOOR SWITCH	
Check door switch. Refer to <u>DLK-89, "Component Function Check"</u> .	D
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION	E
Confirm the operation again.	F
Is the result normal?	
<ul> <li>YES &gt;&gt; Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.</li> <li>NO &gt;&gt; GO TO 1.</li> </ul>	G

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### DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS < SYMPTOM DIAGNOSIS > [COUPE]

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WIN-DOWS

Description

INFOID:000000010837797

Power window does not operate when locking or unlocking a door using door key cylinder.

## Diagnosis Procedure

INFOID:0000000010837798

**1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-7</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.

 $2. {\sf CHECK \ DRIVER \ SIDE \ DOOR \ LOCK \ ASSEMBLY \ (DOOR \ KEY \ CYLINDER \ SWITCH)}$ 

Check driver side door lock assembly (door key cylinder switch). Refer to <u>DLK-100, "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-44, "Intermittent Incident"</u>.
- NO >> GO TO 1.

#### **KEYLESS POWER WINDOW DOWN DOES NOT OPERATE** [COUPE] < SYMPTOM DIAGNOSIS > **KEYLESS POWER WINDOW DOWN DOES NOT OPERATE** А Description INFOID:000000010837799 Power window down does not operate when pressing unlock button on Intelligent Key. В **Diagnosis** Procedure INFOID:000000010837800 1. CHECK REMOTE KEYLESS ENTRY FUNCTION С Check remote keyless entry function. Does door lock/unlock with Intelligent Key button? D YES >> GO TO 2. NO >> Refer to DLK-133, "Diagnosis Procedure". 2. CHECK POWER WINDOW OPERATION Ε Check power window operation. Does power window operate up/down using power window main switch? F YES >> GO TO 3. NO >> Refer to DLK-133, "Diagnosis Procedure". ${f 3.}$ CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT" Check "PW DOWN SET" setting in "WORK SUPPORT". Refer to DLK-43, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Coupe)". 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. Is the result normal? YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident". NO >> GO TO 1. PWC

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## POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

#### < SYMPTOM DIAGNOSIS >

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

**Diagnosis Procedure** 

INFOID:000000010837801

[COUPE]

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to <u>PWC-113, "Removal and Installation"</u>.

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE < SYMPTOM DIAGNOSIS > [COUPE]	
POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE DRIVER SIDE	А
DRIVER SIDE : Diagnosis Procedure	В
1.REPLACE POWER WINDOW MAIN SWITCH	D
Replace power window main switch.	С
>> Refer to <u>PWC-113, "Removal and Installation"</u> . PASSENGER SIDE	D
PASSENGER SIDE : Diagnosis Procedure	
1.REPLACE POWER WINDOW SUB-SWITCH	Е
Replace power window sub-switch.	
>> Refer to <u>PWC-113</u> , "Removal and Installation".	F
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#### AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE [COUPE]

< SYMPTOM DIAGNOSIS >

# AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE DRIVER SIDE

INFOID:0000000010837804

1. CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.

>> Refer to PWC-102, "DRIVER SIDE : Diagnosis Procedure". NO

2. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-89, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${f 3.}$  CHECK POWER WINDOW SERIAL LINK (POWER WINDOW MAIN SWITCH)

Check power window serial link (power window main switch) Refer to PWC-29, "POWER WINDOW MAIN SWITCH : Component Function Check"

Is the result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts

**4**.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

# PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000010837805

**1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END >> GO TO 2. NO

2. CHECK DOOR SWITCH

Check door switch.

Refer to DLK-89, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${\it 3.}$  Check power window serial link (power window sub-switch)

Check power window serial link (power window sub-switch)

Refer to PWC-30, "POWER WINDOW SUB-SWITCH : Component Function Check"

Is the result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts

# AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	[COUPE]
4.CONFIRM THE OPERATION	A
Confirm the operation again.	~ ~
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-44</u> , "Intermittent Incident NO >> GO TO 1.	dent". B
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# < PRECAUTION > PRECAUTION PRECAUTIONS FOR USA AND CANADA

# FOR USA AND CANADA : Precautions 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:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

# FOR USA AND CANADA : Service

INFOID:000000010837807

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect battery negative terminal, and wait at least 3 minutes or more.

For approximately 3 minutes after the battery negative terminal is removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until 3 minutes or more elapse.

- Diagnosis sensor unit must always be installed with their arrow marks "=" pointing towards the front of the vehicle for normal operation. Also check diagnosis sensor unit for cracks, deformities, or rust before installation and replace if necessary.
- The spiral cable must be aligned in the neutral position since its rotations are limited. Do not turn steering wheel and column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Perform self-diagnosis to check entire SRS for normal function after replacing any components.
- After air bag inflates, the front instrument panel assembly must be replaced if damaged.
- Always replace instrument panel pad following front passenger air bag deployment.

# FOR USA AND CANADA : Precaution for Battery Service

INFOID:000000010837808

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the

# PRECAUTIONS

# < PRECAUTION >

window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# FOR USA AND CANADA : Precautions for Removing Battery Terminal

• When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

### NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
 NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error. FOR MEXICO

# FOR MEXICO : 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. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal pwc injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never 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:

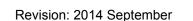
Always observe the following items for preventing accidental activation.

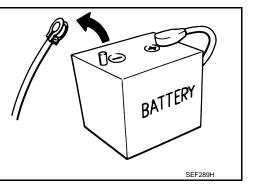
- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious 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.

# FOR MEXICO : Service

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect battery negative terminal, and wait at least 3 minutes or more.

For approximately 3 minutes after the battery negative terminal is removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until 3 minutes or more elapse.





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# PRECAUTIONS

### < PRECAUTION >

- Diagnosis sensor unit must always be installed with their arrow marks "⇐" pointing towards the front of the vehicle for normal operation. Also check diagnosis sensor unit for cracks, deformities, or rust before installation and replace if necessary.
- The spiral cable must be aligned in the neutral position since its rotations are limited. Do not turn steering wheel and column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Perform self-diagnosis to check entire SRS for normal function after replacing any components.
- After air bag inflates, the front instrument panel assembly must be replaced if damaged.
- Always replace instrument panel pad following front passenger air bag deployment.

# FOR MEXICO : Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# FOR MEXICO : Precautions for Removing Battery Terminal

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INFOID:0000000010837811

[COUPE]

• When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

#### NOTE:

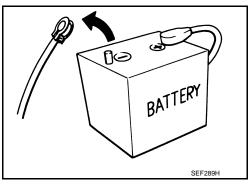
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. **NOTE:** 

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.



# REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

# Removal and Installation

### REMOVAL

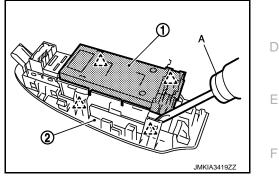
- 1. Remove the power window main switch finisher. Refer to INT-15, "Removal and Installation".
- 2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-bladed screw driver (A) etc.

∴ : Pawl

### CAUTION:

#### Never fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for power window subswitch.



INSTALLATION

Install in the reverse order of removal. **NOTE:** 

Power window main switch is replaced or is removed it is necessary to do the initialization procedure. Refer to <u>PWC-8, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u> <u>ment"</u>.

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# BASIC INSPECTION DIAGNOSIS AND REPAIR WORK FLOW

### WorkFlow

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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. CHECK FOR DTC

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

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>SRC-433, "DTC Index".

Symptom is described, DTC is not displayed>>GO TO 3.

# **3.**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 4.

**4.** IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

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

### >> GO TO 5.

### **5.** IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

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

#### >> GO TO 6.

**6.**REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

### >> GO TO 7.

# 7.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.

Are the malfunctions corrected?

YES >> INSPECTION END NO >> GO TO 4.

# **INSPECTION AND ADJUSTMENT**

< BASIC INSPECTION > [ROADSTER]
INSPECTION AND ADJUSTMENT
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : De- scription
Initial setting is necessary when battery terminal is removed.
CAUTION:
The following specified operations are not performed under the non-initialized condition. <ul> <li>Auto-up operation</li> </ul>
Anti-pinch function
<ul> <li>Automatic window adjusting function</li> <li>Key cylinder switch power window function</li> </ul>
Power window UP operation while door is open
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Spe-
cial Repair Requirement
INITIALIZATION PROCEDURE
1. Disconnect battery negative terminal or power window switch connector. Reconnect it after a minute or
more. 2. Close door (door switch OFF).
<ol> <li>Turn ignition switch ON.</li> <li>Close roof.</li> </ol>
5. Operate power window switch to fully open the window. (This operation is unnecessary if the window is
already fully open.) 6. Pull up and hold power window switch. Even after glass stops at the fully closed position, keep pulling the
switch for 3 seconds or more.
7. Inspect anti-pinch function. CAUTION:
When initialization is not complete, power window UP does not operate while door is open.
CHECK ANTI-PINCH FUNCTION
<ol> <li>Fully open the door window.</li> <li>Place a piece of wood near fully closed position.</li> </ol>
<ol> <li>Close door glass completely with AUTO-UP.</li> <li>Check that glass lowers for approximately 150 mm (5.9in) without pinching piece of wood and stops.</li> </ol>
<ul> <li>Check that glass lowers for approximately 150 mm (5.9m) without pinching piece of wood and stops.</li> <li>Check that glass does not rise when operating the power window main switch while lowering.</li> </ul>
• Do not check with hands and other part of body because they may be pinched. Do not get pinched.
Check that AUTO-UP operates before inspection when system initialization is performed.
<ul> <li>Perform initial setting when auto-up operation or anti-pinch function does not operate normally.</li> <li>Finish initial setting. Otherwise, next operation cannot be performed.</li> </ul>
1. Auto-up operation
<ol> <li>Anti-pinch function</li> <li>Automatic window adjusting function</li> </ol>
<ol> <li>Key cylinder switch power window function</li> <li>Power window UP operation while door is open</li> </ol>
5. Power window UP operation while door is open ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description
INFO/D:000000010837816
Initial setting is necessary when replacing power window main switch.
CAUTION:

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

- Auto-up operation
- Anti-pinch function
- Automatic window adjusting function
- Key cylinder switch power window function

### · Power window UP operation while door is open

#### ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement INFOID:000000010837817

### INITIALIZATION PROCEDURE

- 1. Disconnect battery negative terminal or power window switch connector. Reconnect it after a minute or more.
- 2. Close door (door switch OFF).
- Turn ignition switch ON. 3.
- 4. Close roof.
- 5. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open.)
- 6. Pull up and hold power window switch. Even after glass stops at the fully closed position, keep pulling the switch for 3 seconds or more.
- Inspect anti-pinch function. 7.

### CAUTION:

### When initialization is not complete, power window UP does not operate while door is open.

### CHECK ANTI-PINCH FUNCTION

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

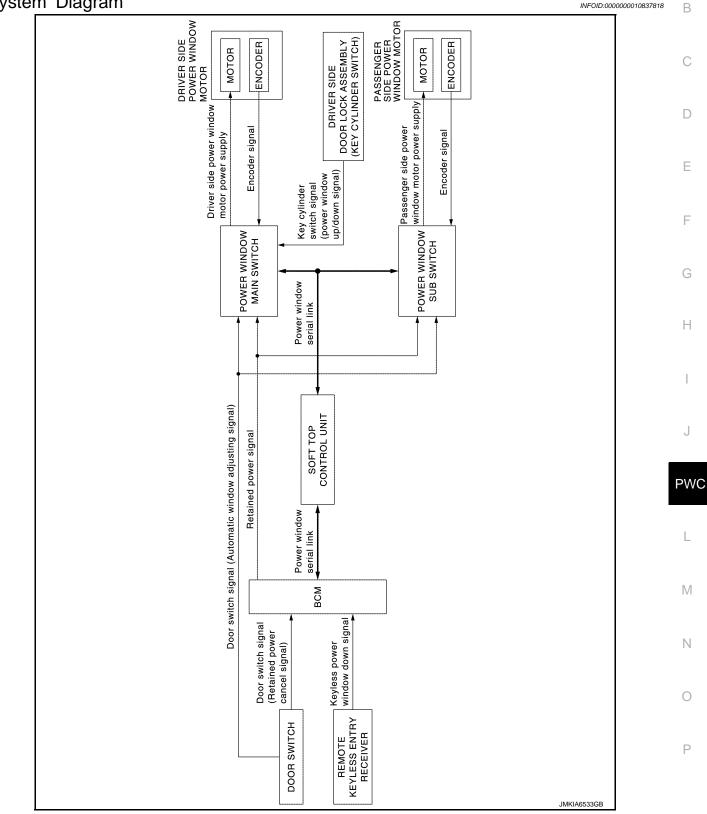
### **CAUTION:**

- Do not check with hands and other part of body because they may be pinched. Do not get pinched.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Finish initial setting. Otherwise, next operation cannot be performed.
- 1. Auto-up operation
- 2. Anti-pinch function
- 3. Automatic window adjusting function
- 4. Key cylinder switch power window function
- 5. Power window UP operation while door is open

# < SYSTEM DESCRIPTION >

# SYSTEM DESCRIPTION POWER WINDOW SYSTEM

System Diagram



System Description

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POWER WINDOW SYSTEM

INFOID:000000010837818

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### < SYSTEM DESCRIPTION >

- Power window system is activated by power window switch operation when ignition switch is turned ON and during the retained power operation, after ignition switch turned OFF.
- Power window main switch can open/close all windows.
- Power window sub-switch can open/close the passenger side window.
- AUTO operation can be activated by operating the power window switch once.
- It transmits and receives the signal between soft top control unit and power window main switch or power window sub switch, via serial communication.
- When pressing power window lock switch, operation other than power window main switch becomes impossible.
- When detecting the pinching resistance of foreign materials, etc. during power window AUTO UP operation, it lowers door glass to the specified value.
- When opening driver side or passenger side door while door glass is being fully closed, it lowers door glass of the door a little from the closed position. When closing the door, it return door glass to the fully closed position.
- All power windows open or close when Intelligent Key unlock button is pressed for 3seconds.
- Hold the door key cylinder to the UNLOCK direction for 1 second or more to OPEN all power windows when ignition switch OFF.
- Power window system operation links with soft top system to <u>RF-16, "SOFT TOP SYSTEM : System</u> <u>Description"</u>.

### POWER WINDOW AUTO-OPERATION

- AUTO UP/DOWN operation can be performed when power window switch 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 the fully open/closed position.
- Auto function is inoperable if encoder is malfunctioning.

### POWER WINDOW SERIAL LINK

Power window main switch, power window sub-switch, soft top control unit, and BCM transmit and receive the signal by power window serial link.

The under mentioned signal is transmitted from BCM to soft top control unit.

- Keyless power window down signal
- The under mentioned signal is transmitted from soft top control unit to power window switch.
- Soft top operation signal (front power window down signal, front power window up operation prohibition signal)
- Keyless power window down signal

The under mentioned signal is transmitted from power window main switch to power window sub-switch.

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

The under mentioned signal is transmitted from power window main switch to BCM via soft top control unit.

- Power window control by key cylinder switch signal
- Power window lock signal
- Door lock/unlock switch signal

### 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

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

### POWER WINDOW LOCK FUNCTION

Switch operation other than power window main switch is prohibited when power window lock switch is ON. Power window main switch does not operate any power window other than driver power window.

### ANTI-PINCH FUNCTION

• The anti-pinch function detects foreign matter being pinched in the door glass, during AUTO-UP operation, and lowers the door glass 150 mm (5.9in).

### < SYSTEM DESCRIPTION >

### [ROADSTER]

<ul> <li>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.</li> <li>Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse sig-</li> </ul>	А
<ul> <li>nal if foreign material is trapped in the door glass.</li> <li>Power window switch controls to lower the door glass for 150 mm (5.9in) after it detects encoder pulse signal frequency change.</li> </ul>	В
<ul> <li>OPERATION CONDITION</li> <li>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.)</li> <li>NOTE:</li> </ul>	С
Depending on environment and driving conditions, if a similar impact or load is applied to the door glass, it may lower.	D
AUTOMATIC WINDOW ADJUSTING FUNCTION When the driver/passenger door(s) is open, the window of the opened door is lowered approximately 10 mm	
(0.39 in). When the door is closed, the window is raised to the fully closed position. Automatic window adjusting function system (opening operation) does not operate when the following item	Е
occurs. The window is 10 mm (0.39 in) or more open from the fully closed position.	F
DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION	
Hold the door key cylinder to the LOCK or UNLOCK position for 1 second or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, the windows stop the operation when the key position is NEUTRAL when operating.	G
<ul> <li>OPERATION CONDITION</li> <li>Ignition switch OFF.</li> <li>Hold door key avlinder to the LOCK position for 1 accord or more to perform CLOSE operation of the door.</li> </ul>	Н
<ul> <li>Hold door key cylinder to the LOCK position for 1 second or more to perform CLOSE operation of the door glass.</li> </ul>	
<ul> <li>Hold door key cylinder to the UNLOCK position for 1 second or more to perform OPEN operation of the door glass.</li> </ul>	Ι
KEYLESS POWER WINDOW DOWN FUNCTION	
All power windows open when the unlock button on Intelligent Key is activated and pressed and held for more than 3* seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.	J
<ul> <li>The power window opening function stops when the following operations are performed.</li> <li>When the ignition switch is turned ON while the power window opening is operated.</li> </ul>	PW
<ul> <li>When the unlock button is released.</li> <li>While retained power operation activates, keyless power window down function cannot be operated.</li> <li>Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to <u>DLK-236, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Roadster)</u>".</li> </ul>	L
NOTE:	M
Use CONSULT to change settings. MODE 1 (3 sec) / MODE 2 (OFF) / MODE 3 (5 sec)	IVI
POWER CONSUMPTION CONTROL SYSTEM	Ν
Power window switch incorporates a power consumption control function that reduces the power consumption according to the vehicle status.	
LOW POWER CONSUMPTION MODE • Ignition switch OFF.	0
<ul> <li>Power window main switch and power window sub-switch do not receive a signal from serial link.</li> </ul>	
<ul> <li>Power window motor does not move.</li> <li>If any of the following conditions are satisfied, the low power consumption mode is released.</li> </ul>	Ρ
<ul> <li>Ignition switch ON.</li> <li>When door key cylinder switch signal is received.</li> <li>When the signal is received from serial link.</li> </ul>	

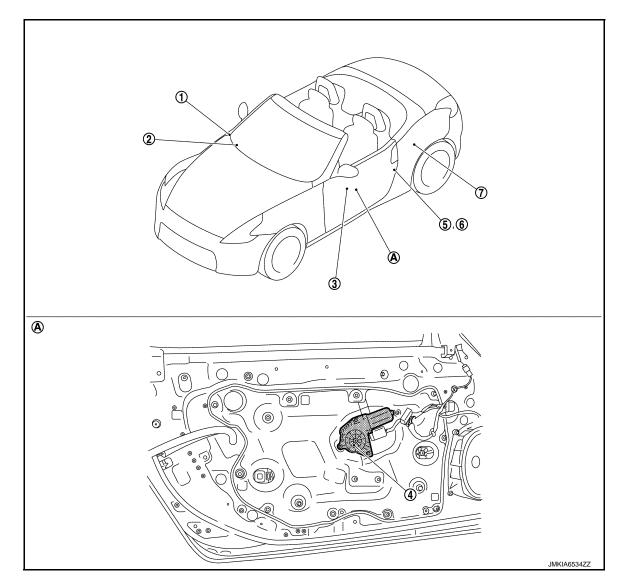
- When door open/close signal is received.
  When power window switch door lock is operated.

# < SYSTEM DESCRIPTION >

# **Component Parts Location**

INFOID:000000010837820

[ROADSTER]



- 1. BCM BCS-10. "Component Parts Location"
- 4. Driver side power window motor
- 7. Soft top control unit BCS-10. "Component Parts Location"
- A. View with door finisher removed

# **Component Description**

- 2. Remote keyless entry receiver <u>DLK-210, "DOOR LOCK :</u> <u>Component Parts Location"</u>
- 5. Driver side door lock assembly (door key cylinder switch)
- 3. Power window main switch

6. Driver side door switch

INFOID:000000010837821

Component	Function
BCM	<ul><li>Supplies power to power window switches.</li><li>Controls retained power function</li></ul>
Power window main switch	<ul><li>Directly controls all power window motors in all doors.</li><li>Controls anti-pinch operation of power window.</li></ul>
Power window sub-switch	<ul><li>Controls anti-pinch operation of power window.</li><li>Controls power window motor of passenger door.</li></ul>

### < SYSTEM DESCRIPTION >

# [ROADSTER]

Component	Function
Driver side power window motor	<ul> <li>Integrates the encoder and window motor.</li> <li>Starts operating with signals from power window main switch.</li> <li>Transmits power window motor rotation as a pulse signal to power window switch.</li> </ul>
Passenger side power window motor	<ul> <li>Integrates the encoder and window motor.</li> <li>Starts operating with signals from power window main switch &amp; power window subswitch.</li> <li>Transmits power window motor rotation as a pulse signal to power window switch.</li> </ul>
Driver side door lock assembly (door key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Remote keyless entry receiver	Receives lock/unlock signal from intelligent key and then transmits to BCM.
Door switch	<ul> <li>Detects door open/close condition and transmits to BCM.</li> <li>Door switch signal is directly received by power window switch and is used for the automatic window adjusting function.</li> </ul>
Soft top control unit	Controls power window when opening/closing soft top.
Door key cylinder switch	Power window main switch detects condition of the door key cylinder switch and trans- mits to BCM as the LOCK or UNLOCK signals.

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# DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

INFOID:000000011283010

[ROADSTER]

# APPLICATION ITEM

CONSULT 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.		
Data Monitor	The BCM input/output signals are displayed.		
Active Test	The signals used to activate each device are forcibly supplied from BCM.		
Ecu Identification	The BCM part number is displayed.		
Configuration	<ul><li>Read and save the vehicle specification.</li><li>Write the vehicle specification when replacing BCM.</li></ul>		

### SYSTEM APPLICATION

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

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

Question		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*			
<ul><li>Intelligent Key system</li><li>Engine start system</li></ul>	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door/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.

# **DIAGNOSIS SYSTEM (BCM)**

### < SYSTEM DESCRIPTION >

### [ROADSTER]

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"*)	В	
	SLEEP>OFF	-	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	С	
	LOCK>ACC		While turning power supply position from "LOCK"* to "ACC"		
	ACC>ON		While turning power supply position from "ACC" to "IGN"	D	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Except emergency stop operation)	D	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	E	
	RUN>URGENT	Power supply position status of the moment a particular DTC is de- tected	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		While turning power supply position from "OFF" to "ACC"	G	
	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	Н	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply posi- tion is "LOCK"*.) to low power consumption mode		
	LOCK		Power supply position is "LOCK"*		
	OFF		Power supply position is "OFF" (Ignition switch OFF)		
	ACC		Power supply position is "ACC" (Ignition switch ACC)		
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	0	
EN	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	P٧	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)		
IGN Counter	0 - 39	<ul> <li>The number of times that ignition switch is turned ON after DTC is detected</li> <li>The number is 0 when a malfunction is detected now.</li> <li>The number increases like 1 → 2 → 338 → 39 after returning to the normal condition whenever ignition switch OFF → ON.</li> <li>The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.</li> </ul>			

#### NOTE:

\*: Power supply position shifts to "LOCK" from "OFF", when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.

- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

The power supply position shifts to "ACC" when the push-button ignition switch (push switch) is pushed at "LOCK".

# RETAINED PWR

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

INFOID:000000010837823

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### DATA MONITOR

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

# **DIAGNOSIS SYSTEM (BCM)**

### < SYSTEM DESCRIPTION >

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.

< DTC/CIRCUIT DIAGNOSIS >			[ROADSTER]
DTC/CIRCUIT DIA	AGNOSIS		
POWER SUPPLY AND		CUIT	, A
BCM			
BCM : Diagnosis Procedu	re		INFOID:000000010837824
1.CHECK FUSE AND FUSIBLE			
			(
Check that the following fuse and	I fusible link are not bi	own.	
Terminal No.	Signa	l name	Fuse and fusible link No.
1	Battery po	ower supply	K (40A)
11 Is the fuse fusing?			10 (10A)
YES >> Replace the blown fu blown. NO >> GO TO 2. 2.CHECK POWER SUPPLY CIF		r repairing the affec	ted circuit if a fuse or fusible link is
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect BCM connectors</li> <li>Check voltage between BCN</li> </ol>		nd ground.	
(+)			
BCM		(-)	Voltage (Approx.)
Connector	Terminal		
M118 M119	1 11	Ground	Battery voltage
ls the measurement value norma			
YES >> GO TO 3. NO >> Repair or replace har <b>3.</b> CHECK GROUND CIRCUIT			F
Check continuity between BCM h	arness connector and	d ground.	
BCM			
Connector	Terminal	Ground	Continuity
M119	13		Existed
Does continuity exist? YES >> INSPECTION END NO >> Repair harness or co POWER WINDOW MAIN			
POWER WINDOW MAIN	SWITCH : Diagn	osis Procedure	INFOID:000000010837825
1.CHECK POWER SUPPLY CI	RCUIT		
<ol> <li>Turn ignition switch OFF.</li> <li>Disconnect power window m</li> <li>Turn ignition switch ON.</li> <li>Check voltage between power</li> </ol>		n harness connector	and ground.

POWER SUPPLY AND GROUND CIRCUIT

# POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

[ROADSTER]

(+) Power window main switch		()	Voltage (V) (Approx.)	
Connector	Terminal		( + P. 6)	
D8	1 10	Ground	12	

Is the measurement value within the specification?

YES >> GO TO 3.

NO >> GO TO 2.

# 2. CHECK HARNESS CONTINUTY

- 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 window main switch		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M118	2	D8	1	Existed	
WIT TO	3	00	10	LXISIEU	

### 4. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M118	2		Not existed
IVITIO	3		NOT EXISTEN

### Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-106, "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 window	w main switch		Continuity
Connector	Connector Terminal		Continuity
D8	15		Existed

#### Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

### POWER WINDOW SUB-SWITCH

# POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:000000010837826

# **1.**CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect power window sub-switch connector.

3. Check voltage between power window sub-switch harness connector and ground.

(+) Power window sub-switch		()	Voltage (V) (Approx.)	
Connector	Connector Terminal			
D38	10	Ground	12	

# DOM Down 11

B	BCM		Power window sub-switch	
Connector	Terminal	Connector Terminal		Continuity
M118	2	D38	10	Existed

Check continuity between BCM harness connector and power window sub-switch harness connector.

4. Check continuity between BCM harness connector and ground.

B	СМ		Continuity
Connector	Terminal	Ground	Continuity
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-106, "Exploded View"</u>.

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

Check continuity between power window sub-switch harness connector and ground.

Power windo	ow sub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	11		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

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< DTC/CIRCUIT DIAGNOSIS >

>> GO TO 3.

>> GO TO 2.

2. CHECK HARNESS CONTINUTY

Disconnect BCM connector.

Turn ignition switch OFF.

YES

NO

1.

2.

3.

Is the measurement value within the specification?

[ROADSTER]

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< 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 CIRCUIT

Check driver side power window motor operation with power window main switch.

Is the inspection result normal?

YES >> Driver side power window motor is OK.

NO >> Refer to <u>PWC-128. "DRIVER SIDE : Diagnosis Procedure"</u>.

DRIVER SIDE : Diagnosis Procedure

INFOID:000000010837829

### 1.CHECK DRIVER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

(+) Driver side power window motor		()		Condition		
Connector	Terminal				Voltage (V) (Approx.)	
					UP	12
<b>D</b> 10	6	Pov	Power window	DOWN	0	
D10	-	Ground	main switch	UP	0	
3			DOWN	12		

Is the measurement value within the specification?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK POWER WINDOW MOTOR

Check driver side power window motor.

Refer to <u>PWC-129</u>, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

# $\mathbf{3.}$ CHECK HARNESS CONTINUTY

1. Turn ignition switch OFF.

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

Power windo	ower window main switch Driver side power window motor		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D8	8	D10	6	Existed
Do	11	010	3	EXISIEU

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

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### < DTC/CIRCUIT DIAGNOSIS >

# [ROADSTER]

Power wind	ow main switch		
Connector	Terminal	Ground	Continuity
D8	8	Ground	Not existed
	11		
<u>s the inspection result norr</u> YES >> Replace power NO >> Repair or repla <b>1.</b> CHECK INTERMITTEN	window main switch. Referce harness.	r to <u>PWC-229, "Removal a</u>	nd Installation".
Refer to <u>GI-44, "Intermitten</u>	t Incident".		
>> INSPECTION I			
DRIVER SIDE : Com			
JRIVER ODE : COM			INFOID:000000010837830
COMPONENT INSPECT	ION		
1.CHECK DRIVER SIDE	POWER WINDOW MOTOR	R	
	power window motor conne		de power window motor con-
Driver side power window mo	_ Ten	minal	
tor connector	(+)	(-)	Motor operation
D10	3	6	DOWN
	6	3	UP
PASSENGER SIDE PASSENGER SIDE : Door glass moves UP/DOV		ower window main switch	I and Installation". INFOID:000000010837831 or power window sub-switch. INFOID:000000010837832
1. CHECK POWER WIND	OW MOTOR CIRCUIT		
	er window motor operation	with power window main	switch or power window sub
switch. Is the inspection result norr	nal?		
YES >> Passenger side	e power window motor is Ol		
	129, "PASSENGER SIDE :		
PASSENGER SIDE :	Diagnosis Procedure	)	INFOID:000000010837833
1.CHECK PASSENGER S		OTOR INPUT SIGNAL	
1. Turn ignition switch OF			
<ol> <li>Disconnect passenger</li> <li>Turn ignition switch ON</li> </ol>	side power window motor c	connector.	

4. Check voltage between passenger side power window motor harness connector and ground.

### < DTC/CIRCUIT DIAGNOSIS >

(+) Passenger side power window motor		()	Condition		Voltage (V) (Approx.)	
Connector	Terminal				(	
	6	0			UP	12
D40	0	6 Ground	Power window sub-	DOWN	0	
D40	2		switch	UP	0	
	3			DOWN	12	

Is the measurement value within the specification?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.

Refer to PWC-130, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

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

**3.**CHECK HARNESS CONTINUTY

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

Power winde	ow sub-switch	Passenger side po	ower window motor	Continuity
Connector	Terminal	Connector	Terminal	Continuity
D38	9	D40	3	Existed
030	8	D40	6	LAISIEU

4. Check continuity between power window sub-switch connector and ground.

Power windo	w sub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	8	Ground	Not existed
030	9		NUL EXISIEU

#### Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-229. "Removal and Installation".

NO >> Repair or replace harness.

**4.**CHECK INTERMITTENT INCIDENT

Refer to GI-44, "Intermittent Incident".

### >> INSPECTION END

### PASSENGER SIDE : Component Inspection

INFOID:000000010837834

### COMPONENT INSPECTION

1.CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

# < DTC/CIRCUIT DIAGNOSIS >

# [ROADSTER]

Passenger side power window	Ter	minal	Motor condition
motor connector	(+)	(-)	
D40	3	6	DOWN
	6	3	UP
the inspection result norma	<u> ?</u>		
YES >> Passenger side p NO >> Replace passeng	ower window motor is Ol er side power window mo	K. otor. Refer to <u>GW-22, "R</u>	emoval and Installation"

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### < DTC/CIRCUIT DIAGNOSIS > ENCODER

# DRIVER SIDE

# **DRIVER SIDE : Description**

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

**DRIVER SIDE : Component Function Check** 

# **1.**CHECK ENCODER OPERATION

Check that driver side door glass performs AUTO open/close operation normally with power window main switch.

Is the inspection result normal?

YES >> Encoder operation is OK.

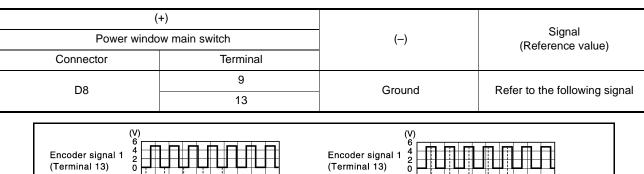
NO >> Refer to <u>PWC-132</u>, "DRIVER SIDE : Diagnosis Procedure".

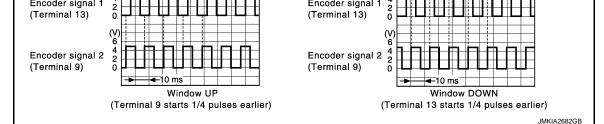
# **DRIVER SIDE : Diagnosis Procedure**

INFOID:0000000010837837

# **1.**CHECK ENCODER OPERATION

- 1. Turn ignition switch ON.
- 2. Check signal between power window main switch harness connector and ground with oscilloscope.





### Is the inspection result normal?

YES >> Replace power window main switch. Refer to <u>PWC-229</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

# 2.check encoder signal circuit

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

Power wind	low main switch	Driver side power window motor		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D8	9	D10	5	Existed
Do	13		2	Existed

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

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INFOID:000000010837836

### < DTC/CIRCUIT DIAGNOSIS >

# [ROADSTER]

	vindow main switch			
Connector	Termina	al		Continuity
D8	9		Ground	Not existed
the inspection result ne	ormal?			
YES >> GO TO 3. NO >> Repair or rep				
CHECK ENCODER F	OWER SUPPLY CI	RCUIT 1		
<ul> <li>Connect power wind</li> <li>Turn ignition switch (</li> <li>Check voltage between</li> </ul>	ON.		harness connector a	nd ground.
	(+)			
Driver side	power window motor		(-)	Voltage (V) (Approx.)
Connector	Termina	I		
D10	4		Ground	12
the measurement value YES >> GO TO 5. >> GO TO 4.	·			
CHECK ENCODER F	OWER SUPPLY CI	RCUIT 2		
Power window			e power window motor	Continuity
Connector D8	Terminal 5	Connector D10	Terminal 4	Existed
. Check continuity bet	-			
	vindow main switch	<u>, , , , , , , , , , , , , , , , , , , </u>	Ground	Continuity
Connector D8	Termina 5	11	Ground	Not existed
_	_			
s the inspection result h				
the inspection result no YES >> Replace pov NO >> Repair or rep	ver window main sw	itch. Refer to <u>P\</u>	NC-229, "Removal ar	
YES >> Replace pov	ver window main sw place harness.	itch. Refer to <u>P\</u>	NC-229, "Removal ar	
YES >> Replace pov NO >> Repair or rep CHECK GROUND CI . Turn ignition switch ( Disconnect power w	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window	onnector.		nd Installation".
YES >> Replace pov NO >> Repair or rep CHECK GROUND CI . Turn ignition switch ( Disconnect power w . Check continuity be	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window ector.	onnector. w main switch ł		nd Installation". Id driver side power wind
YES >> Replace pov NO >> Repair or rep OCHECK GROUND CI Turn ignition switch ( Disconnect power w Check continuity be motor harness connect	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window ector.	onnector. w main switch ł	narness connector an	
YES >> Replace pov NO >> Repair or rep OCHECK GROUND CI Turn ignition switch ( Disconnect power w Check continuity be motor harness connect Power window	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window ector.	onnector. w main switch ł Driver sid	e power window motor	nd Installation". Ind driver side power wind
YES >> Replace pow NO >> Repair or rep O.CHECK GROUND CI Disconnect power w Check continuity be motor harness connect Power window	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window ector. main switch Terminal 14	onnector. w main switch h Driver sid Connector	e power window motor Terminal	nd Installation".
YES >> Replace pow NO >> Repair or rep O.CHECK GROUND CI Disconnect power w Check continuity be motor harness conner Power window Connector D8	ver window main sw place harness. RCUIT 1 OFF. indow main switch c tween power window ector. main switch Terminal 14 ormal?	onnector. w main switch h Driver sid Connector	e power window motor Terminal	nd Installation".

### < DTC/CIRCUIT DIAGNOSIS >

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

Power windo	Power window main switch		Continuity	
Connector	Terminal	Ground	Continuity	
D8	14		Existed	

Is the inspection result normal?

YES >> Replace driver side power window motor. Refer to <u>GW-22, "Removal and Installation"</u>.

NO >> Replace power window main switch. Refer to PWC-229, "Removal and Installation".

# PASSENGER SIDE

# PASSENGER SIDE : Description

Detects condition of the passenger side power window motor operation and transmits to power window subswitch as the pulse signal.

# PASSENGER SIDE : Component Function Check

# **1.**CHECK ENCODER OPERATION

Check that passenger side door glass performs AUTO open operation normally with power window main switch or power window sub-switch.

### Is the inspection result normal?

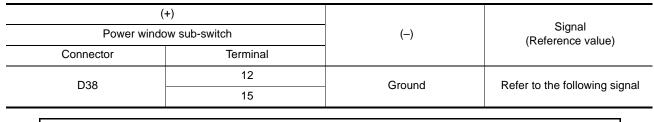
YES >> Encoder operation is OK.

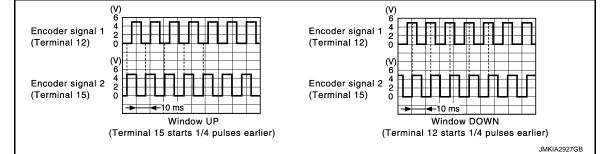
NO >> Refer to <u>PWC-134, "PASSENGER SIDE : Diagnosis Procedure"</u>.

# PASSENGER SIDE : Diagnosis Procedure

# **1.**CHECK ENCODER SIGNAL

- 1. Turn ignition switch ON.
- 2. Check signal between power window sub-switch harness connector and ground with oscilloscope.





Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to <u>PWC-229</u>, "<u>Removal and Installation</u>". NO >> GO TO 2.

# 2. CHECK ENCODER SIGNAL CIRCUIT

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

### **PWC-134**

INFOID:0000000010837838

INFOID:000000010837839

INFOID:000000010837840

### < DTC/CIRCUIT DIAGNOSIS >

# [ROADSTER]

Connector			Passenger side power window motor				
	Terminal	Conne	ector	Terminal		ontinuity	
D38	12	– D4	10	2	F	Existed	
200	15			5		Existed	
Check continuity be	tween power window	w sub-switch	h connector a	nd ground.			
Power	window sub-switch						
Connector	Termin	al	Ground		Conti	nuity	
	12				Not er	tinta al	
D38	15				Not ex	listed	
the inspection result r	ormal?			· · · · · · · · · · · · · · · · · · ·			
ES >> GO TO 3.							
O >> Repair or re	•						
CHECK ENCODER I	POWER SUPPLY C	IRCUIT 1					
Connect power wind	dow sub-switch conr	nector.					
Turn ignition switch	ON.						
Check voltage betw	een passenger side	power wind	low motor har	ness connec	ctor and grour	nd.	
	(1)						
	(+) de power window motor				Voltage	Voltage (V)	
December of			(-)			``	
_	-	- 1	( )		(Appr	ox.)	
Connector	Termina	al				-	
Connector D40 he measurement valu ES >> GO TO 5. O >> GO TO 4. CHECK ENCODER I	Termina 4 ue within the specific POWER SUPPLY C	cation?	Grour	id	(Appr 12	-	
Connector D40 the measurement valu 'ES >> GO TO 5.	Termina 4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co tween power windo	cation? IRCUIT 2 onnector.	Grour		12	- 	
Connector D40 the measurement valu ES >> GO TO 5. IO >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be	Termina 4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co stween power windo connector.	cation? IRCUIT 2 onnector. ow sub-switc	Grour	nnector and	12 passenger s	ide powe	
Connector D40 the measurement value (ES >> GO TO 5. IO >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness	Termina 4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co stween power windo connector.	cation? IRCUIT 2 onnector. ow sub-switc	Grour	nnector and	12 passenger s	- 	
Connector D40 he measurement valu ES >> GO TO 5. O >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness	Termina 4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co tween power windo connector.	Cation? IRCUIT 2 onnector. ow sub-switc Passe	Grour	nnector and	passenger s	ide powe	
Connector D40 the measurement value (ES >> GO TO 5. IO >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness Power window Connector	Termina 4 ue within the specific POWER SUPPLY C OFF. vindow sub-switch co tween power windo connector. v sub-switch Terminal 4	Cation? IRCUIT 2 onnector. ow sub-switc Passe Conne D4	Grour ch harness co enger side power ector	nnector and window motor Terminal 4	passenger s	ide power	
Connector D40 the measurement value (ES >> GO TO 5. IO >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness Power window Connector D38 Check continuity be	Termina         4	Cation? IRCUIT 2 onnector. ow sub-switc Passe Conne D4	Grour ch harness co enger side power ector	nnector and window motor Terminal 4	passenger s	ide power	
Connector D40 the measurement value (ES >> GO TO 5. IO >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness Power window Connector D38 Check continuity be Power	Termina         4         ue within the specific         POWER SUPPLY C         OFF.         vindow sub-switch connector.         v sub-switch         Terminal         4         tween power window         vindow sub-switch	Cation? IRCUIT 2 IRCUIT 2 onnector. w sub-switc Passe Conne D4 w sub-switch	Grour ch harness co enger side power ector 10 h harness con	nnector and window motor Terminal 4 inector and (	passenger s	ide power ontinuity Existed	
Connector D40 the measurement value ES >> GO TO 5. O >> GO TO 4. CHECK ENCODER I Turn ignition switch Disconnect power w Check continuity be dow motor harness Power window Connector D38 Check continuity be	Termina         4	Cation? IRCUIT 2 IRCUIT 2 onnector. w sub-switc Passe Conne D4 w sub-switch	Grour ch harness co enger side power ector	nnector and window motor Terminal 4 inector and (	passenger s Co ground.	ide power ontinuity Existed	

### < DTC/CIRCUIT DIAGNOSIS >

Power windo	Power window sub-switch		Passenger side power window motor	
Connector	Terminal	Connector	Terminal	Continuity
D38	3	D40	1	Existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

1. Connect power window sub-switch connector.

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

Power windo	w sub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	3		Existed

Is the inspection result normal?

>> Replace passenger side power window motor. Refer to <u>GW-22, "Removal and Installation"</u>. >> Replace power window sub-switch. Refer to <u>PWC-229, "Removal and Installation"</u>. YES

NO

# DOOR SWITCH CIRCUIT

		0	DOOR S	WITCH C	IRCUIT			
< DTC/CIRC	UIT DIAGNO	)SIS >					[ROADSTER]	
DOOR S	NITCH C	IRCUIT						
DRIVER S	SIDE							A
DRIVER S	IDE : Des	cription					INFOID:000000010837841	В
Detects door	open/closed	condition.						
DRIVER S	IDE : Com	nponent F	unction	Check			INFOID:000000010837842	С
1.CHECK F	UNCTION							
Check autom			ction.					D
<u>Is the inspect</u> YES >> D	<u>ion result nor</u> Door switch is							
			ER SIDE :	Diagnosis Pr	ocedure".			Е
DRIVER S	IDE : Diag	inosis Pro	cedure				INFOID:000000010837843	
<b>1.</b> CHECK D	OOR SWITC	н						F
Check door s	witch. Refer t	o <u>DLK-288.</u>	'Compone	ent Function	Check".			
Is the inspect		mal?						G
	GO TO 2. Repair or repla	ace the malfu	Inctioning	narts				
2.снеск р	•		•	parts.				
-				v main switch	harness	connector and	around	Н
							9.00.10	
	(+						Voltage (V)	
	er side power w	Indow main swit		()			(Approx.)	
	nector	Term	IIIai					J
	D8	4		Grou	nd		JPMIA0011GB	PWC
Is the inspect	ion result nor	mal?						
	Replace powe GO TO 3.	er window ma	ain switch.	Refer to PW	<u>C-229, "Re</u>	emoval and In	stallation".	M
3.CHECK D	OOR SWITC	H CIRCUIT						
2. Disconne	ontinuity betw	dow main sw					notor connector. er side door switch har-	N
F	Power window m	ain switch		Driver	side door sw	vitch	Continuity	
Conn	ector	Terminal		Connector		Terminal		Ρ
D	-	4		B63		2	Existed	
4. Check co	ontinuity betw	een power w	indow ma	in switch harr	ness conn	ector and grou	und.	
	Powe	r window main s	switch				Continuity	
	Connector		Tern	ninal	G	Ground	Continuity	

D8

4

Not existed

# **DOOR SWITCH CIRCUIT**

< DTC/CIRCUIT DIAGNOSIS >	[ROADSTER]
Is the inspection result normal?	
YES >> GO TO 4.	
NO >> Repair or replace harness.	
4.CHECK INTERMITTENT INCIDENT	
Refer to GI-44, "Intermittent Incident".	
>> INSPECTION END	
PASSENGER SIDE	
PASSENGER SIDE : Description	INFOID:000000010837844
Detects door open/closed condition.	
PASSENGER SIDE : Component Function Check	INFOID:000000010837845
1.CHECK FUNCTION	
Check automatic window adjusting function.	
Is the inspection result normal?	
YES >> Door switch is OK.	
NO >> Refer to <u>PWC-138</u> , "PASSENGER SIDE : Diagnosis Procedure".	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000010837846
1.CHECK DOOR SWITCH	
Check door switch. Refer to DLK-288. "Component Function Check".	-
Is the inspection result normal?	
YES >> GO TO 2.	

YES >> GO 10 2.

NO >> Repair or replace the malfunctioning parts.

**2.**CHECK DOOR SWITCH INPUT SIGNAL

Check voltage between power window sub-switch harness connector and ground.

(+) Power window		(-)	Voltage (V) (Approx.)
Connector	Terminal		(//pp/0x.)
D38	14	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-229, "Removal and Installation". NO >> GO TO 3.

**3.**CHECK DOOR SWITCH CIRCUIT

- 1. Disconnect passenger side door switch connector.
- 2. Check continuity between passenger side door switch harness connector and power window sub-switch harness connector.

Power windo	Power window sub-switch		Passenger side door switch		
Connector	Terminal	Connector Terminal		Continuity	
D38	14	B206	2	Existed	

# DOOR SWITCH CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

### [ROADSTER]

### 3. Check continuity between power window sub-switch harness connector and ground.

Power window su	ub-switch		Continuity
Connector	Terminal	Ground	Continuity
D38	14		Not existed
s the inspection result normal?			
YES >> GO TO 4. NO >> Repair or replace harne	SS.		
<b>1.</b> CHECK INTERMITTENT INCIDE			
Refer to GI-44, "Intermittent Inciden	<u>t"</u> .		
>> INSPECTION END			

J

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# ECU DIAGNOSIS INFORMATION BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

#### CONSULT 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
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT	Off
	Front wiper switch INT	On
	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
TURN SIGNAL R	Other than turn signal switch RH	Off
TORN SIGNAL R	Turn signal switch RH	On
TURN SIGNAL L	Other than turn signal switch LH	Off
TURIN SIGINAL 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
HEAD LAMP SW 1	Other than lighting switch 2ND	Off
HEAD LAIVIP SVV I	Lighting switch 2ND	On
HEAD LAMP SW 2	Other than lighting switch 2ND	Off
HEAD LAIVIP SVV 2	Lighting switch 2ND	On
DASSING SW	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
FR FOG SW	NOTE: The item is indicated, but not monitored.	Off
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
	Driver door closed	Off
DOOR SW-DR	Driver door opened	On
	Passenger door closed	Off
DOOR SW-AS	Passenger door opened	On

Revision: 2014 September

INFOID:000000011283011

# < ECU DIAGNOSIS INFORMATION >

### [ROADSTER]

Monitor Item	Condition	Value/Status	_
DOOR SW-RR	<b>NOTE:</b> The item is indicated, but not monitored.	Off	_
DOOR SW-RL	<b>NOTE:</b> The item is indicated, but not monitored.	Off	
DOOR SW-BK	<ul><li>Back door closed (Coupe models)</li><li>Trunk lid closed (Roadster models)</li></ul>	Off	
	<ul><li>Back door opened (Coupe models)</li><li>Trunk lid opened (Roadster models)</li></ul>	On	
CDL LOCK SW	Other than door lock and unlock switch LOCK	Off	
ODE ECONOM	Door lock and unlock switch LOCK	On	_
CDL UNLOCK SW	Other than door lock and unlock switch UNLOCK	Off	
ODE ONECON ON	Door lock and unlock switch UNLOCK	On	_
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off	_
RET OTE ER-SW	Driver door key cylinder LOCK position	On	_
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off	_
	Driver door key cylinder UNLOCK position	On	_
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	-
	Hazard switch is OFF	Off	-
HAZARD SW	Hazard switch is ON	On	_
REAR DEF SW	Rear window defogger switch OFF	Off	_
<b>NOTE:</b> For models with NAVI this item is not monitored.	Rear window defogger switch ON	On	_
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off	_
	Trunk lid opener cancel switch OFF	Off	
TR CANCEL SW	Trunk lid opener cancel switch ON	On	_
TR/BD OPEN SW	<ul> <li>Back door opener switch OFF (Coupe models)</li> <li>Trunk lid opener switch OFF (Roadster models)</li> </ul>	Off	
	<ul> <li>While the back door opener switch is turned ON (Coupe models)</li> <li>While the trunk lid opener switch is turned ON (Roadster models)</li> </ul>	On	-
TRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	_
	LOCK button of the Intelligent Key is not pressed	Off	_
RKE-LOCK	LOCK button of the Intelligent Key is pressed	On	-
	UNLOCK button of the Intelligent Key is not pressed	Off	-
RKE-UNLOCK	UNLOCK button of the Intelligent Key is pressed	On	-
RKE-TR/BD NOTE:	TRUNK OPEN button of the Intelligent Key is not pressed	Off	_
For Coupe models this item is not monitored.	TRUNK OPEN of the Intelligent Key is pressed	On	
	PANIC button of the Intelligent Key is not pressed	Off	-
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 simul- taneously	Off	_
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simulta- neously	On	-

# < ECU DIAGNOSIS INFORMATION >

### [ROADSTER]

Monitor Item	Condition	Value/Status
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF TICAL SENSOR	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
	<ul> <li>Back door request switch is not pressed (Coupe models)</li> <li>Trunk lid door request switch is not pressed (Roadster models)</li> </ul>	Off
REQ SW -BD/TR	<ul> <li>Back door request switch is pressed (Coupe models)</li> <li>Trunk lid door request switch is pressed (Roadster models)</li> </ul>	On
	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	NOTE: The item is indicated, but not monitored.	Off
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
NOTE: For A/T models this item is not monitored.	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 normal	On
	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
DETE/CANCL SW <b>NOTE:</b> For M/T models with Synchro- Rev Match mode this item is not monitored.	<ul> <li>Selector lever in P position (A/T models)</li> <li>The clutch pedal is depressed (M/T models without SynchroRev Match mode)</li> </ul>	Off
	<ul> <li>Selector lever in any position other than P (A/T models)</li> <li>The clutch pedal is not depressed (M/T models without SynchroRev Match mode)</li> </ul>	On
SFT PN/N SW NOTE: For roadster M/T models and coupe M/T models without SynchroRev Match mode this item is not monitored.	<ul> <li>Selector lever in any position other than P and N (A/T models)</li> <li>Control lever in any position other than neutral position (Coupe M/T models with SynchroRev Match mode)</li> </ul>	Off
	<ul> <li>Selector lever in P or N position (A/T models)</li> <li>Control lever in neutral position (Coupe M/T models with SynchroRev Match mode)</li> </ul>	On
S/L -LOCK	NOTE: The item is indicated but not monitored.	Off
S/L -UNLOCK	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-F/B	NOTE: The item is indicated but not monitored.	Off
	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On

Revision: 2014 September

# < ECU DIAGNOSIS INFORMATION >

# [ROADSTER]

Monitor Item	Condition	Value/Status
	Ignition switch in OFF or ACC position	Off
IGN RLY1 -F/B	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	<ul> <li>Selector lever in any position other than P and N (A/T models)</li> <li>The clutch pedal is not depressed (M/T models)</li> </ul>	Off
	<ul> <li>Selector lever in P or N position (A/T models)</li> <li>The clutch pedal is depressed (M/T models)</li> </ul>	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
FT N -MET	Selector lever in N position	On
	Engine stopped	Stop
	While the engine stalls	Stall
NGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	NOTE: The item is indicated but not monitored.	Off
S/L UNLK-IPDM	NOTE: The item is indicated but not monitored.	Off
S/L RELAY-REQ	NOTE: The item is indicated but not monitored.	Off
/EH SPEED 1	While driving	Equivalent to speedom- eter reading
/EH SPEED 2	While driving	Equivalent to speedom- eter 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
D OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
	The engine start is prohibited	Reset
PRMT ENG STRT	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
	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	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key

# < ECU DIAGNOSIS INFORMATION >

### [ROADSTER]

Monitor Item	Condition	Value/Status
	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
CONFRM ID ALL	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 reg- istered 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 reg- istered to BCM.	Done
	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID reg- istered to BCM.	Done
	The key ID that the key slot receives is not recognized by the first key ID reg- istered to BCM.	Yet
CONFIRM ID1	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TD 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
	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
	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	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 REGGI FLI	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
ID REGST FRT	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
	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 >

[ROADSTER]

А

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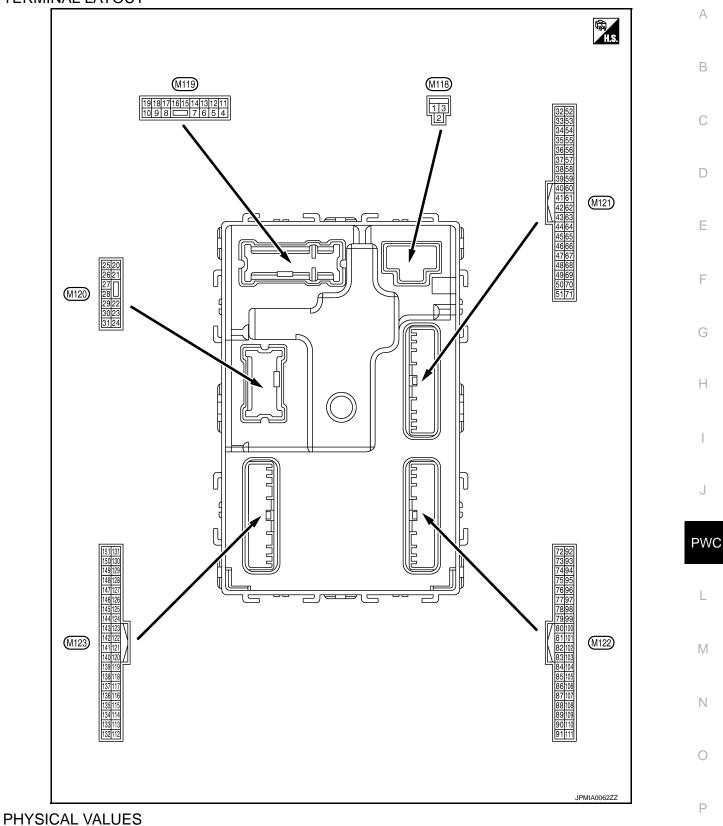
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## < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+	e color) —	Signal name	Input/ Output		Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch (	DFF	Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch (	DFF	12 V
3 (Y)	Ground	P/W power supply (IGN)	Output	Ignition switch (	N	12 V
					mp battery saver is activated. or room lamp power supply)	0 V
4 (R)	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
(G)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V
8		Output	t All doors, fuel lid	LOCK (Actuator is activated)	12 V	
(V)				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)	Ground	UNLOCK	Output	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
11 (BR)	Ground	Battery power supply	Input	Ignition switch (	DFF	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch (	N	0 V
14		Push-button ignition			OFF	0 V <b>NOTE:</b> When the illumination brighten- ing/dimming level is in the neutral position. (V)
(R)	Ground	switch illumination ground	Output	Tail lamp	ON	10 0 2 ms JSNIA0010GB
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(1)					ACC	0 V

#### < ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)					Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
					Turn signal switch OFF	0 V	В
17 (W)	Ground	Turn signal RH (Front and side)	Output	Ignition switch ON	Turn signal switch RH		C
						6.5 V	
					Turn signal switch OFF	0 V	Е
18 (O)	Ground	Turn signal LH (Front and side)	Output	Ignition switch ON	Turn signal switch LH	(V) 10 0 10 10 10 10 10 10 10 10	F
19	Cround	Interior room lamp	Quitout	Interior room	OFF	12 V	Н
(P)	Ground	control	Output	lamp	ON	0 V	
					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 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	J
23		Back door/Trunk lid		Back door/	OPEN (Back door/Trunk lid open- er actuator is activated)	6.5 V 12 V	L
(L)* <sup>1</sup> (Y)* <sup>2</sup>	Ground	open	Output	Trunk lid	Other than OPEN (Back door/Trunk lid open- er actuator is not activat- ed)	0 V	Μ
24* <sup>8</sup>	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V	Ν
(O)			Carpar		ON	12 V	1.4
					Turn signal switch OFF	0 V	-
25 (LG)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 1 s 0 FKID0926E	P
					ON	6.5 V	
30 (R)	Ground	Luggage room/Trunk room lamp	Output	Luggage room/ Trunk room	ON	0 V	
(13)				lamp	OFF	12 V	

## < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description			<b>2</b>	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
34	Ground	Luggage room/Trunk	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)		room antenna (-)			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	Luggage room/Trunk	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment witch	(V) 15 0 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 5 0 1 s 10 1 s 10 10 10 10 10 10 10 10 10 10 10 10 10
(R)	Ground	room antenna (+)		OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1
38	Ground	nd Rear bumper anten- na (–)	Output	When the back door/trunk lid door request switch is oper- ated with igni- tion switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 5 0 1 s JMKIA0062GB
(B)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 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 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

#### < ECU DIAGNOSIS INFORMATION >

(Wire color)     Input/ Output     Condition	Value (Approx.)	A
39 Ground Rear bumper anten- Output Output Output When Intelligent Key is in the antenna detection area When the back door request	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(W) Ground (+) Output 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 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 10 5 0 15 15 10 5 0 15 10 10 10 10 10 10 10 10 10 10 10 10 10	E
47 Ground Ignition relay (IPDM Output Ignition switch OFF or ACC	12 V	G
(V) Ground E/R) control Output Ignition switch ON	0 V	
Ignition switch ON (A/T mod-	12 V	Н
52 Ground Starter relay control Output els) When selector lever is not in P or N position	0 V	I
(SB) Ground Statter relay control Output Ignition switch ON (M/T mod-	Battery voltage	I
els) When the clutch pedal is not depressed	0 V	J
60 Cround Push-button ignition Input Push-button ig- Pressed	0 V	
(BR) Ground Switch (Push switch) Input nition switch (push switch) Not pressed	Battery voltage	PW
61 (W)     Ground     Back door/Trunk Lid door request switch     Input     Back door/ Trunk lid door request switch     ON (Pressed)       0     OFF (Not pressed)	0 V (V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	L M
64 Cround Intelligent Key warn- Output Intelligent Key Sounding	0 V	
(G) Ground ing buzzer Output Output warning buzzer Not sounding	12 V	0
66 (R)GroundBack door/Trunk room lamp switchInputBack door/ Trunk room lamp switchOFF (Door close)	(V) 15 10 10 10 10 11.8 V	P

#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
67 (GR)	Ground	Back door/Trunk lid opener switch	Input	Back door/ Trunk lid open- er switch	Pressed Not pressed	0 V	
72	Ground Room antenna 2 (-) (Center console) Output Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 0 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15				
(L)		(Center console)	Cupu	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	
73	Ground	Ground Room antenna 2 (+) (Center console) Output	0.404	Ignition switch OFF	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 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 10 10 10 10 10 10 10 10 10 10 10	
(P)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 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 10 10 10 10 10 10 10 10 10 10 10	

#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description		Valua		Value	
(Wire +	color)	Signal name	Input/ Output	-	Condition	Value (Approx.)	A
74	Ground	Passenger door an-	Quatava	When the pas- senger door 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 15 15 15 15 15 15 15 15 15 15 15	B C D
(SB)	Ground	tenna (-)	Output	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	E
75	Ground	Passenger door an- tenna (+)	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 0 15 0 15 0 15 0 15 0 15 0 15 0 1	G H I
(BR)	Clound				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	J PWC
76	Ground Driver door antenna (-)	Driver door antenna		When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 0 15 0 15 0 1	M
(V)		Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 0 15 0 15 0 15 0 15 10 15 10 10 10 10 10 10 10 10 10 10 10 10 10	P	

## < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
77	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 1 s JMKIA0062GB	
(LG)		(+)		switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 0 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 10 10 10 10 10 10 10 10 10 10 10	
78* <sup>2</sup>	Ground	ound Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 0 15 0 15 0 15 0 15 0 15	
(L)					When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	
79* <sup>2</sup>	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	
(R)	Ground	d (Instrument panel) Ó	Culput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	

#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description		Value		Value
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	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.
81 (W)	Ground	NATS antenna amp.	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 ON	0 V 12 V
83	Ground	Remote keyless entry receiver (front) com-	Input/	During waiting		(V) 15 0 0 10 0 10 0 10 0 10 10 10 10 10 10 10
(GR)	Glound	munication	Output	ut	either button on the Intelli-	(V) 15 10 5 0 1 ms JMKIA0065GB
87 (BR) Ground		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0041GB 1.4 V
	Ground				Rear fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0038GB 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 0 2 ms JPMIA0040GB 1.3 V

#### < ECU DIAGNOSIS INFORMATION >

	Terminal No. Descripti					Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
				Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	
88	Ground	Combination switch INPUT 3			Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	
(V)					Lighting switch 2ND (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 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	
90 (P)	Ground	CAN-L	Input/ Output		_	_	
91 (L)	Ground	CAN-H	Input/ Output		_	_	
92 (LG)	Ground	Key slot illumination	Output	Key slot illumi- nation	OFF Blinking	0 V (V) 15 10 0 15 0 15 0 15 0 0 15 0 0 0 0 0 0 0 0 0 0 0 0 0	
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	ON OFF (LOCK indicator is not illuminated) ON	12 V Battery voltage 0 V	

#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

	nal No. color)	Description				Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V	
(O)	Ground		Suipui		ACC or ON	12 V	
96* <sup>3</sup> (Y)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V	
		Selector lever P posi-		O a la atau la van	P position	0 V	
		tion switch (A/T mod- els)		Selector lever	Any position other than P	12 V	
99* <sup>6</sup> (R) Ground	Clutch pedal position switch (M/T models	Input	Clutch pedal	OFF (Clutch pedal is de- pressed)	0 V		
	without SynchroRev Match mode)		position switch	ON (Clutch pedal is not depressed)	Battery voltage		
					ON (Pressed)	0 V	
100 (GR)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 0 0 10 10 ms JPMIA0016GB 1.0 V	
					ON (Pressed)	0 V	
101 (Y)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 10 ms JPMIA0016GB 1.0 V	
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V	
(O)	Cround	lay control	Supul		ON	12 V	
103 (LG)	Ground	Remote keyless entry receiver (front) power supply	Output	Ignition switch C	)FF	12 V	

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#### < ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value	
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	
		round Combination switch INPUT 1 Input	Input	ut (Wiper intermit- tent dial 4)	All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	
107 (LG)	Ground				Turn signal switch RH	(V) 15 0 0 2 ms JPMIA0036GB 1.3 V	
					Front wiper switch LO	(V) 15 0 0 2 ms JPMIA0038GB 1.3 V	
					Front washer switch ON	(V) 15 0 2 ms JPMIA0039GB 1.3 V	

#### < ECU DIAGNOSIS INFORMATION >

### [ROADSTER]

	Terminal No. Description (Wire color)				Value	^	
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)	A
		Combination switch INPUT 4		Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2.ms JPMIA0041GB 1.4 V	B C D
108	Ground				Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 0 2.ms JPMIA0038GB 1.3 V	E F
(R)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V	G H I
					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	J PWC

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#### < ECU DIAGNOSIS INFORMATION >

	Terminal No. Description (Wire color)				Value	
(Wire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V
					Lighting switch PASS	(V) 15 10 2 ms JPMIA0037GB 1.3 V
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V
					Front wiper switch HI	(V) 15 10 2 ms JPMIA0040GB 1.3 V
					ON	0 V
110 (P)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 0 10 ms JPMIA0012GB 1.1 V

#### < ECU DIAGNOSIS INFORMATION >

### [ROADSTER]

	nal No.	Description				Value
+	color) –	Signal name	Input/ Output		Condition	(Approx.)
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(O)	Ground		input	ON	When dark outside of the vehicle	Close to 0 V
114* <sup>4</sup>	Ground	Clutch interlock	Input	Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V
(R)	Ground	switch	input	switch	ON (Clutch pedal is de- pressed)	Battery voltage
115* <sup>9</sup> (O)	_	_			_	_
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage
118	Ground	Stop lamp switch 2	Input	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(P)	Ground	Stop lamp Switch 2	input	switch	ON (Brake pedal is de- pressed)	Battery voltage
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 10 ms JD ms JD MIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121	Ground	Key slot switch	Innut	When the Intellig	gent Key is inserted into key	12 V
(R)	Ground	Rey Slot Switch	Input	When the Intellig key slot	gent Key is not inserted into	0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
(**)					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V
					ON (Door open)	0 V

## < ECU DIAGNOSIS INFORMATION >

Termin		Description				Value
(Wire +	- color)	Signal name	Input/ Output		Condition	(Approx.)
129* <sup>2</sup> (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V
					ON	0 V
130* <sup>7</sup> (L)	Ground	Rear window defog- ger switch	Input	Ignition switch ON	Rear window defogger switch OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
132 (Y)* <sup>1</sup> (V)* <sup>2</sup>	Ground	Power window switch and soft top control unit communication	Input/ Output	Ignition switch C	N	(V) 15 10 5 0 10 ms JPMIA0013GB 10.2 V
				Ignition switch C	OFF or ACC	12 V
133 (G)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps OFF) ON (Tail lamps ON)	9.5 V NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level. (V) 15 10 5 0 JPMIA0159GB
					OFF	O V
134	0		0.1.7	LOCK indicator	OFF	Battery voltage
(GR)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V
(V)		power supply		-	ACC or ON	5.0 V

#### < ECU DIAGNOSIS INFORMATION >

Imput/ Condition       Condition       (Approx.)         i       -       Signal name       Input/ Output       Uning waiting       (Approx.)         139       Ground       Tre pressure receiv- er communication       Input/ Input/ er communication       Input/ OFF       During waiting       Imput/ Precover receiv- communication       Imput/ Precover receiv- communication       Imput/ Precover receiv- communication       Imput/ Precover receiv- communication       Imput/ Precover receiv- communication       Imput/ Precover receiv- recover receiv- fion       Imput/ Precover receiv- recover receiv- recover receiv- receiver receiv- receiver receiv- munication       Imput/ Precover receiv- receiver receiv- receiver receiv- receiver receiv- receiver receiv- receiver receiv- munication       Imput/ Precover receiver Precover receiver Precover Precover Precover receiver Precover Precover Precover Pr		nal No.	Description				Value
$ \begin{array}{ c c c c c } & \mbox{First pressure receiv} \\ \mbox{Input} \\ \mbox{(I)} \\ \mbox{(I)} \\ \mbox{First pressure receiv} \\ \mbox{(I)} \\$	-		Signal name			Condition	
139 L)     Ground     Tire pressure receiv- er communication     Input/ Output     Input/ Events     When operating either button on the Intelligent     Imput/ Imput/ Imput/ Standby state       139 L)     Ground     Tire pressure receiv- er communication     Input/ Output     Standby state     Imput/ Imp					OFF	During waiting	15 10 5 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1
$ \begin{array}{ c c c c c } \hline \begin{tabular}{ c c c c c } \hline \begin{tabular}{ c c c c c c } \hline \begin{tabular}{ c c c c c c c } \hline \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$		Ground			less entry re- ceiver communica-	button on the Intelligent	15 10 5 0 0 
140*5     Ground     Selector lever P/N position (A/T models)     Nem receiving the signal from the transmitter     P or N position     12 V       140*5     Ground     Park/neutral position switch (Coupe M/T models)     Input     Selector lever in neutral position     0 V       140*5     Ground     Park/neutral position (A/T models)     Input     Selector lever in neutral position     0 V       140*5     Ground     Selector lever P/N position (A/T models)     Input     Selector lever     P or N position     0 V       140*5     Ground     Security indicator models     Input     Selector lever     Ontrol lever in neutral position     0 V       141     (Y)     Ground     Security indicator lamp     Output     Security indica- tor lamp     ON     0 V       141     (Y)     Ground     Security indicator lamp     Output     Security indica- tor lamp     ON     0 V					ON	Standby state	4 2 0 • • • 0.2s
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					receiver com-		6 4 2 0 • • • 0.2s
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $					Soloctor lovor	P or N position	12 V
(G)       Ground       Part/return position switch (Coupe M/T models with Synchro- Rev Match mode)       Input Ignition switch ON       Ignition switch ON       Stion       Battery voltage         141 (Y)       Ground       Security indicator lamp       Output       Security indica- tor lamp       ON       OV         141 (Y)       Ground       Security indicator lamp       Output       Security indica- tor lamp       Blinking       Imput Imp			position (A/T models)			Except P and N positions	0 V
Image: models with Synchro- Rev Match mode)     ON     Control lever in any posi- tion other than neutral     0 V       141 (Y)     Ground     Security indicator lamp     Output     Security indica- tor lamp     Blinking     Image: Control lever in any posi- tion other than neutral     0 V		Ground	switch (Coupe M/T	Input			Battery voltage
141 (Y) Ground Security indicator lamp Output Security indica- tor lamp Blinking Blinking JPMIA0014GB			models with Synchro- Rev Match mode)		ON		0 V
141 (Y)     Ground     Security indicator lamp     Output     Security indica- tor lamp     Blinking       141 (Y)     Ground     Security indica- tor lamp     Blinking						ON	0 V
		Ground		Output		Blinking	10 5 0 1 s JPMIA0014GB
						OFF	12 V

#### < ECU DIAGNOSIS INFORMATION >

(Mire color)         Signal name         Input/ Output         Condition         Condition         (All switches OFF         0 V           142 (C)         Ground         Combination switch OUTPUT 5         Output         Combination (Wiper intermitted initial 4)         All switches OFF         0 V           143 (P)         Ground         Combination switch OUTPUT 5         Output         Combination (Wiper intermitted initial 4)         All switches OFF         0 V           143 (P)         Ground         Combination switch OUTPUT 1         Output         Combination switch         All switches OFF         0 V           144 (G)         Ground         Combination switch OUTPUT 1         Output         Combination switch         All switches OFF         0 V           144 (G)         Ground         Combination switch         Output         Combination switch         All switches OFF         0 V           144 (G)         Ground         Combination switch         Output         Combination switch         All switches OFF         0 V           145 (L)         Ground         Combination switch         Output         Combination switch         All switches OFF         0 V           146 (L)         Ground         Combination switch         Output         Combination switch         All switches OFF         0 V		Terminal No. Description				Value	
142 (b)     Ground     Combination switch OUTPUT 5     Duput     Combination switch (Wper intermittent dial 4)     Lighting switch 1ST Lighting switch 2ND     Vite switch Turn signal switch RH       14.3 (P)     Ground     Combination switch OUTPUT 1     Au     All switches OFF (Wper intermittent dial 4)     0.V       14.3 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     All switches OFF (Wper intermittent dial 4)     0.V       14.4 (G)     Ground     Combination switch OUTPUT 1     Output     Combination switch     All switches OFF (Wper intermittent dial 4)     0.V       14.4 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     All switches OFF (Wper intermittent dial 4)     0.V       14.4 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0.V       14.5 (L)     Ground     Combination switch OUTPUT 2     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0.V       14.5 (L)     Ground     Combination switch OUTPUT 3     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0.V       14.5 (L)     Ground     Combination switch OUTPUT 3     Output     Combination switch     Combination switch     All switches OFF (Wiper intermittent dial 5)	,	,	Signal name			Condition	
14.2 (O)     Ground     Combination switch OUTPUT 5     Combination Switch OUTPUT 5     Combination Switch OUTPUT 5     Lighting switch HH Lighting switch 2ND     Ivit File Switch Turn signal switch RH     Ivit Switch Turn signal switch RH       14.3 (P)     Ground     Combination switch OUTPUT 1     Au     All switches OFF (Wiper intermittent dial 4)     0 V       14.3 (P)     Ground     Combination switch OUTPUT 1     Output     Combination Switch     Combination switch Wiper intermittent dial 4)     0 V       14.4 (P)     Ground     Combination switch OUTPUT 1     Output     Combination Switch     Combination switch Wiper intermittent dial 4)     0 V       14.4 (P)     Ground     Combination switch OUTPUT 2     Output     Combination Switch     Combination switch Wiper intermittent dial 4)     0 V       14.4 (S)     Ground     Combination switch OUTPUT 2     Output     Combination Switch     Combination Switch     Combination Switch     Combination Switch     Combination Switch     All switches OFF Wiper intermittent dial 4)     0 V       14.5 (L)     Ground     Combination switch OUTPUT 3     Output     Combination Switch     Combination Switch     All switches OFF Wiper intermittent dial 4)     0 V       14.5 (L)     Ground     Combination switch (U)     Output     Combination Switch     All switches OFF Wiper intermittent dial 4)     Viper intermittent dial 4) </td <td></td> <td></td> <td></td> <td></td> <td></td> <td>All switches OFF</td> <td>0 V</td>						All switches OFF	0 V
142 (0)       Ground       Combination switch OUTPUT 5       Output       Switch witch itent dial 4)       Lighting switch 2ND       Image: Switch						Lighting switch 1ST	
142 (0)       Ground       Combination switch OUTPUT 5       Output       Switch witch itent dial 4)       Lighting switch 2ND       Image: Switch					Combination	Lighting switch HI	(V) 15
(0)       Second OUTPUT 5       OUTPUT 5       Output       (Wiper intermittent dial 4)       Turn signal switch RH       Image: space of the system of the		Ground		Output	switch	Lighting switch 2ND	
143     Ground     Combination switch (P)     Output     Output     Combination switch     Output     All switches OFF (Wiper intermittent dial 4)     0 V       143     Ground     Combination switch (OUTPUT 1     Output     Combination switch     Combination switch (Wiper intermittent dial 4)     0 V       144     Ground     Combination switch (G)     Output 1     Output     Combination switch     Forth washer switch All (Wiper intermittent dial 4)     (V)       144     Ground     Combination switch (U) PUT 2     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     0 V       145     Ground     Combination switch (U) PUT 2     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     (V)       146     Ground     Combination switch (U) PUT 3     Output     Combination switch     All switches OFF (Wiper intermittent dial 4)     (V)       146     Ground     Combination switch (U) PUT 3     Output     Combination switch (U) PUT 4     All switches OFF (U) Pur intermittent dial 4)     (V)       146     Ground     Combination switch (U) Pur 4     Output     Combination switch (U) Pur 4     All switches OFF (U) Pur 4     OV       146     Ground     Combination switch (U) Pur 4     Output     Combination switch (U) Pur 4     All switches OFF (U) Pur 4     OV    <	(O)	Ground	OUTPUT 5	Output			Ŏ
143     Ground     Combination switch OUTPUT 1     Output     Combination switch     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       143     Ground     Combination switch OUTPUT 1     Output     Combination switch     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       144     Ground     Combination switch OUTPUT 2     Output     Combination switch     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       144     Ground     Combination switch OUTPUT 2     Output     Combination switch     Combination Switch     Combination Switch     Image: Switch NI (Wiper intermittent dial 4)     0 V       145     Ground     Combination switch OUTPUT 3     Output     Combination Switch     Combination Switch     Combination Switch     Image: Switch NI (Wiper intermittent dial 4)     Image: Switch NI (Wiper intermittent dial 5)       145     Ground     Combination switch OUTPUT 3     Output     Combination Switch Output     Combination Switch Output     Combination Switch Output     All switches OFF (Wiper intermittent dial 4)     Image: Switch NI (Wiper intermittent dial 4)       146     Ground     Combination Switch OUTPUT 4     Output     Combination Switch Output     Combination Switch Output     Combination Switch Output     Image: Switch NI (Wiper intermittent dial 4)     Image: Switch NI (SB)						Turn signal switch RH	
143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination Switch     Combination switch Output     All switches OFF (Wiper intermittent dial 2)     0 V       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       145 (L)     Ground     Combination switch OUTPUT 3     Output     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       145 (L)     Ground     Combination switch OUTPUT 3     Output     Combination Switch     All switches OFF (Wiper intermittent dial 4)     0 V       146 (SB)     Ground     Combination switch OUTPUT 3     Output     Combination Switch (Wiper intermittent dial 4)     All switches OFF Forti wiper switch INT Front wiper switch INT Forti wiper switch ON (Wiper intermittent dial 4)     Image: Switch AUTO Switch (Wiper intermittent dial 4)       146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination							JPMIA0031GB
143 (P)     Ground     Combination switch OUTPUT 1     Output     Combination switch     Combination switch     Combination Switch     Front wiper switch HI (Wiper intermittent dial 4)     V       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination switch     Combination switch Output     Any of the conditions be- low with all switches OFF (Wiper intermittent dial 2)     V       144 (G)     Ground     Combination switch OUTPUT 2     Output     Combination Switch     Combination switch Output     Combination switch Output     Combination switch Output     Output     Combination switch Output     All switches OFF (Wiper intermittent dial 4)     V       145 (L)     Ground     Combination switch OUTPUT 2     Output     Combination switch Output     Combination switch Output     Combination switch Output     All switches OFF (Wiper intermittent dial 4)     V       145 (L)     Ground     Combination switch OUTPUT 3     Output     Combination switch Output     Combination switch Output     All switches OFF (Viper intermittent dial 4)     V       146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination Switch Wiper intermittent dial 4)     All switches OFF (Viper intermittent dial 4)     V       146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination Switch Wiper intermittent dial 4)     All switches OFF     Ov							10.7 V
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Front wiper switch HI (Wiper intermittent dial 2 • Wiper intermittent dial 2 • Wiper intermittent dial 2 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 4 • Wiper intermittent dial 5 • Wiper intermittent dial 6 • Wiper intermittent dial 7 • Wiper intermittent dial 6 • Wiper intermittent dial 7 • Wiper intermittent dial 7 • Wiper intermittent dial 6 • Wiper intermittent dial 7 • Wiper intermittent dial 7 • Wiper intermittent dial 6 • Wiper intermittent dial 7 • Wiper intermittent dial 6 • Wiper intermittentent dial 6 • Wiper intermittent dial 6 • Uiper intermittent dial 6							0 V
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Combination switch       My of the conditions be- tow with all switches OFF (Wiper intermittent dial 1 : Wiper intermittent dial 3 : Wiper intermittent dial 4)       Image: Combination switch (Wiper intermittent dial 4)         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       0.V         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination sb switch       All switches OFF (Wiper intermittent dial 4)       0.V         145 (L)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch Output       Combination switch       All switches OFF (Wiper intermittent dial 5)       0.V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF (Wiper intermittent dial 5)       0.V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermittent dial 4)       Image: Combination switch (Wiper intermitt							
143 (P)       Ground       Combination switch OUTPUT 1       Output       Combination switch       Any of the conditions be- low with all switches OFF · Wiper intermittent dial 2 · Wiper intermittent dial 3 · Wiper intermittent dial 4 · Wiper intermittent dial 4 · Wiper intermittent dial 4       0 V         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       All switches OFF · Wiper intermittent dial 4       0 V         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination sbe- low with all switches OFF · Wiper intermittent dial 4       0 V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch OUtput       All switches OFF · Wiper intermittent dial 5       0 V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermittent dial 5       All switches OFF · OV       0 V         146 (SB)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermittent tent dial 4)       All switches OFF · OV       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch itent dial 4)       All switches OFF · OUTPUT 4       0 V							(V)
(r) OUTPUT 1 OUTPUT 1 OUTPUT 1 OUTPUT 1 OUTPUT 2 SWICH OUTPUT 2 OU		Ground		Output			
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       0 V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       V)       Image: Combination switch OUTPUT 3       Image: Combination switch OUTPUT 4       Image: Combination switch CO Lighting switch AUTO       Image: Combination switch OUTPUT 4       Image: Combination switch OUTPUT 4       Image: Combination switch CO Lighting switch CN       Image: Combination switch CO Lighting switch CN       Image: Combination switch ON       Image: Combination switch CO Lighting switch CN       Image: Combination switch CO Lighting switch CN       Image: Combination switch CN	(P)		OUIPUI 1		switch		
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Output       Combination switch       All switches OFF (Wiper intermittent dial 4)       0.V         144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       All switches OFF (Wiper intermittent dial 4)       0.V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch       All switches OFF (Wiper intermittent dial 4)       () () () () () () () () () () () () () (						Wiper intermittent dial 2	
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       C							
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination Switch       Combination Switch       Image: Combination Switch Output       Combination Switch Output       Combination Switch Switch       Combination Switch Output       Combination Switch       Combination Switch       Combination Switch Output       Combination Switch       Combination							10.7 V
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Any of the conditions be low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 1 • Wiper intermittent dial 5       Image: Combination switch 0.0.7 V         145 (L)       Ground       Combination switch 0UTPUT 3       Output       Combination switch       All switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5       Image: Combination 0.7 V         145 (L)       Ground       Combination switch 0UTPUT 3       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF • O V       O V         145 (L)       Ground       Combination switch 0UTPUT 3       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF • O V       O V         146 (SB)       Ground       Combination switch 0UTPUT 4       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF • O V       O V         146 (SB)       Ground       Combination switch 0UTPUT 4       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF • O V       O V         146 (SB)       Ground       Combination switch 0UTPUT 4       Output       Combination switch (Wiper intermittent dial 4)       Turn signal switch LH       Image: Combination switch CH							0 V
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Combination switch       Any of the conditions be low with all switches OFF • Wiper intermittent dial 4       (V)         145 (L)       Ground       Combination switch OUTPUT 3       Any of the conditions be low with all switches OFF • Wiper intermittent dial 5       0         145 (L)       Ground       Combination switch OUTPUT 3       Any of the conditions be low with all switches OFF • Wiper intermittent dial 6       0         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermittent dial 4)       All switches OFF • Font wiper switch INT Front wiper switch INT Front wiper switch ON       Image: Second Se						· · · /	
144 (G)       Ground       Combination switch OUTPUT 2       Output       Combination switch       Any of the conditions be- low with all switches OFF       Image: Combination switch         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Any of the conditions be- low with all switches OFF       Image: Combination switch         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       All switches OFF       0 V         145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch       Combination switch       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch       Rear fog lamp switch ON       Image: Combination switch ON       Jean Addition Sub- switch       Jean Addition Sub- switch         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch       All switches OFF       0 V       Image: Combination Switch ON       Jean Addition Sub- switch       Jean Addition Sub- switch       Jean Addition Sub- switch       Image: Combination Switch ON       Jean Addition Sub- switch       Jean Addition Sub- Sub- Sub- Sub- Sub- Sub- Sub- Sub-							(V)
<ul> <li>(b) CONTRAL</li> <li>(c) CONT</li></ul>		Ground		Output	Combination		
145       Ground       Combination switch       Output       All switches OFF       0 V         145       Ground       Combination switch       Combination switch       Image: Combinatio	(G)	Cround	OUTPUT 2	ouput	switch		
145       Ground       Combination switch (L)       Output       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V         145       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper intermit- tent dial 4)       Front wiper switch INT       Front wiper switch LO         146       Ground       Combination switch OUTPUT 4       Output       Marcon       Rear fog lamp switch ON       Image: Specific s						• Wiper intermittent dial 1	
145       Ground       Combination switch OUTPUT 3       All switches OFF       0 V         145       Ground       Combination switch OUTPUT 3       Output       Front wiper switch LO       Ighting switch AUTO         146       Ground       Combination switch OUTPUT 3       Rear fog lamp switch ON       10.7 V         146       Ground       Combination switch OUTPUT 3       All switches OFF       0 V         146       Combination switch OUTPUT 3       All switches OFF       0 V         146       Ground       Combination switch OUTPUT 4       All switches OFF       0 V         146       Ground       Combination switch OUTPUT 4       Turn signal switch LH       Ighting switch LH							
145       Ground       Combination switch       Output       Combination switch       Combination switch LO       Front wiper switch LO       Lighting switch AUTO         145       (L)       Ground       Output 3       Output       Combination switch (Wiper intermittent dial 4)       Rear fog lamp switch ON       Image: Combination switch (Wiper intermittent dial 4)         146       (SB)       Ground       Combination switch OUTPUT 4       Output       Output       All switches OFF       0 V         Lighting switch PASS       Image: Combination switch (Wiper intermittent dial 4)       Combination switch (Wiper intermittent dial 4)       Image: Combination switch (Wiper intermi							
145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper internit- tent dial 4)       Front wiper switch LO Lighting switch AUTO       Image: Combination switch (Wiper internit- tent dial 4)         146 (SB)       Ground       Combination switch OUTPUT 4       Output       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper internit- tent dial 4)       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper internit- tent dial 4)       Turn signal switch LH       Image: Combination system LH						All switches OFF	0 V
145 (L)       Ground       Combination switch OUTPUT 3       Output       Combination switch (Wiper internit- tent dial 4)       Lighting switch AUTO       15 10 0       Image: Combination switch (Wiper internit- tent dial 4)         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper internit- tent dial 4)       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper internit- tent dial 4)       Combination switch (Wiper internit- tent dial 4)       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper internit- tent dial 4)       Turn signal switch LH       Image: Combination Switch Shift							
(L) OUTPUT 3 (Wiper intermit- tent dial 4) Rear fog lamp switch ON Rear fog lamp switch ON Intermit- 2 ms JPMIA0034GB 10.7 V All switches OFF O V Lighting switch 2ND Lighting switch PASS OUTPUT 4 (V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0					Combination	•	15
146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination switch (Wiper intermit- tent dial 4)       All switches OFF       0 V		Ground		Output		Lighting switch AUTO	
146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       All switches OFF Lighting switch 2ND       0 V         146 (SB)       Ground       Combination switch OUTPUT 4       Output       Combination switch (Wiper intermit- tent dial 4)       Combination Turn signal switch LH       Image: Combination Switch LH	(Ľ)		0017013				
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     All switches OFF     0 V       146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch PASS     15 10 5 0     15 10 5 0						Rear fog lamp switch ON	
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     All switches OFF     0 V       146 (SB)     Ground     Combination OUTPUT 4     Combination switch (Wiper intermit- tent dial 4)     Combination Ighting switch PASS     0 V							
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch 2ND     Lighting switch 2ND       146 (SB)     Combination 50     Lighting switch PASS     Image: Combination 50     Image: Combination 50     Image: Combination 50     Image: Combination 50       146 (SB)     Combination (Wiper intermit- tent dial 4)     Image: Combination Turn signal switch LH     Image: Combination State     Image: Combination State						All switches OFF	
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Combination switch (Wiper intermit- tent dial 4)     Lighting switch PASS     (V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
146 (SB)     Ground     Combination switch OUTPUT 4     Output     Output     Switch (Wiper intermit- tent dial 4)     Turn signal switch LH     10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					Combination		
(SB) OUTPUT 4 (Wiper intermit- tent dial 4) Turn signal switch LH JPMIA0035GB	146	Cround	Combination switch	Output			
Turn signal switch LH	(SB)	Ground	OUTPUT 4		(Wiper intermit-		ŏ
JPMIA0035GB					tent dial 4)	Turn signal switch LH	
10.7 V							JPMIA0035GB
							10.7 V

#### < ECU DIAGNOSIS INFORMATION >

#### [ROADSTER]

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	nal No.	Description				Value	^
(VVire +	color)	Signal name	Input/ Output		Condition	(Approx.)	А
						(V) 15 10	В
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	5 0 10 ms	С
						JPMIA0011GB 11.8 V	D
					ON (Door open)	0 V	
151	Ground	Rear window defog-	Output	Rear window	Active	0 V	E
(G)	Giouna	ger relay control	Output	defogger	Not activated	Battery voltage	

\*1: Coupe models

\*2: Roadster models

\*3: A/T models

\*4: M/T models

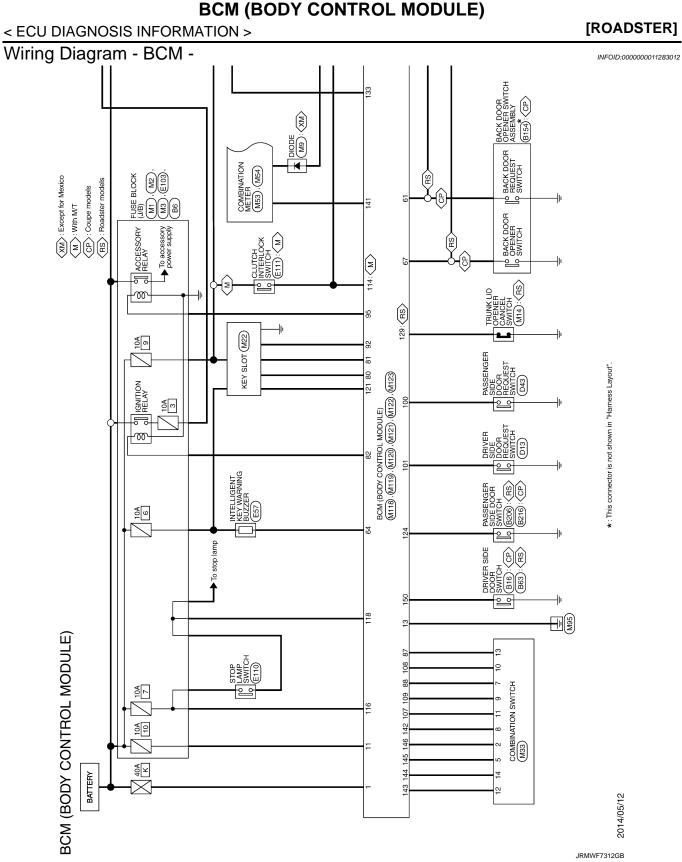
\*5: With A/T or coupe models with M/T and SynchroRev Match mode

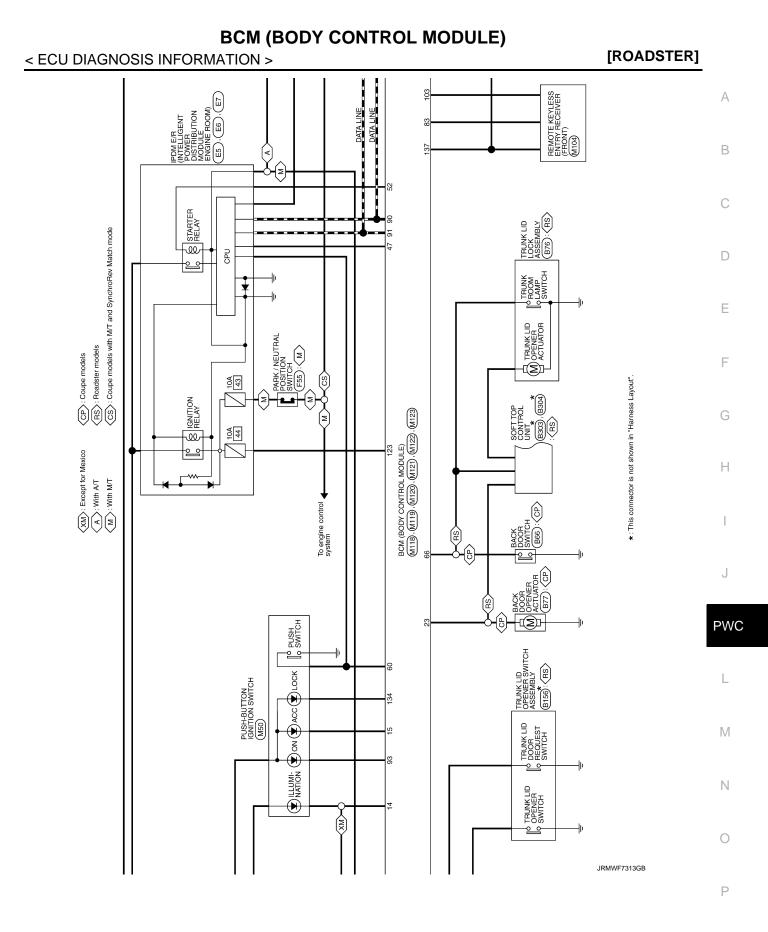
\*6: With A/T or with M/T without SynchroRev Match mode

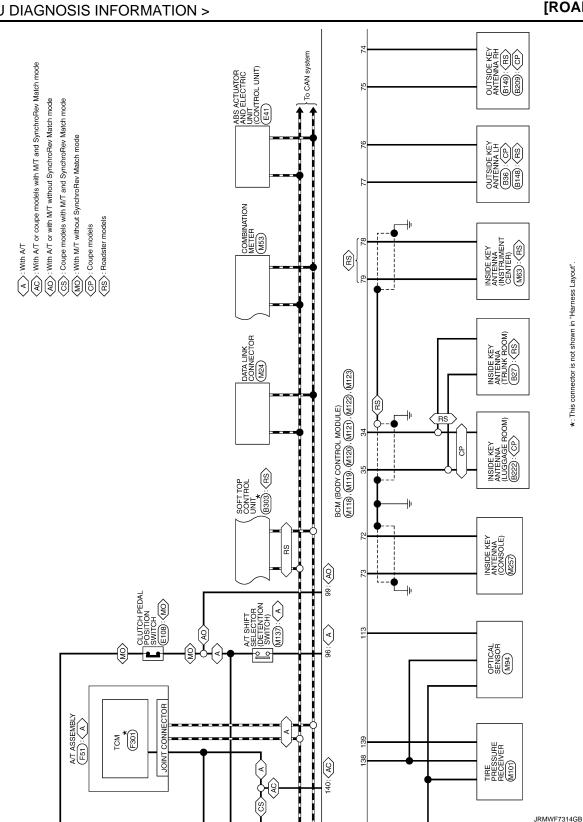
\*7: Without NAVI

\*8: With rear fog lamp

\*9: BCM does not use this terminal for control.



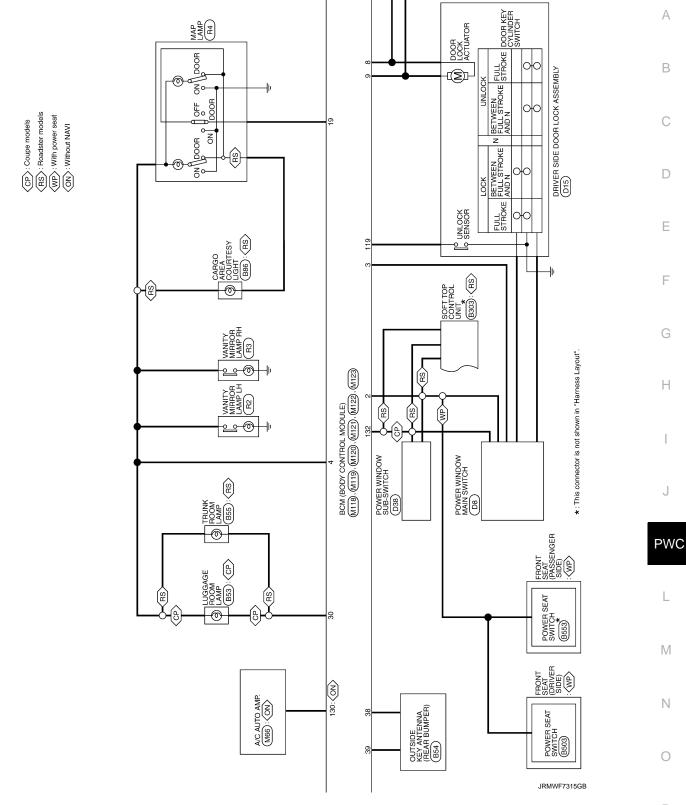




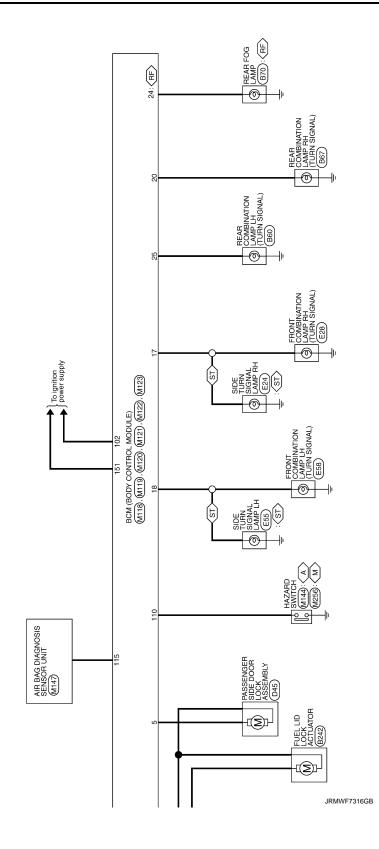
#### < ECU DIAGNOSIS INFORMATION >

### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



#### < ECU DIAGNOSIS INFORMATION >



A : With A/T
 With M/T
 M : With hear tog lamp
 S : With rear tog lamp

	А
OM LANP Mai Name (Specification) al Name (Sp	В
855 800	С
Connector No.     B65       Connector Name     TRUMK ROOM       Connector Name     TRUMK ROOM       Terminal     SuzzFu       No.     Wire       No.     Wire       No.     Wire       No.     Wire       No.     B60       Connector Name     REAR COMBI       Terminal     Color Of       Signal     B0       Connector Name     REAR COMBI       No.     Wire       No.     Mine       No.     B0       One of Bio     Signal       No.     Mine       No.     B1       Signal     Signal       B     Signal	D
	E
B63     LucoAcE FOOM LAMP       LucoAcE FOOM LAMP     LucoAcE FOOM LAMP       Signal Name (Specification)     -       Signal Name (Specification)     -       Signal Name (Specification)     -	F
Connector No.     B63       Connector Name     LUGGAGE       Connector Name     LUGGAGE       Connector Name     LUGGAGE       No.     Wire       No.     Wire       No.     BFA       Connector Name     B54       Connector Name     LUGGAGE	G
KEY AVTENNA (TRUNK ROOM) Syn De KEY AVTENNA (TRUNK ROOM) Synal Name [Specification] Signal Name [Specification] 	I
B27 B38 COTSIC B38 COTSIC B38	J
Connector No.     B27       Connector Name     NSIDE KE       Connector Name     NSIDE KE       Connector Name     NSIDE KE       No.     Write       No.     Write       State     Connector Name       No.     Write       No.     B36       Connector Name     OUTSIDE       No.     B36       Connector Name     OUTSIDE       No.     Write       No.     Write       No.     Write       No.     Write       No.     Write       No.     Nore       No.     Nore       No.     Nore       No.     Nore       No.     Nore       Nore     State	PW0
L MODULE)	L
BCM (BODY CONTROL MODULE) Connector Name IUSE BLOCK (JUB) Connector Name IUSE BLOCK (JUB) Connector Name Resize RLOCK (JUB) Connector Name Specification Name Specification Name Specification Connector Name Parvers SIDE DOOR SMITCH Connector Name Parvers SIDE DOOR SMITCH Connector Name Specification Connector Name Specification	Μ
BCM (BOD connector Name Connector Name Connector Name H.S. H.S. Connector Name Connector Name Connecto	Ν

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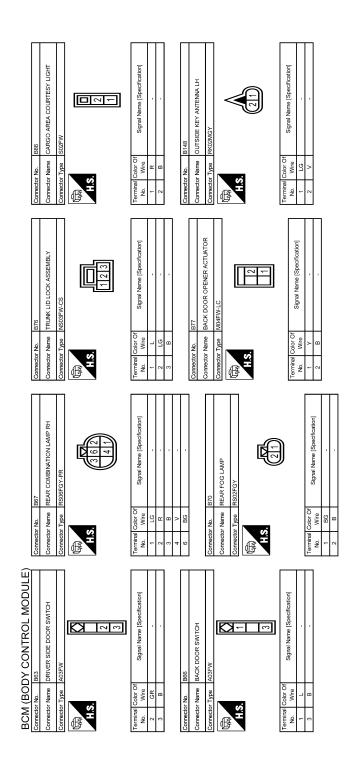
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# **BCM (BODY CONTROL MODULE)**

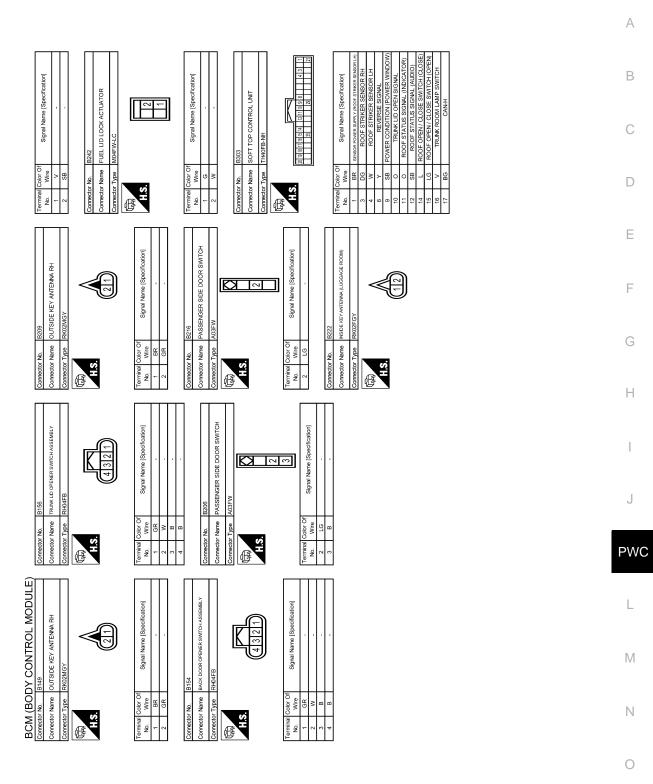
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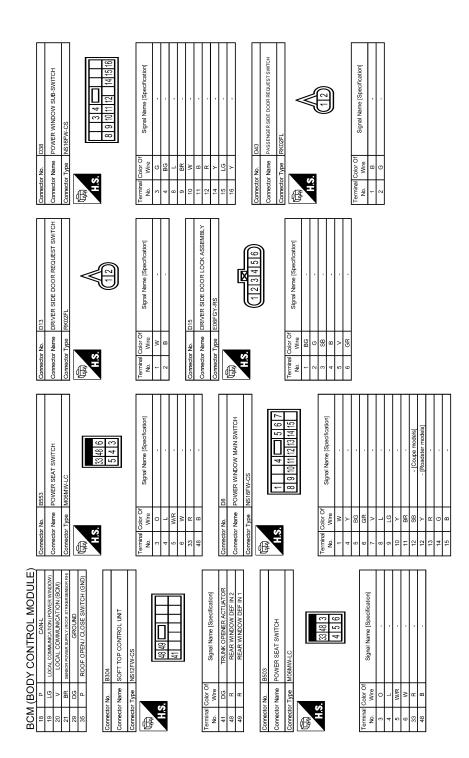
[ROADSTER]



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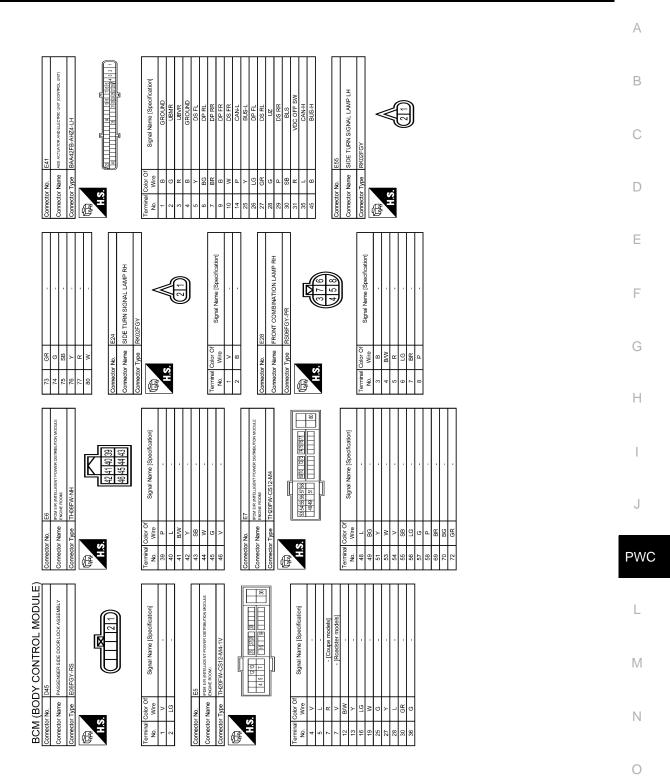
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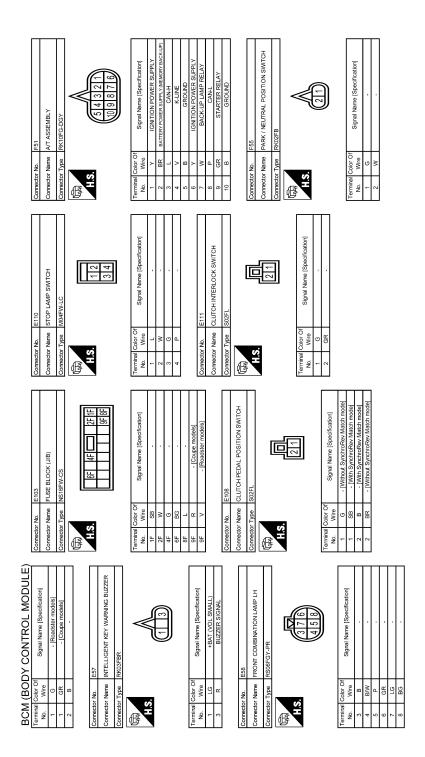
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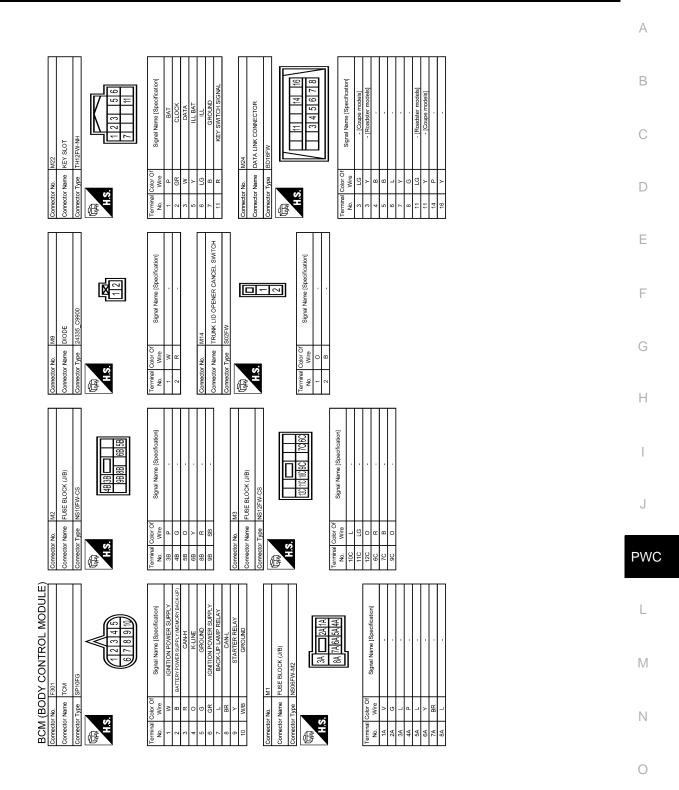
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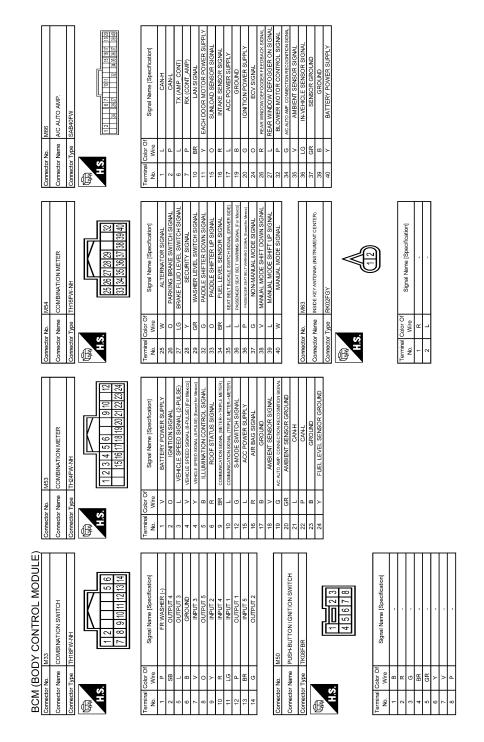
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#### [ROADSTER]



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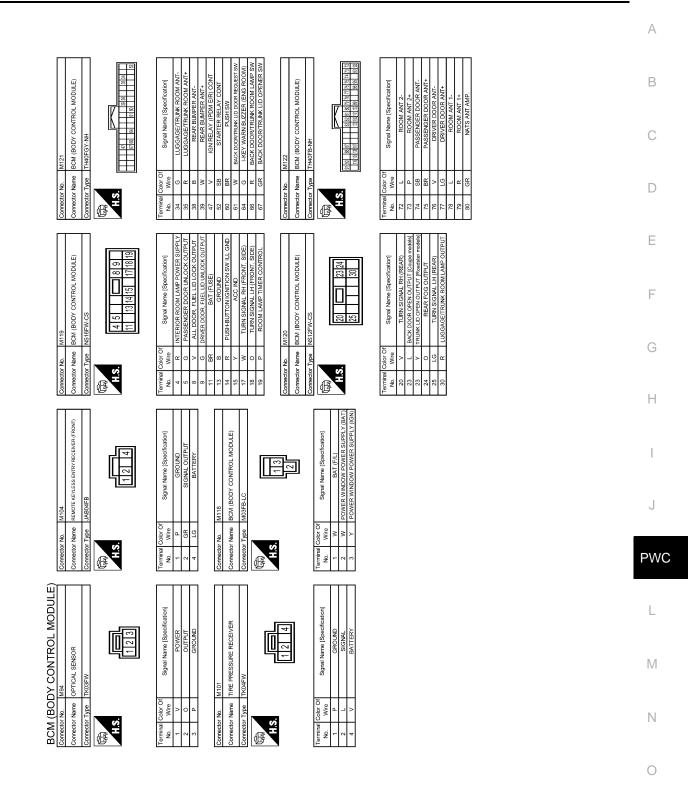
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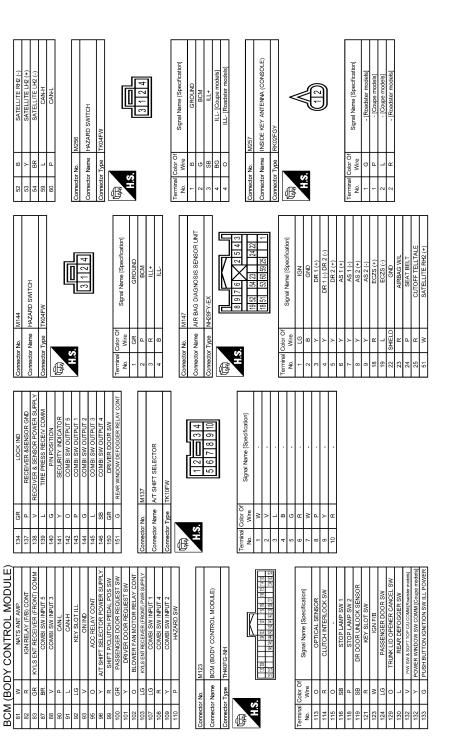
# Revision: 2014 September

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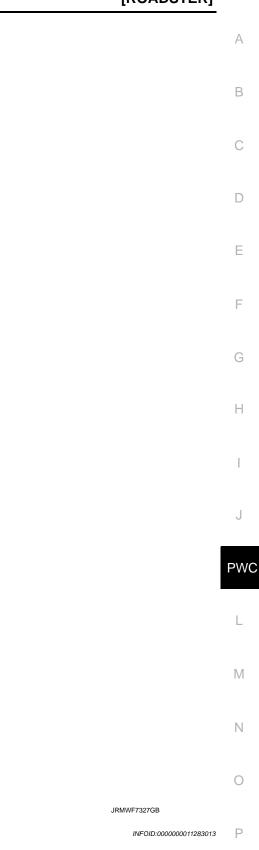
[ROADSTER]



JRMWF7325GB



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## Fail-safe

#### FAIL-SAFE CONTROL BY DTC

BCM (BODY CONTROL MODULE)

VANITY MIRROR LAMP LH

onnector Name

innector Type

ß

MAP LAMP

ector Name

H.S.

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

Signal Name [Specificatio

Signal Name [Specification]

Wire

VANITY MIRROR LAMP RH

R

innector No.

fication

Signal Name [Speci

#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

Display contents of CONSULT	Fail-safe	Cancellation
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 $ON \rightarrow OFF$
B2560: STARTER CONT RELAY	Inhibit engine cranking	<ul><li>500 ms after the following CAN signal communication status becomes consistent</li><li>Starter control relay signal</li><li>Starter relay status signal</li></ul>
B2608: STARTER RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following signal communication status becomes consistent</li> <li>Starter motor relay control signal</li> <li>Starter relay status signal (CAN)</li> </ul>
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	<ul><li>When any of the following conditions are fulfilled</li><li>Power position changes to ACC</li><li>Receives engine status signal (CAN)</li></ul>
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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	<ul> <li>When any of the following BCM recognition conditions are fulfilled</li> <li>Status 1</li> <li>Clutch switch signal (CAN from ECM): ON</li> <li>Clutch interlock switch signal: OFF (0 V)</li> <li>Status 2</li> <li>Clutch switch signal (CAN from ECM): OFF</li> <li>Clutch interlock switch signal: ON (Battery voltage)</li> </ul>

### DTC Inspection Priority Chart

INFOID:000000011283014

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

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

## **BCM (BODY CONTROL MODULE)**

# < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

Priority	DTC	
	B2553: IGNITION RELAY	
	• B2555: STOP LAMP	
	B2556: PUSH-BTN IGN SW	
	B2557: VEHICLE SPEED	
	B2560: STARTER CONT RELAY	
	B2601: SHIFT POSITION	
	B2602: SHIFT POSITION	
	B2603: SHIFT POSI STATUS	
	• B2604: PNP SW	
	• B2605: PNP SW	
	B2608: STARTER RELAY	
4	B260A: IGNITION RELAY	
4	B260F: ENG STATE SIG LOST	
	• B2614: BCM	
	• B2615: BCM	
	• B2616: BCM	
	• B2617: BCM	
	• B2618: BCM	
	B261A: PUSH-BTN IGN SW	
	B261E: VEHICLE TYPE	
	B26E8: CLUTCH SW	
	B26EA: KEY REGISTRATION	
	C1729: VHCL SPEED SIG ERR	
	U0415: VEHICLE SPEED SIG	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	C1708: [NO DATA] FL     C1709: [NO DATA] FB	
5	C1709: [NO DATA] FR     C1710: [NO DATA] PR	
5	<ul> <li>C1710: [NO DATA] RR</li> <li>C1711: [NO DATA] RL</li> </ul>	
	C1711: [NO DATA] KL     C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] 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-122, "COM-</u> N <u>MON ITEM : CONSULT Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference	O
No DTC is detected. further testing may be required.	_	_	_	_	_	
U1000: CAN COMM CIRCUIT	_	—		—	BCS-49	
U1010: CONTROL UNIT (CAN)	_	—	—	—	BCS-50	
U0415: VEHICLE SPEED SIG	_	—	—	—	BCS-51	

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## **BCM (BODY CONTROL MODULE)**

#### < ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference
B2190: NATS ANTENNA AMP	×			_	<u>SEC-42</u>
B2191: DIFFERENCE OF KEY	×				<u>SEC-45</u>
B2192: ID DISCORD BCM-ECM	×				<u>SEC-46</u>
B2193: CHAIN OF BCM-ECM	×				<u>SEC-48</u>
B2195: ANTI SCANNING	×			—	<u>SEC-49</u>
B2553: IGNITION RELAY		×			PCS-54
B2555: STOP LAMP	_	×			<u>SEC-50</u>
B2556: PUSH-BTN IGN SW		×	×	—	<u>SEC-52</u>
B2557: VEHICLE SPEED	×	×	×		<u>SEC-54</u>
B2560: STARTER CONT RELAY	×	×	×		<u>SEC-55</u>
B2562: LOW VOLTAGE		×	_	—	BCS-52
B2601: SHIFT POSITION	×	×	×		<u>SEC-56</u>
B2602: SHIFT POSITION	×	×	×		<u>SEC-59</u>
B2603: SHIFT POSI STATUS	×	×	×		<u>SEC-62</u>
B2604: PNP SW	×	×	×		<u>SEC-65</u>
B2605: PNP SW	×	×	×		<u>SEC-67</u>
B2608: STARTER RELAY	×	×	×		<u>SEC-69</u>
B260A: IGNITION RELAY	×	×	×		PCS-56
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-71</u>
B2614: BCM	_	×	×		PCS-58
B2615: BCM	_	×	×		PCS-61
B2616: BCM	_	×	×		PCS-64
B2617: BCM	×	×	×	—	<u>SEC-75</u>
B2618: BCM	×	×	×	—	PCS-67
B261A: PUSH-BTN IGN SW	_	×	×		PCS-68
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	<u>SEC-78</u>
B2621: INSIDE ANTENNA		×		—	DLK-282
B2622: INSIDE ANTENNA		×	_	_	• <u>DLK-85</u> (Coupe) • <u>DLK-284</u> (Road- ster)
B2623: INSIDE ANTENNA	_	×		_	• <u>DLK-87</u> (Coupe) • <u>DLK-286</u> (Road- ster)
B26E8: CLUTCH SW	×	×	×		<u>SEC-72</u>
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)		<u>SEC-74</u>
C1704: LOW PRESSURE FL				×	
C1705: LOW PRESSURE FR	_	_		×	<u>WT-24</u>
C1706: LOW PRESSURE RR		—		×	<u>vv 1-2-4</u>
C1707: LOW PRESSURE RL	_			×	

## **BCM (BODY CONTROL MODULE)**

#### < ECU DIAGNOSIS INFORMATION >

## [ROADSTER]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condi- tion	Intelligent Key warning lamp ON	Tire pressure monitor warn- ing lamp ON	Reference	A
C1708: [NO DATA] FL	—	—	—	×		D
C1709: [NO DATA] FR	—	—	—	×	WT-26	
C1710: [NO DATA] RR	_	_		×	<u> <u>vv1-20</u></u>	С
C1711: [NO DATA] RL	—	_		×		
C1716: [PRESSDATA ERR] FL	_	_		×		
C1717: [PRESSDATA ERR] FR	_	_		×	WT-29	D
C1718: [PRESSDATA ERR] RR	—	_		×	<u>W1-25</u>	
C1719: [PRESSDATA ERR] RL	—	_		×		Е
C1729: VHCL SPEED SIG ERR	—	—	_	×	<u>WT-31</u>	
C1734: CONTROL UNIT	—	—	_	×	<u>WT-33</u>	_
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#### < ECU DIAGNOSIS INFORMATION >

SOFT TOP CONTROL UNIT

## **Reference Value**

[ROADSTER]

#### VALUES ON THE DIAGNOSIS TOOL

#### NOTE:

The following table includes information (items) inapplicable to this vehicle. For information (items) applicable to this vehicle, refer to CONSULT display items.

CONSULT MONITOR ITEM

Monitor Item		Condition	Status/Value
		Lock position	ON
ROOF LATCHED RH	State of roof lock is in roof	Other than above	OFF
	latch RH	Roof striker sensor RH circuit is open or short	NG
		Lock position	ON
ROOF LATCHED LH	State of roof lock is in roof	Other than above	OFF
	latch LH	Roof striker sensor LH circuit is open or short	NG
		Lock	ON
F/CENTER LOCK	State of roof latch cylinder	Other than above	OFF
		Roof latch lock sensor circuit is open or short	NG
		Soft top is close	ON
R/RAIL RAISED LH	State of roof drive cylinder	Other than above	OFF
	LH	Roof status sensor LH circuit is open or short	NG
		Soft top is close	ON
R/RAIL RAISED RH	State of roof drive cylinder	Other than above	OFF
R/RAIL RAISED RH	RH	Roof status sensor RH circuit is open or short	NG
		Soft top is open	ON
R/RAIL LOWERED	State of roof drive cylinder	Other than above	OFF
	LH	Roof status sensor LH circuit is open or short	NG
		5th bow is close	ON
5TH BOW LOWERED	State of 5th bow drive cylin-	Other than above	OFF
	der LH	5th bow status sensor LH circuit is open or short	NG
		5th bow is open	ON
5TH BOW RAISED	State of 5th bow drive cylin-	Other than above	OFF
	der RH	5th bow status sensor RH circuit is open or short	NG
		Storage lid is open	ON
S/LID OPEN LH	State of storage lid drive cyl-	Other than above	OFF
	inder LH	Storage lid status sensor LH circuit is open or short	NG
		Storage lid is open	ON
S/LID OPEN RH	State of storage lid drive cyl-	Other than above	OFF
	inder RH	Storage lid status sensor RH circuit is open or short	NG

#### < ECU DIAGNOSIS INFORMATION >

## [ROADSTER]

Monitor Item		Condition	Status/Value
		Storage lid is close	ON
S/LID CLOSE RH	State of storage lid drive cyl-	Other than above	OFF
	inder RH	Storage lid status sensor RH circuit is open or short	NG
		Unlock	ON
TH BOW LATCH OP	State of 5th bow latch cylin-	Other than above	OFF
	der	5th bow latch open sensor circuit is open or short	NG
		Operate	ON
SWITCHING VALVE 1	Operation of switching valve 1	Stop	OFF
		Switching valve 1 circuit is short	NG
		Operate	ON
WITCHING VALVE 2	Operation of switching valve 2	Stop	OFF
		Switching valve 2 circuit is short	NG
		Operate	ON
WITCHING VALVE 3	Operation of switching valve 3	Stop	OFF
	valve J	Switching valve 3 circuit is short	NG
		Operate	ON
WITCHING VALVE 4	Operation of switching valve 4	Stop	OFF
	Valve 4	Switching valve 4 circuit is short	NG
		Operate	ON
WITCHING VALVE 5	Operation of switching valve 5	Stop	OFF
	valve o	Switching valve 5 circuit is short	NG
		Turning clockwise	ON
UMP OUT (RH)	Operation of hydraulic	Other than above	OFF
	pump motor	Hydraulic pump motor (RH) circuit is short	NG
		Turning counterclockwise	ON
UMP OUT (LH)	Operation of hydraulic	Other than above	OFF
	pump motor	Hydraulic pump motor (LH) circuit is short	NG
		Lock	ON
	State of 5th bow latch cylin-	Other than above	OFF
TH BOW LATCH CL	der	5th bow latch close sensor circuit is open or short	NG
	State of roof open/close	OPEN operation is in operation	ON
OOF SW (OPEN)	switch	Other than above	OFF
	State of roof open/close	CLOSE operation is in operation	ON
OOF SW (CLOSE)	switch	Other than above	OFF
	<b>.</b>	R position	ON
HIFT R SIGNAL	Shift position	Other than R position	OFF
	Operation of trunk lid open-	OPEN operation is in operation	ON
RUNK OPEN OUT	er actuator	Other than above	OFF
	Thermo protection hydraulic	In non-operation	OK
HER PROTEC PUMP	pump	In operation	NG
	Thermo protection soft top	In non-operation	OK
HER PROTEC RCU	control unit	In operation	NG

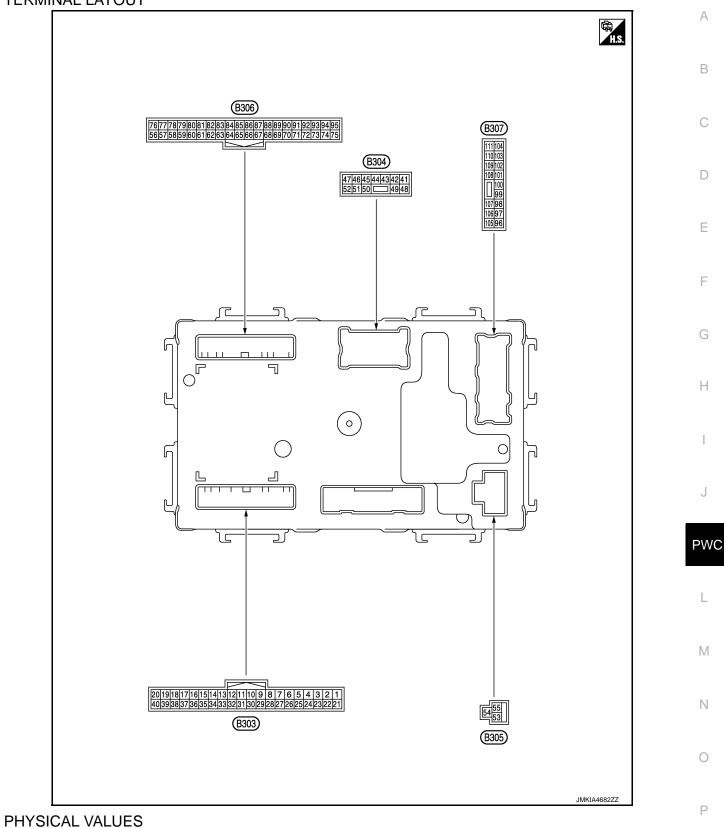
Revision: 2014 September

#### < ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Status/Value
PWR COND RCU	Power supply voltage state	Normal	OK
	of soft top control unit	Malfunction	NG
PWR COND P/W	Power supply voltage state	Normal	OK
	of power window	Malfunction	NG
		Normal	OK
LOCAL COMM 1	State of local communica- tion 1	It is in sleep mode	SLEEP
		Communication error	NG
		Normal	OK
LOCAL COMM 2	State of local communica- tion 2	It is in sleep mode	SLEEP
		Communication error	NG
REAR DEF OUT	Operation of rear window	Roof position is full close	OK
REAR DEF OUT	defogger	Other than above	NG
		5th bow striker is in 5th bow latch	ON
5BOW STRIK LATCH	State of 5th bow latch	Other than above	OFF
		5th bow striker sensor circuit is open or short	NG
P/W OP REQ SW SIG	State of request switch sig-	OPEN operation is in operation	ON
P/W OP REQ SW SIG	nal	Stop	OFF
PROHIBIT P/W UP	Prohibit of power window up	In operation	ON
	Prohibit of power window up	In non-operation	OFF
IGN ON SIG(BCM)	Power position signal	Ignition switch ON	ON
		Other than above	OFF
RF OP REQ SW SIG	State of request switch sig-	OPEN operation is in operation	ON
NF OF REQ 3W 310	nal	Stop	OFF

< ECU DIAGNOSIS INFORMATION >

**TERMINAL LAYOUT** 



#### < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		- Condition		Value
+	_	Signal name	Input/ Output			(Approx.)
1 (BR)	Ground	Sensor power supply (Roof striker sensor LH)	Output	[Engine is running]		12 V
3 (DG)	Ground	Roof striker sensor RH	Input	[Engine is running] <ul> <li>Roof lock assembly</li> </ul>	Hooked Released	0.8 V 3.0 V
4	Oraciand	Roof striker sensor	land	[Engine is running]	Hooked	0.8 V
(VV)	Ground	LH	Input	Roof lock assembly	Released	3.0 V
8				[Ignition switch: ON]	R position	Battery voltage
(Y)	Ground	Back up lamp signal	Input	Shift position	Other than above	0 V
9 (SB)	Ground	Power source (Power window)	Input	[Ignition switch: OFF]		Battery voltage
10		Trunk lid open re-		[Ignition switch: ON]	Operate	$0 \text{ V} \rightarrow \text{Battery voltage} \rightarrow 0 \text{ V}$
(O)	Ground	quest signal (BCM)	Input	Trunk opener	Other than above	0 V
11	Ground	Roof status signal	Output	[Engine is running]	Illuminate	0 V
(O)	Cround	(Indicator lamp)	Output	Soft top indicator lamp	Not illuminate	Battery voltage
12		Roof status signal	<b>.</b>	[Engine is running]	Fully open	9.5 V
(SB)	Ground	(Audio)	Output	Soft top system	Other than above	0 V
14	Ground	Roof open/close	loout	[Engine is running]	Pressed	0 V
(L)	Ground	switch (Close)	Input	Close switch	Released	Battery voltage
15 (LG)	Ground	Roof open/close switch	Input	[Engine is running] <ul> <li>Open switch</li> </ul>	Pressed Released	0 V Battery voltage
( - )		(Open)				
16	Ground	Trunk room lamp	Input	[Ignition switch: ON]	Open Other than	0 V
(V)		switch		Trunk lid	above	Battery voltage
17 (BG)	Ground	CAN-H	Input/ Output	_		_
18 (P)	Ground	CAN-L	Input/ Output	_		_
19 (LG)	Ground	Local communication (Power window)	Input/ Output	_		(V) 15 10 5 0 • • • 10ms JMKIA4024GB
20 (V)	Ground	Local communication (BCM)	Input/ Output	_		(V) 15 0 0 0 0 0 0 0 0 0 0 0 0 0

# < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Value	A
+	-	Signal name	Input/ Output	Condition		(Approx.)	
21 (BR)	Ground	Sensor power supply (Roof striker sensor RH)	Output	[Engine is running]		12 V	В
29 (DG)	Ground	Ground		_		_	С
35 (P)	Ground	Ground (Roof open/close switch)	_	_		_	D
41 (DG)	Ground	Trunk lid opener ac- tuator	Output	Trunk lid opener	Operate Stop	$0 V \rightarrow Battery voltage \rightarrow 0 V$ 0 V	- E
48 (R)	Ground	Power source (Rear window defog- ger)	Input	[Engine is running] • Rear window defogger	Active Not active	Battery voltage 0 V	 -
49		Power source		[Engine is running]	Active	Battery voltage	_ F
(R)	Ground	(Rear window defog- ger)	Input	Rear window defogger	Not active	0 V	- G
53 (R)	Ground	Power source (Roof)	Input	[Engine is running]		Battery voltage	G
54 (B)	Ground	Ground (Roof)	_	_		_	Н
56		5th bow latch close			Lock	0.8 V	
56 (W)	Ground	sensor	Input	[Engine is running] • 5th bow latch	Other than above	3.0 V	
57		5th bow latch open		[Engine is running]	Unlock	0.8 V	_
(G)	Ground	sensor	Input	<ul> <li>5th bow latch</li> </ul>	Other than above	3.0 V	J
58		Storage lid status		[Engine is running]	Full open	0.8 V	-
(LG)	Ground	sensor RH (Open)	Input	Storage lid	Other than above	3.0 V	PWC
59		Storage lid status			Full close	0.8 V	_
(W)	Ground	sensor RH (Close)	Input	[Engine is running] <ul> <li>Storage lid</li> </ul>	Other than above	3.0 V	L
60		Storage lid status		[Engine is running]	Full open	0.8 V	_
60 (DG)	Ground	sensor LH (Open)	Input	<ul> <li>Storage lid</li> </ul>	Other than above	3.0 V	M
64		Roof status sensor		[Engine is running]	Raised	0.8 V	
61 (Y)	Ground	RH (Close)	Input	Soft top	Other than above	3.0 V	N
		Roof status sensor			Lowered	0.8 V	_
66 (L)	Ground	LH (Open)	Input	[Engine is running] • Soft top	Other than above	3.0 V	- 0
68		5th bow status sen-		[Engine is running]	Raised	0.8 V	- - P
(P)	Ground	sor RH	Input	<ul><li>5th bow</li></ul>	Other than above	3.0 V	- P
60		Roof status sensor			Raised	0.8 V	_
69 (V)	Ground	LH (Close)	Input	[Engine is running] • Soft top	Other than above	3.0 V	_

# < ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description		Condition		Value
+	_	Signal name	Input/ Output	Condition		
70	_	5th bow status sen-		[Engine is running]	Lowered	0.8 V
(O)	Ground	sor LH	Input	• 5th bow	Other than above	3.0 V
71	_	Roof latch lock sen-		[Engine is running]	Lock	0.8 V
(SB)	Ground	sor	Input	Roof lock assembly	Other than above	3.0 V
72 (W/R)	Ground	Hydraulic pump tem- perature sensor	Input	[Engine is running]		0 - 4.8 V Output voltage varies with hy- draulic pump temperature.
73	Ground	Hydraulic pump relay	Input	<ul><li>[Engine is running]</li><li>Hydraulic pump motor</li></ul>	Active	12 V
(R)	Ground	2 ON signal	input	(Right rotation)	Inactive	0 V
74	Ground	Hydraulic pump relay	Input	<ul><li>[Engine is running]</li><li>Hydraulic pump motor</li></ul>	Active	12 V
(R/B)	Giodila	1 ON signal	input	(Left rotation)	Inactive	0 V
75 (BR)	Ground	Sensor power supply (Roof status sensor LH//5th bow latch open sensor/5th bow latch close sensor/ 5th bow striker sen- sor)	Output	[Engine is running]		12 V
76	Ground	5th bow striker sen-	Input	[Engine is running]	Hooked	0.8 V
(L)		sor		5th bow striker	Released	3.0 V
92 (BG)	Ground	Sensor ground (Hydraulic pump tem- perature sensor)	_	_		_
93 (BR)	Ground	Sensor power supply (Roof status sensor RH/Storage lid status sensor RH)	Output	[Engine is running]		12 V
94 (BR)	Ground	Sensor power supply (Roof latch lock sen- sor/5th bow status sensor LH)	Output	[Engine is running]		12 V
95 (BR)	Ground	Sensor power supply (Storage lid status sensor/5th bow sta- tus sensor RH)	Output	[Engine is running]		12 V
96	Ground	Switching valve 4	Output	[Engine is running]	Active	12 V
(W)	2.54114		- stpat	Switching valve 4	Inactive	0 V
97 (LG)	Ground	Switching valve 3	Output	<ul><li>[Engine is running]</li><li>Switching valve 3</li></ul>	Active	12 V
				-	Inactive Active	0 V
98 (L)	Ground	Switching valve 2	Output	<ul><li>[Engine is running]</li><li>Switching valve 2</li></ul>	Active Inactive	12 V 0 V
99	_			[Engine is running]	Active	12 V
(O)	Ground	Switching valve 1	Output	<ul> <li>Switching valve 1</li> </ul>	Inactive	0 V
100	<b>.</b> .	Hydraulic pump relay	<b>0</b> / · ·	[Engine is running]	Active	12 V
(BR)	Ground	2	Output	<ul> <li>Hydraulic pump motor (Right rotation)</li> </ul>	Inactive	0 V

#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]
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	nal No. color)	Description		Condition		Value	А
+	-	Signal name		(Approx.)			
101	Oneveral	Hydraulic pump relay	Quitaut	[Engine is running]	Active	12 V	В
(SB)	Ground	1	Output	<ul> <li>Hydraulic pump motor (Left rotation)</li> </ul>	Inactive	0 V	
102	Ground	Switching valve 5	Output	[Engine is running]	Active	12 V	С
(P)	Ground	Switching valve 5	Output	<ul> <li>Switching valve 5</li> </ul>	Inactive	0 V	
103 (B)	Ground	Hydraulic unit ground		_		-	D
				[Engine is running]	Active	Battery voltage	
104 (R)	Ground	Rear window defog- ger power supply	Output	<ul> <li>Rear window defogger</li> <li>NOTE:</li> <li>Roof is fully closed.</li> </ul>	Not active	0 V	E
				[Engine is running]	Active	Battery voltage	
111 (R)	Ground	Rear window defog- ger power supply	Output	Rear window defogger     NOTE:     Roof is fully closed.	Not active	0 V	F

## Fail-safe

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#### FAIL-SAFE CONTROL BY DTC

Soft top control unit performs fail-safe control when any of the following DTCs is detected.

	Display contents of CONSULT	Fail-safe	Cancellation
U1000	CAN COMM CIRCUIT	Inhibit soft top operation.	Communication is normal.
U1010	CONTROL UNIT (CAN)	Inhibit soft top operation.	Communication is normal.
U0140	LOCAL COMM-1	Inhibit soft top operation.	Communication is normal.
U0215	LOCAL COMM-2	Inhibit soft top operation.	Communication is normal.
B1701	ROOF CONTROL UNIT	Inhibit soft top operation.	Replace soft top control unit.
B1702	ROOF CONTROL UNIT	Inhibit soft top operation.	Replace soft top control unit.
B1709	ROOF SWITCH(OPEN)	Inhibit soft top operation.	Detects roof open/close switch (OPEN) is OFF.
B170A	ROOF SWITCH(CLOSE)	Inhibit soft top operation.	Detects roof open/close switch (CLOSE) is OFF.
B170F	SENSOR POWER SUPPLY	Inhibit soft top operation.	Detects normal value.
B171A	HYDRAULIC PMP(LH)	Inhibit soft top operation.	Detects normal value.
B171B	HYDRAULIC PMP(RH)	Inhibit soft top operation.	Detects normal value.
B171C	SWITCHING VALVE 1	Inhibit soft top operation.	Detects normal value.
B171D	SWITCHING VALVE 2	Inhibit soft top operation.	Detects normal value.
B172C	ROOF STATE SIG(TRUNK)*	Inhibit soft top operation.	Detects normal value.
B1731	HYDRAULIC STATE 1	Inhibit soft top operation.	Turn ignition switch OFF.
B1758	THERMO PROTECTION	Inhibit soft top operation.	Turn ignition switch OFF and wait at least 5 minutes
B175C	PWR SOURCE(ROOF)	Inhibit soft top operation.	Power source is 11.4 (V) or more for 0.5 second.
B175D	PWR SOURCE(ROOF)	Inhibit soft top operation.	Power source is14.5 (V) or more for 4 seconds.
B175E	PWR SOURCE(WINDOW)	Inhibit soft top operation and rear power window operation.	Power source (power window) is 9.5 (V) or more.
B175F	PWR SOURCE(WINDOW)	Inhibit soft top operation and rear power window operation.	Power source (power window) is 15.5 (V) or more.
B1766	SWITCHING VALVE 3	Inhibit soft top operation.	Detects normal value.
B1767	SWITCHING VALVE 4	Inhibit soft top operation.	Detects normal value.

#### < ECU DIAGNOSIS INFORMATION >

	Display contents of CONSULT	Fail-safe	Cancellation
B1768	SWITCHING VALVE 5	Inhibit soft top operation.	Detects normal value.
B176A	THERMO PROTECTION	Inhibit soft top operation.	Turn ignition switch OFF and wait at least 5 minutes.
B176B	ROOF WARNING LAMP	Inhibit soft top operation.	Detects normal value.
B176C	STRIKER SENSOR RH	Inhibit soft top operation.	Detects normal value.
B176D	STRIKER SENSOR LH	Inhibit soft top operation.	Detects normal value.
B176E	ROOF LATCH LOCK SEN- SOR	Inhibit soft top operation.	Detects normal value.
B176F	ROOF STATUS SEN LH	Inhibit soft top operation.	Detects normal value.
B1770	ROOF STATUS SEN RH	Inhibit soft top operation.	Detects normal value.
B1771	ROOF STATUS SEN LH	Inhibit soft top operation.	Detects normal value.
B1772	5BOW STATUS SEN LH	Inhibit soft top operation.	Detects normal value.
B1773	5BOW STATUS SEN RH	Inhibit soft top operation.	Detects normal value.
B1774	S/LID STATUS SEN LH	Inhibit soft top operation.	Detects normal value.
B1775	S/LID STATUS SEN RH	Inhibit soft top operation.	Detects normal value.
B1776	S/LID STATUS SEN RH	Inhibit soft top operation.	Detects normal value.
B1777	REAR DEF OUT SIG	Inhibit soft top and rear win- dow defogger operation.	Detects normal value.
B1778	TRUNK OPEN OUT SIG	Inhibit soft top and trunk lid opener actuator operation.	Detects normal value.
B1779	THERMO PROTECTION	Inhibit soft top operation.	Detects normal value.
B177A	ROOF STATE INCORRECT	Inhibit soft top operation.	Detects normal value.
B177B	ROOF STATE INCORRECT	Inhibit soft top operation.	Detects normal value.
B177C	THERMO PROTECTION	Inhibit soft top operation.	Detects normal value.
B177D	5BOW LATCH OPEN SEN	Inhibit soft top operation.	Detects normal value.
B177E	5BOW LATCH CLOSE SEN	Inhibit soft top operation.	Detects normal value.
B177F	5BOW STRIKER SENSOR	Inhibit soft top operation.	Detects normal value.

\*: This item indicates the roof status signal (Audio).

## DTC Inspection Priority Chart

INFOID:000000011284025

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

Priority		Display contents of CONSULT
	U1000	CAN COMM CIRCUIT
	U1010	CONTROL UNIT (CAN)
	B170F	SENSOR POWER SUPPLY
	B175C	PWR SOURCE(ROOF)
1	B175D	PWR SOURCE(ROOF)
	B175E	PWR SOURCE(WINDOW)
	B175F	PWR SOURCE(WINDOW)
	B1701	ROOF CONTROL UNIT
	B1702	ROOF CONTROL UNIT

#### < ECU DIAGNOSIS INFORMATION >

#### [ROADSTER]

riority		Display contents of CONSULT
	B1709	ROOF SWITCH(OPEN)
	B170A	ROOF SWITCH(CLOSE)
	B176B	ROOF WARNING LAMP
	B176C	STRIKER SENSOR RH
	B176D	STRIKER SENSOR LH
	B176E	ROOF LATCH LOCK SEN
	B176F	ROOF STATUS SEN LH
	B1770	ROOF STATUS SEN RH
2	B1771	ROOF STATUS SEN LH
	B1772	5BOW STATUS SEN LH
	B1773	5BOW STATUS SEN RH
	B1774	S/LID STATUS SEN LH
	B1775	S/LID STATUS SEN RH
	B1776	S/LID STATUS SEN RH
	B177D	5BOW LATCH OPEN SEN
	B177E	5BOW LATCH CLOSE SEN
	B177F	5BOW STRIKER SENSOR
	U0140	LOCAL COMM-1
	U0215	LOCAL COMM-2
	B171A	HYDRAULIC PMP(LH)
	B171B	HYDRAULIC PMP(RH)
	B171C	SWITCHING VALVE 1
	B171D	SWITCHING VALVE 2
	B172C	ROOF STATE SIG(TRUNK)*
	B1731	HYDRAULIC STATE 1
	B1758	THERMO PROTECTION
3	B1766	SWITCHING VALVE 3
	B1767	SWITCHING VALVE 4
	B1768	SWITCHING VALVE 5
	B176A	THERMO PROTECTION
	B1777	REAR DEF OUT SIG
	B1778	TRUNK OPEN OUT SIG
	B1779	THERMO PROTECTION
	B177A	ROOF STATE INCORRECT
	B177B	ROOF STATE INCORRECT
	B177C	THERMO PROTECTION

\*: This item indicates the roof status signal (Audio).

## DTC Index

#### NOTE:

For details of Freeze Frame Data, refer to <u>RF-28, "CONSULT Function"</u>.

	Display contents of CONSULT	Fail-safe	Freeze Frame Data	Reference page			
No DTC is o	letected. Further testing may be required.	_	—	_			
U1000	CAN COMM CIRCUIT	×	×	<u>RF-71</u>			

Revision: 2014 September

2015 370Z

INFOID:000000011284026

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#### < ECU DIAGNOSIS INFORMATION >

	Display contents of CONSULT	Fail-safe	Freeze Frame Data	Reference page
U1010	CONTROL UNIT (CAN)	×	×	<u>RF-72</u>
U0140	LOCAL COMM-1	×	×	<u>RF-73</u>
U0215	LOCAL COMM-2	×	×	<u>RF-74</u>
B1701	ROOF CONTROL UNIT	×	×	<u>RF-76</u>
B1702	ROOF CONTROL UNIT	×	×	<u>RF-77</u>
B1709	ROOF SWITCH-OPEN	×	×	<u>RF-78</u>
B170A	ROOF SWITCH-CLOSE	×	×	<u>RF-80</u>
B170F	SENSOR POWER SUPPLY	×	×	<u>RF-82</u>
B171A	HYDRAULIC PMP(LH)	×	×	<u>RF-85</u>
B171B	HYDRAULIC PMP(RH)	×	×	<u>RF-88</u>
B171C	SWITCHING VALVE 1	×	×	<u>RF-91</u>
B171D	SWITCHING VALVE 2	×	×	<u>RF-93</u>
B172C	ROOF STATE SIG(TRUNK)*	×	×	<u>RF-95</u>
B1731	HYDRAULIC STATE 1	×	×	<u>RF-97</u>
B1758	THERMO PROTECTION	×	×	<u>RF-98</u>
B175C	PWR SOURCE(ROOF)	×	×	<u>RF-99</u>
B175D	PWR SOURCE(ROOF)	×	×	<u>RF-100</u>
B175E	PWR SOURCE(WINDOW)	×	×	<u>RF-101</u>
B175F	PWR SOURCE(WINDOW)	×	×	<u>RF-103</u>
B1766	SWITCHING VALVE 3	×	×	<u>RF-105</u>
B1767	SWITCHING VALVE 4	×	×	<u>RF-107</u>
B1768	SWITCHING VALVE 5	×	×	<u>RF-109</u>
B176A	THERMO PROTECTION	×	×	<u>RF-111</u>
B176B	ROOF WARNING LAMP	×	×	<u>RF-112</u>
B176C	STRIKER SENSOR RH	×	×	<u>RF-114</u>
B176D	STRIKER SENSOR LH	×	×	<u>RF-116</u>
B176E	ROOF LATCH LOCK SEN	×	×	<u>RF-118</u>
B176F	ROOF STATUS SEN LH	×	×	<u>RF-120</u>
B1770	ROOF STATUS SEN RH	×	×	<u>RF-122</u>
B1771	ROOF STATUS SEN LH	×	×	<u>RF-124</u>
B1772	5BOW STATUS SEN LH	×	×	<u>RF-126</u>
B1773	5BOW STATUS SEN RH	×	×	<u>RF-128</u>
B1774	S/LID STATUS SEN LH	×	×	<u>RF-130</u>
B1775	S/LID STATUS SEN RH	×	×	<u>RF-132</u>
B1776	S/LID STATUS SEN RH	×	×	<u>RF-134</u>
B1777	REAR DEF OUT SIG	×	×	<u>RF-136</u>
B1778	TRUNK OPEN OUT SIG	×	×	<u>RF-137</u>
B1779	THERMO PROTECTION	×	×	<u>RF-139</u>
B177A	ROOF STATE INCORRECT	×	×	<u>RF-141</u>
B177B	ROOF STATE INCORRECT	×	×	<u>RF-142</u>
B177C	THERMO PROTECTION	×	×	<u>RF-143</u>
B177D	5BOW LATCH OPEN SEN	×	×	<u>RF-144</u>
B177E	5BOW LATCH CLOSE SEN	×	×	<u>RF-146</u>
B177F	5BOW STRIKER SENSOR	×	×	<u>RF-148</u>

### < ECU DIAGNOSIS INFORMATION >

\*: This item indicates the roof status signal (Audio).

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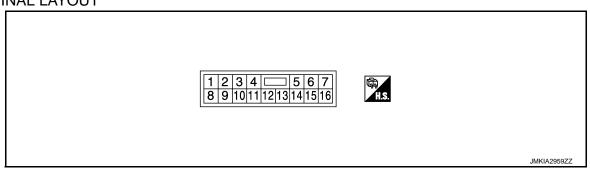
## < ECU DIAGNOSIS INFORMATION >

# POWER WINDOW MAIN SWITCH

#### **Reference Value**

[ROADSTER]

INFOID:000000010837856



## PHYSICAL VALUES

#### POWER WINDOW MAIN SWITCH

	nal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (W)	Ground	Battery power supply	Input	_	12
4 (Y)	Ground	Driver side door switch	Input	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB
				ON (Door open)	0
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window ad- justing operates	12
6 (GR)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral $\rightarrow$ Locked)	$5 \rightarrow 0$
7 (V)	Ground	Door key cylinder switch UN- LOCK signal	Input	Key position (Neutral $\rightarrow$ Unlocked)	$5 \rightarrow 0$
8 (L)	Ground	Driver side power window motor UP signal	Output	When power window main switch (Driver side) is op- erated UP	12
9 (LG)	Ground	Encoder pulse signal 2	Input	When power window mo- tor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
10	Ground	Ignition quitch power signal	Input	IGN SW ON	12
(Y)	Giouna	Ignition switch power signal	Input	IGN SW OFF	0

## < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

	inal No. e color)	Description		Condition	Voltage [V]					
+	-	Signal name	Input/ Output	Condition	(Approx.)					
11 (BR)	Ground	Driver side power window motor DOWN signal	Output	When power window main switch (Driver side) is op- erated DOWN	12					
12 (Y)	Ground	Power window serial link	Input/ Output	Ignition switch ON	(V) 15 0 10 10 10 10 10 10 10 15 10 10 10 10 10 10 10 10 10 10					
13 (R)	Ground	Encoder pulse signal 1	Input	When power window mo- tor operates	(V) 6 2 0 10 ms JMKIA0070GB					
14 (G)	Ground	Encoder ground	_	_	0					
15 (B)	Ground	Ground	_		0					

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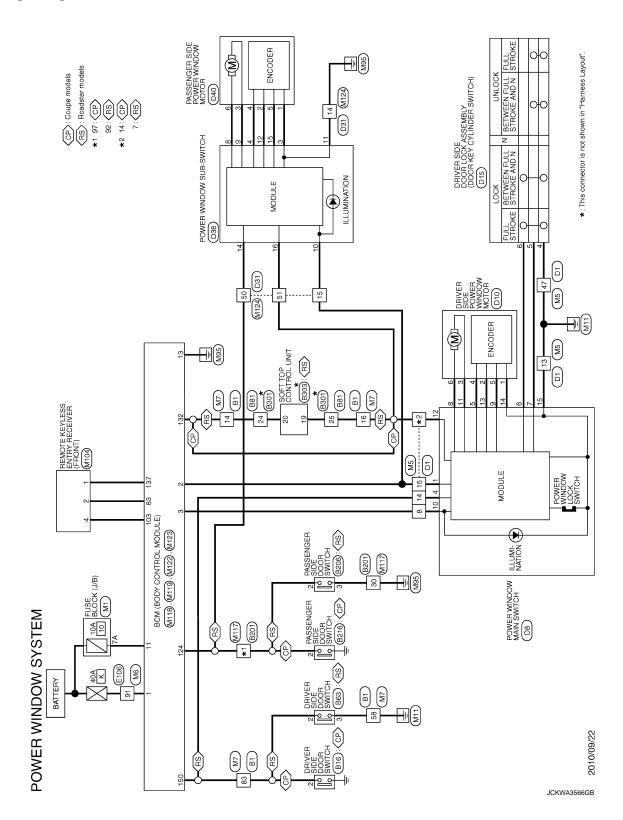
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## < ECU DIAGNOSIS INFORMATION >

# Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

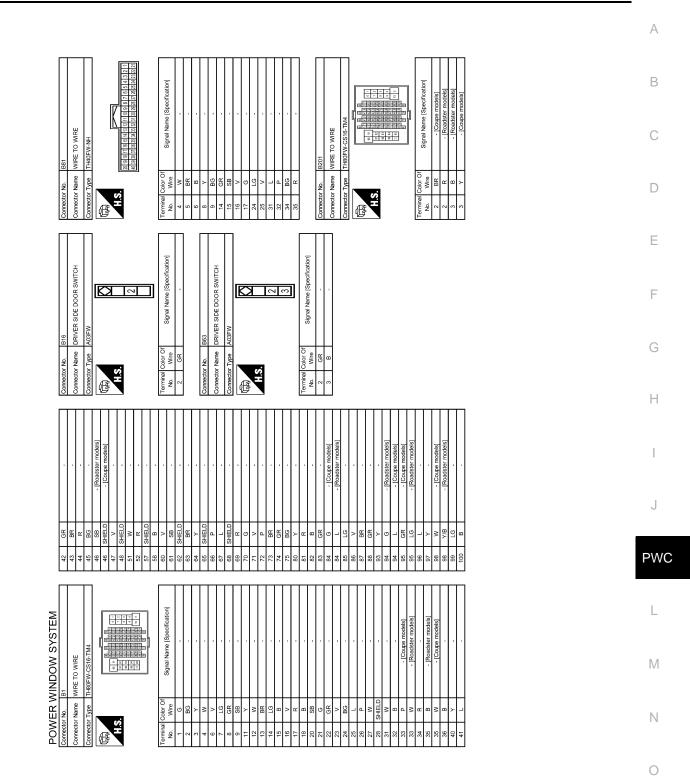


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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



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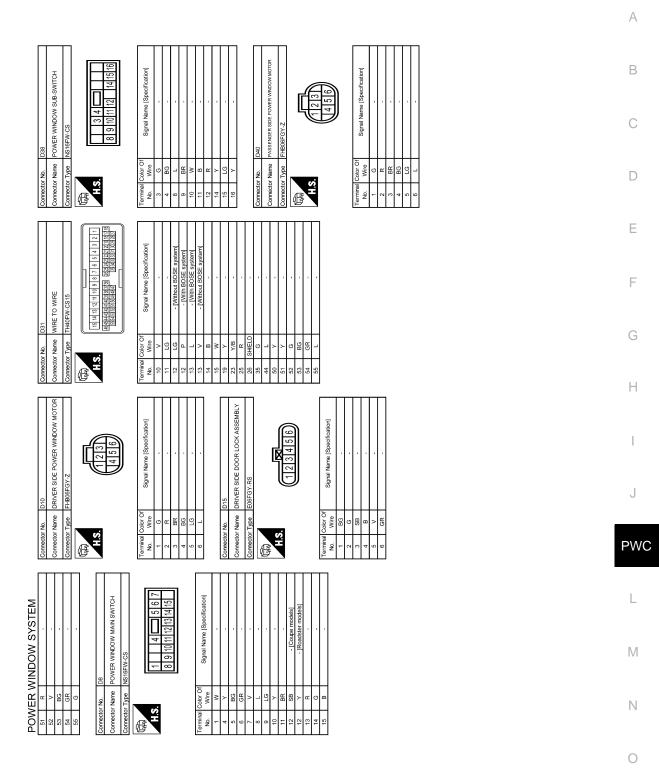
#### < ECU DIAGNOSIS INFORMATION >

10 O TRUNK LID OPEN SIGNAL	$\mathbb{H}$	L RO	LG ROC	16 V TRUNK ROOM LAMP SWITCH 17 RG CANLH	3 •	LG LOCAL COMMUNIC	>	BR SENSOR POWER SUI	8	35 P ROOF OPEN / CLOSE SWITCH (GND)		Connector No. D1	Connector Name WIRE TO WIRE		Connector Type TH40FW-CS15		111111111111111111111111111111111111111		466.454.444.421.420.333.333.252.231.221.221.221.221.241.424.424.424.424.42				폐	No. Wire	-	+	י ני ני	+	- ^	12 L	m	ß	+	- -	+	+	25 K	T	╀	╞	ľ		50 LG -
Connector No. B301	Connector Name WIRE TO WIRE	Connector Type TH40MW-NH	ą		H.S.	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 20 00 00 01 00 00 00 00 00 00 00 00 00 00	[7] [7] [7] [7] [7] [7] [7] [7] [7] [7]			Terminal Color Of Signal Name [Specification] No. Wire	t	5 L -	+	+	9 Y BD -	╀		17 DG -	24 V -	25 LG -	_	-		35 SB -			Connector No. B3U3	Connector Name SOFT TOP CONTROL UNIT	Connector Type TH40FB-NH	4	E		20 19 18 17 16 15 14 12 11 10 9 8 1 4 3 1	29 29 29 20			Terminal Color Of	No Mirre Signal Name [Specification]	╈		>		9 SB POWER CONDITION (POWER WINDOW)
93 W - Roadster models	ľ	GR	- PT	97 LG - [Coupe models] 97 V - [Roadster models]	- 3	- - -	9	BR	100 Y		Connector No. B206	Connector Name DASSENGER SIDE DOOR SWITCH	_ I	Connector Type A03FW	K	K	H.S.	2	1	3		lal	Wire		3 8 -		0000 TH TH TH	Τ	Connector Name PASSENGER SIDE DOOR SWITCH	Connector Type A03FW	Ŕ		S i		2		כ	Torminal Color Of	No. Wire Signal Name [Specification]	t			
POWER WINDOW SYSTEM	R - [Coupe models] v - [Doodstar models]	-	۲ - ۲		, , , ,			۰ - V				-	SHIELD -	BR -			P - [Roadster models]			B .	N	GR -	-	-	·						B - [Roadster models]	<ul> <li>Coupe models]</li> </ul>		- Coupe models]	- [Coupe models]			[Como modole]	W - [Roadster models]		LG [Roadster models]		
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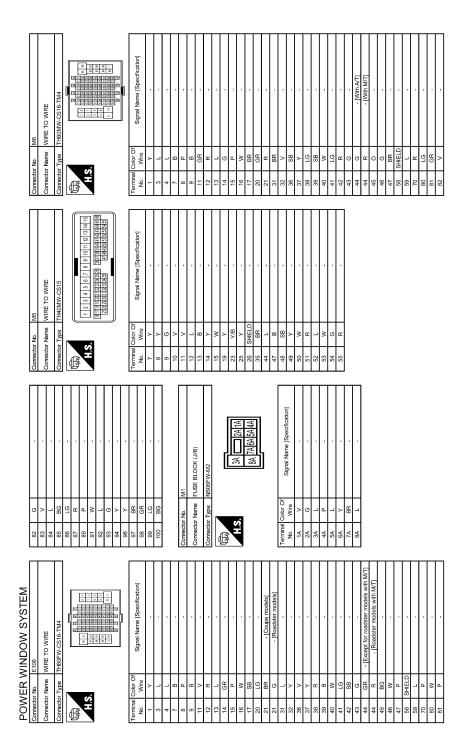
#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



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#### < ECU DIAGNOSIS INFORMATION >

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POWER MINDOW SYSTEM           88         L           88         L           89         P           99         P           99         P           90         N           91         P           92         P           93         P           94         P           95         P           96         P           97         P           98         P           99         P           91         P           92         P           93         Comedor No.           No.         No.           No.         No.           11         P           12         N           13         B           14         V           15         No.           16         V           17         No.           18         No.           19         No.           10         No.           11         V           12         No.           13         Signal Mame [Specification on the strue on the strue on the str	Ν

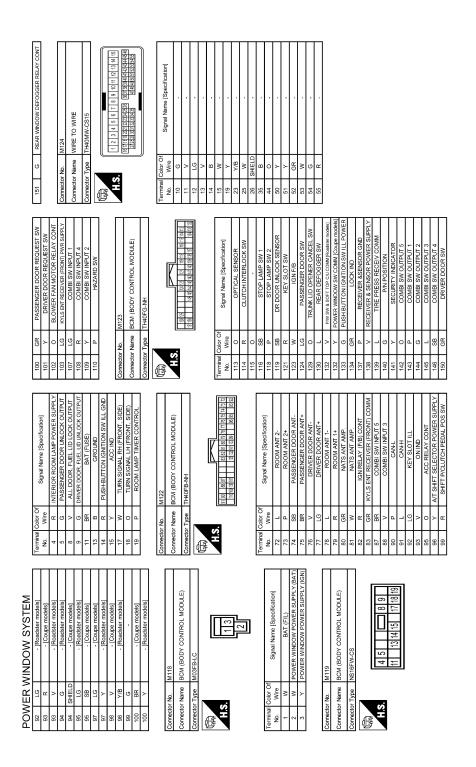
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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



JRKWD6475GB

INFOID:000000010837858

#### FAIL-SAFE CONTROL

Fail-safe

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

#### **PWC-204**

#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signals 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 sensor mal- function	When both pulse signal 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 indicating that the 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 the specified value is detected compared to the door glass fully closed position memorized in module, while door is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

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

- Auto-up operation
- Anti-pinch function
- Automatic window adjusting function
- Retained power operation

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

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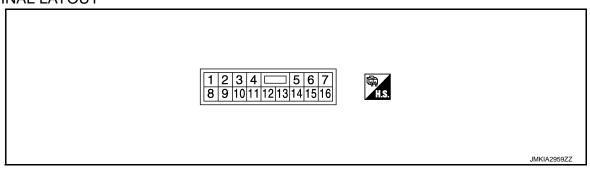
#### < ECU DIAGNOSIS INFORMATION >

# POWER WINDOW SUB-SWITCH

#### **Reference Value**

INFOID:000000010837859

TERMINAL LAYOUT



#### PHYSICAL VALUES

	nal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (G)	Ground	Encoder ground			0
4 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window operates adjusting	12
8 (L)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	12
9 (BR)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	12
10 (W)	Ground	Battery power supply	Input	_	12
11 (B)	Ground	Ground	_	_	0
12 (R)	Ground	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
14 (Y)	Ground	Passenger side door switch	Input	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB
				ON (Door open)	0

#### < ECU DIAGNOSIS INFORMATION >

#### Terminal No. Description А (Wire color) Voltage [V] Condition (Approx.) Input/ Signal name + -Output В (V 6 15 When power window motor С 20 Encoder pulse signal 2 Ground Input (LG) operates 10 ms D JMKIA0070GB (V) 15 10 5 Ε 16 Input/ Ignition switch ON Power window serial link Ground õ (Y) Output F 10 ms JPMIA0013GB

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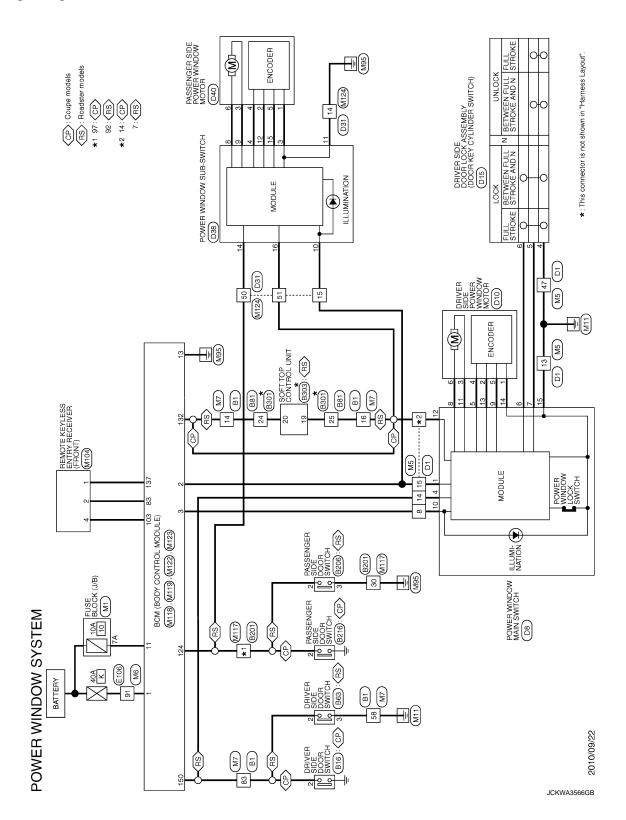
Revision: 2014 September

#### < ECU DIAGNOSIS INFORMATION >

# Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

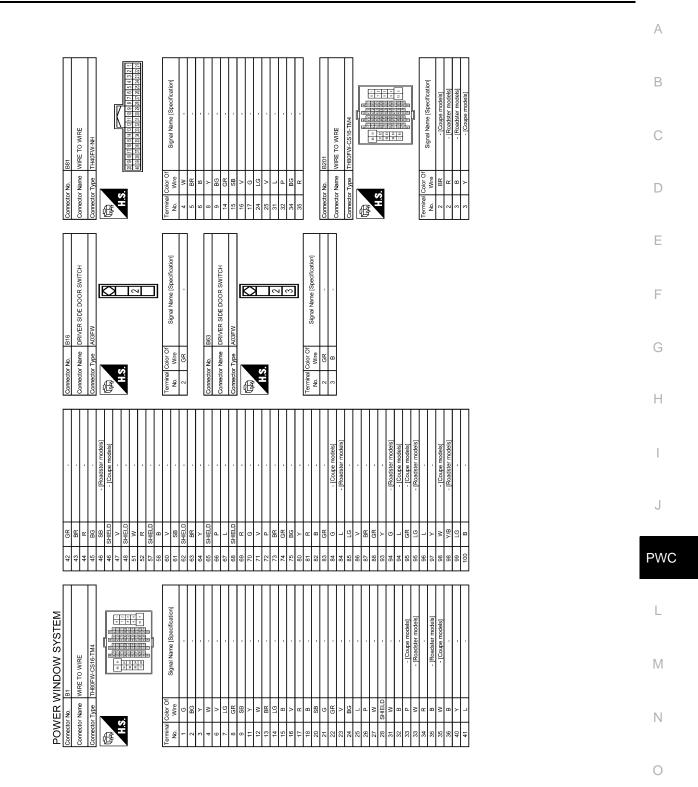


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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



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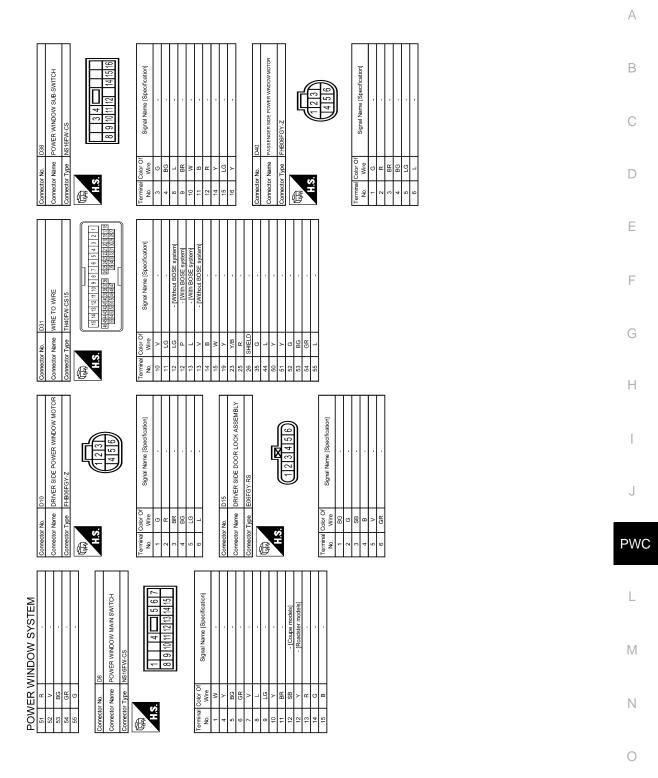
#### < ECU DIAGNOSIS INFORMATION >

10 0 TRUNK LID OPEN SIGNAL	0 800	12 SB ROOF STATUS SIGNAL (AUDIO) 14 L ROOF OPEN / CLOSE SWITCH (CLOSE)	P	V TRUNK RO	BG		} >		ß	ecification] 35 P ROOF OPEN / CLOSE SWITCH (GND)		Connector No. D1	Connector Name WIRE TO WIRE		Connector Type TH40FW-CS15				46454444434210398313038 2525222222222222222222222222222222222				al al		- ~ «	╀	10 BG	11 P	11 V - [Without BOSE system]	12 L	-	, 3 >	. M	┞	23 Y/B -	25 R -	[ [	35	44	SENSOR RH 47 B -	SENSOR LH 48 SB -	
Connector No. B301	Connector Name WIRE TO WIRE	Connector Type TH40MW-NH	1	E		1234	21 22 23 24 25 25 27 29 29 30 31 32			Terminal Color Of Signal Name [Specification] No. Wire	┢			-	- <sup>1</sup>	╀		F	24 V -	25 LG -	31 BG -		+	35 SB -		Connector No. B303	Connector Name SOET TOP CONTROL LINIT		Connector Type TH40FB-NH	Ą		H.S.	20 19 18 17 16 15 14 12 11 10 9				Terminal Color Of	No. Wire Signal Name [Specification]	1 BR SENSOR POWER SUPPLY (ROOF STRIKER SENSOR LH)		4 W ROOF STRIKER SENSOR LH	
- [Roadster models]		- [Coupe models] - [Coupe models]	- [Roadster models]	- [Coupe models]	- [Roadster models]	- [Coupe models] - [Roadster models]		- [Coupe models]	- [Roadster models]		B206	DASSENCED SIDE DOOD SIMITOH		A03FW	K	X		6	4	3		f Sinnal Name [Snecification]	[international prover profile		-		B216	PASSENGER SIDE DOOR SWITCH		A03FW	K	R		0	4		]]		Signal Name (Specification)			
93 W	1	94 SHIELL 95 GR	┢		+	98 8/2 8/2	+		100 Y		Connector No.	Connector Namo		Connector Type	đ	ATT	H.S.					nal	_	2 G	-		Connector No.	Connector Name		Connector Type	Æ	ATT.	H.S.		_			Terminal Color Of	No. Wire	2 LG		
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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



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#### < ECU DIAGNOSIS INFORMATION >

Signal Name [Specification] 8 5 8 8 0 WIRE TO WIRE Terminal Color Of No. Wire σ ≥ <u>₩</u> <u>Ω</u> <u>₩</u> ≥ Connector Name JO R LG R -Connector No. H.S. 88 B 47 47 49 ß 
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 Signal Name [Specification] WIRE TO WIRE ЯÐ Terminal Color Of No. Wire B W V/B SHIELD BR nector Name ≥ ∝ – ≥ © ∞ ل < < ڻ -|≻ actor No. H.S. 23 25 25 26 26 44 47 48 15 E Signal Name [Specification] 7A 6A 5A 4A FUSE BLOCK (J/B) 8 3A Color Of Wire Y Y GR GR LG ≥ u L onnector No. Connector Name 9Q > U L L L X K 8944 <u>ں</u> > H.S. 14 24 48 54 54 74 88 99 Terminal No. 96 96 86 E with M/T Signal Name [Specification] POWER WINDOW SYSTEM Coupe mode toadster mode roadster I WIRE TO WIRE Except for Color Of Wire Connector Name Ś H.S. nector Terminal No. 11 12 13 912 33 33 <u> ମ</u> E

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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

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Sgral Name   Specification  - (Curpe models] - (Routestremmodes) - (Curpe models] - (Curpe models]	В
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POWER WINDOW SYSTEM B B B B B B B B B B B B B B B B B B B	Ν

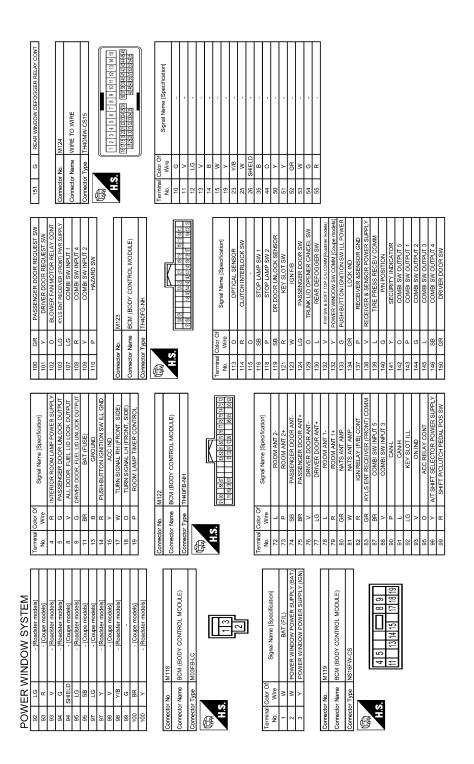
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#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]



JRKWD6475GB

INFOID:000000011283017

#### FAIL-SAFE CONTROL

Fail-safe

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

## **PWC-214**

#### < ECU DIAGNOSIS INFORMATION >

[ROADSTER]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signals 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 sensor mal- function	When both pulse signal 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 indicating that the 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 the specified value is detected compared to the door glass fully closed position memorized in module, while door is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.

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

- Auto-up operation
- Anti-pinch function
- Automatic window adjusting function
- Retained power operation

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

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

#### < SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

## Description

All power windows do not operate via power window main switch and power window sub-switch.

## **Diagnosis Procedure**

**1.**CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit. Refer to <u>BCS-53, "Diagnosis Procedure"</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-44, "Intermittent Incident"</u>.

NO >> GO TO 1.

[ROADSTER]

INFOID:000000010837862

INEOID:000000010837863

# DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	[ROADSTER]
DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERAT	E

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE		А
Description	INFOID:000000010837864	A
Driver side power window does not operate using power window main switch.		В
Diagnosis Procedure	INFOID:000000010837865	
1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT		С
Check power window main switch power supply and ground circuit. Refer to <u>PWC-125, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"</u> .		D
<u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.		D
2. CHECK DRIVER SIDE POWER WINDOW MOTOR		Ε
Check driver side power window motor. Refer to <u>PWC-128, "DRIVER SIDE : Component Function Check"</u> .		F
<u>Is the measurement value within the specification?</u> YES >> GO TO 3.		
NO >> Repair or replace the malfunctioning parts.		G
<b>3.</b> CONFIRM THE OPERATION		
Confirm the operation again. <u>Is the result normal?</u>		Н
YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> .		
NO >> GO TO 1.		

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## PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [ROADSTER]

# PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

# Description

INFOID:000000010837866

Passenger side power window operates using power window main switch and power window sub-switch.

Diagnosis Procedure

INFOID:000000010837867

1. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window sub-switch power supply and ground circuit. Refer to <u>PWC-126, "POWER WINDOW SUB-SWITCH : 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

Check passenger side power window motor. Refer to PWC-129, "PASSENGER SIDE : Component Function Check".

Is the measurement value within the specification?

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-44, "Intermittent Incident"</u>.
- NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	[ROADSTER]
ANTI-PINCH FUNCTION DOES NOT OPERATE DRIVER SIDE	
DRIVER SIDE : Description	INFOID:000000010837868
Anti-pinch function does not operate when power window up operated.	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000010837869
1.CHECK AUTO UP OPERATION	
Check AUTO UP operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2. NO >> Refer to <u>PWC-220, "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-44, "Intermittent Incident"</u> .	
NO >> GO TO 1. PASSENGER SIDE	
PASSENGER SIDE : Description	INFOID:000000010837870
Anti-pinch function does not operate when power window up operated.	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000010837871
1. CHECK AUTO UP OPERATION	
Check AUTO UP operation. <u>Is the inspection result normal?</u>	
YES >> GO TO 2.	
NO >> Refer to <u>PWC-220. "PASSENGER SIDE : Diagnosis Procedure"</u> . 2.CONFIRM THE OPERATION	
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> . NO >> GO TO 1.	

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#### AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY

< SYMPTOM DIAGNOSIS >

[ROADSTER]

# AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:000000010837872

**1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-115, "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 (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit. Refer to <u>PWC-132, "DRIVER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

 ${\it 3.}$  confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000010837873

# **1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed. Refer to <u>PWC-115</u>, "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-134</u>, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-44, "Intermittent Incident".

NO >> GO TO 1.

# POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NOR-

INIALL Y		
< SYMPTOM DIAGNOSIS >	[ROADSTER]	
POWER WINDOW RETAINED POWER FUNCTION DOES NOT NORMALLY	OPERATE	А
Description	INFOID:0000000010837874	В
Retained power function does not operate after ignition switch turns OFF.		
Diagnosis Procedure	INFOID:000000010837875	С
1.CHECK DOOR SWITCH		
Check door switch. Refer to <u>DLK-288, "Component Function Check"</u> .		D
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION		E
Confirm the operation again.		F
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-44. "Intermittent Incident"</u> . NO >> GO TO 1.		G

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# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS < SYMPTOM DIAGNOSIS > [ROADSTER]

# DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WIN-DOWS

Description

INFOID:000000010837876

Power window does not operate when locking or unlocking a door using door key cylinder.

# Diagnosis Procedure

INFOID:0000000010837877

**1.**PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed. Refer to <u>PWC-115</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.

 $2. {\sf CHECK \ DRIVER \ SIDE \ DOOR \ LOCK \ ASSEMBLY \ (DOOR \ KEY \ CYLINDER \ SWITCH)}$ 

Check driver side door lock assembly (door key cylinder switch). Refer to <u>DLK-299, "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-44, "Intermittent Incident"</u>.
- NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE < SYMPTOM DIAGNOSIS > [ROADSTER]
KEYLESS POWER WINDOW DOWN DOES NOT OPERATE
Description INFOID:000000010837878
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 DLK-335, "Diagnosis Procedure".
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-216. "Diagnosis Procedure"</u> . <b>3.</b> CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"
Check "PW DOWN SET" setting in "WORK SUPPORT". Refer to <u>DLK-236, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Roadster)"</u> . 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.
<u>Is the result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u> . NO >> GO TO 1.

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# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

#### < SYMPTOM DIAGNOSIS >

# POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

**Diagnosis Procedure** 

INFOID:000000010837880

[ROADSTER]

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to PWC-229, "Removal and Installation".

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE < SYMPTOM DIAGNOSIS > [ROADS	TER]
POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE DRIVER SIDE	A
DRIVER SIDE : Diagnosis Procedure	00010837881 B
1.REPLACE POWER WINDOW MAIN SWITCH	D
Replace power window main switch.	С
>> Refer to <u>PWC-229, "Removal and Installation"</u> . PASSENGER SIDE	D
PASSENGER SIDE : Diagnosis Procedure	0010837882
1.REPLACE POWER WINDOW SUB-SWITCH	E
Replace power window sub-switch.	
>> Refer to PWC-229, "Removal and Installation".	F
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#### AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE [ROADSTER] < SYMPTOM DIAGNOSIS > AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE DRIVER SIDE DRIVER SIDE : Diagnosis Procedure INFOID-000000010837883 CHECK AUTO UP OPERATION Check AUTO UP operation. Is the inspection result normal? YES >> GO TO 2. NO >> Refer to PWC-220, "DRIVER SIDE : Diagnosis Procedure". 2. CHECK DOOR SWITCH Check door switch. Refer to PWC-137, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> GO TO 1. PASSENGER SIDE

# **PASSENGER SIDE : Diagnosis Procedure**

**1.**CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Refer to <u>PWC-220, "PASSENGER SIDE : Diagnosis Procedure"</u>.

2. CHECK DOOR SWITCH

Check door switch. Refer to <u>PWC-138, "PASSENGER SIDE : Component Function Check"</u>.

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?

YES >> Check intermittent incident. Refer to <u>GI-44, "Intermittent Incident"</u>.

NO >> GO TO 1.

INFOID:000000010837884

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# < PRECAUTION > PRECAUTION PRECAUTIONS FOR USA AND CANADA

# FOR USA AND CANADA : Precautions 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:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never 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
   H connectors.

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

#### WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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 pwc battery, and wait at least 3 minutes before performing any service.

# FOR USA AND CANADA : Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

#### FOR USA AND CANADA : Precautions for Removing Battery Terminal

INFOID:0000000011352779

INFOID:000000010837886

• When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

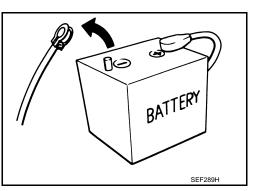
NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. **NOTE:** 

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

• After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC. **NOTE:** 



**PWC-227** 

# PRECAUTIONS

#### < PRECAUTION >

#### The removal of 12V battery may cause a DTC detection error. FOR MEXICO

# FOR MEXICO : 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. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

# FOR MEXICO : Precaution for Battery Service

INFOID:000000010837888

[ROADSTER]

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# FOR MEXICO : Precautions for Removing Battery Terminal

INFOID:0000000011352780

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
 NOTE:

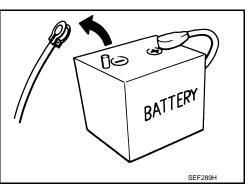
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. **NOTE:** 

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

• After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC. **NOTE:** 

The removal of 12V battery may cause a DTC detection error.



# REMOVAL AND INSTALLATION POWER WINDOW MAIN SWITCH

# Removal and Installation

#### REMOVAL

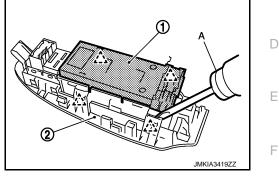
- 1. Remove the power window main switch finisher. Refer to INT-48, "Removal and Installation".
- 2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-bladed screw driver (A) etc.

∕∴ : Pawl

#### CAUTION:

#### Never fold the pawl of power window main switch finisher. NOTE:

The same procedure is also performed for power window subswitch.



INSTALLATION

Install in the reverse order of removal.

NOTE:

Power window main switch is replaced or is removed it is necessary to do the initialization procedure. Refer to <u>PWC-116, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Require-</u> <u>ment"</u>.



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[ROADSTER]