

SECTION **PWC**
POWER WINDOW CONTROL SYSTEM

CONTENTS

BASIC INSPECTION	4	BCM	12
DIAGNOSIS AND REPAIR WORKFLOW	4	BCM : Diagnosis Procedure	12
WorkFlow	4	POWER WINDOW MAIN SWITCH	12
INSPECTION AND ADJUSTMENT	5	POWER WINDOW MAIN SWITCH : Diagnosis Procedure	12
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL	5	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)	13
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description	5	FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure	13
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement	5	REAR POWER WINDOW SWITCH	14
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT	5	REAR POWER WINDOW SWITCH : Diagnosis Procedure	14
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description	5	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)	16
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement	6	Description	16
FUNCTION DIAGNOSIS	7	Component Function Check	16
POWER WINDOW SYSTEM	7	Diagnosis Procedure	16
System Diagram	7	Component Inspection	17
System Description	7	REAR POWER WINDOW SWITCH	18
Component Parts Location	8	Description	18
Component Description	8	Component Function Check	18
DIAGNOSIS SYSTEM (BCM)	10	Diagnosis Procedure	18
COMMON ITEM	10	Component Inspection	19
COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)	10	POWER WINDOW MOTOR	20
RETAINED PWR	11	DRIVER SIDE	20
RETAINED PWR : CONSULT-III Function (BCM - RETAINED PWR)	11	DRIVER SIDE : Description	20
COMPONENT DIAGNOSIS	12	DRIVER SIDE : Component Function Check	20
POWER SUPPLY AND GROUND CIRCUIT	12	DRIVER SIDE : Diagnosis Procedure	20
		DRIVER SIDE : Component Inspection	21
		PASSENGER SIDE	21
		PASSENGER SIDE : Description	21
		PASSENGER SIDE : Component Function Check	21
		PASSENGER SIDE : Diagnosis Procedure	21
		PASSENGER SIDE : Component Inspection	22

REAR LH	23	REAR LH SIDE POWER WINDOW DOES NOT OPERATE	77
REAR LH : Description	23	WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH	77
REAR LH : Component Function Check	23	WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH : Diagnosis Procedure	77
REAR LH : Diagnosis Procedure	23	WITH REAR POWER WINDOW SWITCH LH ONLY	77
REAR LH : Component Inspection	24	WITH REAR POWER WINDOW SWITCH LH ONLY : Diagnosis Procedure	77
REAR RH	24	REAR RH SIDE POWER WINDOW DOES NOT OPERATE	78
REAR RH : Description	24	WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH	78
REAR RH : Component Function Check	24	WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH : Diagnosis Procedure	78
REAR RH : Diagnosis Procedure	25	WITH REAR POWER WINDOW SWITCH RH ONLY	78
REAR RH : Component Inspection	26	WITH REAR POWER WINDOW SWITCH RH ONLY : Diagnosis Procedure	78
DOOR SWITCH	27	ANTI-PINCH SYSTEM DOES NOT OPERATE NORMALLY (DRIVER SIDE)	79
Description	27	Diagnosis Procedure	79
Component Function Check	27	POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY	80
Diagnosis Procedure	27	Diagnosis Procedure	80
Component Inspection	28	AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMALLY (DRIVER SIDE)	81
ENCODER CIRCUIT	29	Diagnosis Procedure	81
Description	29	POWER WINDOW LOCK SWITCH DOES NOT FUNCTION	82
Component Function Check	29	Diagnosis Procedure	82
Diagnosis Procedure	29	POWER WINDOW SWITCH DOES NOT ILLUMINATE	83
ECU DIAGNOSIS	32	Diagnosis Procedure	83
BCM (BODY CONTROL MODULE)	32	PRECAUTION	84
Reference Value	32	PRECAUTIONS	84
Wiring Diagram - BCM -	55	Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"	84
Fail-safe	61	Precaution Necessary for Steering Wheel Rotation after Battery Disconnect	84
DTC Inspection Priority Chart	63	ON-VEHICLE REPAIR	85
DTC Index	64	POWER WINDOW MAIN SWITCH	85
POWER WINDOW MAIN SWITCH	66		
Reference Value	66		
Wiring Diagram - POWER WINDOW SYSTEM - ...	68		
Fail-safe	72		
SYMPTOM DIAGNOSIS	74		
POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES	74		
Diagnosis Procedure	74		
DRIVER SIDE POWER WINDOW DOES NOT OPERATE	75		
Diagnosis Procedure	75		
FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE	76		
WITH BOTH POWER WINDOW MAIN SWITCH AND FRONT PASSENGER SIDE POWER WINDOW SWITCH	76		
WITH BOTH POWER WINDOW MAIN SWITCH AND FRONT PASSENGER SIDE POWER WINDOW SWITCH : Diagnosis Procedure	76		
POWER WINDOW MAIN SWITCH IS OPERATED..	76		
POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure	76		

Exploded View	85	Removal and Installation	86
Removal and Installation	85		
FRONT POWER WINDOW SWITCH (PAS-SENGER SIDE)	86	REAR POWER WINDOW SWITCH	87
Exploded View	86	Exploded View	87
		Removal and Installation	87

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

WorkFlow

INFOID:000000003825988

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

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

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

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

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Are the malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:000000003825989

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

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

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

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:000000003825990

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

CAUTION:

- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
 - **Check that AUTO-UP operates before inspection when system initialization is performed.**
 - **Never check with hands or other body parts because they may be pinched. Never get pinched.**
 - **It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to [PWC-72, "Fail-safe"](#)**
 - **Finish initial setting. Otherwise, next operation cannot be done.**
1. Auto-up operation
 2. Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:000000003825991

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

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

- Power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or if the battery fuse is blown.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

- Disconnection and connection of power window main switch harness connector.
- Removal and installation of motor from regulator assembly.
- Disconnection and connection of battery negative terminal.
- Removal and installation of glass.
- Removal and installation of door glass run.

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:000000003825992

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
 - Check that AUTO-UP operates before inspection when system initialization is performed.
 - Never check with hands or other body parts because they may be pinched. Never get pinched.
 - It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to [PWC-72. "Fail-safe"](#)
 - Finish initial setting. Otherwise, next operation cannot be done.
1. Auto-up operation
 2. Anti-pinch function

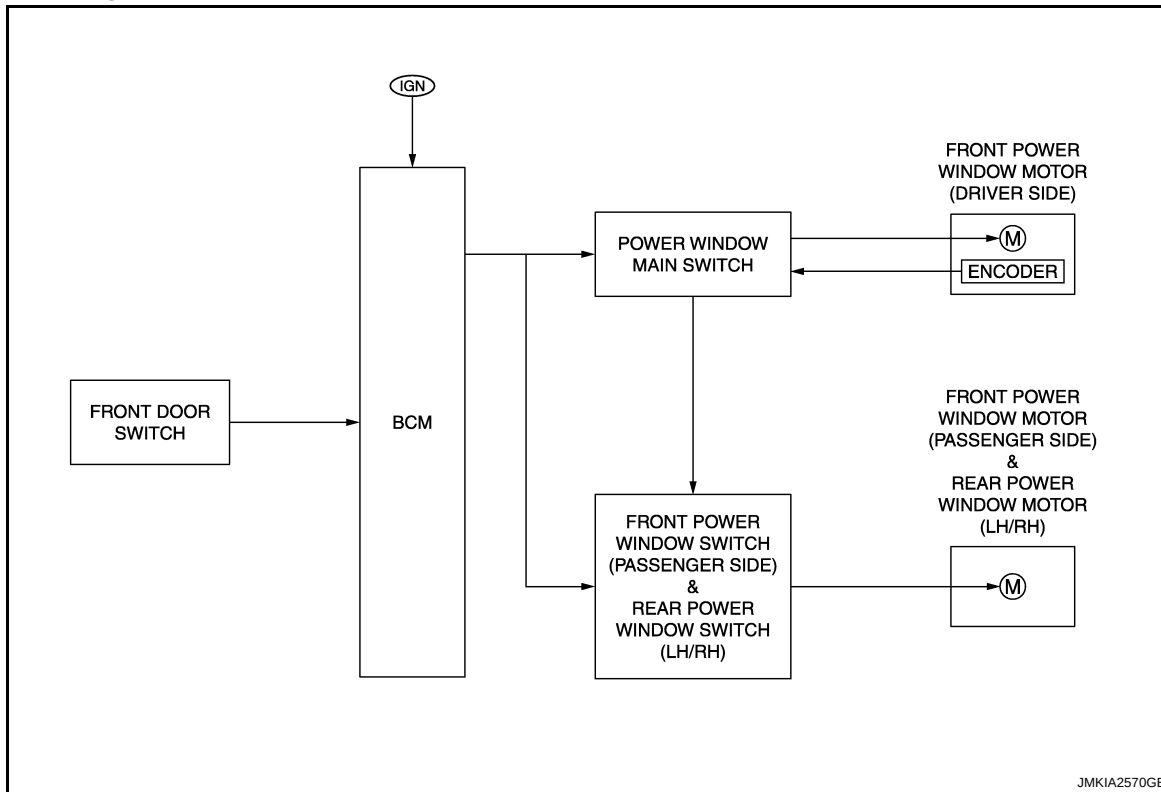
POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

POWER WINDOW SYSTEM

System Diagram



System Description

INFOID:000000003825994

POWER WINDOW OPERATION

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

POWER WINDOW AUTO-OPERATION (DRIVER SIDE)

- AUTO UP/DOWN operation can be performed when power window main switch is turned to AUTO.
- Encoder continues detecting the movement of power window motor and transmits the encoder pulse signal to power window main switch while power window motor is operating.
- Power window main switch reads the changes of encoder signal and stops AUTO operation when door glass is at the fully opened/closed position.
- Auto function is inoperable if encoder is malfunctioning.

RETAINED POWER OPERATION

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

RETAINED POWER FUNCTION CANCEL CONDITIONS

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

POWER WINDOW LOCK

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

ANTI-PINCH SYSTEM (DRIVER SIDE)

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

- Pinch foreign material in the door glass during AUTO-UP operation. and it is The anti-pinch function lowers the door glass 150 mm (5.9 in) or for 2 seconds when detected.
- Encoder continues detecting the movement of front power window motor (driver side) and transmits the encoder pulse signal to power window main switch while front power window motor (driver side) is operating.
- Resistance is applied to the front power window motor (driver side) rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window main switch lowers the window glass 150 mm (5.9in) for 2 seconds after it detects encoder pulse signal frequency change.

OPERATION CONDITION

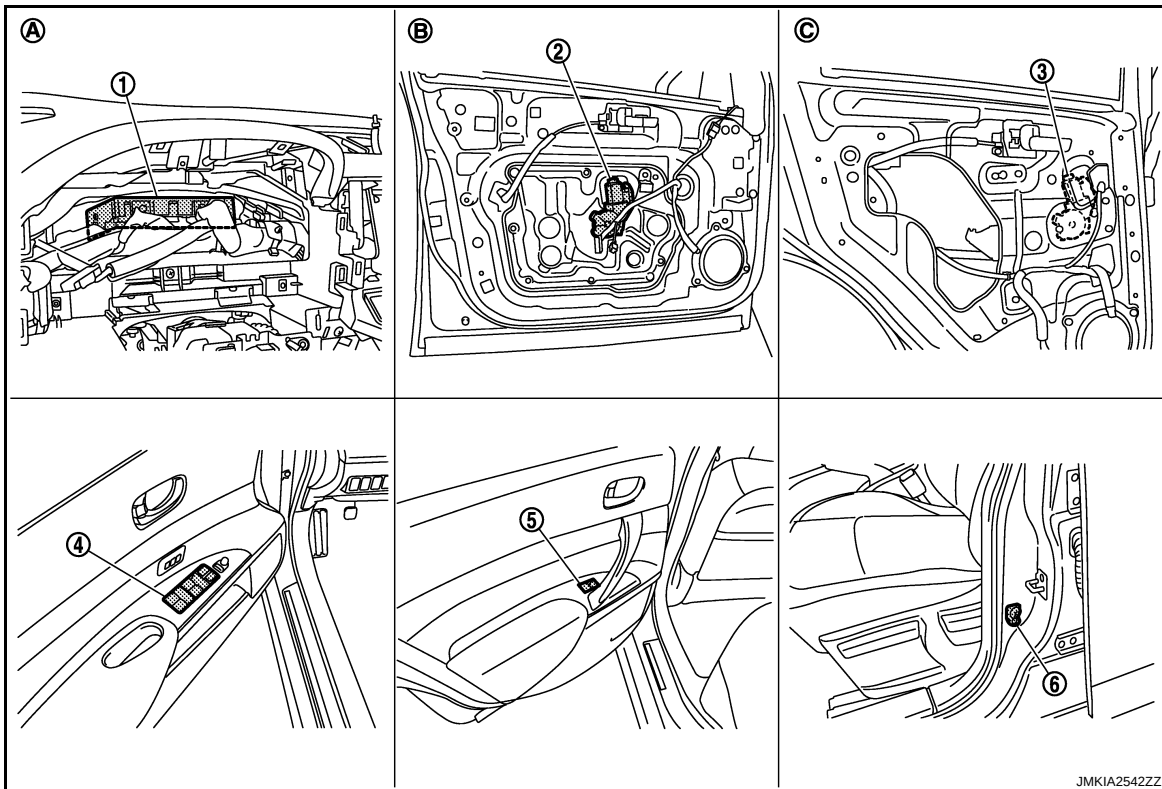
When front door glass (driver side) AUTO-UP operation is performed (anti-pinch function does not operate just before the door glass closes and is fully closed)

NOTE:

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

Component Parts Location

INFOID:000000003825995



- | | | |
|---------------------------------------|---|---|
| 1. BCM
M118, M119, M123 | 2. Front power window motor (driver side)
D7 | 3. Rear power window motor LH
D82 |
| 4. Power window main switch
D5, D6 | 5. Rear power window switch LH
D83 | 6. Front door switch (driver side)
B34 |
| A. Behind the combination meter | B. View with front door finisher removed | C. View with rear door finisher removed |

Component Description

INFOID:000000003825996

Component	Function
BCM	• Supplies power to power window switches. • Controls retained power function.
Power window main switch	• Directly controls all power window motors in all doors. • Controls anti-pinch operation of front power window (driver side).

POWER WINDOW SYSTEM

< FUNCTION DIAGNOSIS >

Component	Function
Front power window switch (passenger side)	Controls power window motor of front passenger side door.
Rear power window switch (LH & RH)	Controls power window motor of rear right and left doors.
Front power window motor (driver side)	- Integrates the encoder and power window motor. - Starts operating with signals from power window main switch. - Transmits front power window motor (driver side) rotation as a pulse signal to power window main switch.
Front power window motor (passenger side)	Starts operating with signals from power window main switch & front power window switch (passenger side).
Rear power window motor (LH & RH)	Starts operating with signals from power window main switch & rear power window switch (LH & RH).
Front door switch (driver side & passenger side)	Detects door open/close condition and input to BCM.

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:000000003825997

APPLICATION ITEM

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

Diagnosis mode	Function Description
Work Support	Changes the setting for each system function.
Self Diagnostic Result	Displays the diagnosis results judged by BCM.
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III operation manual.
Data Monitor	The BCM input/output signals are displayed.
Active Test	The signals used to activate each device are forcibly supplied from BCM.
Ecu Identification	The BCM part number is displayed.
Configuration	- Read and save the vehicle specification. - Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: Applicable item

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

NOTE:

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

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

The BCM records the following condition at the moment a particular DTC is detected.

- Vehicle Speed
- Odd Trip Meter
- Vehicle Condition (BCM detected condition)

CONSULT screen terms	Description
SLEEP>LOCK	While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")
SLEEP>OFF	While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)
LOCK>ACC	While turning power supply position from "LOCK" to "ACC"
ACC>ON	While turning power supply position from "ACC" to "IGN"
RUN>ACC	While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)
CRANK>RUN	While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)
RUN>URGENT	While turning power supply position from "RUN" to "ACC" (Emergency stop operation)
ACC>OFF	While turning power supply position from "ACC" to "OFF"
OFF>LOCK	While turning power supply position from "OFF" to "LOCK"
OFF>ACC	While turning power supply position from "OFF" to "ACC"
ON>CRANK	While turning power supply position from "IGN" to "CRANKING"
OFF>SLEEP	While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode
LOCK>SLEEP	While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode
LOCK	Power supply position is "LOCK" (Ignition switch OFF with steering is locked.)
OFF	Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)
ACC	Power supply position is "ACC" (Ignition switch ACC)
ON	Power supply position is "IGN" (Ignition switch ON with engine stopped)
ENGINE RUN	Power supply position is "RUN" (Ignition switch ON with engine running)
CRANKING	Power supply position is "CRANKING" (At engine cranking)

IGN Counter

IGN counter indicates the number of times that ignition switch is turned ON after DTC is detected.

- The number is 0 when a malfunction is detected now.
- The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON.
- The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.

RETAINED PWR

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

INFOID:000000003857783

Data monitor

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:000000003825998

1.CHECK FUSE AND FUSIBLE LINK

- 1.Turn ignition switch OFF.
- 2.Check that the following fuse and fusible link are not blown.

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

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connectors.
2. Check voltage between BCM harness connector and ground.

(+)		(-)	Voltage (Approx.)
BCM			
Connector	Terminal		
M118	1	Ground	Battery voltage
M119	11		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:000000003825999

1.CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition 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 SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

(+)		(-)	Voltage (V) (Approx.)
Power window main switch			
Connector	Terminal		
D5	10	Ground	Battery voltage
D6	19		

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between power window main switch harness connector and ground.

Power window main switch		Ground	Continuity
Connector	Terminal		
D6	17		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M118	2	D6	19	Existed
	3	D5	10	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed
	3		

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE) : Diagnosis Procedure

INFOID:000000003826000

1.CHECK POWER SUPPLY CIRCUIT 1

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

(+)		(-)	Voltage (V) (Approx.)
Front power window switch (passenger side)			
Connector	Terminal		
D45	1	Ground	Battery voltage

Is the inspection result normal?

YES >> INSPECTION END.

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT 2

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

BCM		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
M118	3	D45	1	Existed

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000003826001

1.CHECK POWER SUPPLY CIRCUIT 1

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

(+)		(-)	Voltage (V) (Approx.)
Rear power window switch			
Connector	Terminal		
LH	D83	1	Ground
RH	D103		
			Battery voltage

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT 2

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

BCM		Rear power window switch		Continuity
Connector	Terminal	Connector	Terminal	
M118	3	LH	D83	Existed
		RH	D103	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< COMPONENT DIAGNOSIS >

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Description

INFOID:000000003826002

Front power window motor (passenger side) will be operated if front power window switch (passenger side) is operated.

Component Function Check

INFOID:000000003826003

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) FUNCTION

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

Is the inspection result normal?

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

NO >> Refer to [PWC-16, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003826004

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) INPUT SIGNAL

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Front power window switch (passenger side)					
Connector	Terminal				
D45	2	Ground	Power window main switch (passenger side)	UP	Battery voltage
				DOWN	0
	3			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-17, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window switch (passenger side). Refer to [PWC-86, "Removal and Installation"](#).

3.CHECK FRONT WINDOW SWITCH (PASSENGER SIDE) CIRCUIT

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

Power window main switch		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D5	8	D45	2	Existed
	11		3	

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

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< COMPONENT DIAGNOSIS >

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	8		Not existed
	11		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-85, "Removal and Installation"](#).

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003826005

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

1. Turn ignition OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check front power window switch (passenger side).

Front power window switch (passenger side)	Terminal		Front power window switch condition	Continuity
D45	1	5	UP	Existed
	3	4		
	3	4	NEUTRAL	
	2	5		
	1	4	DOWN	
	2	5		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window switch (passenger side). Refer to [PWC-86, "Removal and Installation"](#).

PWC

REAR POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

REAR POWER WINDOW SWITCH

Description

INFOID:000000003826006

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

Component Function Check

INFOID:000000003826007

1. CHECK REAR POWER WINDOW SWITCH FUNCTION

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

Is the inspection result normal?

- YES >> Rear power window switch is OK.
NO >> Refer to [PWC-18, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003826008

1. CHECK REAR POWER WINDOW SWITCH INPUT SIGNAL

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

(+) Rear power window switch			(-)	Condition		Voltage (V) (Approx.)
Connector		Terminal				
LH	D83	2	Ground	Power window main switch: Rear LH	UP	Battery voltage
					DOWN	0
		3			UP	0
					DOWN	Battery voltage
RH	D103	2		Power window main switch: Rear RH	UP	Battery voltage
					DOWN	0
		3			UP	0
					DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-19, "Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace rear power window switch. Refer to [PWC-87, "Removal and Installation"](#).

3. CHECK REAR POWER WINDOW SWITCH CIRCUIT

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

REAR POWER WINDOW SWITCH

< COMPONENT DIAGNOSIS >

Power window main switch		Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	
D5	1	LH	D83	2	Existed
	3			3	
	5	RH	D103	3	
	7			2	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	1	Ground	Not existed
	3		
	5		
	7		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-85, "Removal and Installation"](#).

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:0000000003826009

1.CHECK REAR POWER WINDOW SWITCH

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

Rear power window switch	Terminal		Rear power window switch condition	Continuity
•D83 (LH) •D103 (RH)	1	5	UP	Existed
	3	4		
	3	4	NEUTRAL	
	2	5		
	1	4	DOWN	
	2	5		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear power window switch. Refer to [PWC-87, "Removal and Installation"](#).

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

POWER WINDOW MOTOR DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000003826010

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

DRIVER SIDE : Component Function Check

INFOID:000000003826011

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

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

Is the inspection result normal?

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

NO >> Refer to [PWC-20. "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:000000003826012

1. CHECK POWER WINDOW MOTOR (DRIVER SIDE) INPUT SIGNAL

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

(+)		(-)	Condition		Voltage (V) (Approx.)
Power window motor (driver side)					
Connector	Terminal				
D7	1	Ground	Power window main switch	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

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

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D5	12	D7	1	Existed
	16		2	

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	12		Not existed
	16		

Is the inspection result normal?

YES >> Replace power window main switch. Refer to [PWC-85. "Removal and Installation"](#).

NO >> Repair or replace harness.

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

3.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check front power window motor (driver side).

Refer to [PWC-21, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace power window motor (driver side). Refer to [GW-20, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:0000000003826013

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

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

Front power window motor (driver side)	Terminal		Motor condition
	(+)	(-)	
D7	1	2	DOWN
	2	1	UP

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window motor (driver side). Refer to [GW-20, "Removal and Installation"](#).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000003826014

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

PASSENGER SIDE : Component Function Check

INFOID:0000000003826015

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

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

Is the inspection result normal?

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

NO >> Refer to [PWC-21, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000003826016

1.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) INPUT SIGNAL

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

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

(+)		(-)	Condition		Voltage (V) (Approx.)
Front power window motor (passenger side)					
Connector	Terminal				
D46	1	Ground	Front power win- dow switch (passenger side)	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE) CIRCUIT

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

Front power window switch (passenger side)		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
D45	4	D46	1	Existed
	5		2	

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

Front power window switch (passenger side)		Ground	Continuity
Connector	Terminal		
D45	4		Not existed
	5		

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to [PWC-86, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to [PWC-22, "PASSENGER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (passenger side). Refer to [GW-20, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:000000003826017

1.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

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

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

Front power window motor (passenger side) connector	Terminal		Motor condition
	(+)	(-)	
D46	1	2	DOWN
	2	1	UP

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front power window motor (passenger side). Refer to [GW-20, "Removal and Installation"](#).

REAR LH

REAR LH : Description

INFOID:000000003826018

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

REAR LH : Component Function Check

INFOID:000000003826019

1.CHECK REAR POWER WINDOW MOTOR LH OPERATION

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to [PWC-23, "REAR LH : Diagnosis Procedure"](#)

REAR LH : Diagnosis Procedure

INFOID:000000003826020

1.CHECK REAR POWER WINDOW MOTOR LH INPUT SIGNAL

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

(+) Rear power window motor LH		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D82	1	Ground	Rear power win- dow switch LH	UP	Battery voltage
				DOWN	0
	3			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

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

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	
D83	4	D82	3	Existed
	5		1	

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

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

Rear power window switch LH		Ground	Continuity
Connector	Terminal		
D83	4		Not existed
	5		

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to [PWC-87, "Removal and Installation"](#).

NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-24, "REAR LH : Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

REAR LH : Component Inspection

INFOID:0000000003826021

COMPONENT INSPECTION

1.CHECK REAR POWER WINDOW MOTOR LH

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

Rear power window motor LH	Terminal		Motor condition
	(+)	(-)	
D82	3	1	DOWN
	1	3	UP

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear power window motor LH. Refer to [GW-25, "Removal and Installation"](#).

REAR RH

REAR RH : Description

INFOID:0000000003826022

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

REAR RH : Component Function Check

INFOID:0000000003826023

1. CHECK REAR POWER WINDOW MOTOR RH OPERATION

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to [PWC-25, "REAR RH : Diagnosis Procedure"](#).

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

REAR RH : Diagnosis Procedure

INFOID:000000003826024

1.CHECK REAR POWER WINDOW MOTOR RH INPUT SIGNAL

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

(+)Rear power window motor RH		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
D102	1	Ground	Rear power window switch RH	UP	Battery voltage
				DOWN	0
	3			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

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

2.CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

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

Rear power window switch RH		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D103	4	D102	3	Existed
	5		1	

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

Rear power window switch RH		Ground	Continuity
Connector	Terminal		
D103	4		Not existed
	5		

Is the inspection result normal?

- YES >> Replace rear power window switch RH. Refer to [PWC-87, "Removal and Installation"](#).
NO >> Repair or replace harness.

3.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to [PWC-26, "REAR RH : Component Inspection"](#).

Is the inspection result normal?

- YES >> GO TO 4.
NO >> Replace rear power window motor RH. Refer to [GW-25, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

POWER WINDOW MOTOR

< COMPONENT DIAGNOSIS >

REAR RH : Component Inspection

INFOID:000000003826025

COMPONENT INSPECTION

1.CHECK REAR POWER WINDOW MOTOR RH

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

Rear power window motor RH	Terminal		Motor condition
	(+)	(-)	
D102	3	1	DOWN
	1	3	UP

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace rear power window motor RH. Refer to [GW-25. "Removal and Installation"](#).

DOOR SWITCH

< COMPONENT DIAGNOSIS >

DOOR SWITCH

Description

INFOID:000000003857784

Detects door open/closed condition.

Component Function Check

INFOID:000000003857785

1.CHECK FUNCTION

Check front door switches ("DOOR SW-DR", "DOOR SW-AS") in "Data Monitor" mode with CONSULT-III.

Monitor item	Door condition	Display
DOOR SW-DR	CLOSE → OPEN	OFF → ON
DOOR SW-AS		

Is the inspection result normal?

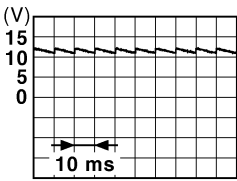
- YES >> Front door switch is OK.
NO >> Refer to [PWC-27, "Diagnosis Procedure"](#).

Diagnosis Procedure

INFOID:000000003857786

1.CHECK FRONT DOOR SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect malfunction front door switch connector.
- Check signal between malfunction front door switch harness connector and ground with oscilloscope.

(+) Front door switch		Terminal	(-)	Voltage (V) (Approx.)
Connector				
Driver side	B34	2	Ground	
Passenger side	B220			

JPMIA0011GB

Is the inspection result normal?

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

2.CHECK FRONT DOOR SWITCH CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and malfunctioning front door switch harness connector.

BCM		Front door switch		Continuity
Connector	Terminal	Connector	Terminal	
M123	124	B220	2	Exists
	150	B34		

- Check continuity between BCM harness connector and ground.

DOOR SWITCH

< COMPONENT DIAGNOSIS >

BCM		Ground	Continuity
Connector	Terminal		
M123	124 150		Not exist

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-78, "Removal and Installation"](#).

NO >> Repair or replace harness or connector.

3.CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to [PWC-28, "Component Inspection"](#).

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunction front door switch. Refer to [DLK-234, "Removal and Installation"](#).

4.CHECK INTERMITTENT INCIDENT

Refer to [GI-35, "Intermittent Incident"](#).

>> INSPECTION END

Component Inspection

INFOID:000000003857787

1.CHECK FRONT DOOR SWITCH

1. Turn ignition switch OFF.
2. Disconnect malfunction front door switch connector.
3. Check front door switch.

(+)			(-)	Condition	Continuity
Front door switch					
Connector		Terminal			
Driver side	B34	2	Ground part of front door switch	Door switch pressed	Not exists
				Door switch released	Exists
Passenger side	B220			Door switch pressed	Not exists
				Door switch released	Exists

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace malfunctioning front door switch. Refer to [DLK-234, "Removal and Installation"](#).

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

ENCODER CIRCUIT

Description

INFOID:000000003826026

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

Component Function Check

INFOID:000000003826027

1.CHECK ENCODER OPERATION

Check front driver side door glass and perform AUTO open/close operation normally via power window main switch.

Is the inspection result normal?

- YES >> Encoder operation is OK.
NO >> Refer to [PWC-29, "Diagnosis Procedure"](#)

Diagnosis Procedure

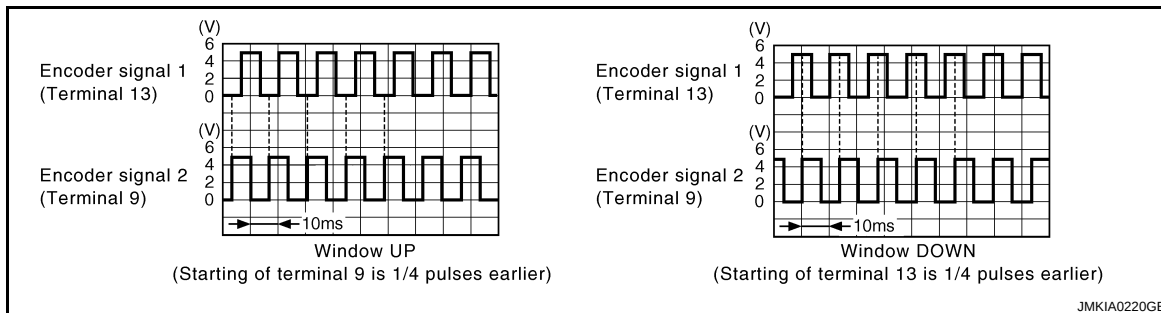
INFOID:000000003826028

Encoder Circuit Check

1.CHECK ENCODER SIGNAL

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

(+) Power window main switch		(-)	Signal (Reference value)
Connector	Terminal		
D5	9	Ground	Refer to the following signal
	13		



Is the inspection result normal?

- YES >> Replace power window main switch. Refer to [PWC-85, "Removal and Installation"](#).
NO >> GO TO 2.

2.CHECK ENCODER SIGNAL CIRCUIT

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

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D5	9	D7	3	Existed
	13		5	

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

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	9		Not existed
	13		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY

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

(+)		(-)	Voltage (V) (Approx.)
Front power window motor (driver side)			
Connector	Terminal		
D7	4	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4.CHECK GROUND CIRCUIT

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

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D5	2	D7	6	Existed

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

Front power window motor (driver side)		Ground	Continuity
Connector	Terminal		
D7	6		Not existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to [GW-20. "Removal and Installation"](#)

NO >> Repair or replace harness.

5.CHECK POWER SUPPLY CIRCUIT

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

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
D5	15	D7	4	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D5	15		Not existed

ENCODER CIRCUIT

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

- YES >> Replace power window main switch. Refer to [PWC-85, "Removal and Installation"](#).
- NO >> Repair or replace harness.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

ECU DIAGNOSIS

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000003888235

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
DOOR SW-RL	Rear LH door closed	Off	A
	Rear LH door opened	On	
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off	B
CDL LOCK SW	Other than power door lock switch LOCK	Off	C
	Power door lock switch LOCK	On	
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off	D
	Power door lock switch UNLOCK	On	
KEY CYL LK-SW	NOTE: The item is indicated, but not monitored.	Off	E
KEY CYL UN-SW	NOTE: The item is indicated, but not monitored.	Off	F
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	G
HAZARD SW	Hazard switch is OFF	Off	H
	Hazard switch is ON	On	
REAR DEF SW NOTE: At model with BOSE audio system this item is indicated, but is not monitored.	Rear window defogger switch is OFF	Off	I
	Rear window defogger switch is ON	On	
TR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	J
TR/BD OPEN SW	Trunk lid opener switch OFF	Off	PWC
	While the trunk lid opener switch is turned ON	On	
TRNK/HAT MNTR	Trunk lid closed	Off	L
	Trunk lid opened	On	
RKE-LOCK	LOCK button of the key is not pressed	Off	M
	LOCK button of the key is pressed	On	
RKE-UNLOCK	UNLOCK button of the key is not pressed	Off	N
	UNLOCK button of the key is pressed	On	
RKE-TR/BD	TRUNK OPEN button of the key is not pressed	Off	O
	TRUNK OPEN button of the key is pressed	On	
RKE-PANIC	NOTE: The item is indicated, but not monitored.	Off	P
RKE-P/W OPEN	NOTE: The item is indicated, but not monitored.	Off	
RKE-MODE CHG	LOCK/UNLOCK button of the key is not pressed and held simultaneously	Off	
	LOCK/UNLOCK button of the key is pressed and held simultaneously	On	
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	
	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	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is not depressed	On
	The brake pedal is depressed	Off
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
S/L -LOCK	Steering is locked	Off
	Steering is unlocked	On
S/L -UNLOCK	Steering is unlocked	Off
	Steering is locked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN -IPDM	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is locked	Off
	Steering is unlocked	On

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
S/L UNLK-IPDM	Steering is unlocked	Off	A
	Steering is locked	On	
S/L RELAY-REQ	Ignition switch in OFF or ACC position	Off	B
	Ignition switch in ON position	On	
VEH SPEED 1	While driving	Equivalent to speedometer reading	C
VEH SPEED 2	While driving	Equivalent to speedometer reading	
DOOR STAT-DR	Driver door is locked	LOCK	D
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Driver door is unlocked	UNLOCK	
DOOR STAT-AS	Passenger door is locked	LOCK	E
	Wait with selective UNLOCK operation (5 seconds)	READY	
	Passenger door is unlocked	UNLOCK	
ID OK FLAG	Ignition switch in ACC or ON position	Reset	F
	Ignition switch in OFF position	Set	
PRMT ENG STRT	The engine start is prohibited	Reset	G
	The engine start is permitted	Set	
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset	H
KEY SW -SLOT	The key is not inserted into key slot	Off	
	The key is inserted into key slot	On	I
RKE OPE COUN1	During the operation of the key	Operation frequency of the key	
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	—	J
CONFIRM ID ALL	The key ID that the key slot receives does not accord with any key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done	L
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	Done	M
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the third key ID registered to BCM.	Done	N
CONFIRM ID2	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the second key ID registered to BCM.	Done	O
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	Yet	
	The key ID that the key slot receives accords with the first key ID registered to BCM.	Done	P
TP 4	The ID of fourth key is not registered to BCM	Yet	
	The ID of fourth key is registered to BCM	Done	
TP 3	The ID of third key is not registered to BCM	Yet	
	The ID of third key is registered to BCM	Done	

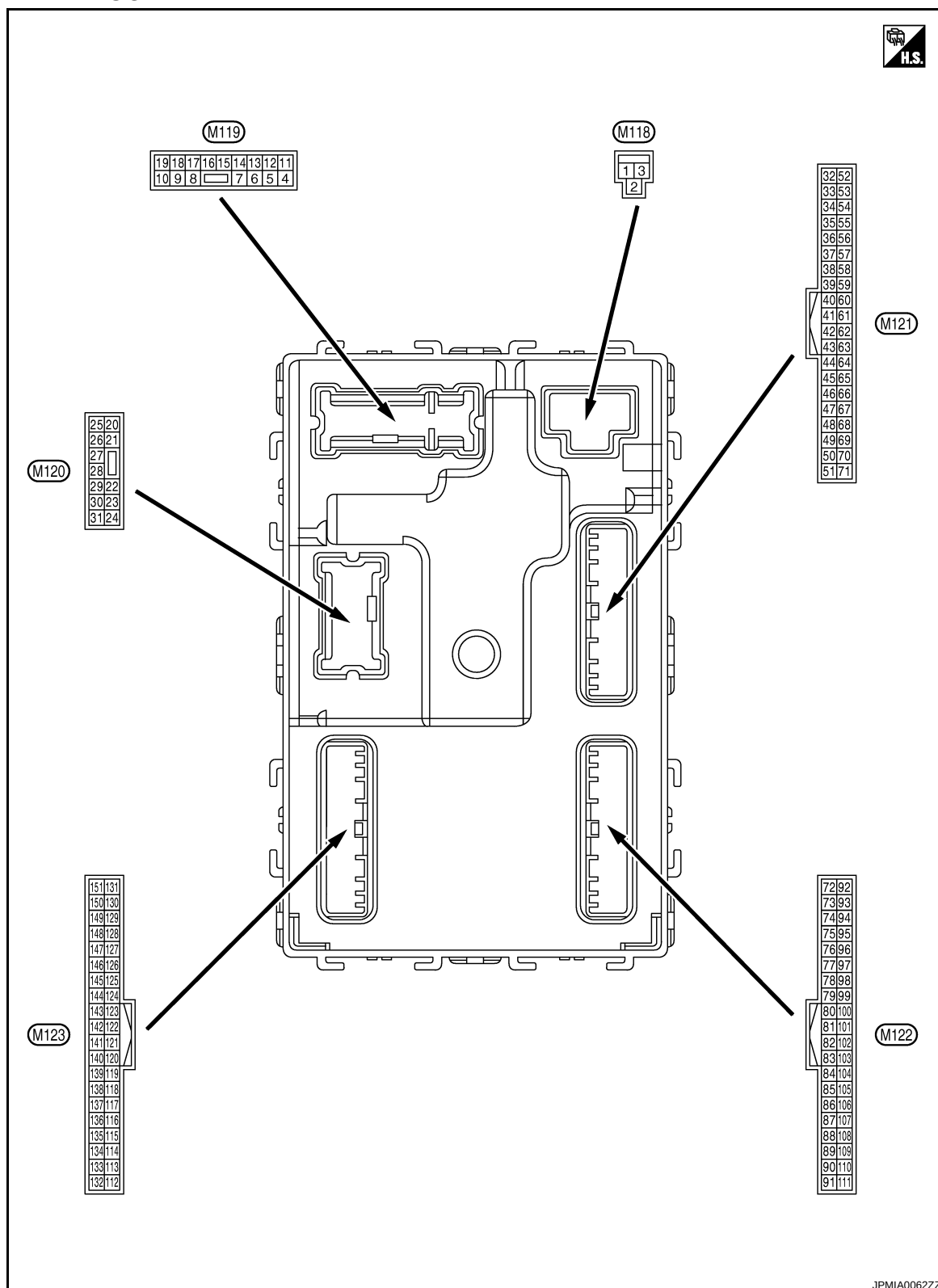
PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
TP 2	The ID of second key is not registered to BCM	Yet
	The ID of second key is registered to BCM	Done
TP 1	The ID of first key is not registered to BCM	Yet
	The ID of first key is registered to BCM	Done

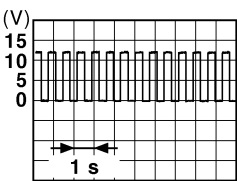
TERMINAL LAYOUT



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

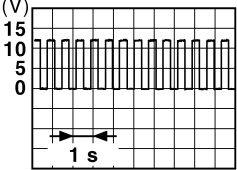
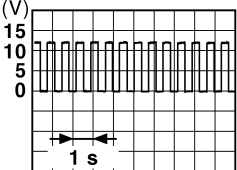
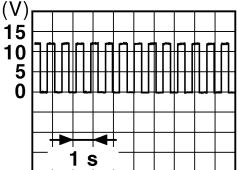
PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R/Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (L/W)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		Battery voltage
4 (P/W)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		Battery voltage
5 (G/Y)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (R/W)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors LOCK	Output	All doors	LOCK (Actuator is activated)	Battery voltage
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door UNLOCK	Output	Driver door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
10 (G/Y)	Ground	Rear RH door and rear LH door UNLOCK	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC or ON	0 V
17 (G/B)	Ground	Turn signal RH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 6.5 V

A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

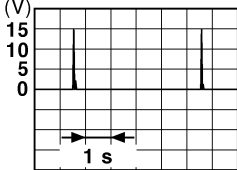
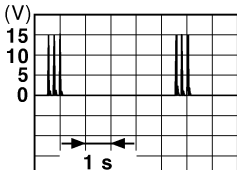
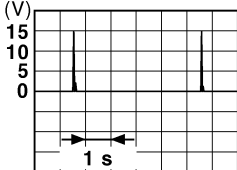
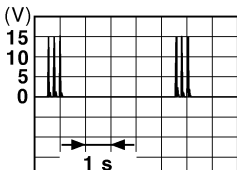
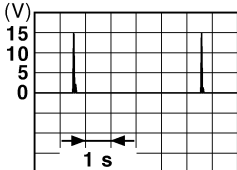
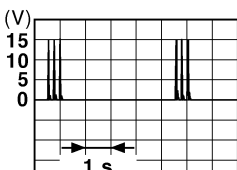
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
18 (G/Y)	Ground	Turn signal LH (Front and door mirror)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (Y)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (G/B)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (R)	Ground	Trunk lid opening	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	Battery voltage
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
24 (G)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	Battery voltage
25 (G/Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (V/W)	Ground	Trunk room lamp	Output	Trunk room lamp	OFF	0 V
					ON	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

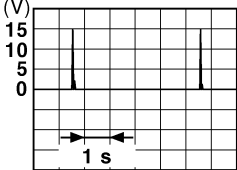
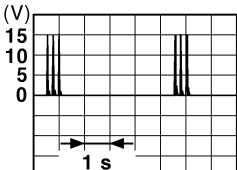
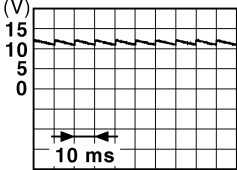
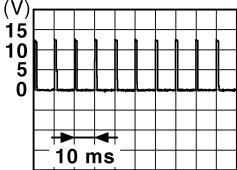
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
34 (B)	Ground	Trunk room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (W)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (L/O)	Ground	Rear bumper anten- na (-)	Output	When the trunk lid opener request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

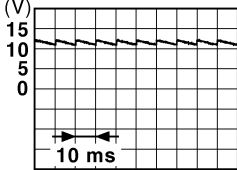
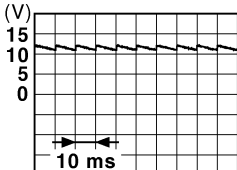
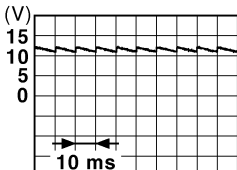
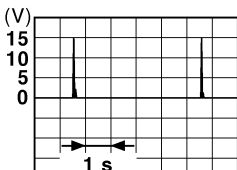
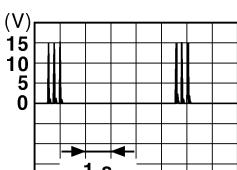
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (BR/W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
				When Intelligent Key is not in the antenna detection area	When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (BR/W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V
50 (W)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (When trunk lid closes)	 JPMIA0011GB 11.8 V
					ON (When trunk lid opens)	0 V
52 (R)	Ground	Starter relay control	Output	Ignition switch ON	When selector lever is in P or N position	Battery voltage
					When selector lever is not in P or N position	0.3 V
				Ignition switch OFF		0 V
61 (G/R)	Ground	Trunk lid request switch	Input	Trunk lid request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (GR)	Ground	Request switch buzzer	Output	Request switch buzzer	Sounding	0 V
					Not sounding	Battery voltage

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

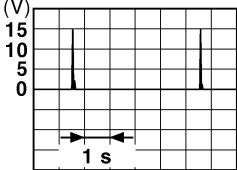
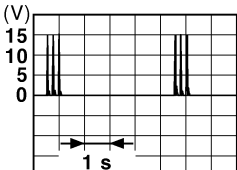
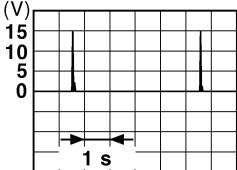
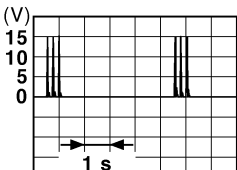
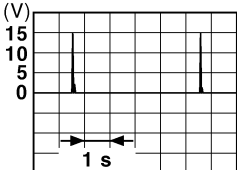
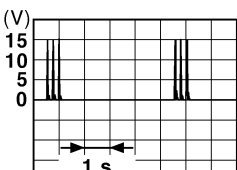
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
67 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
68 (R/W)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (When rear RH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear RH door opens)	0 V
69 (R/B)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (When rear LH door closes)	 JPMIA0011GB 11.8 V
					ON (When rear LH door opens)	0 V
72 (B/R)	Ground	Room antenna 2 (-) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
73 (W/R)	Ground	Room antenna 2 (+) (center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
74 (B/Y)	Ground	Passenger door an- tenna (-)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB
75 (LG)	Ground	Passenger door an- tenna (+)	Output	When the pas- senger door re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	 JMKIA0063GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
76 (V)	Ground	Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	JMKIA0063GB
77 (P)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	JMKIA0062GB
					When Intelligent Key is not in the antenna detec- tion area	JMKIA0063GB
78 (R)	Ground	Room antenna 1 (-) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	JMKIA0063GB

A

B

C

D

E

F

G

H

I

J

PWC

L

M

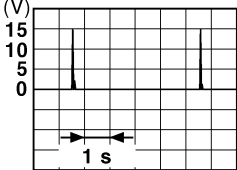
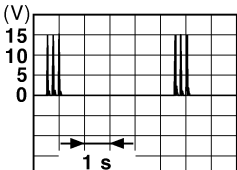
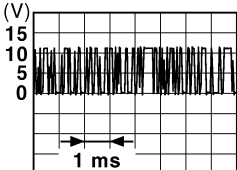
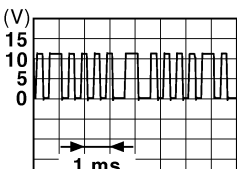
N

O

P

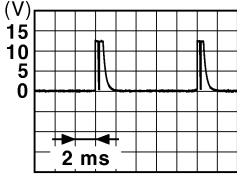
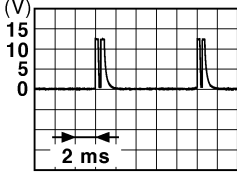
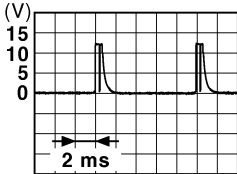
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
79 (G)	Ground	Room antenna 1 (+) (instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
80 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R/B)	Ground	Ignition relay [fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
83 (L/O)	Ground	Remote keyless en- try receiver commu- nication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the key		 JMKIA0065GB

BCM (BODY CONTROL MODULE)

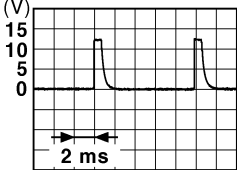
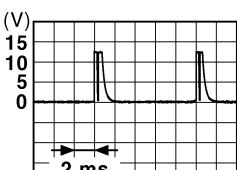
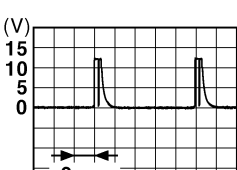
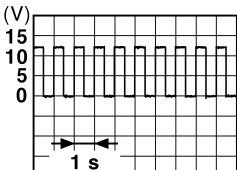
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
87 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 1.4 V
					Front fog lamp switch ON (Wiper intermittent dial 4)	 1.3 V
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 1.2 V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 1.3 V

PWC

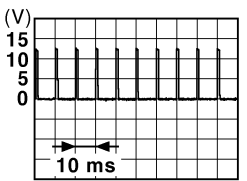
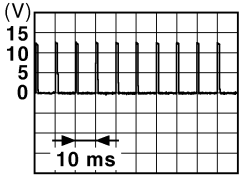
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
88 (R/G)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 JPMIA0040GB 1.3 V
89 (BR)	Ground	Push-button ignition switch (push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
90 (P)	Ground	CAN-L	Input/ Output	—	—	—
91 (L)	Ground	CAN-H	Input/ Output	—	—	—
92 (R/L)	Ground	Key slot illumination	Output	Key slot illumination	OFF	Battery voltage
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

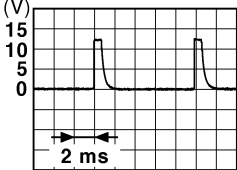
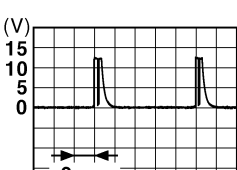
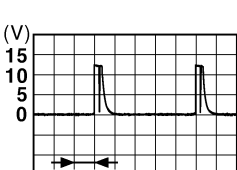
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON or ACC	0 V
95 (L)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (Y/R)	Ground	Control device (detention switch) power supply	Output	—		Battery voltage
97 (L/O)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	Battery voltage
98 (G/R)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	Battery voltage
					UNLOCK status	0 V
99 (G/B)	Ground	Selector lever P position switch	Input	Selector lever	P position	0 V
					Any position other than P	Battery voltage
100 (P/L)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMA0016GB 1.0 V
101 (B/W)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMA0016GB 1.0 V
102 (Y)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
103 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage
106 (G/Y)	Ground	Steering wheel lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
107 (R/W)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	 JPMIA0041GB 1.4 V
					 JPMIA0037GB 1.3 V
					 JPMIA0036GB 1.3 V
					 JPMIA0038GB 1.3 V
					 JPMIA0039GB 1.3 V

BCM (BODY CONTROL MODULE)

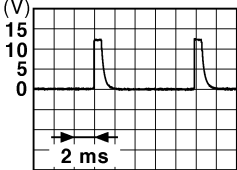
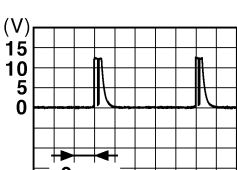
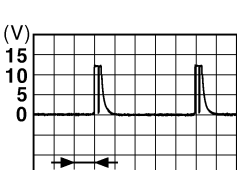
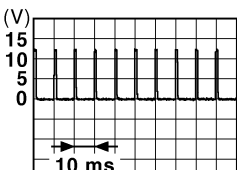
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
108 (P/B)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)	 1.3 V
					Any of the conditions be- low with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	 1.3 V

PWC

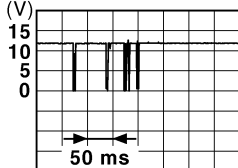
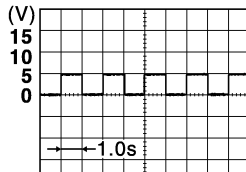
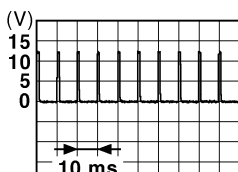
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

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

BCM (BODY CONTROL MODULE)

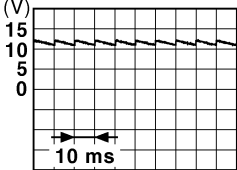
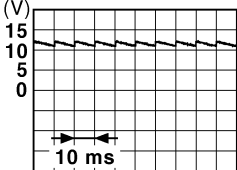
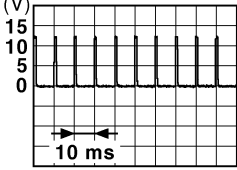
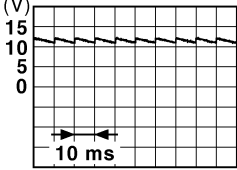
< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	−	Signal name	Input/ Output			
111 (L/Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UN- LOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113 (P/B)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
115 (L)	Ground	Shock sensor	Input	Ignition switch	OFF	0 V
					ACC	5.0 V
					ON	 JPMIA1034GB
						2.5 V
116 (R/W)	Ground	Fuse check (Stop lamp switch)	Input	—	Battery voltage	
118 (O/L)	Ground	Stop lamp switch	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is de- pressed)	Battery voltage
119 (G/W)	Ground	Front door lock as- sembly driver side (unlock sensor)	Input	Driver door	LOCK status (unlock sen- sor switch OFF)	 JPMIA0012GB
					UNLOCK status (unlock sensor switch ON)	0 V
						1.1 V
121 (Y)	Ground	Key slot switch	Input	When the key is inserted into key slot	Battery voltage	
				When the key is not inserted into key slot	0 V	
122 (V/R)	Ground	ACC feedback	Input	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
123 (G/W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

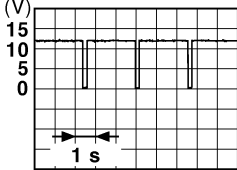
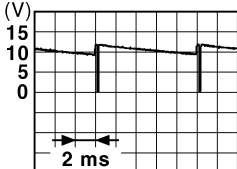
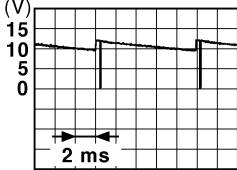
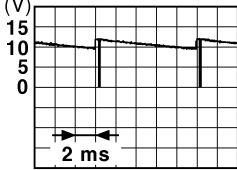
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
124 (R/B)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	 JPMIA0011GB 11.8 V
					ON (When passenger door opens)	0 V
128 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch [power window main switch or front power window switch (passenger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					LOCK position	0 V
130* (GR/W)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
131 (GR/R)	Ground	Door lock and unlock switch UN-LOCK	Input	Door lock and unlock switch [power window main switch or front power window switch (passenger side)]	NEUTRAL position	 JPMIA0011GB 11.8 V
					UNLOCK position	0 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON	9.5 V
					OFF	0 V
134 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V/W)	Ground	Receiver and sensor power supply output	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
140 (R/G)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	Battery voltage
					Except P and N positions	0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

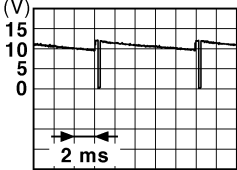
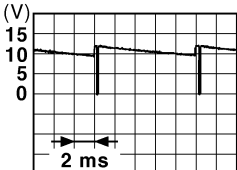
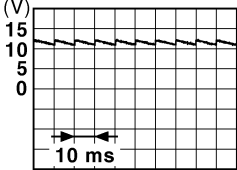
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
141 (L/O)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	Battery voltage
142 (LG/B)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7 V
					Any of the conditions be- low with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	
144 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions be- low with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
145 (LG/R)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front wiper switch INT	 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
					Rear fog lamp switch ON	
146 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Front fog lamp switch ON	 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (SB)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	 11.8 V
					ON (When driver door opens)	0 V
151 (G/R)	Ground	Rear window defog- ger relay	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

NOTE:

*: Without BOSE audio system

Wiring Diagram - BCM -

A
B
C
D
E
F
G
H
I
J
PW
L
M
N
O
P



JCMWM1671G|

< ECU DIAGNOSIS >

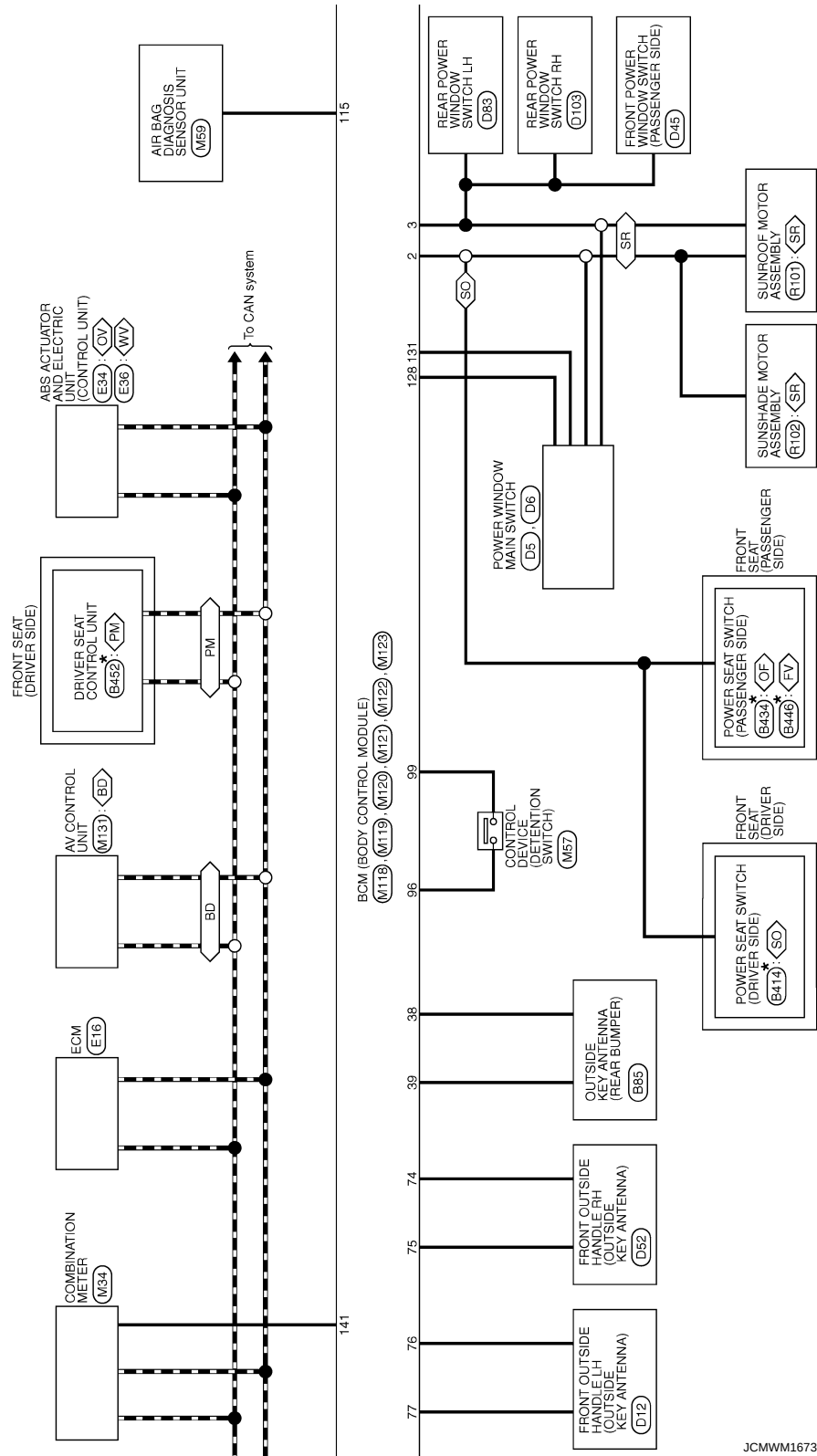


BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

- WV : With VDC
- OV : Without VDC
- PM : With automatic drive positioner
- SO : With power seat without automatic drive positioner
- BD : With BOSE system or base audio and display system
- SR : With sunroof
- FV : With front ventilation seat
- OF : Without front ventilation seat

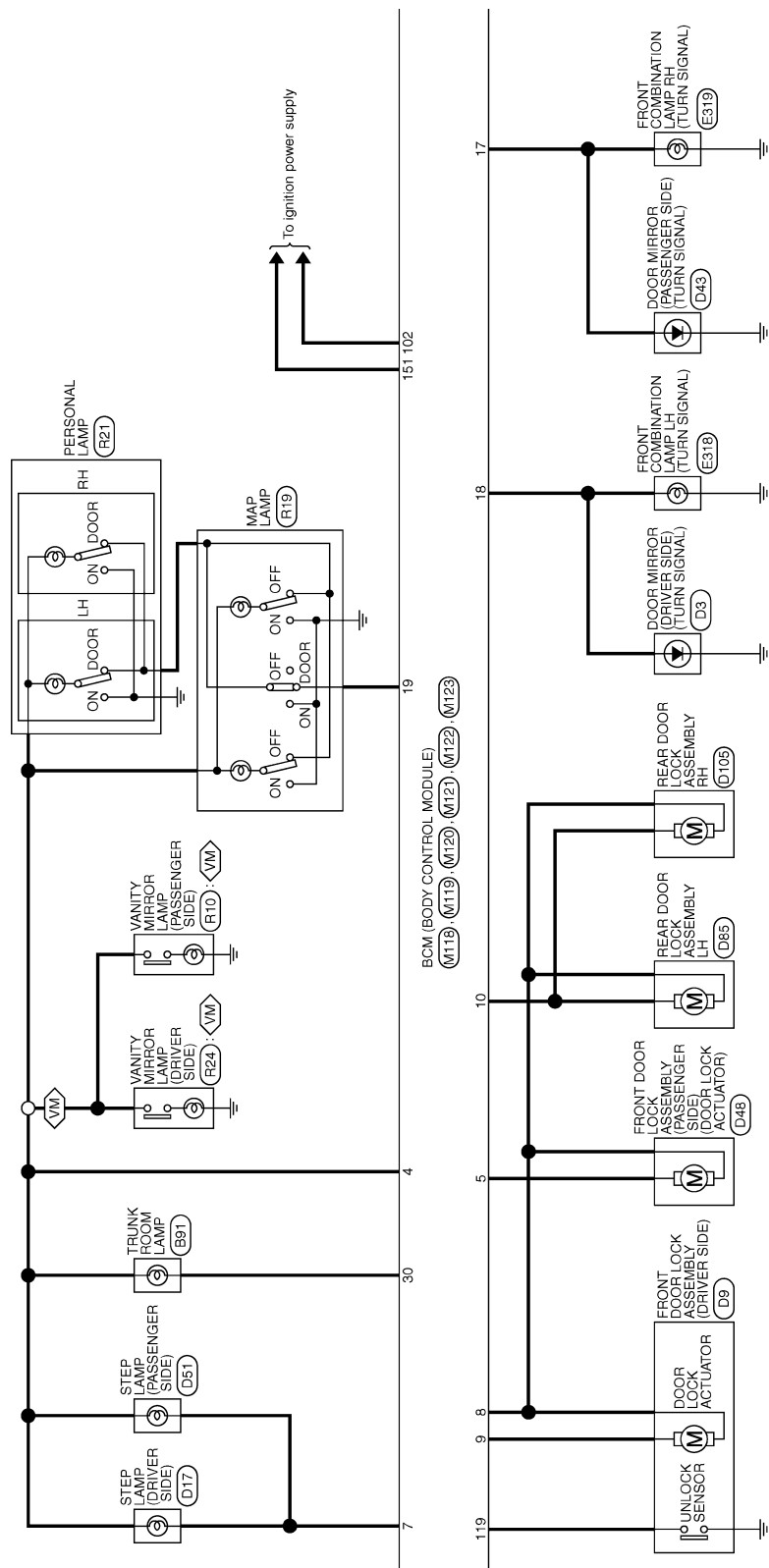
★: This connector is not shown in "Harness Layout".



A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

< ECU DIAGNOSIS >

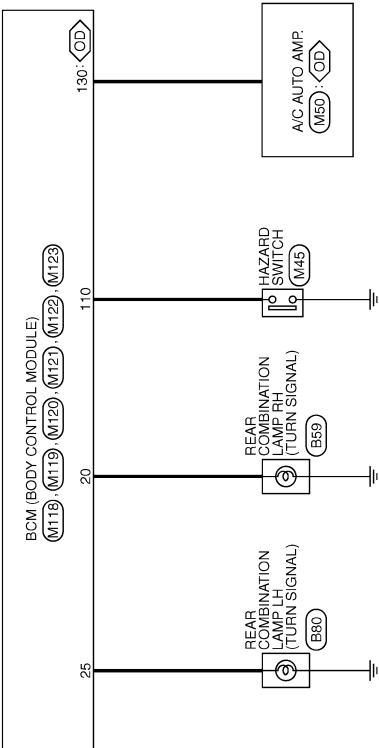


PWC-58

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

⬡ : Without BOSE system or base audio and display system



JCMWWM1675G1

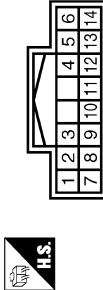
PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

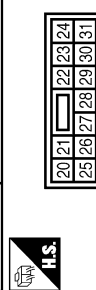
BCM (BODY CONTROL MODULE)

Connector No.	M103
Connector Name	COMBINATION SWITCH
Connector Type	TH16FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	G/Y	OUTPUT 4
5	LG/R	OUTPUT 3
7	R/G	INPUT 3
8	LG/B	OUTPUT 5
9	R/B	INPUT 2
10	P/B	INPUT 4
11	R/W	INPUT 1
12	L/W	OUTPUT 1
13	R/Y	INPUT 5
14	G/B	OUTPUT 2

Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS



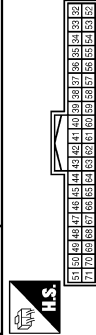
Terminal No.	Color of Wire	Signal Name [Specification]
20	G/B	TURN SIGNAL RH (REAR)
23	R	TRUNK OPEN OUTPUT
24	G	REAR FOG LAMP OUTPUT
25	G/Y	TURN SIGNAL LH (REAR)
30	V/W	TRUNK LAMP OUTPUT

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



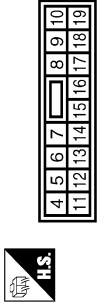
Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	BAT (F/L)
2	R/Y	POWER WINDOW POWER SUPPLY (BAT)
3	L/W	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M121
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FGY-NH



Terminal No.	Color of Wire	Signal Name [Specification]
34	B	TRUNK ANT I B
35	W	TRUNK ANT I A
38	L/O	RR BUMPER ANT B
39	BR/W	RR BUMPER ANT A
47	BR/W	IGN RELAY IPDM E/R CONT
50	W	TRUNK SW
52	R	IGN RELAY IPDM E/R CONT
61	G/R	TRUNK REQUEST SW
64	GR	REQUEST SW BUZZER
67	L/R	INTERIOR TRUNK SW
68	R/W	REAR RH DOOR SW

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
4	P/W	INTERIOR ROOM LAMP POWER SUPPLY
5	G/Y	PASSENGER DOOR UNLOCK OUTPUT
7	R/W	STEP LAMP OUTPUT
8	V	ALL DOOR LOCK OUTPUT
9	G	DRIVER DOOR UNLOCK OUTPUT
10	G/Y	REAR DOOR UNLOCK OUTPUT
11	Y/R	BAT (RUSE)
13	B	GND
15	Y	ACC IND
17	G/B	TURN SIGNAL RH (FRONT D/MIRROR)
18	G/Y	TURN SIGNAL LH (FRONT D/MIRROR)

Connector No.	
Connector Name	REAR LH DOOR SW

19	Y	ROOM LAMP TIMER CONTROL
----	---	-------------------------

JCMWM1676G

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
72	B/R	ROOM ANT2-
73	W/R	ROOM ANT2+
74	B/Y	PASSENGER DOOR ANT-
75	L/G	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	P	DRIVER DOOR ANT+
78	R	ROOM ANT1-
79	G	ROOM ANT1+
80	G/O	FOB READER CLOCK
81	O	FOB READER DATA
82	R/B	IGN RELAY (F/B) CONT

83	L/O	KEYLESS ENTRY RECEIVER SIGNAL
87	R/Y	COMBI SW INPUT 5
88	R/G	COMBI SW INPUT 3
89	BR	PUSH SW
90	P	CAN-L
91	L	CAN-H
92	R/L	FOB SLOT ILLUMINATION
93	Y	ON IND
95	L	ACC RELAY CONT
96	Y/R	CONTROL DEVICE POWER SUPPLY
97	L/O	S/L CONDITION 1
98	G/R	S/L CONDITION 2
99	G/B	SHIFT P
100	P/L	PASSENGER DOOR REQUEST SW
101	B/W	DRIVER DOOR REQUEST SW
102	Y	BLOWER FAN MOTOR RELAY CONT
103	L/R	KEYLESS ENTRY RECEIVER POWER SUPPLY
106	G/Y	S/L POWER SUPPLY
107	R/W	COMBI SW INPUT 1
108	P/B	COMBI SW INPUT 4
109	R/B	COMBI SW INPUT 2
110	G/O	HAZARD SW
111	L/Y	S/L COMM

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Terminal No.	Color of Wire	Signal Name [Specification]
113	P/B	OPTICAL SENSOR
115	L	SHOCK SENSOR SIGNAL
116	R/W	STOP L LOW SW
118	O/L	STOP L HIGH SW
119	G/W	DR DOOR UNLOCK SENSOR
121	Y	KEY SLOT SW
122	V/R	ACC P/B
123	G/W	IGN P/B
124	R/B	PASSENGER DOOR SW
128	GR	CENTRAL LOCK SW
130	GR/W	REAR DEFOGGER SW

131	GR/R	CENTRAL UNLOCK SW
133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	R	LOCK LED
137	P	RECEIVER SENSOR GND
138	V/W	RECEIVER SENSOR POWER SUPPLY
140	R/G	SHIFT N/P
142	L/O	SECURITY INDICATOR OUTPUT
143	L/G/B	COMBI SW OUTPUT 5
144	L/W	COMBI SW OUTPUT 1
145	G/B	COMBI SW OUTPUT 2
146	L/G/R	COMBI SW OUTPUT 3
148	G/Y	COMBI SW OUTPUT 4
150	SB	DRIVER DOOR SW
151	G/R	REAR WINDOW DEFOGGER RELAY

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

JCMWWM1677GI

INFOID:000000003888237

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent - Starter control relay signal - Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent - Selector lever P position switch signal - P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled - Ignition switch is in the ON position - Selector lever P position switch signal: Except P position (battery voltage) - Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled - Ignition switch is in the ON position - Selector lever P position switch signal: Except P position (battery voltage) - Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled - Status 1 - Ignition switch is in the ON position - Selector lever P/N position signal: P and N position (battery voltage) - P range signal or N range signal (CAN): ON - Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions is fulfilled - Ignition switch is in the ON position - Power position: IGN - Selector lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF - Status 2 - Ignition switch is in the ON position - Selector lever P/N position signal: P or N position (battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent - Steering lock relay signal (Request signal) - Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent - Steering lock relay signal (Request signal) - Steering lock relay signal (Condition signal)

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent - Starter motor relay control signal - Starter relay status signal (CAN)
B2609: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When the following steering lock conditions agree - BCM steering lock control status - Steering lock condition No. 1 signal status - Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled - IGN relay (IPDM E/R) control signal: OFF (Battery voltage) - Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) - Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B2612: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When any of the following conditions is fulfilled - Steering lock unit status signal (CAN) is received normally - The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E1: ENG STATE NO RES	Inhibit engine cranking	When any of the following conditions is fulfilled - Power position changes to ACC - Receives engine status signal (CAN)
B26E9: S/L STATUS	- Inhibit engine cranking - Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions is fulfilled - Steering condition No. 1 signal: LOCK (0 V) - Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

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

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

NOTE:

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

DTC Inspection Priority Chart

INFOID:000000003888238

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

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

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Priority	DTC
4	• B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: ACC RELAY CIRC • B2615: BLOWER RELAY CIRC • B2616: IGN RELAY CIRC • B2617: STARTER RELAY CIRC • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E1: ENG STATE NO RES • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED SIG
5	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000003888239

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 and IGN Counter, refer to [BCS-16, "COMMON ITEM : CONSULT-III Function \(BCM - COMMON ITEM\)"](#).

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	BCS-33
U1010: CONTROL UNIT (CAN)	—	—	—	BCS-34
U0415: VEHICLE SPEED SIG	—	—	—	BCS-35
B2013: ID DISCORD BCM-S/L	×	×	—	SEC-46
B2014: CHAIN OF S/L-BCM	×	×	—	SEC-47
B2190: NATS ANTENNA AMP	×	—	—	SEC-39
B2191: DIFFERENCE OF KEY	×	—	—	SEC-42

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Freeze Frame Data	Intelligent Key warn- ing lamp ON	Reference page	
B2192: ID DISCORD BCM-ECM	×	—	—	SEC-43	A
B2193: CHAIN OF BCM-ECM	×	—	—	SEC-45	B
B2553: IGNITION RELAY	—	×	—	PCS-49	
B2555: STOP LAMP	—	×	—	SEC-50	
B2556: PUSH-BTN IGN SW	—	×	×	SEC-52	C
B2557: VEHICLE SPEED	×	×	×	SEC-54	
B2560: STARTER CONT RELAY	×	×	×	SEC-55	
B2562: LOW VOLTAGE	—	×	—	BCS-36	D
B2601: SHIFT POSITION	×	×	×	SEC-56	
B2602: SHIFT POSITION	×	×	×	SEC-59	E
B2603: SHIFT POSI STATUS	×	×	×	SEC-61	
B2604: PNP SW	×	×	×	SEC-64	
B2605: PNP SW	×	×	×	SEC-67	F
B2606: S/L RELAY	×	×	×	SEC-69	
B2607: S/L RELAY	×	×	×	SEC-70	G
B2608: STARTER RELAY	×	×	×	SEC-72	
B2609: S/L STATUS	×	×	×	SEC-74	
B260A: IGNITION RELAY	×	×	×	PCS-51	H
B260B: STEERING LOCK UNIT	—	×	×	SEC-78	
B260C: STEERING LOCK UNIT	—	×	×	SEC-79	I
B260D: STEERING LOCK UNIT	—	×	×	SEC-80	
B260F: ENG STATE SIG LOST	×	×	×	SEC-81	
B2612: S/L STATUS	×	×	×	SEC-85	J
B2614: ACC RELAY CIRC	—	×	×	PCS-53	
B2615: BLOWER RELAY CIRC	—	×	×	PCS-55	
B2616: IGN RELAY CIRC	—	×	×	PCS-57	PWC
B2617: STARTER RELAY CIRC	×	×	×	SEC-89	
B2618: BCM	×	×	×	PCS-59	L
B2619: BCM	×	×	×	SEC-91	
B261A: PUSH-BTN IGN SW	—	×	×	SEC-92	
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-95	M
B2621: INSIDE ANTENNA	—	×	—	DLK-50	
B2622: INSIDE ANTENNA	—	×	—	DLK-52	N
B2623: INSIDE ANTENNA	—	×	—	DLK-54	
B26E1: ENG STATE NO RES	×	×	×	SEC-82	O
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-83	
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-84	P

POWER WINDOW MAIN SWITCH

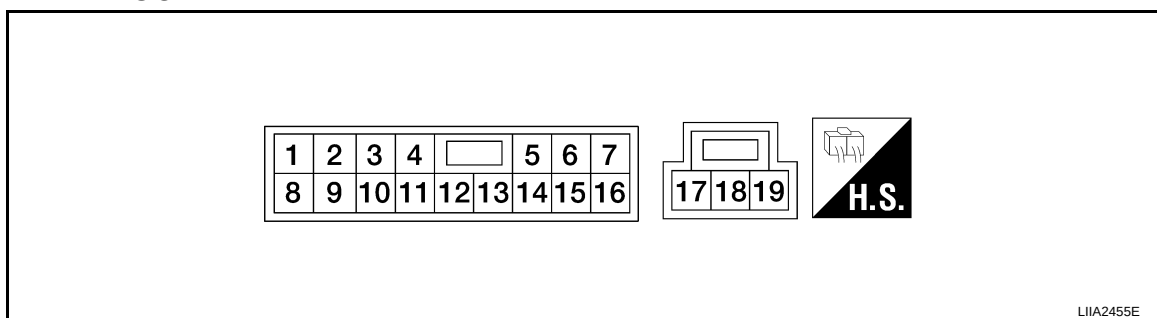
< ECU DIAGNOSIS >

POWER WINDOW MAIN SWITCH

Reference Value

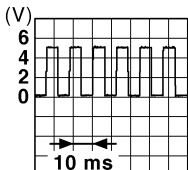
INFOID:000000003826034

TERMINAL LAYOUT



PHYSICAL VALUES

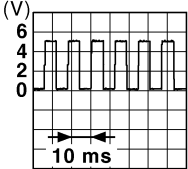
POWER WINDOW MAIN SWITCH

Terminal No. (Wire color)		Description		Condition	Voltage (V) (Approx.)
+	-	Signal name	Input/ Output		
1 (BR)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in pow- er window main switch is op- erated UP	Battery voltage
2 (O)	Ground	Encoder ground	—	—	0
3 (LG)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in pow- er window main switch is op- erated DOWN	Battery voltage
5 (V)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated DOWN	Battery voltage
7 (G)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated UP	Battery voltage
8 (Y)	Ground	Front power window motor (passenger side) UP signal	Output	When front power window switch (passenger side) in power window main switch is operated UP	Battery voltage
9 (GR)	Ground	Encoder pulse signal 2	Input	When front power window motor (driver side) operates	
10 (W)	Ground	Retained power signal	Input	Ignition switch ON	Battery voltage
				Within 45 seconds after igni- tion switch is turned to OFF	Battery voltage
				When driver side or passen- ger side door is opened dur- ing retained power operated	0

JMKIA0070GB

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Voltage (V) (Approx.)
+	-	Signal name	Input/ Output		
11 (B)	Ground	Front power window motor (passenger side) DOWN signal	Output	When front power window switch (passenger side) in power window main switch is operated DOWN	Battery voltage
12 (L)	Ground	Front power window motor (driver side) DOWN signal	Output	When power window main switch is operated DOWN	Battery voltage
13 (SB)	Ground	Encoder pulse signal 1	Input	When front power window motor (driver side) operates.	 JMKIA0070GB
15 (W)	Ground	Encoder power supply	Output	Ignition switch ON	Battery voltage
16 (R)	Ground	Front power window motor (driver side) UP signal	Output	When power window main switch is operated UP	Battery voltage
17 (B)	Ground	Ground	—	—	0
19 (P)	Ground	Battery power supply	Input	Ignition switch OFF	Battery voltage

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

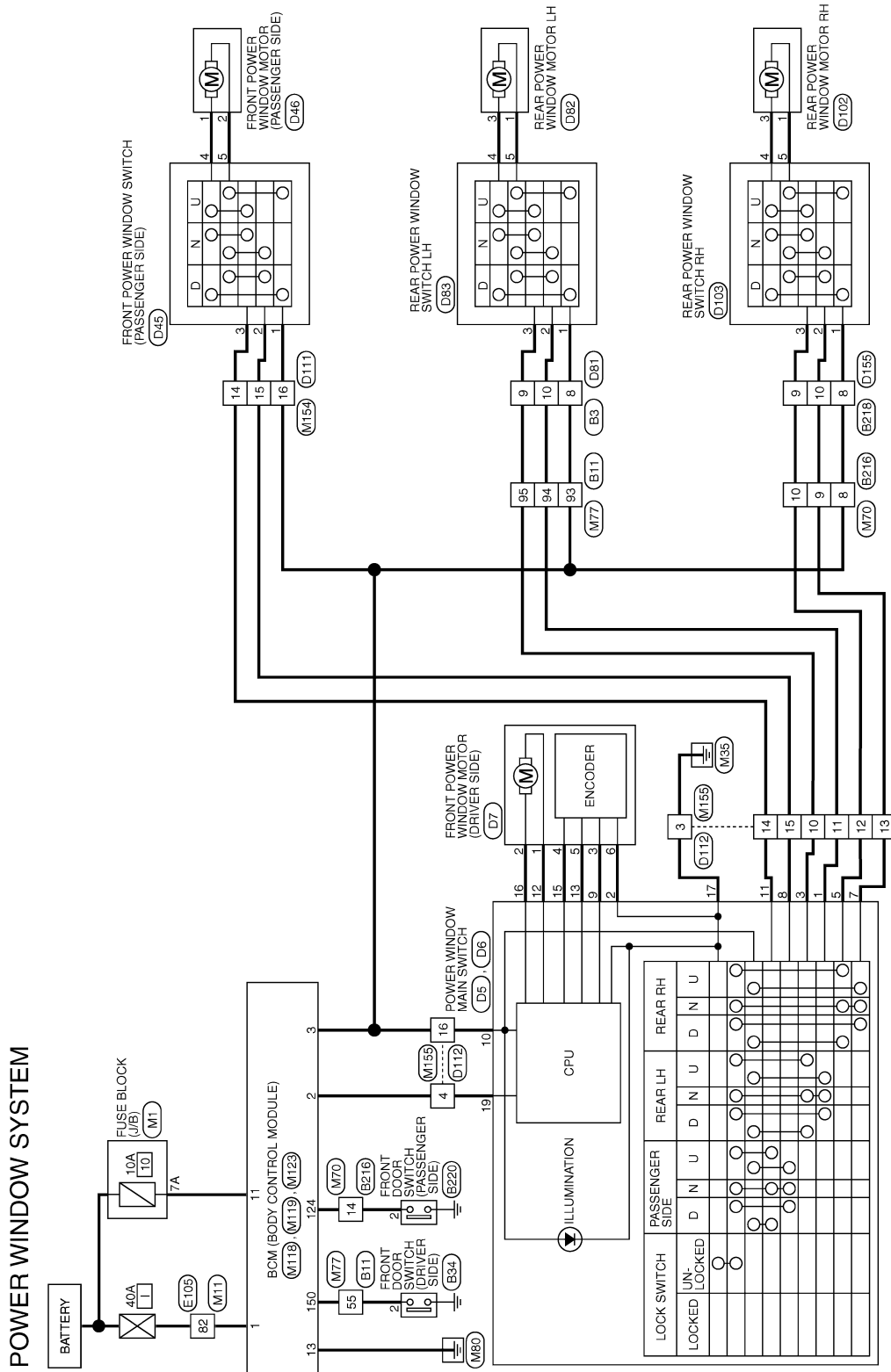
PWC

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

Wiring Diagram - POWER WINDOW SYSTEM -

INFOID:000000003940981



2008/01/23

JCKWM1227GE

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

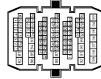
Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



1	2	3	4
5	6	7	8
9	10		

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	-
9	BR	-
10	GR	-

Connector No.	B11
Connector Name	WIRE TO WIRE
Connector Type	TH60MH-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
55	SB	-
93	R	-
94	GR	-
95	BR	-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



1	2	3
---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
2	SB	-

Connector No.	B216
Connector Name	WIRE TO WIRE
Connector Type	NS16MER-CS



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	-
9	P	-
10	SB	-
14	R	-

Connector No.	B218
Connector Name	WIRE TO WIRE
Connector Type	NS10MW-CS



1	2	3	4
5	6	7	8
9	10		

Connector No.	B220
Connector Name	FRONT DOOR SWITCH (PASSENGER SIDE)
Connector Type	A03FW



1	2	3
---	---	---

Connector No.	D5
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS



1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16					

15	W
16	R

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	-
9	SB	-
10	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
2	R	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	-
2	O	-
3	LG	-
5	V	-
7	G	-
8	Y	-
9	GR	-
10	W	-
11	B	-
12	I	-
13	SB	-

JCKWM12286I

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

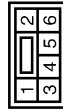
POWER WINDOW SYSTEM

Connector No.	D6
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS03FW-CS



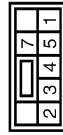
Terminal No.	Color of Wire	Signal Name [Specification]
17	B	-
18	P	-

Connector No.	D7
Connector Name	FRONT POWER WINDOW MOTOR (DRIVER SIDE)
Connector Type	NS06FW-CS



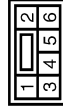
Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	R	-
3	GR	-
4	W	-
5	SB	-
6	O	-

Connector No.	D43
Connector Name	FRONT POWER WINDOW SWITCH (PASSENGER SIDE)
Connector Type	NS08FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	W	-
2	Y	-
3	B	-
4	L	-
5	R	-

Connector No.	D46
Connector Name	FRONT POWER WINDOW MOTOR (PASSENGER SIDE)
Connector Type	NS06FW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
2	R	-

Connector No.	D81
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



Connector No.	D82
Connector Name	REAR POWER WINDOW MOTOR LH
Connector Type	RS06FG



Connector No.	D83
Connector Name	REAR POWER WINDOW SWITCH LH
Connector Type	NS08FW-CS



Connector No.	D102
Connector Name	REAR POWER WINDOW MOTOR RH
Connector Type	RS08FG



Terminal No.	Color of Wire	Signal Name [Specification]
8	R	-
9	SB	-
10	P	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
3	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	P	-
3	SB	-
4	LG	-
5	L	-

Terminal No.	Color of Wire	Signal Name [Specification]
1	L	-
3	LG	-

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

Connector No.	D103
Connector Name	REAR POWER WINDOW SWITCH RH
Connector Type	NS08FW-CS



2	3	4	5	1
---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
2	P	-
3	SB	-
4	LG	-
5	L	-

Connector No.	D111
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



7	6	5	4	3	2	1
---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
14	B	-
15	Y	-
16	W	-

Connector No.	D112
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



7	6	5	4	3	2	1
---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
3	B	-
4	P	-
10	LG	-
11	BR	-
12	V	-
13	G	-
14	B	-
15	Y	-
16	W	-

Connector No.	D155
Connector Name	WIRE TO WIRE
Connector Type	NS10FW-CS



4	3	2	1
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
8	R	-
9	SB	-
10	P	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH10MW-CS10-M3



Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS00FW-M2



3A	2A1A
----	------

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH10FW-CS10-M3



Connector No.	M70
Connector Name	WIRE TO WIRE
Connector Type	NS16FBR-CS



7	6	5	4	3	2	1
---	---	---	---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
82	LG	-

Terminal No.	Color of Wire	Signal Name [Specification]
7A	Y/R	-

Terminal No.	Color of Wire	Signal Name [Specification]
82	W/B	-

Terminal No.	Color of Wire	Signal Name [Specification]
8	L/W	-
9	G/W	-
10	G/R	-
14	R/B	-

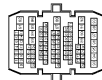
A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

POWER WINDOW SYSTEM

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH60FW-CS19



Terminal No.	Color of Wire	Signal Name [Specification]
55	SB	-
93	L/W	-
94	G/B	-
95	G/O	-

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	M03FB-LC



Terminal No.	Color of Wire	Signal Name [Specification]
1	W/B	BAT (F/L)
2	R/Y	POWER WINDOW POWER SUPPLY (BAT)
3	L/W	POWER WINDOW POWER SUPPLY (IGN)

Connector No.	M119
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS16FW-CS



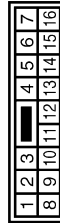
Terminal No.	Color of Wire	Signal Name [Specification]
11	Y/R	BAT (FUSE)
13	B	GND

Connector No.	M123
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH



Terminal No.	Color of Wire	Signal Name [Specification]
124	R/B	PASSENGER DOOR SW
150	SB	DRIVER DOOR SW

Connector No.	M154
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
14	R/W	-
15	R/B	-
16	L/W	-

Connector No.	M155
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-CS



Terminal No.	Color of Wire	Signal Name [Specification]
3	B/P	-
4	R/Y	-
10	G/O	-
11	G/B	-
12	G/R	-
13	G/W	-
14	R/W	-
15	R/B	-
16	L/W	-

Fail-safe

FAIL-SAFE CONTROL

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

JCKWM1231Gt

INFOID:000000003826036

POWER WINDOW MAIN SWITCH

< ECU DIAGNOSIS >

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

When the system is switched to fail-safe control, the system becomes an initialized condition and the following functions do not operate.

- Auto-up operation
- Anti-pinch function

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

PWC

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Diagnosis Procedure

INFOID:0000000003826037

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to [PWC-12, "BCM : Diagnosis Procedure"](#).

Is the inspection result normal?

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

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

Check power window main switch power supply and ground circuit.
Refer to [PWC-12, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure"](#).

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-35, "Intermittent Incident"](#).
- NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:000000003826039

1.CHECK FRONT POWER WINDOW MOTOR (DRIVER SIDE)

Check power window motor.

Refer to [PWC-20, "DRIVER SIDE : Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE WITH BOTH POWER WINDOW MAIN SWITCH AND FRONT PASSENGER SIDE POWER WINDOW SWITCH

WITH BOTH POWER WINDOW MAIN SWITCH AND FRONT PASSENGER SIDE
POWER WINDOW SWITCH : Diagnosis Procedure

INFOID:000000003826040

1.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-16, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts

2.CHECK FRONT POWER WINDOW MOTOR (PASSENGER SIDE)

Check front power window motor (passenger side).

Refer to [PWC-21, "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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

POWER WINDOW MAIN SWITCH IS OPERATED

POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:000000003826041

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

Check front power window switch (passenger side) power supply and ground circuit.

Refer to [PWC-13, "FRONT POWER WINDOW SWITCH \(PASSENGER SIDE\) : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Check front power window switch (passenger side).

Refer to [PWC-16, "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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH

WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH : Diagnosis Procedure

INFOID:000000003826042

1.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-18, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to [PWC-23, "REAR LH : 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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

WITH REAR POWER WINDOW SWITCH LH ONLY

WITH REAR POWER WINDOW SWITCH LH ONLY : Diagnosis Procedure

INFOID:000000003826043

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-14, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-18, "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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR RH SIDE POWER WINDOW DOES NOT OPERATE
WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW
SWITCH RH

WITH BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW
SWITCH RH : Diagnosis Procedure

INFOID:000000003826044

1.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-18, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to [PWC-24, "REAR RH : 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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

WITH REAR POWER WINDOW SWITCH RH ONLY

WITH REAR POWER WINDOW SWITCH RH ONLY : Diagnosis Procedure

INFOID:000000003826045

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

Check rear power window switch power supply and ground circuit.

Refer to [PWC-14, "REAR POWER WINDOW SWITCH : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to [PWC-18, "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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000003826046

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-6, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER CIRCUIT

Check encoder circuit.

Refer to [PWC-29, "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-35, "Intermittent Incident"](#).

NO >> GO TO 1.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000003857788

1.CHECK DOOR SWITCH

Check door switch.

Refer to [PWC-27, "Component Function Check"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to [GI-35, "Intermittent Incident"](#).

NO >> GO TO 1.

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

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:000000003826047

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to [PWC-6, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

Is the inspection result normal?

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

2.CHECK ENCODER

Check encoder.

Refer to [PWC-29, "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-35, "Intermittent Incident"](#).
NO >> GO TO 1.

A
B
C
D
E
F
G
H
I
J
L
M
N
O
P

PWC

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:000000003826048

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-85. "Removal and Installation"](#).

POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

POWER WINDOW SWITCH DOES NOT ILLUMINATE

Diagnosis Procedure

INFOID:000000003826049

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to [PWC-85. "Removal and Installation"](#).

A

B

C

D

E

F

G

H

I

J

PWC

L

M

N

O

P

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000003826050

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 AIRBAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- 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.

Precaution Necessary for Steering Wheel Rotation after Battery Disconnect

INFOID:000000003826051

NOTE:

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

This vehicle is equipped with a push-button ignition switch and a steering lock unit.

If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

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

OPERATION PROCEDURE

1. Connect both battery cables.

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the push-button ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the push-button ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the push-button ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT-III.

POWER WINDOW MAIN SWITCH

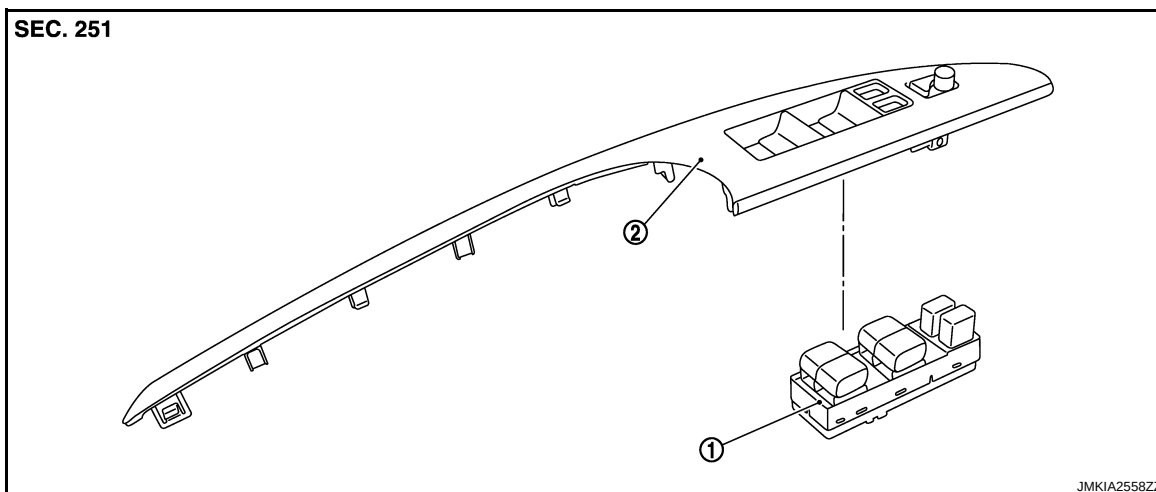
< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

POWER WINDOW MAIN SWITCH

Exploded View

INFOID:000000003826052



1. Power window main switch

2. Power window main switch finisher

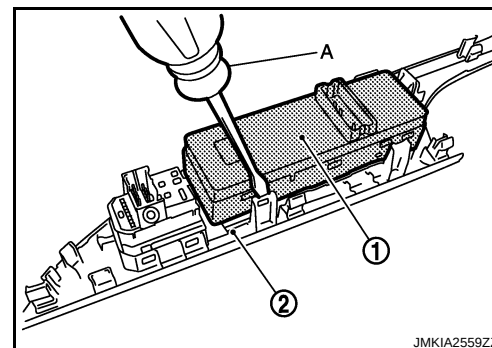
Removal and Installation

INFOID:000000003826053

REMOVAL

1. Remove the power window main switch finisher (2). Refer to [INT-30. "DRIVER SIDE : Exploded View"](#) and [INT-30. "DRIVER SIDE : 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.

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



INSTALLATION

Install in the reverse order of removal.

NOTE:

If power window main switch is exchanged or is detached, it is necessary to perform the initialization procedure.

Refer to [PWC-6. "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement"](#).

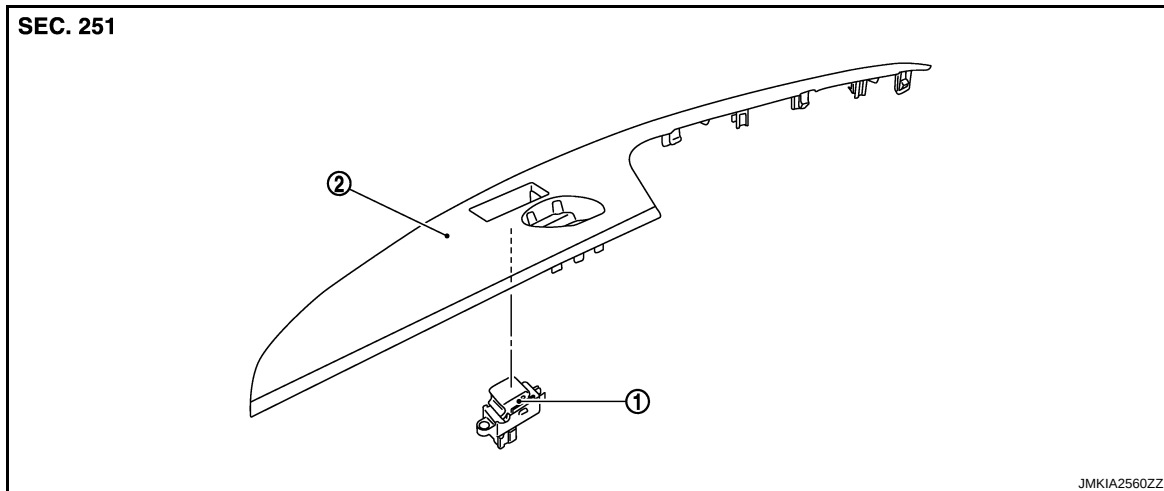
FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< ON-VEHICLE REPAIR >

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Exploded View

INFOID:000000003857778



1. Front power window switch (passenger side)
2. Front power window switch finisher (passenger side)

Removal and Installation

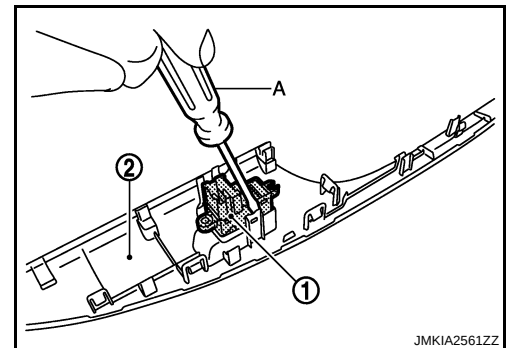
INFOID:000000003857779

REMOVAL

1. Remove the front power window switch finisher (passenger side) (2).
Refer to [INT-33. "PASSENGER SIDE : Exploded View"](#) and [INT-33. "PASSENGER SIDE : Removal and Installation"](#).
2. Front power window switch (passenger side) (1) is removed from front power window switch finisher (passenger side) (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of front power window switch finisher (passenger side).



INSTALLATION

Install in the reverse order of removal.

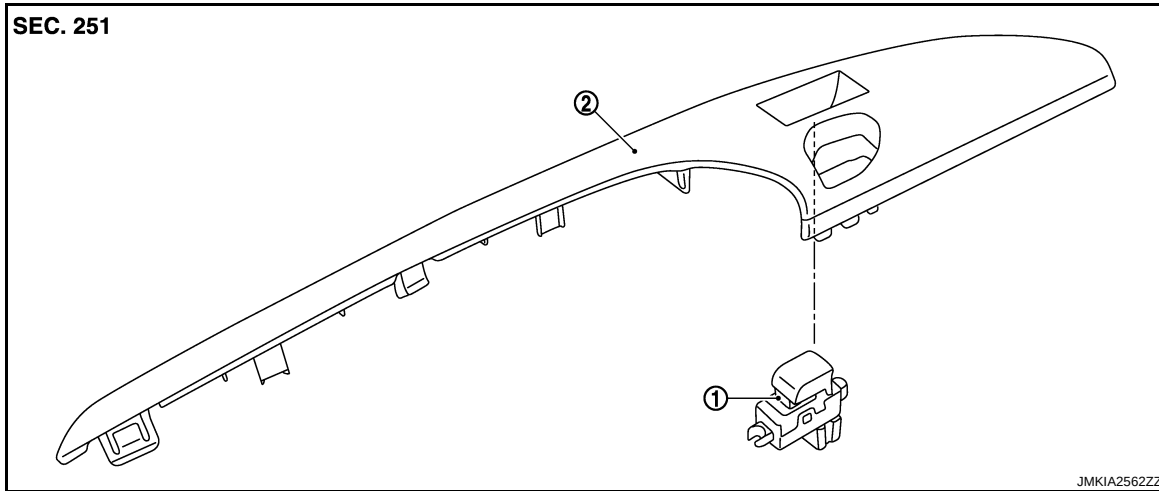
REAR POWER WINDOW SWITCH

< ON-VEHICLE REPAIR >

REAR POWER WINDOW SWITCH

Exploded View

INFOID:000000003857780



1. Rear power window switch
2. Rear power window switch finisher

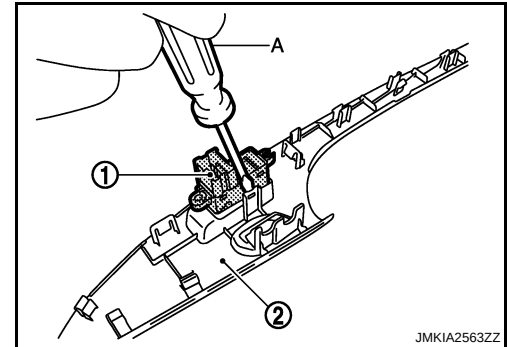
Removal and Installation

INFOID:000000003857781

REMOVAL

1. Remove the rear power window switch finisher (2).
Refer to [INT-36, "Exploded View"](#) and [INT-36, "Removal and Installation"](#).
2. Rear power window switch (1) is removed from rear power window switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:
Never fold pawl of rear power window switch finisher.



INSTALLATION

Install in the reverse order of removal.

A
B
C
D
E
F
G
H
I
J
PWC
L
M
N
O
P