SECTION PWC

POWER WINDOW CONTROL SYSTEM

CONTENTS

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

WorkFlow

INFOID:0000000008154188

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING PARTS WITH “DTC/CIRCUIT DIAGNOSIS”

Perform the diagnosis with “DTC/CIRCUIT DIAGNOSIS” of the applicable system.

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Are the malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000008154189

Initial setting is necessary when battery terminal is removed.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000008154190

INITIALIZATION PROCEDURE

1. Disconnect battery terminal or power window main switch connector while operationg power window. Reconnect it after a minute or more.
2. Door close (door switch OFF)
3. Turn ignition switch ON.
4. Fully open retractable hard top system and rear power window. This operation is not necessary if retractable hard top system and rear power window are fully open.
5. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
6. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 3 seconds or more.
7. 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 without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

- **Do not check with hands and other part of body because they may be pinched. Do not get pinched.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-85, "Fail Safe"**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be done.**

1. **Auto-up operation**
2. **Anti-pinch function**
3. **Automatic window adjusting function**
4. **Retained power operation**

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000008154191

Initial setting is necessary when replacing power window main switch.

CAUTION:

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

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

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000008154192

INITIALIZATION PROCEDURE

1. Disconnect battery terminal or power window main switch connector while operationg power window. Reconnect it after a minute or more.
2. Door close (door switch OFF)
3. Turn ignition switch ON.
4. Fully open retractable hard top system and rear power window. This operation is not necessary if retractable hard top system and rear power window are fully open.
5. Operate power window switch to fully open the window. (This operation is unnecessary if the window is already fully open)
6. Continue pulling the power window switch UP (AUTO-UP operation). Even after glass stops at fully closed position, keep pulling the switch for 3 seconds or more.
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- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

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- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **It may switch to fail-safe mode if open/close operation is performed continuously. Perform initial setting in that situation. Refer to PWC-85, "Fail Safe"**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be done.**

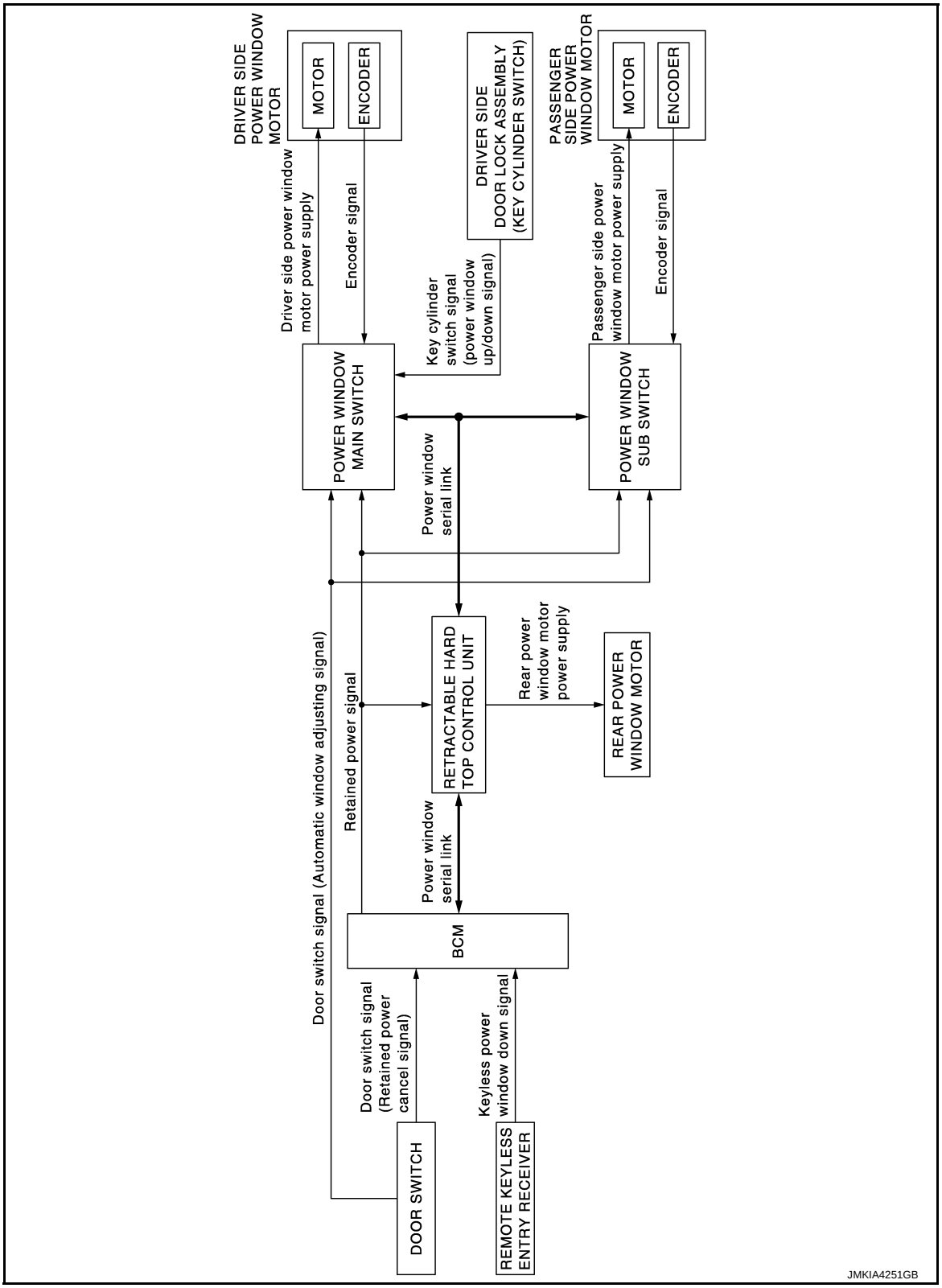
1. **Auto-up operation**
2. **Anti-pinch function**
3. **Automatic window adjusting function**
4. **Retained power operation**

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000008154193



System Description

INFOID:0000000008154194

POWER WINDOW OPERATION

- Power window main switch can open/close all windows.
- Power window sub-switch can open/close the passenger side windows.
- Retained power operation can operate power window switch and power window sub-switch for 45 seconds after ignition switch is turned OFF.
- Power window lock function prohibits operation other than power window main switch when lock switch is pressed.
- Anti-pinch function lowers door glass a specific amount during power window AUTO UP operation when resistance is detected because of a trapped foreign object.
- Power window serial link transmits and receives signal between retractable hard top control unit and power window main switch or power window sub-switch.
- Power window system operation links with retractable hard top system to RF-20, "RETRACTABLE HARD TOP SYSTEM : System Description".

POWER WINDOW AUTO-OPERATION

- Driver and passenger power window motors operate AUTO UP/DOWN when power window main switch or power window sub-switch is operated in AUTO.
- Power window main switch and power window sub-switch read the changes of encoder signal and stop AUTO operation when door glass is fully open or closed.(Anti-pinch function does not operate just before door glass is fully closed and before it is fully closed.)
- Even if encoder is malfunctioning, power window motors are operative (except during AUTO operation).
- For rear power window motor, only AUTO DOWN operation is operative.

POWER WINDOW SIMULTANEOUS OPERATION

All door glass moves upward (downward) when driver side front switch and passenger side front switch of power window main switch are simultaneously pulled (pressed) in AUTO position.

NOTE:

This function is adopted in consideration of convenience after all door glass is fully closed (open) when retractable hard top is operated.

POWER WINDOW SERIAL LINK

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

The under mentioned signal is transmitted from retractable hard top control unit to power window main switch.

- Retractable hard top operation signal (front power window down signal, front power window up operation prohibition signal)
- Keyless power window down signal

The under mentioned signal is transmitted from retractable hard top control unit to power window sub-switch.

- Retractable hard top operation signal (front power window down signal, front power window up operation prohibition signal)
- Keyless power window down signal

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

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

The under mentioned signal is transmitted from power window main switch to retractable hard top control.

- Rear power window operation signal
- Power window control by key cylinder switch signal
- Power window lock signal

RETAINED POWER OPERATION

- During 45 seconds after ignition switch is turned OFF, BCM controls timer and enables open and close operation of driver door glass, passenger door glass, and rear quarter glass.

NOTE:

Retained power operation is not operative when system initialization is not complete.

Retained power function cancel conditions

When BCM detects the following signal it cancels.

- Door CLOSE (door switch OFF)→OPEN (door switch ON).
- Ignition switch is ON.
- Timer time passes. (45 seconds)

POWER WINDOW LOCK FUNCTION

Window lock signal is sent to retractable hard top control and power window sub switch via serial link, and switch operation other than power window main switch is prohibited.

NOTE:

Power window operates when retractable hard top operated while power window lock switch is ON.

ANTI-PINCH FUNCTION

- Foreign material in the door glass during AUTO-UP operation the anti-pinch function that lowers the door glass 150 mm when detected.
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the window glass for 150 mm after it detects encoder pulse signal frequency change.

OPERATION CONDITION

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

NOTE:

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

KEY CYLINDER SWITCH OPERATION

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

OPERATION CONDITION

- Ignition switch OFF.
- Hold door key cylinder LOCK position for 1 second or more to perform CLOSE operation of the door glass.
- Hold door key cylinder UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN OPERATION

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

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

- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

While retained power operation keyless power window down function cannot be operated.

Keyless power window down operation mode can be changed by “PW DOWN SET” mode in “WORK SUPPORT”. Refer to DLK-51, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

NOTE:

Use CONSULT to change settings.

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

AUTOMATIC WINDOW ADJUSTING FUNCTION

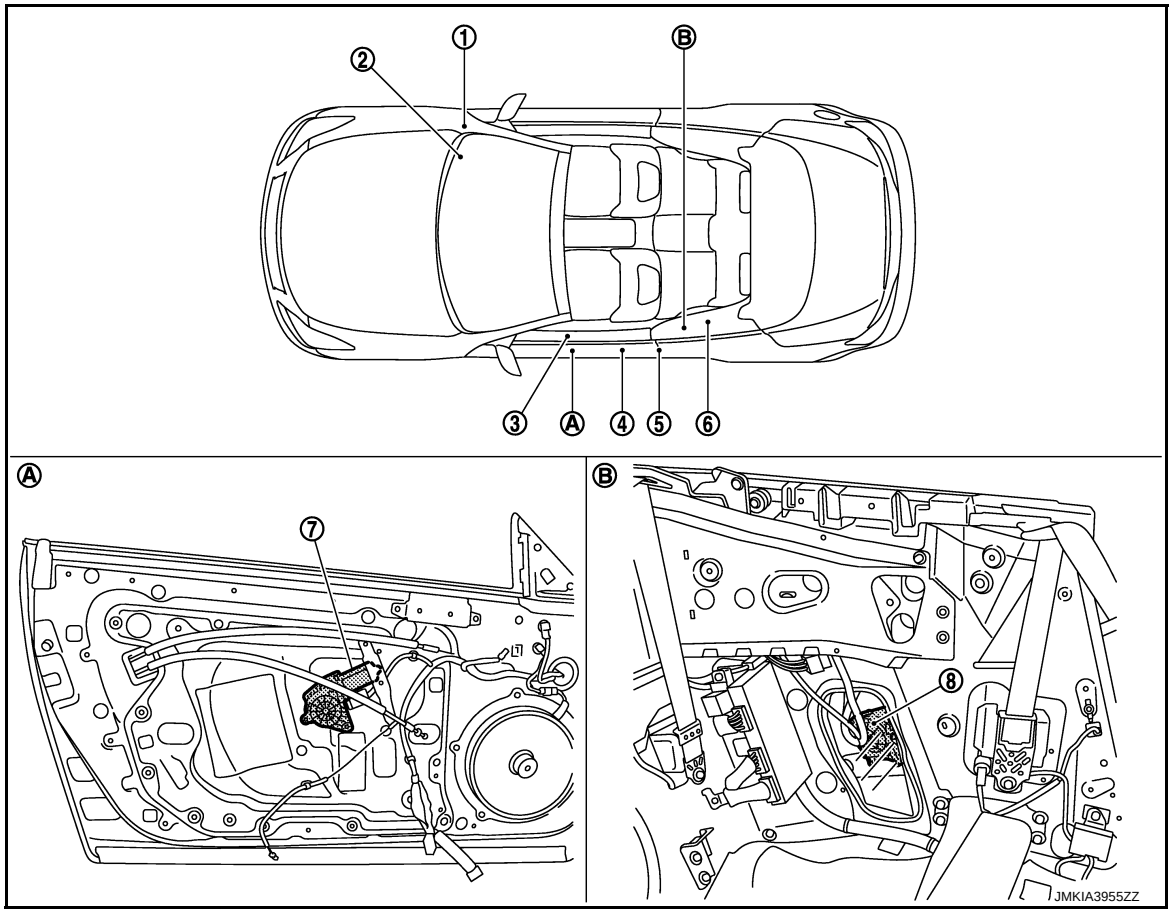
- When the driver's/passenger's door(s) is opened, the window of the opened door is lowered approx. 10 mm (0.39 in).Door is closed, door glass returns to the fully closed and closing operability and door glass airtightness are improved by this function.
- This function is operative while power window is locked.
- Opening and closing state of door is judged according to door switch ON or OFF position.
- Automatic window adjusting function is operative regardless of retractable hard top system state.

Non-operation condition

- Before automatic window adjusting function starts to lower door glass, door glass is 10 mm (0.39 in) or more open from the fully closed position.
- Door is closed while automatic window adjusting function is lowering door glass.

Component Parts Location

INFOID:0000000008154195



1. BCM M118,M119,M122,M123 Refer to BCS-6, "Component Parts Location".
2. Remote keyless entry receiver M104 Refer to DLK-16, "INTELLIGENT KEY SYSTEM : Component Parts Location".
3. Power window main switch D8,D9
4. Driver side door lock assembly (key cylinder switch) D15
5. Driver side door switch B16
6. Retractable hard top control unit B82,B83 Refer to RF-15, "Component Parts Location".
7. Driver side power window motor D10
8. Rear power window motor LH B653
A. View with dash side lower (passenger side)
B. View with door finisher removed

Component Description

INFOID:0000000008154196

Component	Function
BCM	• Supplies power supply to power window switches. • Controls retained power.
Retractable hard top contol unit	Refer to RF-17, "Component Description".
Power window main switch	• Directly controls all power window motor of all doors. • Controls anti-pinch operation of power window.
Power window sub-switch	• Controls anti-pinch operation of power window. • Controls power window motor of passenger door.
Driver side power window motor	• Integrates the ENCODER and WINDOW MOTOR. • Start operating with signals from power window main switch. • Transmits power window motor rotation as a pulse signal to power window switch.

Component	Function
Passenger side power window motor	• Integrates the ENCODER and WINDOW MOTOR. • Start operating with signals from power window main switch & power window sub-switch. • Transmits power window motor rotation as a pulse signal to power window switch.
Rear power window motor (LH & RH)	Start operating with signals from power window main switch.
Driver side door lock assembly (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Door switch	Detects door open/close condition and transmits to BCM.
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent key transmits to BCM.

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000008778796

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

×: 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	×	×	×
—	MULTI REMOTE ENT*1			
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×*2	×	×
Turn signal and hazard warning lamps	FLASHER	×	×	×
—	AIR CONDITONER*1			
• 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	×	×	×
Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	AIR PRESSURE MONITOR	×	×	×

NOTE:

- *1: This item is displayed, but is not used.
- *2: At models with rain sensor this mode is displayed, but is not used.

FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected.	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” (Except emergency stop operation)
	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”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 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.	

NOTE:

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

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

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

RETAIND PWR

RETAIND PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000008154198

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.

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000008154199

1.CHECK FUSE AND FUSIBLE LINK

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

Signal name	Fuse and fusible link No.
Battery power supply	K
	10

Is the fuse fusing?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit if a fuse or fusible link is blown.
NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

YES >> GO TO 3.
NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

YES >> INSPECTION END
NO >> Repair harness or connector.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000008154200

1.CHECK POWER SUPPLY CIRCUIT

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

Terminal			Voltage (V) (Approx.)
(+)		(–)	
Power window main switch connector	Terminal		
D8	10	Ground	Battery voltage
D9	19		

Is the measurement value within the specification?

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 connector	Terminal	Ground	Continuity
D9	17		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

3.CHECK HARNESS CONTINUITY

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

BCM connector	Terminal	Power window main switch connector	Terminal	Continuity
M118	3	D8	10	Existed
	2	D9	19	

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M118	2		Not existed
	3		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000008154201

1.CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window sub-switch connector.
3. Check voltage between power window sub-switch harness connector and ground.

Terminal			Voltage (V) (Approx.)
(+)		(–)	
Power window sub-switch	Terminal		
D38	10	Ground	Battery voltage

Is the measurement value within the specification?

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

2.CHECK GROUND CIRCUIT

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

Power window sub-switch connector	Terminal	Ground	Continuity
D38	11		Existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Repair or replace harness.

3.CHECK HARNESS CONTINUITY

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

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

4. Check continuity between BCM harness connector and ground.

BCM connector	Terminal	Ground	Continuity
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-79, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000008154202

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

DRIVER SIDE : Component Function Check

INFOID:0000000008154203

1.CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Refer to PWC-18, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154204

1.CHECK DRIVER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

Terminal			Power window main switch condition	Voltage (V) (Approx.)
(+)		(–)		
Driver side power window motor connector	Terminal			
D10	6	Ground	UP	Battery voltage
			DOWN	0
	3		UP	0
			DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Replace driver side power window motor. Refer to GW-27, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

Check voltage between power window main switch connector and ground.

Terminal			Power window main switch condition		Voltage (V) (Approx.)
(+)		(–)			
Power window main switch connector	Terminal				
D8	8	Ground	Driver side	UP	Battery voltage
				DOWN	0
	11			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace power window main switch. Refer to PWC-106, "Removal and Installation".

3.CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.

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

Power window main switch connector	Terminal	Driver side power window motor connector	Terminal	Continuity
D8	8	D10	6	Existed
	11		3	

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

Power window main switch connector	Terminal	Ground	Continuity
D8	8		Not existed
	11		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000008154205

Door glass moves UP/DOWN by receiving the signal power window main switch or power window sub-switch .

PASSENGER SIDE : Component Function Check

INFOID:0000000008154206

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor operation with power window main switch or power window sub switch.

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Refer to PWC-19, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154207

1. CHECK PASSENGER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

Terminal			Power window sub-switch condition	Voltage (V) (Approx.)
(+)		(–)		
Passenger side power window motor connector	Terminal			
D40	3	Ground	UP	Battery voltage
			DOWN	0
	6		UP	0
			DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Replace passenger side power window motor. Refer to GW-27, "Removal and Installation".
NO >> GO TO 2.

2.CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

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

Terminal			Power window sub-switch condition		Voltage (V) (Approx.)
(+)		(–)			
Power window sub-switch connector	Terminal				
D38	9	Ground	Passenger side	UP	Battery voltage
				DOWN	0
	8			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace power window sub-switch. Refer to PWC-106, "Removal and Installation".

3.CHECK HARNESS CONTINUITY

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

Power window sub-switch connector	Terminal	Passenger side power window motor connector	Terminal	Continuity
D38	9	D40	3	Existed
	8		6	

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

Power window sub-switch connector	Terminal	Ground	Continuity
D38	8		Not existed
	9		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

REAR LH

REAR LH : Description

INFOID:0000000008154208

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

REAR LH : Component Function Check

INFOID:0000000008154209

1.CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.
NO >> Refer to PWC-21, "REAR LH : Diagnosis Procedure".

REAR LH : Diagnosis Procedure

INFOID:0000000008154210

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.

Terminal			Power window main switch condition		Voltage (V) (Approx.)
(+)		(–)			
Rear power window motor LH connector	Terminal				
B653	1	Ground	Rear LH	UP	Battery voltage
				DOWN	0
	2			UP	0
				DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Replace rear power window motor LH. Refer to GW-16, "Removal and Installation".
NO >> GO TO 2.

2.CHECK RETRACTABLE HARD TOP CONTROL UNIT OUTPUT SIGNAL

Check voltage between retractable hard top control unit connector and ground.

Terminal			Power window main switch condition		Voltage (V) (Approx.)
(+)		(–)			
Retractable hard top control unit connector	Terminal				
B83	53	Ground	Rear LH	UP	Battery voltage
				DOWN	0
	54			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace retractable hard top control unit. Refer to RF-295, "Removal and Installation".

3.CHECK HARNESS CONTINUITY

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

Retractable hard top control unit connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
B83	53	B653	1	Existed
	54		2	

4. Check continuity between retractable hard top control unit harness connector and ground.

Retractable hard top control unit connector	Terminal	Ground	Continuity
B83	53		Not existed
	54		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

REAR RH

REAR RH : Description

INFOID:0000000008154211

Door glass moves UP/DOWN by receiving the signal power window main switch or power window sub-switch .

REAR RH : Component Function Check

INFOID:0000000008154212

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor operation with power window main switch or power window sub switch.

Is the inspection result normal?

YES >> Power window motor is OK.
NO >> Refer to PWC-22, "REAR RH : Diagnosis Procedure".

REAR RH : Diagnosis Procedure

INFOID:0000000008154213

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.

Terminal			Power window main switch condition		Voltage (V) (Approx.)
(+)		(–)			
Rear power window motor RH connector	Terminal				
B655	1	Ground	Rear RH	UP	Battery voltage
				DOWN	0
	2			UP	0
				DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Replace rear power window motor LH. Refer to GW-16, "Removal and Installation".
NO >> GO TO 2.

2.CHECK RETRACTABLE HARD TOP CONTROL UNIT OUTPUT SIGNAL

Check voltage between retractable hard top control unit connector and ground.

Terminal			Power window main switch condition		Voltage (V) (Approx.)
(+)		(–)			
Retractable hard top control unit connector	Terminal				
B83	55	Ground	Rear RH	UP	Battery voltage
				DOWN	0
	56			UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace retractable hard top control unit. Refer to RF-295, "Removal and Installation".

3. CHECK HARNESS CONTINUITY

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

Retractable hard top control unit connector	Terminal	Rear power window motor RH connector	Terminal	Continuity
B83	55	B655	1	Existed
	56		2	

4. Check continuity between retractable hard top control unit harness connector and ground.

Retractable hard top control unit connector	Terminal	Ground	Continuity
B83	55		Not existed
	56		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

DOOR SWITCH CIRCUIT
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000008154214

Detects door open/closed condition.

DRIVER SIDE : Component Function Check

INFOID:0000000008154215

1.CHECK FUNCTION

Check automatic window adjusting function.

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-24, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154216

1.CHECK DOOR SWITCH

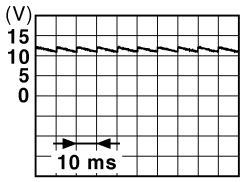
Check door switch.Refer to DLK-70, "Component Function Check".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Driver side power window main switch			
Connector	Terminal		
D8	5	Ground	

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Is the inspection result normal?

YES >> Replace power window main switch.Refer to PWC-106, "Removal and Installation".
NO >> GO TO 3.

3.CHECK DOOR SWITCH CIRCUIT

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

Power window main switch		Driver side door switch		Continuity
Connector	Terminal	Connector	Terminal	
D8	5	B16	2	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	5		Not existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000008154217

Detects door open/closed condition.

PASSENGER SIDE : Component Function Check

INFOID:0000000008154218

1.CHECK FUNCTION

Check automatic window adjusting function.

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-25, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154219

1.CHECK DOOR SWITCH

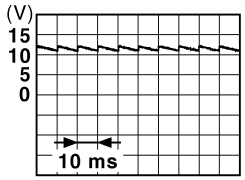
Check door switch.Refer to DLK-70, "Component Function Check".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power window sub-switch			
Connector	Terminal		
D38	14	Ground	

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Is the inspection result normal?

YES >> Replace power window sub-switch.Refer to PWC-106, "Removal and Installation".
NO >> GO TO 3.

3.CHECK DOOR SWITCH CIRCUIT

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

Power window sub-switch		Passenger side door switch		Continuity
Connector	Terminal	Connector	Terminal	
D38	14	B216	2	Existed

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	14		Not existed

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

ENCODER
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000008154220

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

DRIVER SIDE : Component Function Check

INFOID:0000000008154221

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-27, "DRIVER SIDE : Diagnosis Procedure".

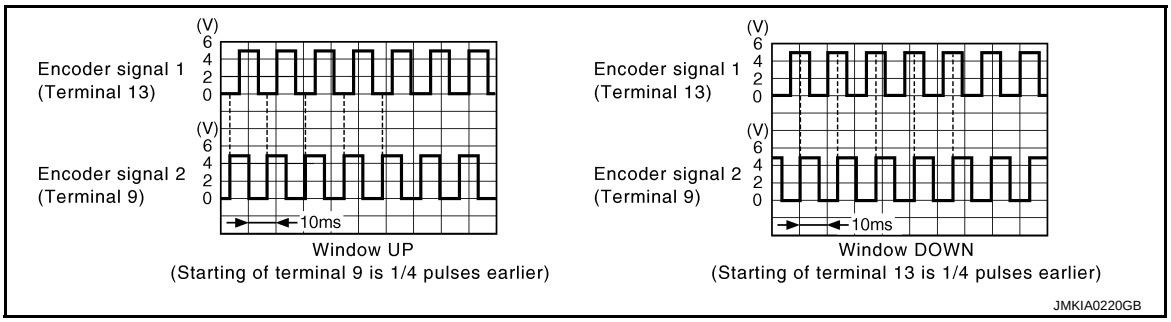
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154222

1.CHECK ENCODER OPERATION

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

Terminals			Signal (Reference value)
(+)		(–)	
Power window main switch connector	Terminal		
D8	9	Ground	Refer to following signal
	13		



Is the inspection result normal?

YES >> GO TO 7.
NO >> GO TO 2.

2.CHECK ENCORDER SIGNAL CIRCUIT

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

Power window main switch connector	Terminal	Driver side power window motor connector	Terminal	Continuity
D8	9	D10	5	Existed
	13		2	

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

Power window main switch connector	Terminal	Ground	Continuity
D8	9		Not existed
	13		

Is the inspection result normal?

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

3.CHECK ENCORDER POWER SUPPLY CIRCUIT

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

Terminal			Voltage (V) (Approx.)
(+)		(–)	
Driver side power window motor connector	Terminal		
D10	4	Ground	12

Is the measurement value within the specification?

YES >> GO TO 4.
NO >> GO TO 5.

4.CHECK GROUND CIRCUIT

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

Driver side power window motor connector	Terminal	Ground	Continuity
D10	1		Existed

Is the inspection result normal?

YES >> GO TO 7.
NO >> GO TO 6.

5.CHECK HARNESS CONTINUITY 1

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

Power window main switch connector	Terminal	Driver side power window motor connector	Terminal	Continuity
D8	15	D10	4	Existed

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

Power window main switch connector	Terminal	Ground	Continuity
D8	15		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-106, "Removal and Installation".
NO >> Repair or replace harness.

6.CHECK HARNESS CONTINUITY 2

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

Power window main switch connector	Terminal	Driver side power window motor connector	Terminal	Continuity
D8	2	D10	1	Existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-106, "Removal and Installation".
NO >> Repair or replace harness.

7. CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000008154223

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

PASSENGER SIDE : Component Function Check

INFOID:0000000008154224

1. CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-29, "PASSENGER SIDE : Diagnosis Procedure".

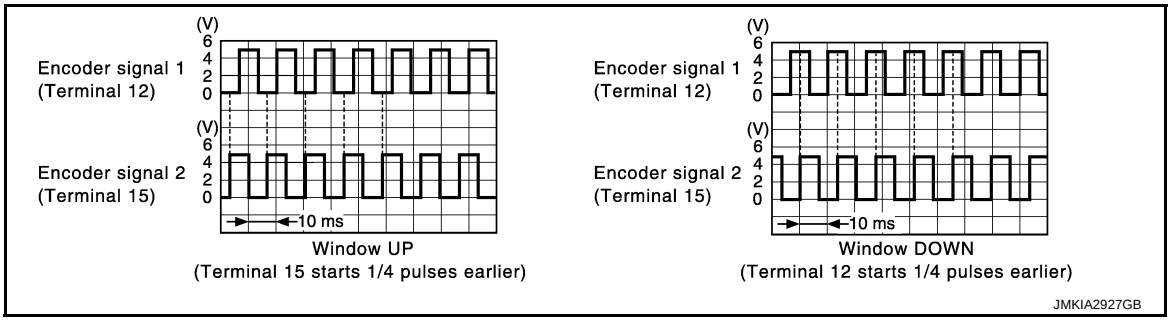
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154225

1. CHECK ENCODER SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window sub-switch			
Connector	Terminal		
D38	12	Ground	Refer to the following signal
	15		



Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-106, "Removal and Installation".
NO >> GO TO 2.

2. CHECK ENCODER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

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

Power window sub-switch		Passenger side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D38	12	D40	2	Existed
	15		5	

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	12		Not existed
	15		

Is the inspection result normal?

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

3. CHECK ENCODER POWER SUPPLY CIRCUIT 1

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

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

Is the measurement value within the specification?

YES >> GO TO 5.
NO >> GO TO 4.

4. CHECK ENCODER POWER SUPPLY CIRCUIT 2

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

Power window sub-switch		Passenger side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D38	4	D40	4	Existed

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	4		Not existed

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-106, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK GROUND CIRCUIT 1

1. Turn ignition switch OFF.
2. Disconnect power window sub-switch connector.

3. Check continuity between power window sub-switch harness connector and passenger side power window motor harness connector.

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

Is the inspection result normal?

YES >> GO TO 6.
NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	3		Existed

Is the inspection result normal?

YES >> Replace passenger side power window motor. Refer to GW-27, "Removal and Installation".
NO >> Replace power window sub-switch. Refer to PWC-106, "Removal and Installation".

DOOR KEY CYLINDER SWITCH

Description

INFOID:0000000008154226

Power window main switch detects condition of the door key cylinder switch and transmits to BCM as the LOCK or UNLOCK signals.

Component Function Check

INFOID:0000000008154227

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check (“KEY CYL LK-SW”, “KEY CYL UN-SW”) in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer to DLK-49, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK)".

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

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Refer to PWC-32, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000008154228

1.CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between driver side door lock assembly (key cylinder switch) harness connector and ground.

Terminals			Key position	Voltage (V) (Approx.)
(+)		(–)		
Driver side door lock assembly (key cylinder switch) connector	Terminal			
D15	6	Ground	Lock	0
			Neutral / Unlock	5
	5		Unlock	0
			Neutral / Lock	5

Is the inspection result normal?

YES >> GO TO 6.
NO >> GO TO 2.

2.CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

Power window main switch connector	Terminal	(–)	Voltage (V) (Approx.)
D8	4	Ground	5
	6		

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace power window main switch.Refer to PWC-106, "Removal and Installation".

3.CHECK DOOR KEY CYLINDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector and driver side door key lock assembly (key cylinder switch) connector.
3. Check continuity between power window main switch harness connector and driver side door lock assembly (key cylinder switch) harness connector.

Power window main switch connector	Terminal	Driver side door lock assembly (key cylinder switch) connector	Terminal	Continuity
D8	4	D15	6	Existed
	6		5	

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

Power window main switch connector	Terminal	Ground	Continuity
D8	4		Not existed
	6		

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace harness.

4.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

Check continuity between driver side door lock assembly (key cylinder switch) harness connector and ground.

Driver side door lock assembly (key cylinder switch) connector	Terminal	Ground	Continuity
D15	4		Existed

Is the inspection result normal?

YES >> GO TO 5.
NO >> Repair or replace harness.

5.CHECK DOOR KEY CYLINDER SWITCH

Check door key cylinder switch.
Refer to PWC-33, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace driver side door lock assembly (key cylinder switch). Refer to DLK-248, "DOOR LOCK : Removal and Installation".

6.CHECK INTERMITTENT INCIDENT

Refer to GI-42, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000008154229

COMPONENT INSPECTION

1.CHECK DOOR KEY CYLINDER SWITCH

1. Turn ignition switch OFF.
2. Disconnector driver side door lock assembly (key cylinder switch) connector.
3. Check driver side door lock assembly (key cylinder switch).

Terminal	Key position	Continuity
Driver side door lock assembly (key cylinder switch) connector		

5	4	Unlock	Existed
		Neutral / Lock	Not existed
6		Lock	Existed
		Neutral / Unlock	Not existed

Is the inspection result normal?

YES >> Key cylinder switch is OK.
NO >> Replace driver side door lock assembly (key cylinder switch). Refer to DLK-248, "DOOR LOCK : Removal and Installation".

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000008778797

VALUES ON THE DIAGNOSIS TOOL

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

CONSULT MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
	Front washer switch ON	On
FR WIPER INT	Other than front wiper switch INT/AUTO	Off
	Front wiper switch INT/AUTO	On
FR WIPER STOP	Front wiper is not in STOP position	Off
	Front wiper is in STOP position	On
INT VOLUME	Wiper volume dial is in a dial position 1 - 7	Wiper volume 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	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On

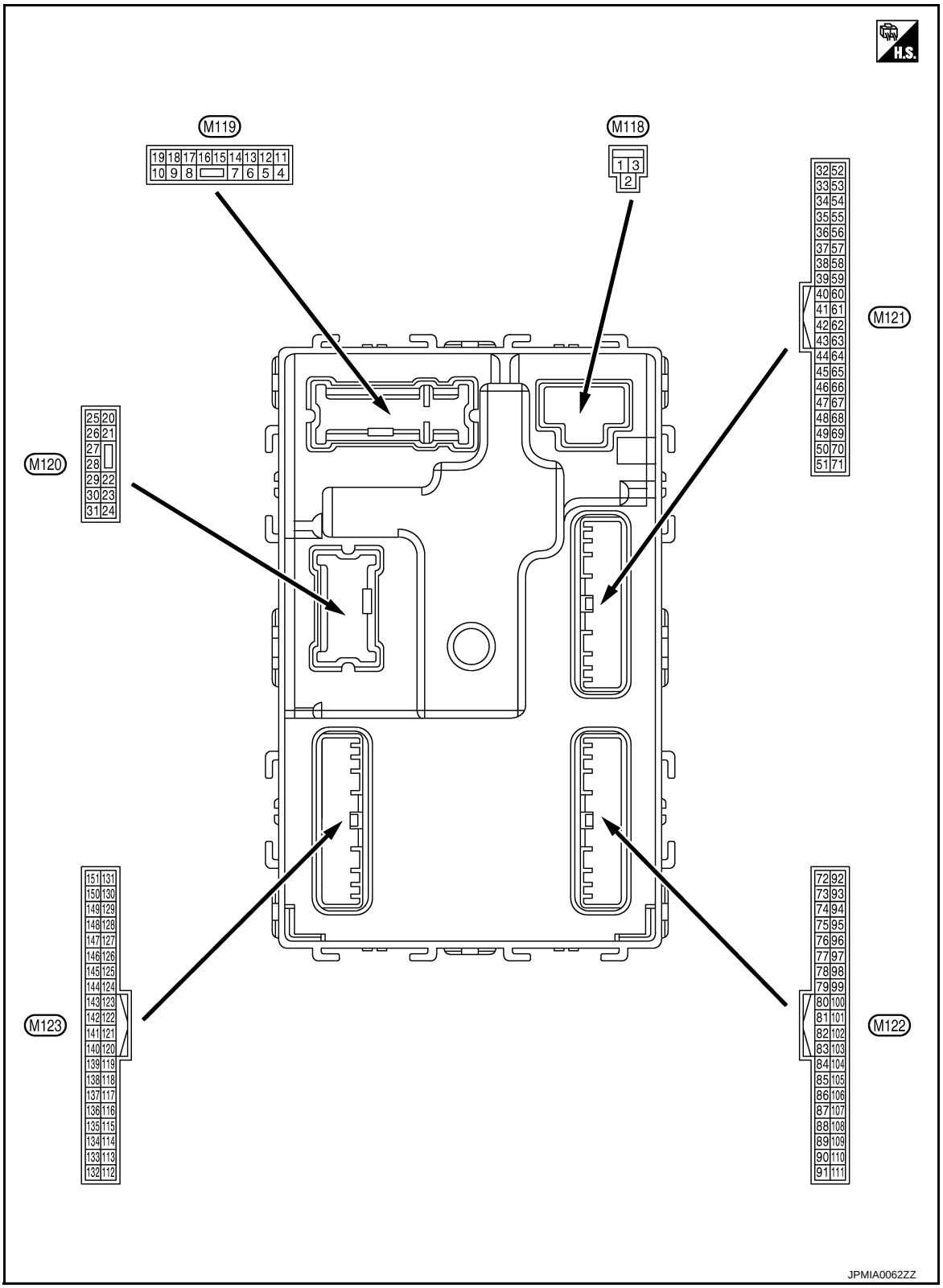
Monitor Item	Condition	Value/Status
DOOR SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	Other than driver door key cylinder LOCK position	Off
	Driver door key cylinder LOCK position	On
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	Off
	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is OFF	Off
	Hazard switch is ON	On
REAR DEF SW	**NOTE:** The item is indicated, but not monitored.	Off
TR CANCEL SW	Trunk lid opener cancel switch OFF	Off
	Trunk lid opener cancel switch ON	On
TR/BD OPEN SW	Trunk lid opener switch OFF	Off
	While the trunk lid opener switch is turned ON	On
TRNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
REVERSE SW	**NOTE:** The item is indicated, but not monitored.	Off
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
	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

Monitor Item	Condition	Value/Status
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Trunk lid opener request switch is not pressed	Off
	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	**NOTE:** The item is indicated, but not monitored.	Off
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW	• Selector lever in P position (Except M/T models) • The clutch pedal is depressed (M/T models)	Off
	• Selector lever in any position other than P (Except M/T models) • The clutch pedal is not depressed (M/T models)	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	**NOTE:** The item is indicated, but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated, but not monitored.	Off
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 any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (Except M/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position • The clutch pedal is depressed	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

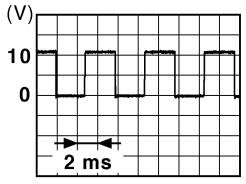
Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated, but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated, but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speed-ometer reading
VEH SPEED 2	While driving	Equivalent to speed-ometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Selector lever is in the P position except for M/T models)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	**NOTE:** The item is indicated, but not monitored.	—
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

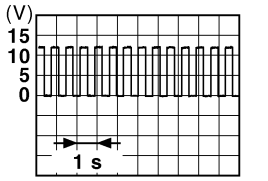
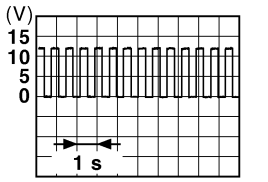
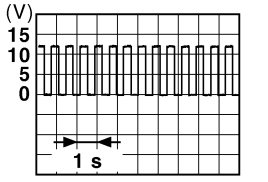
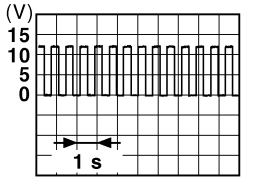
Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to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

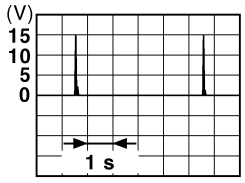
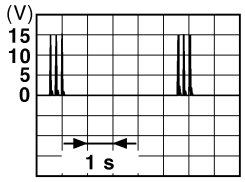
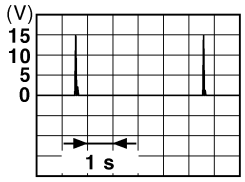
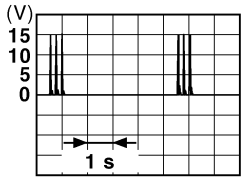
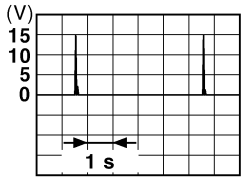
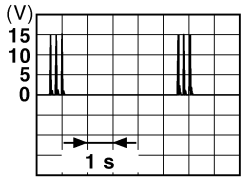
TERMINAL LAYOUT

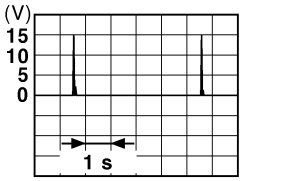
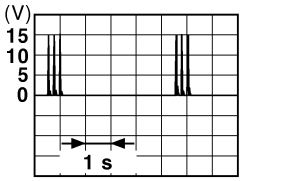
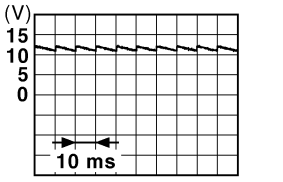
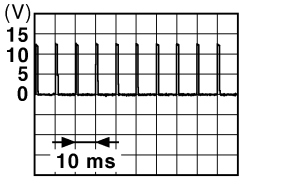


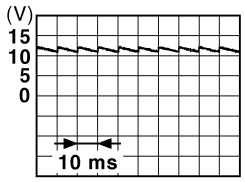
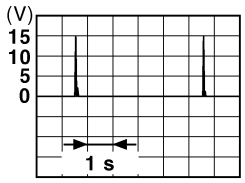
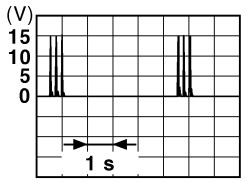
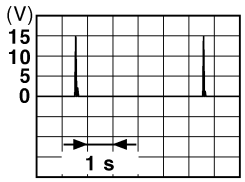
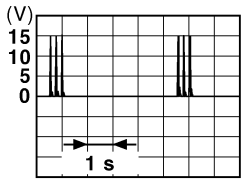
PHYSICAL VALUES

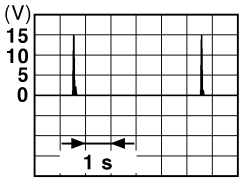
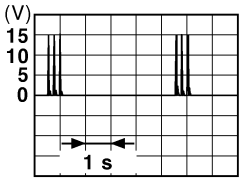
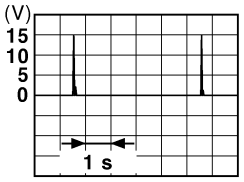
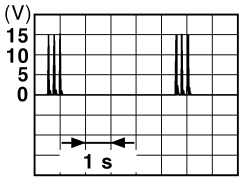
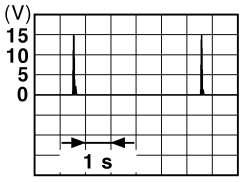
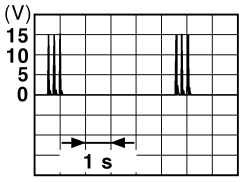
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (BG)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
4 (LG)	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)		12 V
5 (P)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
7 (SB)	Ground	Step lamp	Output	Step lamp	ON	0 V
					OFF	12 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (GR)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	OFF	0 V
					ON	**NOTE:** When the illumination brightening/dimming level is in the neutral position.  JSNIA0010GB
15 (BG)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC	0 V

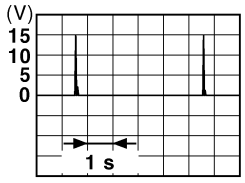
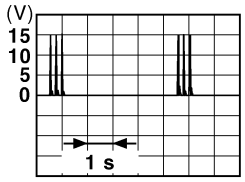
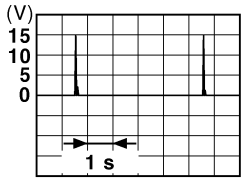
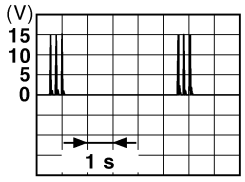
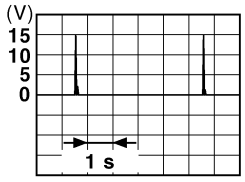
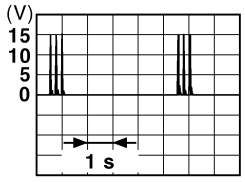
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (BR)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (Y)	Ground	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Trunk lid opener actuator is not activated)	0 V
25 (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 (P)	Ground	Trunk room lamp	Output	Trunk room lamp	ON	0 V
					OFF	12 V

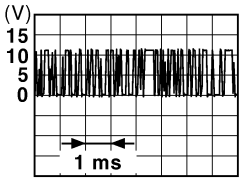
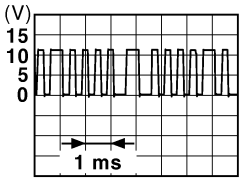
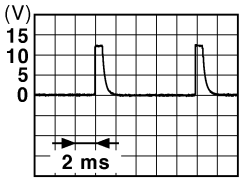
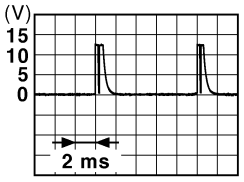
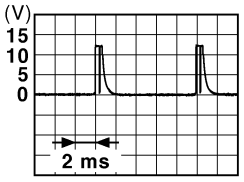
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (SB)	Ground	Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (V)	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	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	 JMKIA0063GB

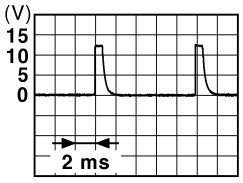
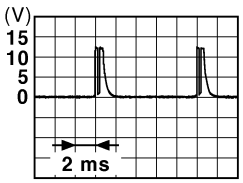
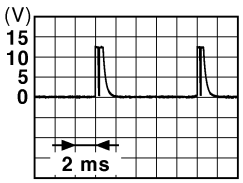
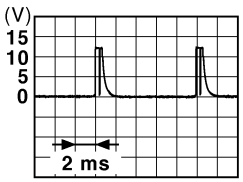
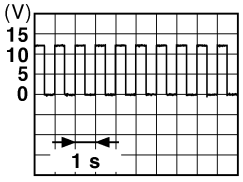
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
47 (Y)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	12 V
					ON	0 V
50 (G)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	 JPMIA0011GB 11.8 V
					ON (Trunk lid is opened)	0 V
52 (BR)	Ground	Starter relay control	Output	Ignition switch ON (A/T models)	When selector lever is in P or N position	12 V
					When selector lever is not in P or N position	0 V
				Ignition switch ON (M/T models)	When the clutch pedal is depressed	Battery voltage
					When the clutch pedal is not depressed	0 V
60 (BR)	Ground	Push-button ignition switch (Push switch)	Input	Push-button ignition switch (push switch)	Pressed	0 V
					Not pressed	Battery voltage
61 (SB)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (G)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	12 V

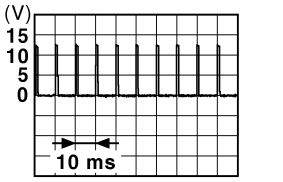
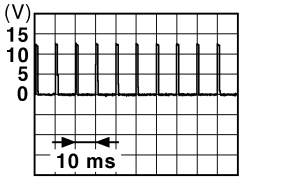
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (R)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
73 (G)	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

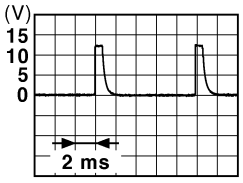
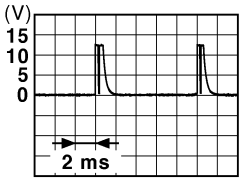
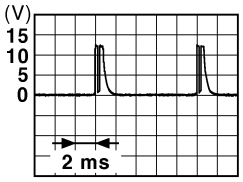
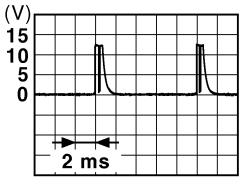
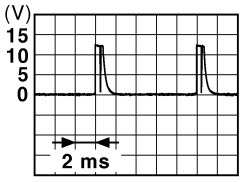
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
75 (BR)	Ground	Passenger door antenna (+)	Output	When the passenger door 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	 JMKIA0063GB
76 (V)	Ground	Driver door antenna (–)	Output	When the driver door 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	 JMKIA0063GB

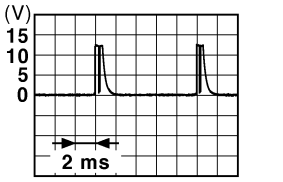
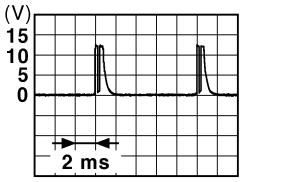
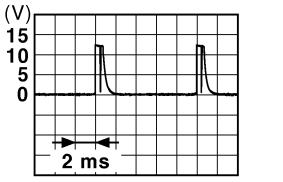
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78 (Y)	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
79 (BR)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

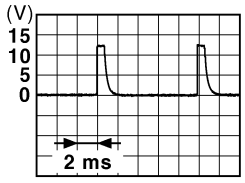
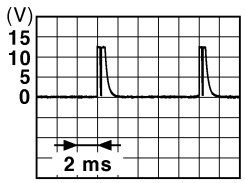
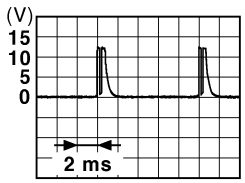
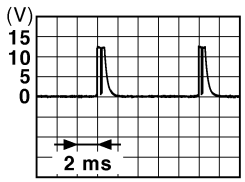
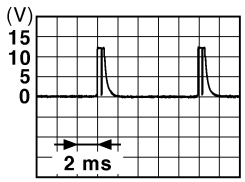
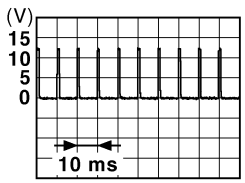
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Front fog lamp switch ON (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 6 • Wiper volume dial 7	 JPMIA0040GB 1.3 V

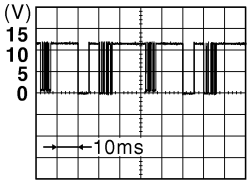
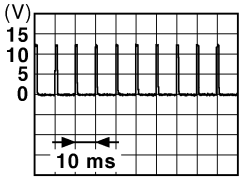
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (BG)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper volume dial 4)	 JPMIA0036GB 1.3 V
					Lighting switch 2ND (Wiper volume dial 4)	 JPMIA0037GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3	 JPMIA0040GB 1.3 V
90 (P)	Ground	CAN-L	Input/ Output	—		—
91 (L)	Ground	CAN-H	Input/ Output	—		—
92 (LG)	Ground	Key slot illumination	Output	Key slot illumination	OFF	12 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

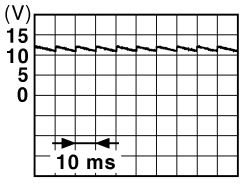
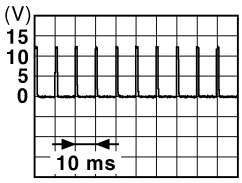
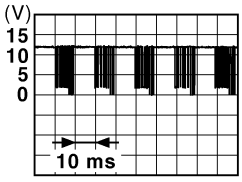
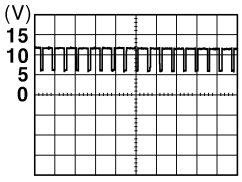
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99 (R)	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		ASCD clutch switch (M/T models)		ASCD clutch switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	12 V
100 (Y)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (P)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (BG)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		12 V

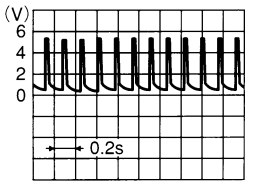
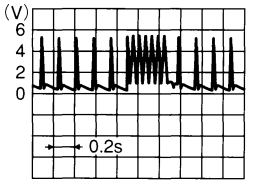
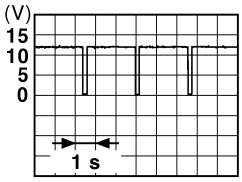
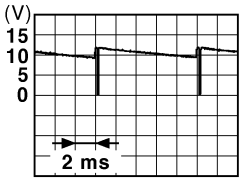
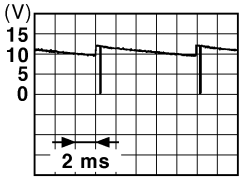
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper volume dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch RH	 JPMIA0036GB 1.3 V
					Front wiper switch LO	 JPMIA0038GB 1.3 V
					Front washer switch ON	 JPMIA0039GB 1.3 V

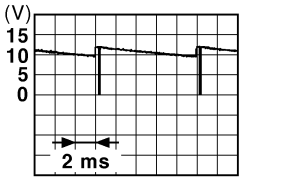
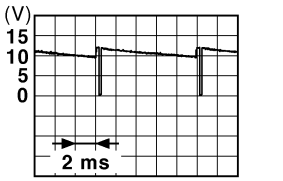
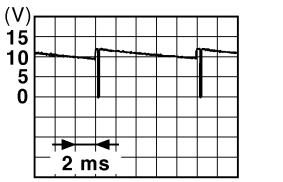
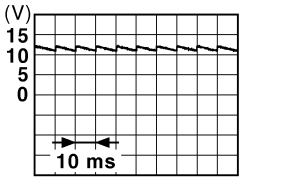
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper volume dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper volume dial 4)	 JPMIA0038GB 1.3 V
					Lighting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

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

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
112 (BR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		 JPMIA0156GB 8.7 V
113 (G)	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
114 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (BR)	Ground	Stop lamp switch 2 (Without ICC)	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
		Stop lamp switch 2 (With ICC)		Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
				Stop lamp switch ON (Brake pedal is depressed) or ICC brake hold relay ON		Battery voltage
119 (GR)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (SB)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
124 (BG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
132 (LG)	Ground	Power window switch and R.H.T. control unit communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (Y)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (LG)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (BG)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

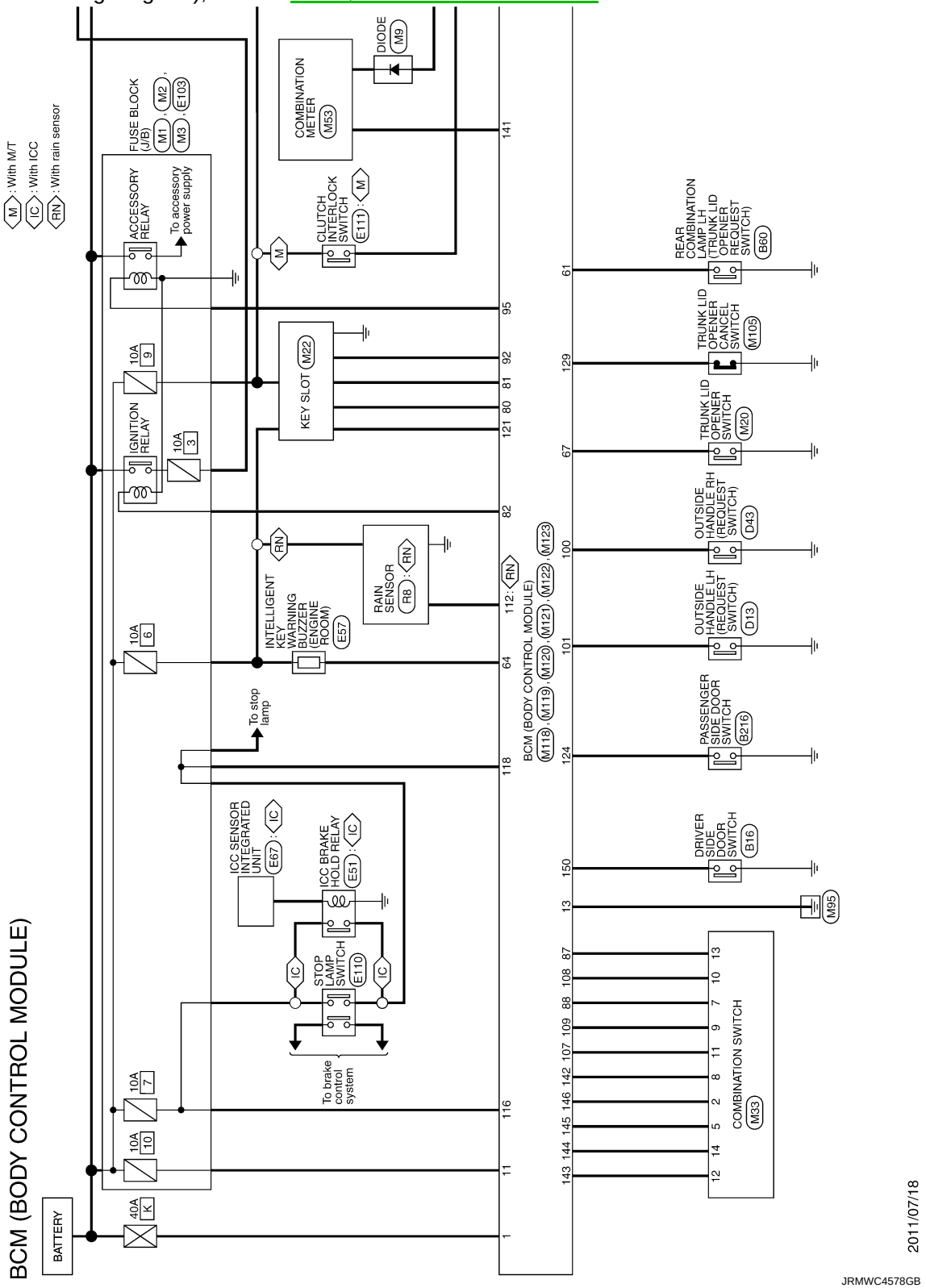
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch ON	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140 (GR)	Ground	Selector lever P/N position	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
141 (R)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V
142 (BR)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting switch 2ND	
					Turn signal switch RH	
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front wiper switch HI (Wiper volume dial 4)	 JPMIA0032GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 2 • Wiper volume dial 3 • Wiper volume dial 6 • Wiper volume dial 7	

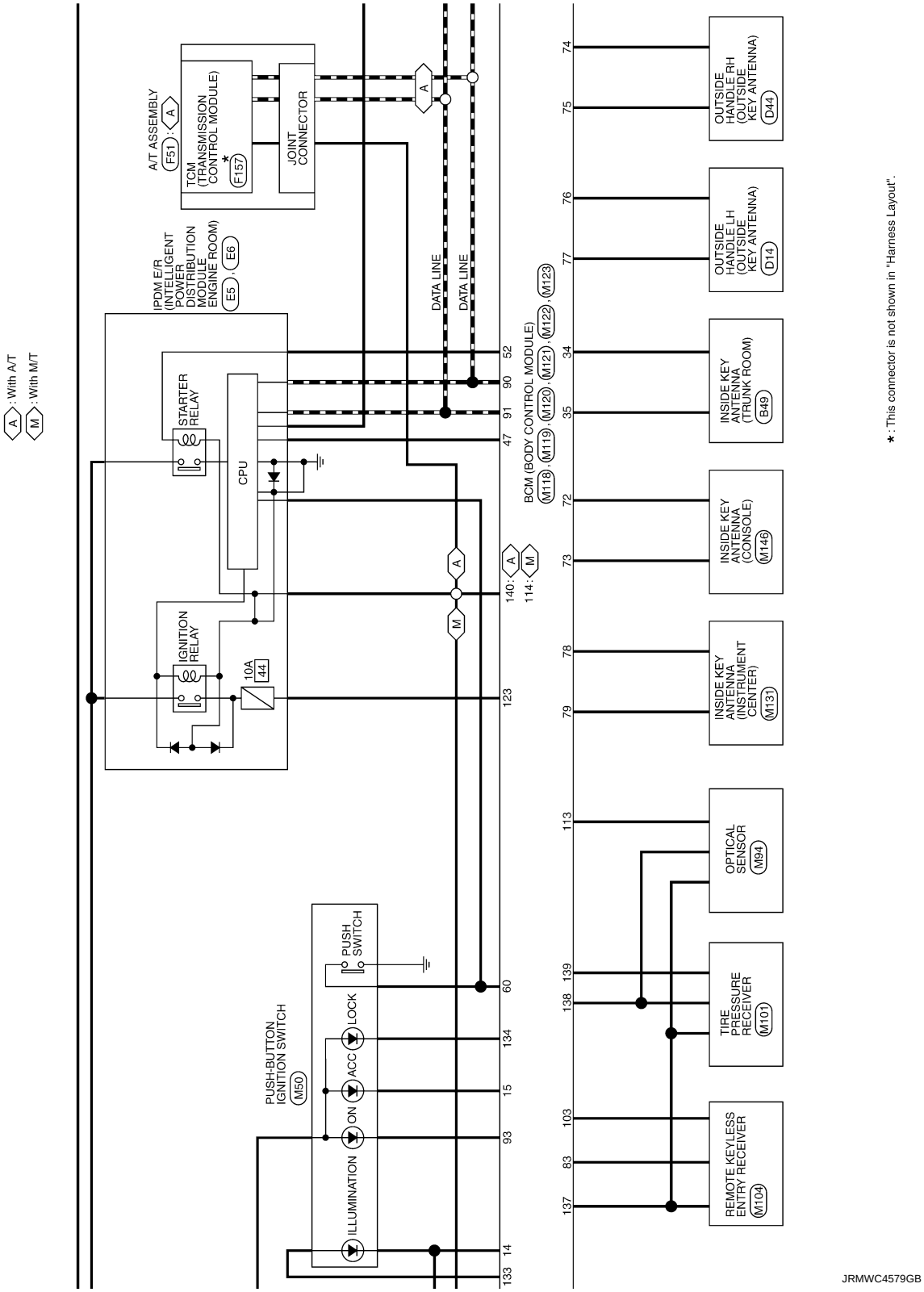
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper volume dial 4)	0 V
					Front washer switch ON (Wiper volume dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper volume dial 1 • Wiper volume dial 5 • Wiper volume dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front wiper switch INT/ AUTO	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper volume dial 4)	All switches OFF	0 V
					Front fog lamp switch ON	 JPMIA0035GB 10.7 V
					Lighting switch 2ND	
					Lighting switch PASS	
					Turn signal switch LH	
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

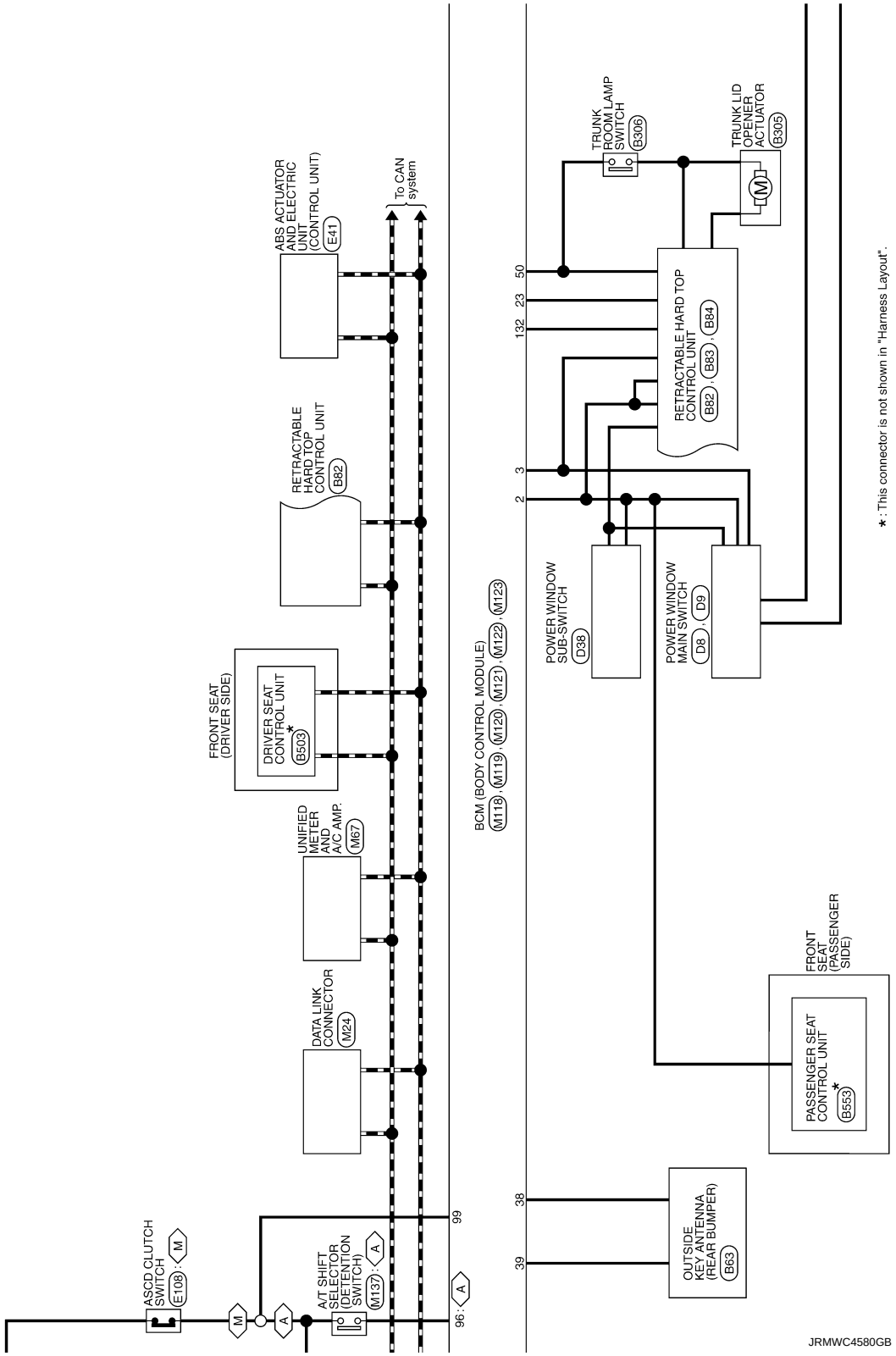
Wiring Diagram - BCM -

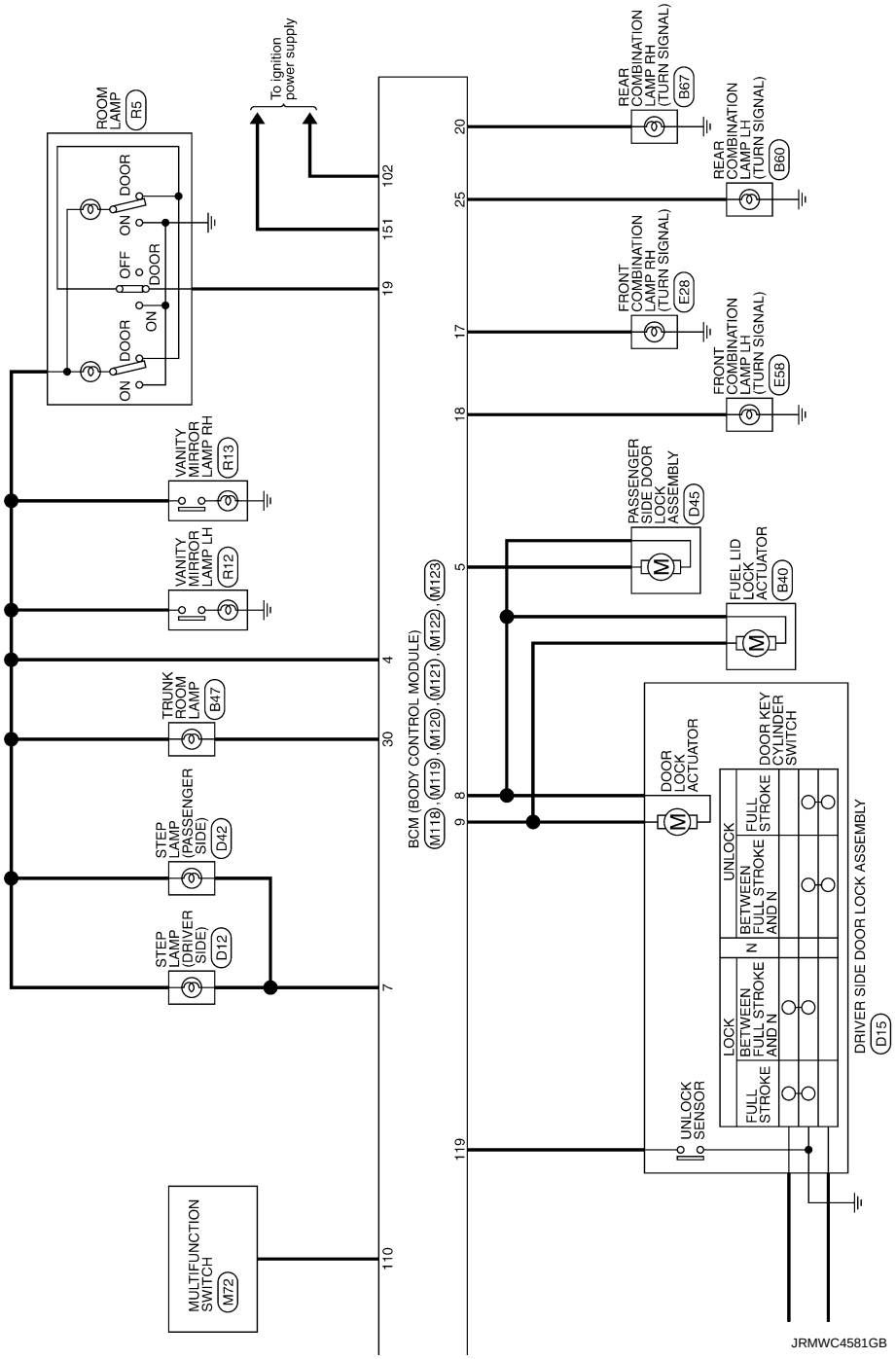
INFOID:0000000008778798

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".




A : With A/T
M : With M/T
A/T ASSEMBLY
F51 : A
TCM (TRANSMISSION CONTROL MODULE)
F157
JOINT CONNECTOR
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5 , E6
STARTER RELAY
CPU
IGNITION RELAY
10A 44
DATA LINE
DATA LINE
PUSH-BUTTON IGNITION SWITCH M50
ILLUMINATION
ON
ACC
LOCK
PUSH SWITCH
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
OUTSIDE HANDLE RH (OUTSIDE KEY ANTENNA) D44
OUTSIDE HANDLE LH (OUTSIDE KEY ANTENNA) D14
INSIDE KEY ANTENNA (TRUNK ROOM) B49
INSIDE KEY ANTENNA (CONSOLE) M146
INSIDE KEY ANTENNA (INSTRUMENT CENTER) M131
OPTICAL SENSOR M94
TIRE PRESSURE RECEIVER M101
REMOTE KEYLESS ENTRY RECEIVER M104
* : This connector is not shown in "Harness Layout".
JRMWC4579GB


A : With A/T
M : With M/T
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) E41
To CAN system
RETRACTABLE HARD TOP CONTROL UNIT B82
FRONT SEAT (DRIVER SIDE)
DRIVER SEAT CONTROL UNIT B503 *
UNIFIED METER AND A/C AMP. M67
DATA LINK CONNECTOR M24
ASCD CLUTCH SWITCH E108
A/T SHIFT SELECTOR (DETENTION SWITCH) M137
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
99
96
TRUNK ROOM LAMP SWITCH B306
TRUNK LID OPENER ACTUATOR B305
RETRACTABLE HARD TOP CONTROL UNIT B82, B83, B84
50
23
132
3
2
POWER WINDOW SUB-SWITCH D38
POWER WINDOW MAIN SWITCH D8, D9
FRONT SEAT (PASSENGER SIDE)
PASSENGER SEAT CONTROL UNIT B553 *
38
39
OUTSIDE KEY ANTENNA (REAR BUMPER) B63
* : This connector is not shown in "Harness Layout".
JRMWC4580GB



Fail-safe

INFOID:0000000008778799

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (12 V) • Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) • Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2617: BCM	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
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000008778800

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 • U1010: CONTROL UNIT (CAN)
3	• B2190: NATS ANTENNA AMP • B2191: DIFFERENCE OF KEY • B2192: ID DISCORD BCM-ECM • B2193: CHAIN OF BCM-ECM • B2195: ANTI-SCANNING

Priority	DTC
4	• 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/CLUTCH SW • B2605: PNP/CLUTCH SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000008778801

NOTE:
The details of time display are as follows.
- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-16, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM	—	—	—	—	BCS-36
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-37
U0415: VEHICLE SPEED	—	—	—	—	BCS-38
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-40

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-43
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-44
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-46
B2195: ANTI-SCANNING	×	—	—	—	SEC-47
B2553: IGNITION RELAY	—	×	—	—	PCS-47
B2555: STOP LAMP	—	×	—	—	SEC-48
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-50
B2557: VEHICLE SPEED	×	×	×	—	SEC-52
B2560: STARTER CONT RELAY	×	×	×	—	SEC-53
B2562: LOW VOLTAGE	—	×	—	—	BCS-39
B2601: SHIFT POSITION	×	×	×	—	SEC-54
B2602: SHIFT POSITION	×	×	×	—	SEC-57
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-59
B2604: PNP/CLUTCH SW	×	×	×	—	SEC-62
B2605: PNP/CLUTCH SW	×	×	×	—	SEC-64
B2608: STARTER RELAY	×	×	×	—	SEC-66
B260A: IGNITION RELAY	×	×	×	—	PCS-49
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-68
B2614: BCM	—	×	×	—	PCS-51
B2615: BCM	—	×	×	—	PCS-54
B2616: BCM	—	×	×	—	PCS-57
B2617: BCM	×	×	×	—	SEC-72
B2618: BCM	×	×	×	—	PCS-60
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-61
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-74
B2621: INSIDE ANTENNA	—	×	—	—	DLK-61
B2622: INSIDE ANTENNA	—	×	—	—	DLK-63
B2623: INSIDE ANTENNA	—	×	—	—	DLK-65
B26E8: CLUTCH SW	×	×	×	—	SEC-69
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-71
C1704: LOW PRESSURE FL	—	—	—	×	WT-21
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	
C1708: [NO DATA] FL	—	—	—	×	WT-23
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer-ence page
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-26
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-27
C1734: CONTROL UNIT	—	—	—	×	WT-28

RETRACTABLE HARD TOP CONTROL UNIT

Reference Value

INFOID:0000000008778802

VALUES ON THE DIAGNOSIS TOOL

CONSULT MONITOR ITEM

Monitor Item	Condition		Status/Value
LATCH LOCK SEN	State of roof latch	Lock	ON
		Other than above	OFF
		Roof latch lock sensor circuit is short	NG
LATCH STATE SEN	State of roof latch motor	Operate	ON ⇔ OFF
		Stop	ON or OFF
		Roof latch lock sensor circuit is short	NG
LATCH OUT(ULK)	Operation of roof latch motor	Unlock is in operation	ON
		Other than above	OFF
		Roof latch motor (UNLOCK) circuit is short	NG
LATCH OUT(LCK)	Operation of roof latch motor	Lock is in operation	ON
		Other than above	OFF
		Roof latch motor (LOCK) circuit is short	NG
LATCH VALUE	State of roof latch	Lock	0
		Halfway position	1-77
		Unlock	78 or more
LATCH LIMIT SW	State of roof latch	Roof is fully close and roof latch is in LOCK	CLOSE
		Other than above	OPEN
LATCH STATE	State of roof latch	Initialization is not complete	NG
		LOCK	CLOSE
		Halfway position	MID
		UNLOCK	OPEN
PS VALUE(DRAW)	State of parcel shelf	Top	Retractable hard top fully open state: 2246 Retractable hard top fully closed state: 2220
		Bottom	1000
PS VALUE(ROTA)	State of parcel shelf	Vertical	3190
		Horizontal	Retractable hard top fully open state: 1340 Retractable hard top fully closed state: 1000
PS OUT(UP)	Operation of parcel shelf	Up operation is in operation	ON
		Other than above	OFF
		Parcel shelf (UP) circuit is short	NG
PS OUT(DOWN)	Operation of parcel shelf	DOWN operation is in operation	ON
		Other than above	OFF
		Parcel shelf (DOWN) circuit is short	NG
PS OUT(VERT)	Operation of parcel shelf	Vertical operation is in operation	ON
		Other than above	OFF
		Parcel shelf (VERTICAL) circuit is short	NG

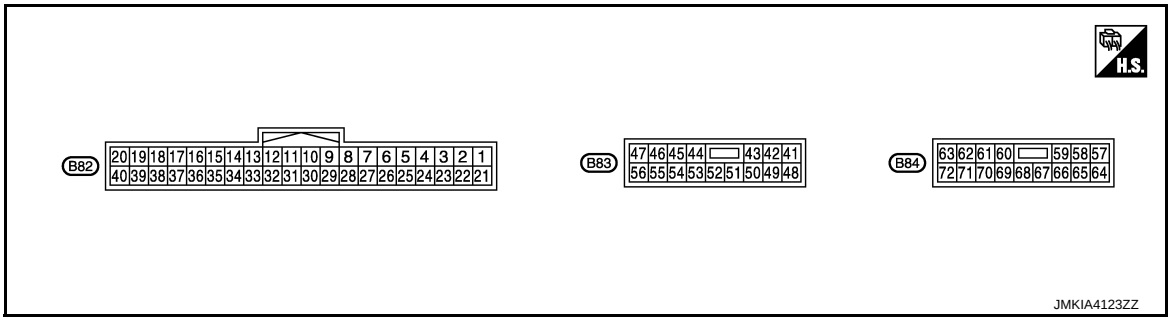
Monitor Item	Condition		Status/Value
PS OUT(HORI)	Operation of parcel shelf	Horizontal operation is in operation	ON
		Other than above	OFF
		Parcel shelf (HORIZONTAL) circuit is short	NG
PS STATE(DRAW)	State of parcel shelf	For the details, refer to RF-37, "PARCEL SHELF FUNCTION : System Description"	1-6
		State of parcel shelf status sensor (DRAW) is not recognized	NG
PS STATE(ROTA)	State of parcel shelf	For the details, refer to RF-37, "PARCEL SHELF FUNCTION : System Description"	1-4
		State of parcel shelf status sensor (ROTATE) is not recognized	NG
ROOF VALUE	Roof status sensor signal		0-1023
PUMP OUT(RH)	Operation of hydraulic pump motor	Turning clockwise	ON
		Other than above	OFF
		Hydraulic pump motor (RH) circuit is short	NG
PUMP OUT(LH)	Operation of hydraulic pump motor	Turning counterclockwise	ON
		Other than above	OFF
		Hydraulic pump motor (LH) circuit is short	NG
SWITCH VLV 1 OUT	Operation of switching valve 1	Operate	ON
		Stop	OFF
		Switching valve 1 circuit is short	NG
SWITCH VLV 2 OUT	Operation of switching valve 2	Operate	ON
		Stop	OFF
		Switching valve 2 circuit is short	NG
ROOF STATE	State of roof	For the details, refer to RF-20, "RETRACTABLE HARD TOP SYSTEM : System Description"	1-42
		State of roof is not recognized	NG
HYDRAULIC STATE	State of hydraulic system	For the details, refer to RF-31, "HYDRAULIC SYSTEM CONTROL FUNCTION : System Description"	1-22
		State of hydraulic system is not recognized	NG
ROOF SW(OPEN)	State of roof open/close switch	OPEN operation is in operation	ON
		Other than above	OFF
ROOF SW(CLOSE)	State of roof open/close switch	CLOSE operation is in operation	ON
		Other than above	OFF
ROOF LINK STATE	State of roof link	For the details, refer to RF-31, "HYDRAULIC SYSTEM CONTROL FUNCTION : System Description"	1-8
		State of roof is not recognized	NG
TRUNK LINK SEN(RH)	State of trunk link lock (RH)	LOCK	ON
		Other than above	OFF
		Trunk link lock (RH) circuit is short or open	NG
TRUNK LINK SEN(LH)	State of trunk link lock (LH)	LOCK	ON
		Other than above	OFF
		Trunk link lock (LH) circuit is short or open	NG
TR ROOM LAMP SW	State of trunk lid (trunk room lamp switch)	Open	ON
		Other than above	OFF

Monitor Item	Condition		Status/Value
TRUNK STATUS SEN	State of trunk lid	Fully OPEN	ON
		Other than above	OFF
		Trunk status sensor circuit is short or open	NG
TRUNK OPEN OUT	Operation of trunk lid opener actuator	OPEN operation is in operation	ON
		Other than above	OFF
		Trunk lid opener actuator circuit is short	NG
FLPD LIMIT SW(DWN)	State of flipper door	Both of flipper door (LH/RH) are in DOWN position	ON
		Other than above	OFF
FLPD LIMIT SW(UP)	State of flipper door	Both of flipper door (LH/RH) are in UP position	ON
		Other than above	OFF
FLPD OUT(UP)	Operation of flipper door	UP operation is in operation	ON
		Other than above	OFF
		Flipper door motor (UP) circuit is short	NG
FLPD OUT(DWN)	Operation of flipper door	DOWN operation is in operation	ON
		Other than above	OFF
		Flipper door motor (DOWN) circuit is short	NG
FLPD STATE	State of flipper door	For the details, refer to RF-39, "FLIPPER DOOR FUNCTION : System Description"	1, 2, 4
		State of flipper door is not recognized	NG
R WIN LH OUT(UP)	Operation of rear power window (LH)	UP operation is in operation	ON
		Other than above	OFF
		Rear power window LH (UP) circuit is short	NG
R WIN LH OUT(DWN)	Operation of rear power window (LH)	DOWN operation is in operation	ON
		Other than above	OFF
		Rear power window LH (DOWN) circuit is short	NG
R WIN RH OUT(UP)	Operation of rear power window (RH)	UP operation is in operation	ON
		Other than above	OFF
		Rear power window RH (UP) circuit is short	NG
R WIN RH OUT(DWN)	Operation of rear power window (RH)	DOWN operation is in operation	ON
		Other than above	OFF
		Rear power window RH (DOWN) circuit is short	NG
REAR DEF ON SIG	State of rear window defogger switch	While operating	ON
		Stop	OFF
REAR DEF OUT	State of rear window defogger system	Operate	ON
		Stop	OFF
		Rear window defogger circuit is short	NG
R WIN CURENT(LH)	Current value to rear power window motor (LH)		0-25.5 (A)
R WIN CURENT(RH)	Current value to rear power window motor (RH)		0-25.5 (A)
RR WIN STATE(LH)	State of rear power window (LH)	Upper	UP
		Halfway	MID
		Lower end	DOWN

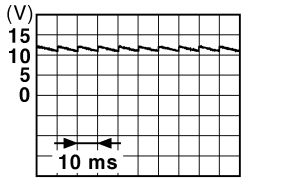
Monitor Item	Condition		Status/Value
RR WIN STATE(RH)	State of rear power window (RH)	Upper	UP
		Halfway	MID
		Lower end	DOWN
RAP SIGNAL	State of RAP	Operate	ON
		Stop	OFF
TR MODE SIGNAL	State of trunk mode signal	Output	ON
		Stop	OFF
ROOF STATE(AUDIO)	State of roof	State of fully open	ON
		Other than above	OFF
		Roof state signal (audio) circuit is short	NG
ROOF BUZZER OUT	State of roof warning buzzer	Operate	ON
		Stop	OFF
		Roof warning buzzer circuit is short	NG
LOCAL COMM 1	State of local communication 1	Normal	OK
		It is in sleep mode	SLEEP
		Communication error	NG
LOCAL COMM 2	State of local communication 2	Normal	OK
		It is in sleep mode	SLEEP
		Communication error	NG
ROOF MODE	Roof operation mode	Normal	OK
		Only close operation is possible	CLOSE
		Operation is stop	STOP
		Operation is inhibited	NG
POP-UP BAR DPLOY	State of pop-up bar	Normal	OK
		State of deployment	NG
POP-UP BAR DIAG	Self-diagnosis result of pop-up bar	Normal	OK
		Malfunctioning is detected	NG
SWITCH VLV COND	Diagnosis result of retractable hard top control unit	Diagnosis result of retractable hard top control unit	OK
		Switching valve (1/2) system is malfunctioning	NG
PWR SOURCE COND	Power supply voltage state of retractable hard top control unit	Normal	OK
		Malfunction	NG
CPU COND	Diagnosis result of retractable hard top control unit	CPU is normal	OK
		CPU is not normal	NG
ROOF COND	Diagnosis result of retractable hard top control unit	Roof position is normal	OK
		Roof position is not normal	NG
SENSOR COND	Diagnosis result of retractable hard top control unit	Hole sensor system is normal	OK
		Hole sensor system is not normal	NG
IGN ON SIG(BCM)	Power position signal (via CAN from BCM)	ON	OK
		Other than above	NG
VHCL STOP-METER	Vehicle speed signal (via CAN from meter and A/C amp.)	0km/h	OK
		Other than above	NG

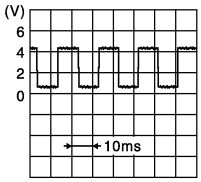
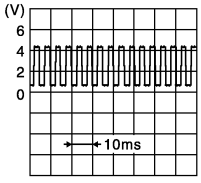
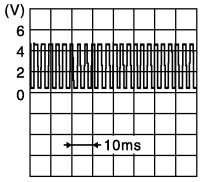
Monitor Item	Condition		Status/Value
CIRCUIT COND	Diagnosis result of retractable hard top control unit	Circuit system is normal	OK
		Circuit system is not normal	NG
ROOF TIMEOUT	State of roof operation	Normal	OK
		Malfunction	NG
CAN COMM	CAN communication status	Normal	OK
		Malfunction	NG
THERMO PROTECT 1	Thermo protection (Stage1)	In non-operation	OK
		In operation	NG
SHIFT R SIG	Shift position	Other than R position	OK
		R position	NG
PRMIT ENG ST(BCM)	Permit engine start signal	Signal is not received	OK
		Signal is in receiving	NG
THERMO PROTECT-2	Thermo protection (Stage2)	In non-operation	OK
		In operation	NG
TONNEAU SW	Tonneau board	Set	OK
		Other than above	NG
BRK LAMP SW(BCM)	Brake lamp switch signal (via CAN from BCM)	Brake is depressed	OK
		Brake is released	NG
THERMO VALUE	Conversion value of thermo protection		0-65535
PWR SOURCE VALUE	Power supply voltage value of retractable hard top control unit		0-20 (V)
ROOF INITIAL(OPEN)	State of performing roof position initialization	Registration of full open position is complete	OK
		Registration of full open position is not complete	NG
ROOF INITIAL(CLOSE)	State of performing roof position initialization	Registration of full closed position is complete	OK
		Registration of full closed position is not complete	NG
PSHELF INITIAL(ROTA)	State of performing parcel shelf position initialization	Registration of rotation position is complete	OK
		Registration of rotation position is not complete	NG
PSHELF INITIAL(DRAW)	State of performing parcel shelf position initialization	Registration of draw position is complete	OK
		Registration of draw position is not complete	NG

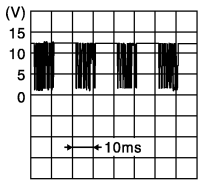
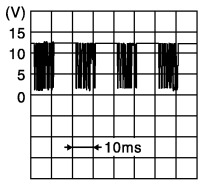
TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
1 (G)	Ground	Roof open/close switch (OPEN)	Input	Ignition switch ON	Roof open/close switch (OPEN)	Pressed	0 V
						Released	Battery voltage
2 (BR)	Ground	Roof open/close switch (CLOSE)	Input	Ignition switch ON	Roof open/close switch (CLOSE)	Pressed	0 V
						Released	Battery voltage
3 (B)	Ground	Flipper door limit switch ground	—	Ignition switch ON	—		0 V
4 (L)	Ground	Tonneau board switch	Input	Ignition switch ON	Tonneau board	Hooked	Battery voltage
						Released	0 V
5 (SB)	Ground	Trunk room lamp switch	Input	Ignition switch ON	Trunk lid	Locked	 JPMIA0011GB
						Other than above	0 V
6 (L)	Ground	Roof latch limit switch	Input	Ignition switch ON	Roof	Close	0 V
						Other than above	Battery voltage
7 (W)	Ground	Flipper door limit switch (UP)	Input	Ignition switch ON	Flipper door LH and RH	Top	0 V
						Other than above	Battery voltage
8 (G)	Ground	Flipper door limit switch (DOWN)	Input	Ignition switch ON	Flipper door LH and RH	Bottom	0 V
						Other than above	Battery voltage
11 (W)	Ground	RAP signal	Input	Ignition switch ON	RAP function	Active	Battery voltage
						Inactive	0 V
12 (Y)	Ground	Back up lamp signal	Input	Ignition switch ON	Shift position	R position	Battery voltage
						Other than above	0 V
13 (BG)	Ground	Sensor power supply	Output	Ignition switch OFF	—		5 V
14 (P)	Ground	Trunk link sensor (LH)	Input	Ignition switch ON	Trunk link lock (LH)	LOCK	0.3 V
						Other than above	1.5 V
15 (SB)	Ground	Trunk link sensor (RH)	Input	Ignition switch ON	Trunk link lock (RH)	LOCK	0.3 V
						Other than above	1.5 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
16 (GR)	Ground	Roof latch status sensor	Input	Ignition switch ON	Roof latch	Operate	 JMKIA4021GB
						Stop	0.5 or 4.5 V
17 (G)	Ground	Roof latch lock sensor	Input	Ignition switch ON	Roof latch	LOCK	1.0 V
						Other than above	3.8 V
18 (LG)	Ground	Trunk status sensor	Input	Ignition switch ON	Trunk lid (front)	Fully open	1.0 V
						Other than above	3.8 V
22 (V)	Ground	Roof status sensor power supply	Output	Ignition switch ON	—		5 V
23 (B)	Ground	Roof status sensor ground	—	Ignition switch ON	—		0 V
24 (GR)	Ground	Parcel shelf status sensor (DRAW)	Input	Ignition switch ON	Parcel shelf motor (DRAW)	Active	 JMKIA4022GB
						Inactive	0.5 V or 5 V
25 (R)	Ground	Parcel shelf status sensor (ROTATION)	Input	Ignition switch ON	Parcel shelf motor (ROTATE)	Active	 JMKIA4023GB
						Inactive	0.5 V or 5 V
26 (P)	Ground	Roof status sensor signal	Input	Ignition switch ON	Roof	Fully close→Fully open	0.5 V→5 V
27 (Y)	Ground	Trunk lid open request signal (BCM)	Output	—	Trunk opener	Operate	0 V →Battery voltage →0 V
						Other than above	0 V
28 (BG)	Ground	Flipper door motor ground	—	Ignition switch ON	—		0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
29 (V)	Ground	Local communication (BCM)	Input/ Output	Ignition switch ON	—		 JMKIA4024GB
30 (GR)	Ground	Local communication (POWER WINDOW)	Input/ Output	Ignition switch ON	—		 JMKIA4024GB
31 (L)	Ground	CAN-H	Input/ Output	—	—		—
32 (P)	Ground	CAN-L	Input/ Output	—	—		—
33 (V)	Ground	Roof status siganal (AUDIO)	Output	Ignition switch ON	Retractable hard top	Fully open	Battery voltage
						Other than above	0 V
35 (B)	Ground	Roof warning buzzer	Output	Ignition switch ON	Roof warning buzzer	Sounds	0 V
						Not sounds	Battery voltage
36 (Y)	Ground	Hydraulic pump relay (RH)	—	Ignition switch ON	Hydraulic pump motor (RH)	Active	0 V
						Inactive	Battery voltage
37 (W)	Ground	Hydraulic pump relay (LH)	—	Ignition switch ON	Hydraulic pump motor (LH)	Active	0 V
						Inactive	Battery voltage
38 (BR)	Ground	Hydraulic pump relay ground	—	Ignition switch ON	—		0 V
41 (SB)	Ground	Parcel shelf motor (UP)	Output	Ignition switch ON	Parcel shelf motor (DRAW-UP)	Active	Battery voltage
						Inactive	0 V
42 (W)	Ground	Parcel shelf motor (DOWN)	Output	Ignition switch ON	Parcel shelf motor (DRAW-DOWN)	Active	Battery voltage
						Inactive	0 V
43 (BR)	Ground	Hydraulic pump power supply relay	Output	Ignition switch ON	Retractable hard top system	Active	Battery voltage
						Inactive	0 V
44 (R)	Ground	Parcel shelf motor (HORIZONTAL)	Output	Ignition switch ON	Parcel shelf motor (ROTATION-HORIZONTAL)	Active	Battery voltage
						Inactive	0 V
45 (BR)	Ground	Parcel shelf motor (VERTICAL)	Output	Ignition switch ON	Parcel shelf motor (ROTATION-VERTICAL)	Active	Battery voltage
						Inactive	0 V
46 (G)	Ground	Flipper door motor (UP)	Output	Ignition switch ON	Flipper door motor (UP)	Active	Battery voltage
						Inactive	0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
47 (L)	Ground	Flipper door motor (DOWN)	Output	Ignition switch ON	Flipper door motor (DOWN)	Active	Battery voltage
						Inactive	0 V
48 (R)	Ground	Roof latch motor (OPEN)	Output	Ignition switch ON	Roof latch motor (OPEN)	Active	Battery voltage
						Inactive	0 V
49 (Y)	Ground	Roof latch motor (CLOSE)	Output	Ignition switch ON	Roof latch motor (CLOSE)	Active	Battery voltage
						Inactive	0 V
51 (SB)	Ground	Trunk lid opener actuator	Output	—	Trunk lid opener	Operate	0 V → Battery voltage → 0 V
						Stop	0 V
52 (V)	Ground	Trunk lid opener actuator ground	—	Ignition switch ON	—		0 V
53 (BG)	Ground	Rear power window motor LH (UP)	Output	Ignition switch ON	Rear power window motor LH (UP)	Active	Battery voltage
						Inactive	0 V
54 (LG)	Ground	Rear power window motor LH (DOWN)	Output	Ignition switch ON	Rear power window motor LH (DOWN)	Active	Battery voltage
						Inactive	0 V
55 (GR)	Ground	Rear power window motor RH (UP)	Output	Ignition switch ON	Rear power window motor RH (UP)	Active	Battery voltage
						Inactive	0 V
56 (P)	Ground	Rear power window motor RH (DOWN)	Output	Ignition switch ON	Rear power window motor RH (DOWN)	Active	Battery voltage
						Inactive	0 V
57 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
58 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
59 (Y)	Ground	Power source (ROOF)	Input	—	—		Battery voltage
60 (B)	Ground	Ground (ROOF)	—	Ignition switch ON	—		0 V
61 (B)	Ground	Ground (ROOF)	—	Ignition switch ON	—		0 V
62 (GR)	Ground	Power source (POWER WINDOW)	Input	—	—		Battery voltage
63 (Y)	Ground	Power source (POWER WINDOW)	Input	—	—		Battery voltage
64 (B)	Ground	Ground (POWER WINDOW)	—	Ignition switch ON	—		0 V
65 (B)	Ground	Ground (POWER WINDOW)	—	Ignition switch ON	—		0 V
66 (P)	Ground	Switching valve 1	Output	Ignition switch ON	Switching valve 1	Active	Battery voltage
						Inactive	0 V

Terminal No. (Wire color)		Description		Condition			Value (Approx.)
+	–	Signal name	Input/ Output				
67 (SB)	Ground	Switching valve 2	Output	Ignition switch ON	Switching valve 2	Active	Battery voltage
						Inactive	0 V
68 (L)	Ground	Switching valve ground	—	Ignition switch ON	—		0 V
69 (G)	Ground	Power source (REAR WINDOW DEFOGGER)	Input	—	—		Battery voltage
70 (P)	Ground	Power source (REAR WINDOW DEFOGGER)	Input	—	—		Battery voltage
71 (BR)	Ground	Rear window defogger power supply	Output	Ignition switch ON	Rear defogger switch ON and roof is fully closed		Battery voltage
72 (W)	Ground	Rear window defogger power supply	Output	Ignition switch ON	Rear defogger switch ON and roof is fully closed		Battery voltage

Fail-safe

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FAIL-SAFE CONTROL BY DTC

Retractable hard top control unit performs fail-safe control when any DTC are detected.

Display contents of CONSULT		Fail-safe	Cancellation
U1000	CAN COMM CIRCUIT	Inhibit retractable hard top operation.	Communication is normal
U1010	CONTROL UNIT (CAN)	Inhibit retractable hard top operation.	Communication is normal
U0140	LOCAL COMM-1	Inhibit retractable hard top operation.	Communication is normal
U0215	LOCAL COMM-1	Inhibit retractable hard top operation.	Communication is normal
B1701	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Replace retractable hard top control unit.
B1702	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Replace retractable hard top control unit.
B1709	ROOF SWITCH(OPEN)	Inhibit retractable hard top operation.	Detects roof open/close switch (OPEN) is OFF
B170A	ROOF SWITCH(CLOSE)	Inhibit retractable hard top operation.	Detects roof open/close switch (CLOSE) is OFF
B170B	ROOF SWITCH	Inhibit retractable hard top operation.	Detects roof open/close switch (OPEN/CLOSE) is OFF
B170C	TRUNK LINK SENSOR(LH)	Inhibit retractable hard top operation.	Detects normal value
B170D	TRUNK LINK SENSOR(RH)	Inhibit retractable hard top operation.	Detects normal value
B170F	SENSOR POWER SUPPLY	Inhibit retractable hard top operation.	Detects normal value
B1710	LATCH STATUS SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1711	LATCH LOCK SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1712	TRUNK STATUS SENSOR	Inhibit retractable hard top operation.	Detects normal value
B1715	ROOF STATUS SEN PWR	Inhibit retractable hard top operation.	Detects normal value
B1716	PS STATUS SEN(DRAW)	Inhibit retractable hard top operation.	Detects normal value
B1718	PS STATUS SEN(ROTA)	Inhibit retractable hard top operation.	Detects normal value
B1719	ROOF STATUS SEN	Inhibit retractable hard top operation.	Detects normal value

Display contents of CONSULT		Fail-safe	Cancellation
B171A	HYDRAULIC PMP(LH)	Inhibit retractable hard top operation.	Detects normal value
B171B	HYDRAULIC PMP(RH)	Inhibit retractable hard top operation.	Detects normal value
B171C	SWITCHING VALVE 1	Inhibit retractable hard top operation.	Detects normal value
B171D	SWITCHING VALVE 2	Inhibit retractable hard top operation.	Detects normal value
B171E	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B171F	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1720	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1721	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1722	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1723	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1724	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1725	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1726	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1728	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1729	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172A	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172B	ROOF STATE SIG(AUDIO)	Inhibit retractable hard top operation.	Detects normal value
B172D	ROOF WARNING BUZZ-ER	Inhibit retractable hard top operation.	Detects normal value
B172E	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B172F	REAR PWR WINDOW(LH)	Inhibit retractable hard top operation.	Detects normal value
B1730	REAR PWR WIN-DOW(RH)	Inhibit retractable hard top operation.	Detects normal value
B1731	HYDRAULIC STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1732	HYDRAULIC STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1733	HYDRAULIC STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1734	HYDRAULIC STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1735	HYDRAULIC STATE 5	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1736	HYDRAULIC STATE 6	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1737	HYDRAULIC STATE 7	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1738	HYDRAULIC STATE 8	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1739	HYDRAULIC STATE 9	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173A	HYDRAULIC STATE 10	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173B	HYDRAULIC STATE 11	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173C	HYDRAULIC STATE 12	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173D	HYDRAULIC STATE 13	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173E	HYDRAULIC STATE 14	Inhibit retractable hard top operation.	Turn ignition switch OFF
B173F	HYDRAULIC STATE 15	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1740	HYDRAULIC STATE 16	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1741	HYDRAULIC STATE 17	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1742	HYDRAULIC STATE 18	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1743	HYDRAULIC STATE 19	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1744	HYDRAULIC STATE 20	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1745	HYDRAULIC STATE 21	Inhibit retractable hard top operation.	Turn ignition switch OFF

Display contents of CONSULT		Fail-safe	Cancellation
B1746	HYDRAULIC STATE 22	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1747	P SHELF (DRAW) STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1748	P SHELF (DRAW) STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1749	P SHELF (DRAW) STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174A	P SHELF (DRAW) STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174B	P SHELF (DRAW) STATE 5	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174C	P SHELF (DRAW) STATE 6	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174D	P SHELF (ROT) STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174E	P SHELF (ROT) STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B174F	P SHELF (ROT) STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1750	P SHELF (ROT) STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1751	ROOF LATCH STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1752	ROOF LATCH STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1753	ROOF LATCH STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1754	FLIPPER DOOR STATE 1	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1755	FLIPPER DOOR STATE 2	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1756	FLIPPER DOOR STATE 3	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1757	FLIPPER DOOR STATE 4	Inhibit retractable hard top operation.	Turn ignition switch OFF
B1758	THERMO PROTECTION	Inhibit retractable hard top operation.	It is not in thermo protection area (Refer to RF-20, "RETRACTABLE HARD TOP SYSTEM : System Description")
B175C	PWR SOURCE(ROOF)	Inhibit retractable hard top operation.	Power source is 11.4 (V) or more for 0.5 second
B175D	PWR SOURCE(ROOF)	Inhibit retractable hard top operation.	Power source is14.5 (V) or more for 4 seconds
B175E	PWR SOURCE(WINDOW)	Inhibit retractable hard top operation and rear power window operation.	Power source (power window) is 9.5 (V) or less
B175F	PWR SOURCE(WINDOW)	Inhibit retractable hard top operation and rear power window operation.	Power source (power window) is 15.5 (V) or more
B1760	ROOF CONTROL UNIT	Inhibit rear window defogger operation.	Detects normal value
B1761	ROOF CONTROL UNIT	Inhibit retractable hard top operation.	Detects normal value
B1762	ROOF STATE	Inhibit retractable hard top operation.	Detects normal value
B1763	HYDRAULIC STATE	Inhibit retractable hard top operation.	Detects normal value
B1764	ROOF LATCH STATE	Inhibit retractable hard top operation.	Detects normal value
B1765	FLIPPER DOOR STATE	Inhibit retractable hard top operation.	Detects normal value

DTC Inspection Priority Chart

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

Priority	Display contents of CONSULT	
1	U1000	CAN COMM CIRCUIT
	U1010	CONTROL UNIT (CAN)

Priority	Display contents of CONSULT	
2	B175C	PWR SOURCE(ROOF)
	B175D	PWR SOURCE(ROOF)
	B175E	PWR SOURCE(WINDOW)
	B175F	PWR SOURCE(WINDOW)
3	B1701	ROOF CONTROL UNIT
	B1702	ROOF CONTROL UNIT
	B171E	ROOF CONTROL UNIT
	B171F	ROOF CONTROL UNIT
	B1720	ROOF CONTROL UNIT
	B1721	ROOF CONTROL UNIT
	B1722	ROOF CONTROL UNIT
	B1723	ROOF CONTROL UNIT
	B1724	ROOF CONTROL UNIT
	B1725	ROOF CONTROL UNIT
	B1726	ROOF CONTROL UNIT
	B1728	ROOF CONTROL UNIT
	B1729	ROOF CONTROL UNIT
	B172A	ROOF CONTROL UNIT
	B172E	ROOF CONTROL UNIT
	B1760	ROOF CONTROL UNIT
	B1761	ROOF CONTROL UNIT
4	B170F	SENSOR POWER SUPPLY
5	U0140	LOCAL COMM-1
	U0215	LOCAL COMM-1
	B1709	ROOF SWITCH(OPEN)
	B170A	ROOF SWITCH(CLOSE)
	B170B	ROOF SWITCH
	B1758	THERMO PROTECTION
	B171A	HYDRAULIC PMP(LH)
	B171B	HYDRAULIC PMP(RH)
	B171C	SWITCHING VALVE 1
	B171D	SWITCHING VALVE 2
	B172F	REAR PWR WINDOW(LH)
	B1730	REAR PWR WINDOW(RH)
	B1715	ROOF STATE SEN PWR
	B170C	TRUNK LINK SENSOR(LH)
	B170D	TRUNK LINK SENSOR(RH)
	B1710	LATCH STATUS SENSOR
	B1711	LATCH LOCK SENSOR
	B1712	TRUNK STATUS SENSOR
	B1716	PS STATUS SEN(ROTA)
	B1718	PS STATUS SEN(DRAW)
	B1719	ROOF STATUS SEN
6	B172D	ROOF WARNING BUZZER

Priority	Display contents of CONSULT	
7	B1731	HYDRAULIC STATE 1
	B1732	HYDRAULIC STATE 2
	B1733	HYDRAULIC STATE 3
	B1734	HYDRAULIC STATE 4
	B1735	HYDRAULIC STATE 5
	B1736	HYDRAULIC STATE 6
	B1737	HYDRAULIC STATE 7
	B1738	HYDRAULIC STATE 8
	B1739	HYDRAULIC STATE 9
	B173A	HYDRAULIC STATE 10
	B173B	HYDRAULIC STATE 11
	B173C	HYDRAULIC STATE 12
	B173D	HYDRAULIC STATE 13
	B173E	HYDRAULIC STATE 14
	B173F	HYDRAULIC STATE 15
	B1740	HYDRAULIC STATE 16
	B1741	HYDRAULIC STATE 17
	B1742	HYDRAULIC STATE 18
	B1743	HYDRAULIC STATE 19
	B1744	HYDRAULIC STATE 20
	B1745	HYDRAULIC STATE 21
	B1746	HYDRAULIC STATE 22
	B1747	P SHELF (DRAW) STATE 1
	B1748	P SHELF (DRAW) STATE 2
	B1749	P SHELF (DRAW) STATE 3
	B174A	P SHELF (DRAW) STATE 4
	B174B	P SHELF (DRAW) STATE 5
	B174C	P SHELF (DRAW) STATE 6
	B174D	P SHELF (ROT) STATE 1
	B174E	P SHELF (ROT) STATE 2
	B174F	P SHELF (ROT) STATE 3
	B1750	P SHELF (ROT) STATE 4
	B1751	ROOF LATCH STATE 1
	B1752	ROOF LATCH STATE 2
	B1753	ROOF LATCH STATE 3
	B1754	FLIPPER DOOR STATE 1
	B1755	FLIPPER DOOR STATE 2
	B1756	FLIPPER DOOR STATE 3
	B1757	FLIPPER DOOR STATE 4
8	B1707	ROOF OPEN STATE
	B1708	ROOF CLOSE STATE
9	B1764	ROOF LATCH STATE
	B1765	FLIPPER DOOR STATE
10	B1762	ROOF STATE

Priority	Display contents of CONSULT	
11	B1763	HYDRAULIC STATE
12	B172B	ROOF STATE SIG(AUDIO)

DTC Index

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NOTE:
For details of Freeze Frame Data, refer to RF-45, "CONSULT Function".

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
No DTC is detected. Further testing may be required.		—	—	—
U1000	CAN COMM CIRCUIT	×	×	RF-78
U1010	CONTROL UNIT (CAN)	×	×	RF-79
U0140	LOCAL COMM-1	×	×	RF-80
U0215	LOCAL COMM-2	×	×	RF-81
B1701	ROOF CONTROL UNIT	×	×	RF-83
B1702	ROOF CONTROL UNIT	×	×	RF-84
B1707	ROOF OPEN STATE	—	×	RF-85
B1708	ROOF CLOSE STATE	—	×	RF-87
B1709	ROOF SWITCH(OPEN)	×	×	RF-89
B170A	ROOF SWITCH(CLOSE)	×	×	RF-91
B170B	ROOF SWITCH	×	×	RF-93
B170C	TRUNK LINK SENSOR(LH)	×	×	RF-95
B170D	TRUNK LINK SENSOR(RH)	×	×	RF-97
B170F	SENSOR POWER SUPPLY	×	×	RF-99
B1710	LATCH STATUS SENSOR	×	×	RF-102
B1711	LATCH LOCK SENSOR	×	×	RF-104
B1712	TRUNK STATUS SENSOR	×	×	RF-106
B1715	ROOF STATUS SEN PWR	×	×	RF-108
B1716	PS STATUS SEN(DRAW)	×	×	RF-110
B1718	PS STATUS SEN(ROTA)	×	×	RF-112
B1719	ROOF STATUS SEN	×	×	RF-114
B171A	HYDRAULIC PMP(LH)	×	×	RF-116
B171B	HYDRAULIC PMP(RH)	×	×	RF-118
B171C	SWITCHING VALVE 1	×	×	RF-120
B171D	SWITCHING VALVE 2	×	×	RF-122
B171E	ROOF CONTROL UNIT	×	×	RF-124
B171F	ROOF CONTROL UNIT	×	×	RF-125
B1720	ROOF CONTROL UNIT	×	×	RF-126
B1721	ROOF CONTROL UNIT	×	×	RF-127
B1722	ROOF CONTROL UNIT	×	×	RF-128
B1723	ROOF CONTROL UNIT	×	×	RF-129
B1724	ROOF CONTROL UNIT	×	×	RF-130
B1725	ROOF CONTROL UNIT	×	×	RF-131
B1726	ROOF CONTROL UNIT	×	×	RF-132
B1728	ROOF CONTROL UNIT	×	×	RF-133

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
B1729	ROOF CONTROL UNIT	×	×	RF-134
B172A	ROOF CONTROL UNIT	×	×	RF-135
B172B	ROOF STATE SIG(AUDIO)	×	×	RF-136
B172D	ROOF WARNING BUZZER	×	×	RF-138
B172E	ROOF CONTROL UNIT	×	×	RF-140
B172F	REAR PWR WINDOW(LH)	×	×	RF-141
B1730	REAR PWR WINDOW(RH)	×	×	RF-143
B1731	HYDRAULIC STATE 1	×	×	RF-145
B1732	HYDRAULIC STATE 2	×	×	RF-147
B1733	HYDRAULIC STATE 3	×	×	RF-149
B1734	HYDRAULIC STATE 4	×	×	RF-151
B1735	HYDRAULIC STATE 5	×	×	RF-153
B1736	HYDRAULIC STATE 6	×	×	RF-155
B1737	HYDRAULIC STATE 7	×	×	RF-156
B1738	HYDRAULIC STATE 8	×	×	RF-157
B1739	HYDRAULIC STATE 9	×	×	RF-158
B173A	HYDRAULIC STATE 10	×	×	RF-159
B173B	HYDRAULIC STATE 11	×	×	RF-160
B173C	HYDRAULIC STATE 12	×	×	RF-161
B173D	HYDRAULIC STATE 13	×	×	RF-162
B173E	HYDRAULIC STATE 14	×	×	RF-163
B173F	HYDRAULIC STATE 15	×	×	RF-164
B1740	HYDRAULIC STATE 16	×	×	RF-165
B1741	HYDRAULIC STATE 17	×	×	RF-168
B1742	HYDRAULIC STATE 18	×	×	RF-169
B1743	HYDRAULIC STATE 19	×	×	RF-171
B1744	HYDRAULIC STATE 20	×	×	RF-173
B1745	HYDRAULIC STATE 21	×	×	RF-175
B1746	HYDRAULIC STATE 22	×	×	RF-177
B1747	P SHELF (DRAW) STATE 1	×	×	RF-179
B1748	P SHELF (DRAW) STATE 2	×	×	RF-180
B1749	P SHELF (DRAW) STATE 3	×	×	RF-181
B174A	P SHELF (DRAW) STATE 4	×	×	RF-182
B174B	P SHELF (DRAW) STATE 5	×	×	RF-183
B174C	P SHELF (DRAW) STATE 6	×	×	RF-184
B174D	P SHELF (ROT) STATE 1	×	×	RF-185
B174E	P SHELF (ROT) STATE 2	×	×	RF-186
B174F	P SHELF (ROT) STATE 3	×	×	RF-187
B1750	P SHELF (ROT) STATE 4	×	×	RF-188
B1751	ROOF LATCH STATE 1	×	×	RF-189
B1752	ROOF LATCH STATE 2	×	×	RF-190
B1753	ROOF LATCH STATE 3	×	×	RF-191
B1754	FLIPPER DOOR STATE 1	×	×	RF-192
B1755	FLIPPER DOOR STATE 2	×	×	RF-193

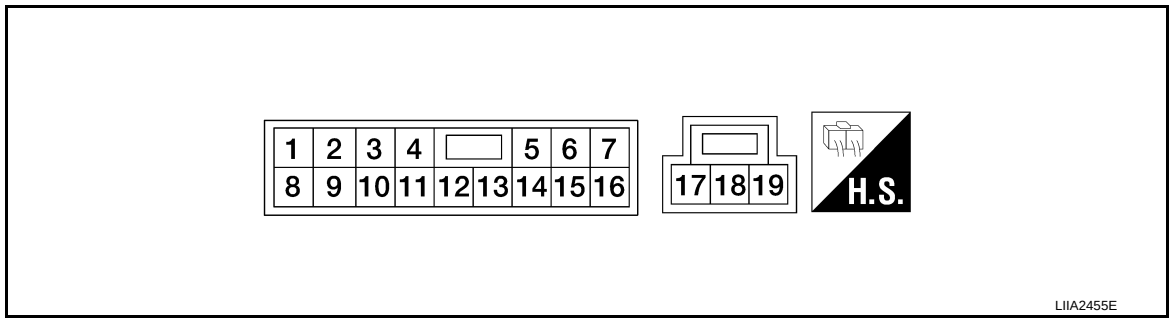
Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
B1756	FLIPPER DOOR STATE 3	×	×	RF-194
B1757	FLIPPER DOOR STATE 4	×	×	RF-195
B1758	THERMO PROTECTION	×	×	RF-196
B175C	PWR SOURCE(ROOF)	×	×	RF-197
B175D	PWR SOURCE(ROOF)	×	×	RF-198
B175E	PWR SOURCE(WINDOW)	×	×	RF-199
B175F	PWR SOURCE(WINDOW)	×	×	RF-201
B1760	ROOF CONTROL UNIT	×	×	RF-203
B1761	ROOF CONTROL UNIT	×	×	RF-204
B1762	ROOF STATE	×	×	RF-205
B1763	HYDRAULIC STATE	×	×	RF-208
B1764	ROOF LATCH STATE	×	×	RF-210
B1765	FLIPPER DOOR STATE	×	×	RF-211

POWER WINDOW MAIN SWITCH

Reference Value

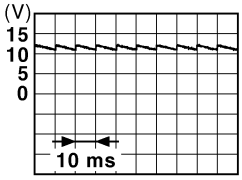
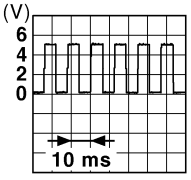
INFOID:0000000008154239

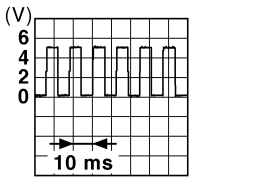
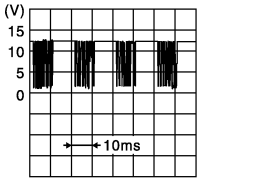
TERMINAL LAYOUT



PHYSICAL VALUES

POWER WINDOW MAIN SWITCH

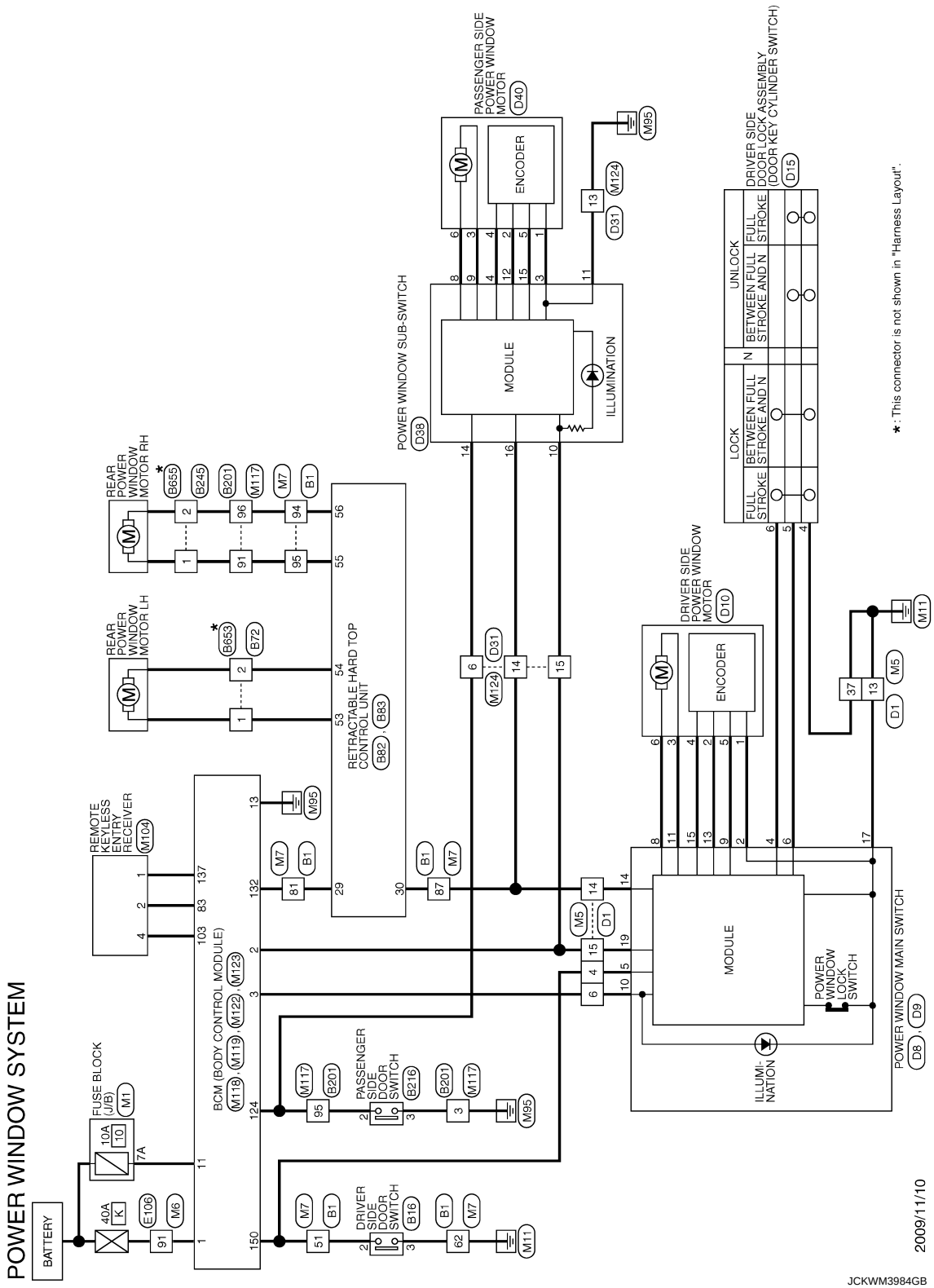
Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
2 (G)	Ground	Encoder ground	—	—	0
4 (V)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral → Locked)	5 → 0
5 (BR)	Ground	Driver side door switch	Input	OFF (Door close)	 JPMIA0011GB
				ON (Door open)	0
6 (W)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
8 (L)	Ground	Driver side power window motor UP signal	Output	Power window main switch (Driver side) is UP at operated.	Battery voltage
9 (W)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	 JMKIA0070GB

Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
10 (SB)	Ground	Rap signal	Input	IGN SW ON	Battery voltage
				Within 45 second after ignition switch is turned to OFF	Battery voltage
				When driver side or passenger side door is opened during retained power operation	0
11 (BR)	Ground	Driver side power window motor DOWN signal	Output	Power window main switch (Driver side) is DOWN at operated.	Battery voltage
13 (R)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	 JMKIA0070GB
14 (V)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	 JMKIA4024GB
15 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	Battery voltage
17 (B)	Ground	Ground	—	—	0
19 (Y)	Ground	Battery power supply	Input	—	Battery voltage

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

INFOID:0000000008154240

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



Fail Safe

INFOID:0000000008154241

FAIL-SAFE CONTROL

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

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors 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).

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function
- Automatic window adjusting function
- Retained power operation

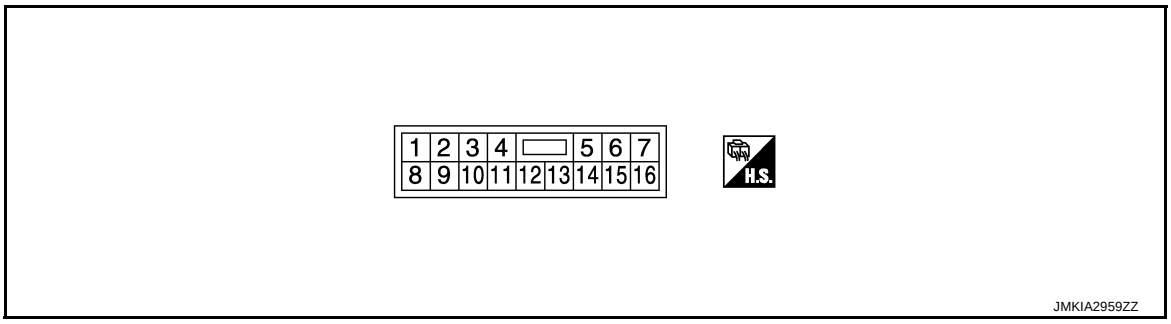
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

POWER WINDOW SUB-SWITCH

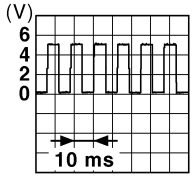
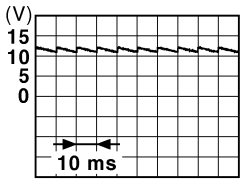
Reference Value

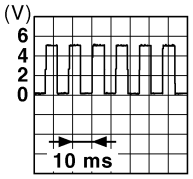
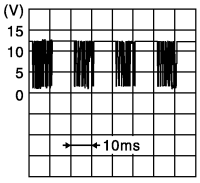
INFOID:0000000008154242

TERMINAL LAYOUT



PHYSICAL VALUES

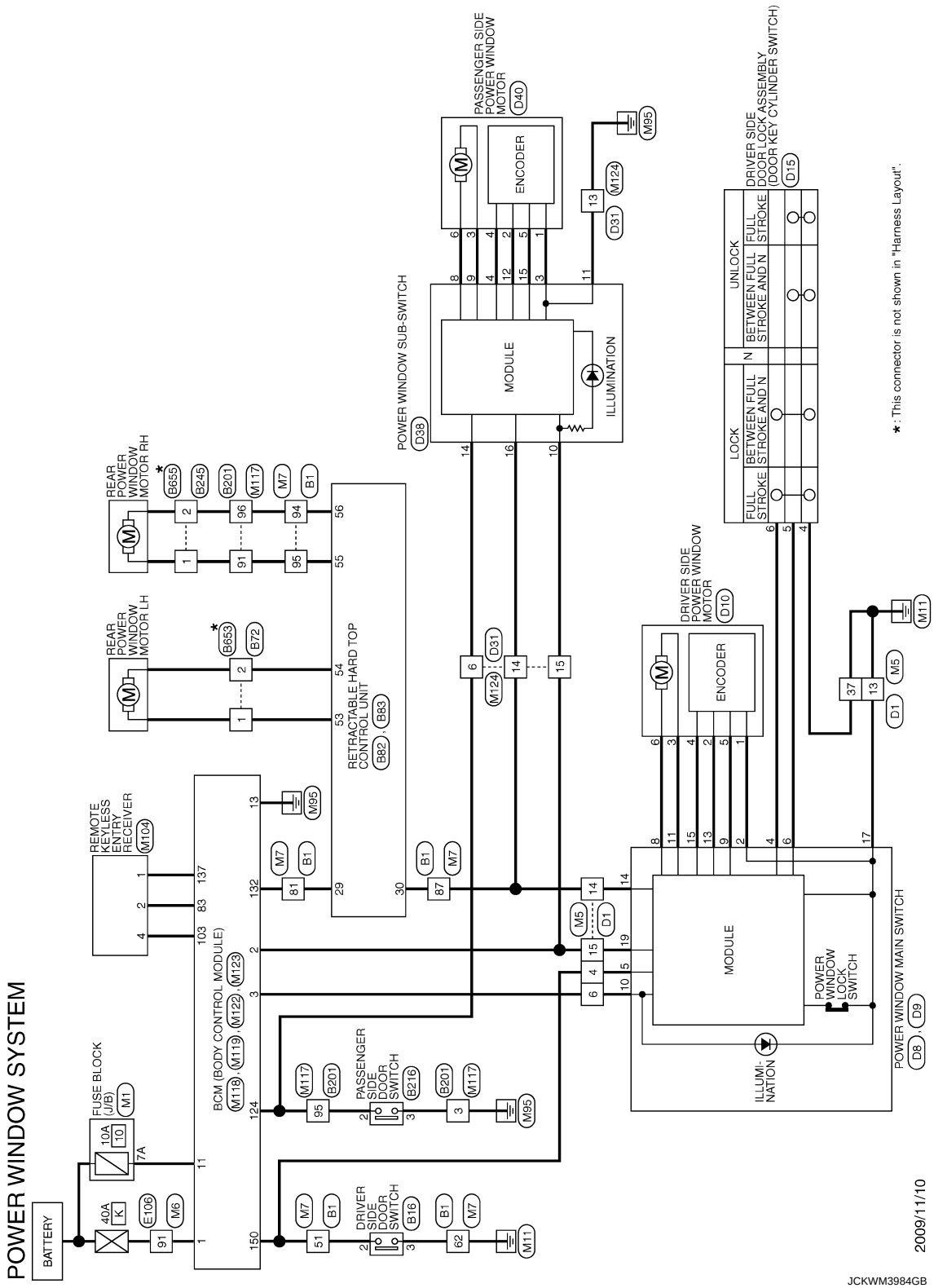
Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
3 (G)	Ground	Encoder ground	—	—	0
4 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window operates adjusting	Battery voltage
8 (L)	Ground	Power window motor UP signal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

Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
15 (SB)	Ground	Encoder pulse signal 2	Input	When power window motor operates	 JMKIA0070GB
16 (Y)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 JMKIA4024GB

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

INFOID:0000000008154243

For connector terminal arrangements, harness layouts, and alphabets in a ⬡ (option abbreviation; if not described in wiring diagram), refer to GI-12, "Connector Information".



Fail Safe

INFOID:0000000008154244

FAIL-SAFE CONTROL

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

Error	Error condition
Pulse sensor malfunction	When only one side of pulse signal is being detected for more than the specified value.
Both pulse sensors 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).

It changes to condition before initialization and the following functions do not operate when switched to fail-safe control.
- Auto-up operation
- Anti-pinch function
- Automatic window adjusting function
- Retained power operation

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

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Description

INFOID:0000000008154245

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

Diagnosis Procedure

INFOID:0000000008154246

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to PWC-15, "BCM : Diagnosis Procedure".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Description

INFOID:0000000008154247

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

Diagnosis Procedure

INFOID:0000000008154248

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

Check power window main switch power supply and ground circuit.
Refer to PWC-15, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-18, "DRIVER SIDE : Component Function Check".

Is the measurement value within the specification?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Description

INFOID:0000000008154249

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

Diagnosis Procedure

INFOID:0000000008154250

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

Check power window sub-switch power supply and ground circuit.
Refer to PWC-16, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.
Refer to PWC-19, "PASSENGER SIDE : Component Function Check".

Is the measurement value within the specification?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

REAR LH SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000008154251

1.CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.
Refer to PWC-20, "REAR LH : 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-42, "Intermittent Incident".
NO >> GO TO 1.

REAR RH SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000008154252

1.CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.
Refer to PWC-22, "REAR RH : 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-42, "Intermittent Incident".
NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE

Description

INFOID:0000000008154253

Anti-pinch function does not operate when power window up operated.

Diagnosis Procedure

INFOID:0000000008154254

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO-1 >> Driver side : Refer to PWC-97, "DRIVER SIDE : Diagnosis Procedure".
NO-2 >> Passenger side : Refer to PWC-97, "PASSENGER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154255

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.
Refer to PWC-27, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154256

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2. CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.
Refer to PWC-29, "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-42, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Description

INFOID:0000000008154257

Retained power function does not operate after ignition switch turns OFF.

Diagnosis Procedure

INFOID:0000000008154258

1.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-70, "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-42, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Description

INFOID:0000000008154259

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

Diagnosis Procedure

INFOID:0000000008154260

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2.CHECK DRIVER SIDE DOOR LOCK ASSEMBLY (DOOR KEY CYLINDER SWITCH)

Check driver side door lock assembly (door key cylinder switch).
Refer to DLK-86, "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-42, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Description

INFOID:0000000008154261

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

Diagnosis Procedure

INFOID:0000000008154262

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.
NO >> Refer to DLK-181, "Diagnosis Procedure".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

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

YES >> GO TO 3.
NO >> Refer to DLK-181, "Diagnosis Procedure".

3.CHECK “PW DOWN SET” SETTING IN “WORK SUPPORT”

Check “PW DOWN SET” setting in “WORK SUPPORT”.
Refer to DLK-51, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Set “PW DOWN SET” setting in “WORK SUPPORT”.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000008154263

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to PWC-106, "Removal and Installation".

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154264

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to PWC-106, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154265

1. REPLACE POWER WINDOW SUB-SWITCH

Replace power window sub-switch.

>> Refer to PWC-106, "Removal and Installation".

AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000008154266

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-97, "DRIVER SIDE : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-24, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-42, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000008154267

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-97, "PASSENGER SIDE : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-25, "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-42, "Intermittent Incident".
NO >> GO TO 1.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000008154268

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

WARNING:

Always observe the following items for preventing accidental activation.

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see “SRS AIR BAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

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

WARNING:

Always observe the following items for preventing accidental activation.

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.**

Service Procedure Precautions for Models with a Pop-up Roll Bar

INFOID:0000000008154269

WARNING:

Always observe the following items for preventing accidental activation.

- **Risk of passenger injury or death may increase if the pop-up roll bar does not deploy during a roll over collision. In order to reduce the chance of an incident where the pop-up roll bar is inoperative, all maintenance must be performed by a NISSAN or INFINITI dealer.**
- **Before removing and installing the pop-up roll bar component parts and harness, always turn the ignition switch OFF, disconnect the battery negative terminal, and wait for 3 minutes or more. (The purpose of this operation is to discharge electricity that is accumulated in the auxiliary power supply circuit in the air bag diagnosis sensor unit.)**
- **When repairing, removing, and installing a pop-up roll bar, always refer to SRS AIR BAG and SRS AIR BAG CONTROL warnings in the Service Manual.**

Precaution for Battery Service

INFOID:0000000008154270

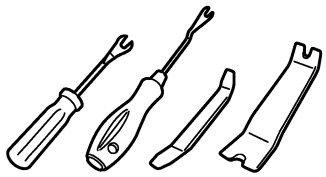
Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference.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

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000008778807

Tool name	Description
Remover tool  JMKIA3050ZZ	Removes the clips, pawls and metal clips

REMOVAL AND INSTALLATION

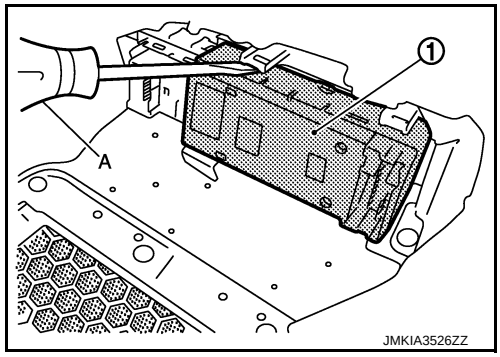
POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:0000000008154271

REMOVAL

1. Remove the door finisher.
   Refer to INT-12, "Removal and Installation".
2. Power window main switch (1) is removed from door finisher using remover tool (A).



: Pawl

CAUTION:
Do not fold the pawl of power window main switch finisher.
NOTE:
The same procedure is also performed for power window sub-switch.

INSTALLATION

Install in the reverse order of removal.
NOTE:
Power window main switch is exchanged or is detached it is necessary to do the initialization procedure.
Refer to PWC-6, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".