SECTION PWC

POWER WINDOW CONTROL SYSTEM

CONTENTS

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000011488763

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING PARTS WITH “COMPONENT DIAGNOSIS”

Perform the diagnosis with “Component diagnosis” of the applicable system.

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

Check that the malfunction is not reproduced, 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:0000000011488764

When the battery negative terminal is disconnected, initialization is necessary.
If any of the following operations are performed, the initialization is necessary as well as when the battery negative terminal is disconnected. Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

1. Initial connection or reconnection of battery terminal.
2. Removal and installation of power window regulator.
3. Removal and installation of power window motor.
4. When the power supply to power window switches and motor shuts off for any reason while power widow is being operated.
5. Fuse blowout and replacement of fuse for the power window power supply.
6. Removal and installation of door glass or adjustment of door glass.

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:0000000011488765

INITIALIZATION PROCEDURE

CAUTION:
If the initialization is not complete, UP does not operate while door is open.

1. Disconnect the battery negative terminal or power window motor connector, and then reconnect.
2. Door close (door switch OFF).
3. Turn ignition switch ON.
4. Operate power window switch to open the glass halfway or more. (This operation is not necessary if the glass is already open halfway or more)
5. Continue pulling power window switch UP (AUTO UP operation). Even after the glass stops at the fully open position, continue pulling the switch for 3 seconds or more.
6. Check anti-pinch function.

NOTE:
The work procedures for driver seat and passenger seat are the same.

CHECK ANTI-PINCH FUNCTION

1. Fully open the door window.
2. Place a piece of wood near the fully closed position.
3. Close door glass completely using AUTO UP.

- Check that glass starts to lower without pinching the piece of wood, lowers approximately 150 mm, and then stops. When the piece of wood is 60 mm thick or more, glass may lower approximately 100 mm and then stop.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:
- **Never check with hands or other body parts because they may be pinched. Never get pinched.**
- **Check that AUTO UP operation before inspection during 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-79, "Fail-Safe"**
- **Perform initial setting when AUTO UP operation or anti-pinch function does not operate normally.**

- **Finish initial setting. Otherwise, the 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 POWER WINDOW MOTOR

ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MOTOR : Description

INFOID:0000000011488766

When the control unit is replace, initialization is necessary.
If any of the following operations are performed, the initialization is necessary as well as when the control unit is disconnected. Refer to PWC-6, "ADDITIONAL SERVICE WHEN REPLACING POWER WINDOW MOTOR : Special Repair Requirement".

1. Initial connection or reconnection of battery terminal.
2. Removal and installation of power window regulator.
3. Removal and installation of power window motor.
4. When the power supply to power window switches and motor shuts off for any reason while power widow is being operated.
5. Fuse blowout and replacement of fuse for the power window power supply.
6. Removal and installation of door glass or adjustment of door glass.

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 POWER WINDOW MOTOR : Special Repair Requirement

INFOID:0000000011488767

INITIALIZATION PROCEDURE

CAUTION:
If the initialization is not complete, UP does not operate while door is open.

1. Disconnect the battery negative terminal or power window motor connector, and then reconnect.
2. Door close (door switch OFF).
3. Turn ignition switch ON.
4. Operate power window switch to open the glass halfway or more. (This operation is not necessary if the glass is already open halfway or more)
5. Continue pulling power window switch UP (AUTO UP operation). Even after the glass stops at the fully open position, continue pulling the switch for 3 seconds or more.
6. Check anti-pinch function.

NOTE:
The work procedures for driver seat and passenger seat are the same.

CHECK ANTI-PINCH FUNCTION

1. Fully open the door window.
2. Place a piece of wood near the fully closed position.
3. Close door glass completely using AUTO UP.

- Check that glass starts to lower without pinching the piece of wood, lowers approximately 150 mm, and then stops. When the piece of wood is 60 mm thick or more, glass may lower approximately 100 mm and then stop.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

- **Never check with hands or other body parts because they may be pinched. Never get pinched.**
- **Check that AUTO UP operation before inspection during 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-79, "Fail-Safe"**
- **Perform initial setting when AUTO UP operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, the next operation cannot be done.**

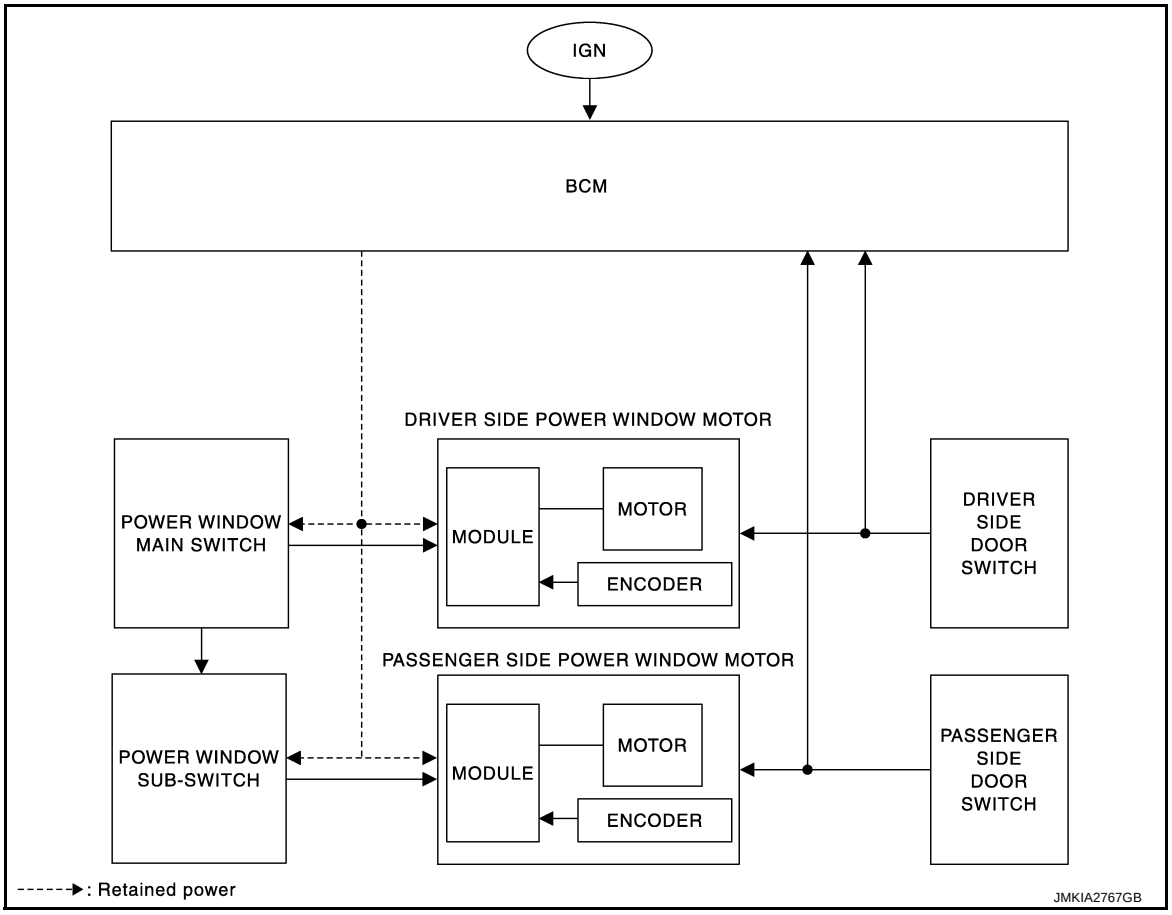
1. **AUTO UP operation**
2. **Anti-pinch function**
3. **Automatic window adjusting function**
4. **Retained power operation**

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000011488768



System Description

INFOID:0000000011488769

POWER WINDOW OPERATION

- Power window system is operable during the retained power operation timer after turning ignition switch ON to OFF.
- Power window main switch can open/close all windows.
- Power window sub-switch can open/close the passenger side windows.

POWER WINDOW AUTO-OPERATION

- When each switch of power window main switch or assistant seat power window switch is operated to the Auto position, power window motor is activated in the AUTO UP or DOWN operation.
- When the glass is in the fully open or close position, module in power window motor detects the encoder signal change and deactivates the AUTO UP or DOWN operation.
- Even if the encoder is malfunctioning, power window motor can be activated. (Except in AUTO operation.)

RETAINED POWER OPERATION

BCM controls power window for approximately 45 seconds after ignition switch turns OFF. (In a position other than ON)

Retained power function cancel conditions

When BCM detects the following signal it cancels.

1. When any door is open.
2. When ignition switch turns ON again.
3. When timer time passes. (Approximately 45 seconds)

NOTE:
If the system initialization is not complete, the retained power operation does not operate.

POWER WINDOW LOCK FUNCTION

When power window lock switch turns ON, assistant seat power window switch circuit in power window main switch shuts OFF and assistant seat power window switch is deactivated.

ANTI-PINCH FUNCTION

Module in driver seat and assistant seat power window motor detects and controls front door glass operation via encoder signal 1 and encoder signal 2. While door glass is moving upward in AUTO UP or retained power operation, when front door glass receives a load of the specified value or more, the module detects the encoder signal change, stops power window motor AUTO UP operation, sends DOWN signal, and lowers the front door glass for the specified value (approximately 150 mm).

OPERATION CONDITION

- When front door glass is between fully the open position and the position just before fully closed. When front door glass is not fully closed.
- When front door glass is moving upward in the AUTO UP operation.
- When front door glass is moving upward in ignition switch position except ON (timer operation).

NOTE:
Anti-pitch function may be activated when a load or impact similar to pinching is applied on front door glass by surrounding conditions or driving conditions.

AUTOMATIC WINDOW ADJUSTING FUNCTION

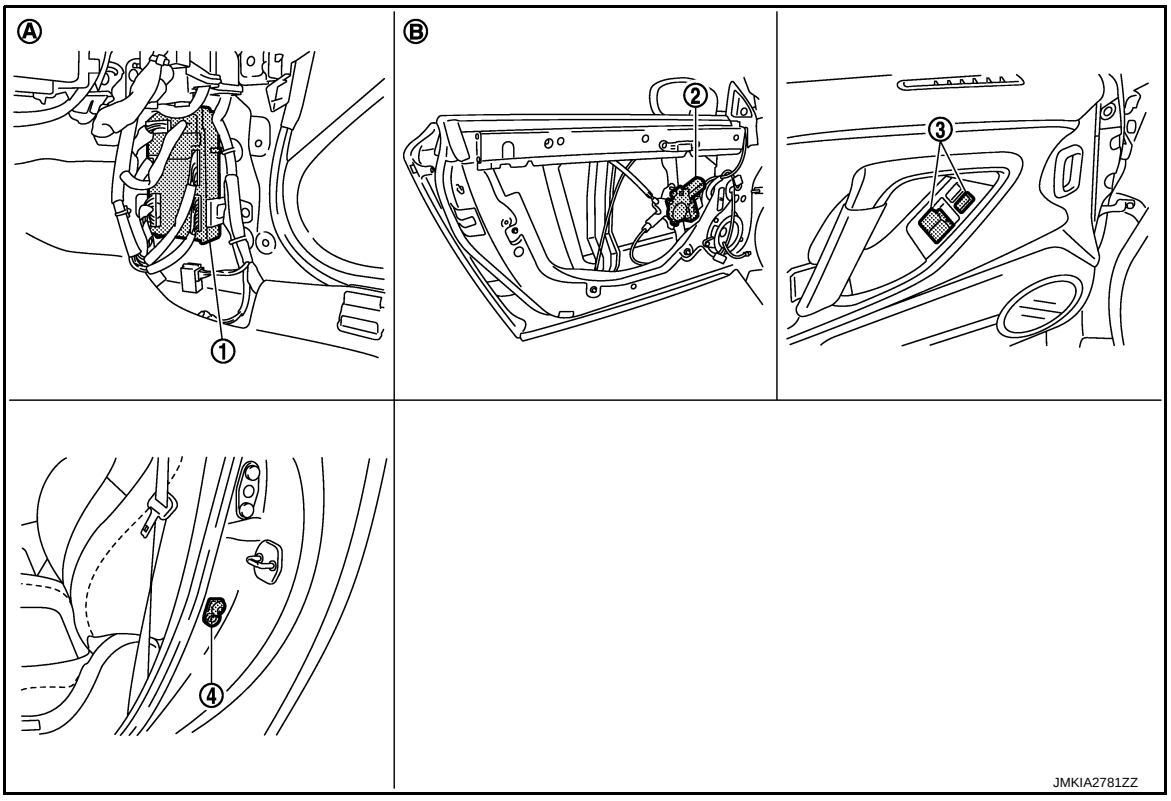
- When driver seat door or assistant seat door is open, the door glass of opened door lowers approximately 15 mm from the fully closed position. After the door is closed, it raises the door glass to the fully closed position. This improves the operability for door open or close, and the sealing ability of door glass.
- Even if power window is in the lock position, the automatic window adjusting function operates.
- The open or closed door position is judged by the door switch position that is ON or OFF.

No operating conditions

- When the automatic window adjusting function starts to lower the door glass, the door glass is already open the specified value (approximately 15 mm) or more from the fully closed position.
- When the automatic window adjusting function is lowering the door glass, the door is closed.

Component Parts Location

INFOID:0000000011488770



1. BCM M118, M119, M123
2. Driver side power window motor D10
3. Power window main switch D8
4. Driver side door switch B21

A. Dash side lower (passenger side)
B. View with door finisher removed

Component Description

INFOID:0000000011488771

Component	Function
BCM	• Supplies the power to power window main switch and power window sub-switch • Supplies power to driver side and passenger side power window motor • Controls retained power
Power window main switch	• Outputs the UP or DOWN signal to driver side and passenger side power window motor • Power window lock switch is equipped, and when the button is pressed (LOCK), de-activates the assistant seat power window operation
Power window sub-switch	Outputs the UP or DOWN signal to passenger side power window motor
Driver side power window motor	• Operates by UP or DOWN signal from power window main switch • Encoder: Detects power window motor speed by 2 pulse signals • Module: Controls the anti-pitch, Auto operation, and automatic window adjusting functions by the pulse signal from encoder
Passenger side power window motor	• Operates by UP or DOWN signal from power window main switch or assistant seat power window switch • Encoder: Detects power window motor speed by 2 pulse signals • Module: Controls the anti-pitch and automatic window adjusting functions by the pulse signal from encoder
Door switch	Detects the driver side and passenger side doors open or closed condition

DIAGNOSIS SYSTEM (BCM)
COMMON ITEM
COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000011798476

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	• Read and save the vehicle specification. • Write the vehicle specification when replacing BCM.

SYSTEM APPLICATION
BCM can perform the following functions for each system.
NOTE:
It can perform the diagnosis modes except the following for all sub system selection items.

×: Applicable item

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

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

FREEZE FRAME DATA (FFD)
The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT.

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000011488773

Data monitor

NOTE:

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

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:0000000011798475

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	I
	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 MOTOR

POWER WINDOW MOTOR : Diagnosis Procedure

INFOID:0000000011488775

1.CHECK POWER WINDOW MOTOR POWER SUPPLY

Check voltage between power window motor harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window motor					
Connector	Terminal				
D10/D40*	7	Ground	Ignition switch	OFF	Battery voltage
				ON	
	2			Other than the ON (Timer is activated)	
				Timer is not activated	0

*: Passenger side

Is the inspection result normal?

YES >> Power window motor power supply is OK.
NO >> GO TO 2.

2.CHECK POWER WINDOW MOTOR POWER SUPPLY CIRCUIT

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

BCM		Power window motor		Continuity
Connector	Terminal	Connector	Terminal	
M118	2	D10/40*	7	Existed
	3		2	

*: Passenger side

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed
	3		

*: Passenger side

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-89, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000011488776

1.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Power window main switch			
Connector	Terminal		
D8	2	Ground	Battery voltage

Is the inspection result normal?

YES >> Power window main switch power supply is OK.
NO >> GO TO 2.

2.CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY CIRCUIT

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M118	3	D8	2	Existed

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-89, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW MAIN SWITCH
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000011488777

Outputs UP or DOWN signal to driver side power motor.

DRIVER SIDE : Component Function Check

INFOID:0000000011488778

1. CHECK FUNCTION

Check that driver side power window operates when power window main switch for driver side is operated to the UP or DOWN position.

Is the inspection result normal?

YES >> Power window main switch (driver side) function is OK.
NO >> Refer to PWC-16, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000011488779

1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window main switch					
Connector	Terminal				
D8	10	Ground	Driver side switch	UP	Battery voltage
				Other than above	0
	11			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Power window main switch (driver side) function is OK.
NO >> GO TO 2.

2. CHECK POWER WINDOW MAIN SWITCH (DRIVER SIDE)

Check power window main switch (driver side). Refer to PWC-16, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 3.
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

3. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:0000000011488780

1. CHECK POWER WINDOW MAIN SWITCH (DRIVER SIDE)

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

(+)		(–)	Condition		Continuity
Power window main switch					
Connector	Terminal				
D8	3	2	Driver side switch	AUTO	Existed
				Other than above	Not existed
	10			UP	Existed
				Other than above	Not existed
	11			DOWN	Existed
				Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000011488781

- Sends UP or DOWN signal to passenger side power window motor.
- Power window lock switch is equipped, and when the button is operated (LOCK), it deactivates the passenger side power window operation.

PASSENGER SIDE : Component Function Check

INFOID:0000000011488782

1.CHECK FUNCTION

Check that passenger side power window operates when power window main switch for passenger side (power window lock switch is UNLOCK) is operated to the UP or DOWN position.

Is the inspection result normal?

YES >> Power window main switch (passenger side) function is OK.
NO >> Refer to PWC-17, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000011488783

1.CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Power window lock switch UNLOCK.
3. Check voltage between power window main switch harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window main switch					
Connector	Terminal				
D8	7	Ground	Passenger side switch	UP	Battery voltage
				Other than above	0
	15			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 2.
NO >> GO TO 5.

2.CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window sub-switch					
Connector	Terminal				
D38	15	Ground	Power window main switch (passenger side)	UP	Battery voltage
				Other than above	0
	16			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Power window main switch (passenger side) function is OK.
NO >> GO TO 3.

3.CHECK POWER WINDOW SUB-SWITCH INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window sub-switch					
Connector	Terminal				
D38	6	Ground	Power window main switch (passenger side)	UP	Battery voltage
				Other than above	0
	7			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 4.
NO >> GO TO 6.

4.CHECK POWER WINDOW SUB-SWITCH

Check power window sub-switch. Refer to PWC-21, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.
NO >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".

5.CHECK POWER WINDOW MAIN SWITCH (PASSENGER SIDE)

Check power window main switch (passenger side). Refer to PWC-19, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 7.
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

6.CHECK PASSENGER SIDE POWER WINDOW CIRCUIT

1. Disconnect power window main switch connector and power window sub-switch connector.
2. Check continuity between power window main switch harness connector and power window sub-switch harness connector.

Power window sub-switch		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
D38	6	D8	7	Existed
	7		15	

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	6		Not existed
	7		

Is the inspection result normal?

YES >> GO TO 7.
NO >> Repair or replace harness.

7.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:0000000011488784

1.CHECK POWER WINDOW MAIN SWITCH (PASSENGER SIDE)

1. Turn ignition switch OFF.
2. Power window lock switch UNLOCK.
3. Disconnect power window main switch connector.
4. Check continuity between power window main switch terminals.

Power window main switch			Condition		Continuity
Connector	Terminal				
D8	6	2	Passenger side switch	AUTO	Existed
				Other than above	Not existed
	7			UP	Existed
				Other than above	Not existed
	15			DOWN	Existed
				Other than above	Not existed

Is the inspection result normal?

YES >> INSPECTION END
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

POWER WINDOW SUB-SWITCH

Description

INFOID:0000000011488785

Sends UP or DOWN signal to passenger side power window motor.

Component Function Check

INFOID:0000000011488786

1. CHECK FUNCTION

Check that passenger side power window operates when passenger side power window switch (power window lock switch is UNLOCK) is operated to the UP or DOWN position.

Is the inspection result normal?

YES >> Power window sub-switch function is OK.
NO >> Refer to PWC-20, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011488787

1. CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window sub-switch					
Connector	Terminal				
D38	15	Ground	Power window sub-switch	UP	Battery voltage
				Other than above	0
	16			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Power window sub-switch function is OK.
NO >> GO TO 2.

2. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY

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

(+)		(–)	Voltage (V) (Approx.)
Power window sub-switch			
Connector	Terminal		
D38	3	Ground	Battery voltage

Is the inspection result normal?

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

3. CHECK POWER WINDOW SUB-SWITCH

Check power window sub-switch. Refer to PWC-21, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.
NO >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".

4. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power window main switch			
Connector	Terminal		
D8	16	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

5.CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY CIRCUIT

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

Power window sub-switch		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
D38	3	D8	16	Existed

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	3		Not existed

Is the inspection result normal?

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

6.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000011488788

1.CHECK POWER WINDOW SUB-SWITCH

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

Power window sub-switch			Condition	Continuity
Connector	Terminal			
D38	14	3	AUTO	Existed
		5		Not existed
		3	Other than above	Not existed
		5		Existed
	15	3	UP	Existed
		6		Not existed
		3	Other than above	Not existed
		6		Existed
	16	3	DOWN	Existed
		7		Not existed
		3	Other than above	Not existed
		7		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".

POWER WINDOW MOTOR

Description

INFOID:0000000011488789

- Operates via UP or DOWN signal from power window main switch or power window sub-switch.
- Encoder and module are built-in and controls anti-pitch function, AUTO operation, and automatic window adjusting function.

Component Function Check

INFOID:0000000011488790

1. CHECK FUNCTION

Check that corresponding power window operates when power window switch (power window lock switch is UNLOCK) is operated to the UP or DOWN position.

Is the inspection result normal?

YES >> Power window motor function is OK.
NO >> Refer to PWC-23, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011488791

1. CHECK POWER WINDOW MOTOR INPUT SIGNAL

1. Turn ignition switch ON.
2. Power window lock switch OFF.
3. Check voltage between malfunctioning power window motor harness connector and ground.

(+)		(–)	Condition	Voltage (V) (Approx.)
Power window motor				
Connector	Terminal			
D10/D40*	3	Ground	When operating the corresponding power window switch upwards	Battery voltage
			Other than above	0
	4		When operating the corresponding power window switch downwards	Battery voltage
			Other than above	0

*: Passenger side

Is the inspection result normal?

YES >> Replace malfunctioning power window motor. Refer to GW-28, "Disassembly and Assembly".
NO >> GO TO 2.

2. CHECK POWER WINDOW MOTOR CIRCUIT

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

Power window motor		Power window switch		Continuity
Connector	Terminal	Connector	Terminal	
D10/D40*	3	D8/D38*	10/15*	Existed
	4		11/16*	

*: Passenger side

4. Check continuity between the corresponding power window motor harness connector and ground.

Power window motor		Ground	Continuity
Connector	Terminal		
D10/D40*	3		Not existed
	4		

*: Passenger side

Is the inspection result normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between the corresponding power window motor harness connector and ground.

Power window motor		Ground	Continuity
Connector	Terminal		
D10/D40*	8		Existed

*: Passenger side

Is the inspection result normal?

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

4.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW AUTO CIRCUIT
POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000011488792

Sends AUTO signal to driver side or passenger side power window motor.

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000011488793

1.CHECK FUNCTION

Check that corresponding power window operates when driver side or passenger side switch of power window main switch (power window lock is UNLOCK) is operated to the AUTO position.

Is the inspection result normal?

YES >> Power window main switch AUTO function is OK.
NO >> Refer to PWC-25, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000011488794

1.CHECK POWER WINDOW AUTO FUNCTION

1. Turn ignition switch ON.
2. Power window lock switch UNLOCK.
3. Operate driver side and passenger side switch of power window main switch to the AUTO position.

Which side of power window AUTO operation does not operate?

Driver side>>GO TO 2.
Passenger side>>GO TO 5.

2.CHECK DRIVER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Driver side power window motor					
Connector	Terminal				
D10	1	Ground	Power window main switch (driver side switch)	AUTO	Battery voltage
				Other than above	0
	3			UP	Battery voltage
				Other than above	0
	4			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace driver side power window motor. Refer to GW-28, "Disassembly and Assembly".
NO >> GO TO 3.

3.CHECK POWER WINDOW AUTO SIGNAL CIRCUIT 1

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

Driver side power window motor		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
D10	1	D8	3	Existed

4. Check continuity between driver side power window motor harness connector and ground.

Driver side power window motor		Ground	Continuity
Connector	Terminal		
D10	1		Not existed

Is the inspection result normal?

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

4. CHECK POWER WINDOW MAIN SWITCH (DRIVER SIDE)

Check power window main switch (driver side).
Refer to PWC-16, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 13.
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

5. CHECK PASSENGER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Passenger side power window motor					
Connector	Terminal				
D40	1	Ground	Power window main switch (passenger side switch)	AUTO	Battery voltage
				Other than above	0
	3			UP	Battery voltage
				Other than above	0
	4			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace passenger side power window motor. Refer to GW-28, "Disassembly and Assembly".
NO >> GO TO 6.

6. CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window sub-switch					
Connector	Terminal				
D38	14	Ground	Power window main switch (passenger side switch)	AUTO	Battery voltage
				Other than above	0
	15			UP	Battery voltage
				Other than above	0
	16			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 7.
NO >> GO TO 8.

7. CHECK POWER WINDOW AUTO SIGNAL CIRCUIT 2

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

Passenger side power window motor		Power window sub-switch		Continuity
Connector	Terminal	Connector	Terminal	
D40	1	D38	14	Existed

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

Passenger side power window motor		Ground	Continuity
Connector	Terminal		
D40	1		Not existed

Is the inspection result normal?

YES >> GO TO 13.
NO >> Repair or replace harness.

8. CHECK POWER WINDOW SUB-SWITCH INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window sub-switch					
Connector	Terminal				
D38	5	Ground	Power window main switch (passenger side switch)	AUTO	Battery voltage
				Other than above	0
	6			UP	Battery voltage
				Other than above	0
	7			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 9.
NO >> GO TO 10.

9. CHECK POWER WINDOW SUB-SWITCH

Check power window sub-switch.
Refer to PWC-21, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 13.
NO >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".

10. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window main switch					
Connector	Terminal				
D8	6	Ground	Power window main switch (passenger side switch)	AUTO	Battery voltage
				Other than above	0
	7			UP	Battery voltage
				Other than above	0
	15			DOWN	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> GO TO 11.
NO >> GO TO 12.

11. CHECK POWER WINDOW AUTO SIGNAL CIRCUIT 3

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

Power window main switch		Power window sub-switch		Continuity
Connector	Terminal	Connector	Terminal	
D8	6	D38	5	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	6		Not existed

Is the inspection result normal?

YES >> GO TO 13.
NO >> Repair or replace harness.

12. CHECK POWER WINDOW MAIN SWITCH (PASSENGER SIDE)

Refer to PWC-19, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 13.
NO >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".

13. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Description

INFOID:0000000011488795

Sends AUTO signal to passenger side power window motor.

POWER WINDOW SUB-SWITCH : Component Function Check

INFOID:0000000011488796

1. CHECK FUNCTION

Check that passenger side power window operates when power window sub-switch (power window lock switch is UNLOCK) is operated to the AUTO position.

Is the inspection result normal?

YES >> Power window sub-switch AUTO function is OK.
NO >> Refer to PWC-28, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000011488797

1. CHECK PASSENGER SIDE POWER WINDOW MOTOR INPUT SIGNAL

1. Turn ignition switch ON.
2. Power window lock switch UNLOCK.
3. Check voltage between passenger side power window motor harness connector and ground.

(+)		(–)	Condition		Voltage (V) (Approx.)
Passenger side power window motor					
Connector	Terminal				
D40	1	Ground	Power window sub-switch	AUTO	Battery voltage
				Other than above	0

Is the inspection result normal?

YES >> Replace passenger side power window motor. Refer to GW-28, "Disassembly and Assembly".
NO >> GO TO 2.

2.CHECK POWER WINDOW AUTO SIGNAL CIRCUIT

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

Passenger side power window motor		Power window sub-switch		Continuity
Connector	Terminal	Connector	Terminal	
D40	1	D38	14	Existed

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

Passenger side power window motor		Ground	Continuity
Connector	Terminal		
D40	1		Not existed

Is the inspection result normal?

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

3.CHECK POWER WINDOW SUB-SWITCH

Check power window sub-switch.
Refer to PWC-21, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".

4.CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW SWITCH ILLUMINATION CIRCUIT

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000011488798

When ignition switch turns ON, power window main switch illuminates.

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000011488799

1.CHECK FUNCTION

Check that power window main switch illuminates when ignition switch turns ON.

Is the inspection result normal?

YES >> Power window main switch illumination circuit is OK.
NO >> Refer to PWC-30, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000011488800

1.CHECK GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	8		Existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-94, "Removal and Installation".
NO >> Repair or replace harness.

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Description

INFOID:0000000011488801

When ignition switch turns ON, power window sub-switch illuminates.

POWER WINDOW SUB-SWITCH : Component Function Check

INFOID:0000000011488802

1.CHECK FUNCTION

Check that power window sub-switch illuminates when ignition switch turns ON.

Is the inspection result normal?

YES >> Power window sub-switch illumination circuit is OK.
NO >> Refer to PWC-30, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000011488803

1.CHECK POWER WINDOW SUB-SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power window sub-switch			
Connector	Terminal		
D38	11	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK POWER WINDOW SUB-SWITCH POWER SUPPLY 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	11	D40	2	Existed

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	11		Not existed

Is the inspection result normal?

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

3. CHECK GROUND CIRCUIT

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

Power window sub-switch		Ground	Continuity
Connector	Terminal		
D38	8		Existed

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-94, "Removal and Installation".
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

DOOR SWITCH CIRCUIT

Description

INFOID:0000000011488804

Detects driver side and passenger side doors open or closed condition.

Component Function Check

INFOID:0000000011488805

1.CHECK FUNCTION

Check that driver side and passenger side automatic window adjustment function operates.

Is the inspection result normal?

YES >> Door switch circuit function is OK.
NO >> Refer to PWC-32, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011488806

1.CHECK DOOR SWITCH

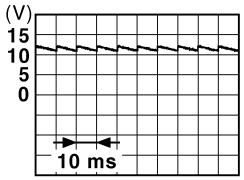
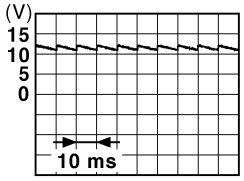
Check door switch.
Refer to DLK-63, "Component Function Check".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.
2. Check voltage signal between power window motor harness connector and ground with oscilloscope.

(+)		(–)	Condition		Voltage (V) (Approx.)
Power window motor					
Connector	Terminal				
D10	6	Ground	Door switch (driver side)	Pressed	 JPMIA0011GB
				Released	0
D40			Door switch (passenger side)	Pressed	 JPMIA0011GB
				Released	0

Is the inspection result normal?

YES >> Replace malfunctioning power window motor. Refer to GW-28, "Disassembly and Assembly".
NO >> GO TO 3.

3.CHECK DOOR SWITCH CIRCUIT

1. Disconnect BCM connector and malfunctioning power window motor connector.
2. Check continuity between BCM harness connector and malfunctioning power window motor harness connector.

Power window motor			BCM		Continuity
Connector		Terminal	Connector	Terminal	
Driver side	D10	6	M123	150	Existed
Passenger side	D40			124	

3. Check continuity between malfunctioning power window motor harness connector and ground.

Power window motor			Ground	Continuity
Connector		Terminal		
Driver side	D10	6		Not existed
Passenger side	D40			

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-39, "Intermittent Incident".

>> INSPECTION END

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000011798412

VALUES ON THE DIAGNOSIS TOOL

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

CONSULT MONITOR ITEM

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

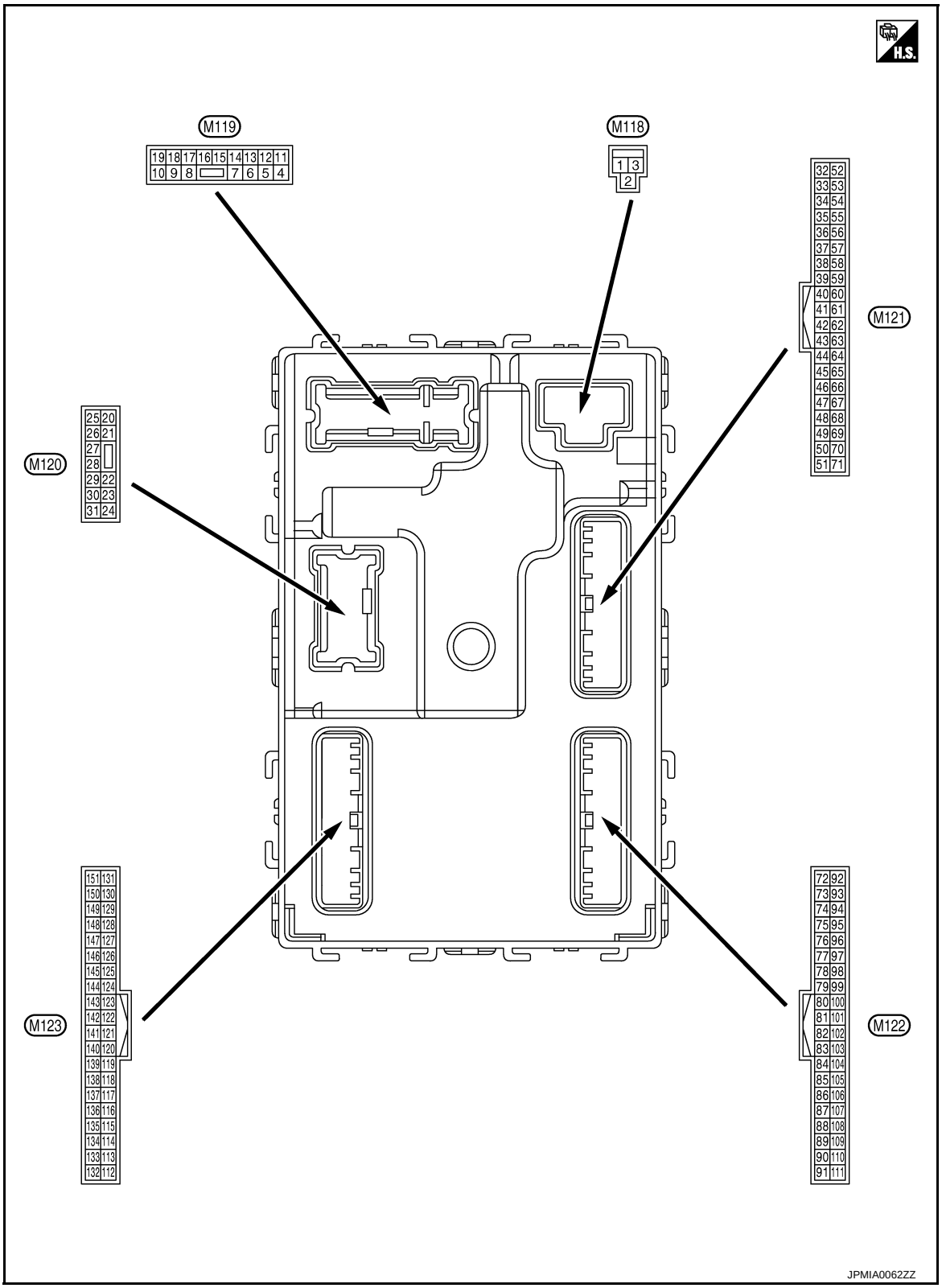
Monitor Item	Condition	Value/Status
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	**NOTE:** The item is indicated, but not monitored.	Off
CDL LOCK SW	Other than power door lock switch LOCK	Off
	Power door lock switch LOCK	On
CDL UNLOCK SW	Other than power door lock switch UNLOCK	Off
	Power door lock switch UNLOCK	On
KEY CYL LK-SW	**NOTE:** The item is indicated, but not monitored.	Off
KEY CYL UN-SW	**NOTE:** The item is indicated, but not monitored.	Off
KEY CYL SW-TR	**NOTE:** The item is indicated, but not monitored.	Off
HAZARD SW	Hazard switch is not pressed	Off
	Hazard switch is pressed	On
REAR DEF SW	**NOTE:** The item is indicated, but not monitored.	Off
H/L WSR 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 Intelligent Key is not pressed	Off
	LOCK button of Intelligent Key is pressed	On
RKE-UNLOCK	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of Intelligent Key is not pressed	Off
	TRUNK OPEN button of Intelligent Key is pressed	On
RKE-PANIC	PANIC button of Intelligent Key is not pressed	Off
	PANIC button of Intelligent Key is pressed	On
RKE-P/W OPEN	UNLOCK button of Intelligent Key is not pressed	Off
	UNLOCK button of Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	Off
	LOCK/UNLOCK button of 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-RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW-BD/TR	Trunk lid opener request switch is not pressed	Off
	Trunk lid opener request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
	Push-button ignition switch (push switch) is pressed	On
IGN RLY2 -F/B	**NOTE:** The item is indicated, but not monitored.	Off
ACC RLY -F/B	**NOTE:** The item is indicated, but not monitored.	Off
CLUCH SW	**NOTE:** The item is indicated, but not monitored.	Off
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	Shift lever in P position	Off
	Shift lever in any position other than P	On
SFT PN/N SW	Shift lever in any position other than P and N	Off
	Shift lever in P or N position	On
S/L -LOCK	Steering is unlocked	Off
	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
UNLK SEN-DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Shift lever in any position other than P	Off
	Shift lever in P position	On
SFT PN -IPDM	Shift lever in any position other than P and N	Off
	Shift lever in P or N position	On
SFT P -MET	Shift lever in any position other than P	Off
	Shift lever in P position	On
SFT N -MET	Shift lever in any position other than N	Off
	Shift lever in N position	On

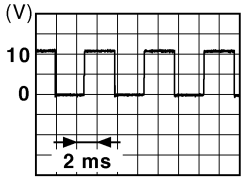
Monitor Item	Condition	Value/Status
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed-ometer reading
VEH SPEED 2	While driving	Equivalent to speed-ometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	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	Intelligent Key is not inserted into key slot	Off
	Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of 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

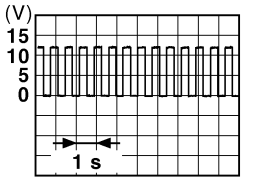
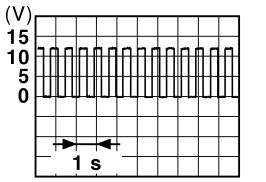
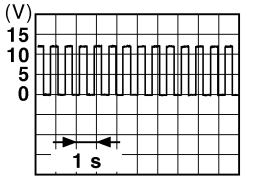
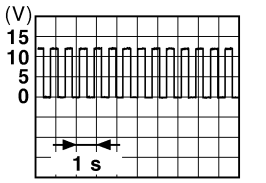
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not 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

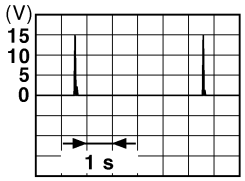
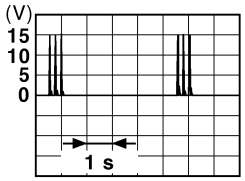
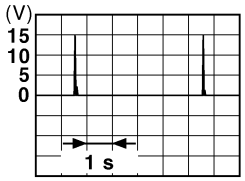
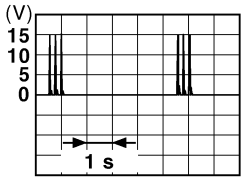
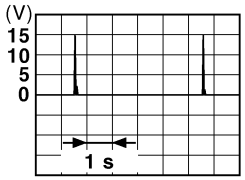
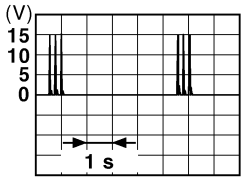
TERMINAL LAYOUT

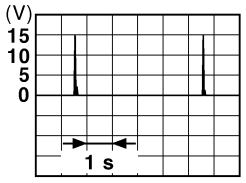
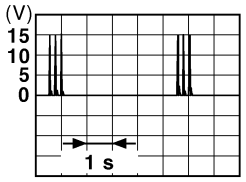
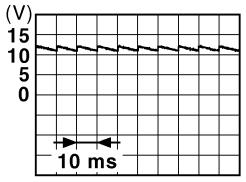
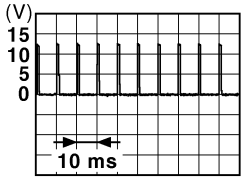


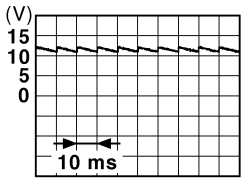
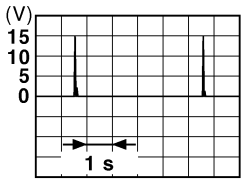
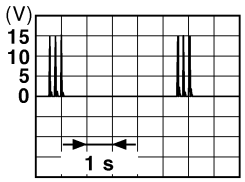
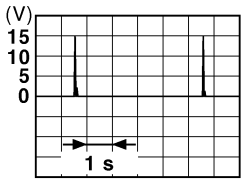
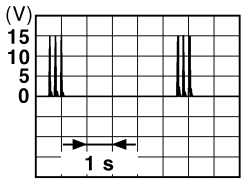
PHYSICAL VALUES

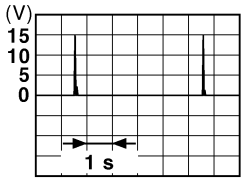
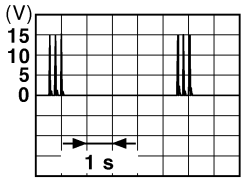
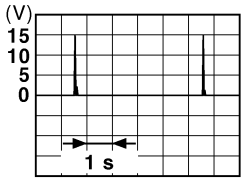
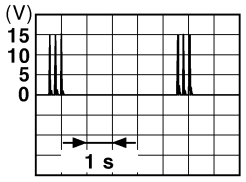
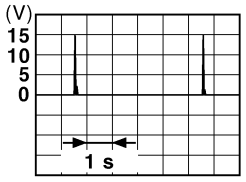
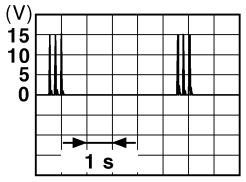
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (R)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		Battery voltage
3 (W)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		Battery voltage
4 (R)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0 V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
5 (G)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
7 (Y)	Ground	Step lamp control signal	Output	Step lamp	ON	0 V
					OFF	Battery voltage
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	Battery voltage
					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)	Battery voltage
					Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (P)	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 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ACC or ON	0 V

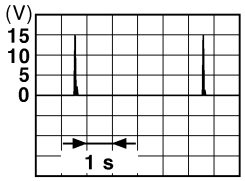
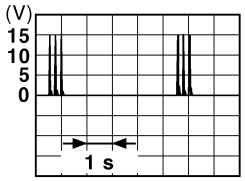
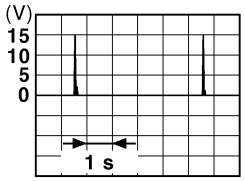
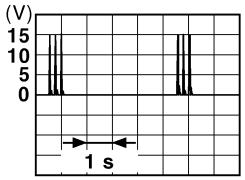
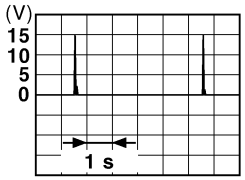
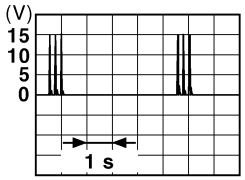
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (BG)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (V)	Ground	Interior room lamp control signal	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
20 (SB)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (G)	Ground	Trunk lid open	Output	Trunk lid	Open (Trunk lid opener actuator is activated)	Battery voltage
					Close (Trunk lid opener actuator is not activated)	0 V
25 (V)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (BG)	Ground	Trunk room lamp control signal	Output	Trunk room lamp	ON	0 V
					OFF	Battery voltage

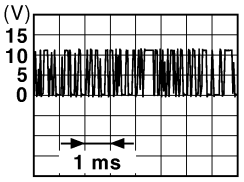
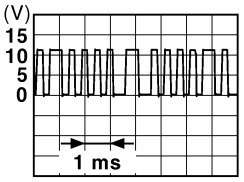
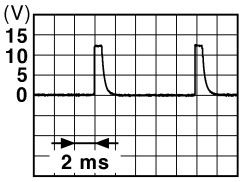
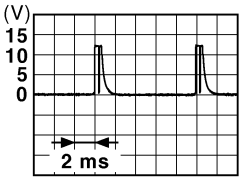
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (P)	Ground	Trunk room antenna (-)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB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

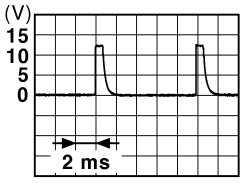
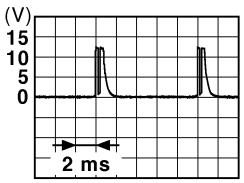
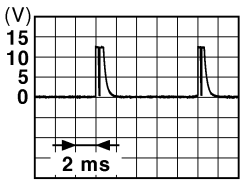
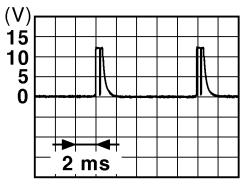
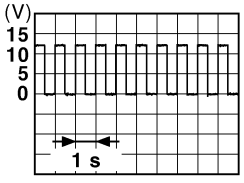
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (BR)	Ground	Rear bumper antenna (+)	Output	When the trunk lid opener request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When 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	Battery voltage
					ON	0 V
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk is closed)	 JPMIA0011GB 11.8 V
					ON (Trunk is open)	0 V
52 (SB)	Ground	Starter relay control	Output	Ignition switch ON	When shift lever is in P or N position	Battery voltage
					When shift lever is not in P or N position	0 V
61 (W)	Ground	Trunk lid opener request switch	Input	Trunk lid opener request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
64 (BG)	Ground	Intelligent Key warning buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V
					Not sounding	Battery voltage

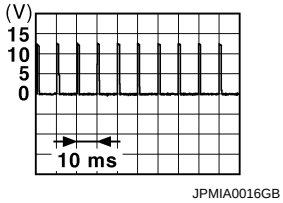
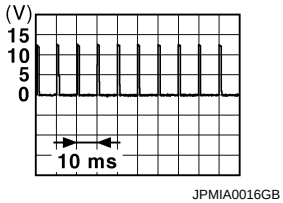
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (G)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (R)	Ground	Room antenna 2 (-) (Center console)	Output	Ignition switch OFF	When Intelligent 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

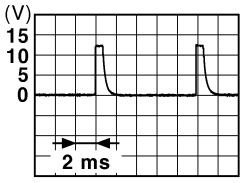
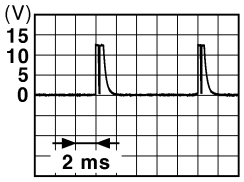
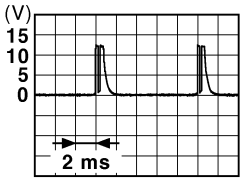
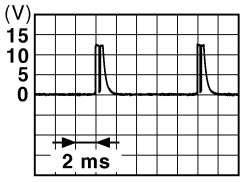
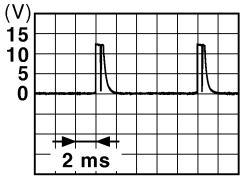
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (-)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When 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

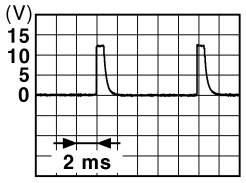
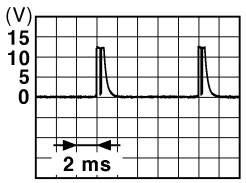
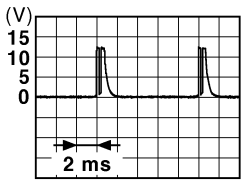
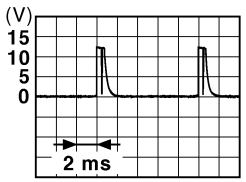
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent 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

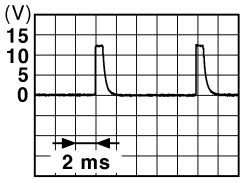
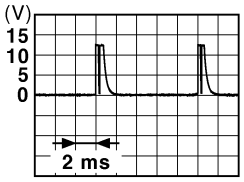
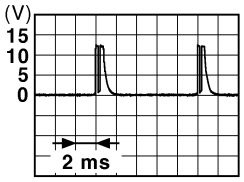
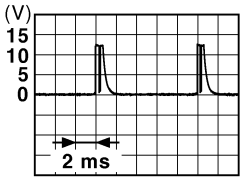
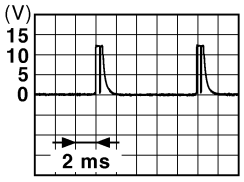
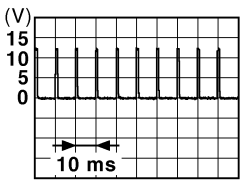
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (L)	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	Battery voltage
83 (Y)	Ground	Remote keyless entry receiver communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on Intelligent Key		 JMKIA0065GB
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	 JPMIA0040GB 1.3 V

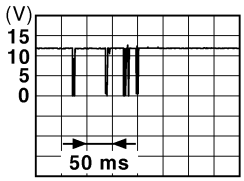
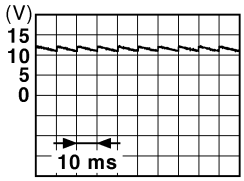
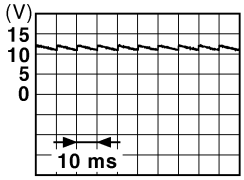
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V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

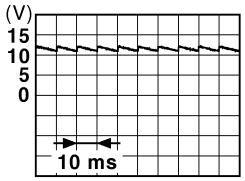
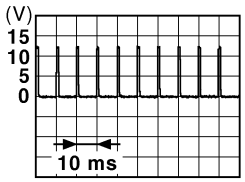
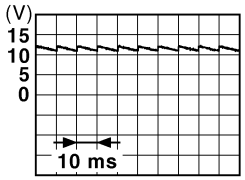
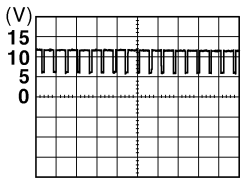
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON or ACC	0 V
95 (BG)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	Battery voltage
96 (SB)	Ground	A/T shift selector (detention switch) power supply	Output	—		Battery voltage
97 (L)	Ground	Steering lock condition No. 1	Input	Steering lock	LOCK status	0 V
					UNLOCK status	Battery voltage
98 (R)	Ground	Steering lock condition No. 2	Input	Steering lock	LOCK status	Battery voltage
					UNLOCK status	0 V
99 (G)	Ground	Shift lever P position switch	Input	Shift lever	P position	0 V
					Any position other than P	Battery voltage
100 (W)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (V)	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	Battery voltage
103 (LG)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OFF		Battery voltage
106 (P)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	Battery voltage
					ON	0 V

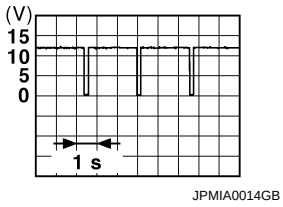
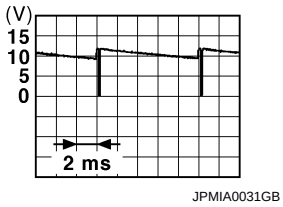
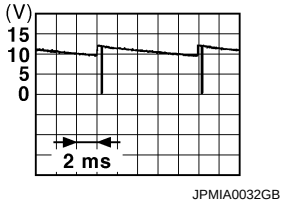
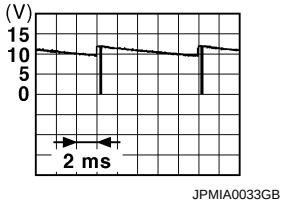
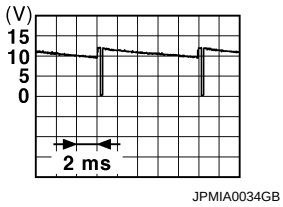
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch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

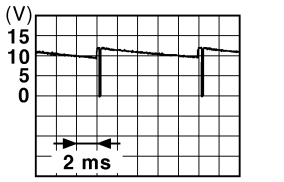
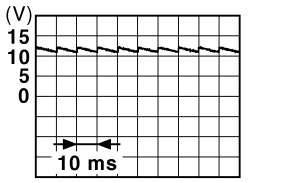
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 JPMIA0038GB 1.3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

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent 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	 JPMIA0038GB 1.3 V
					Front wiper switch HI	 JPMIA0040GB 1.3 V
110 (G)	Ground	Hazard switch	Input	Hazard switch	Pressed	0 V
					Not pressed	 JPMIA0012GB 1.1 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK status	Battery voltage
					LOCK or UNLOCK	 JMKIA0066GB
					For 15 seconds after UNLOCK	Battery voltage
					15 seconds or later after UNLOCK	0 V
113 (P)	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
116 (SB)	Ground	Stop lamp switch 1	Input	—		Battery voltage
118 (P)	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (Brake pedal is not depressed)	0 V
					ON (Brake pedal is depressed)	Battery voltage
119 (SB)	Ground	Driver side door lock actuator (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0011GB 11.8 V
					UNLOCK status (Unlock sensor switch ON)	0 V
121 (R)	Ground	Key slot switch	Input	When Intelligent Key is inserted into key slot		Battery voltage
				When Intelligent Key is not inserted into key slot		0 V
123 (BR)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closes)	 JPMIA0011GB 11.8 V
					ON (When passenger door opens)	0 V

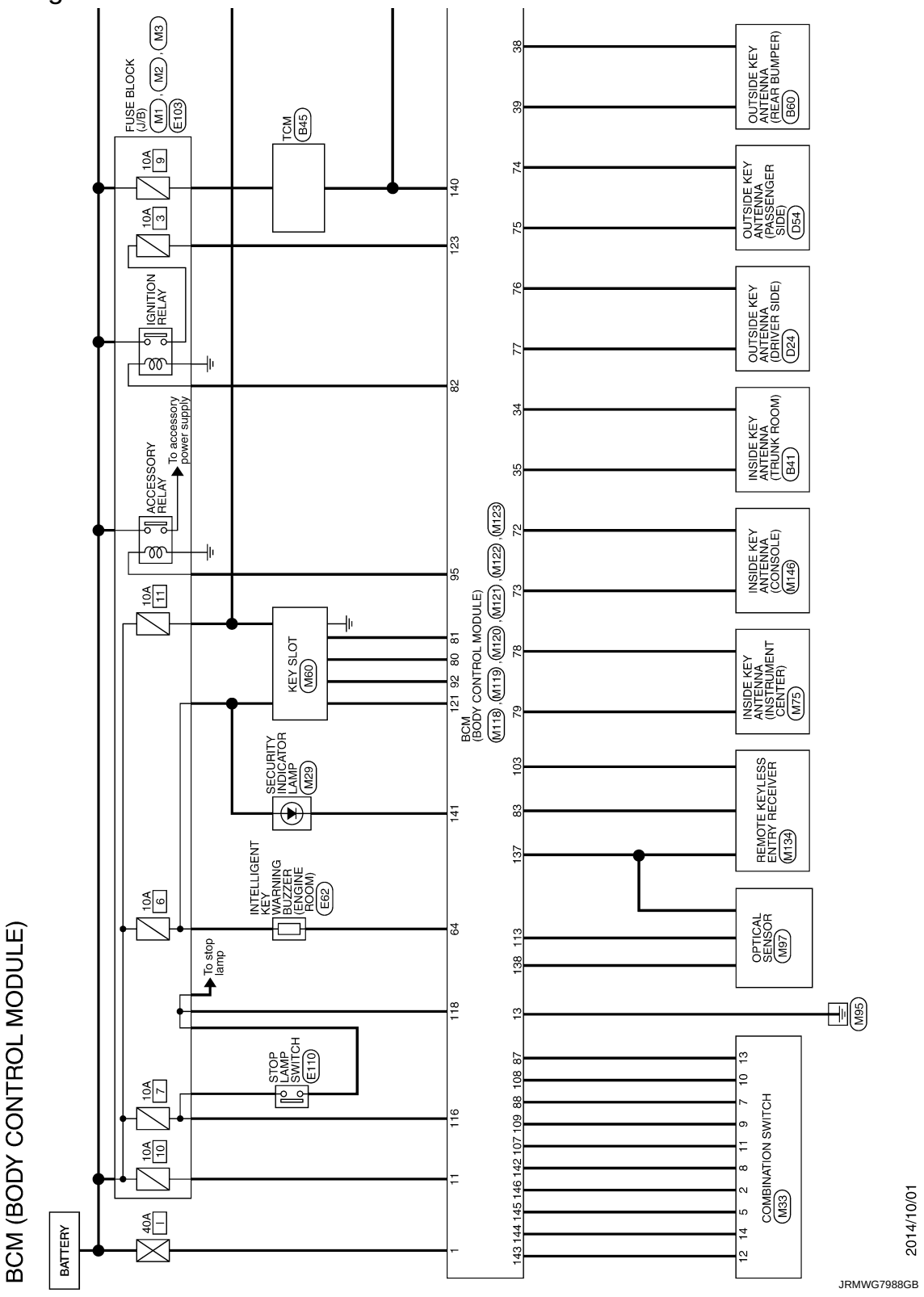
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
128 (P)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch (power window main switch or power window sub-switch)	NEUTRAL position	 JPMIA0011GB 11.8 V
					LOCK position	0 V
129 (BG)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
131 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch (power window main switch or power window sub-switch)	NEUTRAL position	 JPMIA0011GB 11.8 V
					LOCK position	0 V
133 (W)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (When tail lamps OFF)	5.5 V
					ON (When tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	ON	0 V
					OFF	Battery voltage
137 (L)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (Y)	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V
140 (BR)	Ground	Shift lever P/N position	Input	Shift lever	P or N position	12 V
					Except P and N positions	0 V

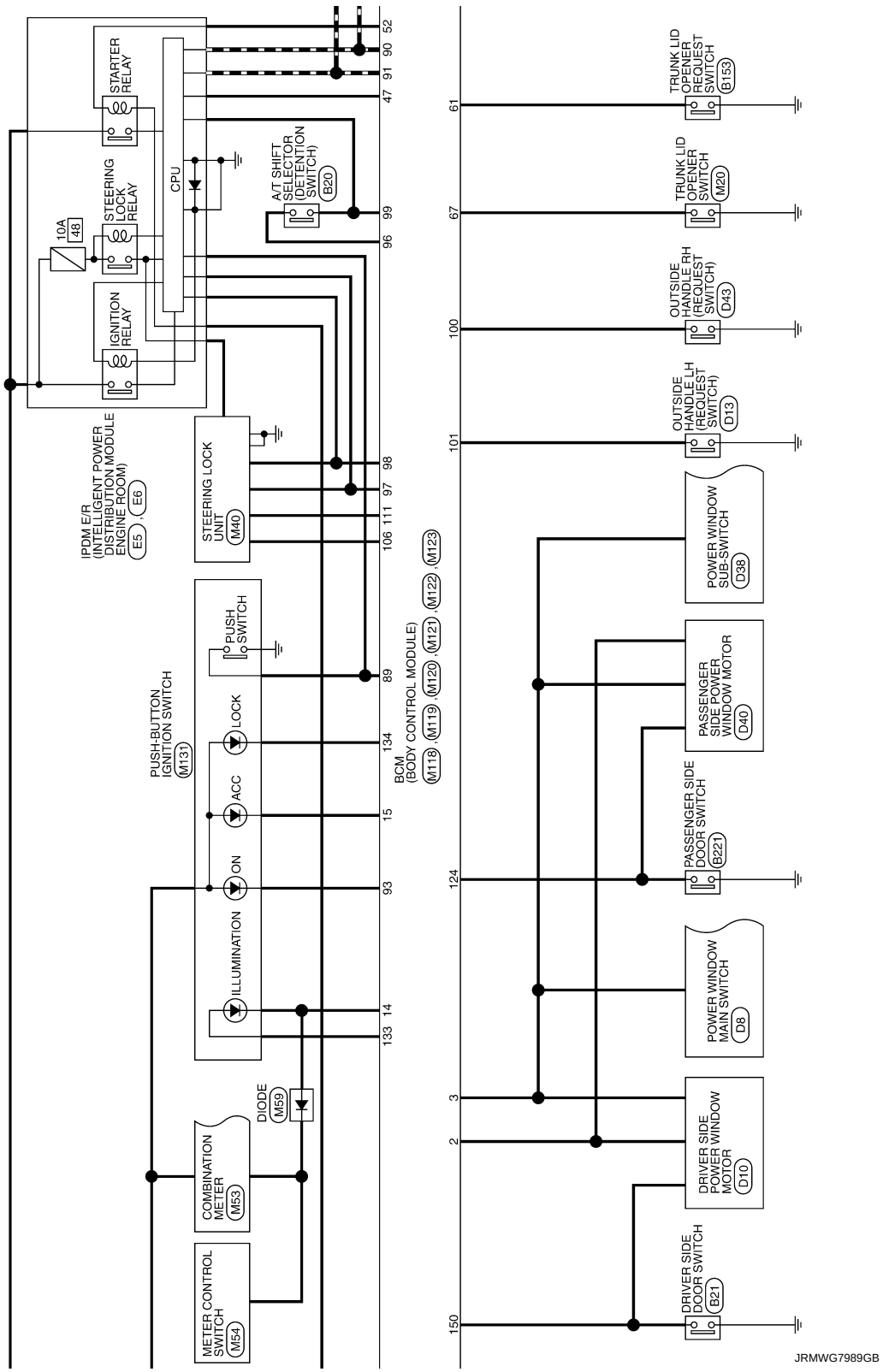
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
141 (G)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	Battery voltage
142 (BG)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent 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 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	 JPMIA0032GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	
144 (G)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 JPMIA0033GB 10.7 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Front wiper switch INT	 JPMIA0034GB 10.7 V
					Front wiper switch LO	
					Lighting switch AUTO	

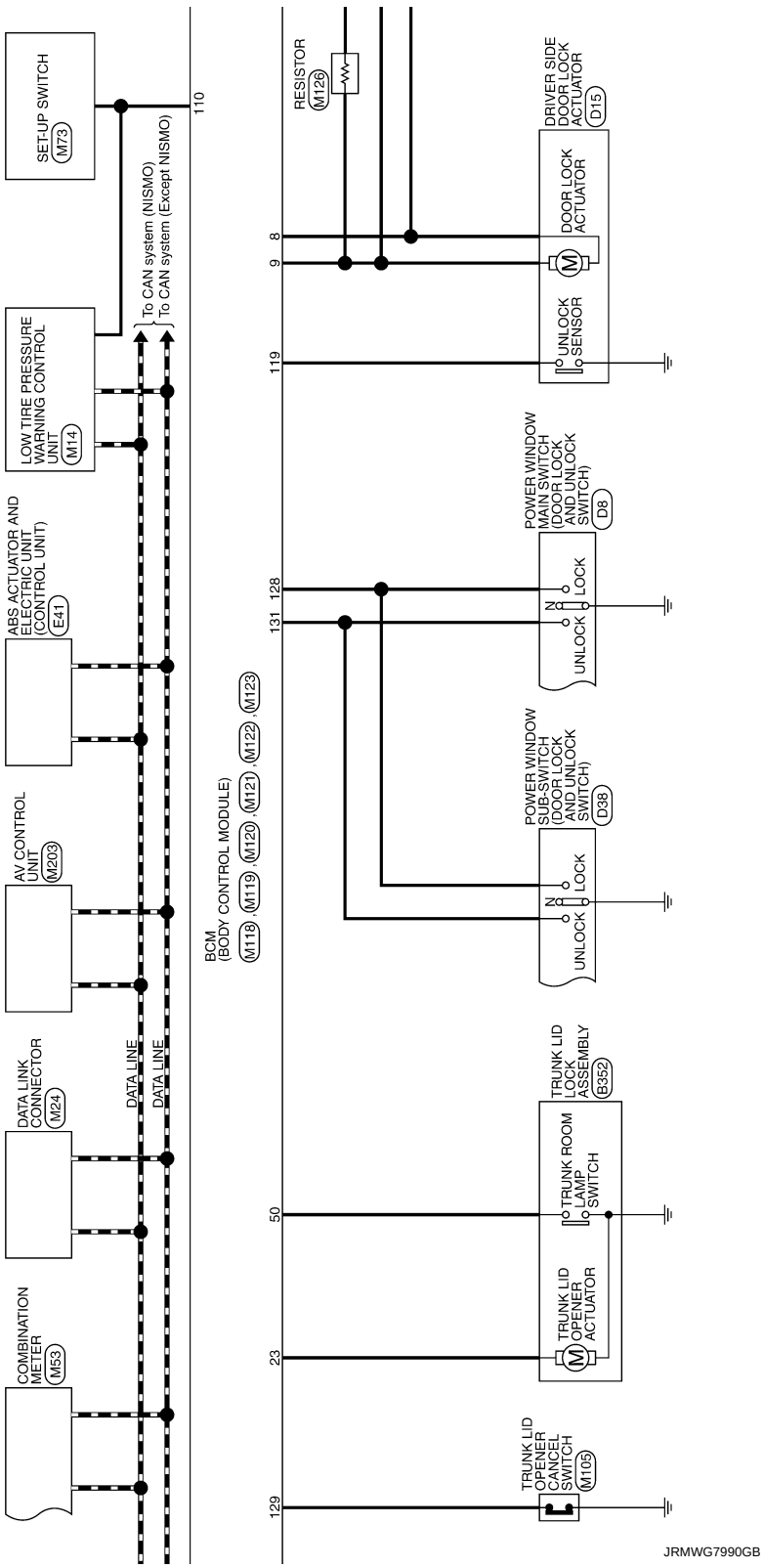
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
146 (SB)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Lighting switch 2ND	 JPMIA0035GB 10.7 V
					Lighting switch PASS	
					Turn signal switch LH	
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closes)	 JPMIA0011GB 11.8 V
					ON (When driver door opens)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active	0 V
					Not activated	Battery voltage

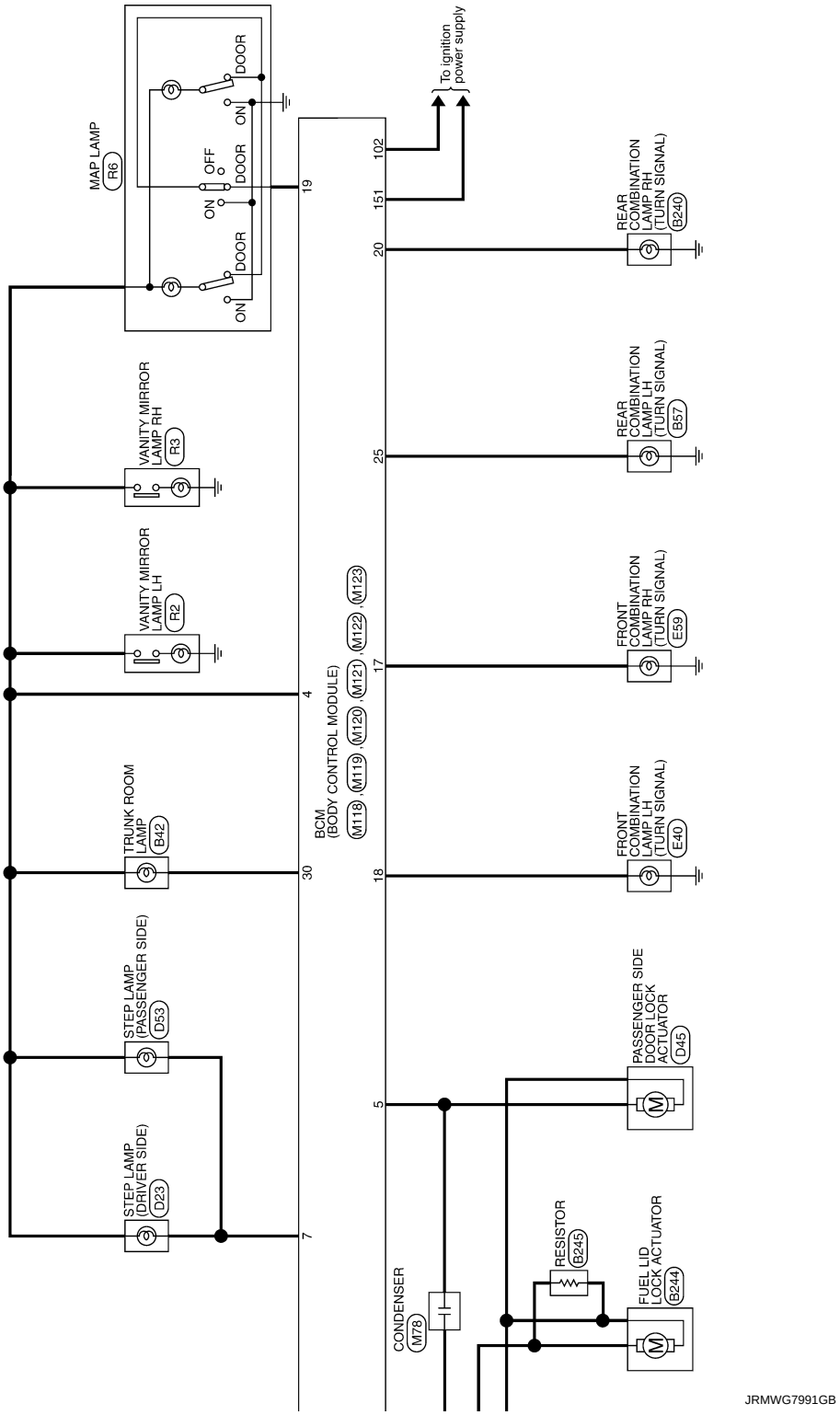
Wiring Diagram - BCM -

INFOID:0000000011798413




STARTER RELAY
CPU
STEERING LOCK RELAY
10A 48
IGNITION RELAY
A/T SHIFT SELECTOR (DETENTION SWITCH) B20
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) E5, E6
STEERING LOCK UNIT M40
PUSH-BUTTON IGNITION SWITCH M131
PUSH SWITCH
LOCK
ACC
ON
ILLUMINATION
DIODE M59
COMBINATION METER M53
METER CONTROL SWITCH M54
BCM (BODY CONTROL MODULE) M118, M119, M120, M121, M122, M123
TRUNK LID OPENER REQUEST SWITCH B153
TRUNK LID OPENER SWITCH M20
OUTSIDE HANDLE RH (REQUEST SWITCH) D43
OUTSIDE HANDLE LH (REQUEST SWITCH) D13
POWER WINDOW SUB-SWITCH D38
PASSENGER SIDE POWER WINDOW MOTOR D40
PASSENGER SIDE DOOR SWITCH B221
POWER WINDOW MAIN SWITCH D8
DRIVER SIDE POWER WINDOW MOTOR D10
DRIVER SIDE DOOR SWITCH B21
JRMWG7989GB


SET-UP SWITCH (M73)
110
To CAN system (NISMO)
To CAN system (Except NISMO)
LOW TIRE PRESSURE WARNING CONTROL UNIT (M14)
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) (E41)
AV CONTROL UNIT (M203)
DATA LINK CONNECTOR (M24)
DATA LINE
DATA LINE
COMBINATION METER (M53)
BCM (BODY CONTROL MODULE)
(M118) (M119) (M120) (M121) (M122) (M123)
RESISTOR (M126)
DRIVER SIDE DOOR LOCK ACTUATOR (D15)
DOOR LOCK ACTUATOR
UNLOCK SENSOR
POWER WINDOW MAIN SWITCH (DOOR LOCK AND UNLOCK SWITCH) (D8)
POWER WINDOW SUB SWITCH (DOOR LOCK AND UNLOCK SWITCH) (D38)
UNLOCK
LOCK
TRUNK LID LOCK ASSEMBLY (B352)
TRUNK ROOM LAMP SWITCH
TRUNK LID OPENER ACTUATOR
TRUNK LID OPENER CANCEL SWITCH (M105)
8
9
119
128
131
50
23
129
JRMWG7990GB


MAP LAMP
R6
DOOR
ON
OFF
DOOR
ON
DOOR
ON
To ignition power supply
102
151
19
20
REAR COMBINATION LAMP RH (TURN SIGNAL)
B240
REAR COMBINATION LAMP LH (TURN SIGNAL)
B57
25
VANITY MIRROR LAMP RH
R3
VANITY MIRROR LAMP LH
R2
FRONT COMBINATION LAMP RH (TURN SIGNAL)
E59
17
4
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
FRONT COMBINATION LAMP LH (TURN SIGNAL)
E40
18
TRUNK ROOM LAMP
B42
30
STEP LAMP (PASSENGER SIDE)
D53
PASSENGER SIDE DOOR LOCK ACTUATOR
D45
5
STEP LAMP (DRIVER SIDE)
D23
7
RESISTOR
B245
FUEL LID LOCK ACTUATOR
B244
CONDENSER
M78
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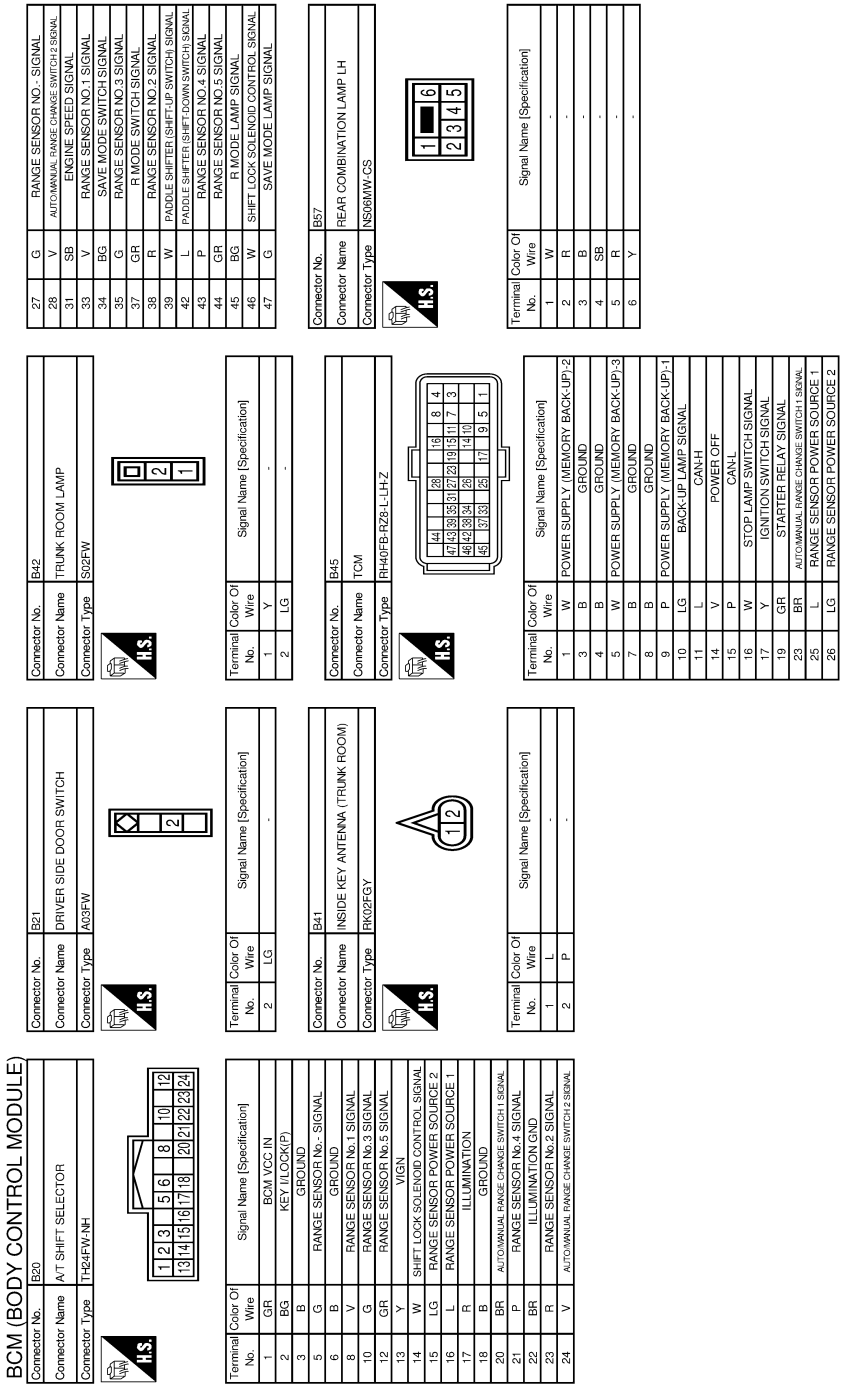

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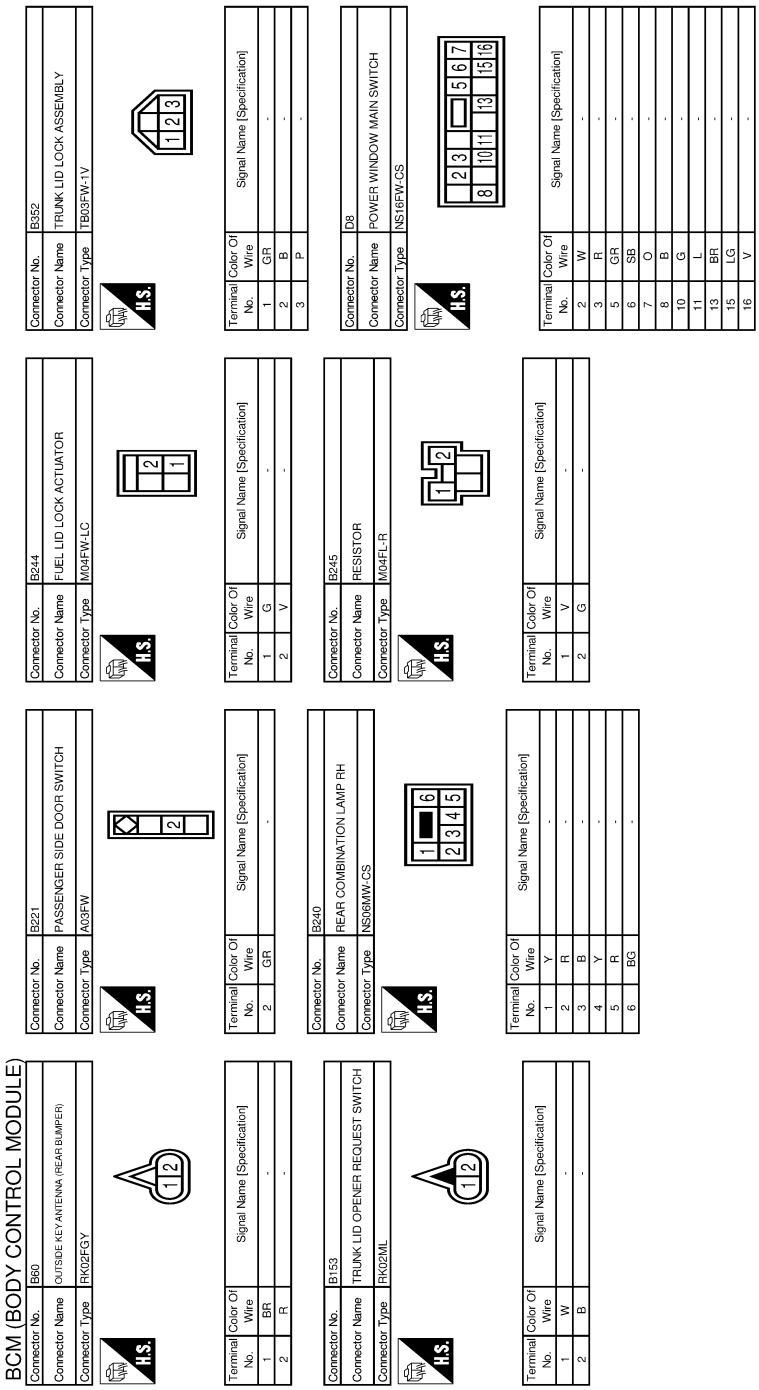

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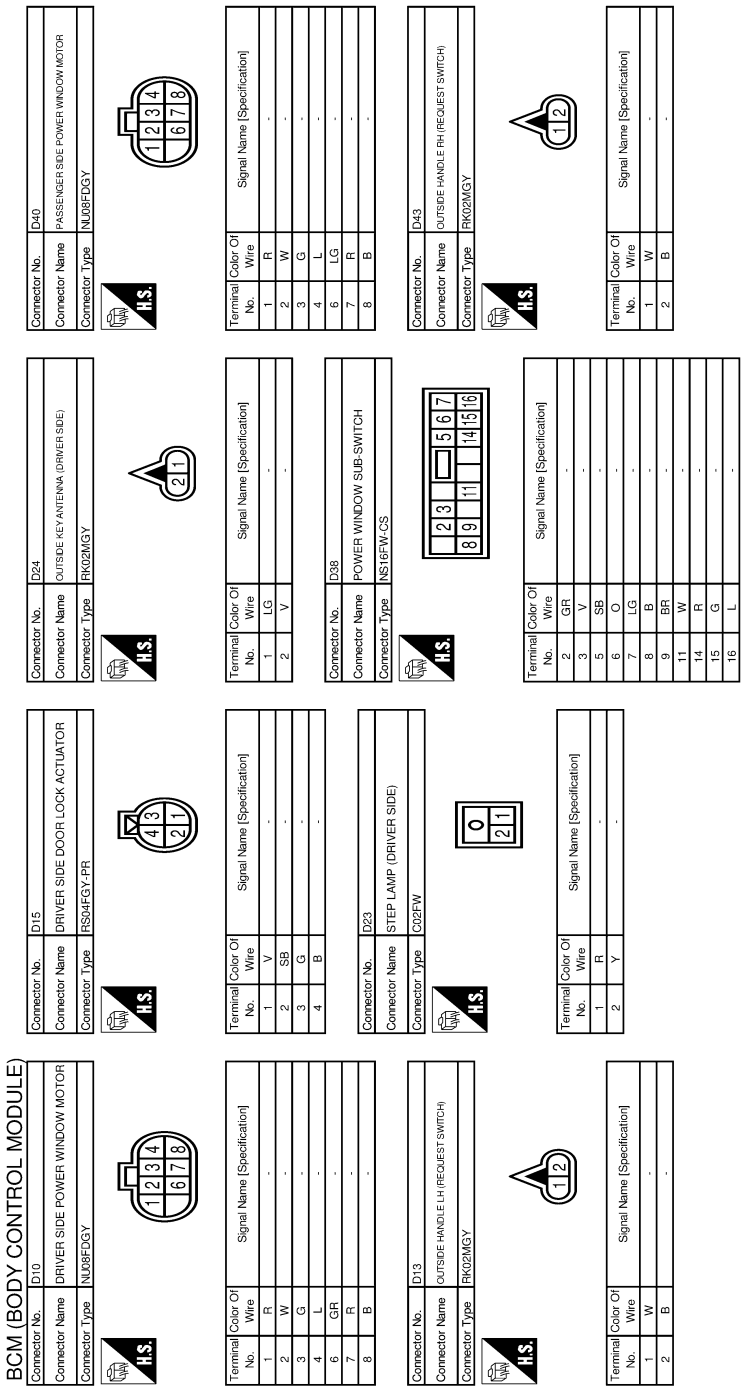

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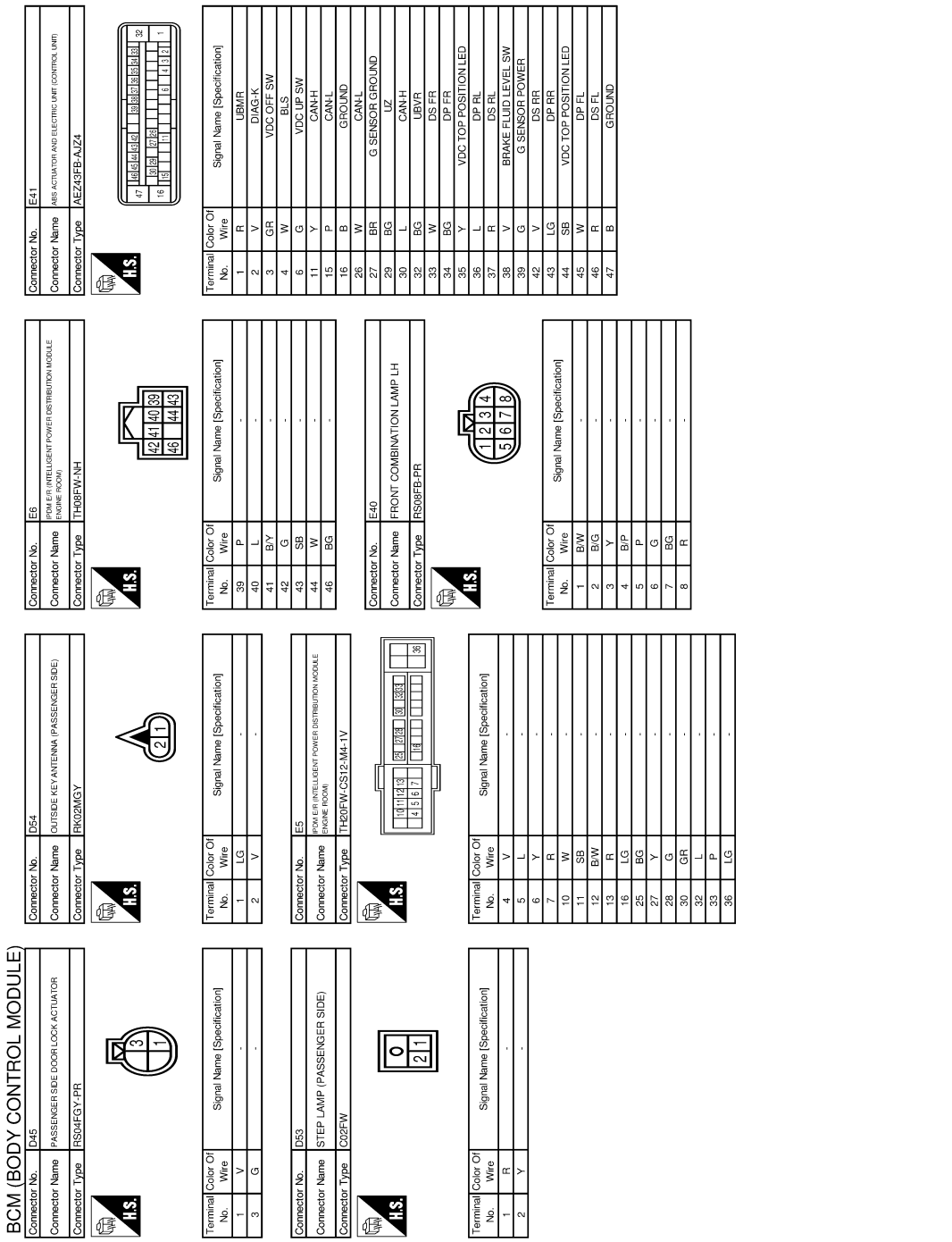

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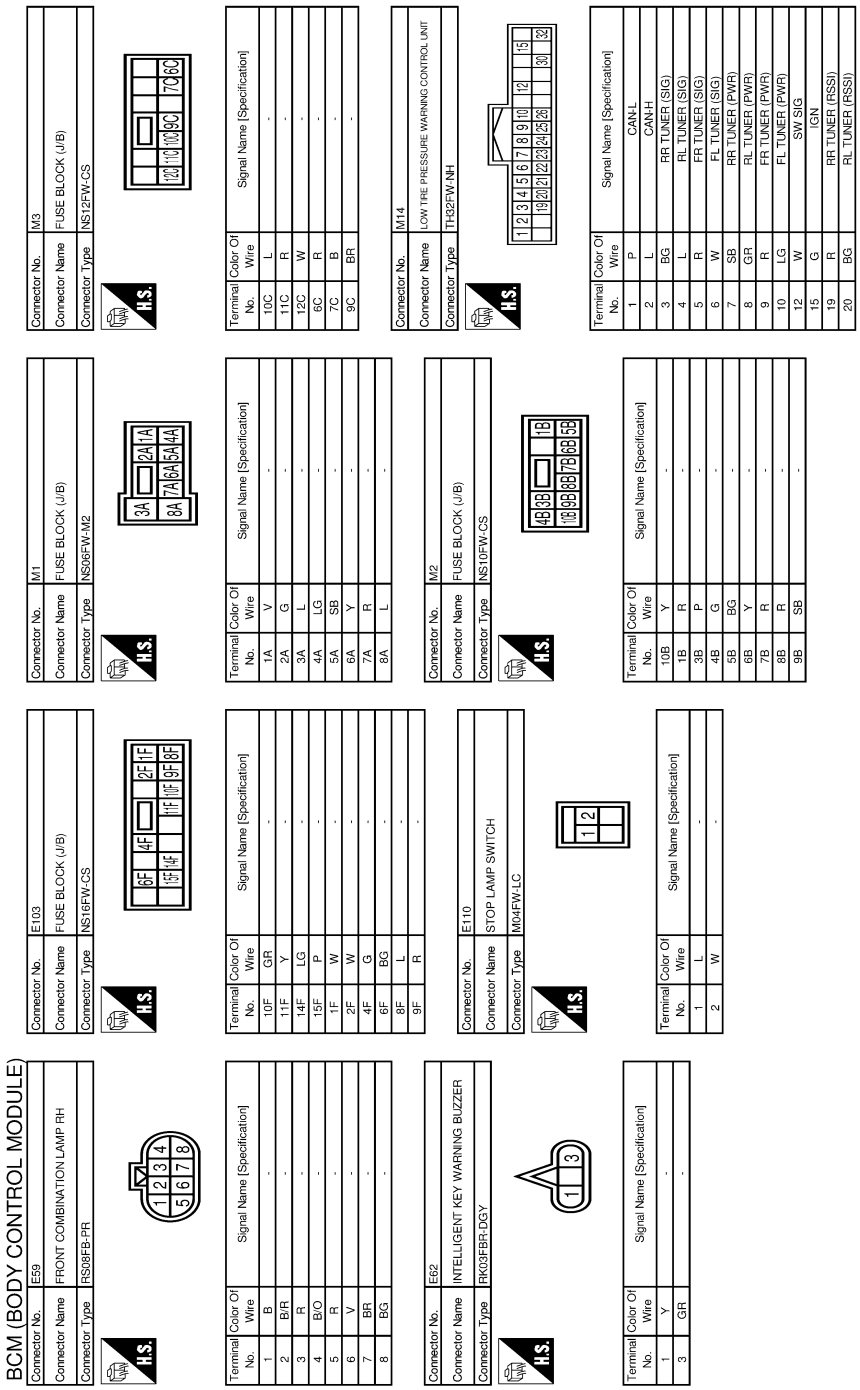

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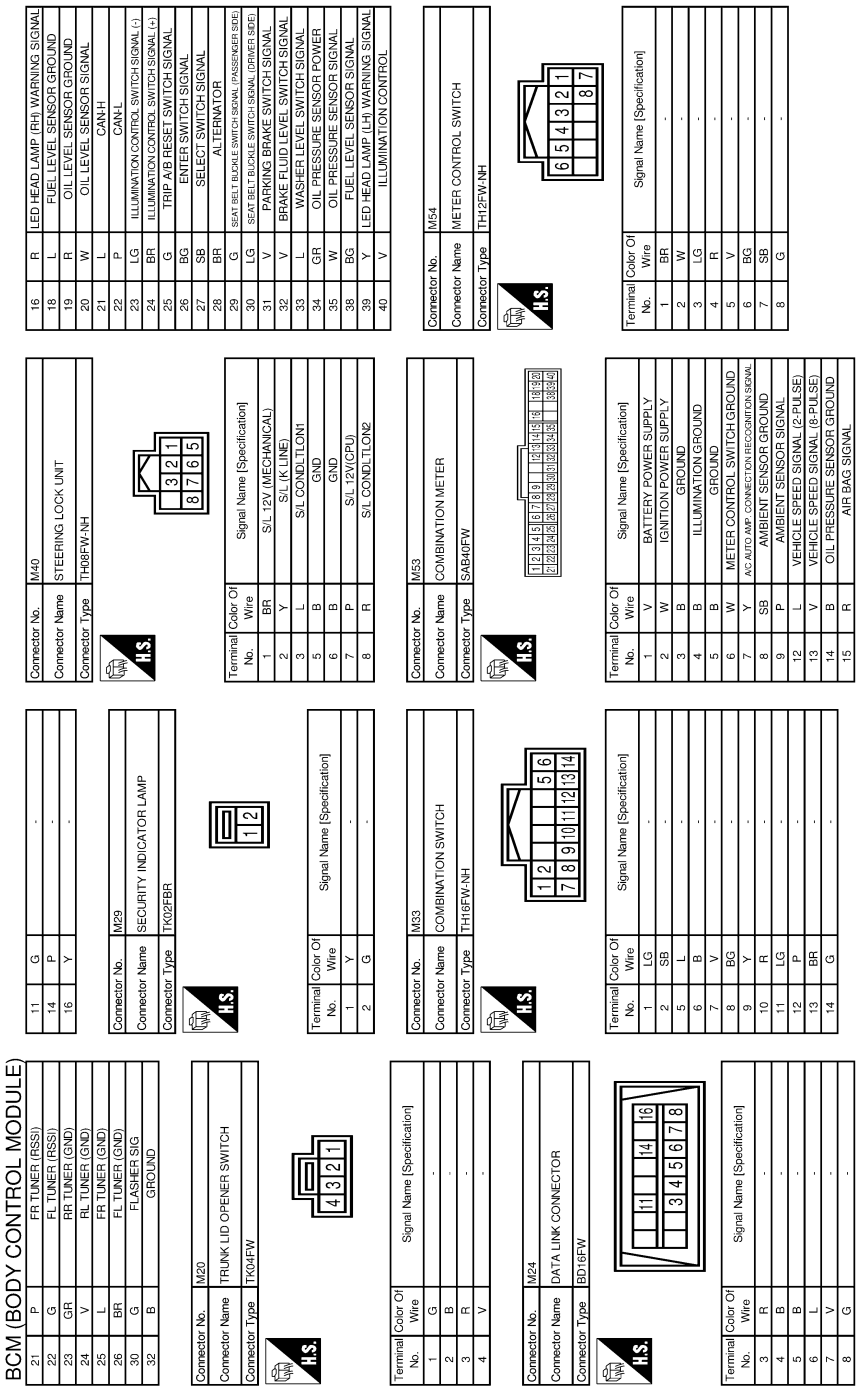

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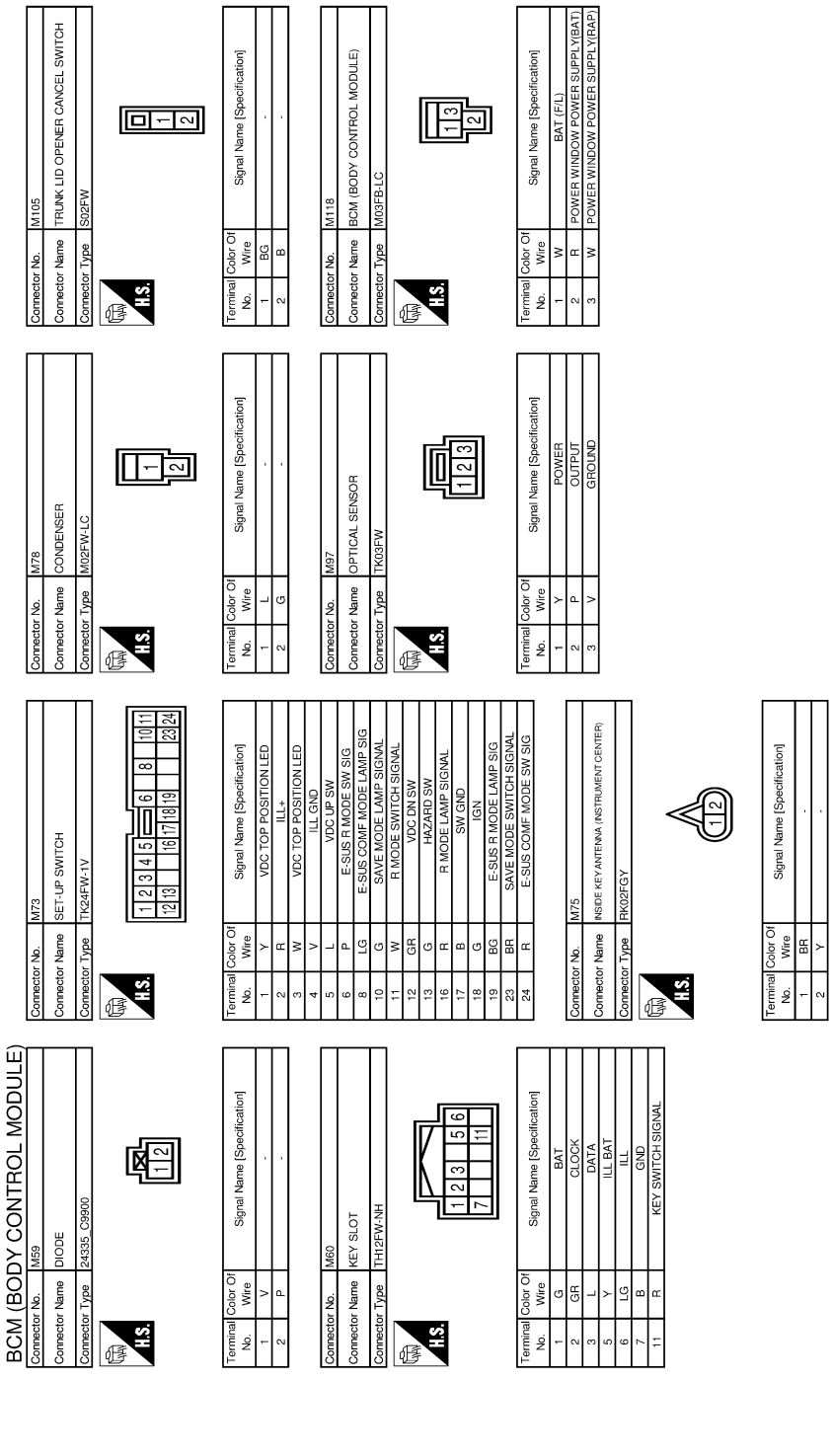

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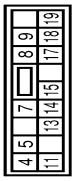
BCM (BODY CONTROL MODULE)

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

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
4	R	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
7	Y	STEP LAMP
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID UNLOCK OUTPUT
11	R	BAT (FUSE)
13	B	GND
14	P	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT) OUTPUT
18	BG	TURN SIGNAL LH (FRONT) OUTPUT
19	V	ROOM LAMP TIMER CONTROL

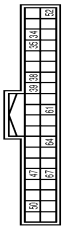
Connector No.	M120
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	NS12FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
20	SB	TURN SIGNAL RH (REAR) OUTPUT
23	G	TRUNK LID OPEN OUTPUT
25	V	TURN SIGNAL LH (REAR) OUTPUT
30	BG	TRUNK ROOM LAMP OUTPUT

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

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
34	P	TRUNK ROOM ANT-
35	L	TRUNK ROOM ANT+
38	R	REAR BUMPER ANT-
39	BR	REAR BUMPER ANT+
47	Y	IGN RELAY (IPDM E/R) CONT
50	R	TRUNK ROOM LAMP SW
52	SB	STARTER RELAY CONT
61	W	TRUNK LID REQUEST SW
64	BG	I-KEY WARN BUZZER (ENG ROOM)
67	G	TRUNK LID OPENER SW

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

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
72	R	ROOM ANT2-
73	G	ROOM ANT2+
74	SB	PASSENGER DOOR ANT-
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT-
77	LG	DRIVER DOOR ANT+
78	Y	ROOM ANT1-
79	BR	ROOM ANT1+
80	GR	IMMOBI ANTENNA CONTROL
81	L	IMMOBI ANTENNA SIGNAL

82	R	IGN RELAY (F/B) CONT
83	Y	KEYLESS ENTRY RECEIVER COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
89	BR	PUSH SW
90	P	CAN-L
91	L	CAN-H
92	LG	KEY SLOT ILL OUTPUT
93	V	ON IND
95	BG	ACC RELAY CONT
96	SB	A/T SHIFT SELECTOR POWER SUPPLY
97	L	S/L CONDITION 1
98	R	S/L CONDITION 2
99	G	SHIFT P
100	W	PASSENGER DOOR REQUEST SW
101	V	DRIVER DOOR REQUEST SW
102	BG	BLOWER FAN MOTOR RELAY CONT
103	LG	KEYLESS ENTRY RECEIVER POWER SUPPLY
106	P	S/L UNIT POWER SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	G	HAZARD SW
111	Y	S/L UNIT COMM

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

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
113	P	OPTICAL SENSOR
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	R	KEY SLOT SW
123	BR	IGN F/B
124	LG	PASSENGER DOOR SW
128	P	DOOR LOCK/UNLOCK SW LOCK
129	BG	TRUNK CANCEL SW
131	BR	DOOR LOCK/UNLOCK SW UNLOCK

133	W	PUSH-BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	L	RECEIVER GND
138	Y	RECEIVER/SENSOR POWER SUPPLY
140	BR	SHIFT N/P
141	G	SECURITY INDICATOR
142	BG	COMBI SW OUTPUT 5
143	P	COMBI SW OUTPUT 1
144	G	COMBI SW OUTPUT 2
145	L	COMBI SW OUTPUT 3
146	SB	COMBI SW OUTPUT 4
150	GR	DRIVER DOOR SW
151	G	REAR WINDOW DEFOGGER RELAY CONT

Connector No.	M126
Connector Name	RESISTOR
Connector Type	M04FL-R

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	G	-
2	L	-

Connector No.	M131
Connector Name	PUSH-BUTTON IGNITION SWITCH
Connector Type	TK08FBR

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	-
2	P	-
3	W	-

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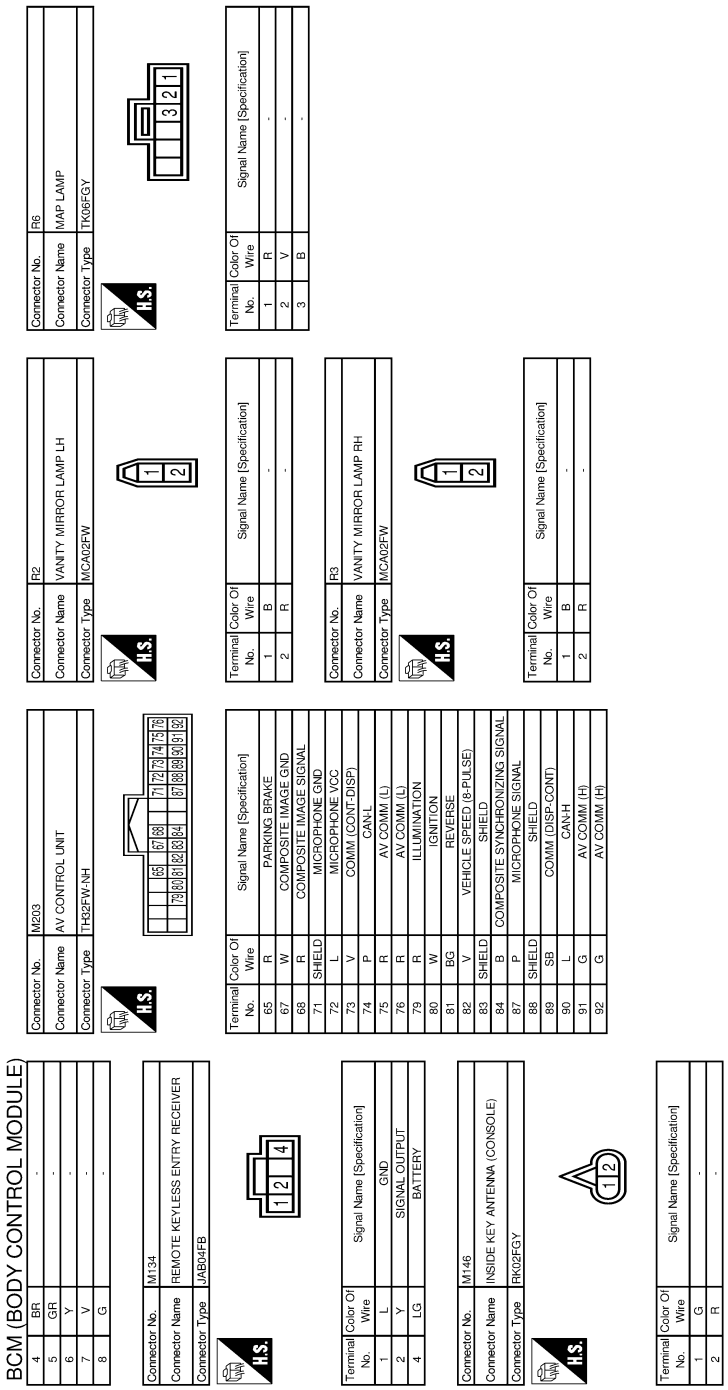

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Fail-safe

INFOID:0000000011798414

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2557: VEHICLE SPEED	Inhibit steering lock	When normal vehicle speed signals are received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	500 ms after the following signal reception status becomes consistent • Shift lever P position switch signal • P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	5 seconds after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Shift lever P position switch signal: Except P position (Battery voltage) • Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	500 ms after the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position • Shift lever P position switch signal: Except P position (Battery voltage) • Shift lever P/N position signal: Except P and N positions (0 V)
B2604: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Status 1 - Ignition switch is in the ON position - Shift lever P/N position signal: P and N position (Battery voltage) - P range signal or N range signal (CAN): ON • Status 2 - Ignition switch is in the ON position - Shift lever P/N position signal: Except P and N positions (0 V) - P range signal and N range signal (CAN): OFF
B2605: PNP/CLUTCH SW	Inhibit steering lock	500 ms after any of the following BCM recognition conditions are fulfilled • Ignition switch is in the ON position - Power position: IGN - Shift lever P/N position signal: Except P and N positions (0 V) - Interlock/PNP switch signal (CAN): OFF • Status 2 - Ignition switch is in the ON position - Shift lever P/N position signal: P or N position (Battery voltage) - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)

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

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	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	• B2013: ID DISCORD BCM-S/L • B2014: CHAIN OF S/L-BCM • B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP/CLUTCH SW • B2605: PNP/CLUTCH SW • B2606: S/L RELAY • B2607: S/L RELAY • B2608: STARTER RELAY • B2609: S/L STATUS • B260A: IGNITION RELAY • B260B: STEERING LOCK UNIT • B260C: STEERING LOCK UNIT • B260D: STEERING LOCK UNIT • B260F: ENG STATE SIG LOST • B2612: S/L STATUS • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B2619: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E9: S/L STATUS • B26EA: KEY REGISTRATION • U0415: VEHICLE SPEED
5	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA
6	B26E7: TPMS CAN COMM

DTC Index

INFOID:0000000011798416

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 PWC-11, "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	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
B2013: ID DISCORD BCM-S/L	×	×	—	SEC-48
B2014: CHAIN OF S/L-BCM	×	×	—	SEC-49
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	Reference 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-50
B2555: STOP LAMP	—	×	—	SEC-52
B2556: PUSH-BTN IGN SW	—	×	×	SEC-54
B2557: VEHICLE SPEED	×	×	×	SEC-56
B2560: STARTER CONT RELAY	×	×	×	SEC-57
B2562: LOW VOLTAGE	—	×	—	BCS-39
B2601: SHIFT POSITION	×	×	×	SEC-58
B2602: SHIFT POSITION	×	×	×	SEC-61
B2603: SHIFT POSI STATUS	×	×	×	SEC-63
B2604: PNP/CLUTCH SW	×	×	×	SEC-65
B2605: PNP/CLUTCH SW	×	×	×	SEC-67
B2606: S/L RELAY	×	×	×	SEC-69
B2607: S/L RELAY	×	×	×	SEC-70
B2608: STARTER RELAY	×	×	×	SEC-72
B2609: S/L STATUS	×	×	×	SEC-74
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT	—	×	×	SEC-78
B260C: STEERING LOCK UNIT	—	×	×	SEC-79
B260D: STEERING LOCK UNIT	—	×	×	SEC-80
B260F: ENG STATE SIG LOST	×	×	×	SEC-81
B2612: S/L STATUS	×	×	×	SEC-84
B2614: BCM	—	×	×	PCS-54
B2615: BCM	—	×	×	PCS-56
B2616: BCM	—	×	×	PCS-58
B2617: BCM	×	×	×	SEC-88
B2618: BCM	×	×	×	PCS-60
B2619: BCM	×	×	×	SEC-90
B261A: PUSH-BTN IGN SW	—	×	×	SEC-91
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-93
B2621: INSIDE ANTENNA	—	×	—	DLK-56
B2622: INSIDE ANTENNA	—	×	—	DLK-58
B2623: INSIDE ANTENNA	—	×	—	DLK-60
B26E7: TPMS CAN COMM	—	—	—	BCS-40
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-82
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	SEC-83

POWER WINDOW MOTOR

Wiring Diagram - POWER WINDOW SYSTEM -

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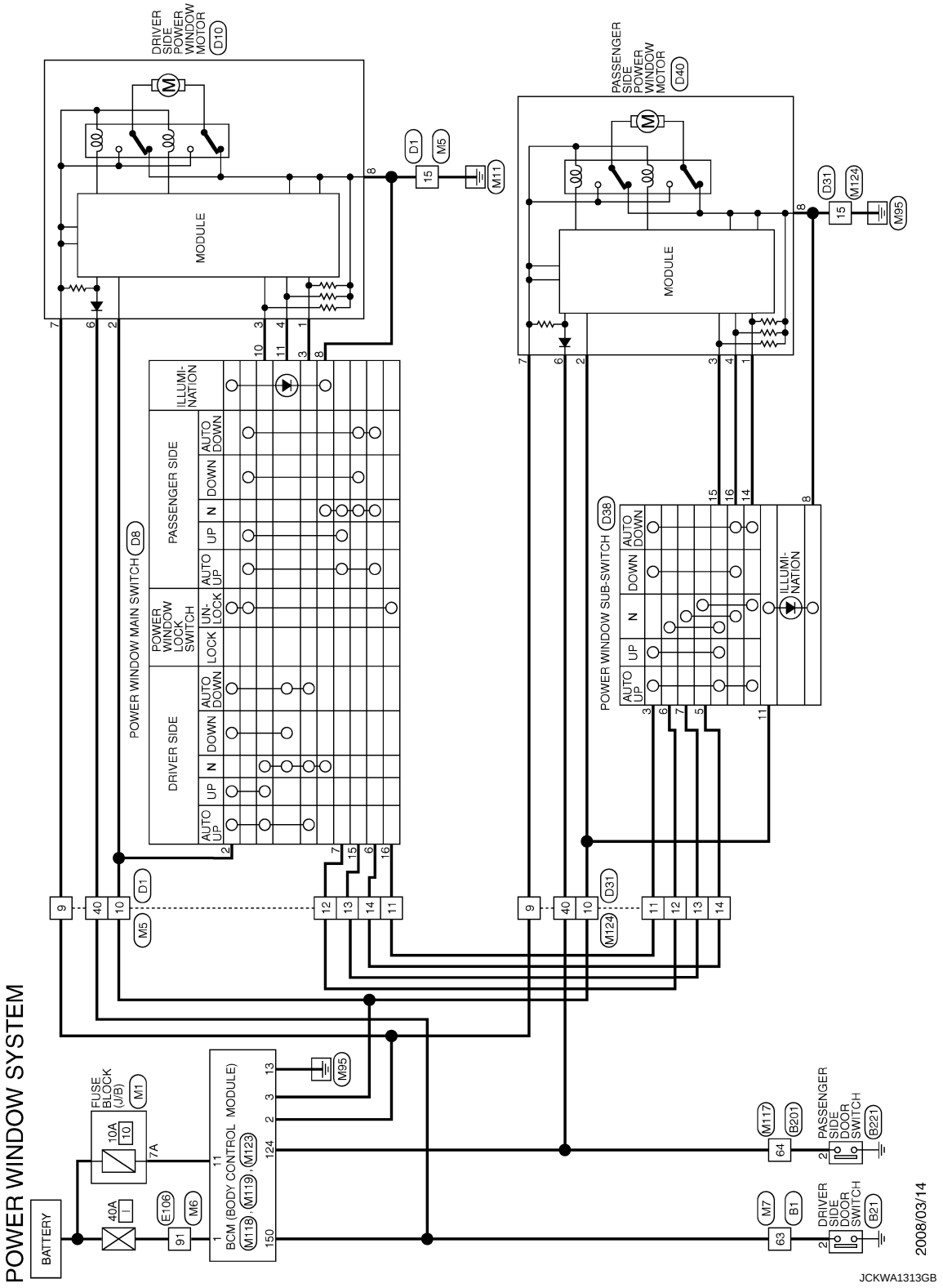

POWER WINDOW SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	L	-
3	P	-
6	V	-
7	W	-
8	W	-
9	Y	-
10	R	-
11	Y	-
12	GR	-
13	BG	-
14	Y	-
15	BR	-
16	R	-
17	W	-
18	BR	-
20	GR	-
21	SB	-
22	W	-
23	G	-
24	BG	-
25	L	-
26	P	-
27	GR	-
28	BG	-
31	GR	-
32	L	-
33	V	-
34	BG	-
39	G	-
40	LG	-
41	Y	-
42	SB	-
43	P	-
47	R	-
48	B	-
49	W	-
50	SHIELD	-
51	SB	-
52	B	-
53	R	-
54	B	-
56	R	-
57	G	-
58	G	-
59	R	-
60	BR	-
61	Y	-
62	SHIELD	-
63	LG	-
64	R	-
65	G	-
66	BR	-
67	BG	-
69	P	-
70	L	-
71	SHIELD	-
72	SHIELD	- [Without active noise control unit]
72	V	- [With active noise control unit]
73	SB	-
76	R	-
77	SB	-
78	G	-
79	Y	-
80	R	-
81	G	-
82	BR	- [Without active noise control unit]
82	G	- [With active noise control unit]
83	R	- [With active noise control unit]
83	Y	- [Without active noise control unit]
84	SHIELD	-
85	V	-
86	SB	- [Without active noise control unit]
86	W	- [With active noise control unit]
87	L	-
88	P	-
89	SHIELD	-
90	V	-
92	BR	-
93	SB	-
94	GR	-
95	BG	-
96	Y	-
97	Y	-
98	LG	-
99	R	-
100	G	-

Connector No.	B21
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	LG	-

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	-
7	V	-
8	BG	-
9	W	-
10	R	-
31	V	-
32	LG	-
33	BR	-
34	L	-
40	P	-
41	GR	-
42	Y	-
43	Y	-
44	V	-
45	W	-
51	SB	-
52	G	-
53	BR	-
54	V	-
60	R	-
61	P	-
62	L	-
63	LG	-
64	GR	-
69	P	-
70	L	-
71	R	-
80	L	-
81	SB	-
82	V	-
83	B	-
84	Y	-
85	BR	-
86	SHIELD	-
87	W	-
96	Y	-
98	BG	-
99	BR	-
100	W	-

Connector No.	B221
Connector Name	PASSENGER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-

JRKWE4494GB

POWER WINDOW SYSTEM

Connector No.	D1
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	L	-
4	W	-
6	Y	-
7	G	-
8	V	-
9	R	-
10	W	-
11	V	-
12	O	-
13	LG	-
14	SB	-
15	B	-
16	G	-
17	R	-
27	SHIELD	-
36	O	-
38	W	-
40	GR	-
41	GR	-
42	BR	-
43	SB	-
44	L	-
45	Y	-
46	R	-
47	V	-
48	LG	-
50	R	-
54	W	-
55	G	-

Connector No.	D8
Connector Name	POWER WINDOW MAIN SWITCH
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	W	-
3	R	-
5	GR	-
6	SB	-
7	O	-
8	B	-
10	G	-
11	L	-
13	BR	-
15	LG	-
16	V	-

Connector No.	D10
Connector Name	DRIVER SIDE POWER WINDOW MOTOR
Connector Type	NU06FDGY

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	G	-
4	L	-
6	GR	-
7	R	-
8	B	-

Connector No.	D31
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	L	-
4	W	-
6	Y	-
7	G	-
8	V	-
9	R	-
10	W	-
11	V	-
12	O	-
13	LG	-
14	SB	-
15	B	-
16	R	-
17	G	-
27	SHIELD	-
36	O	-
38	W	-
40	LG	-
41	GR	-
42	BR	-
44	L	-
45	Y	-
46	R	-
47	V	-
48	LG	-
50	R	-
54	W	-
55	G	-

Connector No.	D38
Connector Name	POWER WINDOW SUB-SWITCH
Connector Type	NS16FW-CS

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	GR	-
3	V	-
5	SB	-
6	O	-
7	LG	-
8	B	-
9	BR	-
11	W	-
14	R	-
15	G	-
16	L	-

Connector No.	D40
Connector Name	PASSENGER SIDE POWER WINDOW MOTOR
Connector Type	NU06FDGY

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	W	-
3	G	-
4	L	-
6	LG	-
7	R	-
8	B	-

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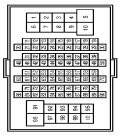
POWER WINDOW SYSTEM

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4

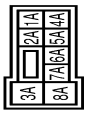
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	-
3	BG	-
4	BG	-
5	R	-
6	P	-
7	BG	-
8	P	-
9	W	-
10	Y	-
11	SB	-
12	BG	-
13	P	-
14	L	-
15	SB	-
16	BG	-
17	SHIELD	-
18	L	-
19	P	-
20	B	-
21	Y	-
22	V	-
23	Y	-
24	V	-
25	BR	-
26	L	-
27	SHIELD	-
28	G	-
29	R	-
30	W	-
31	V	-
32	G	-
33	GR	-
34	P	-
35	LG	-
36	G	-
37	Y	-
38	SB	-
39	GR	-
40	G	-
41	V	-
42	V	-
43	L	-
44	BR	-
45	G	-
46	SB	-
48	BG	-
49	L	-
50	R	-
51	SHIELD	-
60	P	-
61	L	-
71	LG	-
72	SB	-
74	P	-
75	BR	-
76	LG	-
77	V	-
78	BR	-
79	W	-
80	Y	-
81	GR	-
82	BG	-
84	P	-
85	P	-
86	GR	-
87	R	-
88	L	-
89	BG	-
90	G	-
91	GR	-
92	R	-
93	R	-
94	LG	-
95	G	-
96	GR	-
97	L	-
98	LG	-
99	BG	-
100	L	-

Connector No.	M1
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS06FW-M2

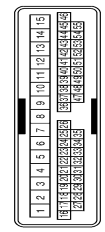
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1A	V	-
2A	G	-
3A	L	-
4A	LG	-
5A	SB	-
6A	Y	-
7A	R	-
8A	L	-

Connector No.	M5
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

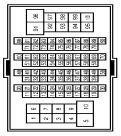
H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	-
2	G	-
3	L	-
4	W	-
6	Y	-
7	G	-
8	V	-
9	R	-
10	W	-
11	V	-
12	W	-
13	LG	-
14	SB	-
15	B	-
16	BR	-
17	Y	-
27	SHIELD	-
36	L	-
38	V	-
40	GR	-
41	P	-
42	BR	-
43	SB	-
44	L	-
45	Y	-
46	BG	-
47	V	-
48	LG	-
50	R	-
54	W	-
55	G	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	L	-
3	R	-
4	G	-
5	Y	-
6	P	-
7	W	-
8	V	-
9	L	-
10	Y	-
11	G	-
12	BG	-
13	R	-
14	L	-
15	BR	-
16	R	-

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POWER WINDOW SYSTEM

17	SHIELD	-
18	L	-
19	P	-
20	B	-
21	W	-
22	GR	-
23	L	-
24	V	-
25	BR	-
26	G	-
27	SHIELD	-
28	G	-
29	R	-
30	W	-
31	V	-
32	G	-
33	GR	-
34	LG	-
35	P	-
36	L	-
37	W	-
38	Y	-
39	GR	-
40	BG	-
41	W	-
42	R	-
43	Y	-
44	BR	-
45	G	-
46	LG	-
48	W	-
49	L	-
50	R	-
51	SHIELD	-
60	SB	-
61	V	-
71	W	-
72	LG	-
74	R	-
75	BR	-
76	LG	-
77	R	-
78	BR	-
79	W	-
80	Y	-
81	BG	-
82	SB	-
84	Y	-
85	P	-
86	GR	-

87	R	-
88	L	-
89	G	-
90	P	-
91	W	-
92	R	-
93	LG	-
94	W	-
95	SB	-
96	L	-
97	L	-
98	Y	-
99	BG	-
100	L	-

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
2	L	-
3	P	-
6	L	-
7	W	-
8	W	-
9	G	-
10	R	-
11	W	-
12	SB	-
13	G	-
14	W	-
15	BR	-
16	R	-
17	BG	-
18	SB	-
20	GR	-
21	L	-
22	R	-
23	G	-
24	BR	-

25	L	-
26	LG	-
27	W	-
28	R	-
31	GR	-
32	L	-
33	V	-
34	BG	-
39	W	-
40	BG	-
41	R	-
42	V	-
43	W	-
47	G	-
48	R	-
49	W	-
50	SHIELD	-
51	SB	-
52	B	-
53	R	-
54	B	-
56	R	-
57	G	-
58	G	-
59	R	-
60	BR	-
61	Y	-
62	SHIELD	-
63	GR	-
64	R	-
65	G	-
66	BR	-
67	BG	-
69	P	-
70	L	-
71	SHIELD	-
72	SHIELD	- [Without active noise control unit] - [With active noise control unit]
72	V	-
73	LG	-
76	R	-
77	SB	-
78	G	-
79	Y	-
80	R	-
81	G	-
82	BR	- [Without active noise control unit] - [With active noise control unit]
82	G	- [With active noise control unit]
83	R	- [Without active noise control unit]
83	Y	-
84	SHIELD	-

85	V	-
86	LG	- [Without active noise control unit] - [With active noise control unit]
86	W	- [With active noise control unit]
87	L	-
88	P	-
89	SHIELD	-
90	V	-
92	LG	-
93	Y	-
94	G	-
95	R	-
96	Y	-
97	R	-
98	G	-
99	L	-
100	W	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
6	G	-
7	V	-
8	G	-
9	W	-
10	L	-
31	Y	-
32	LG	-
33	BR	-
34	L	-
40	G	-
41	R	-
42	SB	-
43	L	-
44	R	-
45	G	-
51	SB	-
52	BG	-
53	R	-

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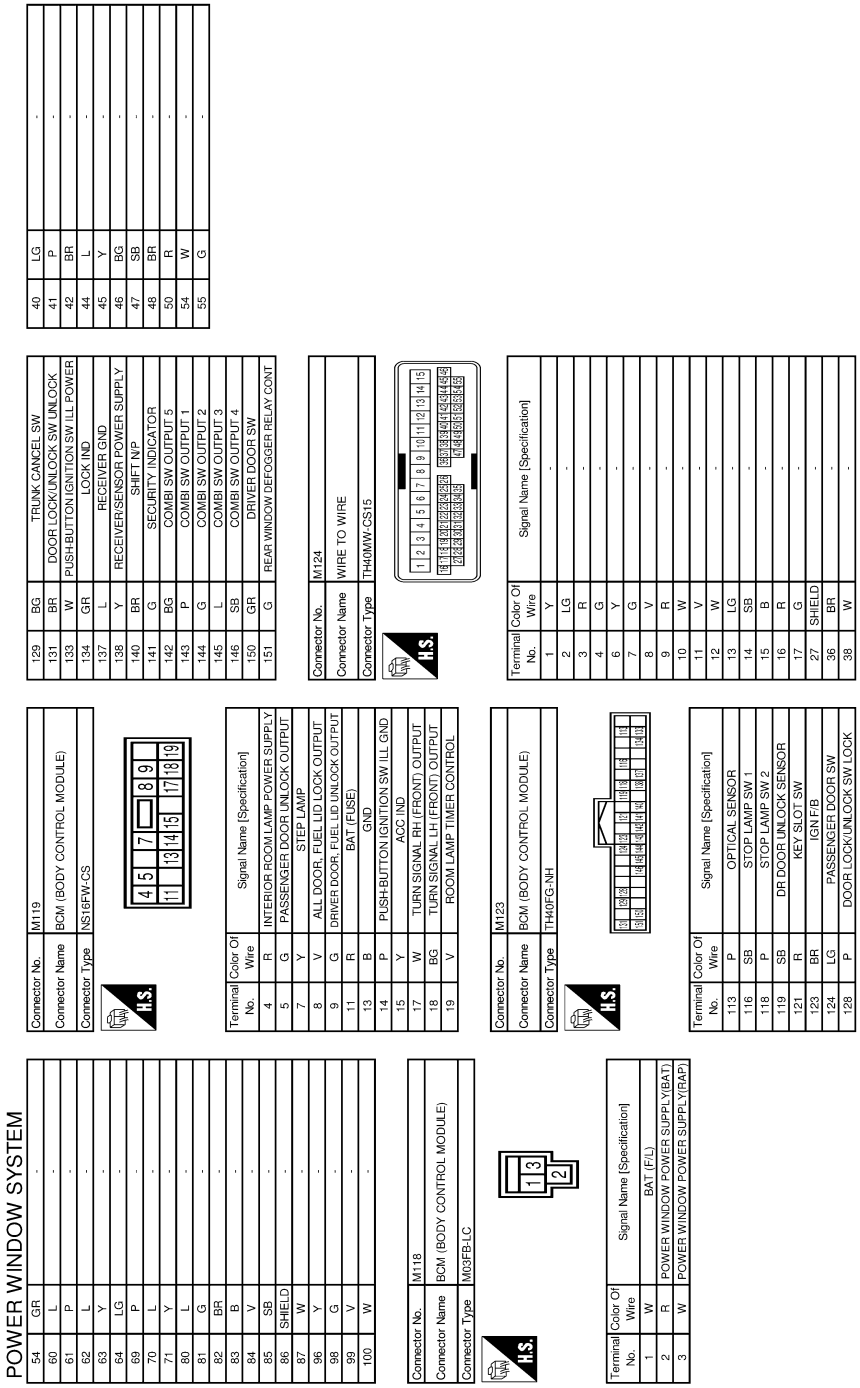

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Fail-Safe

INFOID:0000000011488813

FAIL-SAFE CONTROL

Fail-safe control is activated when the actual glass position that is out of the specified value is detected compared to the fully closed position memorized in module in power window motor, or when a malfunction is detected in the encoder signal that indicates UP or DOWN speed and direction of door glass.

Malfunction	Malfunction condition
Pulse direction malfunction (opposite backlash pulse detection)	When a pulse signal indicates that the window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Pulse sensor (Hall IC) malfunction (one side pulse shut-off detection)	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensor malfunction (both sides pulse shut-off detection)	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1 (UP overrun)	When the actual door glass position that is out of the specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP. (Actual door glass fully closed position is detected to be higher than the memorized position in module for the specified value or more.)
Glass recognition position malfunction 2 (Out of memorized area)	When the actual door glass position that is out of the specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP. (Actual door glass fully closed position is detected to be lower than the memorized position in module for the specified value or more.)
Glass recognition position malfunction 3 (Full stroke malfunction)	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP.
Fully closed position update malfunction	When door glass is continuously operated UP and DOWN for the specified value or more without fully closing door glass.

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

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

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

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:0000000011488814

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-41, "Diagnosis Procedure".

Is the inspection result normal?

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

2. CHECK POWER WINDOW MOTOR POWER SUPPLY AND GROUND CIRCUIT

Check power window motor power supply and ground circuit.
Refer to PWC-13, "POWER WINDOW MOTOR : Diagnosis Procedure".

Is the inspection result normal?

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

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

Check power window main switch power supply and ground circuit.
Refer to PWC-14, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000011488815

1.CHECK DRIVER SIDE POWER WINDOW MOTOR POWER SUPPLY AND GROUND CIRCUIT

Check driver side power window motor power supply and ground circuit.
Refer to PWC-13, "POWER WINDOW MOTOR : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK POWER WINDOW MAIN SWITCH (DRIVER SIDE)

Check power window main switch (driver side).
Refer to PWC-16, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-23, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Repair or replace the malfunctioning parts.

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

WITH POWER WINDOW MAIN SWITCH

WITH POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000011488816

1. CHECK POWER WINDOW MAIN SWITCH (PASSENGER SIDE)

Check power window main switch (passenger side).
Refer to PWC-17, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

WITH POWER WINDOW SUB-SWITCH

WITH POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000011488817

1. CHECK POWER WINDOW SUB-SWITCH

Check power window sub-switch.
Refer to PWC-30, "POWER WINDOW SUB-SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

WITH BOTH POWER WINDOW MAIN SWITCH AND POWER WINDOW SUB-SWITCH

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

INFOID:0000000011488818

1. CHECK PASSENGER SIDE POWER WINDOW MOTOR POWER SUPPLY AND GROUND CIRCUIT

Check passenger side power window motor power supply and ground circuit.
Refer to PWC-13, "POWER WINDOW MOTOR : 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-23, "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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE NORMALLY

Diagnosis Procedure

INFOID:0000000011488819

1.PERFORM INITIALIZATION PROCEDURE

Perform initialization of power window that is malfunctioning, and check that anti-pinch function operates normally.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

Is the inspection result normal?

YES >> INSPECTION END.
NO >> Replace corresponding power window motor. Refer to GW-27, "Removal and Installation".

AUTO OPERATION DOES NOT OPERATE NORMALLY

POWER WINDOW MAIN SWITCH IS OPERATED

POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000011488820

1.PERFORM INITIALIZATION PROCEDURE

Perform initialization of power window that is malfunctioning, and check that auto operation operates normally.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

Is the inspection result normal?

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

2.CHECK POWER WINDOW AUTO CIRCUIT (POWER WINDOW MAIN SWITCH)

Check power window auto circuit (power window main switch).
Refer to PWC-25, "POWER WINDOW MAIN SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW SUB-SWITCH IS OPERATED

POWER WINDOW SUB-SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000011488821

1.PERFORM INITIALIZATION PROCEDURE

Perform initialization of power window that is malfunctioning, and check that auto operation operates normally.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

Is the inspection result normal?

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

2.CHECK POWER WINDOW AUTO CIRCUIT (POWER WINDOW SUB-SWITCH)

Check power window auto circuit (power window sub-switch).
Refer to PWC-28, "POWER WINDOW SUB-SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000011488822

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

>> Refer to PWC-94, "Removal and Installation".

AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000011488823

1.PERFORM INITIALIZATION PROCEDURE

Perform initialization of power window that is malfunctioning, and check that automatic window adjusting function operates normally.
Refer to PWC-5, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH CIRCUIT

Check door switch circuit.
Refer to PWC-32, "Component Function Check".

Is the inspection result normal?

YES >> Replace malfunctioning power window motor. Refer to GW-27, "Removal and Installation".
NO >> Repair or replace the malfunctioning parts.

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000011488824

1. CHECK POWER WINDOW ILLUMINATION CIRCUIT (POWER WINDOW MAIN SWITCH)

Check power window illumination circuit (power window main switch).
Refer to PWC-30, "POWER WINDOW MAIN SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000011488825

1. CHECK POWER WINDOW ILLUMINATION CIRCUIT (POWER WINDOW SUB-SWITCH)

Check power window illumination circuit (power window sub-switch).
Refer to PWC-30, "POWER WINDOW SUB-SWITCH : 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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000011488826

1.CHECK DOOR SWITCH CIRCUIT

Check door switch circuit. Refer to PWC-32, "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 inspection result normal?

YES >> Check intermittent incident. Refer to GI-39, "Intermittent Incident".
NO >> GO TO 1.

PRECAUTION

PRECAUTIONS

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

INFOID:0000000011488827

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:

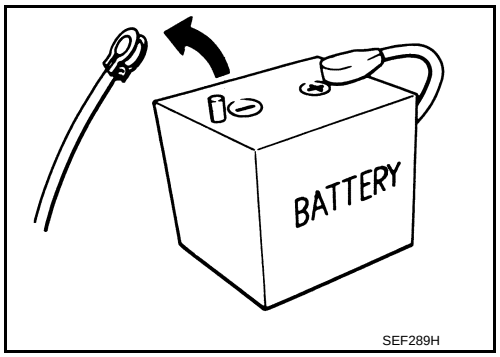
Always observe the following items for preventing accidental activation.

- **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.**

Precautions for Removing Battery Terminal

INFOID:0000000011488828

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
  NOTE:
  ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.
- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.
  NOTE:
  If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.



- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
  NOTE:
  The removal of 12V battery may cause a DTC detection error.

Precaution for Battery Service

INFOID:0000000011488829

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.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:0000000011488830

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

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

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

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

OPERATION PROCEDURE

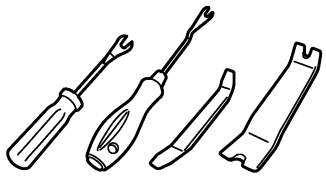
1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Turn the ignition switch to ACC position.
   (At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables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

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000011488831

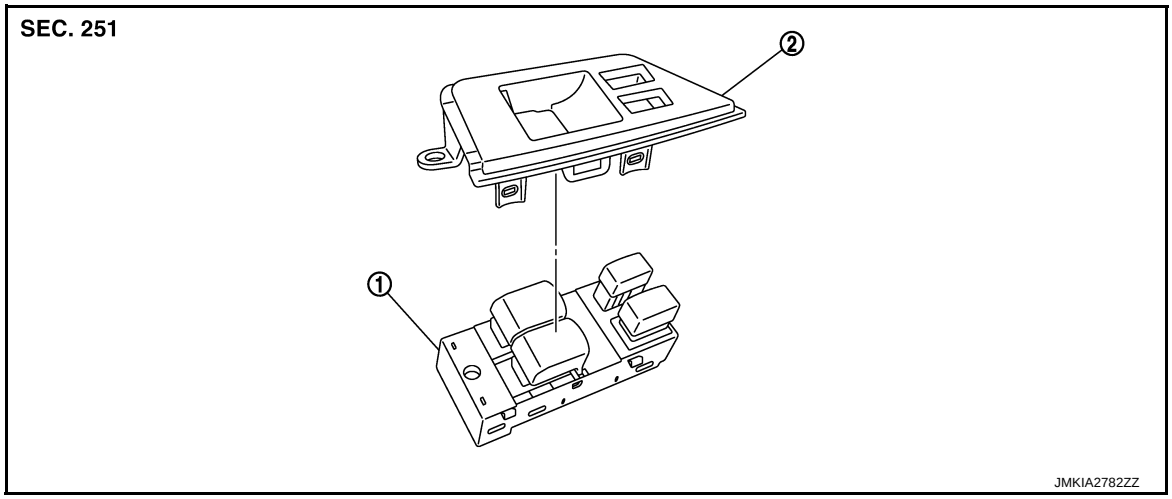
Tool name		Description
Remover tool	 JMKIA3050ZZ	Removes the clips, pawls, and metal clips

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

Exploded View

INFOID:0000000011488832



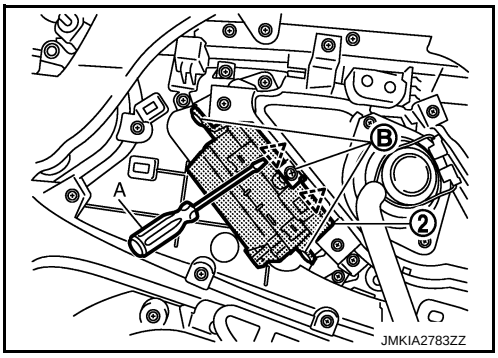
1. Power window main switch
2. Power window main switch finisher

Removal and Installation

INFOID:0000000011488833

REMOVAL

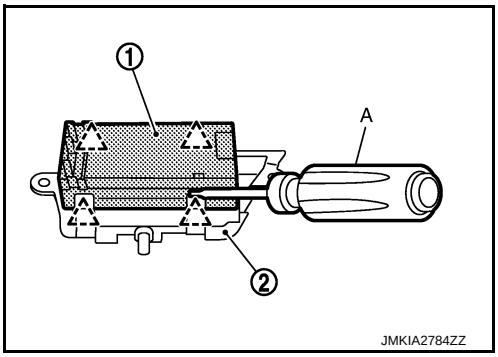
1. Remove the door finisher (driver side).
   Refer to INT-12, "Removal and Installation".
2. Remove the screws (B).
3. Remove power window main switch finisher (driver side) (2) from door finisher (driver side) using remover tool (A) etc.



: Pawl

CAUTION:
Never fold the pawl of door finisher.

4. Remove power window main switch (1) from power window main switch finisher (driver side) using remover tool (A) etc.



: Pawl

CAUTION:
Never 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.