SECTION PWC

POWER WINDOW CONTROL SYSTEM

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BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000009363427

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 3.

3.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING PARTS WITH “COMPONENT DIAGNOSIS”

Diagnose with “Component diagnosis” of the applicable system.

>> GO TO 5.

5.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Are the malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000009363428

When the battery negative terminal is disconnected, the initialization is necessary.
If any of the following operations are performed, the initialization is necessary as well as when the negative battery terminal is disconnected.
- Power supply to the power window switch or power window motor is cut off by removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass or door glass run.

The following specified operations cannot be performed under the non initialized condition.
- Auto-up operation
- Anti-pinch function
- Key cylinder switch power window function
- Automatic window adjusting function
- Auto-up, manual-up does not operate when door is open

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000009363429

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

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

CHECK ANTI-PINCH FUNCTION
1. Fully open the door window.
2. Place a piece of wood near the fully closed position.
3. Close door glass completely with AUTO-UP.

- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:
- **Never check with hands and other part of body because they may be pinched. Never get pinched.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be performed.**

1. **Auto-up operation**
2. **Anti-pinch function**
3. **Key cylinder switch power window function**
4. **Automatic window adjusting function**
5. **Auto-up, manual-up does not operate when door is open**

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000009363430

When the control unit is replaced, the initialization is necessary.
If any of the following operations are performed, the initialization is necessary and the control unit must be disconnected.
- Power supply to the power window switch or power window motor is cut off by removal of battery terminal or if the battery fuse is blown.
- Disconnection and connection of power window switch harness connector.
- Removal and installation of motor from regulator assembly.
- Operation of regulator assembly as an independent unit.
- Removal and installation of door glass or door glass run.

The following specified operations cannot be performed under the non initialized condition.
- Auto-up operation
- Anti-pinch function
- Key cylinder switch power window function
- Automatic window adjusting function
- Auto-up, manual-up does not operate when door is open

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000009363431

INITIALIZATION PROCEDURE

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

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

CHECK ANTI-PINCH FUNCTION

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

- Check that glass lowers for approximately 150 mm (5.9 in) without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window switch while lowering.

CAUTION:
- **Never check with hands and other part of body because they may be pinched. Never get pinched.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be performed.**

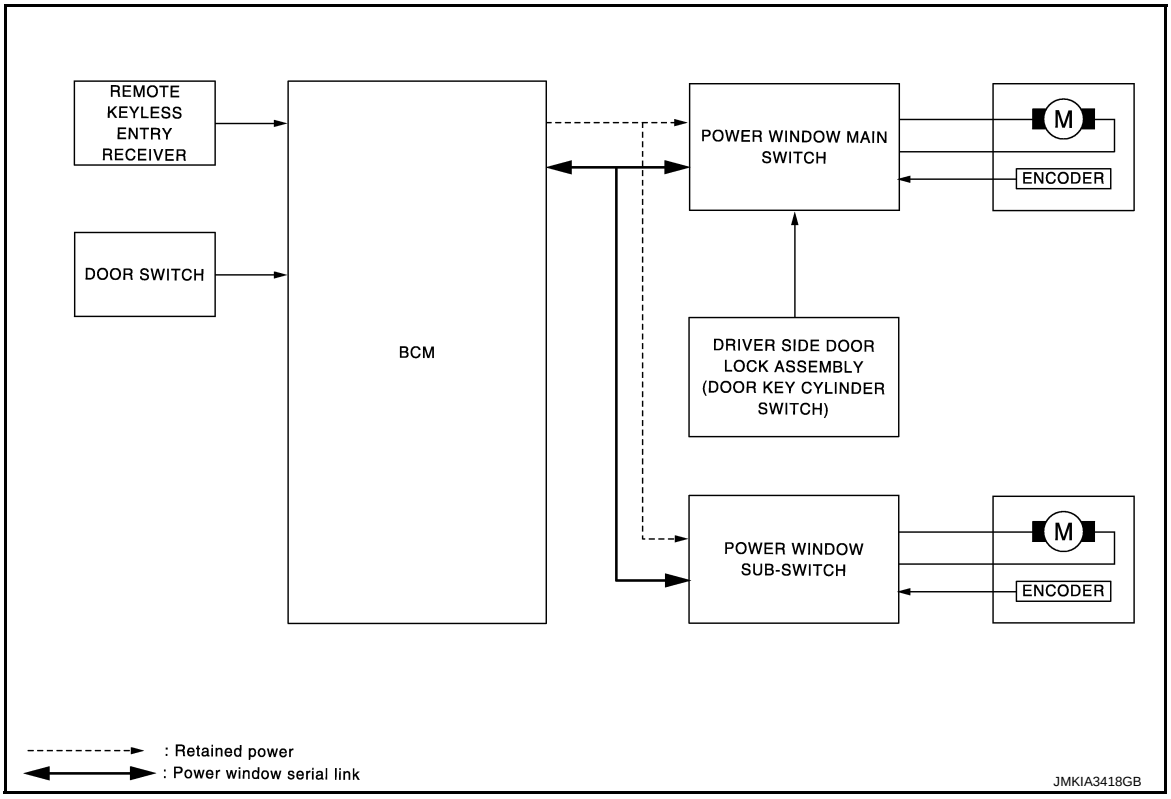
1. **Auto-up operation**
2. **Anti-pinch function**
3. **Key cylinder switch power window function**
4. **Automatic window adjusting function**
5. **Auto-up, manual-up does not operate when door is open**

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000009363432



System Description

INFOID:0000000009363433

POWER WINDOW SYSTEM

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

POWER WINDOW AUTO-OPERATION

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

POWER WINDOW SERIAL LINK

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

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

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

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

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

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

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

RETAINED POWER OPERATION

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

RETAINED POWER FUNCTION CANCEL CONDITIONS

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

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH FUNCTION

- The anti-pinch function detects foreign matter being pinched in the door glass, during AUTO-UP operation, and lowers the door glass 150 mm (5.9in).
- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the door glass for 150 mm (5.9in) after it detects encoder pulse signal frequency change.

OPERATION CONDITION

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

NOTE:

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

AUTOMATIC WINDOW ADJUSTING FUNCTION

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

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

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

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

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

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

DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION

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

OPERATION CONDITION

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

- Hold door key cylinder in the UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

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

Keyless power window down operation mode can be changed by “PW DOWN SET” mode in “WORK SUPPORT”. Refer to DLK-42, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Coupe)".

NOTE:

Use CONSULT to change settings.

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

POWER CONSUMPTION CONTROL SYSTEM

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

LOW POWER CONSUMPTION MODE

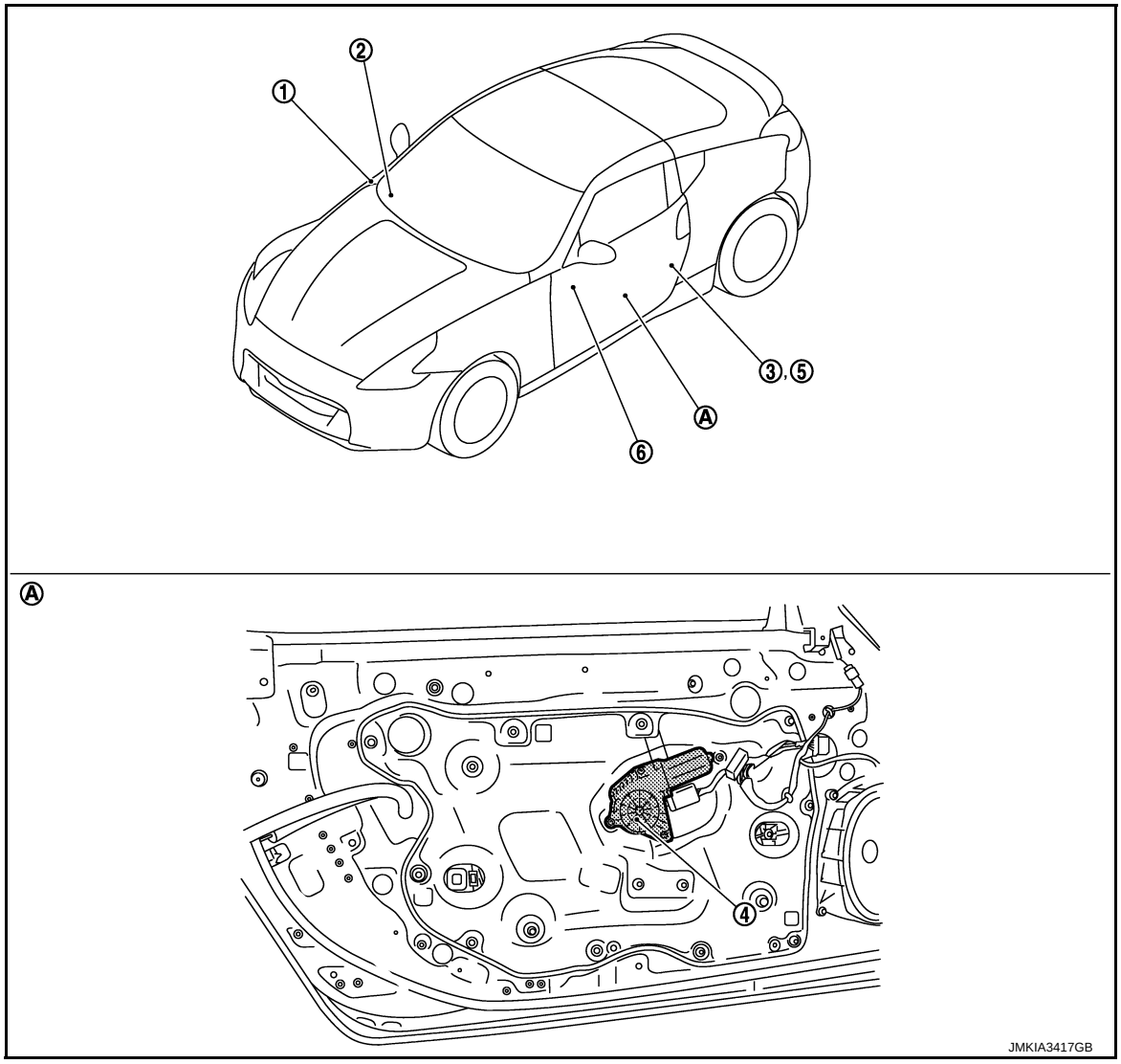
- Ignition switch OFF.
- Power window main switch and power window sub-switch do not receive a signal from serial link.
- Power window motor does not move.

If any of the following conditions are satisfied, the low power consumption mode is released.

- Ignition switch ON.
- When door key cylinder switch signal is received.
- When the signal is received from serial link.
- When door open/close signal is received.
- When power window switch door lock is operated.

Component Parts Location

INFOID:0000000009363434



1. BCM M118, M119, M122, M123 BCS-11, "Component Parts Location"
2. Remote keyless entry receiver M104 DLK-16, "INTELLIGENT KEY SYSTEM : Component Parts Location"
3. Driver side door lock assembly (door key cylinder switch) D15
4. Driver side power window motor D10
5. Driver side door switch B16
6. Power window main switch D8

A. View with door finisher removed

Component Description

INFOID:0000000009363435

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

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

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

INFOID:0000000009735319

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 • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door/Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

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

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK”* to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000009735320

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:0000000009363438

1.CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

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

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000009363439

1.CHECK POWER SUPPLY CIRCUIT 1

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

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

Is the measurement value within the specification?

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

2.CHECK POWER SUPPLY CIRCUIT 2

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M118	2	D8	1	Existed
	3		10	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed
	3		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	15		Existed

Is the inspection result normal?

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

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000009363440

1.CHECK POWER SUPPLY CIRCUIT 1

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

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

Is the measurement value within the specification?

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

2. CHECK POWER SUPPLY CIRCUIT 2

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

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

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363441

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

DRIVER SIDE : Component Function Check

INFOID:0000000009363442

1.CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Driver side power window motor is OK.
NO >> Refer to PWC-20, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363443

1.CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Driver side power window motor					
Connector	Terminal				
D10	6	Ground	Power window main switch	UP	12
				DOWN	0
	3			UP	0
				DOWN	12

Is the measurement value within the specification?

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

2.CHECK POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-21, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver side power window motor. Refer to GW-22, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-113, "Removal and Installation".
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:0000000009363444

COMPONENT INSPECTION

1. CHECK DRIVER SIDE POWER WINDOW MOTOR

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

Driver side power window motor connector	Terminal		Motor operation
	(+)	(–)	
D10	3	6	DOWN
	6	3	UP

Is the inspection result normal?

YES >> Driver side power window motor is OK.
NO >> Replace driver side power window motor. Refer to GW-22, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363445

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

PASSENGER SIDE : Component Function Check

INFOID:0000000009363446

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Passenger side power window motor is OK.
NO >> Refer to PWC-21, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363447

1. CHECK POWER WINDOW SUB-SWITCH OUTPUT SIGNAL

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

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

Is the measurement value within the specification?

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

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.
Refer to PWC-22, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace passenger side power window motor. Refer to GW-22, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

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

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

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

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

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-113, "Removal and Installation".
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:0000000009363448

COMPONENT INSPECTION

1.CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

Passenger side power window motor connector	Terminal		Motor condition
	(+)	(–)	
D40	3	6	DOWN
	6	3	UP

Is the inspection result normal?

YES >> Passenger side power window motor is OK.
NO >> Replace passenger side power window motor. Refer to GW-22, "Removal and Installation".

ENCODER
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363449

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

DRIVER SIDE : Component Function Check

INFOID:0000000009363450

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

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

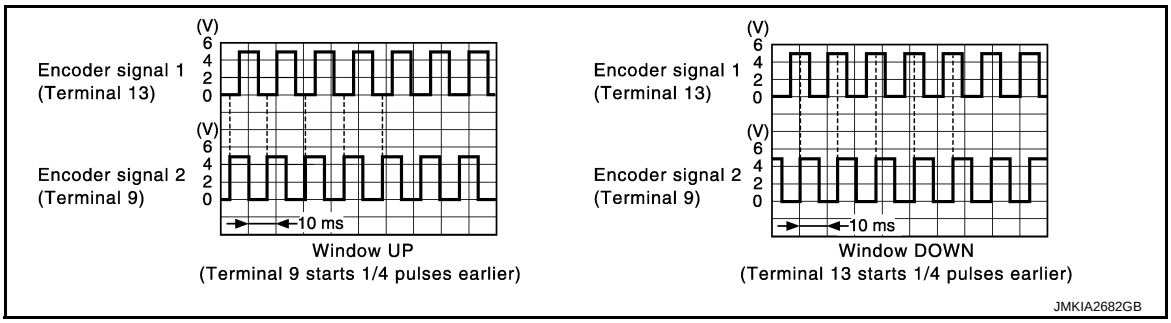
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363451

1.CHECK ENCODER OPERATION

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

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



Is the inspection result normal?

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

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

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

3. CHECK ENCODER POWER SUPPLY CIRCUIT 1

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

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

Is the measurement value within the specification?

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

4. CHECK ENCODER POWER SUPPLY CIRCUIT 2

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

Power window main switch		Driver side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D8	5	D10	4	Existed

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-113, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK GROUND CIRCUIT 1

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

Power window main switch		Driver side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D8	14	D10	1	Existed

Is the inspection result normal?

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

6. CHECK GROUND CIRCUIT 2

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	14		Existed

Is the inspection result normal?

YES >> Replace driver side power window motor. Refer to PWC-113, "Removal and Installation".
NO >> Replace power window main switch. Refer to PWC-113, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363452

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

PASSENGER SIDE : Component Function Check

INFOID:0000000009363453

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-26, "PASSENGER SIDE : Diagnosis Procedure".

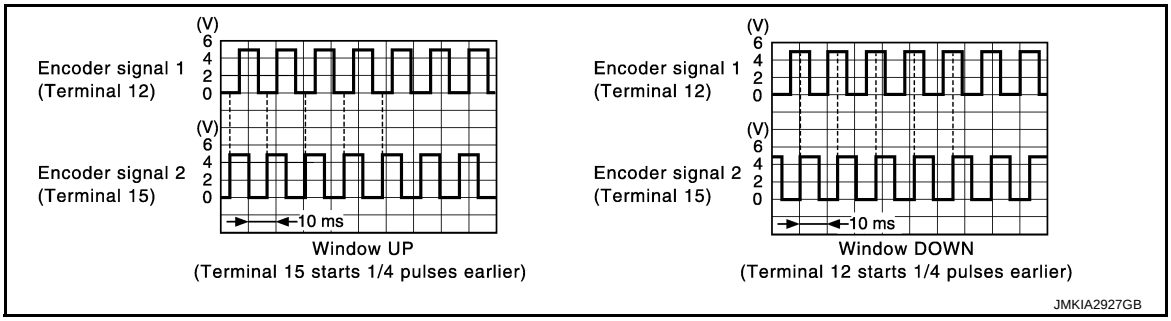
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363454

1.CHECK ENCODER SIGNAL

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

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



Is the inspection result normal?

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

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

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

3. CHECK ENCODER POWER SUPPLY CIRCUIT 1

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

(+)		(–)	Voltage (V) (Approx.)
Passenger side power window motor			
Connector	Terminal		
D40	4	Ground	12

Is the measurement value within the specification?

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

4. CHECK ENCODER POWER SUPPLY CIRCUIT 2

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

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

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

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

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-113, "Removal and Installation".
NO >> Repair or replace harness.

5. CHECK GROUND CIRCUIT 1

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

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

Is the inspection result normal?

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

6. CHECK GROUND CIRCUIT 2

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

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

Is the inspection result normal?

YES >> Replace passenger side power window motor. Refer to PWC-113, "Removal and Installation".
NO >> Replace power window sub-switch. Refer to PWC-113, "Removal and Installation".

POWER WINDOW SERIAL LINK
POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Description

INFOID:0000000009363455

Power window main switch, power window sub-switch and BCM transmit and receive the signal by power window serial link.
The signal mentioned below is transmitted from BCM to power window main switch, power window sub-switch.
- Keyless power window down signal

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

POWER WINDOW MAIN SWITCH : Component Function Check

INFOID:0000000009363456

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT

Check (“CDL LOCK SW ”, “CDL UNLOCK SW”) in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer toDLK-40, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (For Coupe)".

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

Is the inspection result normal?

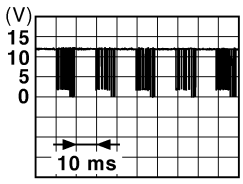
YES >> Power window serial link is OK.
NO >> Refer to PWC-29, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000009363457

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window main switch			
Connector	Terminal		
D8	12	Ground	

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Is the inspection result normal?

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

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-113, "Removal and Installation".
NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

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

4. Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Removal and Installation".
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Description

INFOID:0000000009363458

Power window main switch, power window sub-switch and BCM transmit and receive the signal by power window serial link.
The signal mentioned below is transmitted from BCM to power window main switch, power window sub-switch.

- Keyless power window down signal

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

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

POWER WINDOW SUB-SWITCH : Component Function Check

INFOID:0000000009363459

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

With CONSULT

Check (“CDL LOCK SW ”, “CDL UNLOCK SW”) in “DATA MONITOR” mode for “POWER DOOR LOCK SYSTEM” with CONSULT. Refer toDLK-40, "DOOR LOCK : CONSULT Function (BCM - DOOR LOCK) (For Coupe)".

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

Is the inspection result normal?

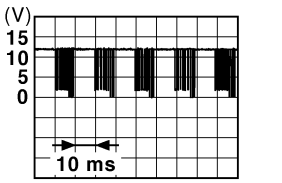
YES >> Power window serial link is OK.
NO >> Refer to PWC-31, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000009363460

1.CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

(+)		(–)	Signal (Reference value)
Power window sub-switch			
Connector	Terminal		
D38	16	Ground	

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Is the inspection result normal?

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

2.CHECK POWER WINDOW SERIAL LINK SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Power window sub-switch			
Connector	Terminal		
D38	16	Ground	12

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-113, "Removal and Installation".
NO >> GO TO 3.

3.CHECK POWER WINDOW SERIAL LINK CIRCUIT

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

BCM		Power window sub-switch		Continuity
Connector	Terminal	Connector	Terminal	
M123	132	D38	16	Existed

4. Check continuity between BCM connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Removal and Installation".
NO >> Repair or replace harness.

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000009760536

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
FR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On

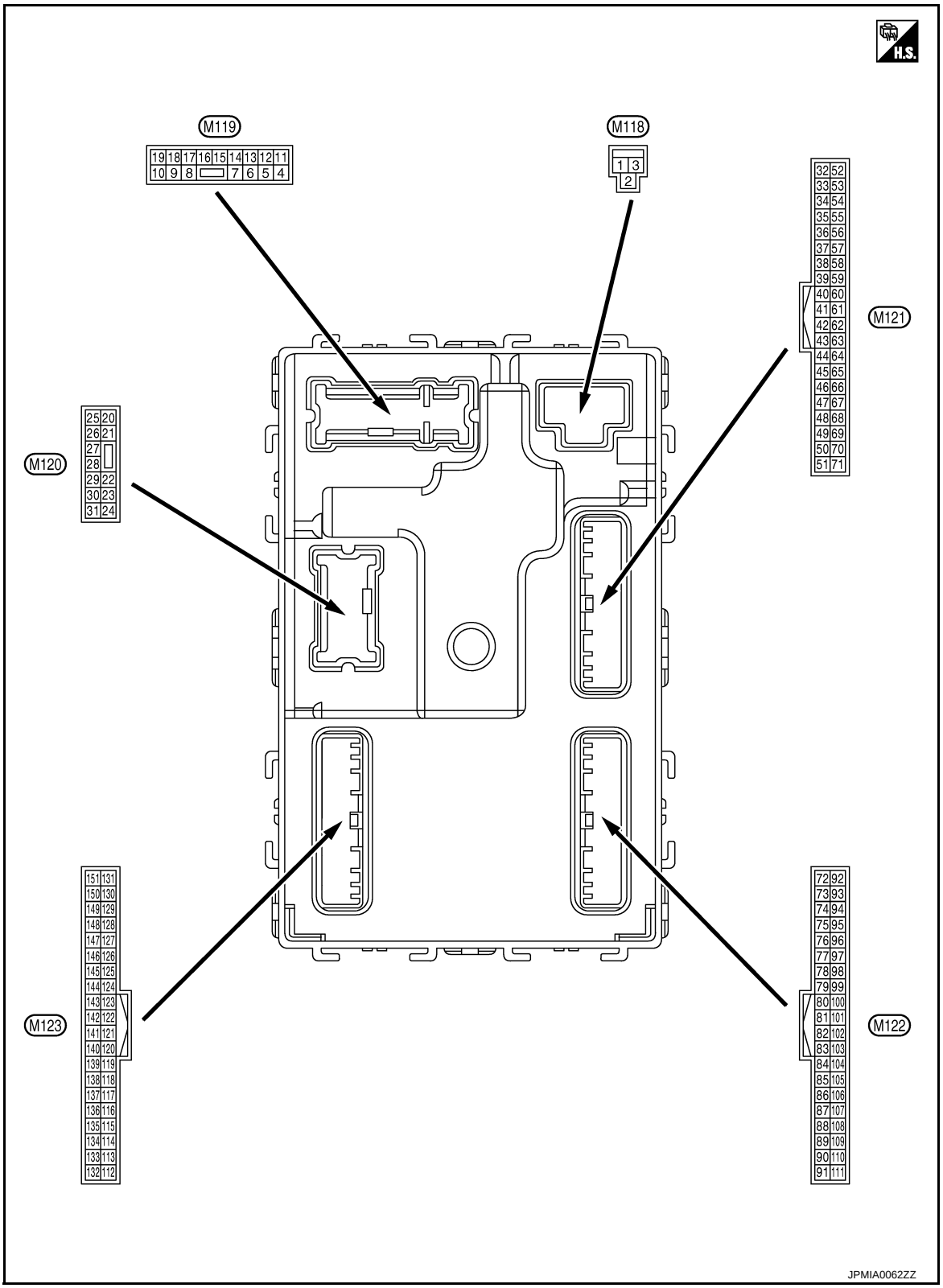
Monitor Item	Condition	Value/Status
DOOR SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	• Back door closed (Coupe models) • Trunk lid closed (Roadster models)	Off
	• Back door opened (Coupe models) • Trunk lid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

Monitor Item	Condition	Value/Status
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
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	• Back door request switch is not pressed (Coupe models) • Trunk lid door request switch is not pressed (Roadster models)	Off
	• Back door request switch is pressed (Coupe models) • Trunk lid door request switch is pressed (Roadster models)	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:** For A/T models this item is not monitored.	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW **NOTE:** For M/T models with Synchro-Rev Match mode this item is not monitored.	• Selector lever in P position (A/T models) • The clutch pedal is depressed (M/T models without SynchroRev Match mode)	Off
	• Selector lever in any position other than P (A/T models) • The clutch pedal is not depressed (M/T models without SynchroRev Match mode)	On
SFT PN/N SW **NOTE:** For roadster M/T models and coupe M/T models without SynchroRev Match mode this item is not monitored.	• Selector lever in any position other than P and N (A/T models) • Control lever in any position other than neutral position (Coupe M/T models with SynchroRev Match mode)	Off
	• Selector lever in P or N position (A/T models) • Control lever in neutral position (Coupe M/T models with SynchroRev Match mode)	On
S/L -LOCK	**NOTE:** The item is indicated but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On

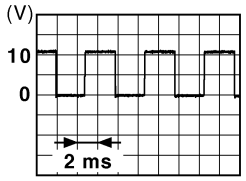
Monitor Item	Condition	Value/Status
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (A/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position (A/T models) • The clutch pedal is depressed (M/T models)	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key

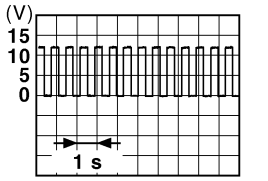
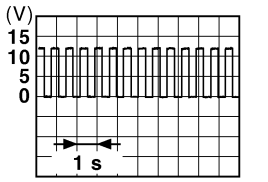
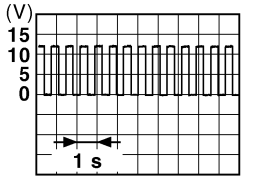
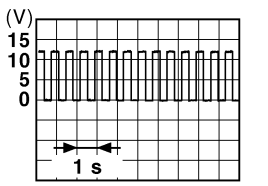
Monitor Item	Condition	Value/Status
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

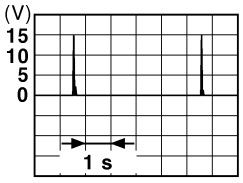
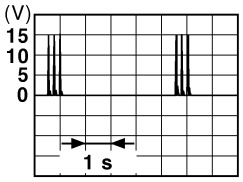
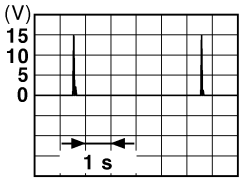
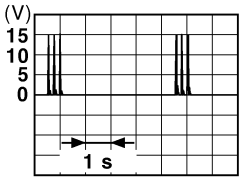
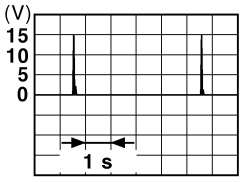
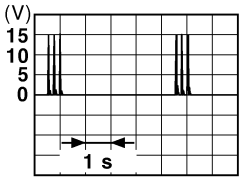
TERMINAL LAYOUT

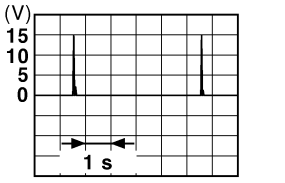
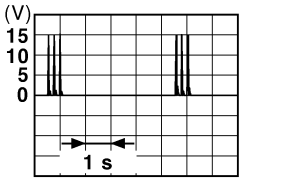
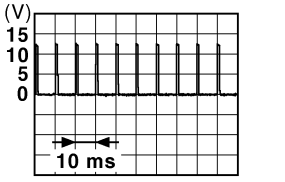
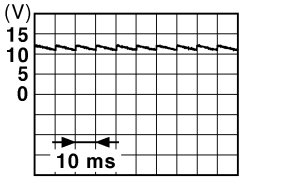


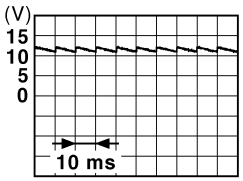
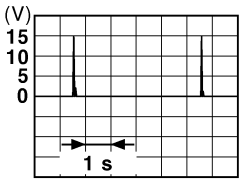
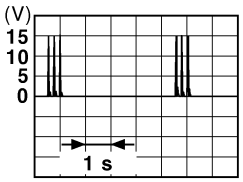
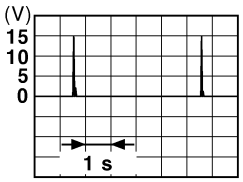
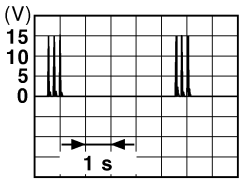
PHYSICAL VALUES

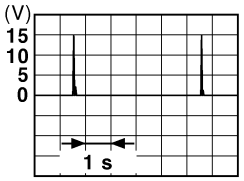
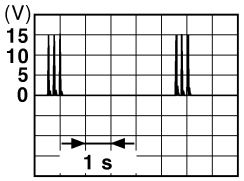
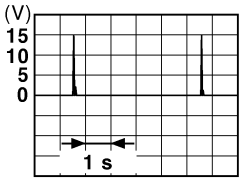
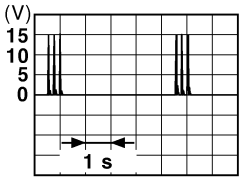
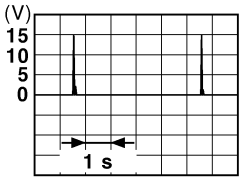
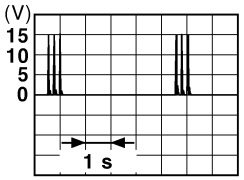
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (Y)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
4 (R)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (G)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (BR)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (R)	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	0 V

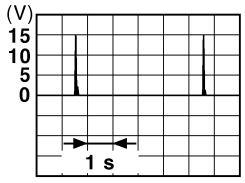
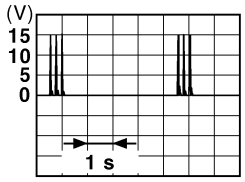
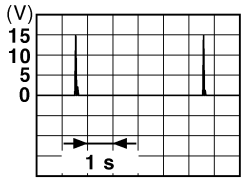
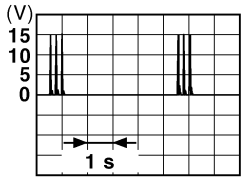
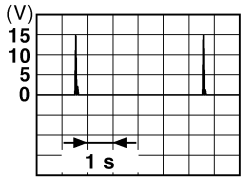
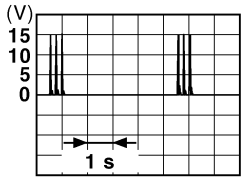
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (O)	Ground	Turn signal LH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (P)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (L)*1 (Y)*2	Ground	Back door/Trunk lid open	Output	Back door/ Trunk lid	OPEN (Back door/Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Back door/Trunk lid opener actuator is not activated)	0 V
24*8 (O)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
25 (LG)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (R)	Ground	Luggage room/Trunk room lamp	Output	Luggage room/ Trunk room lamp	ON	0 V
					OFF	12 V

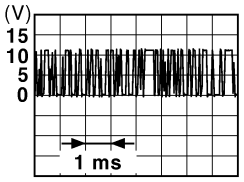
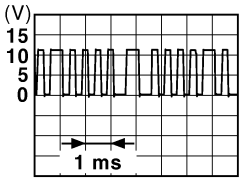
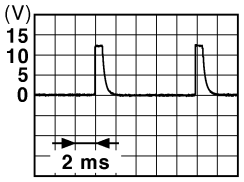
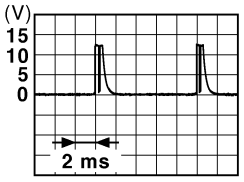
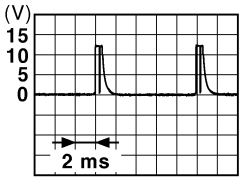
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (G)	Ground	Luggage room/Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (R)	Ground	Luggage room/Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Rear bumper antenna (–)	Output	When the back door/trunk lid 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

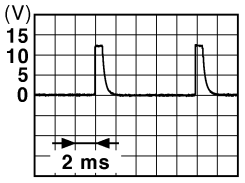
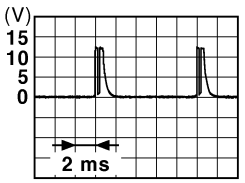
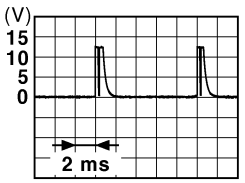
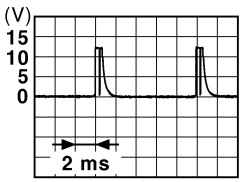
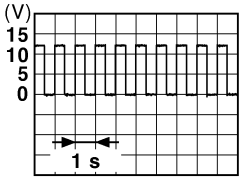
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the back door/trunk lid door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
		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

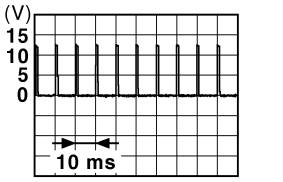
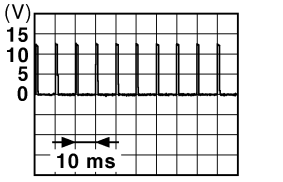
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Back door/Trunk lid opener switch	Input	Back door/ Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (L)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition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

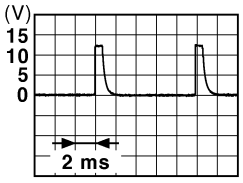
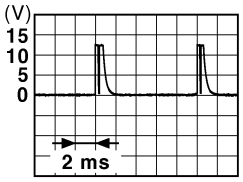
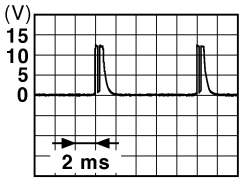
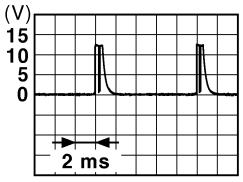
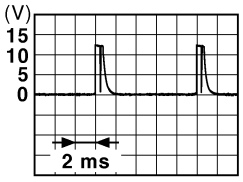
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When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

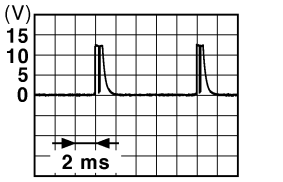
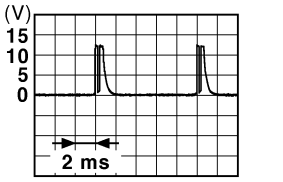
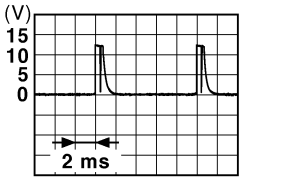
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78*2 (L)	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*2 (R)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

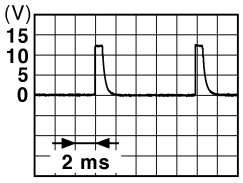
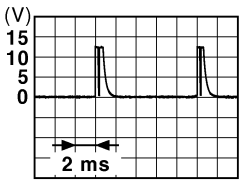
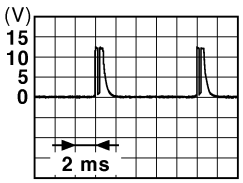
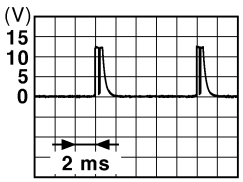
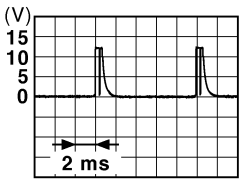
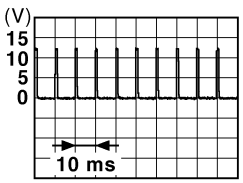
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (GR)	Ground	Remote keyless entry receiver (front) communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0038GB 1.3 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

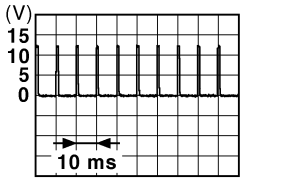
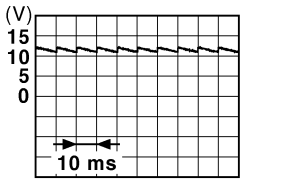
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					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
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	0 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	12 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

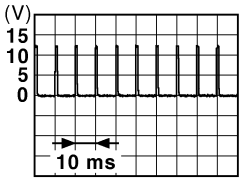
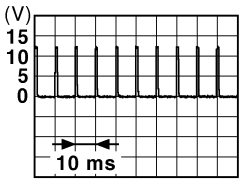
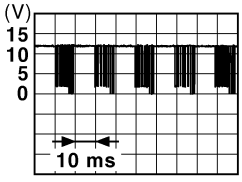
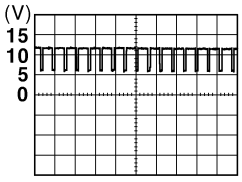
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96*3 (Y)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99*6 (R)	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		Clutch pedal position switch (M/T models without SynchroRev Match mode)		Clutch pedal position switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	Battery voltage
100 (GR)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (Y)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (O)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (LG)	Ground	Remote keyless entry receiver (front) power supply	Output	Ignition switch OFF		12 V

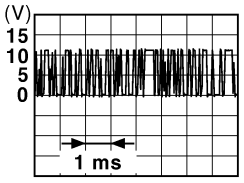
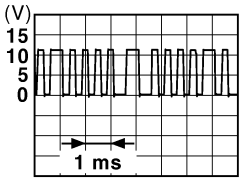
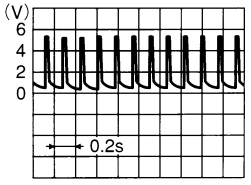
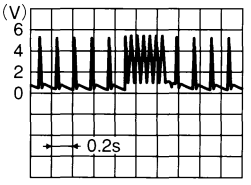
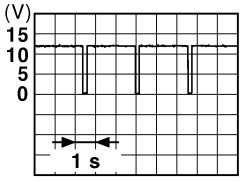
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch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

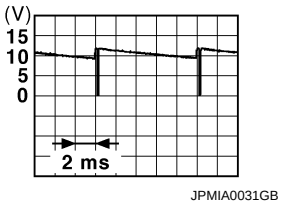
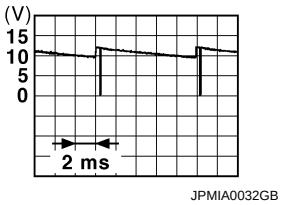
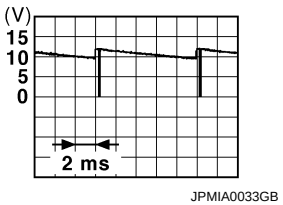
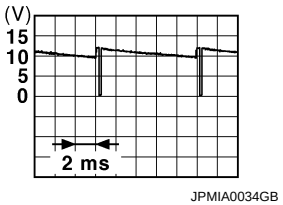
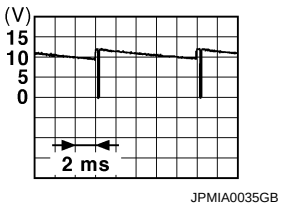
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 JPMIA0038GB 1.3 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

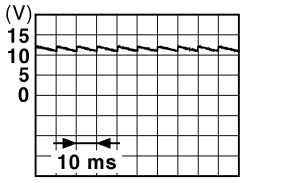
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND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

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
113 (O)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114*4 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
115*9 (O)	—	—	—	—		—
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 assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (R)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
129*2 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
130*7 (L)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
132 (Y)*1 (V)*2	Ground	Power window switch and soft top control unit communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (G)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch OFF (Remote keyless entry receiver communication)	During waiting	 JMKIA0064GB
					When operating either button on the Intelligent Key	 JMKIA0065GB
				Ignition switch ON (Tire pressure receiver communication)	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140*5 (G)	Ground	Selector lever P/N position (A/T models)	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
		Park/neutral position switch (Coupe M/T models with Synchro-Rev Match mode)		Ignition switch ON	Control lever in neutral position	Battery voltage
					Control lever in any position other than neutral	0 V
141 (Y)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V

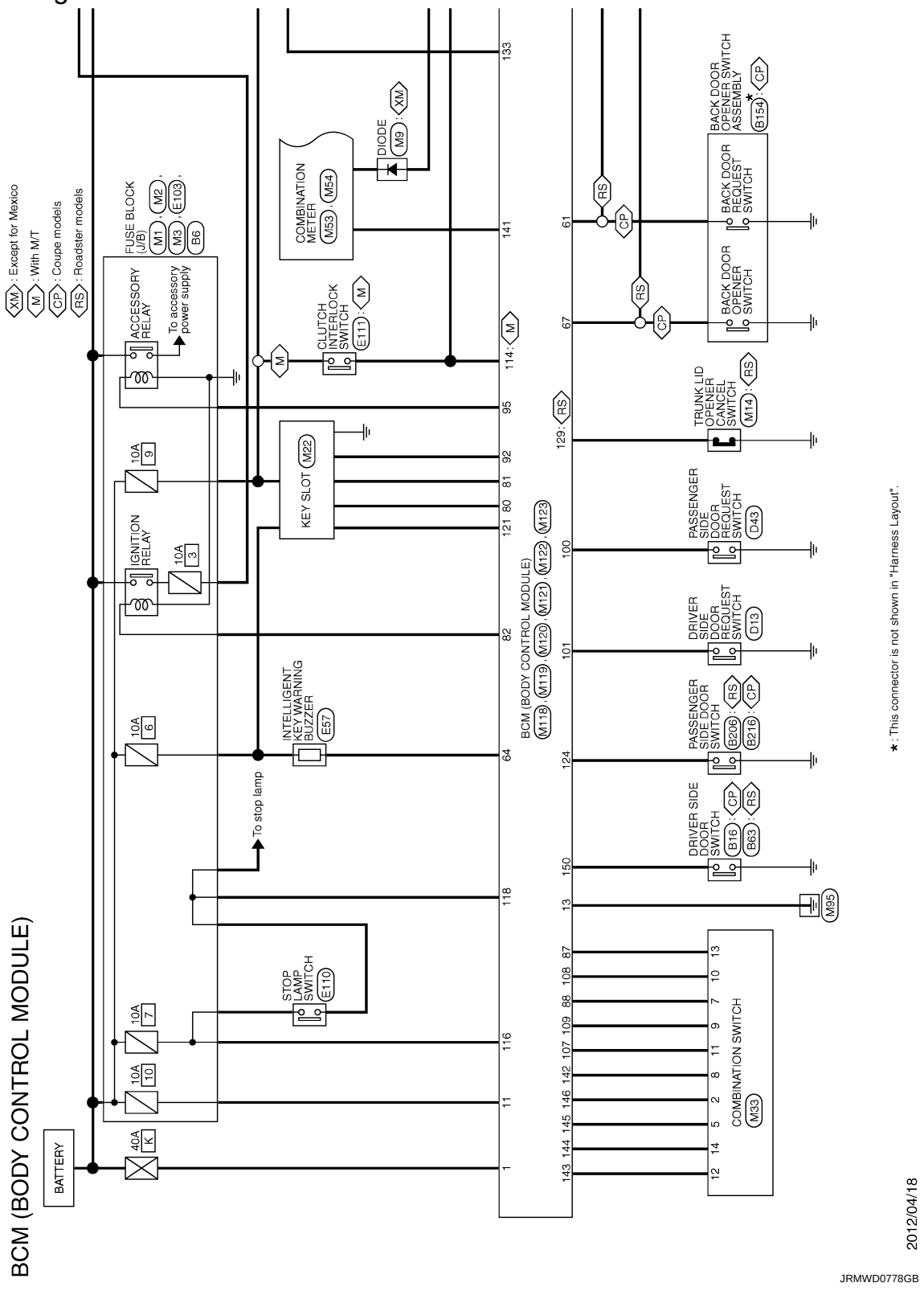
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting 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	
					Rear fog lamp switch ON	
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	

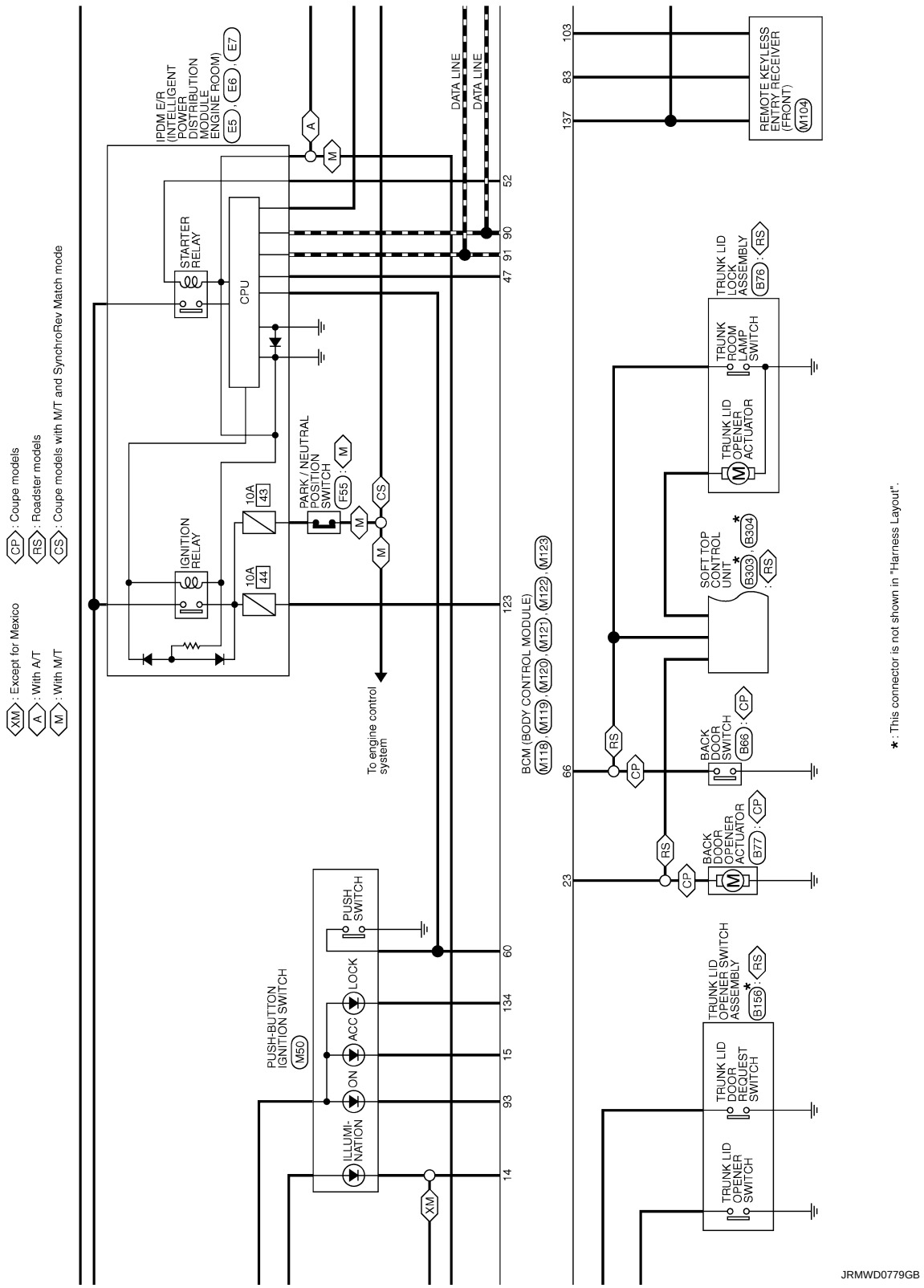
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active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

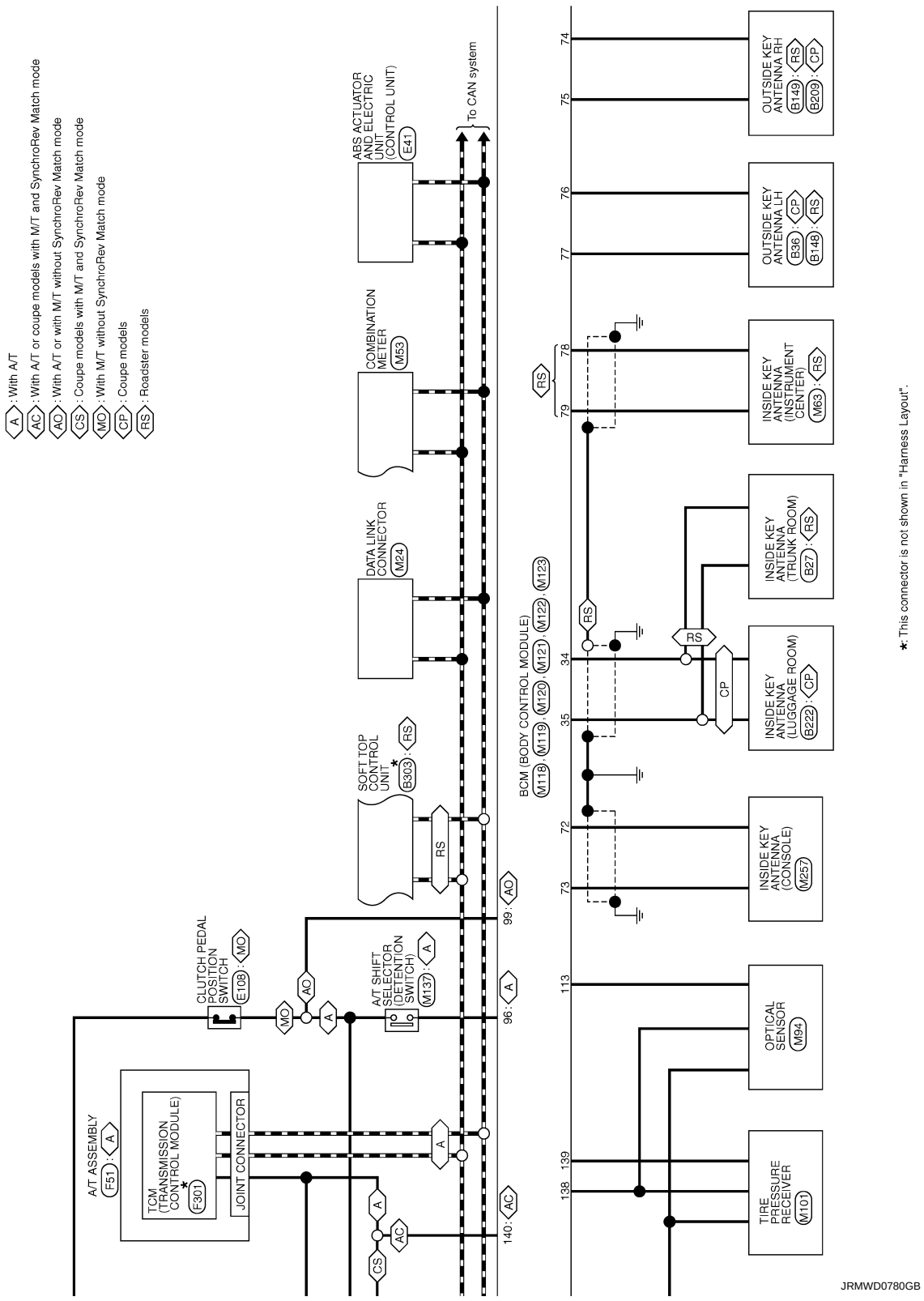
*1: Coupe models
*2: Roadster models
*3: A/T models
*4: M/T models
*5: With A/T or coupe models with M/T and SynchroRev Match mode
*6: With A/T or with M/T without SynchroRev Match mode
*7: Without NAVI
*8: With rear fog lamp
*9: BCM does not use this terminal for control.

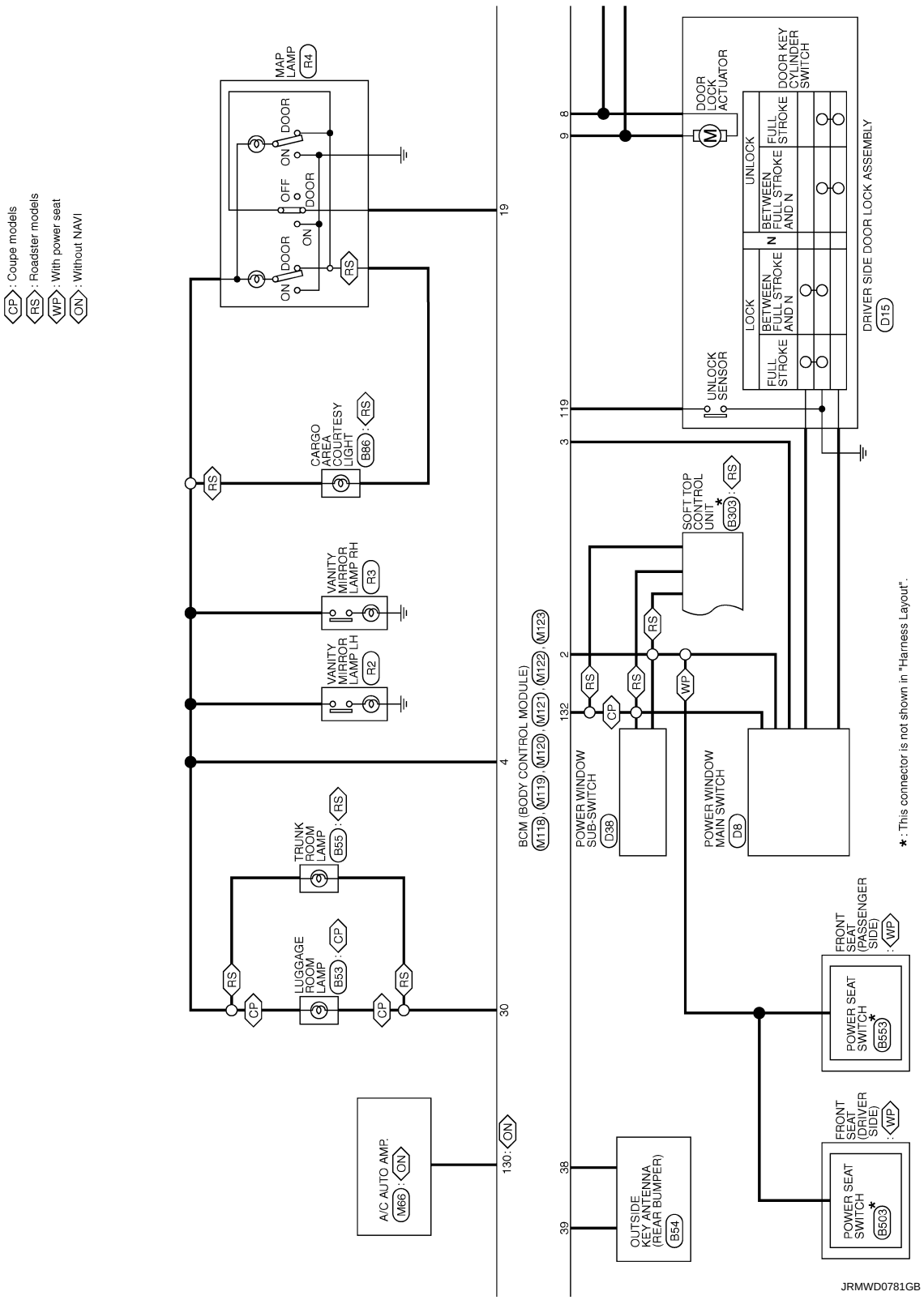
Wiring Diagram - BCM -

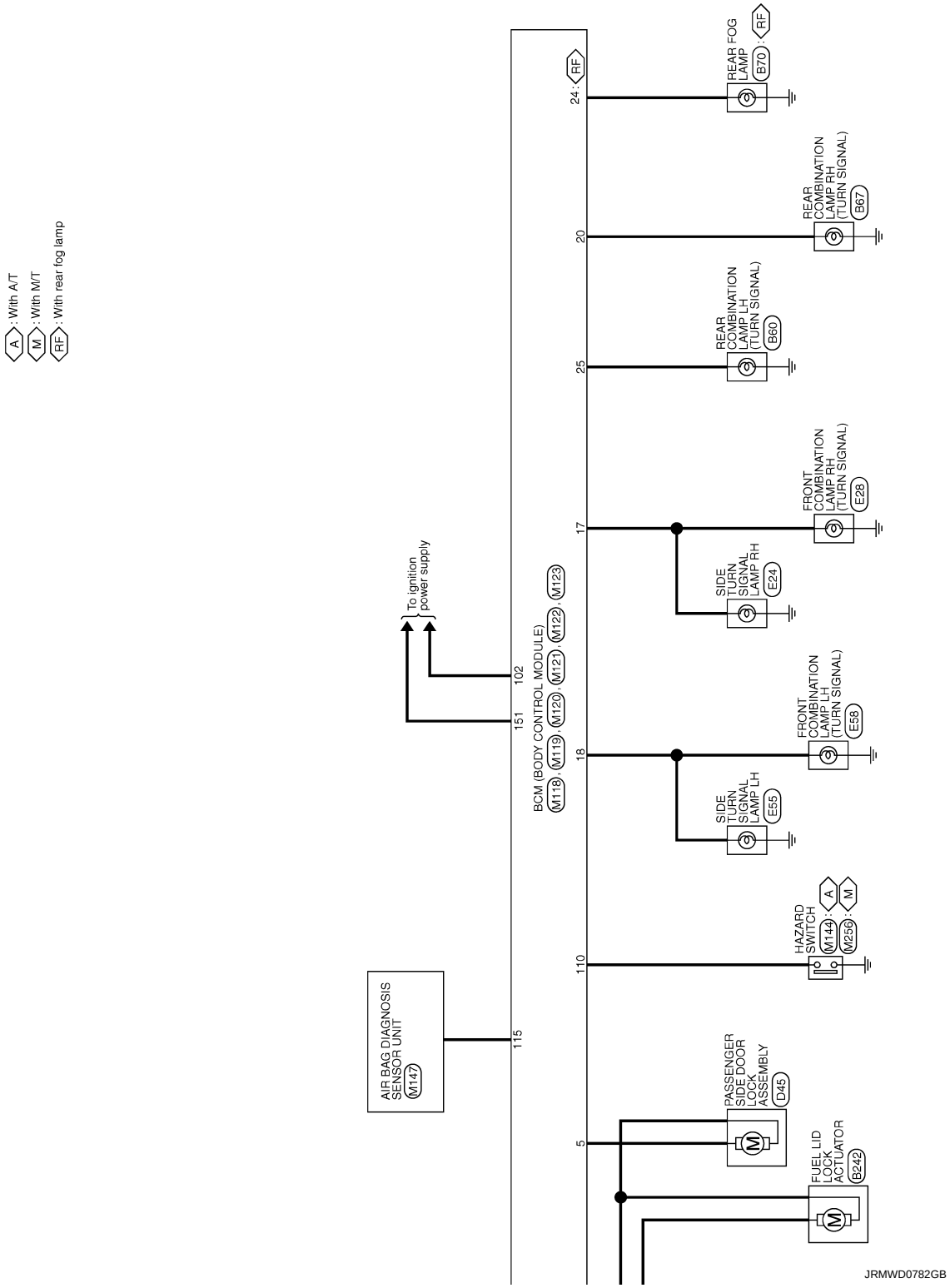
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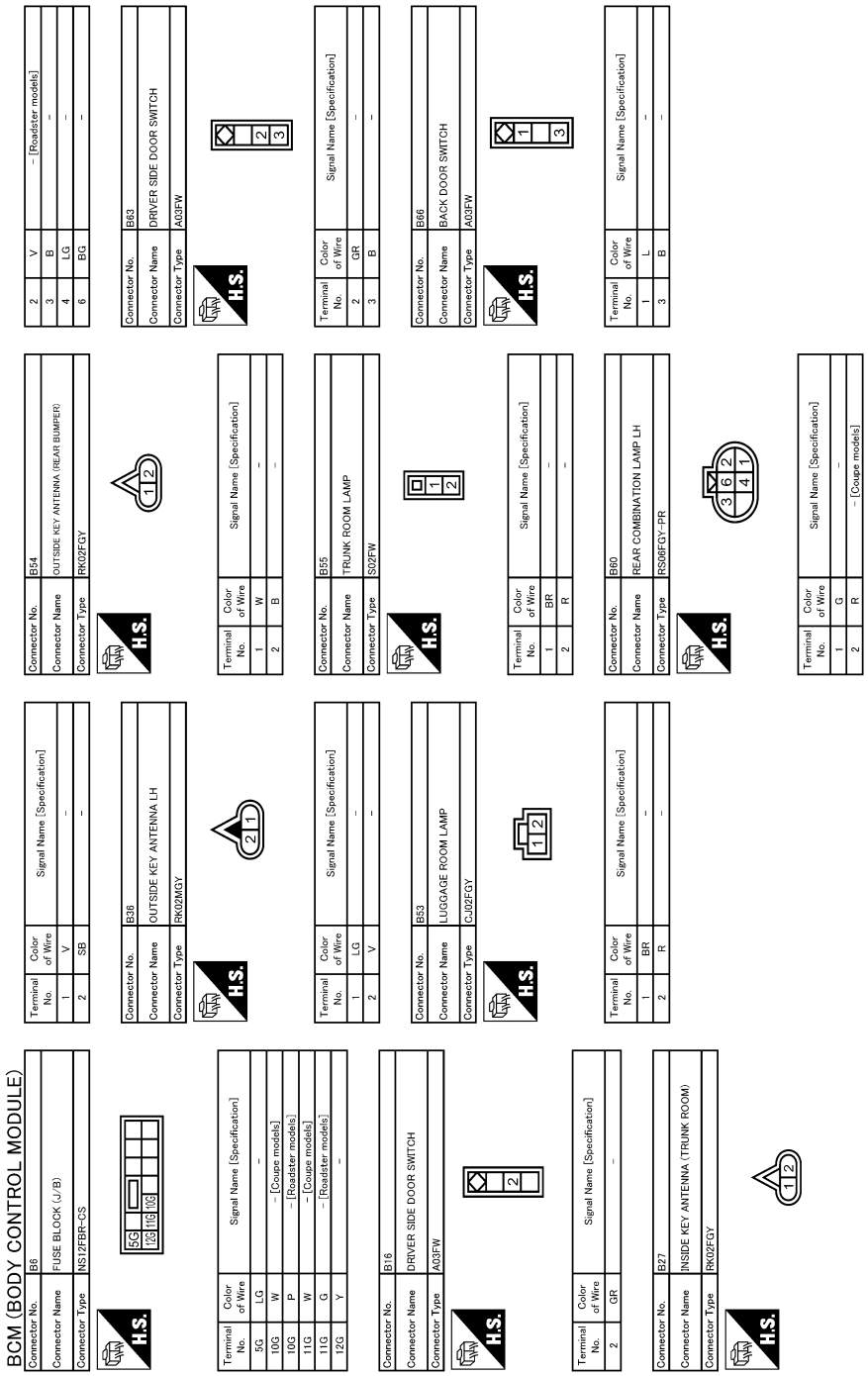



XM : Except for Mexico
A : With A/T
M : With M/T
CP : Coupe models
RS : Roadster models
CS : Coupe models with M/T and SynchroRev Match mode
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5 E6 E7
STARTER RELAY
CPU
IGNITION RELAY
10A 43
10A 44
PARK / NEUTRAL POSITION SWITCH (F55)
DATA LINE
DATA LINE
To engine control system
BCM (BODY CONTROL MODULE)
(M118) (M119) (M120) (M121) (M122) (M123)
PUSH-BUTTON IGNITION SWITCH (M50)
PUSH SWITCH
LOCK
ACC
ON
ILLUMI-NATION
REMOTE KEYLESS ENTRY RECEIVER (FRONT) (M104)
TRUNK LID LOCK ASSEMBLY (B76)
TRUNK ROOM LAMP SWITCH
TRUNK LID OPENER ACTUATOR
SOFT TOP CONTROL UNIT (B303) (B304)
BACK DOOR SWITCH (B66)
BACK DOOR OPENER ACTUATOR (B77)
TRUNK LID OPENER SWITCH ASSEMBLY (B156)
TRUNK LID DOOR REQUEST SWITCH
TRUNK LID OPENER SWITCH
* : This connector is not shown in "Harness Layout".
JRMWD0779GB

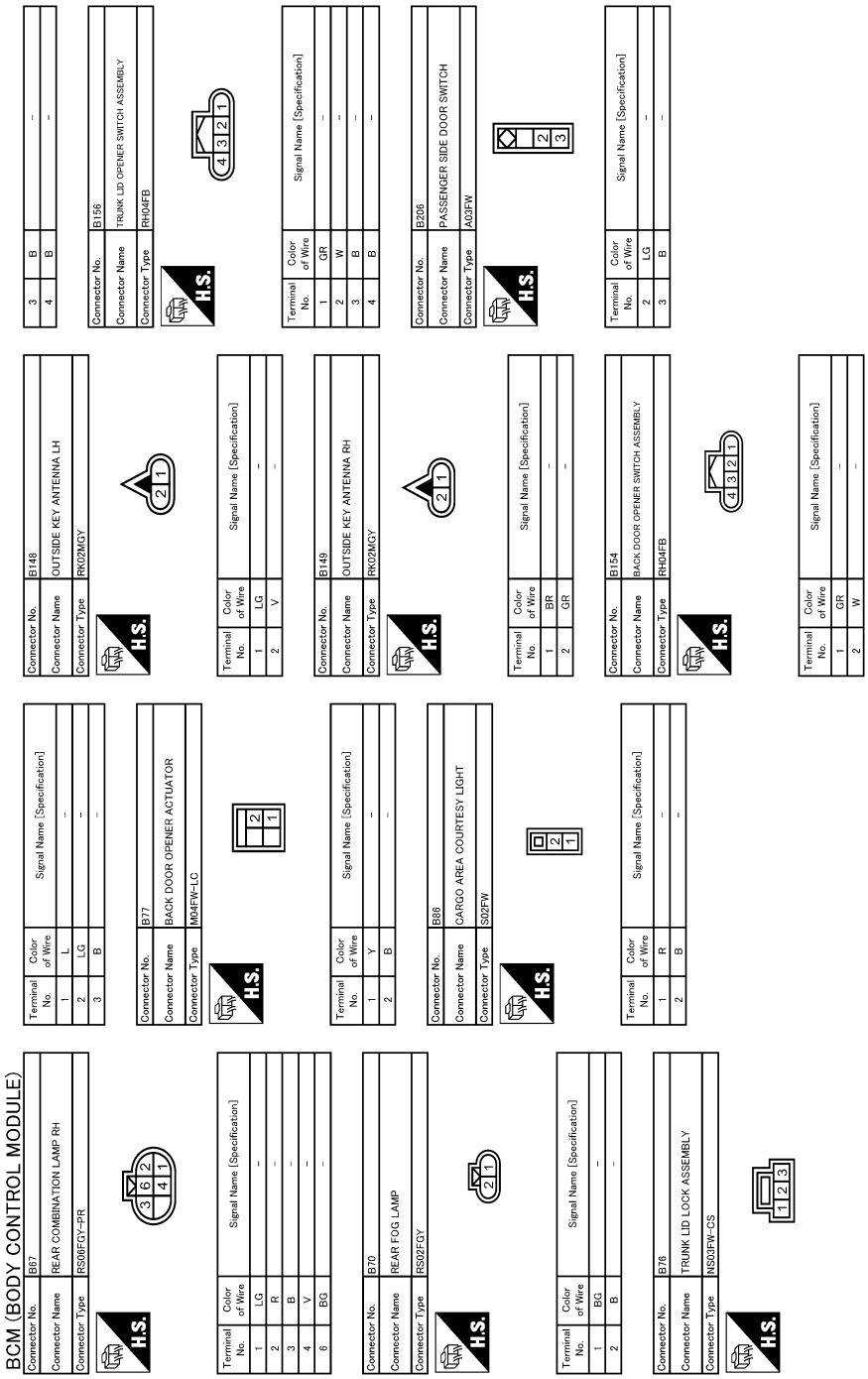

A : With A/T
AC : With A/T or coupe models with M/T and SynchroRev Match mode
AO : With A/T or with M/T without SynchroRev Match mode
CS : Coupe models with M/T and SynchroRev Match mode
MO : With M/T without SynchroRev Match mode
CP : Coupe models
RS : Roadster models
A/T ASSEMBLY
F51 : A
TCM (TRANSMISSION CONTROL MODULE)
F301
JOINT CONNECTOR
CLUTCH PEDAL POSITION SWITCH
E108 : MO
A/T SHIFT SELECTOR (DETENTION SWITCH)
M137 : A
SOFT TOP CONTROL UNIT
B303 : RS
DATA LINK CONNECTOR
M24
COMBINATION METER
M53
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
E41
To CAN system
99 : AO
96 : A
140 : AC
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
OPTICAL SENSOR
M94
TIRE PRESSURE RECEIVER
M101
INSIDE KEY ANTENNA (CONSOLE)
M257
INSIDE KEY ANTENNA (LUGGAGE ROOM)
B222 : CP
INSIDE KEY ANTENNA (TRUNK ROOM)
B27 : RS
INSIDE KEY ANTENNA ((INSTRUMENT CENTER)
M63 : RS
OUTSIDE KEY ANTENNA LH
B36 : CP
B148 : RS
OUTSIDE KEY ANTENNA RH
B149 : RS
B209 : CP
*: This connector is not shown in "Harness Layout".
JRMWD0780GB


CP : Coupe models
RS : Roadster models
WP : With power seat
ON : Without NAVI
MAP LAMP R4
DOOR ON
OFF
DOOR ON
DOOR ON
RS
CARGO AREA COURTESY LIGHT B86 : RS
VANITY MIRROR LAMP RH R3
VANITY MIRROR LAMP LH R2
TRUNK ROOM LAMP B55 : RS
LUGGAGE ROOM LAMP B53 : CP
CP
RS
A/C AUTO AMP. M66 ON
130 : ON
19
4
30
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
8
9
DOOR LOCK ACTUATOR
UNLOCK
LOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
DOOR KEY CYLINDER SWITCH
DRIVER SIDE DOOR LOCK ASSEMBLY D15
UNLOCK SENSOR
119
3
SOFT TOP CONTROL UNIT * B309 : RS
2
132
POWER WINDOW SUB-SWITCH D38
POWER WINDOW MAIN SWITCH D8
WP
FRONT SEAT (PASSENGER SIDE) : WP
POWER SEAT SWITCH * B553
FRONT SEAT (DRIVER SIDE) : WP
POWER SEAT SWITCH * B503
38
39
OUTSIDE KEY ANTENNA (REAR BUMPER) B54
* : This connector is not shown in "Harness Layout".
JRMWD0781GB

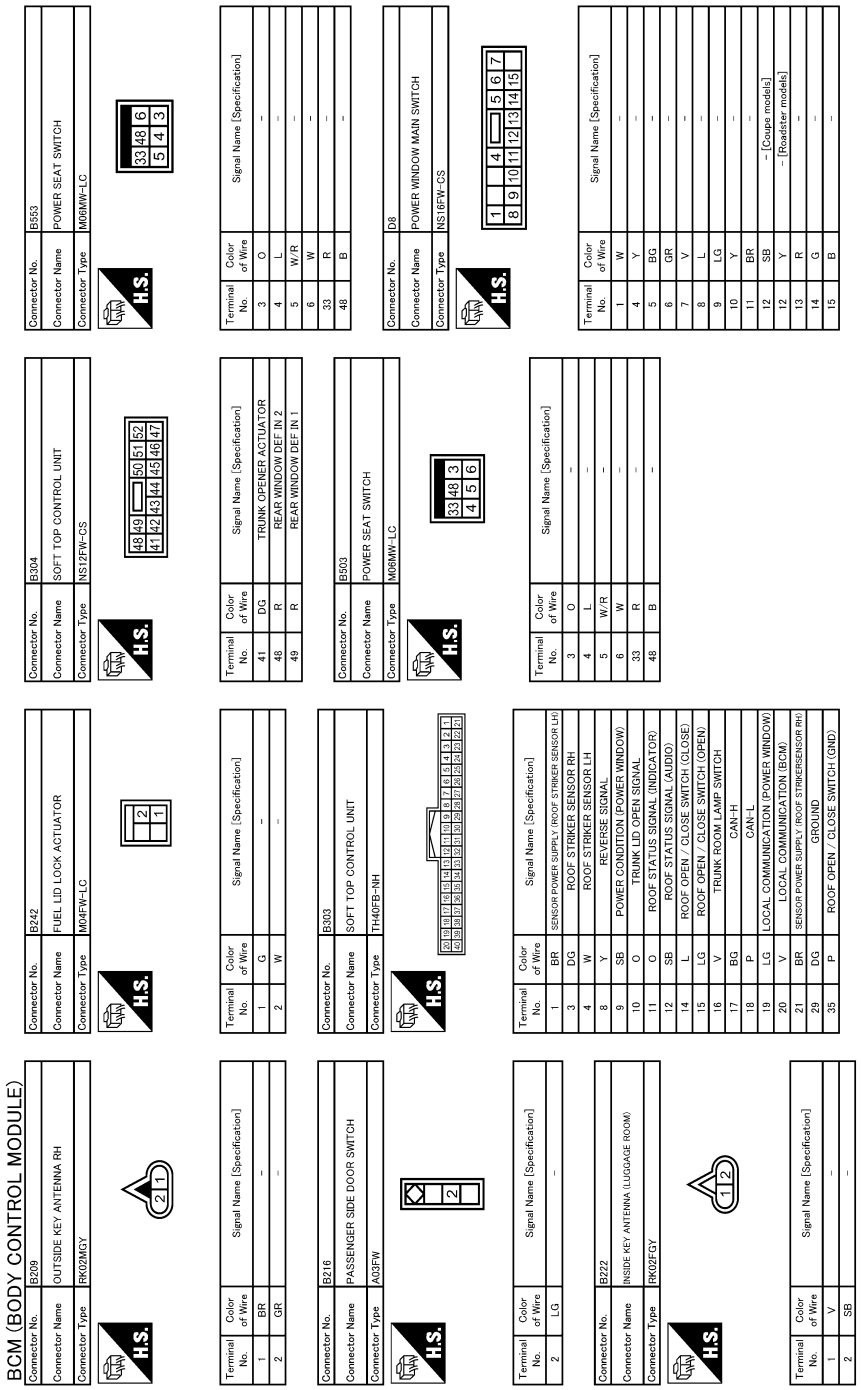

A : With A/T
M : With M/T
RF : With rear fog lamp
To ignition power supply
BCM (BODY CONTROL MODULE)
M118 M119 M120 M121 M122 M123
102
151
AIR BAG DIAGNOSIS SENSOR UNIT
M147
115
24 : RF
REAR FOG LAMP
B70 : RF
20
REAR COMBINATION LAMP RH (TURN SIGNAL)
B67
25
REAR COMBINATION LAMP LH (TURN SIGNAL)
B60
17
FRONT COMBINATION LAMP RH (TURN SIGNAL)
E28
SIDE TURN SIGNAL LAMP RH
E24
18
FRONT COMBINATION LAMP LH (TURN SIGNAL)
E58
SIDE TURN SIGNAL LAMP LH
E55
110
HAZARD SWITCH
A M
M144 : M259
5
PASSENGER SIDE DOOR LOCK ASSEMBLY
D45
FUEL LID LOCK ACTUATOR
B242
JRMWD0782GB



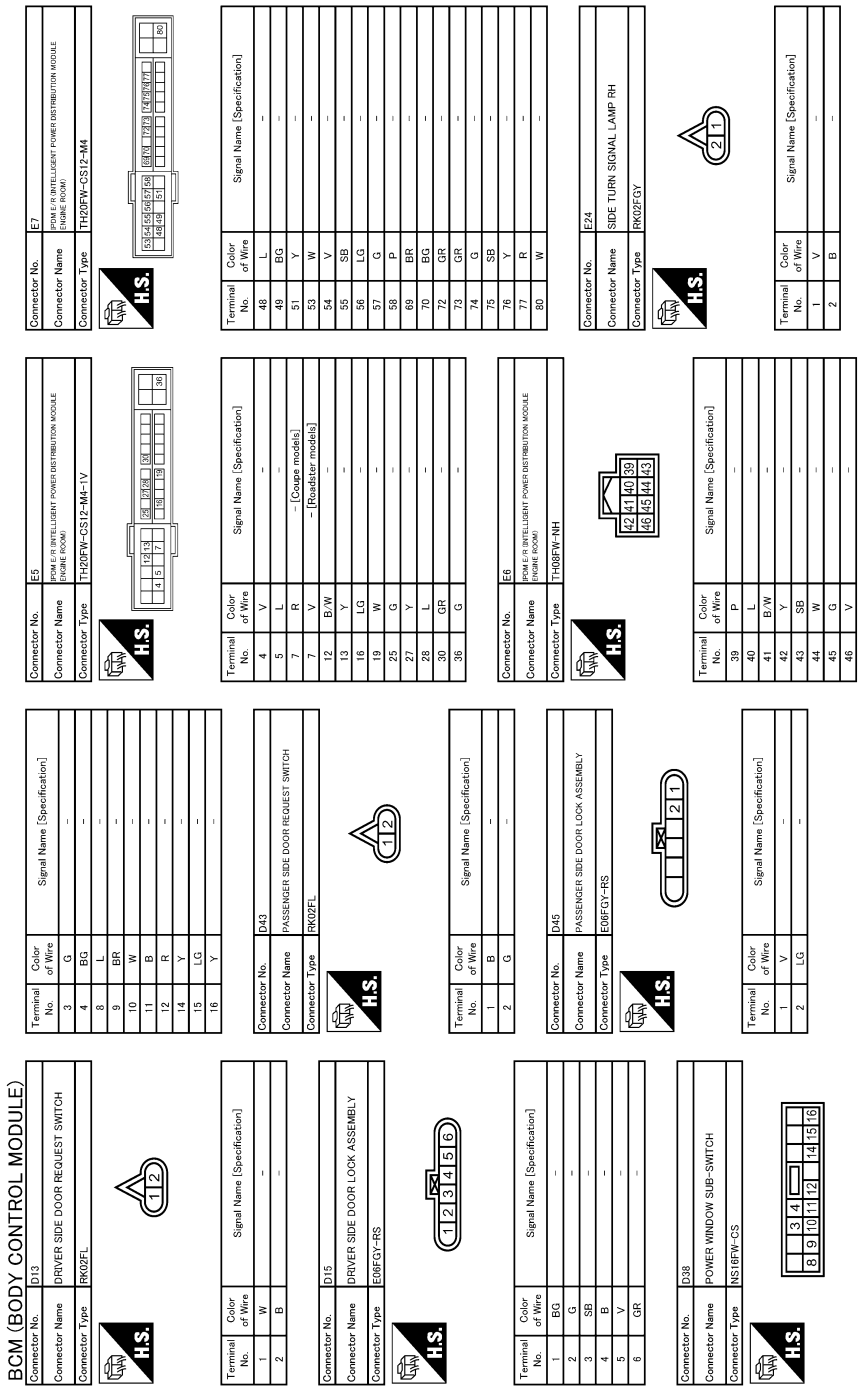
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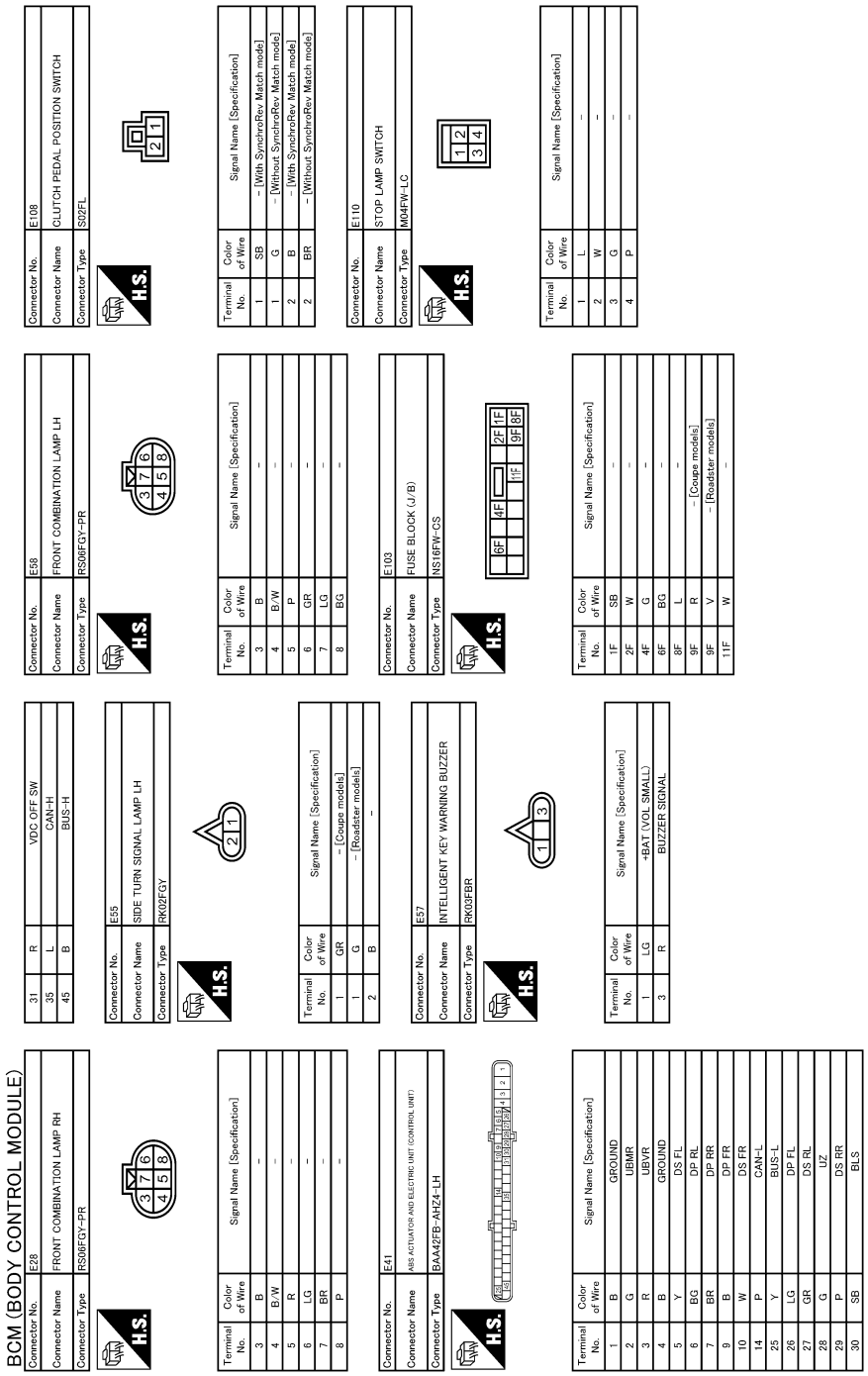
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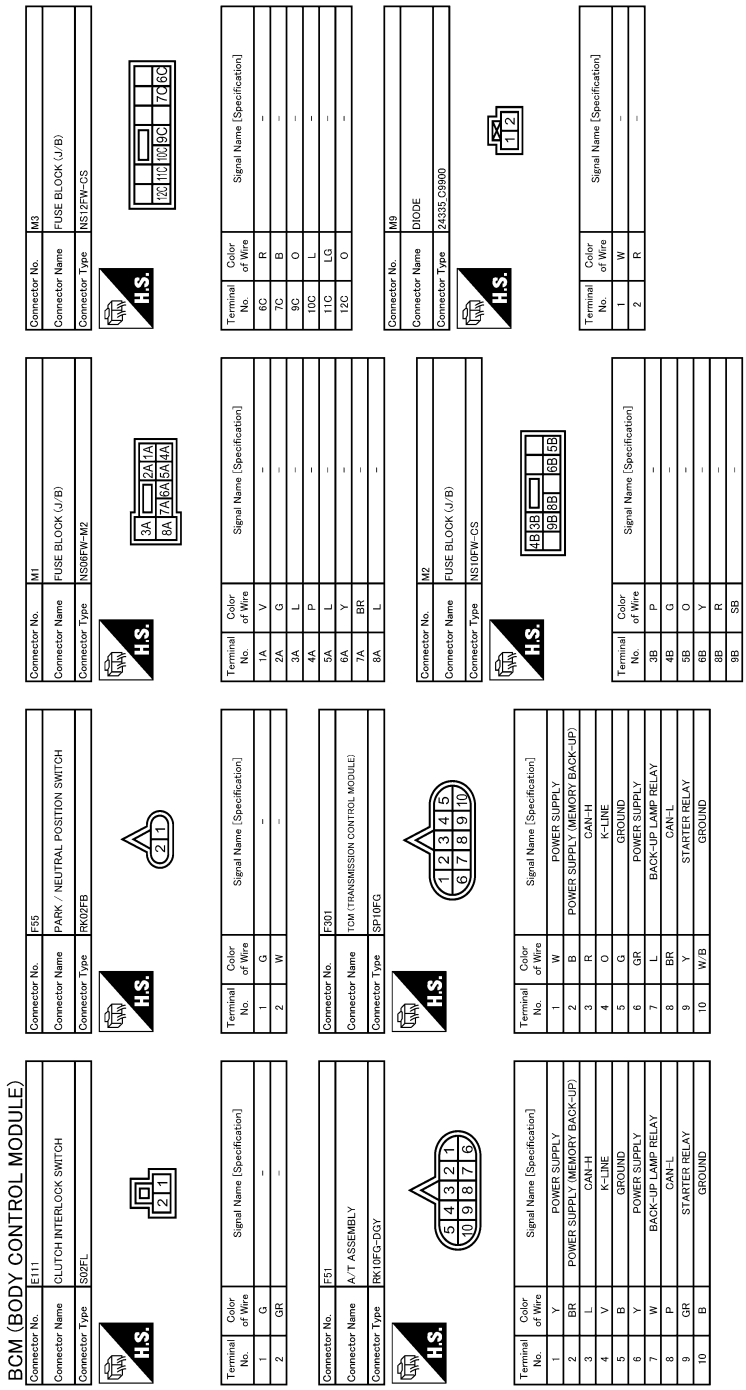
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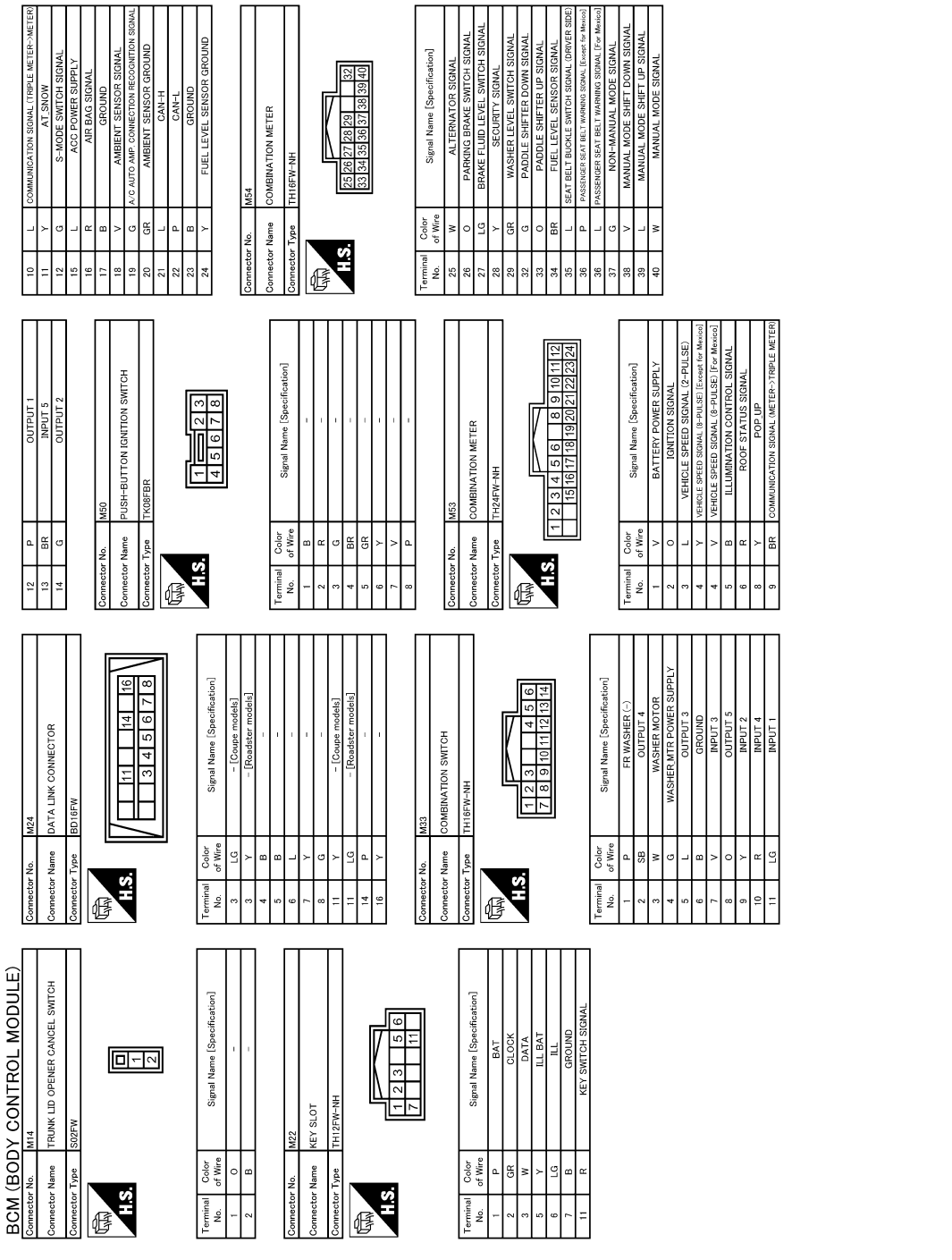
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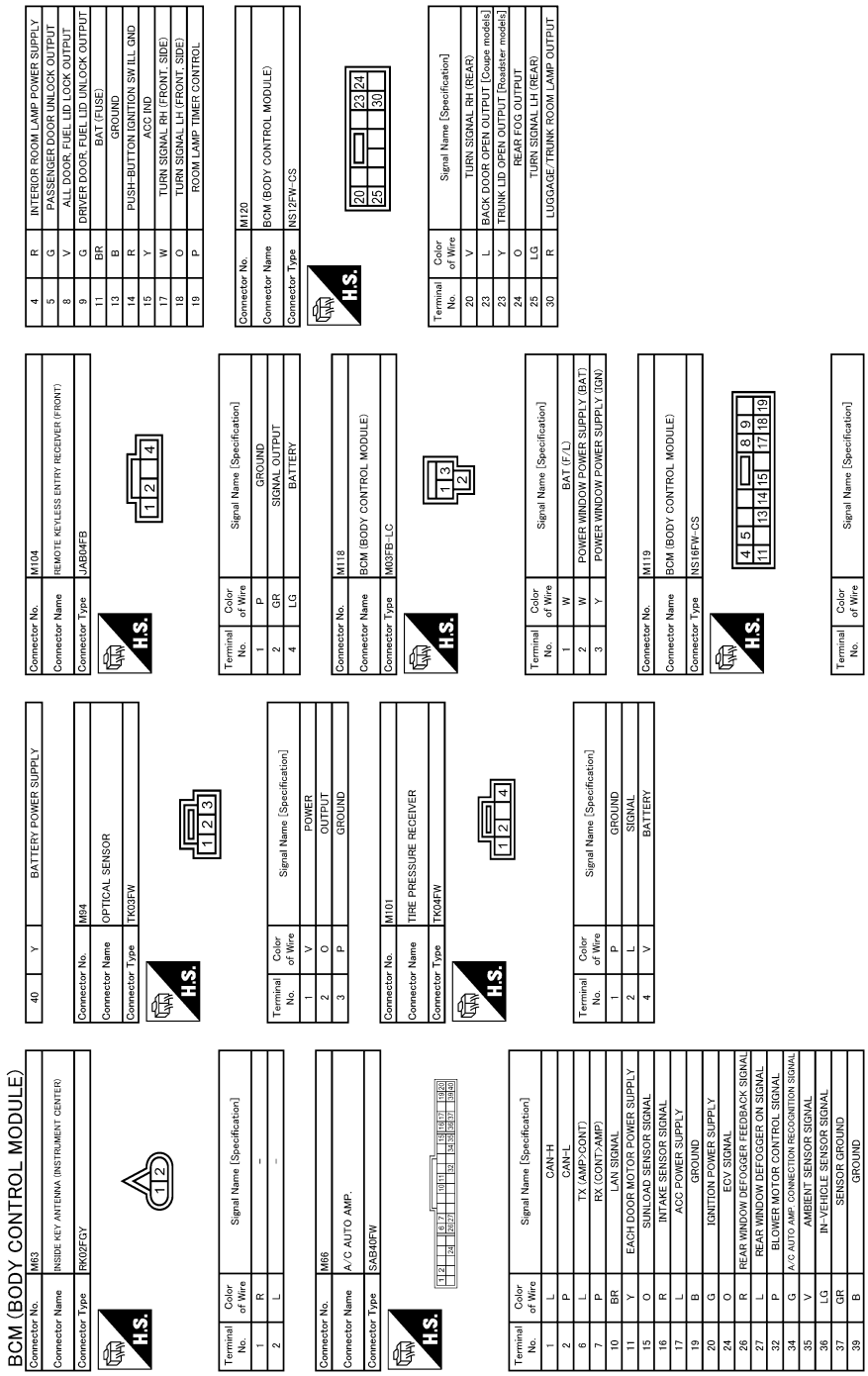
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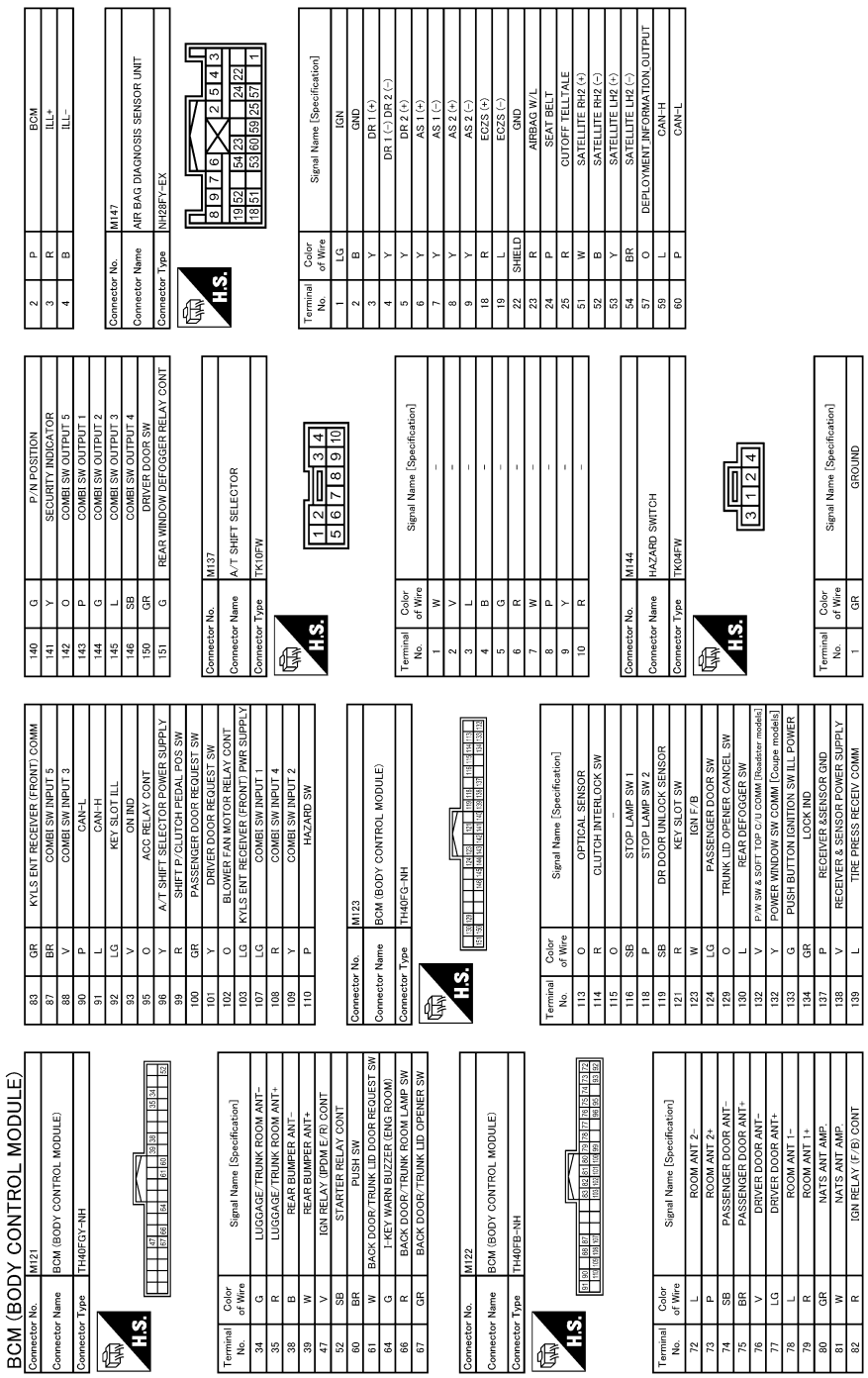
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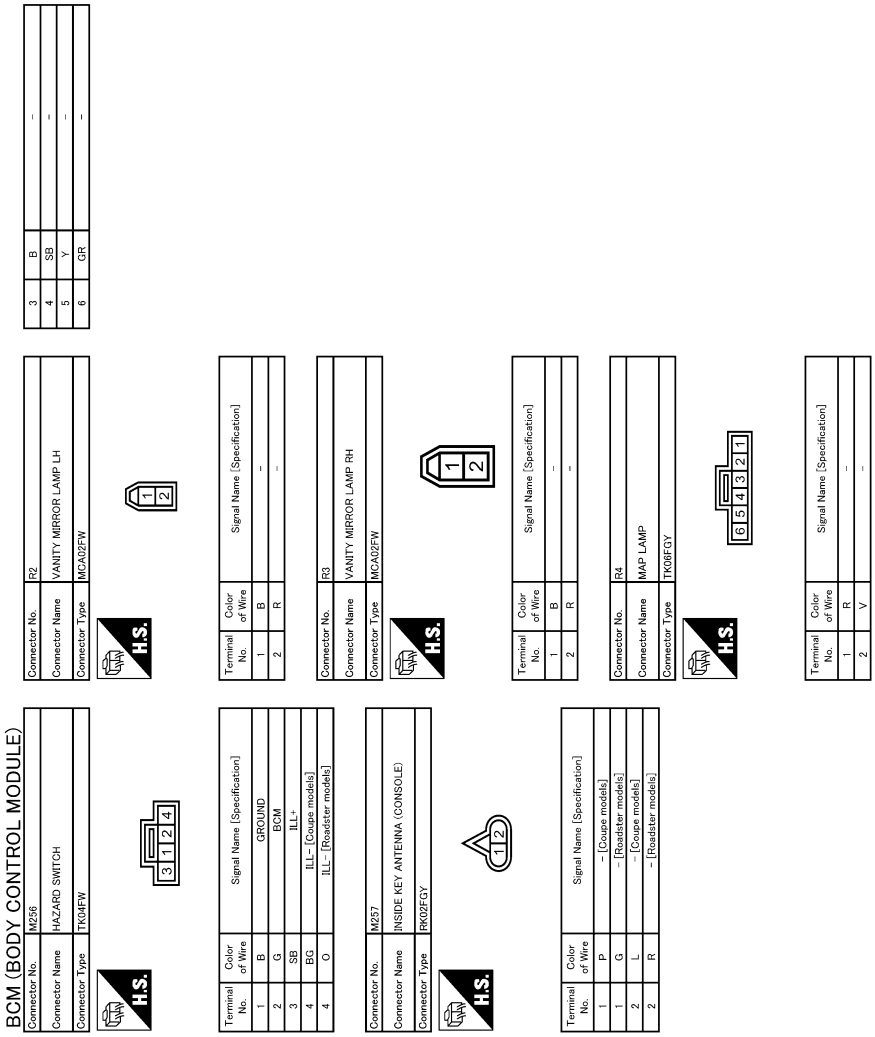
JRMWD9617GB



JRMWD9618GB



JRMWD9619GB



JRMWD9620GB

Fail-safe

INFOID:0000000009760538

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (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)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000009760539

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

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

Priority	DTC
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000009760540

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-21, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	—	BCS-50
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-51
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-52

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-46
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-49
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-50
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-52
B2195: ANTI SCANNING	×	—	—	—	SEC-53
B2553: IGNITION RELAY	—	×	—	—	PCS-51
B2555: STOP LAMP	—	×	—	—	SEC-54
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-56
B2557: VEHICLE SPEED	×	×	×	—	SEC-58
B2560: STARTER CONT RELAY	×	×	×	—	SEC-59
B2562: LOW VOLTAGE	—	×	—	—	BCS-53
B2601: SHIFT POSITION	×	×	×	—	SEC-60
B2602: SHIFT POSITION	×	×	×	—	SEC-63
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-66
B2604: PNP SW	×	×	×	—	SEC-69
B2605: PNP SW	×	×	×	—	SEC-71
B2608: STARTER RELAY	×	×	×	—	SEC-73
B260A: IGNITION RELAY	×	×	×	—	PCS-53
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-75
B2614: BCM	—	×	×	—	PCS-55
B2615: BCM	—	×	×	—	PCS-58
B2616: BCM	—	×	×	—	PCS-61
B2617: BCM	×	×	×	—	SEC-79
B2618: BCM	×	×	×	—	PCS-64
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-65
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-82
B2621: INSIDE ANTENNA	—	×	—	—	DLK-280
B2622: INSIDE ANTENNA	—	×	—	—	•DLK-84 (Coupe) •DLK-282 (Roadster)
B2623: INSIDE ANTENNA	—	×	—	—	•DLK-86 (Coupe) •DLK-284 (Roadster)
B26E8: CLUTCH SW	×	×	×	—	SEC-76
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-78
C1704: LOW PRESSURE FL	—	—	—	×	WT-23
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
C1708: [NO DATA] FL	—	—	—	×	WT-25
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-28
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-30
C1734: CONTROL UNIT	—	—	—	×	WT-32

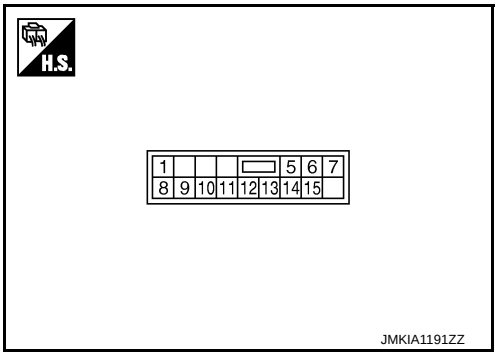
POWER WINDOW MAIN SWITCH

Reference Value

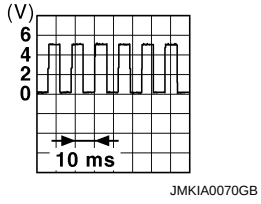
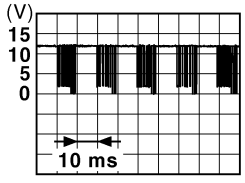
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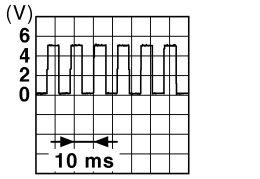
TERMINAL LAYOUT

PHYSICAL VALUES



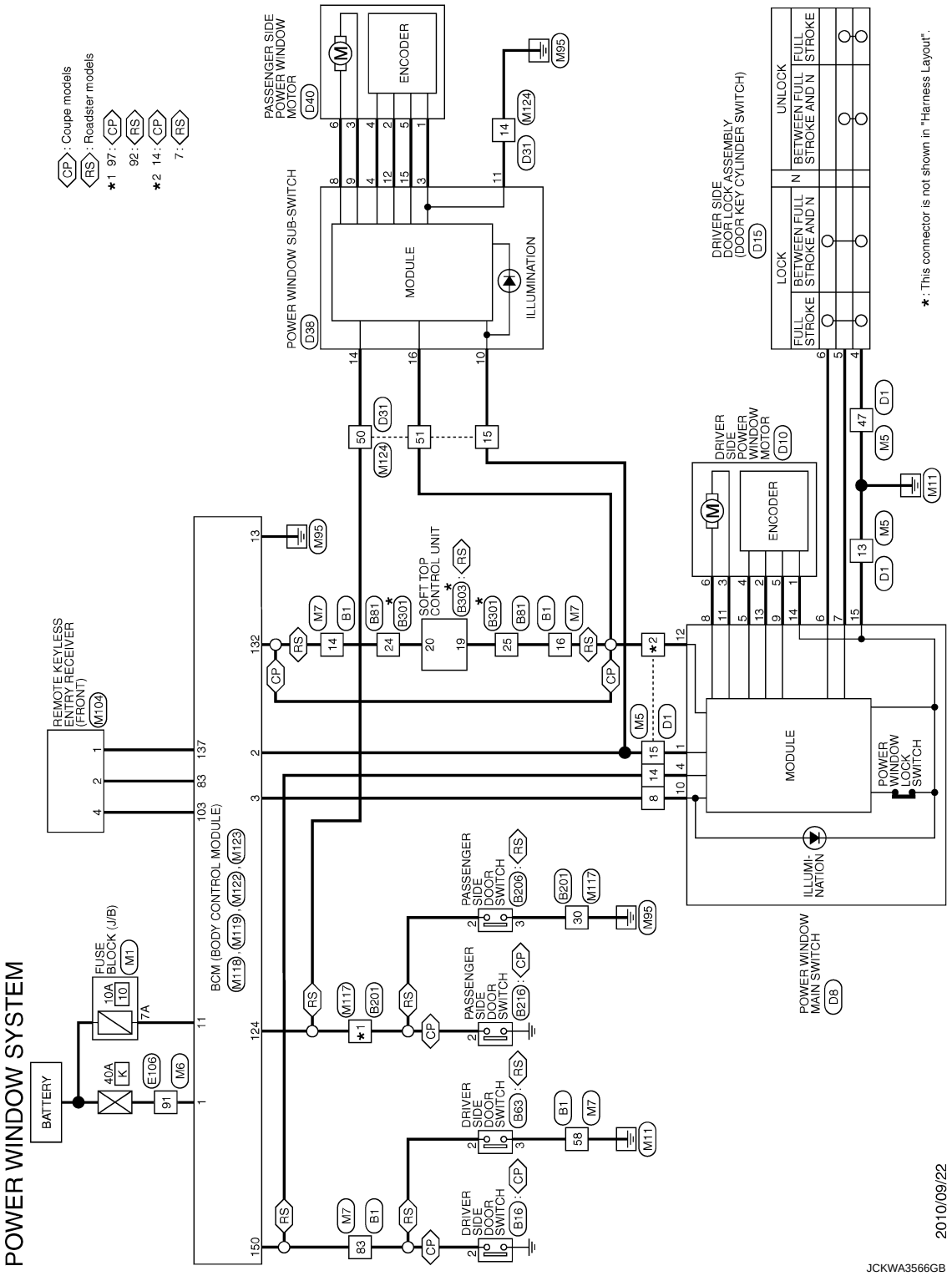
POWER WINDOW MAIN SWITCH

Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
1 (W)	Ground	Battery power supply	Input	—	12
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window adjusting operates	12
6 (GR)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral → Locked)	5 → 0
7 (V)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
8 (L)	Ground	Driver side power window motor UP signal	Output	When power window main switch (Driver side) is operated UP	12
9 (LG)	Ground	Encoder pulse signal 2	Input	When power window motor operates	 JMKIA0070GB
10 (Y)	Ground	Ignition switch power signal	Input	IGN SW ON	12
				IGN SW OFF	0
11 (BR)	Ground	Driver side power window motor DOWN signal	Output	When power window main switch (Driver side) is operated DOWN	12
12 (SB)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 JPMIA0013GB

Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
13 (R)	Ground	Encoder pulse signal 1	Input	When power window motor operates	 JMKIA0070GB
14 (G)	Ground	Encoder ground	—	—	0
15 (B)	Ground	Ground	—	—	0

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

INFOID:0000000009363467



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]
1	G	–
2	BG	–
3	Y	–
4	W	–
6	V	–
7	LG	–
8	GR	–
9	SB	–
11	Y	–
12	W	–
13	BR	–
14	LG	–
15	B	–
16	V	–
17	R	–
18	B	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	BG	–
25	L	–
26	P	– [Coupe models]
27	W	– [Roadster models]
28	SHIELD	–
31	W	–
32	B	–
33	P	– [Coupe models]
33	W	– [Roadster models]
34	R	–
35	W	– [Coupe models]
35	B	– [Roadster models]
36	B	–
40	Y	–
41	L	–
42	GR	–
43	BR	–
44	R	–

45	BG	–
46	SHIELD	– [Coupe models]
46	SB	– [Roadster models]
47	V	–
48	SHIELD	–
51	W	–
52	R	–
57	SHIELD	–
58	B	–
60	V	–
61	SB	–
62	SHIELD	–
63	BR	–
64	Y	–
65	SHIELD	–
66	P	–
67	L	–
68	SHIELD	–
69	R	–
70	G	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	BG	–
80	Y	–
81	R	–
82	B	–
83	GR	–
84	G	– [Coupe models]
84	L	– [Roadster models]
85	LG	–
86	V	–
87	BR	–
88	GR	–
93	Y	–
94	L	– [Coupe models]
94	G	– [Roadster models]
95	GR	– [Coupe models]
95	LG	– [Roadster models]
96	L	–
97	Y	–
98	W	– [Coupe models]
98	Y/B	– [Roadster models]
99	LG	–
100	B	–

Connector No.	B16
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

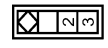
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–

Connector No.	B63
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

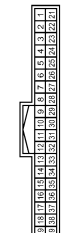
H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–
3	B	–

Connector No.	B81
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

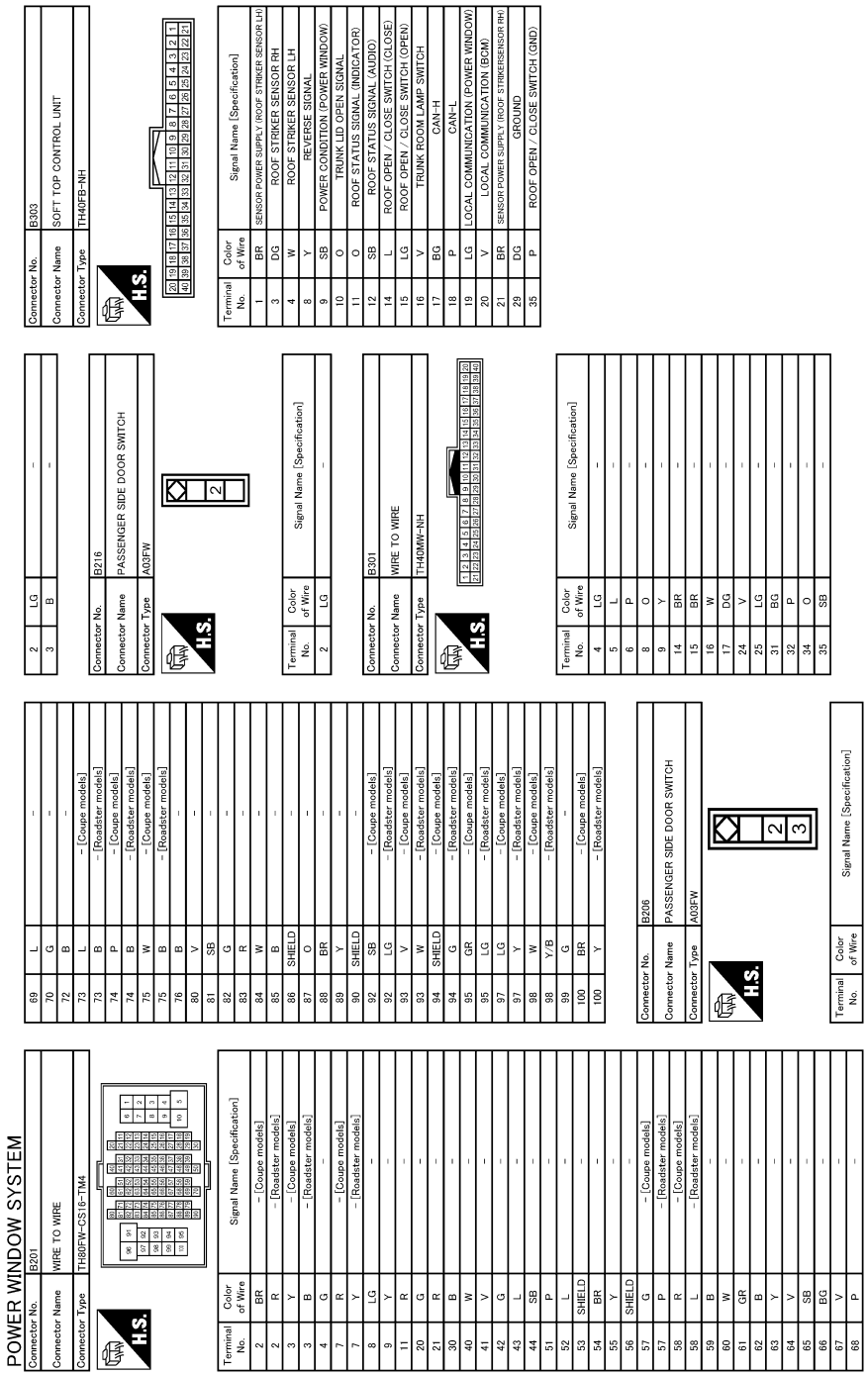
H.S.



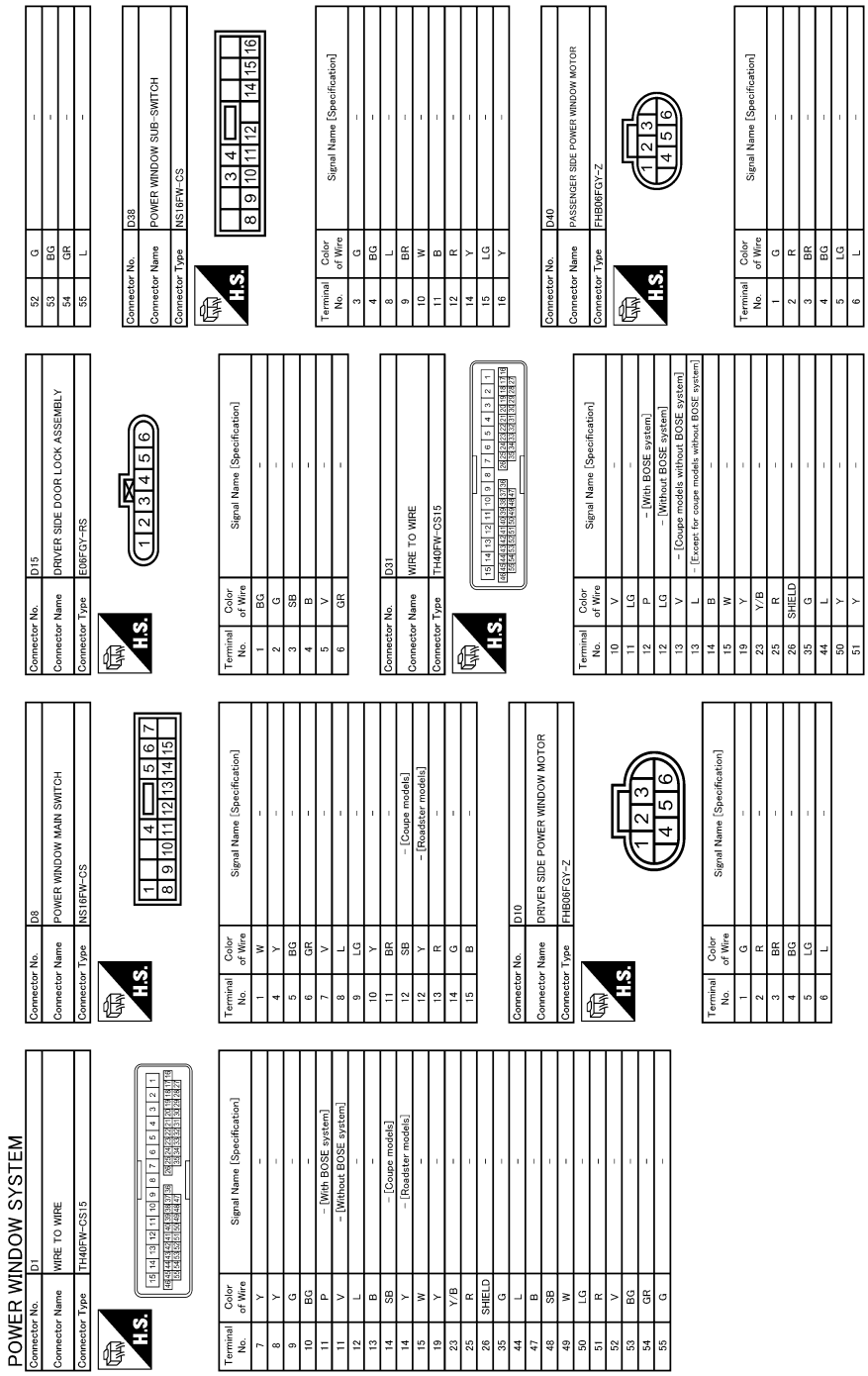
Terminal No.	Color of Wire	Signal Name [Specification]
4	W	–
5	BR	–
6	B	–

8	Y	–
9	BG	–
14	GR	–
15	SB	–
16	V	–
17	G	–
24	LG	–
25	V	–
31	L	–
32	P	–
34	BG	–
35	R	–

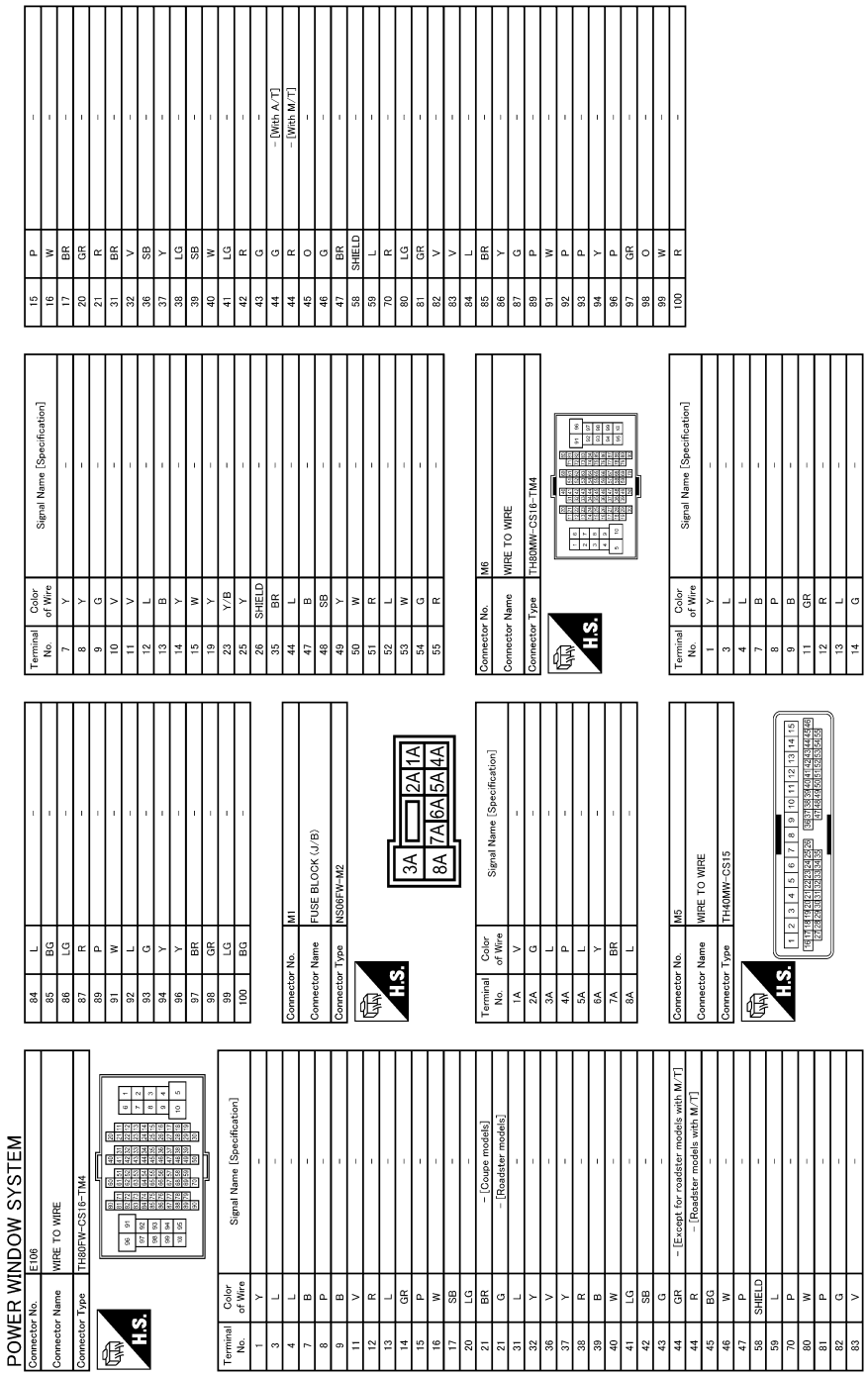
JRKWC4030GB



JRKWC4031GB



JRKWC4032GB

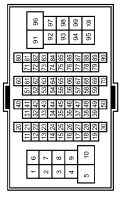


JRKWC4033GB

POWER WINDOW SYSTEM

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

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	O	–
3	LG	–
4	O	–
6	V	–
7	LG	–
8	SB	–
9	GR	–
11	Y	–
12	V	–
13	BR	–
14	V	–
15	B	–
16	V	–
17	R	–
18	L	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	R	–
25	L	–
26	P	–
27	B	–
28	SHIELD	–
31	W	–
32	B	–
33	W	–
34	R	–
35	B	–
36	L	–
40	L	–
41	R	–
42	GR	–
43	R	–
44	R	–
45	O	–
46	SHIELD	– [Coupe models]
46	G	– [Roadster models]
47	R	–
48	SHIELD	–
51	V	–
52	R	–
57	SHIELD	–
58	B	–
60	L	–
61	R	–
62	SHIELD	–
63	R	–
64	G	–
65	SHIELD	–
66	LG	–
67	V	–
68	SHIELD	–
69	L	–
70	P	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	O	–
80	Y	–
81	W	–
82	BR	–
83	GR	–
84	L	–
85	LG	–
86	V	–
87	BR	–
88	SB	–
93	Y	–
94	SB	– [Coupe models]
94	L	– [Roadster models]
95	GR	– [Coupe models]
95	W	– [Roadster models]
96	L	–
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	BG	– [Coupe models]
98	Y / B	– [Roadster models]
99	W	–
100	B	–

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (FRONT)
Connector Type	JAB04FB

H.S.



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	GROUND
2	GR	SIGNAL OUTPUT
4	LG	BATTERY

JRKWC4034GB

POWER WINDOW SYSTEM

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	– [Coupe models]
2	LG	– [Roadster models]
3	O	– [Coupe models]
3	B	– [Roadster models]
4	W	–
7	LG	– [Coupe models]
7	Y	– [Roadster models]
8	LG	–
9	Y	–
11	R	–
20	G	–
21	R	–
30	B	–
40	O	–
41	Y	–
42	G	–
43	L	–
44	SB	–
51	R	–
52	G	–
53	SHIELD	–
54	LG	–
55	V	–
56	SHIELD	–
57	G	– [Coupe models]
57	P	– [Roadster models]
58	R	– [Coupe models]
58	L	– [Roadster models]
59	B	–
60	W	–
61	GR	–
62	B	–
63	Y	–
64	L	–
65	G	–
66	O	–
67	V	–
68	P	–
69	L	–
70	L	–
72	B	–
73	B	–
74	B	–
75	B	–
76	B	–
80	L	–
81	Y	–
82	W	–
83	B	–
84	R	–
85	G	–
86	SHIELD	–
87	G	–
88	L	–
89	P	– [Coupe models]
89	Y	– [Roadster models]
90	SHIELD	–
92	G	– [Coupe models]
92	LG	– [Roadster models]
93	R	– [Coupe models]
93	V	– [Roadster models]
94	SHIELD	– [Coupe models]
94	G	– [Roadster models]
95	SB	– [Coupe models]
95	LG	– [Roadster models]
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	V	– [Coupe models]
98	Y/B	– [Roadster models]
99	G	–
100	BR	– [Coupe models]
100	Y	– [Roadster models]

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

H.S.

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

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

H.S.

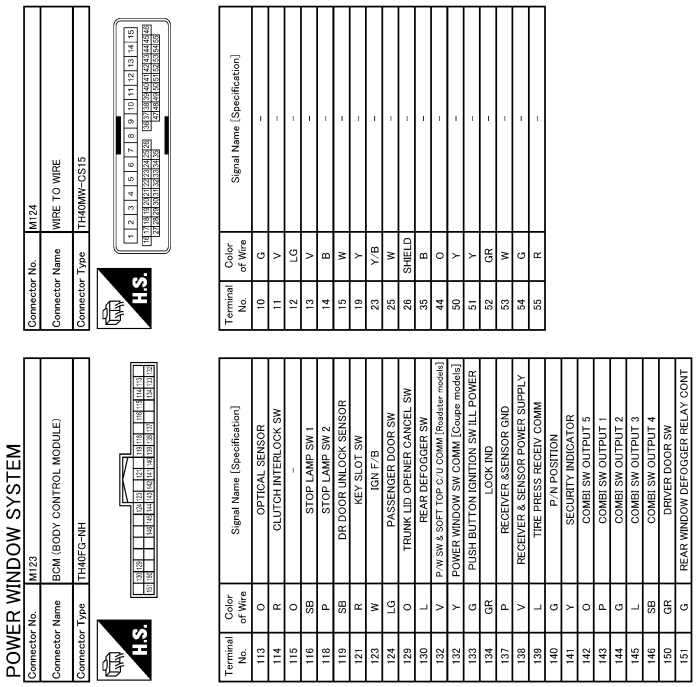
Terminal No.	Color of Wire	Signal Name [Specification]
4	R	INTERIOR ROOM LAMP POWER SUPPLY
5	G	PASSENGER DOOR UNLOCK OUTPUT
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID UNLOCK OUTPUT
11	BR	BAT (FUSE)
13	B	GROUND
14	R	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT,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

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
72	L	ROOM ANT 2–
73	P	ROOM ANT 2+
74	SB	PASSENGER DOOR ANT–
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT–
77	LG	DRIVER DOOR ANT+
78	L	ROOM ANT 1–
79	R	ROOM ANT 1+
80	GR	NATS ANT AMP.
81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	GR	KYLS ENT RECEIVER (FRONT) COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN–L
91	L	CAN–H
92	LG	KEY SLOT ILL
93	V	ON IND
95	O	ACC RELAY CONT
96	Y	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P/CLUTCH PEDAL POS SW
100	GR	PASSENGER DOOR REQUEST SW
101	Y	DRIVER DOOR REQUEST SW
102	O	BLOWER FAN MOTOR RELAY CONT
103	LG	KYLS ENT RECEIVER (FRONT) PWR SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	P	HAZARD SW

JRKWC4035GB



JRKWC4036GB

Fail-Safe

INFOID:0000000009363468

FAIL-SAFE CONTROL

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

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

In fail-safe control, the system changes to a non-initialized condition and the following functions do not operate.
- AUTO UP operation
- Anti-pinch function
- Automatic window adjusting function

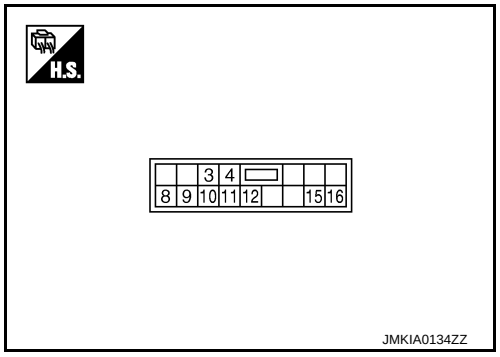
When fail-safe control is activated, perform initializing operation to recover. If a malfunction is detected in power window switch, fail-safe control is activated again.

POWER WINDOW SUB-SWITCH

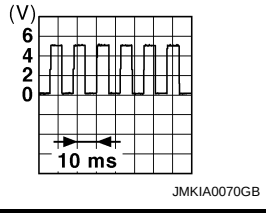
Reference Value

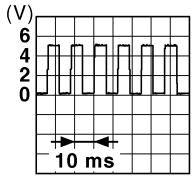
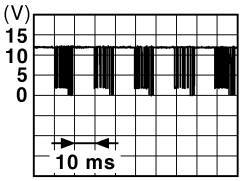
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TERMINAL LAYOUT



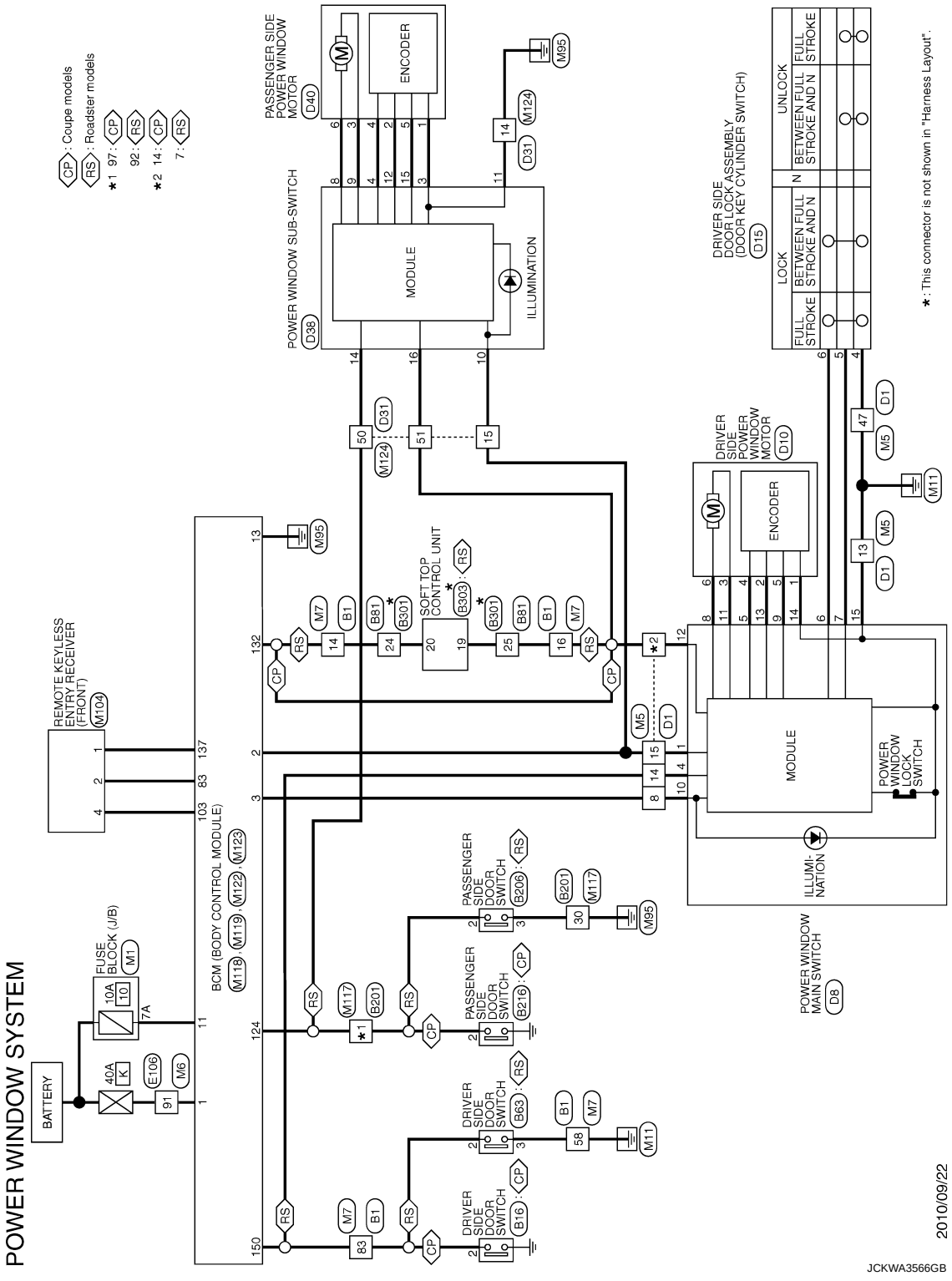
PHYSICAL VALUES

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

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

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

INFOID:0000000009697478



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]
1	G	–
2	BG	–
3	Y	–
4	W	–
6	V	–
7	LG	–
8	GR	–
9	SB	–
11	Y	–
12	W	–
13	BR	–
14	LG	–
15	B	–
16	V	–
17	R	–
18	B	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	BG	–
25	L	–
26	P	–
27	W	–
28	SHIELD	–
31	W	–
32	B	–
33	P	– [Coupe models]
33	W	– [Roadster models]
34	R	–
35	W	– [Coupe models]
35	B	– [Roadster models]
36	B	–
40	Y	–
41	L	–
42	GR	–
43	BR	–
44	R	–
45	BG	–
46	SHIELD	– [Coupe models]
46	SB	– [Roadster models]
47	V	–
48	SHIELD	–
51	W	–
52	R	–
57	SHIELD	–
58	B	–
60	V	–
61	SB	–
62	SHIELD	–
63	BR	–
64	Y	–
65	SHIELD	–
66	P	–
67	L	–
68	SHIELD	–
69	R	–
70	G	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	BG	–
80	Y	–
81	R	–
82	B	–
83	GR	–
84	G	– [Coupe models]
84	L	– [Roadster models]
85	LG	–
86	V	–
87	BR	–
88	GR	–
93	Y	–
94	L	– [Coupe models]
94	G	– [Roadster models]
95	GR	– [Coupe models]
95	LG	– [Roadster models]
96	L	–
97	Y	–
98	W	– [Coupe models]
98	Y/B	– [Roadster models]
99	LG	–
100	B	–

Connector No.	B16
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–

Connector No.	B63
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

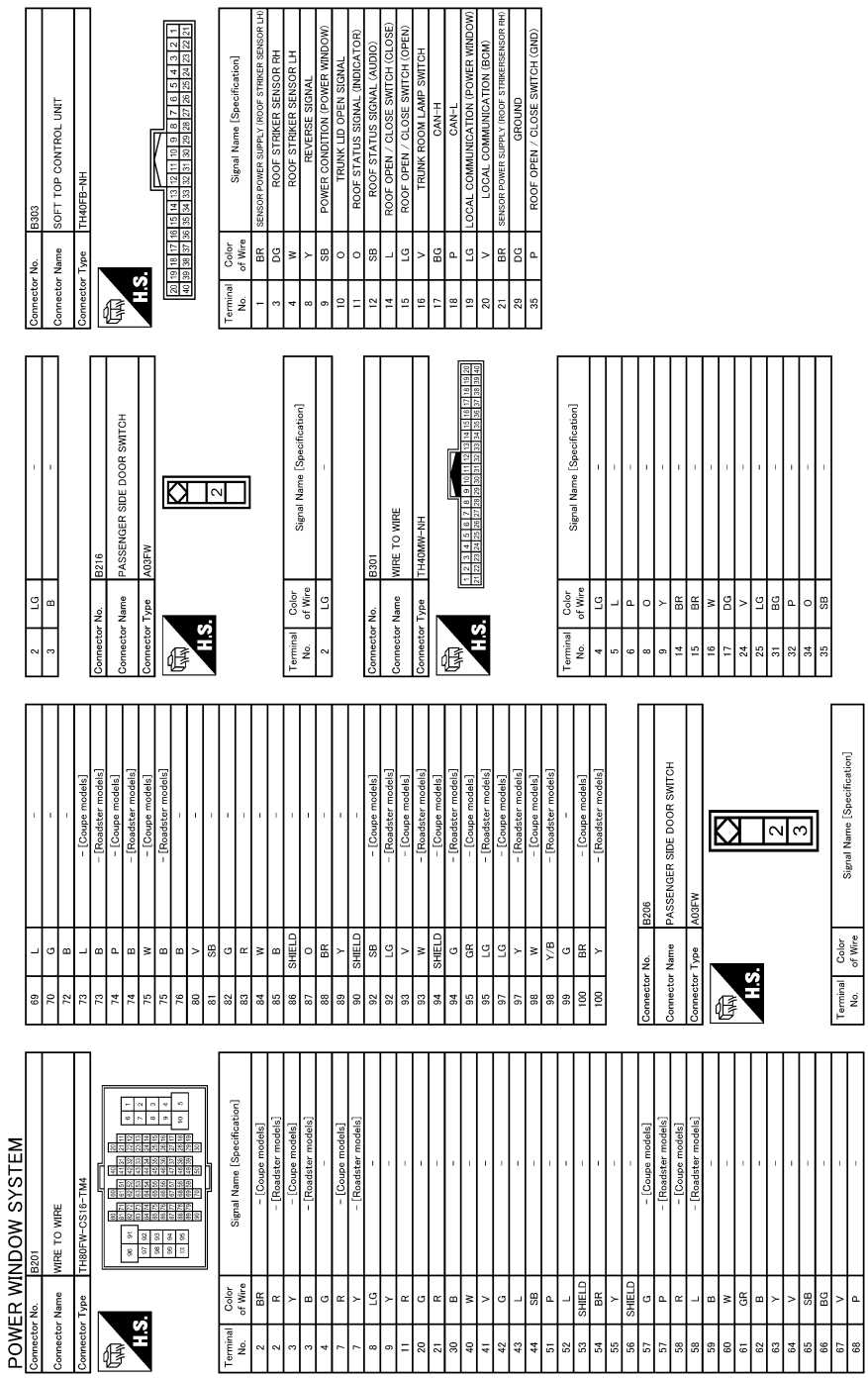
Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–
3	B	–

Connector No.	B81
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	W	–
5	BR	–
6	B	–
8	Y	–
9	BG	–
14	GR	–
15	SB	–
16	V	–
17	G	–
24	LG	–
25	V	–
31	L	–
32	P	–
34	BG	–
35	R	–

JRKWC4030GB



JRKWC4031GB

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]
7	Y	–
8	Y	–
9	G	–
10	BG	–
11	P	– [With BOSE system]
11	V	– [Without BOSE system]
12	L	–
13	B	–
14	SB	– [Coupe models]
14	Y	– [Roadster models]
15	W	–
19	Y	–
23	Y/B	–
25	R	–
26	SHIELD	–
35	G	–
44	L	–
47	B	–
48	SB	–
49	W	–
50	LG	–
51	R	–
52	V	–
53	BG	–
54	GR	–
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]
1	W	–
4	Y	–
5	BG	–
6	GR	–
7	V	–
8	L	–
9	LG	–
10	Y	–
11	BR	–
12	SB	– [Coupe models]
12	Y	– [Roadster models]
13	R	–
14	G	–
15	B	–

Connector No.	D10
Connector Name	DRIVER SIDE POWER WINDOW MOTOR
Connector Type	FHB06FGY-Z

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–
3	BR	–
4	BG	–
5	LG	–
6	L	–

Connector No.	D15
Connector Name	DRIVER SIDE DOOR LOCK ASSEMBLY
Connector Type	E06FGY-RS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BG	–
2	G	–
3	SB	–
4	B	–
5	V	–
6	GR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
10	V	–
11	LG	–
12	P	– [With BOSE system]
12	LG	– [Without BOSE system]
13	V	– [Coupe models without BOSE system]
13	L	– [Except for coupe models without BOSE system]
14	B	–
15	W	–
19	Y	–
23	Y/B	–
25	R	–
26	SHIELD	–
35	G	–
44	L	–
50	Y	–
51	Y	–

52	G	–
53	BG	–
54	GR	–
55	L	–

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

H.S.

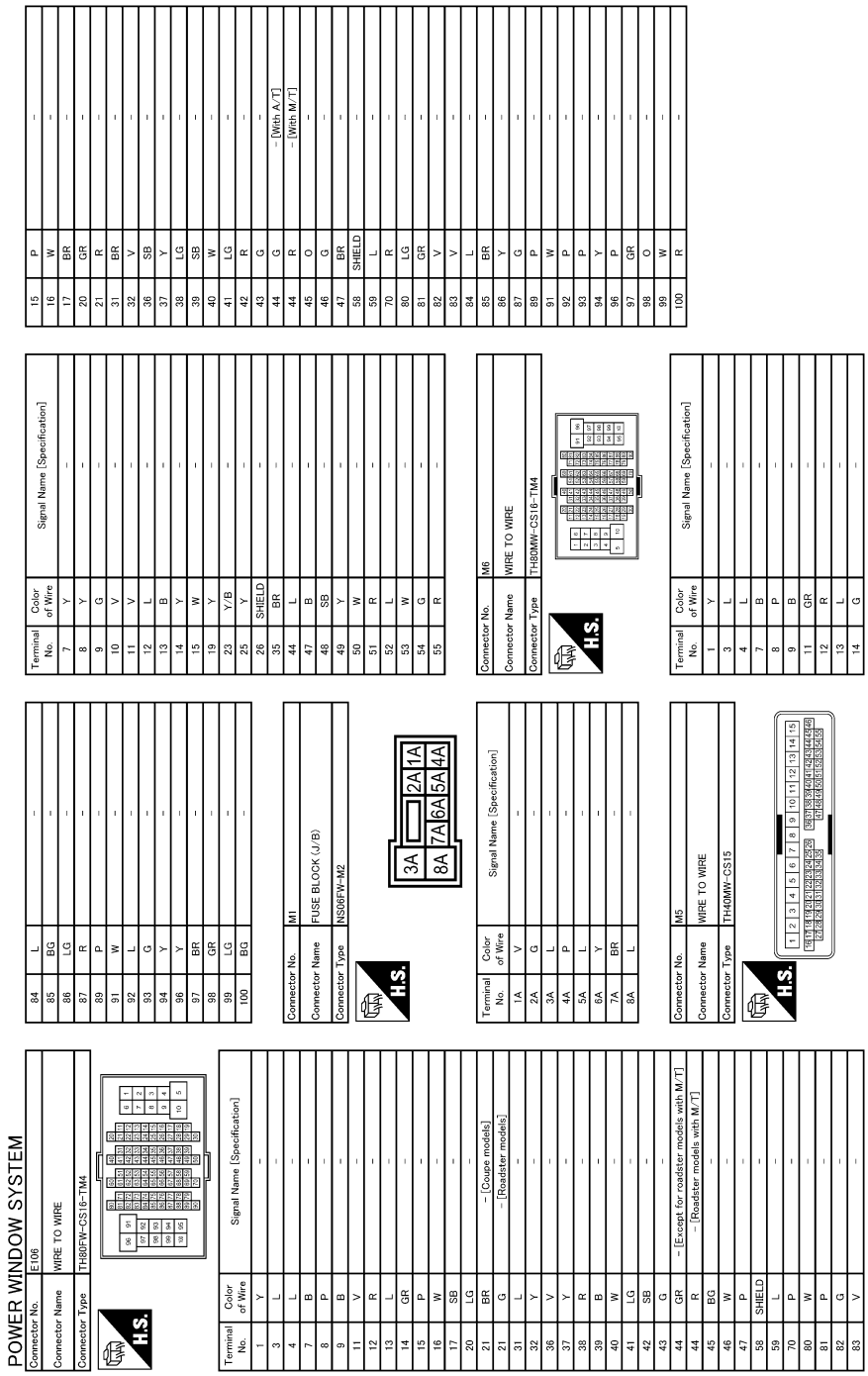
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	BG	–
8	L	–
9	BR	–
10	W	–
11	B	–
12	R	–
14	Y	–
15	LG	–
16	Y	–

Connector No.	D40
Connector Name	PASSENGER SIDE POWER WINDOW MOTOR
Connector Type	FHB06FGY-Z

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–
3	BR	–
4	BG	–
5	LG	–
6	L	–

JRKWC4032GB



JRKWC4033GB

POWER WINDOW SYSTEM

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	O	–
3	LG	–
4	O	–
6	V	–
7	LG	–
8	SB	–
9	GR	–
11	Y	–
12	V	–
13	BR	–
14	V	–
15	B	–
16	V	–
17	R	–
18	L	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	R	–
25	L	–
26	P	–
27	B	–
28	SHIELD	–
31	W	–
32	B	–
33	W	–
34	R	–
35	B	–
36	L	–
40	L	–
41	R	–
42	GR	–
43	R	–
44	R	–
45	O	–
46	SHIELD	– [Coupe models]
46	G	– [Roadster models]
47	R	–
48	SHIELD	–
51	V	–
52	R	–
57	SHIELD	–
58	B	–
60	L	–
61	R	–
62	SHIELD	–
63	R	–
64	G	–
65	SHIELD	–
66	LG	–
67	V	–
68	SHIELD	–
69	L	–
70	P	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	O	–
80	Y	–
81	W	–
82	BR	–
83	GR	–
84	L	–
85	LG	–
86	V	–
87	BR	–
88	SB	–
93	Y	–
94	SB	– [Coupe models]
94	L	– [Roadster models]
95	GR	– [Coupe models]
95	W	– [Roadster models]
96	L	–
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	BG	– [Coupe models]
98	Y/B	– [Roadster models]
99	W	–
100	B	–

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (FRONT)
Connector Type	JA804FB

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	GROUND
2	GR	SIGNAL OUTPUT
4	LG	BATTERY

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POWER WINDOW SYSTEM

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	– [Coupe models]
2	LG	– [Roadster models]
3	O	– [Coupe models]
3	B	– [Roadster models]
4	W	–
7	LG	– [Coupe models]
7	Y	– [Roadster models]
8	LG	–
9	Y	–
11	R	–
20	G	–
21	R	–
30	B	–
40	O	–
41	Y	–
42	G	–
43	L	–
44	SB	–
51	R	–
52	G	–
53	SHIELD	–
54	LG	–
55	V	–
56	SHIELD	–
57	G	– [Coupe models]
57	P	– [Roadster models]
58	R	– [Coupe models]
58	L	– [Roadster models]
59	B	–
60	W	–
61	GR	–
62	B	–
63	Y	–
64	L	–
65	G	–
66	O	–
67	V	–
68	P	–
69	L	–
70	L	–
72	B	–
73	B	–
74	B	–
75	B	–
76	B	–
80	L	–
81	Y	–
82	W	–
83	B	–
84	R	–
85	G	–
86	SHIELD	–
87	G	–
88	L	–
89	P	– [Coupe models]
89	Y	– [Roadster models]
90	SHIELD	–
92	G	– [Coupe models]
92	LG	– [Roadster models]
93	R	– [Coupe models]
93	V	– [Roadster models]
94	SHIELD	– [Coupe models]
94	G	– [Roadster models]
95	SB	– [Coupe models]
95	LG	– [Roadster models]
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	V	– [Coupe models]
98	Y/B	– [Roadster models]
99	G	–
100	BR	– [Coupe models]
100	Y	– [Roadster models]

Connector No.	M118
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	MD3FB-LC

H.S.

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

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
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID, UNLOCK OUTPUT
11	BR	BAT (FUSE)
13	B	GROUND
14	R	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT, SIDE)
18	O	TURN SIGNAL LH (FRONT, SIDE)
19	P	ROOM LAMP TIMER CONTROL

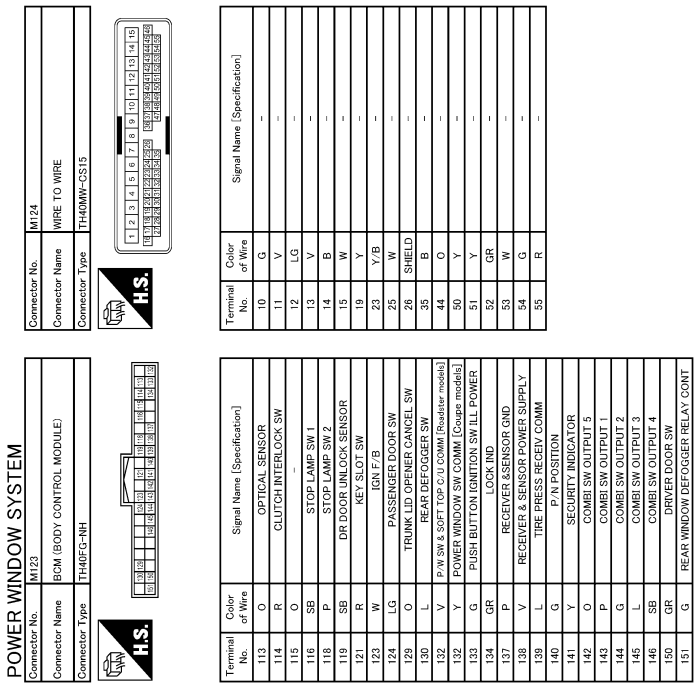
Connector No.	M122
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FB-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
72	L	ROOM ANT 2–
73	P	ROOM ANT 2+
74	SB	PASSENGER DOOR ANT–
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT–
77	LG	DRIVER DOOR ANT+
78	L	ROOM ANT 1–
79	R	ROOM ANT 1+

Terminal No.	Color of Wire	Signal Name [Specification]
80	GR	NATS ANT AMP.
81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	GR	KYLS ENT RECEIVER (FRONT) COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN–L
91	L	CAN–H
92	LG	KEY SLOT ILL
93	V	ON IND
95	O	ACC RELAY CONT
96	Y	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P/CLUTCH PEDAL POS SW
100	GR	PASSENGER DOOR REQUEST SW
101	Y	DRIVER DOOR REQUEST SW
102	O	BLOWER FAN MOTOR RELAY CONT
103	LG	KYLS ENT RECEIVER (FRONT) PWR SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	P	HAZARD SW

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Terminal No.	Color of Wire	Signal Name [Specification]
113	O	OPTICAL SENSOR
114	R	CLUTCH INTERLOCK SW
115	O	–
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	R	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
129	O	TRUNK LID OPENER CANCEL SW
130	L	REAR DEFOGGER SW
132	V	P/W SW & SOFT TOP C/U COMM [Roadster models]
132	Y	POWER WINDOW SW COMM [Coupe models]
133	G	PUSH BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	P	RECEIVER &SENSOR GND
138	V	RECEIVER & SENSOR POWER SUPPLY
139	L	TIRE PRESS RECEIV COMM
140	G	P/N POSITION
141	Y	SECURITY INDICATOR
142	O	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

Terminal No.	Color of Wire	Signal Name [Specification]
10	G	–
11	V	–
12	LG	–
13	V	–
14	B	–
15	W	–
19	Y	–
23	Y/B	–
25	W	–
26	SHIELD	–
35	B	–
44	O	–
50	Y	–
51	Y	–
52	GR	–
53	W	–
54	G	–
55	R	–

JRKWC4036GB

Fail-Safe

INFOID:0000000009697479

FAIL-SAFE CONTROL

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

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

In fail-safe control, the system changes to a non-initialized condition and the following functions do not operate.
- AUTO UP operation
- Anti-pinch function
- Automatic window adjusting function

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

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Description

INFOID:0000000009363472

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

Diagnosis Procedure

INFOID:0000000009363473

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to PWC-17, "BCM : Diagnosis Procedure".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Description

INFOID:0000000009363474

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

Diagnosis Procedure

INFOID:0000000009363475

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

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

Is the inspection result normal?

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

2.CHECK DRIVER SIDE POWER WINDOW MOTOR

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

Is the measurement value within the specification?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Description

INFOID:0000000009363476

Passenger side power window operates using power window sub-switch but does not operate using power window main switch.

WHEN POWER WINDOW MAIN SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000009363477

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

Check power window sub-switch power supply and ground circuit.
Refer to PWC-18, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK POWER WINDOW SUB-SWITCH SERIAL LINK CIRCUIT

Check power window sub-switch serial link circuit.
Refer to PWC-30, "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 result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

WHEN POWER WINDOW SUB-SWITCH IS OPERATED

WHEN POWER WINDOW SUB-SWITCH IS OPERATED : Description

INFOID:0000000009363478

Passenger side power window operates using power window main switch but not using power window sub-switch.

WHEN POWER WINDOW SUB-SWITCH IS OPERATED : Diagnosis Procedure

INFOID:0000000009363479

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

Check power window sub-switch power supply and ground circuit.
Refer to PWC-18, "POWER WINDOW SUB-SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "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 : Description

INFOID:0000000009363480

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

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

INFOID:0000000009363481

1.CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.
Refer to PWC-21, "PASSENGER SIDE : Component Function Check".

Is the measurement value within the specification?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363482

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

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363483

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-103, "DRIVER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363484

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

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363485

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-103, "PASSENGER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363486

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.
Refer to PWC-24, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363487

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2. CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.
Refer to PWC-26, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Description

INFOID:0000000009363488

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

Diagnosis Procedure

INFOID:0000000009363489

1.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-88, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Description

INFOID:0000000009363490

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

Diagnosis Procedure

INFOID:0000000009363491

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

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

Check driver side door lock assembly (door key cylinder switch).
Refer to DLK-99, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Description

INFOID:0000000009363492

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

Diagnosis Procedure

INFOID:0000000009363493

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.
NO >> Refer to DLK-132, "Diagnosis Procedure".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

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

YES >> GO TO 3.
NO >> Refer to DLK-132, "Diagnosis Procedure".

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

Check “PW DOWN SET” setting in “WORK SUPPORT”.
Refer to DLK-42, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Coupe)".

Is the inspection result normal?

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000009363494

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

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

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363495

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

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

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363496

1. REPLACE POWER WINDOW SUB-SWITCH

Replace power window sub-switch.

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

AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363497

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-103, "DRIVER SIDE : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-88, "Component Function Check".

Is the inspection result normal?

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

3.CHECK POWER WINDOW SERIAL LINK (POWER WINDOW MAIN SWITCH)

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

Is the result normal?

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363498

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-7, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-88, "Component Function Check".

Is the inspection result normal?

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

3.CHECK POWER WINDOW SERIAL LINK (POWER WINDOW SUB-SWITCH)

Check power window serial link (power window sub-switch)
Refer to PWC-30, "POWER WINDOW SUB-SWITCH : Component Function Check"

Is the result normal?

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PRECAUTION

PRECAUTIONS

FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000009363499

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

FOR USA AND CANADA : Service

INFOID:0000000009363500

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect battery negative terminal, and wait at least 3 minutes or more.
  For approximately 3 minutes after the battery negative terminal is removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until 3 minutes or more elapse.
- Diagnosis sensor unit must always be installed with their arrow marks “⇐” pointing towards the front of the vehicle for normal operation. Also check diagnosis sensor unit for cracks, deformities, or rust before installation and replace if necessary.
- The spiral cable must be aligned in the neutral position since its rotations are limited. Do not turn steering wheel and column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Perform self-diagnosis to check entire SRS for normal function after replacing any components.
- After air bag inflates, the front instrument panel assembly must be replaced if damaged.
- Always replace instrument panel pad following front passenger air bag deployment.

FOR USA AND CANADA : Precaution for Battery Service

INFOID:0000000009363501

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

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

FOR MEXICO

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

INFOID:0000000009363502

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

FOR MEXICO : Service

INFOID:0000000009363503

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect battery negative terminal, and wait at least 3 minutes or more.
  For approximately 3 minutes after the battery negative terminal is removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until 3 minutes or more elapse.
- Diagnosis sensor unit must always be installed with their arrow marks “⇐” pointing towards the front of the vehicle for normal operation. Also check diagnosis sensor unit for cracks, deformities, or rust before installation and replace if necessary.
- The spiral cable must be aligned in the neutral position since its rotations are limited. Do not turn steering wheel and column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Perform self-diagnosis to check entire SRS for normal function after replacing any components.
- After air bag inflates, the front instrument panel assembly must be replaced if damaged.
- Always replace instrument panel pad following front passenger air bag deployment.

FOR MEXICO : Precaution for Battery Service

INFOID:0000000009363504

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.

REMOVAL AND INSTALLATION

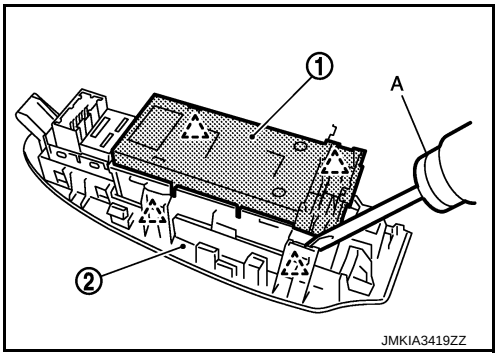
POWER WINDOW MAIN SWITCH

Removal and Installation

INFOID:0000000009363505

REMOVAL

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



: Pawl

CAUTION:
Never fold the pawl of power window main switch finisher.
NOTE:
The same procedure is also performed for power window sub-switch.

INSTALLATION

Install in the reverse order of removal.
NOTE:
Power window main switch is replaced or is removed it is necessary to do the initialization procedure.
Refer to PWC-8, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

WorkFlow

INFOID:0000000009363506

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.CHECK FOR DTC

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

Is any symptom described and any DTC detected?

Symptom is described, DTC is displayed>>SRC-356, "DTC Index".
Symptom is described, DTC is not displayed>>GO TO 3.

3.REPRODUCE THE MALFUNCTION INFORMATION

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

>> GO TO 4.

4.IDENTIFY THE MALFUNCTIONING SYSTEM WITH “SYMPTOM DIAGNOSIS”

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

>> GO TO 5.

5.IDENTIFY THE MALFUNCTIONING PARTS WITH “COMPONENT DIAGNOSIS”

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

>> GO TO 6.

6.REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 7.

7.FINAL CHECK

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

Are the malfunctions corrected?

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

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

INFOID:0000000009363507

Initial setting is necessary when battery terminal is removed.

CAUTION:

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

- **Auto-up operation**
- **Anti-pinch function**
- **Automatic window adjusting function**
- **Key cylinder switch power window function**
- **Power window UP operation while door is open**

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement

INFOID:0000000009363508

INITIALIZATION PROCEDURE

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

CAUTION:

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

CHECK ANTI-PINCH FUNCTION

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

- Check that glass lowers for approximately 150 mm (5.9in) without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

- **Do not check with hands and other part of body because they may be pinched. Do not get pinched.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be performed.**

1. **Auto-up operation**
2. **Anti-pinch function**
3. **Automatic window adjusting function**
4. **Key cylinder switch power window function**
5. **Power window UP operation while door is open**

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Description

INFOID:0000000009363509

Initial setting is necessary when replacing power window main switch.

CAUTION:

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

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

- **Power window UP operation while door is open**

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement

INFOID:0000000009363510

INITIALIZATION PROCEDURE

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

CAUTION:

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

CHECK ANTI-PINCH FUNCTION

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

- Check that glass lowers for approximately 150 mm (5.9in) without pinching piece of wood and stops.
- Check that glass does not rise when operating the power window main switch while lowering.

CAUTION:

- **Do not check with hands and other part of body because they may be pinched. Do not get pinched.**
- **Check that AUTO-UP operates before inspection when system initialization is performed.**
- **Perform initial setting when auto-up operation or anti-pinch function does not operate normally.**
- **Finish initial setting. Otherwise, next operation cannot be performed.**

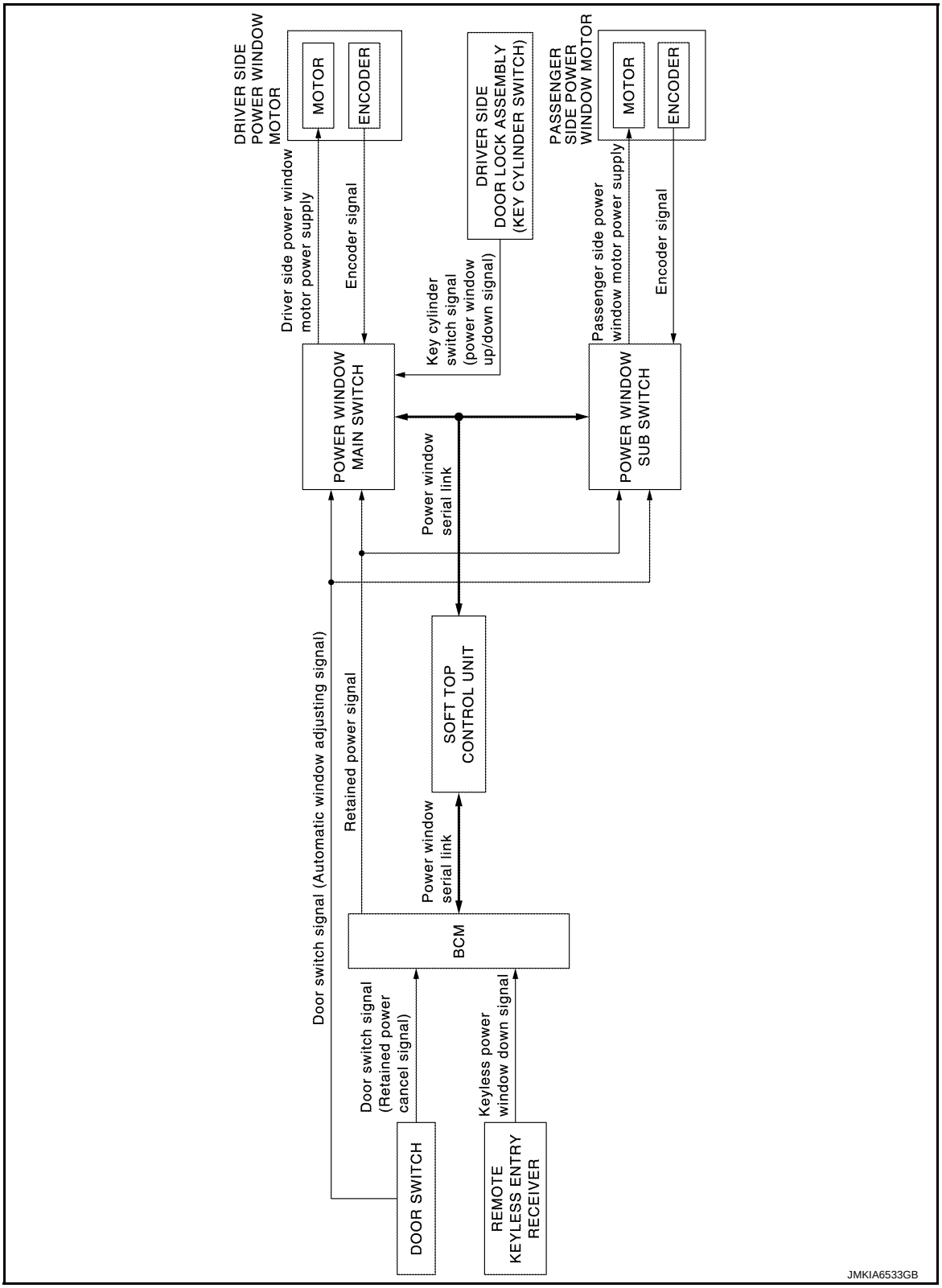
1. **Auto-up operation**
2. **Anti-pinch function**
3. **Automatic window adjusting function**
4. **Key cylinder switch power window function**
5. **Power window UP operation while door is open**

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000009363511



System Description

INFOID:0000000009363512

POWER WINDOW SYSTEM

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

POWER WINDOW AUTO-OPERATION

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

POWER WINDOW SERIAL LINK

Power window main switch, power window sub-switch, soft top control unit, and BCM transmit and receive the signal by power window serial link.
The under mentioned signal is transmitted from BCM to soft top control unit.

- Keyless power window down signal

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

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

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

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

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

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

RETAINED POWER OPERATION

Retained power operation is an additional power supply function that enables power window system to operate for 45 seconds after ignition switch turns OFF.
RETAINED POWER FUNCTION CANCEL CONDITIONS

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

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH FUNCTION

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

- Encoder continues detecting the movement of power window motor and transmits to power window switch as the encoder pulse signal while power window motor is operating.
- Resistance is applied to the power window motor rotation that changes the frequency of encoder pulse signal if foreign material is trapped in the door glass.
- Power window switch controls to lower the door glass for 150 mm (5.9in) after it detects encoder pulse signal frequency change.

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

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

AUTOMATIC WINDOW ADJUSTING FUNCTION

When the driver/passenger door(s) is open, the window of the opened door is lowered approximately 10 mm (0.39 in).
When the door is closed, the window is raised to the fully closed position.
Automatic window adjusting function system (opening operation) does not operate when the following item occurs.
The window is 10 mm (0.39 in) or more open from the fully closed position.

DOOR KEY CYLINDER SWITCH POWER WINDOW FUNCTION

Hold the door key cylinder to the LOCK or UNLOCK position for 1 second or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, the windows stop the operation when the key position is NEUTRAL when operating.
OPERATION CONDITION
- Ignition switch OFF.
- Hold door key cylinder to the LOCK position for 1 second or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to the UNLOCK position for 1 second or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

All power windows open when the unlock button on Intelligent Key is activated and pressed and held for more than 3* seconds with the ignition switch OFF. The windows keep opening if the unlock button is continuously pressed.
The power window opening function stops when the following operations are performed.
- When the ignition switch is turned ON while the power window opening is operated.
- When the unlock button is released.

While retained power operation activates, keyless power window down function cannot be operated.
Keyless power window down operation mode can be changed by “PW DOWN SET” mode in “WORK SUPPORT”. Refer to DLK-234, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Roadster)".

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

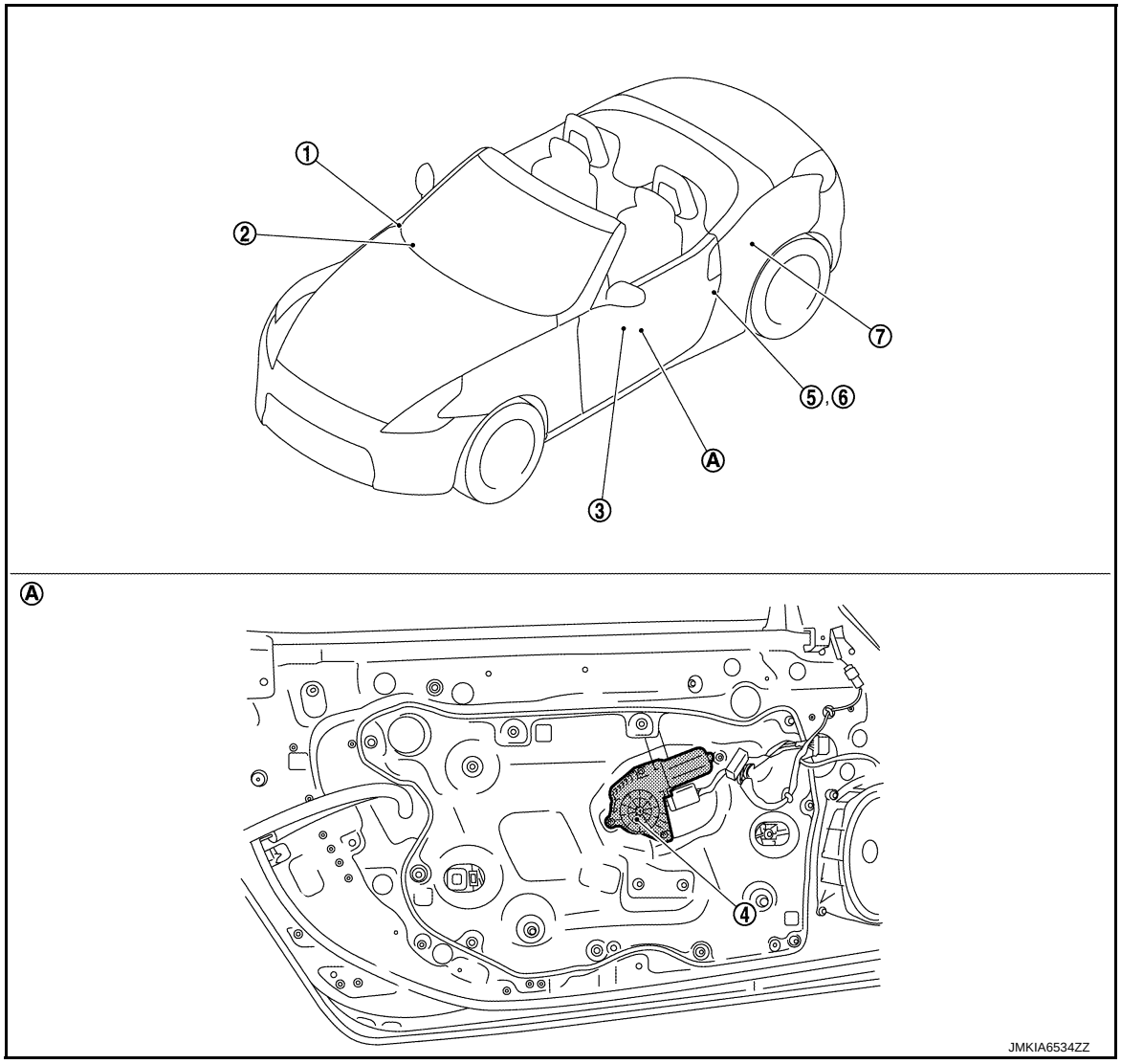
POWER CONSUMPTION CONTROL SYSTEM

Power window switch incorporates a power consumption control function that reduces the power consumption according to the vehicle status.
LOW POWER CONSUMPTION MODE
- Ignition switch OFF.
- Power window main switch and power window sub-switch do not receive a signal from serial link.
- Power window motor does not move.

If any of the following conditions are satisfied, the low power consumption mode is released.
- Ignition switch ON.
- When door key cylinder switch signal is received.
- When the signal is received from serial link.
- When door open/close signal is received.
- When power window switch door lock is operated.

Component Parts Location

INFOID:0000000009363513



1. BCM
   BCS-11, "Component Parts Location"
2. Remote keyless entry receiver
   DLK-208, "DOOR LOCK : Component Parts Location"
3. Power window main switch
4. Driver side power window motor
5. Driver side door lock assembly (door key cylinder switch)
6. Driver side door switch
7. Soft top control unit
   BCS-11, "Component Parts Location"

A. View with door finisher removed

Component Description

INFOID:0000000009363514

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

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

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000009735323

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 • Engine start system	INTELLIGENT KEY	×	×	×
Combination switch	COMB SW		×	
Body control system	BCM	×		
NVIS - NATS	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Back door/Trunk lid open	TRUNK		×	×
Vehicle security system	THEFT ALM	×	×	×
RAP system	RETAINED PWR		×	
Signal buffer system	SIGNAL BUFFER		×	×
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×

NOTE:

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

FREEZE FRAME DATA (FFD)

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

CONSULT screen item	Indication/Unit	Description	
Vehicle Speed	km/h	Vehicle speed of the moment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odometer value) of the moment a particular DTC is detected	
Vehicle Condition	SLEEP>LOCK	Power supply position status of the moment a particular DTC is detected	While turning BCM status from low power consumption mode to normal mode (Power supply position is “LOCK”*)
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is “OFF”.)
	LOCK>ACC		While turning power supply position from “LOCK”* to “ACC”
	ACC>ON		While turning power supply position from “ACC” to “IGN”
	RUN>ACC		While turning power supply position from “RUN” to “ACC” (Except emergency stop operation)
	CRANK>RUN		While turning power supply position from “CRANKING” to “RUN” (From cranking up the engine to run it)
	RUN>URGENT		While turning power supply position from “RUN“ to “ACC” (Emergency stop operation)
	ACC>OFF		While turning power supply position from “ACC” to “OFF”
	OFF>LOCK		While turning power supply position from “OFF” to “LOCK”*
	OFF>ACC		While turning power supply position from “OFF” to “ACC”
	ON>CRANK		While turning power supply position from “IGN” to “CRANKING”
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is “OFF”.) to low power consumption mode
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is “LOCK”*.) to low power consumption mode
	LOCK		Power supply position is “LOCK”*
	OFF		Power supply position is “OFF” (Ignition switch OFF)
	ACC		Power supply position is “ACC” (Ignition switch ACC)
	ON		Power supply position is “IGN” (Ignition switch ON with engine stopped)
	ENGINE RUN		Power supply position is “RUN” (Ignition switch ON with engine running)
	CRANKING		Power supply position is “CRANKING” (At engine cranking)
IGN Counter	0 - 39	The number of times that ignition switch is turned ON after DTC is detected • The number is 0 when a malfunction is detected now. • The number increases like 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. • The number is fixed to 39 until the self-diagnosis results are erased if it is over 39.	

NOTE:
*: Power supply position shifts to “LOCK” from “OFF”, when ignition switch is in the OFF position, selector lever is in the P position (A/T models), and any of the following conditions are met.
- Closing door
- Opening door
- Door is locked using door request switch
- Door is locked using Intelligent Key

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

RETAINED PWR

RETAINED PWR : CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000009735324

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:0000000009363517

1.CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value normal?

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

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M119	13		Existed

Does continuity exist?

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

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH : Diagnosis Procedure

INFOID:0000000009363518

1.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value within the specification?

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

2.CHECK HARNESS CONTINUTY

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

BCM		Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	
M118	2	D8	1	Existed
	3		10	

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed
	3		

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	15		Existed

Is the inspection result normal?

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

POWER WINDOW SUB-SWITCH

POWER WINDOW SUB-SWITCH : Diagnosis Procedure

INFOID:0000000009363519

1.CHECK POWER SUPPLY CIRCUIT

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

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

Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUTY

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

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

4. Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-106, "Exploded View".
NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

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

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

Is the inspection result normal?

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

POWER WINDOW MOTOR
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363520

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

DRIVER SIDE : Component Function Check

INFOID:0000000009363521

1.CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Driver side power window motor is OK.
NO >> Refer to PWC-128, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363522

1.CHECK DRIVER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

(+)		(–)	Condition		Voltage (V) (Approx.)
Driver side power window motor					
Connector	Terminal				
D10	6	Ground	Power window main switch	UP	12
				DOWN	0
	3			UP	0
				DOWN	12

Is the measurement value within the specification?

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

2.CHECK POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-129, "DRIVER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace driver side power window motor. Refer to GW-22, "Removal and Installation".

3.CHECK HARNESS CONTINUTY

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

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

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE : Component Inspection

INFOID:0000000009363523

COMPONENT INSPECTION

1. CHECK DRIVER SIDE POWER WINDOW MOTOR

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

Driver side power window motor connector	Terminal		Motor operation
	(+)	(–)	
D10	3	6	DOWN
	6	3	UP

Is the inspection result normal?

YES >> Driver side power window motor is OK.
NO >> Replace driver side power window motor. Refer to GW-22, "Removal and Installation".

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363524

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

PASSENGER SIDE : Component Function Check

INFOID:0000000009363525

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Passenger side power window motor is OK.
NO >> Refer to PWC-129, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363526

1. CHECK PASSENGER SIDE POWER WINDOW MOTOR INPUT SIGNAL

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

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

Is the measurement value within the specification?

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

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR

Check passenger side power window motor.
Refer to PWC-130, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.
NO >> Replace passenger side power window motor. Refer to GW-22, "Removal and Installation".

3.CHECK HARNESS CONTINUTY

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

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

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

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

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

INFOID:0000000009363527

COMPONENT INSPECTION

1.CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

Passenger side power window motor connector	Terminal		Motor condition
	(+)	(–)	
D40	3	6	DOWN
	6	3	UP

Is the inspection result normal?

YES >> Passenger side power window motor is OK.
NO >> Replace passenger side power window motor. Refer to GW-22, "Removal and Installation".

ENCODER
DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363528

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

DRIVER SIDE : Component Function Check

INFOID:0000000009363529

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-132, "DRIVER SIDE : Diagnosis Procedure".

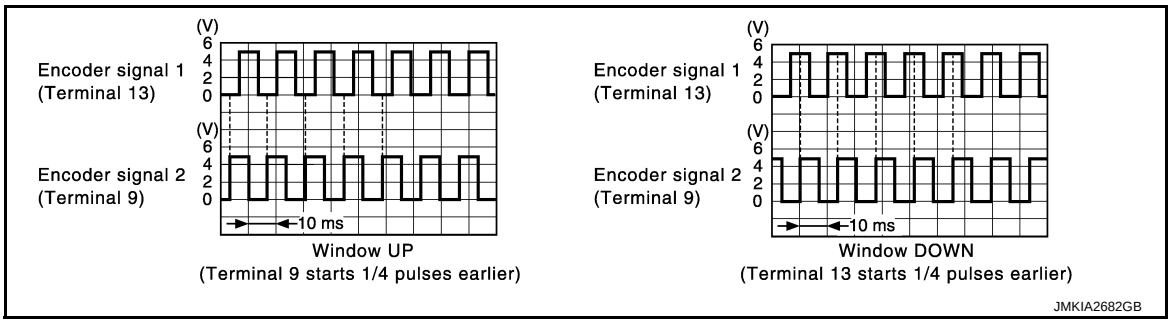
DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363530

1.CHECK ENCODER OPERATION

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

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



Is the inspection result normal?

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

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

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

3. CHECK ENCODER POWER SUPPLY CIRCUIT

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

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

Is the measurement value within the specification?

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

4. CHECK HARNESS CONTINUTY

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

Power window main switch		Driver side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D8	5	D10	4	Existed

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

5. 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 driver side power window motor harness connector.

Power window main switch		Driver side power window motor		Continuity
Connector	Terminal	Connector	Terminal	
D8	14	D10	1	Existed

Is the inspection result normal?

YES >> Replace driver side power window motor. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363531

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

PASSENGER SIDE : Component Function Check

INFOID:0000000009363532

1.CHECK ENCODER OPERATION

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

Is the inspection result normal?

YES >> Encoder operation is OK.
NO >> Refer to PWC-134, "PASSENGER SIDE : Diagnosis Procedure".

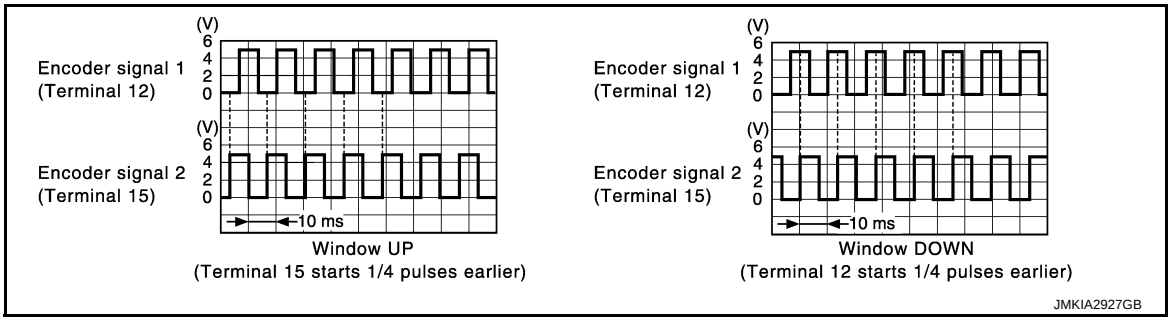
PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363533

1.CHECK ENCODER SIGNAL

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

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



Is the inspection result normal?

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

2.CHECK ENCODER SIGNAL CIRCUIT

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

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

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

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

Is the inspection result normal?

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

3. CHECK ENCODER POWER SUPPLY CIRCUIT

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

(+)		(–)	Voltage (V) (Approx.)
Passenger side power window motor			
Connector	Terminal		
D40	4	Ground	12

Is the measurement value within the specification?

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

4. CHECK HARNESS CONTINUTY

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

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

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

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

Is the inspection result normal?

YES >> Replace power window sub-switch. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

5. 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 passenger side power window motor harness connector.

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

Is the inspection result normal?

YES >> Replace passenger side power window motor. Refer to PWC-229, "Removal and Installation".
NO >> Repair or replace harness.

DOOR SWITCH CIRCUIT
DRIVER SIDE
DRIVER SIDE : Description

INFOID:0000000009363534

Detects door open/closed condition.

DRIVER SIDE : Component Function Check

INFOID:0000000009363535

1.CHECK FUNCTION

Check automatic window adjusting function.

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-136, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363536

1.CHECK DOOR SWITCH

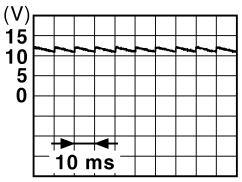
Check door switch. Refer to DLK-286, "Component Function Check".

Is the inspection result normal?

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

2.CHECK DOOR SWITCH INPUT SIGNAL

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

(+)		(–)	Voltage (V) (Approx.)
Driver side power window main switch			
Connector	Terminal		
D8	4	Ground	

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Is the inspection result normal?

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

3.CHECK DOOR SWITCH CIRCUIT

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

Power window main switch		Driver side door switch		Continuity
Connector	Terminal	Connector	Terminal	
D8	4	B63	2	Existed

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

Power window main switch		Ground	Continuity
Connector	Terminal		
D8	4		Not existed

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363537

Detects door open/closed condition.

PASSENGER SIDE : Component Function Check

INFOID:0000000009363538

1. CHECK FUNCTION

Check automatic window adjusting function.

Is the inspection result normal?

YES >> Door switch is OK.
NO >> Refer to PWC-137, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363539

1. CHECK DOOR SWITCH

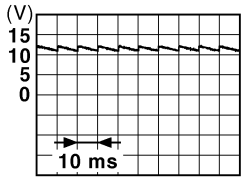
Check door switch. Refer to DLK-286, "Component Function Check".

Is the inspection result normal?

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

2. CHECK DOOR SWITCH INPUT SIGNAL

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

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

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Is the inspection result normal?

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

3. CHECK DOOR SWITCH CIRCUIT

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

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

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

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

Is the inspection result normal?

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

4. CHECK INTERMITTENT INCIDENT

Refer to GI-45, "Intermittent Incident".

>> INSPECTION END

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:0000000009760541

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
FR FOG SW	**NOTE:** The item is indicated, but not monitored.	Off
RR FOG SW	Rear fog lamp switch OFF	Off
	Rear fog lamp switch ON	On
DOOR SW-DR	Driver door closed	Off
	Driver door opened	On
DOOR SW-AS	Passenger door closed	Off
	Passenger door opened	On

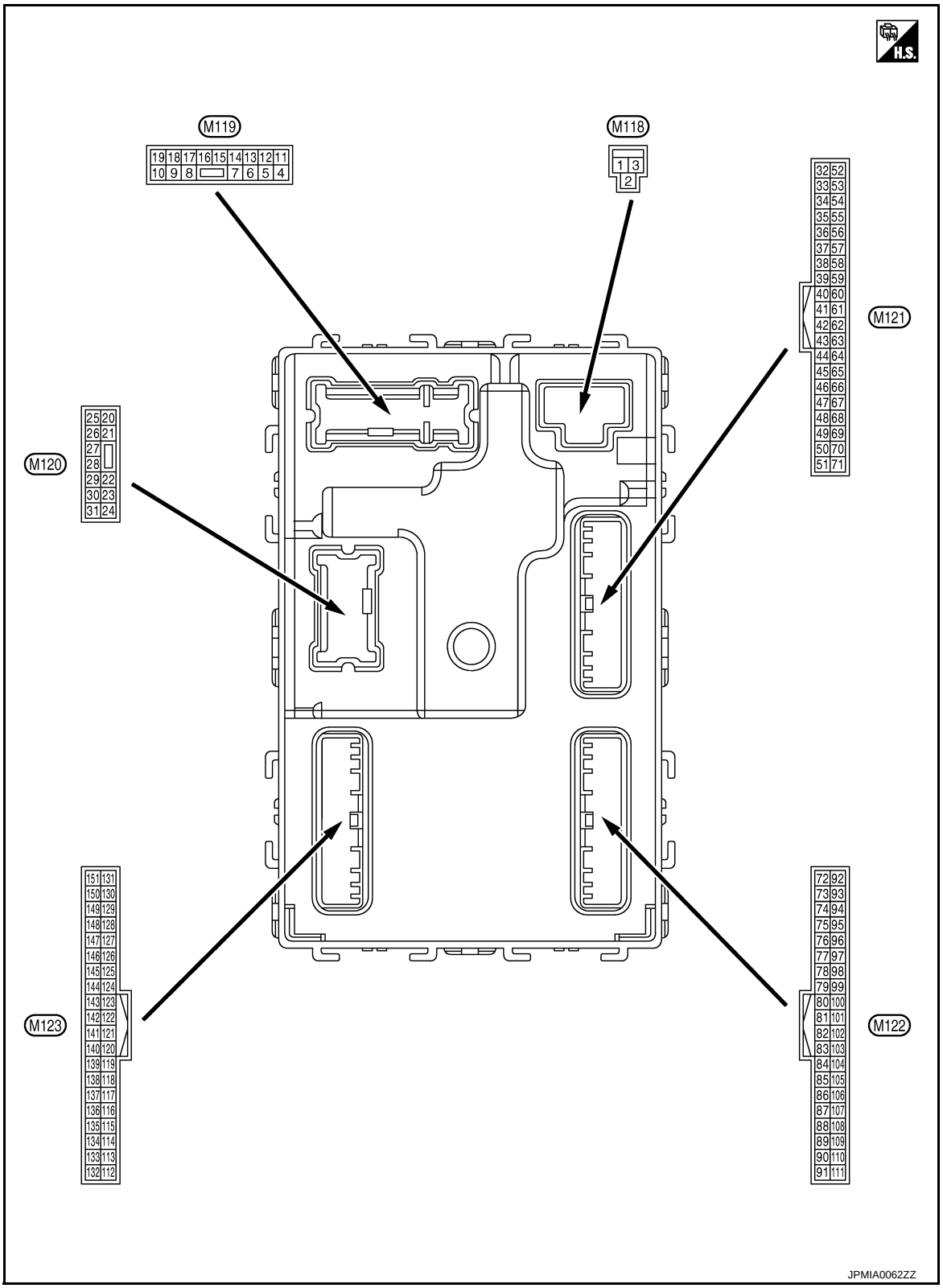
Monitor Item	Condition	Value/Status
DOOR SW-RR	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-RL	**NOTE:** The item is indicated, but not monitored.	Off
DOOR SW-BK	• Back door closed (Coupe models) • Trunk lid closed (Roadster models)	Off
	• Back door opened (Coupe models) • Trunk lid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

Monitor Item	Condition	Value/Status
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
REQ SW -RR	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -RL	**NOTE:** The item is indicated, but not monitored.	Off
REQ SW -BD/TR	• Back door request switch is not pressed (Coupe models) • Trunk lid door request switch is not pressed (Roadster models)	Off
	• Back door request switch is pressed (Coupe models) • Trunk lid door request switch is pressed (Roadster models)	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:** For A/T models this item is not monitored.	The clutch pedal is not depressed	Off
	The clutch pedal is depressed	On
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
	The brake pedal is depressed	On
DETE/CANCL SW **NOTE:** For M/T models with Synchro-Rev Match mode this item is not monitored.	• Selector lever in P position (A/T models) • The clutch pedal is depressed (M/T models without SynchroRev Match mode)	Off
	• Selector lever in any position other than P (A/T models) • The clutch pedal is not depressed (M/T models without SynchroRev Match mode)	On
SFT PN/N SW **NOTE:** For roadster M/T models and coupe M/T models without SynchroRev Match mode this item is not monitored.	• Selector lever in any position other than P and N (A/T models) • Control lever in any position other than neutral position (Coupe M/T models with SynchroRev Match mode)	Off
	• Selector lever in P or N position (A/T models) • Control lever in neutral position (Coupe M/T models with SynchroRev Match mode)	On
S/L -LOCK	**NOTE:** The item is indicated but not monitored.	Off
S/L -UNLOCK	**NOTE:** The item is indicated but not monitored.	Off
S/L RELAY-F/B	**NOTE:** The item is indicated but not monitored.	Off
UNLK SEN -DR	Driver door is unlocked	Off
	Driver door is locked	On
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off
	Push-button ignition switch (push-switch) is pressed	On

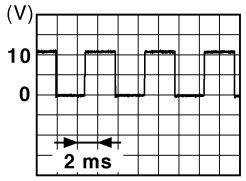
Monitor Item	Condition	Value/Status
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off
	Ignition switch in ON position	On
DETE SW -IPDM	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT PN -IPDM	• Selector lever in any position other than P and N (A/T models) • The clutch pedal is not depressed (M/T models)	Off
	• Selector lever in P or N position (A/T models) • The clutch pedal is depressed (M/T models)	On
SFT P -MET	Selector lever in any position other than P	Off
	Selector lever in P position	On
SFT N -MET	Selector lever in any position other than N	Off
	Selector lever in N position	On
ENGINE STATE	Engine stopped	Stop
	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	**NOTE:** The item is indicated but not monitored.	Off
S/L UNLK-IPDM	**NOTE:** The item is indicated but not monitored.	Off
S/L RELAY-REQ	**NOTE:** The item is indicated but not monitored.	Off
VEH SPEED 1	While driving	Equivalent to speedometer reading
VEH SPEED 2	While driving	Equivalent to speedometer reading
DOOR STAT-DR	Driver door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
DOOR STAT-AS	Passenger door is locked	LOCK
	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Driver side door is open after ignition switch is turned OFF (Shift position is in the P position)	Reset
	Ignition switch ON	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	**NOTE:** The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key

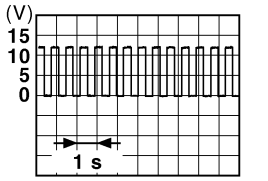
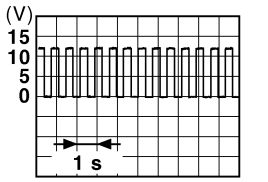
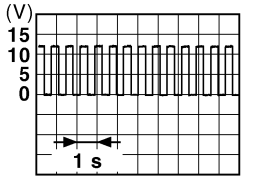
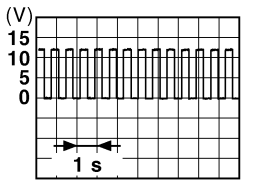
Monitor Item	Condition	Value/Status
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
	The ID of second Intelligent Key is registered to BCM	Done
TP 1	The ID of first Intelligent Key is not registered to BCM	Yet
	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
ID REGST FL1	ID of front LH tire transmitter is registered	Done
	ID of front LH tire transmitter is not registered	Yet
ID REGST FR1	ID of front RH tire transmitter is registered	Done
	ID of front RH tire transmitter is not registered	Yet
ID REGST RR1	ID of rear RH tire transmitter is registered	Done
	ID of rear RH tire transmitter is not registered	Yet
ID REGST RL1	ID of rear LH tire transmitter is registered	Done
	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
BUZZER	Tire pressure warning alarm is not sounding	Off
	Tire pressure warning alarm is sounding	On

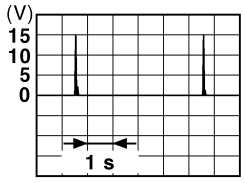
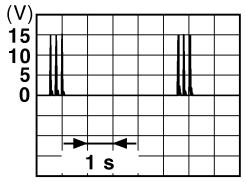
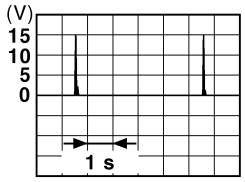
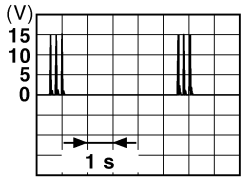
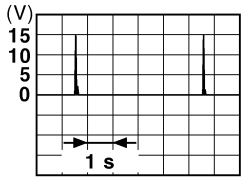
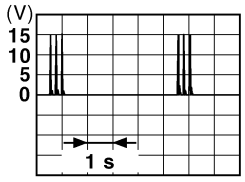
TERMINAL LAYOUT

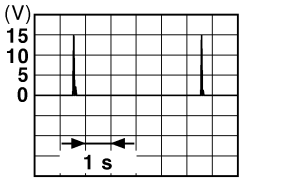
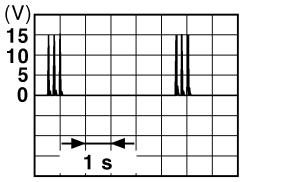
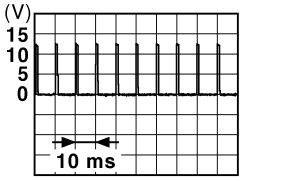
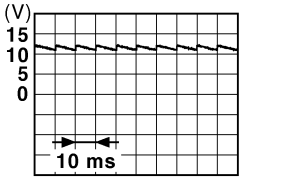


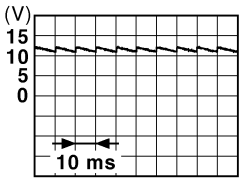
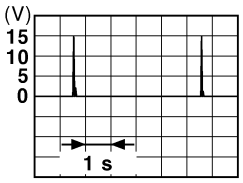
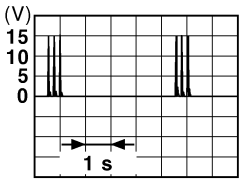
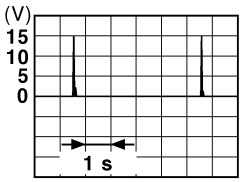
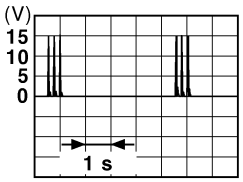
PHYSICAL VALUES

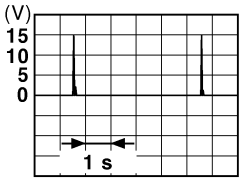
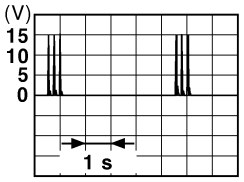
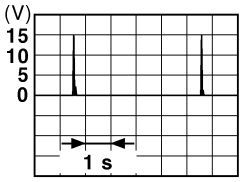
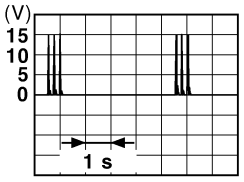
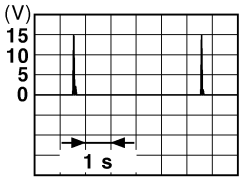
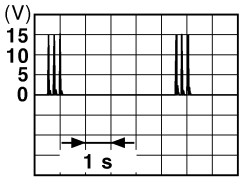
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
1 (W)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
2 (W)	Ground	P/W power supply (BAT)	Output	Ignition switch OFF		12 V
3 (Y)	Ground	P/W power supply (IGN)	Output	Ignition switch ON		12 V
4 (R)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is activated. (Cuts the interior room lamp power supply)		0 V
				Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V
5 (G)	Ground	Passenger door UNLOCK	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
8 (V)	Ground	All doors, fuel lid LOCK	Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
					Other than LOCK (Actuator is not activated)	0 V
9 (G)	Ground	Driver door, fuel lid UNLOCK	Output	Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
					Other than UNLOCK (Actuator is not activated)	0 V
11 (BR)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
13 (B)	Ground	Ground	—	Ignition switch ON		0 V
14 (R)	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	0 V

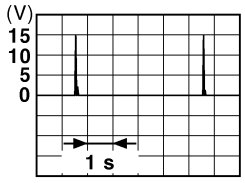
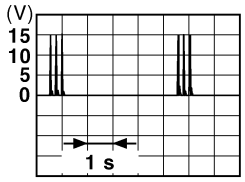
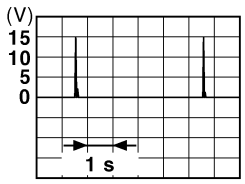
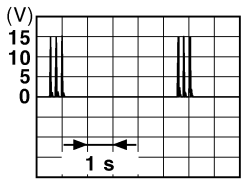
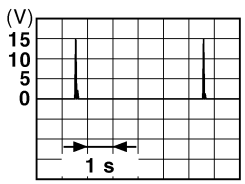
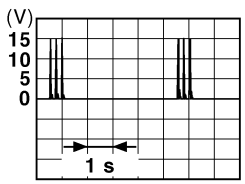
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
17 (W)	Ground	Turn signal RH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
18 (O)	Ground	Turn signal LH (Front and side)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
19 (P)	Ground	Interior room lamp control	Output	Interior room lamp	OFF	12 V
					ON	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
23 (L)*1 (Y)*2	Ground	Back door/Trunk lid open	Output	Back door/ Trunk lid	OPEN (Back door/Trunk lid opener actuator is activated)	12 V
					Other than OPEN (Back door/Trunk lid opener actuator is not activated)	0 V
24*8 (O)	Ground	Rear fog lamp	Output	Rear fog lamp	OFF	0 V
					ON	12 V
25 (LG)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
30 (R)	Ground	Luggage room/Trunk room lamp	Output	Luggage room/ Trunk room lamp	ON	0 V
					OFF	12 V

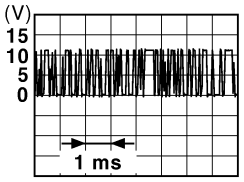
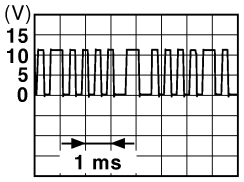
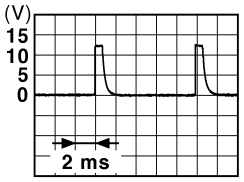
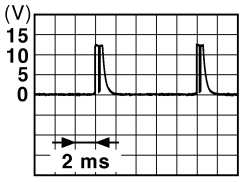
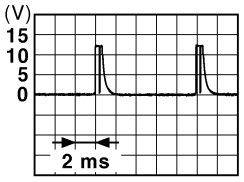
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
34 (G)	Ground	Luggage room/Trunk room antenna (–)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
35 (R)	Ground	Luggage room/Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB
38 (B)	Ground	Rear bumper antenna (–)	Output	When the back door/trunk lid 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

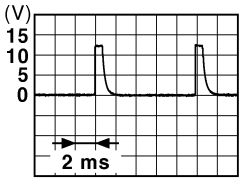
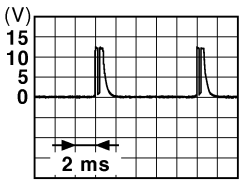
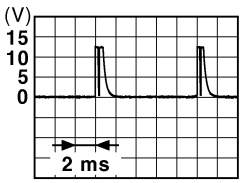
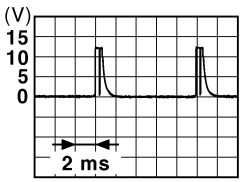
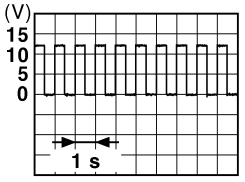
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
39 (W)	Ground	Rear bumper antenna (+)	Output	When the back door/trunk lid door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
		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

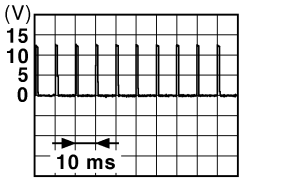
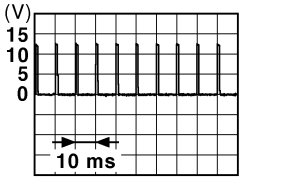
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
67 (GR)	Ground	Back door/Trunk lid opener switch	Input	Back door/ Trunk lid opener switch	Pressed	0 V
					Not pressed	 JPMIA0011GB 11.8 V
72 (L)	Ground	Room antenna 2 (–) (Center console)	Output	Ignition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

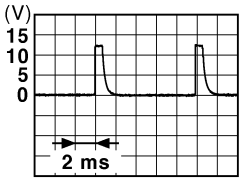
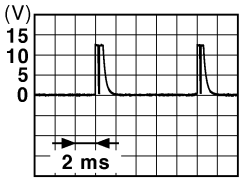
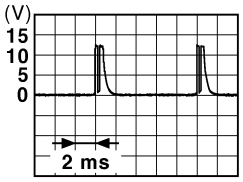
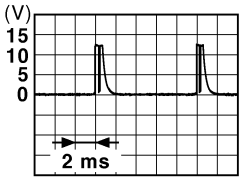
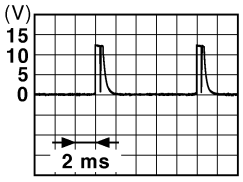
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
74 (SB)	Ground	Passenger door antenna (–)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When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

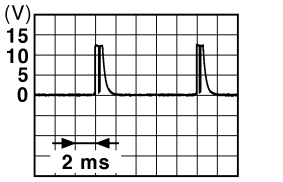
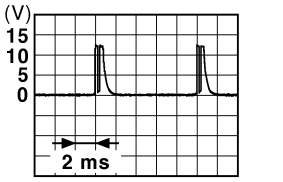
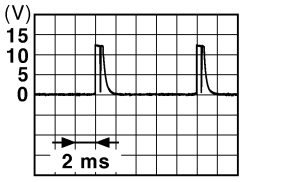
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
77 (LG)	Ground	Driver door antenna (+)	Output	When the driver door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	 JMKIA0062GB
					When Intelligent Key is not in the antenna detection area	 JMKIA0063GB
78*2 (L)	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*2 (R)	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	 JMKIA0062GB
					When Intelligent Key is not in the passenger compartment	 JMKIA0063GB

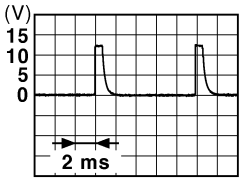
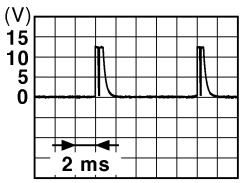
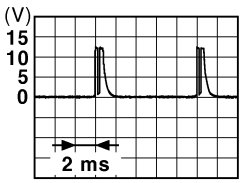
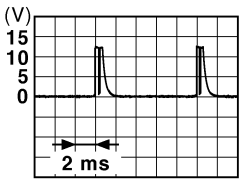
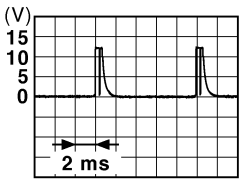
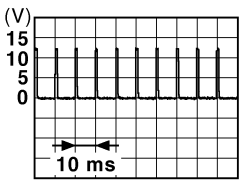
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
83 (GR)	Ground	Remote keyless entry receiver (front) communication	Input/ Output	During waiting		 JMKIA0064GB
				When operating either button on the Intelligent Key		 JMKIA0065GB
87 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Rear fog lamp switch ON (Wiper intermittent dial 4)	 JPMIA0038GB 1.3 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

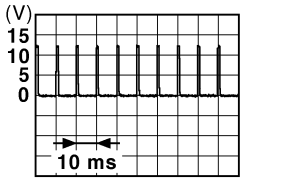
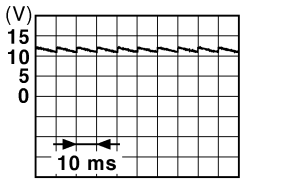
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0036GB 1.3 V
					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
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	0 V
					Blinking	 JPMIA0015GB 6.5 V
					ON	12 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
					ON	0 V

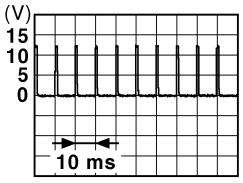
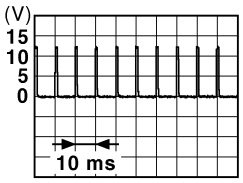
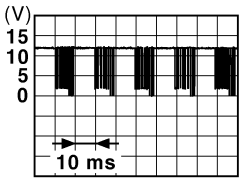
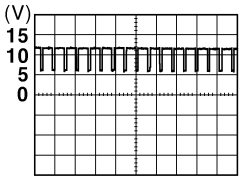
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
95 (O)	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
					ACC or ON	12 V
96*3 (Y)	Ground	A/T shift selector (Detention switch) power supply	Output	—		12 V
99*6 (R)	Ground	Selector lever P position switch (A/T models)	Input	Selector lever	P position	0 V
					Any position other than P	12 V
		Clutch pedal position switch (M/T models without SynchroRev Match mode)		Clutch pedal position switch	OFF (Clutch pedal is depressed)	0 V
					ON (Clutch pedal is not depressed)	Battery voltage
100 (GR)	Ground	Passenger door request switch	Input	Passenger door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
101 (Y)	Ground	Driver door request switch	Input	Driver door request switch	ON (Pressed)	0 V
					OFF (Not pressed)	 JPMIA0016GB 1.0 V
102 (O)	Ground	Blower fan motor relay control	Output	Ignition switch	OFF or ACC	0 V
					ON	12 V
103 (LG)	Ground	Remote keyless entry receiver (front) power supply	Output	Ignition switch OFF		12 V

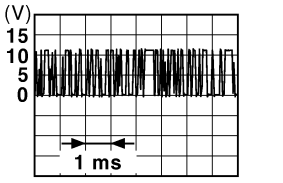
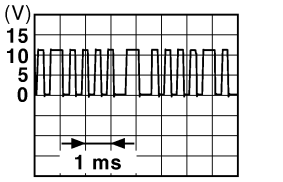
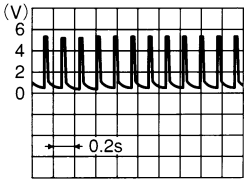
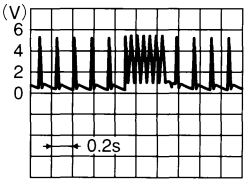
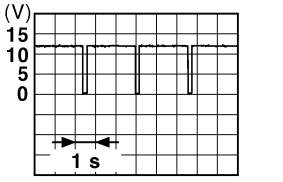
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Turn signal switch LH	 JPMIA0037GB 1.3 V
					Turn signal switch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

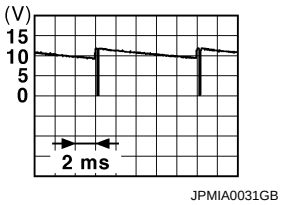
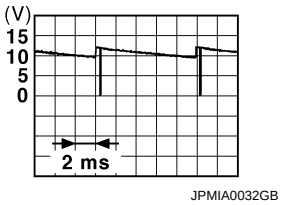
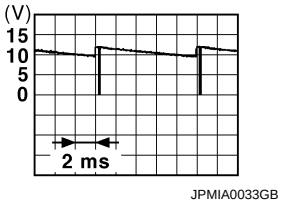
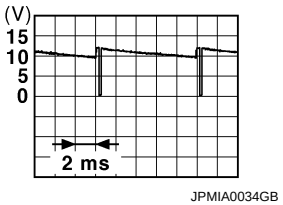
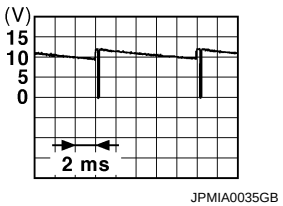
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	 JPMIA0041GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)	 JPMIA0038GB 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

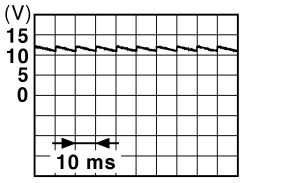
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermittent dial 4)	All switches OFF	 JPMIA0041GB 1.4 V
					Lighting switch PASS	 JPMIA0037GB 1.3 V
					Lighting switch 2ND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

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
		Signal name	Input/ Output			
+	–					
113 (O)	Ground	Optical sensor	Input	Ignition switch ON	When bright outside of the vehicle	Close to 5 V
					When dark outside of the vehicle	Close to 0 V
114*4 (R)	Ground	Clutch interlock switch	Input	Clutch interlock switch	OFF (Clutch pedal is not depressed)	0 V
					ON (Clutch pedal is depressed)	Battery voltage
115*9 (O)	—	—	—	—		—
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 assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	 JPMIA0012GB 1.1 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121 (R)	Ground	Key slot switch	Input	When the Intelligent Key is inserted into key slot		12 V
				When the Intelligent Key is not inserted into key slot		0 V
123 (W)	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
129*2 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	 JPMIA0012GB 1.1 V
					ON	0 V
130*7 (L)	Ground	Rear window defogger switch	Input	Ignition switch ON	Rear window defogger switch OFF	 JPMIA0012GB 1.1 V
					Rear window defogger switch ON	0 V
132 (Y)*1 (V)*2	Ground	Power window switch and soft top control unit communication	Input/ Output	Ignition switch ON		 JPMIA0013GB 10.2 V
				Ignition switch OFF or ACC		12 V
133 (G)	Ground	Push-button ignition switch illumination	Output	Push-button ignition switch illumination	ON (Tail lamps OFF)	9.5 V
					ON (Tail lamps ON)	**NOTE:** The pulse width of this wave is varied by the illumination brightening/dimming level.  JPMIA0159GB
					OFF	0 V
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF	Battery voltage
					ON	0 V
137 (P)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V
138 (V)	Ground	Receiver and sensor power supply	Output	Ignition switch	OFF	0 V
					ACC or ON	5.0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
139 (L)	Ground	Tire pressure receiver communication	Input/ Output	Ignition switch OFF (Remote keyless entry receiver communication)	During waiting	 JMKIA0064GB
					When operating either button on the Intelligent Key	 JMKIA0065GB
				Ignition switch ON (Tire pressure receiver communication)	Standby state	 OCC3881D
					When receiving the signal from the transmitter	 OCC3880D
140*5 (G)	Ground	Selector lever P/N position (A/T models)	Input	Selector lever	P or N position	12 V
					Except P and N positions	0 V
		Park/neutral position switch (Coupe M/T models with Synchro-Rev Match mode)		Ignition switch ON	Control lever in neutral position	Battery voltage
					Control lever in any position other than neutral	0 V
141 (Y)	Ground	Security indicator lamp	Output	Security indicator lamp	ON	0 V
					Blinking	 JPMIA0014GB 11.3 V
					OFF	12 V

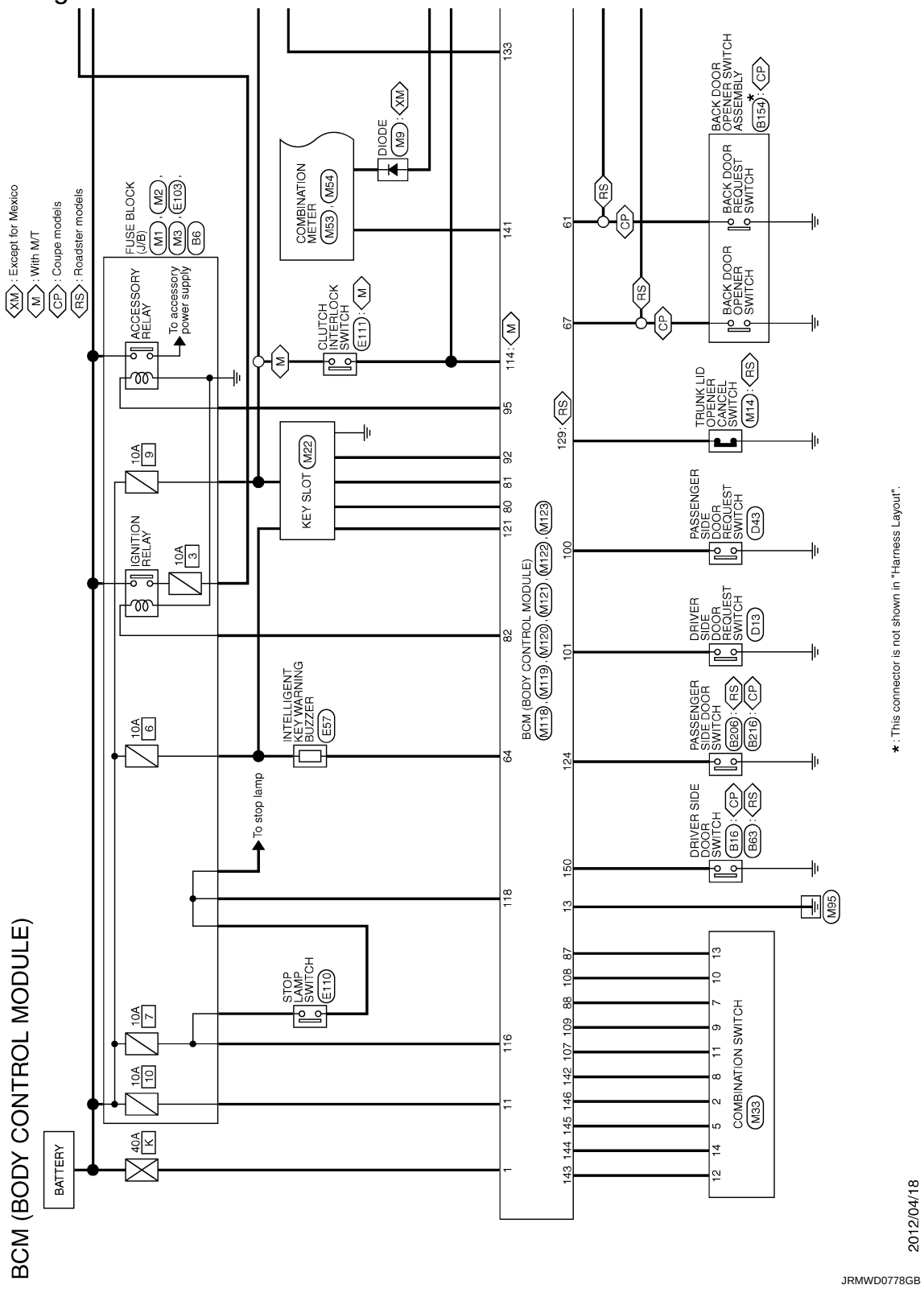
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
142 (O)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermittent dial 4)	All switches OFF	0 V
					Lighting switch 1ST	 JPMIA0031GB 10.7 V
					Lighting switch HI	
					Lighting 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	
					Rear fog lamp switch ON	
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	

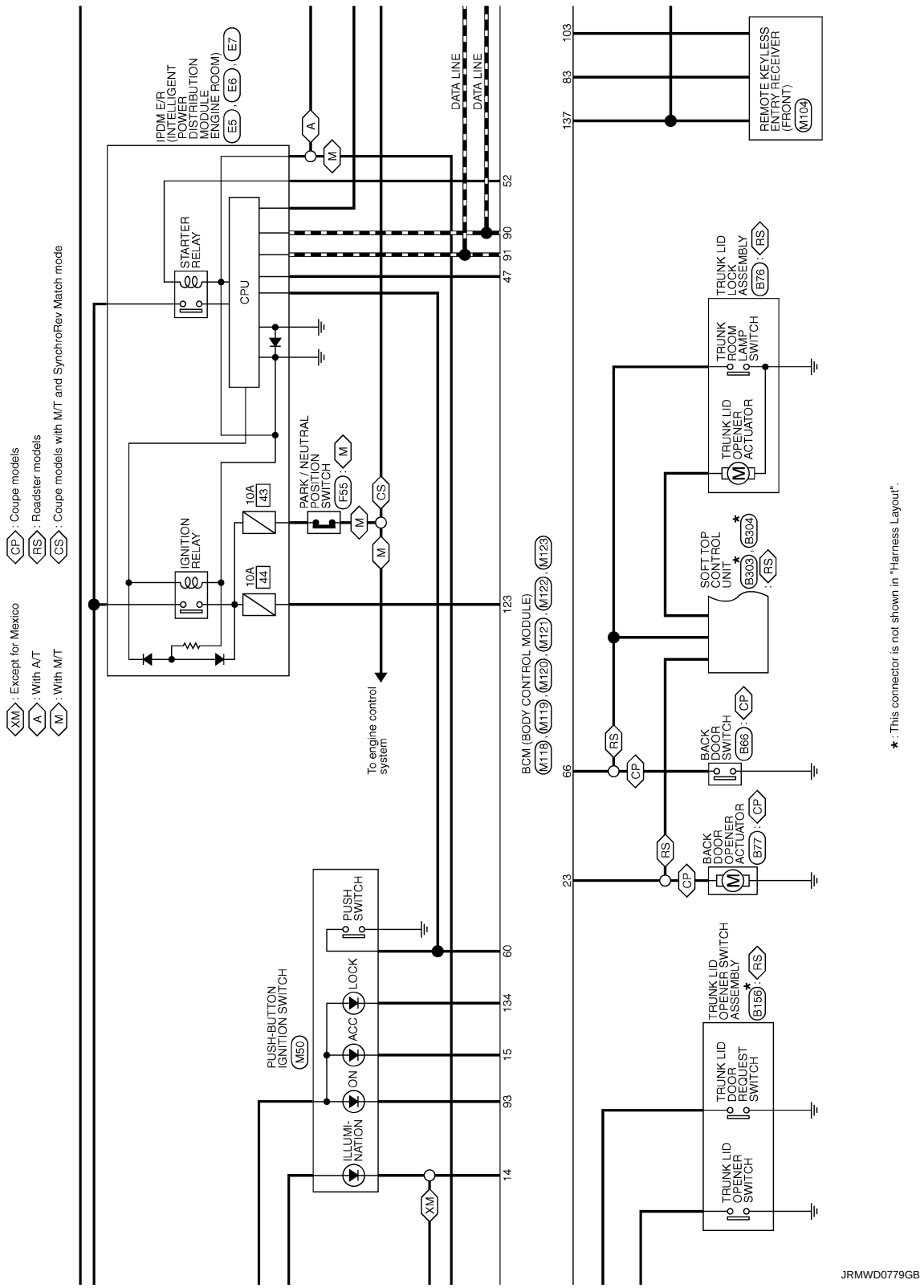
Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	 JPMIA0011GB 11.8 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defogger relay control	Output	Rear window defogger	Active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

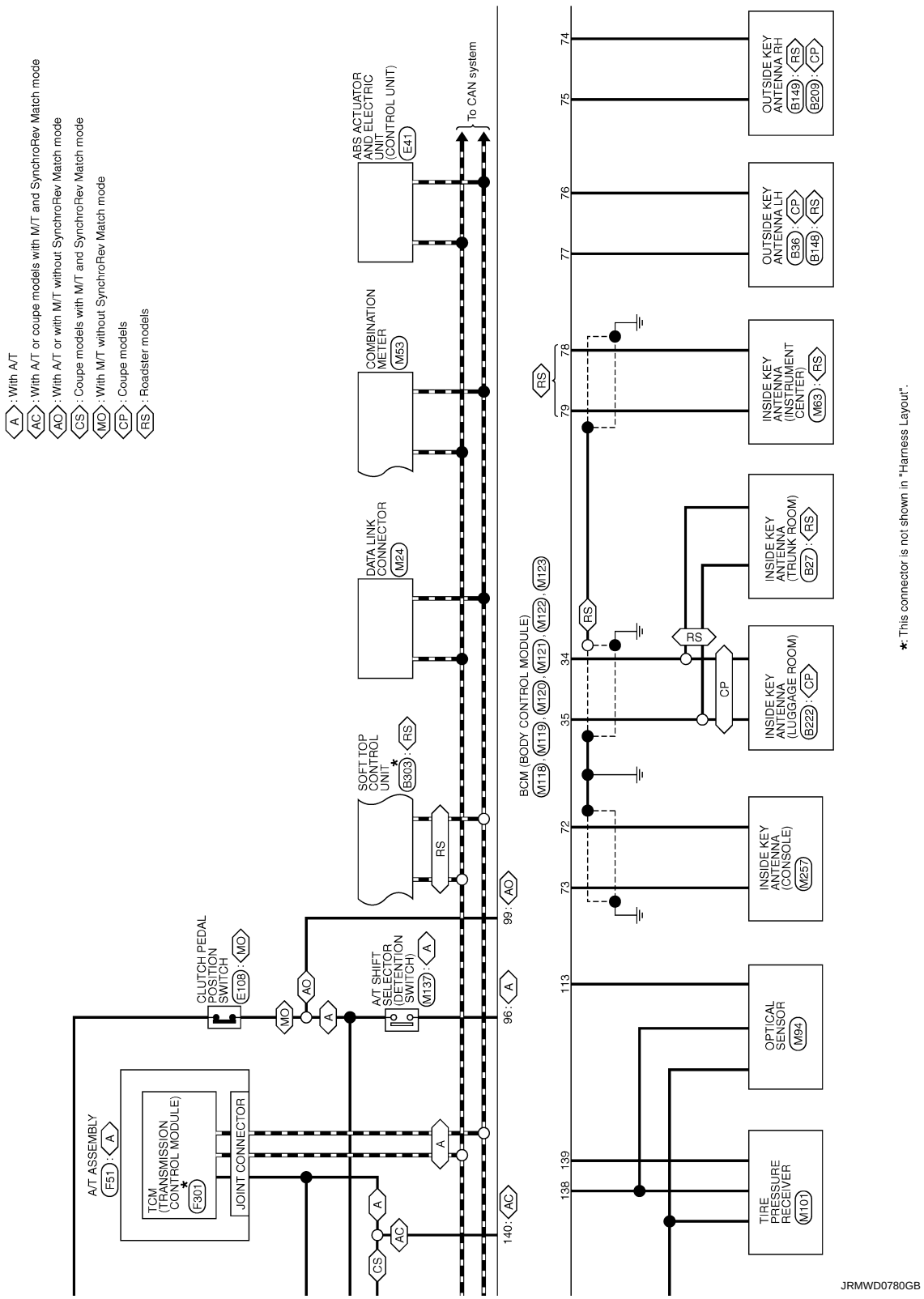
*1: Coupe models
*2: Roadster models
*3: A/T models
*4: M/T models
*5: With A/T or coupe models with M/T and SynchroRev Match mode
*6: With A/T or with M/T without SynchroRev Match mode
*7: Without NAVI
*8: With rear fog lamp
*9: BCM does not use this terminal for control.

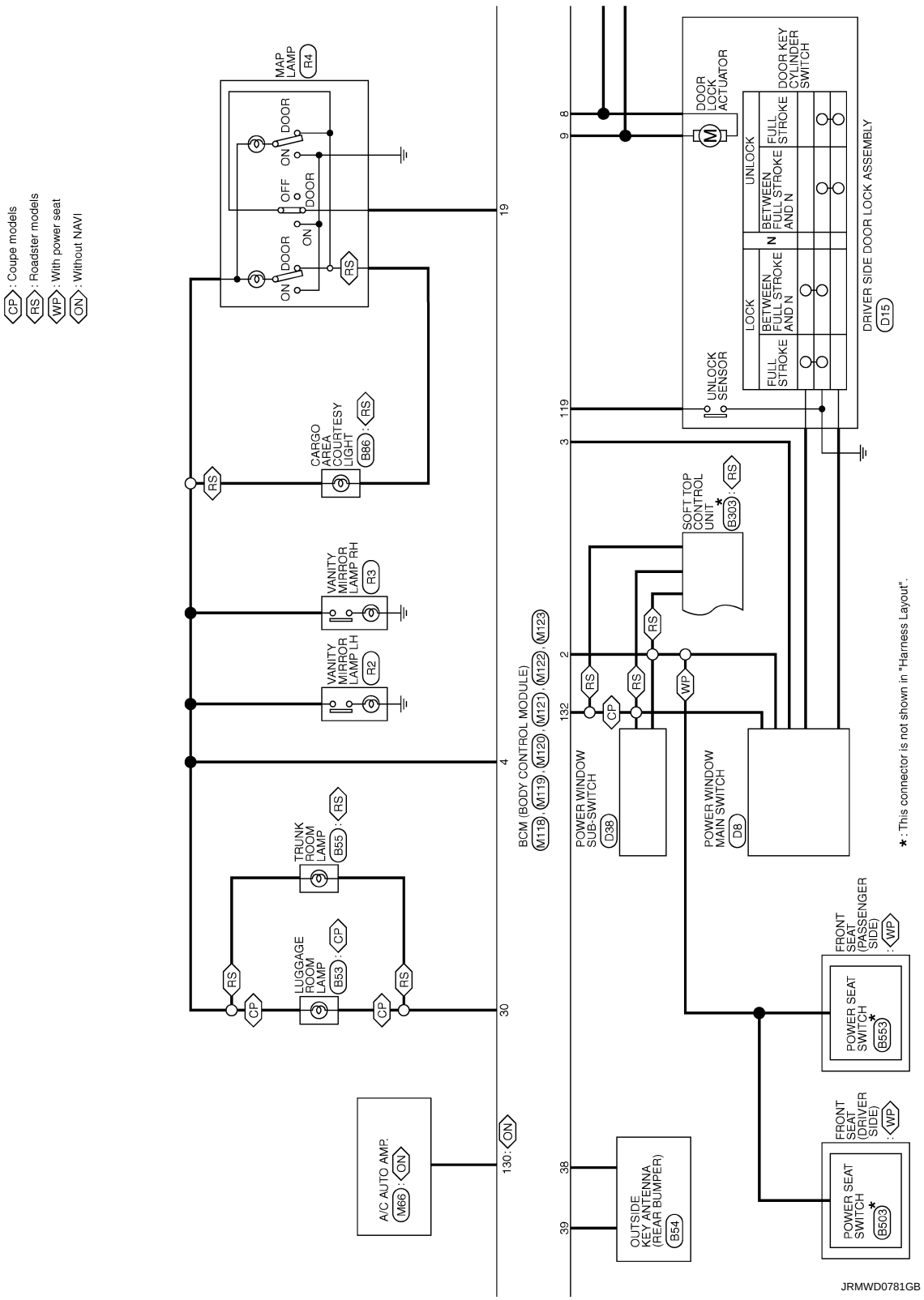
Wiring Diagram - BCM -

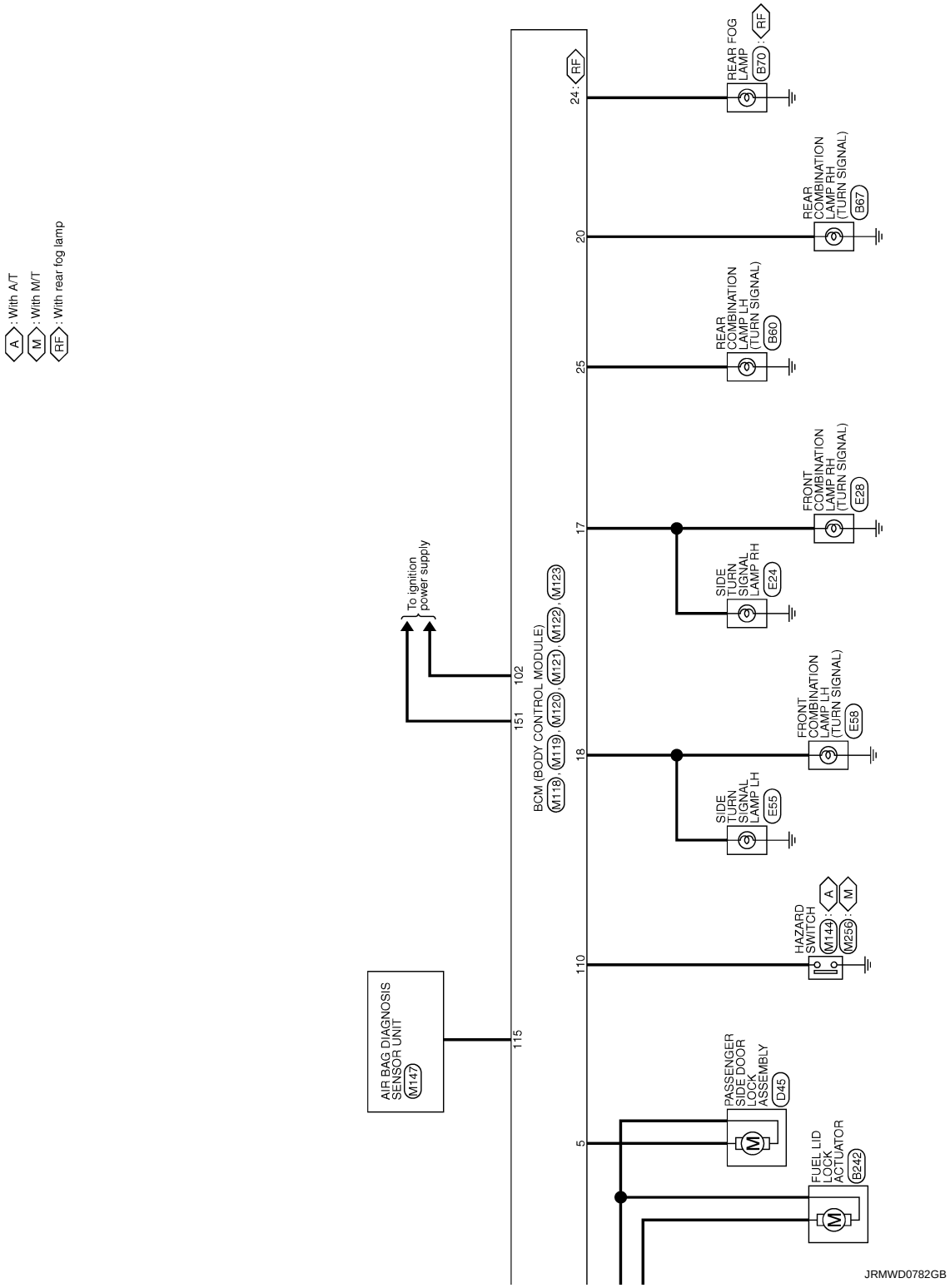
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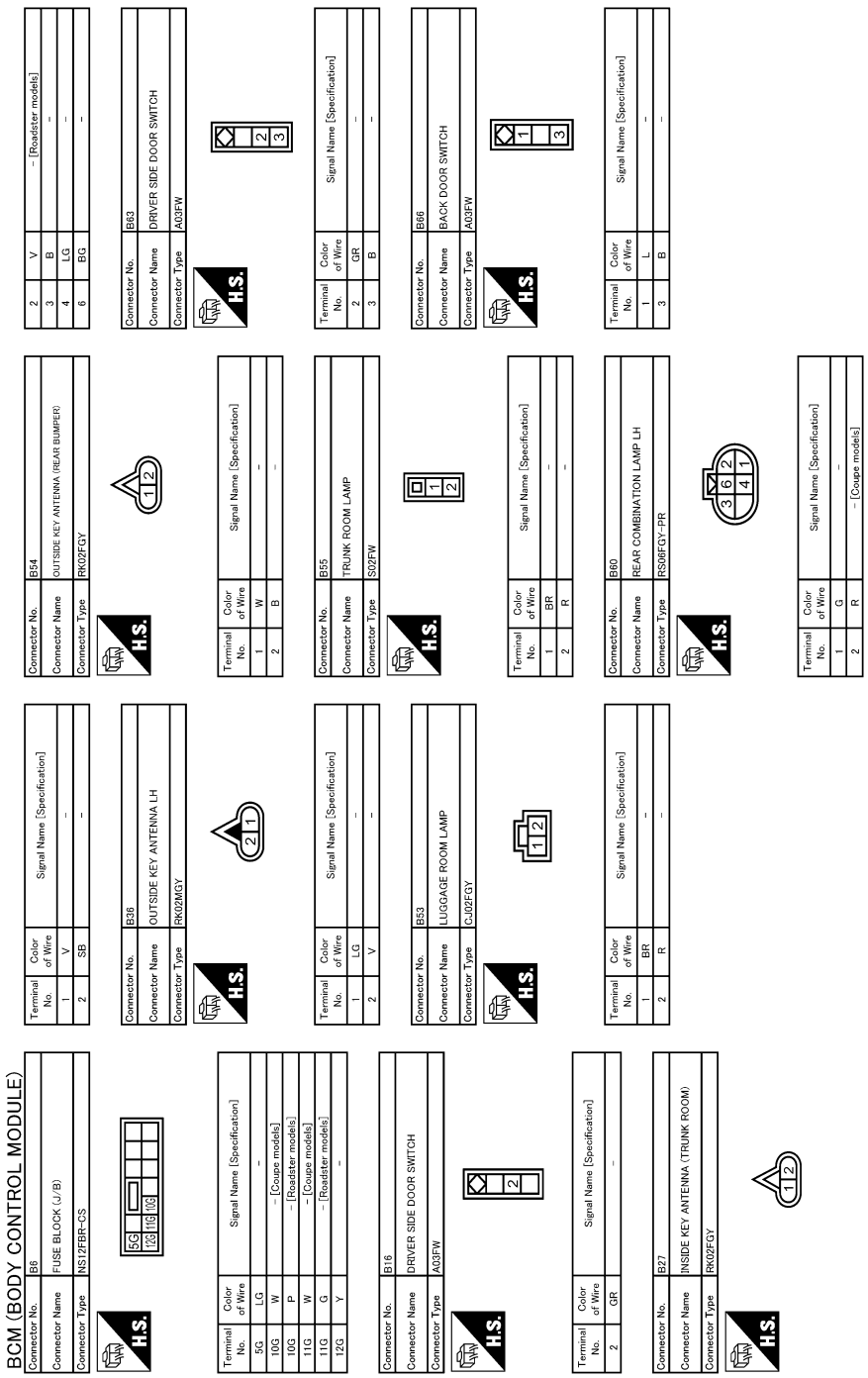



XM : Except for Mexico
A : With A/T
M : With M/T
CP : Coupe models
RS : Roadster models
CS : Coupe models with M/T and SynchroRev Match mode
IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
E5 E6 E7
STARTER RELAY
CPU
IGNITION RELAY
10A 43
10A 44
PARK / NEUTRAL POSITION SWITCH (F55)
DATA LINE
DATA LINE
To engine control system
BCM (BODY CONTROL MODULE)
(M118) (M119) (M120) (M121) (M122) (M123)
PUSH-BUTTON IGNITION SWITCH (M50)
ILLUMI-NATION
ON
ACC
LOCK
PUSH SWITCH
REMOTE KEYLESS ENTRY RECEIVER (FRONT) (M104)
TRUNK LID LOCK ASSEMBLY (B76)
TRUNK ROOM LAMP SWITCH
TRUNK LID OPENER ACTUATOR
SOFT TOP CONTROL UNIT (B303) (B304)
BACK DOOR SWITCH (B66)
BACK DOOR OPENER ACTUATOR (B77)
TRUNK LID OPENER SWITCH ASSEMBLY (B156)
TRUNK LID DOOR REQUEST SWITCH
TRUNK LID OPENER SWITCH
* : This connector is not shown in "Harness Layout".
JRMWD0779GB

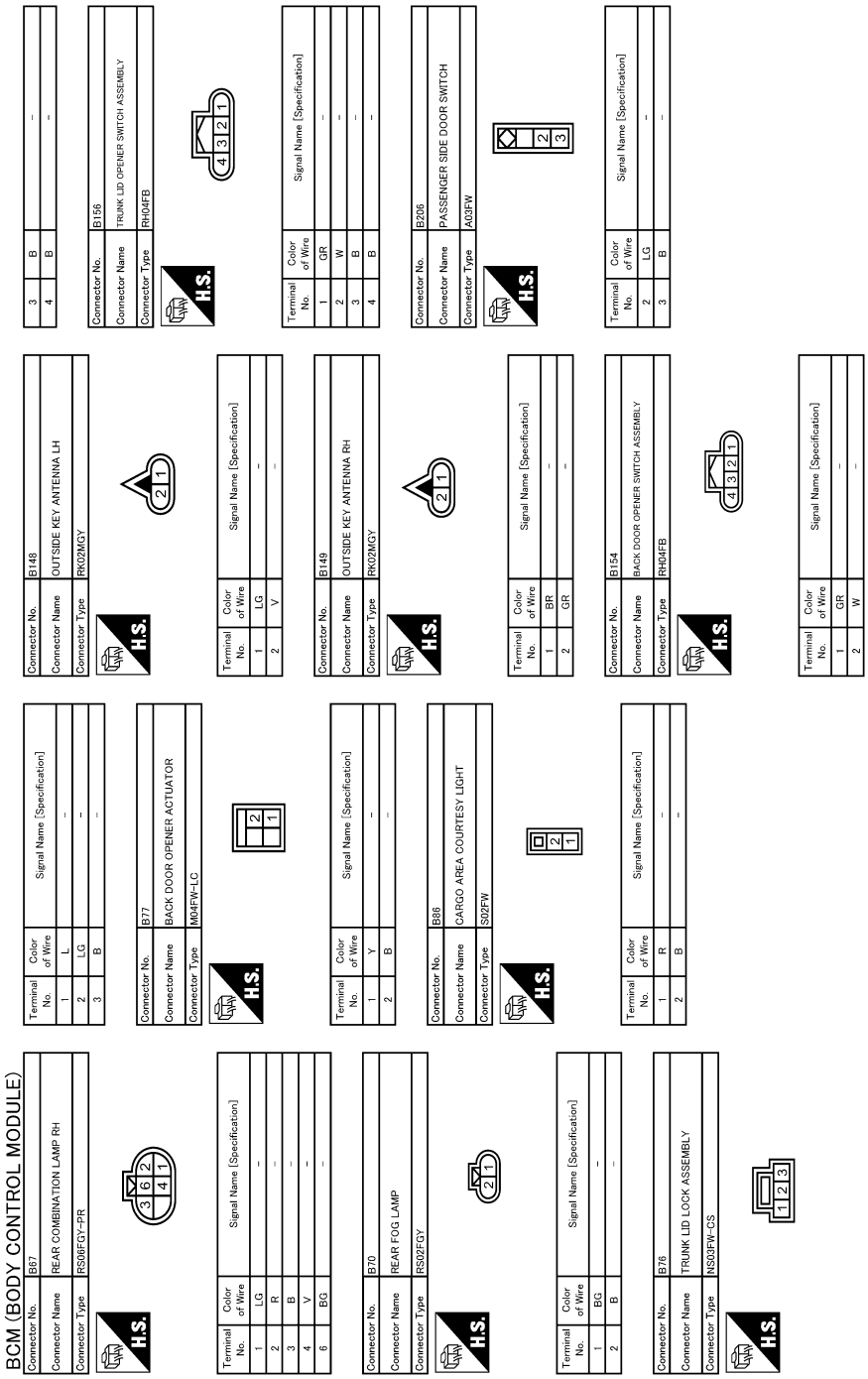

A : With A/T
AC : With A/T or coupe models with M/T and SynchroRev Match mode
AO : With A/T or with M/T without SynchroRev Match mode
CS : Coupe models with M/T and SynchroRev Match mode
MO : With M/T without SynchroRev Match mode
CP : Coupe models
RS : Roadster models
A/T ASSEMBLY
F51 : A
TCM (TRANSMISSION CONTROL MODULE)
F301
JOINT CONNECTOR
CLUTCH PEDAL POSITION SWITCH
E108 : MO
A/T SHIFT SELECTOR (DETENTION SWITCH)
M137 : A
SOFT TOP CONTROL UNIT
B303 : RS
DATA LINK CONNECTOR
M24
COMBINATION METER
M53
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
E41
To CAN system
99 : AO
96 : A
140 : AC
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
OPTICAL SENSOR
M94
TIRE PRESSURE RECEIVER
M101
INSIDE KEY ANTENNA (CONSOLE)
M257
INSIDE KEY ANTENNA (LUGGAGE ROOM)
B222 : CP
INSIDE KEY ANTENNA (TRUNK ROOM)
B27 : RS
INSIDE KEY ANTENNA (INSTRUMENT CENTER)
M63 : RS
OUTSIDE KEY ANTENNA LH
B36 : CP
B148 : RS
OUTSIDE KEY ANTENNA RH
B149 : RS
B209 : CP
*: This connector is not shown in "Harness Layout".
JRMWD0780GB


CP : Coupe models
RS : Roadster models
WP : With power seat
ON : Without NAVI
MAP LAMP R4
DOOR
ON
OFF
DOOR
ON
DOOR
ON
RS
19
CARGO AREA COURTESY LIGHT B86 : RS
VANITY MIRROR LAMP RH R3
VANITY MIRROR LAMP LH R2
4
TRUNK ROOM LAMP B55 : RS
LUGGAGE ROOM LAMP B53 : CP
RS
CP
CP
RS
30
A/C AUTO AMP. M66 ON
130 : ON
BCM (BODY CONTROL MODULE)
M118, M119, M120, M121, M122, M123
8
9
DOOR LOCK ACTUATOR
DOOR KEY CYLINDER SWITCH
UNLOCK
FULL STROKE
BETWEEN FULL STROKE AND N
N
LOCK
FULL STROKE
BETWEEN FULL STROKE AND N
DRIVER SIDE DOOR LOCK ASSEMBLY D15
119
UNLOCK SENSOR
3
SOFT TOP CONTROL UNIT * B309 : RS
2
RS
RS
WP
132
RS
CP
POWER WINDOW SUB-SWITCH D38
POWER WINDOW MAIN SWITCH D8
FRONT SEAT (PASSENGER SIDE) : WP
POWER SEAT SWITCH * B553
FRONT SEAT (DRIVER SIDE) : WP
POWER SEAT SWITCH * B503
38
39
OUTSIDE KEY ANTENNA (REAR BUMPER) B54
* : This connector is not shown in "Harness Layout".
JRMWD0781GB

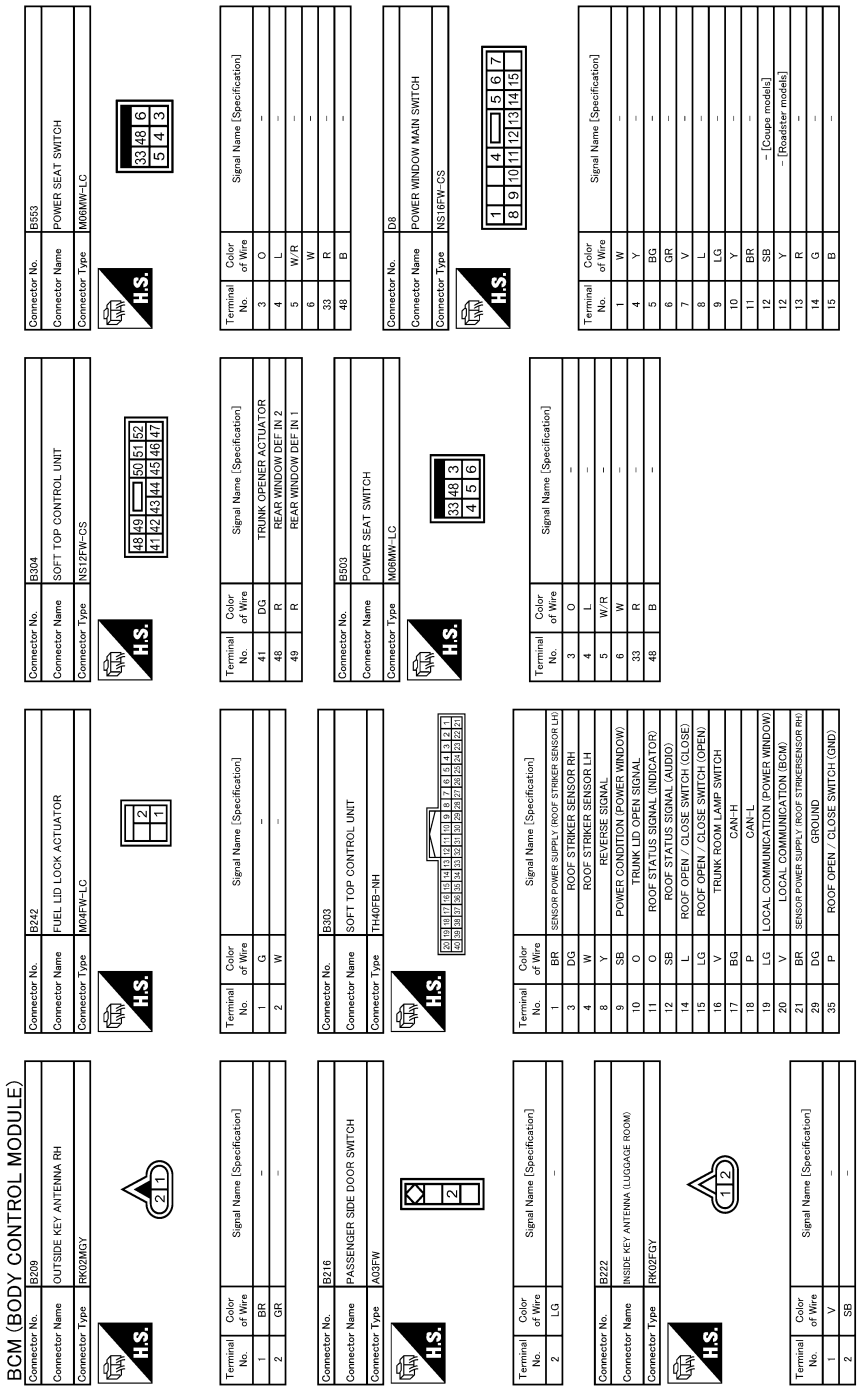

A : With A/T
M : With M/T
RF : With rear fog lamp
To ignition power supply
BCM (BODY CONTROL MODULE)
M118 M119 M120 M121 M122 M123
102
151
AIR BAG DIAGNOSIS SENSOR UNIT
M147
115
24 : RF
20
25
17
18
110
5
REAR FOG LAMP
B70 : RF
REAR COMBINATION LAMP RH (TURN SIGNAL)
B67
REAR COMBINATION LAMP LH (TURN SIGNAL)
B60
FRONT COMBINATION LAMP RH (TURN SIGNAL)
E28
SIDE TURN SIGNAL LAMP RH
E24
FRONT COMBINATION LAMP LH (TURN SIGNAL)
E58
SIDE TURN SIGNAL LAMP LH
E55
HAZARD SWITCH
A M
M144 : M259
PASSENGER SIDE DOOR LOCK ASSEMBLY
D45
FUEL LID LOCK ACTUATOR
B242
JRMWD0782GB



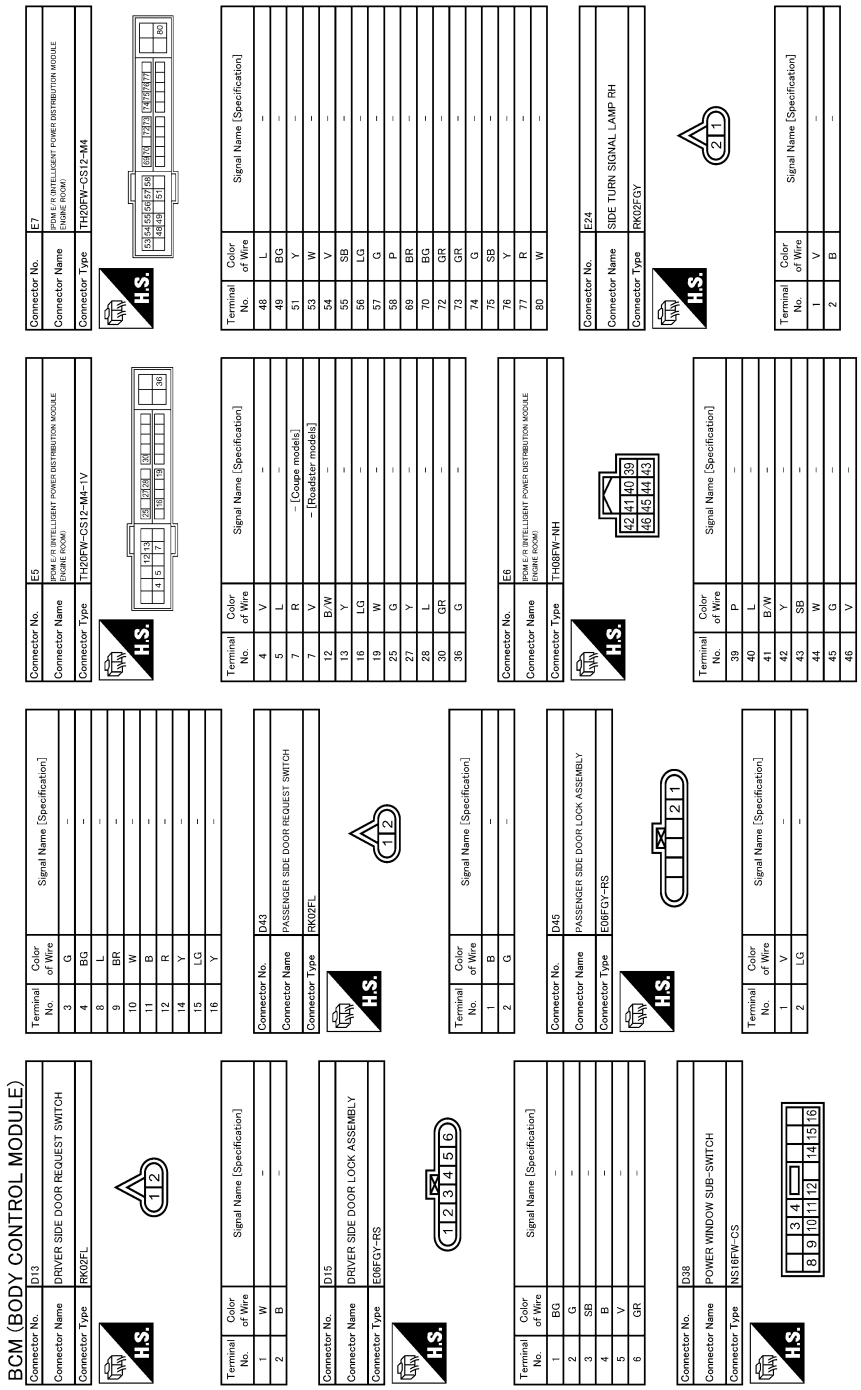
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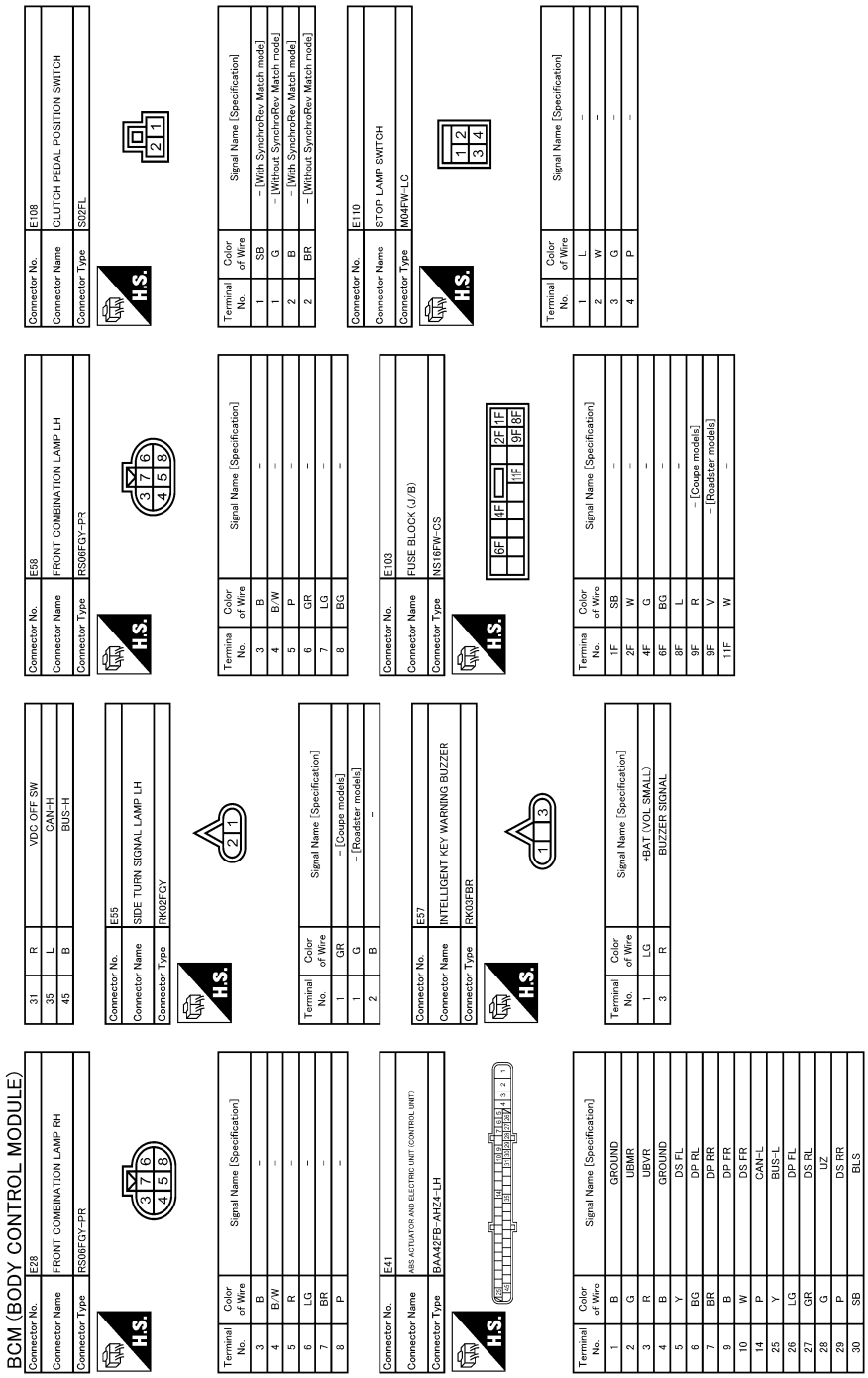
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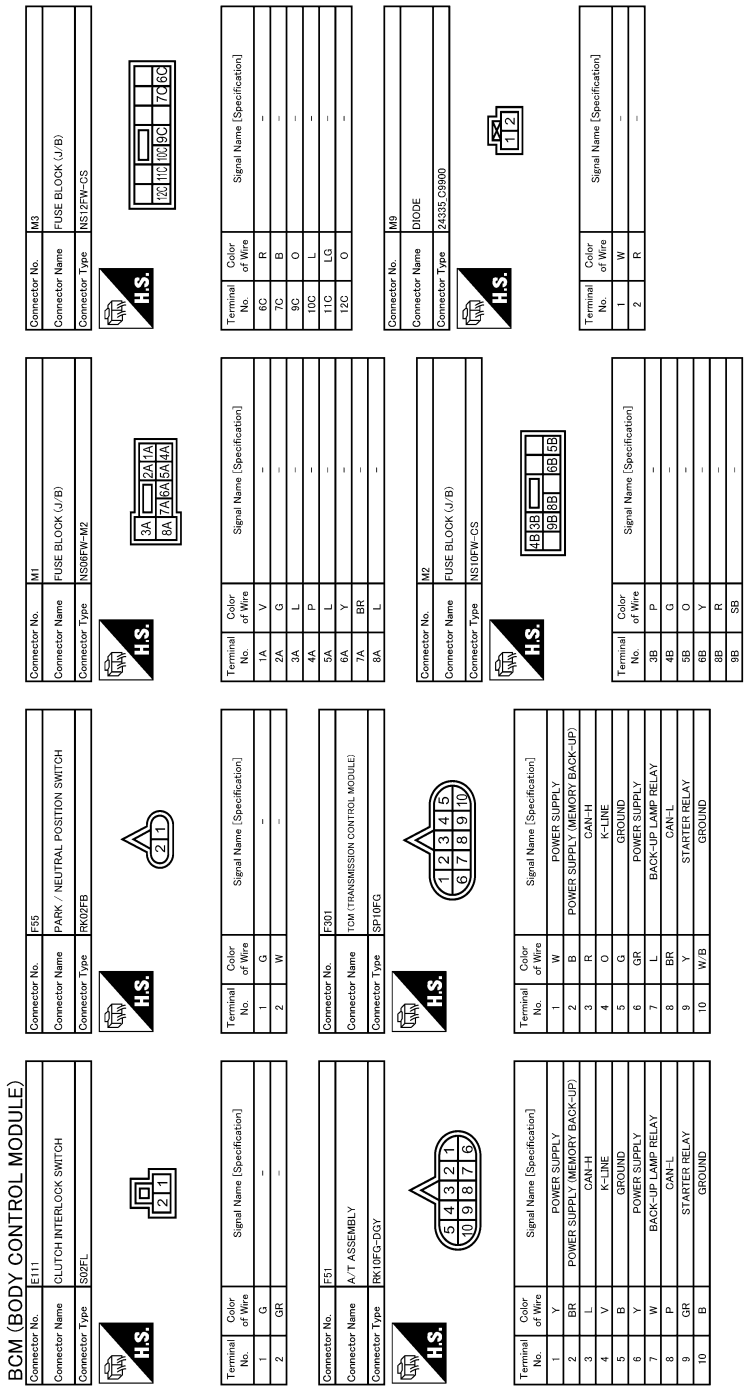
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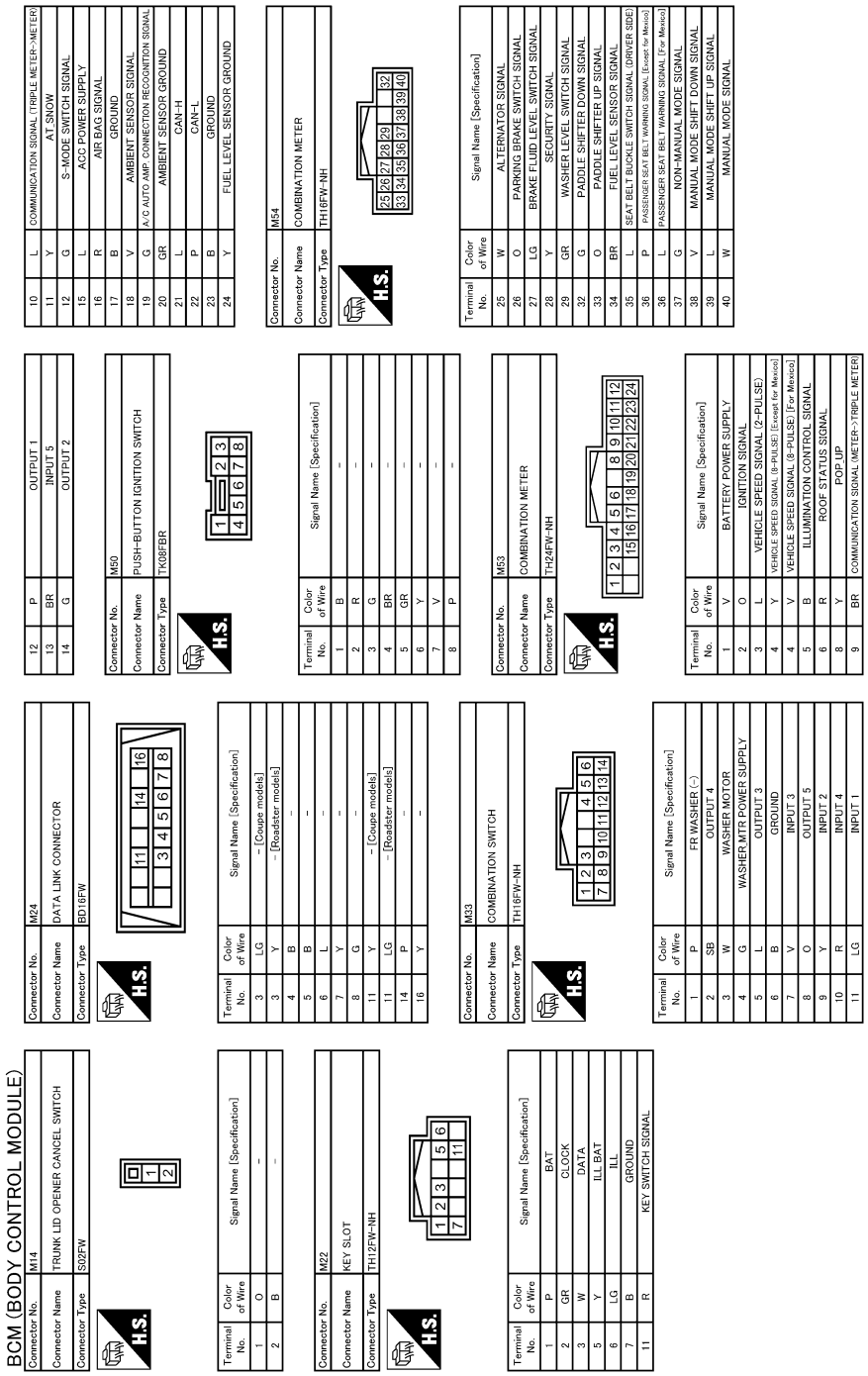
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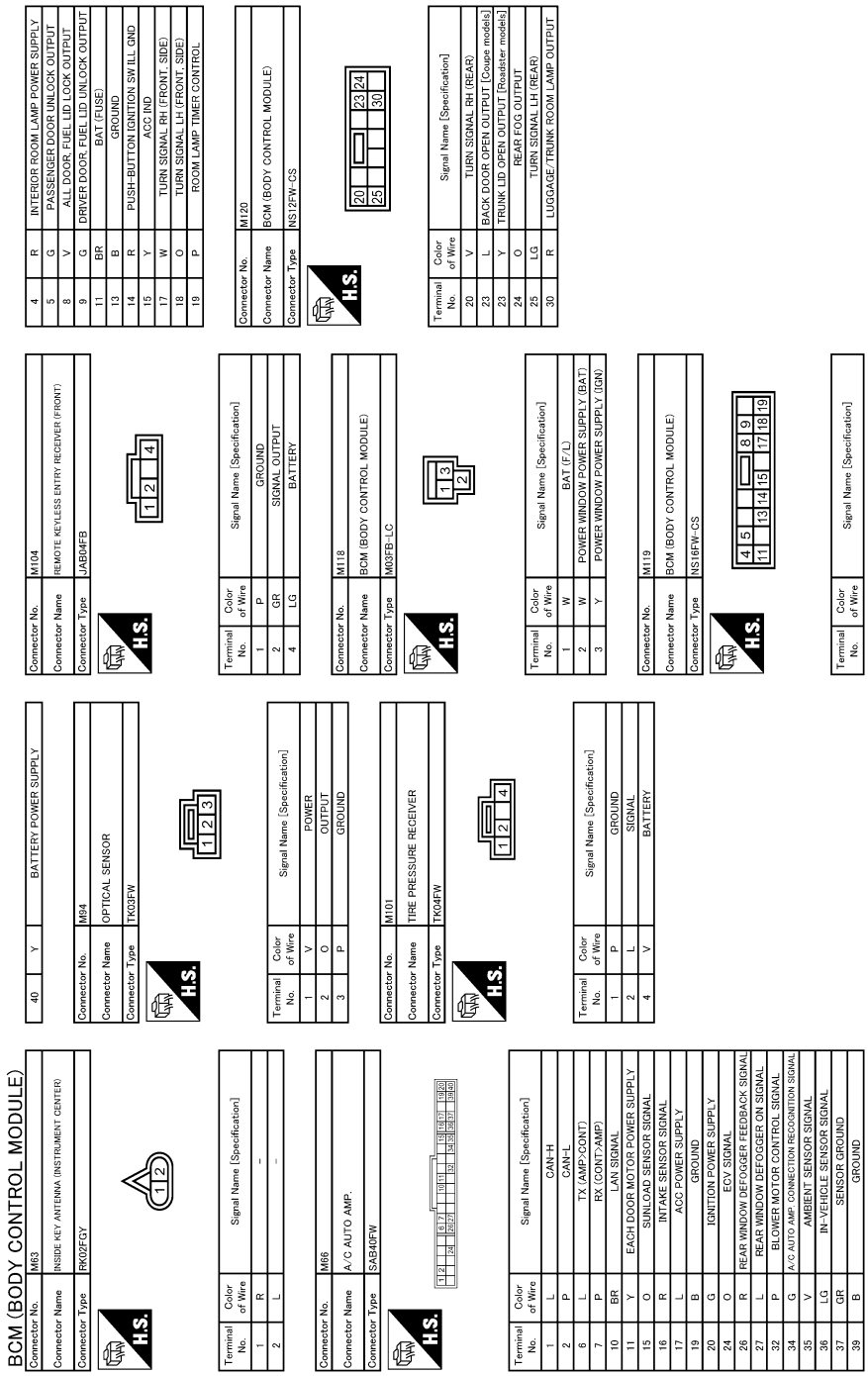
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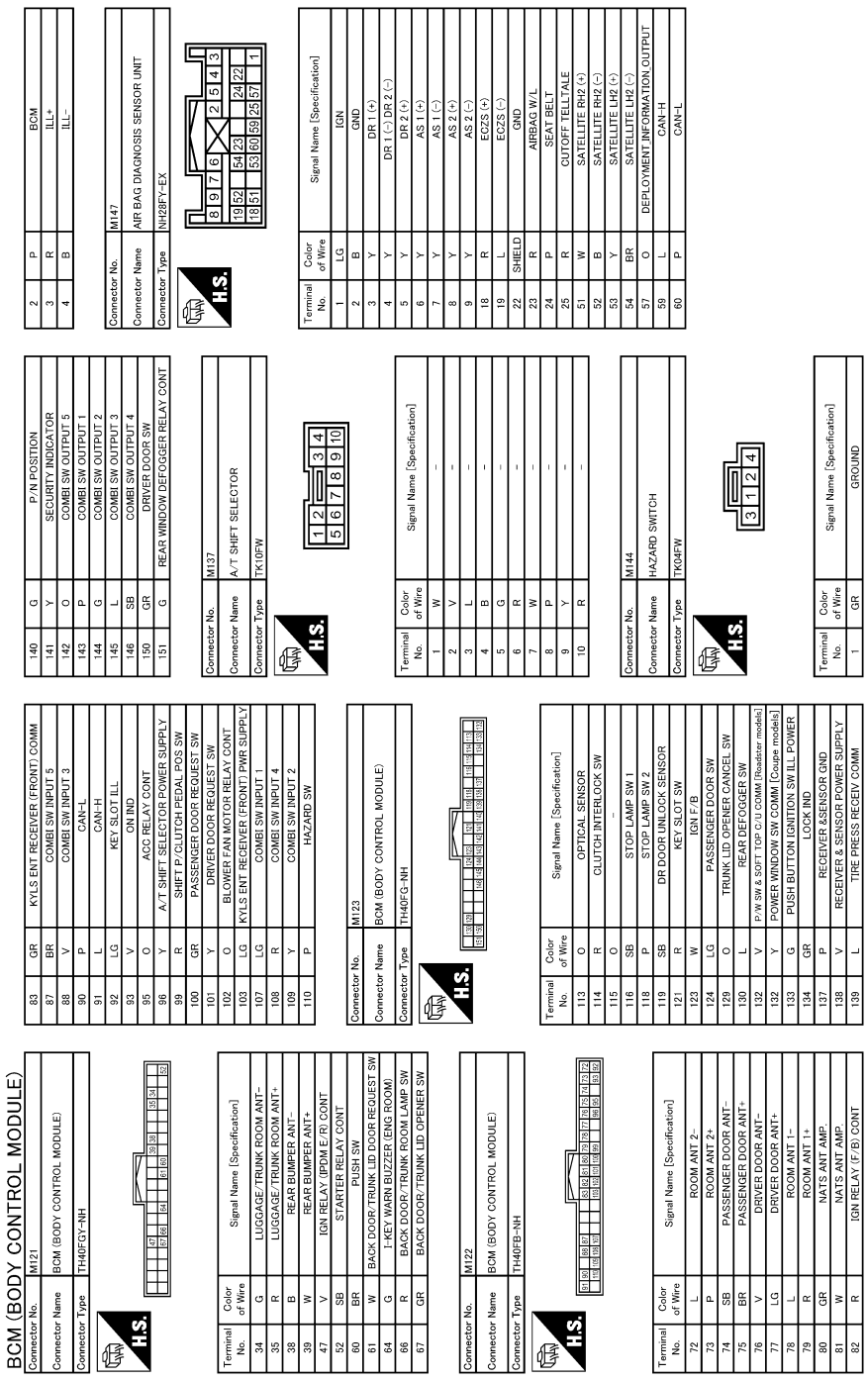
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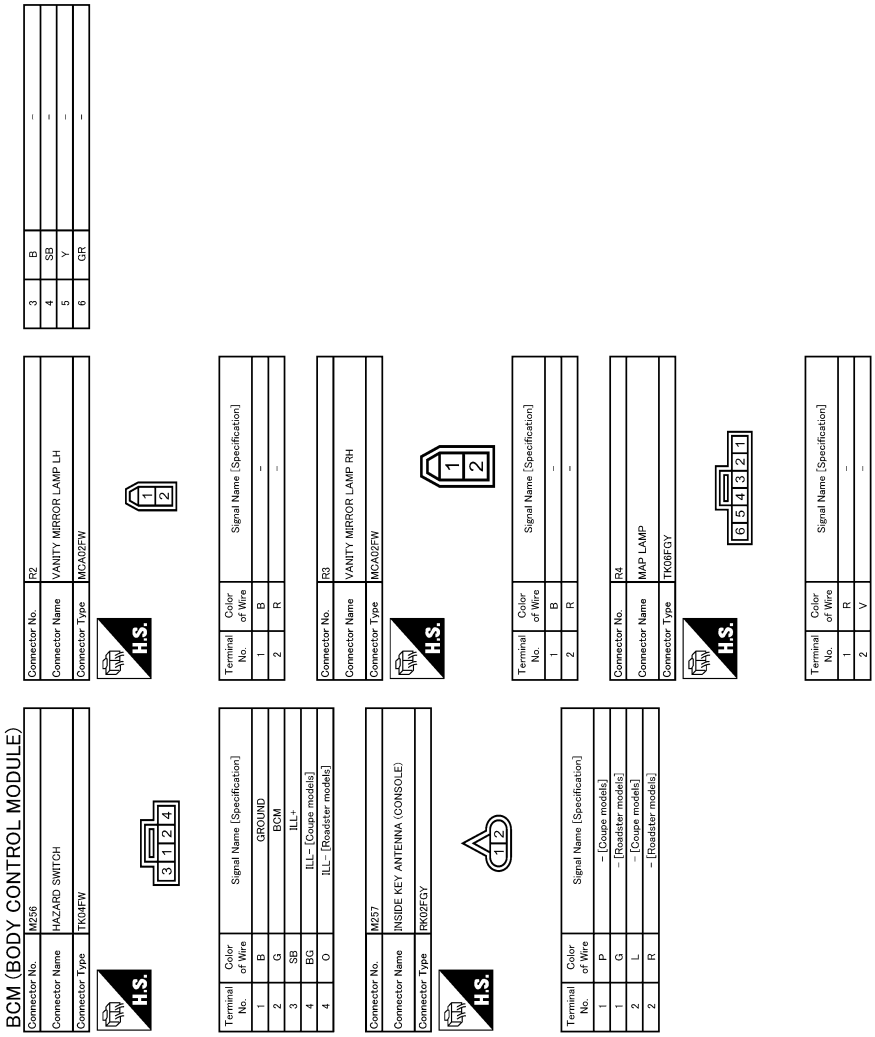
JRMWD9617GB



JRMWD9618GB



JRMWD9619GB



JRMWD9620GB

Fail-safe

INFOID:0000000009760543

FAIL-SAFE CONTROL BY DTC

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

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch ON → OFF
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Starter control relay signal • Starter relay status signal
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B260A: IGNITION RELAY	Inhibit engine cranking	500 ms after the following conditions are fulfilled • IGN relay (IPDM E/R) control signal: OFF (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)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E8: CLUTCH SW	Inhibit engine cranking	When any of the following BCM recognition conditions are fulfilled • Status 1 - Clutch switch signal (CAN from ECM): ON - Clutch interlock switch signal: OFF (0 V) • Status 2 - Clutch switch signal (CAN from ECM): OFF - Clutch interlock switch signal: ON (Battery voltage)

DTC Inspection Priority Chart

INFOID:0000000009760544

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

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

Priority	DTC
4	• B2553: IGNITION RELAY • B2555: STOP LAMP • B2556: PUSH-BTN IGN SW • B2557: VEHICLE SPEED • B2560: STARTER CONT RELAY • B2601: SHIFT POSITION • B2602: SHIFT POSITION • B2603: SHIFT POSI STATUS • B2604: PNP SW • B2605: PNP SW • B2608: STARTER RELAY • B260A: IGNITION RELAY • B260F: ENG STATE SIG LOST • B2614: BCM • B2615: BCM • B2616: BCM • B2617: BCM • B2618: BCM • B261A: PUSH-BTN IGN SW • B261E: VEHICLE TYPE • B26E8: CLUTCH SW • B26EA: KEY REGISTRATION • C1729: VHCL SPEED SIG ERR • U0415: VEHICLE SPEED SIG
5	• C1704: LOW PRESSURE FL • C1705: LOW PRESSURE FR • C1706: LOW PRESSURE RR • C1707: LOW PRESSURE RL • C1708: [NO DATA] FL • C1709: [NO DATA] FR • C1710: [NO DATA] RR • C1711: [NO DATA] RL • C1716: [PRESSDATA ERR] FL • C1717: [PRESSDATA ERR] FR • C1718: [PRESSDATA ERR] RR • C1719: [PRESSDATA ERR] RL • C1734: CONTROL UNIT
6	• B2621: INSIDE ANTENNA • B2622: INSIDE ANTENNA • B2623: INSIDE ANTENNA

DTC Index

INFOID:0000000009760545

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

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to BCS-21, "COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)".

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
No DTC is detected. further testing may be required.	—	—	—	—	—
U1000: CAN COMM CIRCUIT	—	—	—	—	BCS-50
U1010: CONTROL UNIT (CAN)	—	—	—	—	BCS-51
U0415: VEHICLE SPEED SIG	—	—	—	—	BCS-52

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
B2190: NATS ANTENNA AMP	×	—	—	—	SEC-46
B2191: DIFFERENCE OF KEY	×	—	—	—	SEC-49
B2192: ID DISCORD BCM-ECM	×	—	—	—	SEC-50
B2193: CHAIN OF BCM-ECM	×	—	—	—	SEC-52
B2195: ANTI SCANNING	×	—	—	—	SEC-53
B2553: IGNITION RELAY	—	×	—	—	PCS-51
B2555: STOP LAMP	—	×	—	—	SEC-54
B2556: PUSH-BTN IGN SW	—	×	×	—	SEC-56
B2557: VEHICLE SPEED	×	×	×	—	SEC-58
B2560: STARTER CONT RELAY	×	×	×	—	SEC-59
B2562: LOW VOLTAGE	—	×	—	—	BCS-53
B2601: SHIFT POSITION	×	×	×	—	SEC-60
B2602: SHIFT POSITION	×	×	×	—	SEC-63
B2603: SHIFT POSI STATUS	×	×	×	—	SEC-66
B2604: PNP SW	×	×	×	—	SEC-69
B2605: PNP SW	×	×	×	—	SEC-71
B2608: STARTER RELAY	×	×	×	—	SEC-73
B260A: IGNITION RELAY	×	×	×	—	PCS-53
B260F: ENG STATE SIG LOST	×	×	×	—	SEC-75
B2614: BCM	—	×	×	—	PCS-55
B2615: BCM	—	×	×	—	PCS-58
B2616: BCM	—	×	×	—	PCS-61
B2617: BCM	×	×	×	—	SEC-79
B2618: BCM	×	×	×	—	PCS-64
B261A: PUSH-BTN IGN SW	—	×	×	—	PCS-65
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	—	SEC-82
B2621: INSIDE ANTENNA	—	×	—	—	DLK-280
B2622: INSIDE ANTENNA	—	×	—	—	•DLK-84 (Coupe) •DLK-282 (Roadster)
B2623: INSIDE ANTENNA	—	×	—	—	•DLK-86 (Coupe) •DLK-284 (Roadster)
B26E8: CLUTCH SW	×	×	×	—	SEC-76
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	SEC-78
C1704: LOW PRESSURE FL	—	—	—	×	WT-23
C1705: LOW PRESSURE FR	—	—	—	×	
C1706: LOW PRESSURE RR	—	—	—	×	
C1707: LOW PRESSURE RL	—	—	—	×	

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference
C1708: [NO DATA] FL	—	—	—	×	WT-25
C1709: [NO DATA] FR	—	—	—	×	
C1710: [NO DATA] RR	—	—	—	×	
C1711: [NO DATA] RL	—	—	—	×	
C1716: [PRESSDATA ERR] FL	—	—	—	×	WT-28
C1717: [PRESSDATA ERR] FR	—	—	—	×	
C1718: [PRESSDATA ERR] RR	—	—	—	×	
C1719: [PRESSDATA ERR] RL	—	—	—	×	
C1729: VHCL SPEED SIG ERR	—	—	—	×	WT-30
C1734: CONTROL UNIT	—	—	—	×	WT-32

SOFT TOP CONTROL UNIT

Reference Value

INFOID:0000000009363545

VALUES ON THE DIAGNOSIS TOOL

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

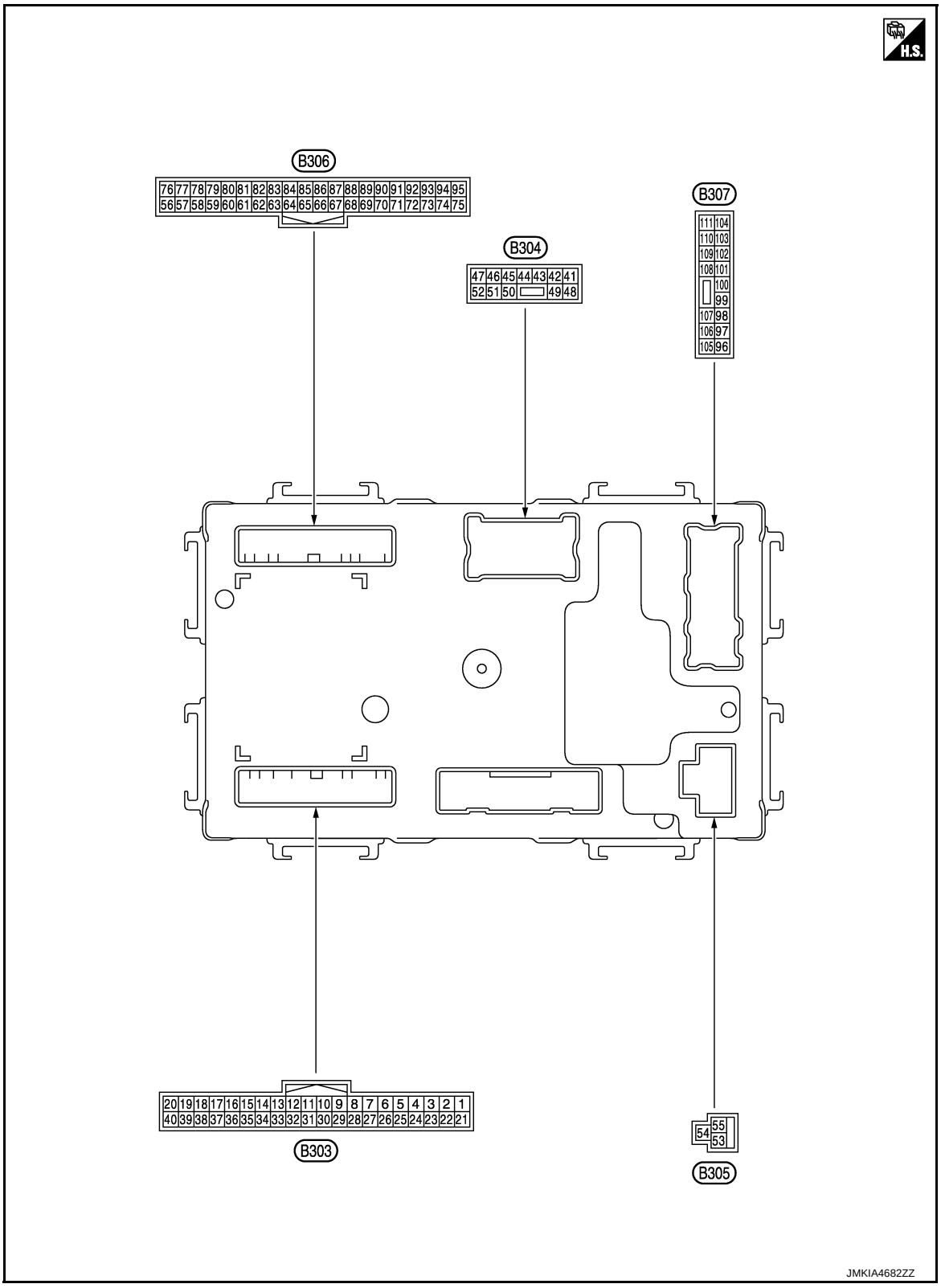
CONSULT MONITOR ITEM

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

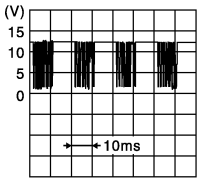
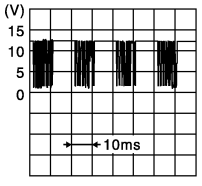
Monitor Item	Condition		Status/Value
S/LID CLOSE RH	State of storage lid drive cylinder RH	Storage lid is close	ON
		Other than above	OFF
		Storage lid status sensor RH circuit is open or short	NG
5TH BOW LATCH OP	State of 5th bow latch cylinder	Unlock	ON
		Other than above	OFF
		5th bow latch open sensor circuit is open or short	NG
SWITCHING VALVE 1	Operation of switching valve 1	Operate	ON
		Stop	OFF
		Switching valve 1 circuit is short	NG
SWITCHING VALVE 2	Operation of switching valve 2	Operate	ON
		Stop	OFF
		Switching valve 2 circuit is short	NG
SWITCHING VALVE 3	Operation of switching valve 3	Operate	ON
		Stop	OFF
		Switching valve 3 circuit is short	NG
SWITCHING VALVE 4	Operation of switching valve 4	Operate	ON
		Stop	OFF
		Switching valve 4 circuit is short	NG
SWITCHING VALVE 5	Operation of switching valve 5	Operate	ON
		Stop	OFF
		Switching valve 5 circuit is short	NG
PUMP OUT (RH)	Operation of hydraulic pump motor	Turning clockwise	ON
		Other than above	OFF
		Hydraulic pump motor (RH) circuit is short	NG
PUMP OUT (LH)	Operation of hydraulic pump motor	Turning counterclockwise	ON
		Other than above	OFF
		Hydraulic pump motor (LH) circuit is short	NG
5TH BOW LATCH CL	State of 5th bow latch cylinder	Lock	ON
		Other than above	OFF
		5th bow latch close sensor circuit is open or short	NG
ROOF SW (OPEN)	State of roof open/close switch	OPEN operation is in operation	ON
		Other than above	OFF
ROOF SW (CLOSE)	State of roof open/close switch	CLOSE operation is in operation	ON
		Other than above	OFF
SHIFT R SIGNAL	Shift position	R position	ON
		Other than R position	OFF
TRUNK OPEN OUT	Operation of trunk lid opener actuator	OPEN operation is in operation	ON
		Other than above	OFF
THER PROTEC PUMP	Thermo protection hydraulic pump	In non-operation	OK
		In operation	NG
THER PROTEC RCU	Thermo protection soft top control unit	In non-operation	OK
		In operation	NG

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

TERMINAL LAYOUT



PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
1 (BR)	Ground	Sensor power supply (Roof striker sensor LH)	Output	[Engine is running]		12 V
3 (DG)	Ground	Roof striker sensor RH	Input	[Engine is running] • Roof lock assembly	Hooked	0.8 V
					Released	3.0 V
4 (W)	Ground	Roof striker sensor LH	Input	[Engine is running] • Roof lock assembly	Hooked	0.8 V
					Released	3.0 V
8 (Y)	Ground	Back up lamp signal	Input	[Ignition switch: ON] • Shift position	R position	Battery voltage
					Other than above	0 V
9 (SB)	Ground	Power source (Power window)	Input	[Ignition switch: OFF]		Battery voltage
10 (O)	Ground	Trunk lid open request signal (BCM)	Input	[Ignition switch: ON] • Trunk opener	Operate	0 V → Battery voltage → 0 V
					Other than above	0 V
11 (O)	Ground	Roof status signal (Indicator lamp)	Output	[Engine is running] • Soft top indicator lamp	Illuminate	0 V
					Not illuminate	Battery voltage
12 (SB)	Ground	Roof status signal (Audio)	Output	[Engine is running] • Soft top system	Fully open	9.5 V
					Other than above	0 V
14 (L)	Ground	Roof open/close switch (Close)	Input	[Engine is running] • Close switch	Pressed	0 V
					Released	Battery voltage
15 (LG)	Ground	Roof open/close switch (Open)	Input	[Engine is running] • Open switch	Pressed	0 V
					Released	Battery voltage
16 (V)	Ground	Trunk room lamp switch	Input	[Ignition switch: ON] • Trunk lid	Open	0 V
					Other than above	Battery voltage
17 (BG)	Ground	CAN-H	Input/ Output	—		—
18 (P)	Ground	CAN-L	Input/ Output	—		—
19 (LG)	Ground	Local communication (Power window)	Input/ Output	—		 JMKIA4024GB
20 (V)	Ground	Local communication (BCM)	Input/ Output	—		 JMKIA4024GB

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
21 (BR)	Ground	Sensor power supply (Roof striker sensor RH)	Output	[Engine is running]		12 V
29 (DG)	Ground	Ground	—	—		—
35 (P)	Ground	Ground (Roof open/close switch)	—	—		—
41 (DG)	Ground	Trunk lid opener actuator	Output	Trunk lid opener	Operate	0 V → Battery voltage → 0 V
					Stop	0 V
48 (R)	Ground	Power source (Rear window defogger)	Input	[Engine is running] • Rear window defogger	Active	Battery voltage
					Not active	0 V
49 (R)	Ground	Power source (Rear window defogger)	Input	[Engine is running] • Rear window defogger	Active	Battery voltage
					Not active	0 V
53 (R)	Ground	Power source (Roof)	Input	[Engine is running]		Battery voltage
54 (B)	Ground	Ground (Roof)	—	—		—
56 (W)	Ground	5th bow latch close sensor	Input	[Engine is running] • 5th bow latch	Lock	0.8 V
					Other than above	3.0 V
57 (G)	Ground	5th bow latch open sensor	Input	[Engine is running] • 5th bow latch	Unlock	0.8 V
					Other than above	3.0 V
58 (LG)	Ground	Storage lid status sensor RH (Open)	Input	[Engine is running] • Storage lid	Full open	0.8 V
					Other than above	3.0 V
59 (W)	Ground	Storage lid status sensor RH (Close)	Input	[Engine is running] • Storage lid	Full close	0.8 V
					Other than above	3.0 V
60 (DG)	Ground	Storage lid status sensor LH (Open)	Input	[Engine is running] • Storage lid	Full open	0.8 V
					Other than above	3.0 V
61 (Y)	Ground	Roof status sensor RH (Close)	Input	[Engine is running] • Soft top	Raised	0.8 V
					Other than above	3.0 V
66 (L)	Ground	Roof status sensor LH (Open)	Input	[Engine is running] • Soft top	Lowered	0.8 V
					Other than above	3.0 V
68 (P)	Ground	5th bow status sensor RH	Input	[Engine is running] • 5th bow	Raised	0.8 V
					Other than above	3.0 V
69 (V)	Ground	Roof status sensor LH (Close)	Input	[Engine is running] • Soft top	Raised	0.8 V
					Other than above	3.0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
70 (O)	Ground	5th bow status sensor LH	Input	[Engine is running] • 5th bow	Lowered	0.8 V
					Other than above	3.0 V
71 (SB)	Ground	Roof latch lock sensor	Input	[Engine is running] • Roof lock assembly	Lock	0.8 V
					Other than above	3.0 V
72 (W/R)	Ground	Hydraulic pump temperature sensor	Input	[Engine is running]		0 - 4.8 V Output voltage varies with hydraulic pump temperature.
73 (R)	Ground	Hydraulic pump relay 2 ON signal	Input	[Engine is running] • Hydraulic pump motor (Right rotation)	Active	12 V
					Inactive	0 V
74 (R/B)	Ground	Hydraulic pump relay 1 ON signal	Input	[Engine is running] • Hydraulic pump motor (Left rotation)	Active	12 V
					Inactive	0 V
75 (BR)	Ground	Sensor power supply (Roof status sensor LH//5th bow latch open sensor/5th bow latch close sensor/ 5th bow striker sensor)	Output	[Engine is running]		12 V
76 (L)	Ground	5th bow striker sensor	Input	[Engine is running] • 5th bow striker	Hooked	0.8 V
					Released	3.0 V
92 (BG)	Ground	Sensor ground (Hydraulic pump temperature sensor)	—	—		—
93 (BR)	Ground	Sensor power supply (Roof status sensor RH/Storage lid status sensor RH)	Output	[Engine is running]		12 V
94 (BR)	Ground	Sensor power supply (Roof latch lock sensor/5th bow status sensor LH)	Output	[Engine is running]		12 V
95 (BR)	Ground	Sensor power supply (Storage lid status sensor/5th bow status sensor RH)	Output	[Engine is running]		12 V
96 (W)	Ground	Switching valve 4	Output	[Engine is running] • Switching valve 4	Active	12 V
					Inactive	0 V
97 (LG)	Ground	Switching valve 3	Output	[Engine is running] • Switching valve 3	Active	12 V
					Inactive	0 V
98 (L)	Ground	Switching valve 2	Output	[Engine is running] • Switching valve 2	Active	12 V
					Inactive	0 V
99 (O)	Ground	Switching valve 1	Output	[Engine is running] • Switching valve 1	Active	12 V
					Inactive	0 V
100 (BR)	Ground	Hydraulic pump relay 2	Output	[Engine is running] • Hydraulic pump motor (Right rotation)	Active	12 V
					Inactive	0 V

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	–	Signal name	Input/ Output			
101 (SB)	Ground	Hydraulic pump relay 1	Output	[Engine is running] • Hydraulic pump motor (Left rotation)	Active	12 V
					Inactive	0 V
102 (P)	Ground	Switching valve 5	Output	[Engine is running] • Switching valve 5	Active	12 V
					Inactive	0 V
103 (B)	Ground	Hydraulic unit ground	—	—		—
104 (R)	Ground	Rear window defogger power supply	Output	[Engine is running] • Rear window defogger **NOTE:** Roof is fully closed.	Active	Battery voltage
					Not active	0 V
111 (R)	Ground	Rear window defogger power supply	Output	[Engine is running] • Rear window defogger **NOTE:** Roof is fully closed.	Active	Battery voltage
					Not active	0 V

Fail-safe

INFOID:0000000009363546

FAIL-SAFE CONTROL BY DTC

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

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

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

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

DTC Inspection Priority Chart

INFOID:0000000009363547

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

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

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

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

DTC Index

INFOID:0000000009363548

NOTE:
For details of Freeze Frame Data, refer to RF-28, "CONSULT Function".

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
No DTC is detected. Further testing may be required.		—	—	—
U1000	CAN COMM CIRCUIT	×	×	RF-70

Display contents of CONSULT		Fail-safe	Freeze Frame Data	Reference page
U1010	CONTROL UNIT (CAN)	×	×	RF-71
U0140	LOCAL COMM-1	×	×	RF-72
U0215	LOCAL COMM-2	×	×	RF-73
B1701	ROOF CONTROL UNIT	×	×	RF-75
B1702	ROOF CONTROL UNIT	×	×	RF-76
B1709	ROOF SWITCH-OPEN	×	×	RF-77
B170A	ROOF SWITCH-CLOSE	×	×	RF-79
B170F	SENSOR POWER SUPPLY	×	×	RF-81
B171A	HYDRAULIC PMP(LH)	×	×	RF-84
B171B	HYDRAULIC PMP(RH)	×	×	RF-87
B171C	SWITCHING VALVE 1	×	×	RF-90
B171D	SWITCHING VALVE 2	×	×	RF-92
B172C	ROOF STATE SIG(TRUNK)*	×	×	RF-94
B1731	HYDRAULIC STATE 1	×	×	RF-96
B1758	THERMO PROTECTION	×	×	RF-97
B175C	PWR SOURCE(ROOF)	×	×	RF-98
B175D	PWR SOURCE(ROOF)	×	×	RF-99
B175E	PWR SOURCE(WINDOW)	×	×	RF-100
B175F	PWR SOURCE(WINDOW)	×	×	RF-102
B1766	SWITCHING VALVE 3	×	×	RF-104
B1767	SWITCHING VALVE 4	×	×	RF-106
B1768	SWITCHING VALVE 5	×	×	RF-108
B176A	THERMO PROTECTION	×	×	RF-110
B176B	ROOF WARNING LAMP	×	×	RF-111
B176C	STRIKER SENSOR RH	×	×	RF-113
B176D	STRIKER SENSOR LH	×	×	RF-115
B176E	ROOF LATCH LOCK SEN	×	×	RF-117
B176F	ROOF STATUS SEN LH	×	×	RF-119
B1770	ROOF STATUS SEN RH	×	×	RF-121
B1771	ROOF STATUS SEN LH	×	×	RF-123
B1772	5BOW STATUS SEN LH	×	×	RF-125
B1773	5BOW STATUS SEN RH	×	×	RF-127
B1774	S/LID STATUS SEN LH	×	×	RF-129
B1775	S/LID STATUS SEN RH	×	×	RF-131
B1776	S/LID STATUS SEN RH	×	×	RF-133
B1777	REAR DEF OUT SIG	×	×	RF-135
B1778	TRUNK OPEN OUT SIG	×	×	RF-136
B1779	THERMO PROTECTION	×	×	RF-138
B177A	ROOF STATE INCORRECT	×	×	RF-140
B177B	ROOF STATE INCORRECT	×	×	RF-141
B177C	THERMO PROTECTION	×	×	RF-142
B177D	5BOW LATCH OPEN SEN	×	×	RF-143
B177E	5BOW LATCH CLOSE SEN	×	×	RF-145
B177F	5BOW STRIKER SENSOR	×	×	RF-147

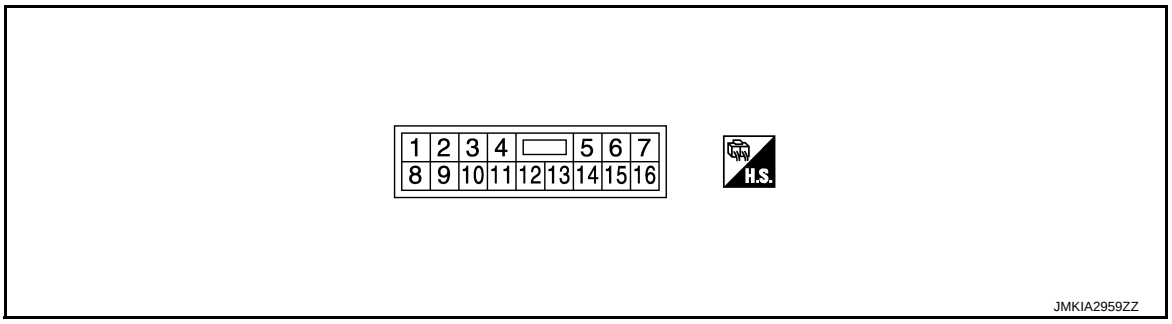
*: This item indicates the roof status signal (Audio).

POWER WINDOW MAIN SWITCH

Reference Value

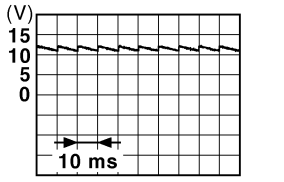
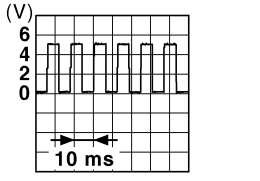
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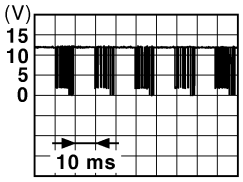
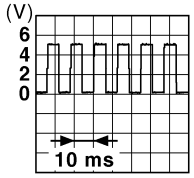
TERMINAL LAYOUT



PHYSICAL VALUES

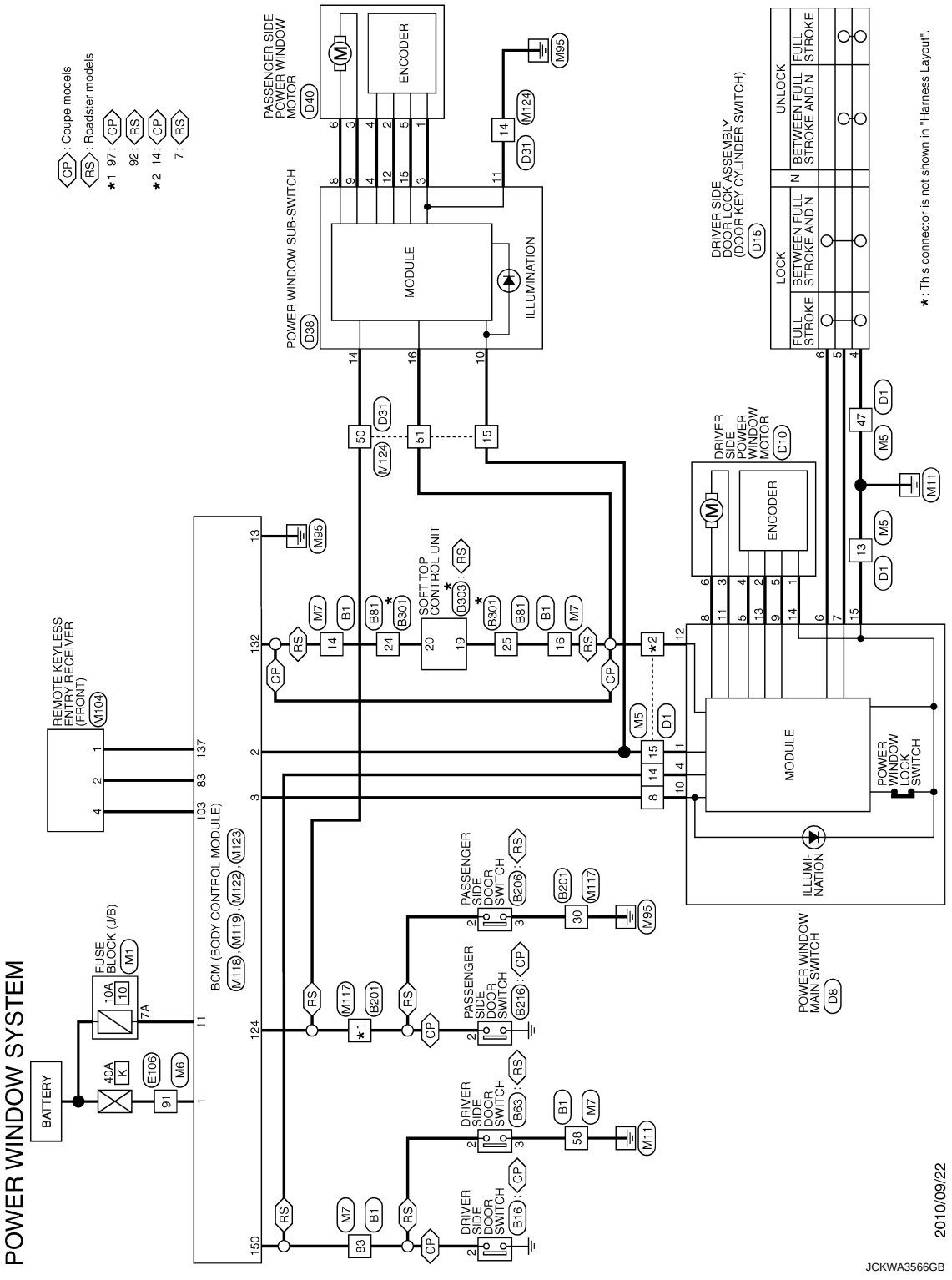
POWER WINDOW MAIN SWITCH

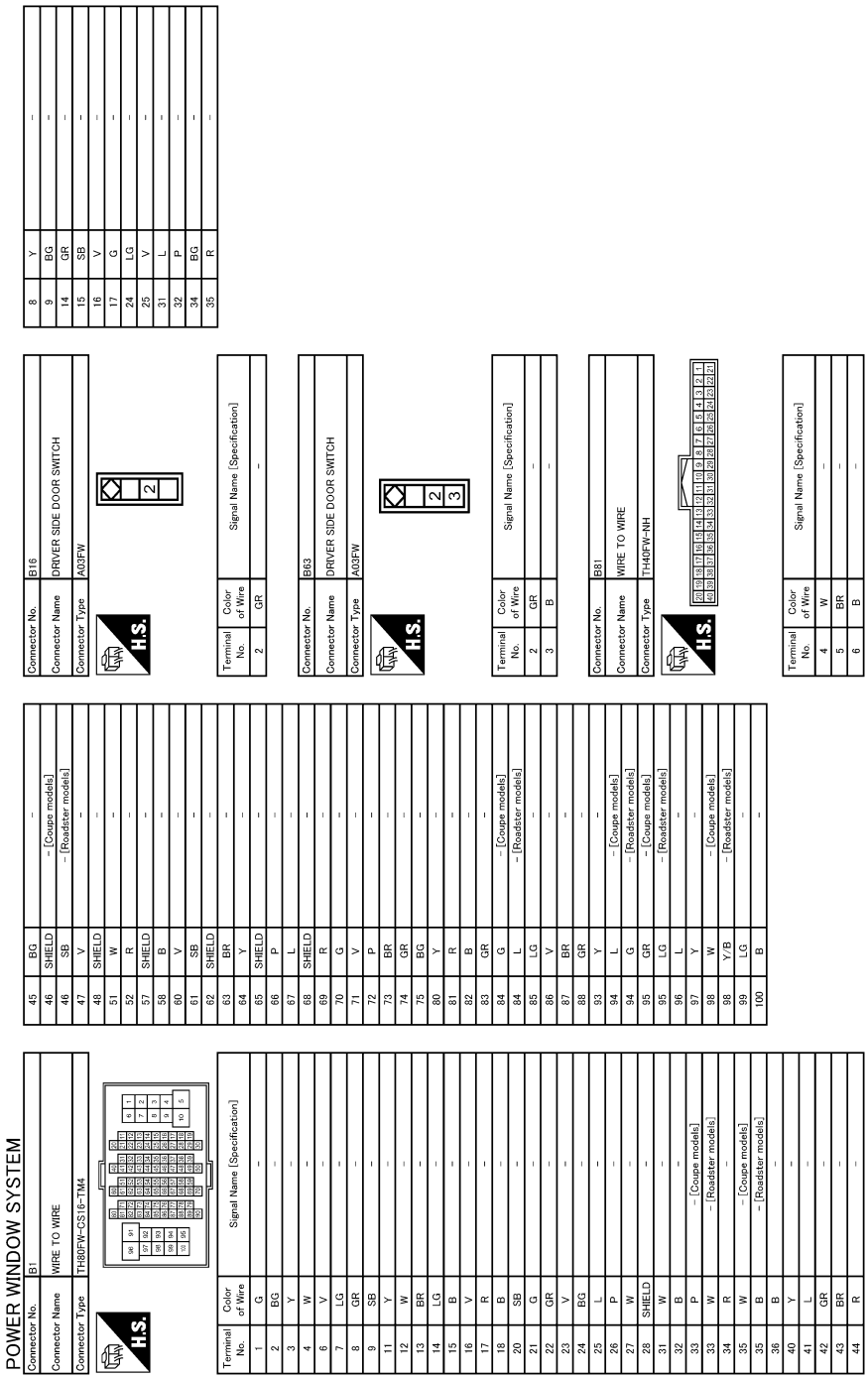
Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
1 (W)	Ground	Battery power supply	Input	—	12
4 (Y)	Ground	Driver side door switch	Input	OFF (Door close)	 JPMIA0011GB
				ON (Door open)	0
5 (BG)	Ground	Encoder power supply	Output	When ignition switch ON or automatic window adjusting operates	12
6 (GR)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral → Locked)	5 → 0
7 (V)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
8 (L)	Ground	Driver side power window motor UP signal	Output	When power window main switch (Driver side) is operated UP	12
9 (LG)	Ground	Encoder pulse signal 2	Input	When power window motor operates	 JMKIA0070GB
10 (Y)	Ground	Ignition switch power signal	Input	IGN SW ON	12
				IGN SW OFF	0

Terminal No. (Wire color)		Description		Condition	Voltage [V] (Approx.)
+	-	Signal name	Input/ Output		
11 (BR)	Ground	Driver side power window motor DOWN signal	Output	When power window main switch (Driver side) is operated DOWN	12
12 (Y)	Ground	Power window serial link	Input/ Output	Ignition switch ON	 JPMIA0013GB
13 (R)	Ground	Encoder pulse signal 1	Input	When power window motor operates	 JMKIA0070GB
14 (G)	Ground	Encoder ground	—	—	0
15 (B)	Ground	Ground	—	—	0

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

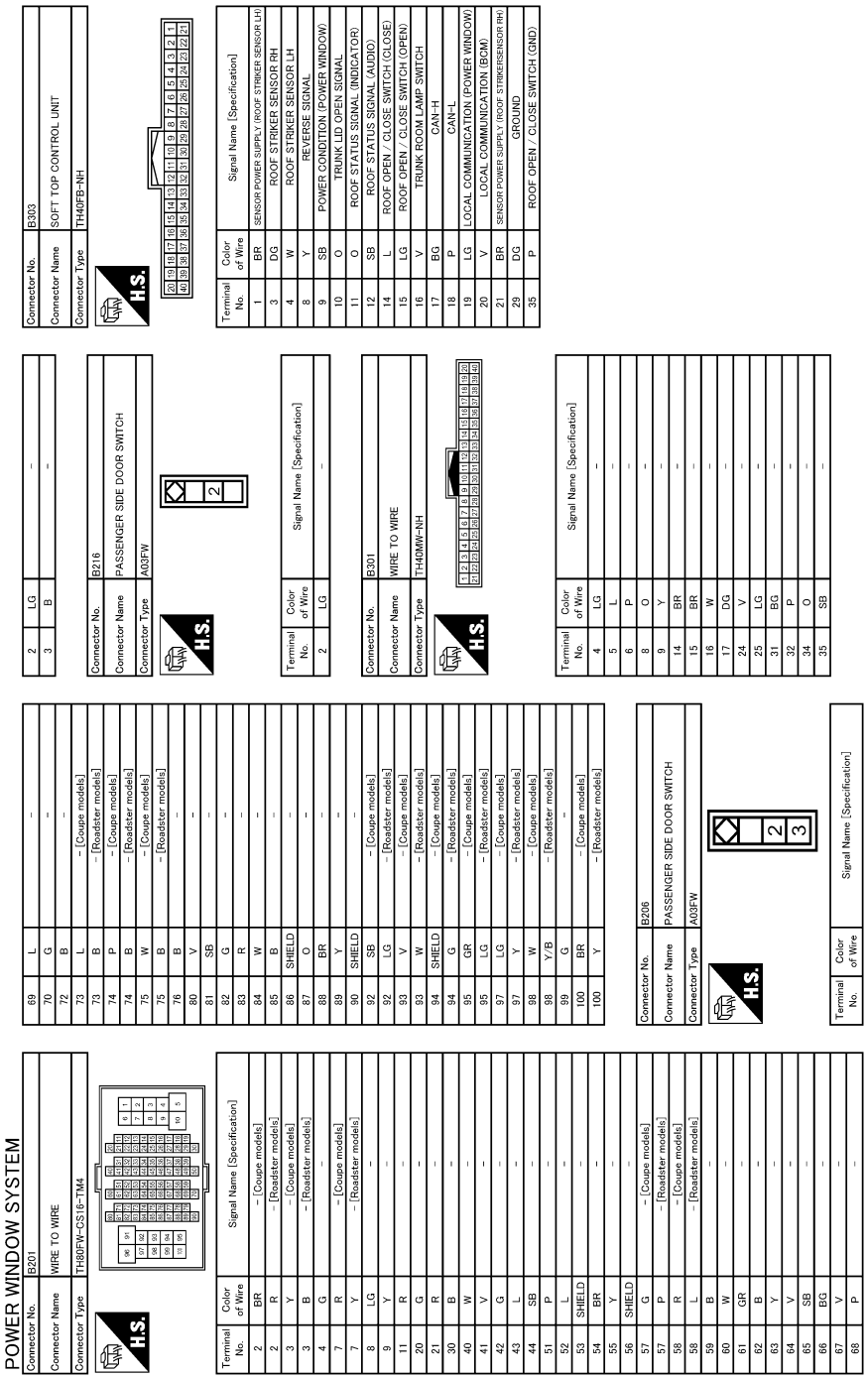
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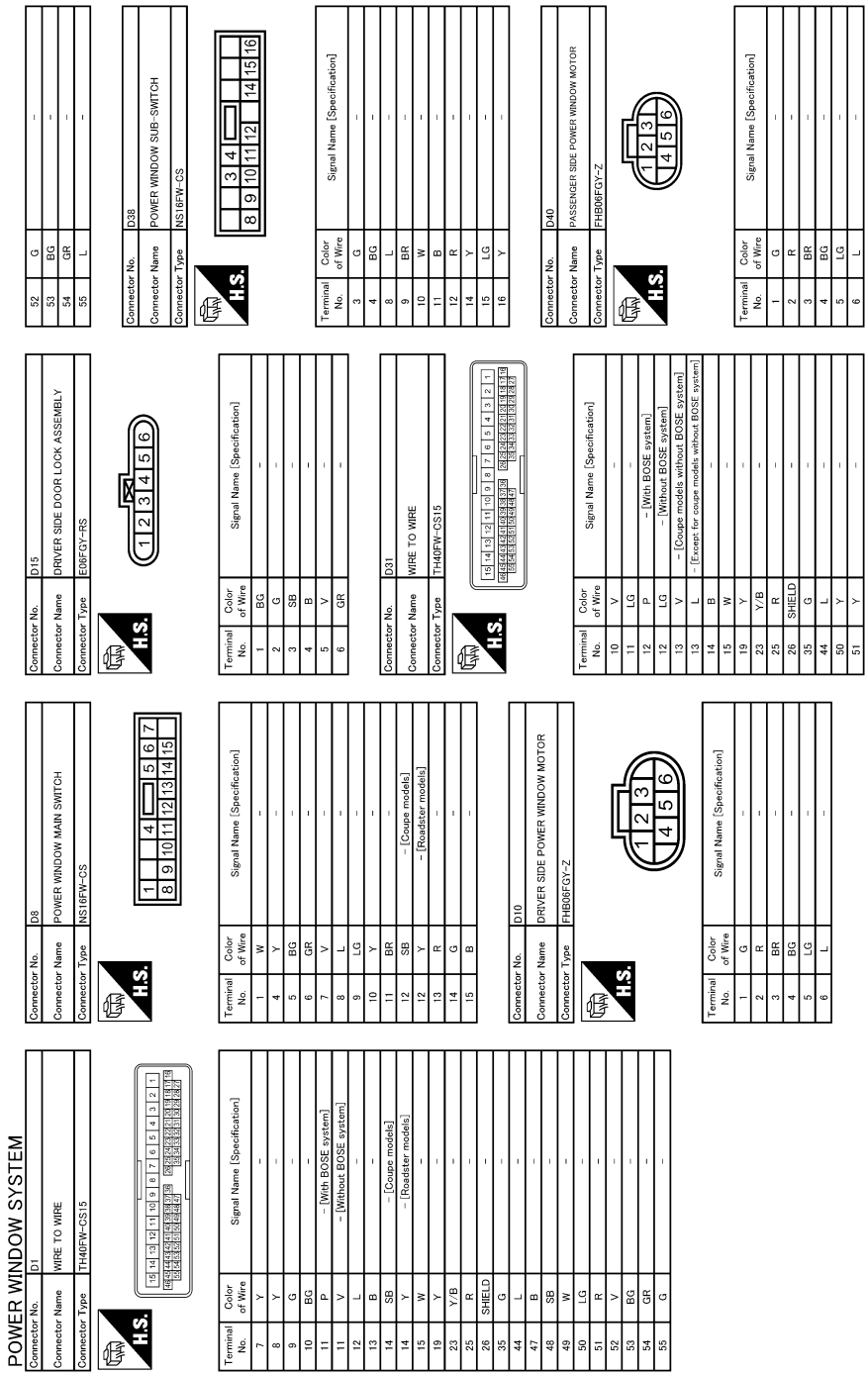


JRKWC4030GB

POWER WINDOW SYSTEM



JRKWC4031GB



JRKWC4032GB

JRKWC4033GB

POWER WINDOW SYSTEM

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	O	–
3	LG	–
4	O	–
6	V	–
7	LG	–
8	SB	–
9	GR	–
11	Y	–
12	V	–
13	BR	–
14	V	–
15	B	–
16	V	–
17	R	–
18	L	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	R	–
25	L	–
26	P	–
27	B	–
28	SHIELD	–
31	W	–
32	B	–
33	W	–
34	R	–
35	B	–
36	L	–
40	L	–
41	R	–
42	GR	–
43	R	–
44	R	–
45	O	–
46	SHIELD	– [Coupe models]
46	G	– [Roadster models]
47	R	–
48	SHIELD	–
51	V	–
52	R	–
57	SHIELD	–
58	B	–
60	L	–
61	R	–
62	SHIELD	–
63	R	–
64	G	–
65	SHIELD	–
66	LG	–
67	V	–
68	SHIELD	–
69	L	–
70	P	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	O	–
80	Y	–
81	W	–
82	BR	–
83	GR	–
84	L	–
85	LG	–
86	V	–
87	BR	–
88	SB	–
93	Y	–
94	SB	– [Coupe models]
94	L	– [Roadster models]
95	GR	– [Coupe models]
95	W	– [Roadster models]
96	L	–
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	BG	– [Coupe models]
98	Y / B	– [Roadster models]
99	W	–
100	B	–

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (FRONT)
Connector Type	JAB04FB

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	GROUND
2	GR	SIGNAL OUTPUT
4	LG	BATTERY

JRKWC4034GB

POWER WINDOW SYSTEM

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	– [Coupe models]
2	LG	– [Roadster models]
3	O	– [Coupe models]
3	B	– [Roadster models]
4	W	–
7	LG	– [Coupe models]
7	Y	– [Roadster models]
8	LG	–
9	Y	–
11	R	–
20	G	–
21	R	–
30	B	–
40	O	–
41	Y	–
42	G	–
43	L	–
44	SB	–
51	R	–
52	G	–
53	SHIELD	–
54	LG	–
55	V	–
56	SHIELD	–
57	G	– [Coupe models]
57	P	– [Roadster models]
58	R	– [Coupe models]
58	L	– [Roadster models]
59	B	–
60	W	–
61	GR	–
62	B	–
63	Y	–
64	L	–
65	G	–
66	O	–
67	V	–
68	P	–
69	L	–
70	L	–
72	B	–
73	B	–
74	B	–
75	B	–
76	B	–
80	L	–
81	Y	–
82	W	–
83	B	–
84	R	–
85	G	–
86	SHIELD	–
87	G	–
88	L	–
89	P	– [Coupe models]
89	Y	– [Roadster models]
90	SHIELD	–
92	G	– [Coupe models]
92	LG	– [Roadster models]
93	R	– [Coupe models]
93	V	– [Roadster models]
94	SHIELD	– [Coupe models]
94	G	– [Roadster models]
95	SB	– [Coupe models]
95	LG	– [Roadster models]
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	V	– [Coupe models]
98	Y/B	– [Roadster models]
99	G	–
100	BR	– [Coupe models]
100	Y	– [Roadster models]

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

H.S.

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

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
8	V	ALL DOOR, FUEL LID LOCK OUTPUT
9	G	DRIVER DOOR, FUEL LID UNLOCK OUTPUT
11	BR	BAT (FUSE)
13	B	GROUND
14	R	PUSH-BUTTON IGNITION SW ILL GND
15	Y	ACC IND
17	W	TURN SIGNAL RH (FRONT, SIDE)
18	O	TURN SIGNAL LH (FRONT, SIDE)
19	P	ROOM LAMP TIMER CONTROL

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
72	L	ROOM ANT 2–
73	P	ROOM ANT 2+
74	SB	PASSENGER DOOR ANT–
75	BR	PASSENGER DOOR ANT+
76	V	DRIVER DOOR ANT–
77	LG	DRIVER DOOR ANT+
78	L	ROOM ANT 1–
79	R	ROOM ANT 1+
80	GR	NATS ANT AMP.
81	W	NATS ANT AMP.
82	R	IGN RELAY (F/B) CONT
83	GR	KYLS ENT RECEIVER (FRONT) COMM
87	BR	COMBI SW INPUT 5
88	V	COMBI SW INPUT 3
90	P	CAN–L
91	L	CAN–H
92	LG	KEY SLOT ILL
93	V	ON IND
95	O	ACC RELAY CONT
96	Y	A/T SHIFT SELECTOR POWER SUPPLY
99	R	SHIFT P/CLUTCH PEDAL POS SW
100	GR	PASSENGER DOOR REQUEST SW
101	Y	DRIVER DOOR REQUEST SW
102	O	BLOWER FAN MOTOR RELAY CONT
103	LG	KYLS ENT RECEIVER (FRONT) PWR SUPPLY
107	LG	COMBI SW INPUT 1
108	R	COMBI SW INPUT 4
109	Y	COMBI SW INPUT 2
110	P	HAZARD SW

JRKWC4035GB

POWER WINDOW SYSTEM

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

Terminal No.	Color of Wire	Signal Name [Specification]
113	O	OPTICAL SENSOR
114	R	CLUTCH INTERLOCK SW
115	O	
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	R	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
129	O	TRUNK LID OPENER CANCEL SW
130	L	REAR DEFOGGER SW
132	V	P/W SW & SOFT TOP C/U COMM [Roadster models]
132	Y	POWER WINDOW SW COMM [Coupe models]
133	G	PUSH BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	P	RECEIVER &SENSOR GND
138	V	RECEIVER & SENSOR POWER SUPPLY
139	L	TIRE PRESS RECEIV COMM
140	G	P/N POSITION
141	Y	SECURITY INDICATOR
142	O	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.	M124
Connector Name	WIRE TO WIRE
Connector Type	TH40MW-CS15

Terminal No.	Color of Wire	Signal Name [Specification]
10	G	–
11	V	–
12	LG	–
13	V	–
14	B	–
15	W	–
19	Y	–
23	Y/B	–
25	W	–
26	SHIELD	–
35	B	–
44	O	–
50	Y	–
51	Y	–
52	GR	–
53	W	–
54	G	–
55	R	–

JRKWC4036GB

Fail-Safe

INFOID:0000000009363551

FAIL-SAFE CONTROL

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

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

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

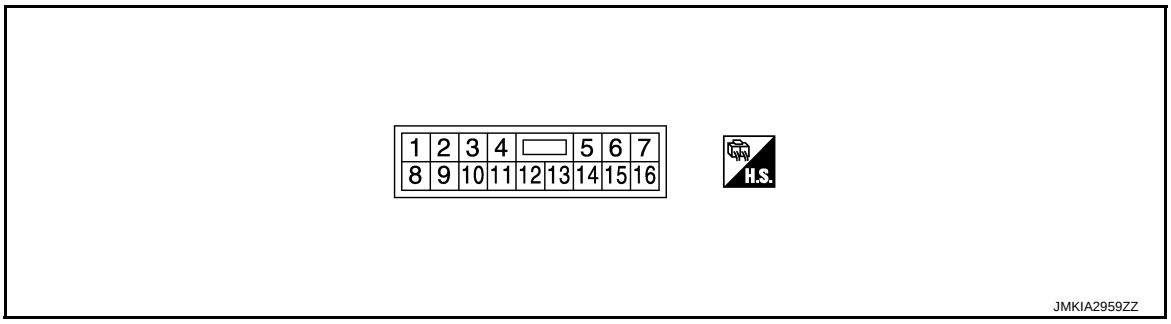
Perform initial operation to recover when switched to fail-safe mode. However, it switches back to fail-safe control when malfunction is found in power window switch or in motor.

POWER WINDOW SUB-SWITCH

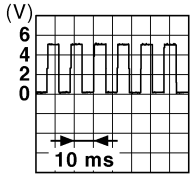
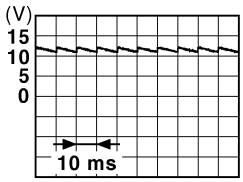
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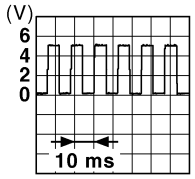
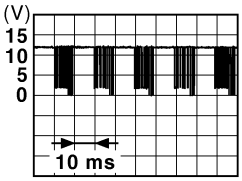
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TERMINAL LAYOUT



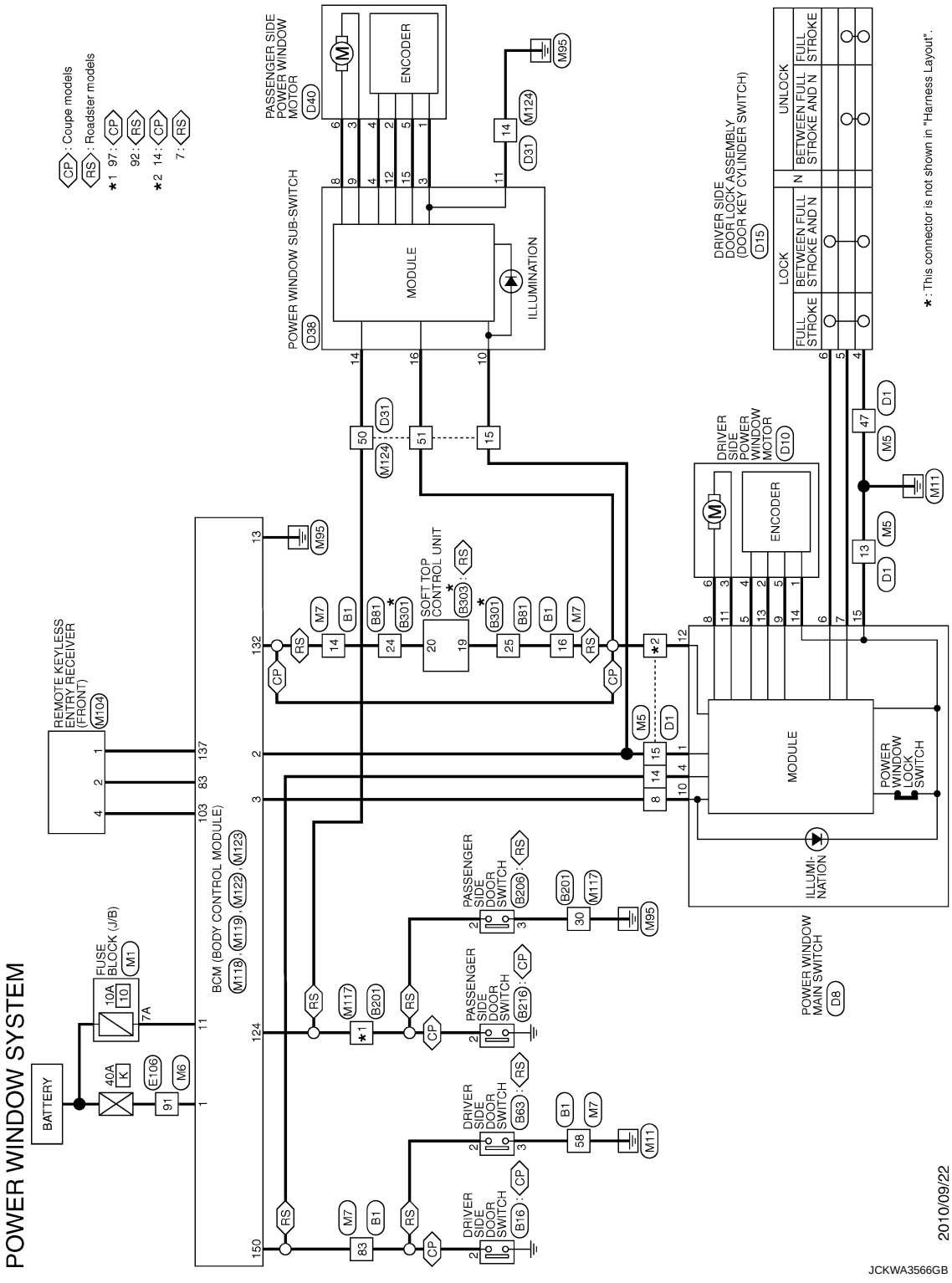
PHYSICAL VALUES

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

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

Wiring Diagram - POWER WINDOW CONTROL 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]
1	G	–
2	BG	–
3	Y	–
4	W	–
6	V	–
7	LG	–
8	GR	–
9	SB	–
11	Y	–
12	W	–
13	BR	–
14	LG	–
15	B	–
16	V	–
17	R	–
18	B	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	BG	–
25	L	–
26	P	– [Coupe models]
27	W	– [Roadster models]
28	SHIELD	–
31	W	–
32	B	–
33	P	– [Coupe models]
33	W	– [Roadster models]
34	R	–
35	W	– [Coupe models]
35	B	– [Roadster models]
36	B	–
40	Y	–
41	L	–
42	GR	–
43	BR	–
44	R	–
45	BG	–
46	SHIELD	– [Coupe models]
46	SB	– [Roadster models]
47	V	–
48	SHIELD	–
51	W	–
52	R	–
57	SHIELD	–
58	B	–
60	V	–
61	SB	–
62	SHIELD	–
63	BR	–
64	Y	–
65	SHIELD	–
66	P	–
67	L	–
68	SHIELD	–
69	R	–
70	G	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	BG	–
80	Y	–
81	R	–
82	B	–
83	GR	–
84	G	– [Coupe models]
84	L	– [Roadster models]
85	LG	–
86	V	–
87	BR	–
88	GR	–
93	Y	–
94	L	– [Coupe models]
94	G	– [Roadster models]
95	GR	– [Coupe models]
95	LG	– [Roadster models]
96	L	–
97	Y	–
98	W	– [Coupe models]
98	Y/B	– [Roadster models]
99	LG	–
100	B	–

Connector No.	B16
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–

Connector No.	B63
Connector Name	DRIVER SIDE DOOR SWITCH
Connector Type	A03FW

H.S.

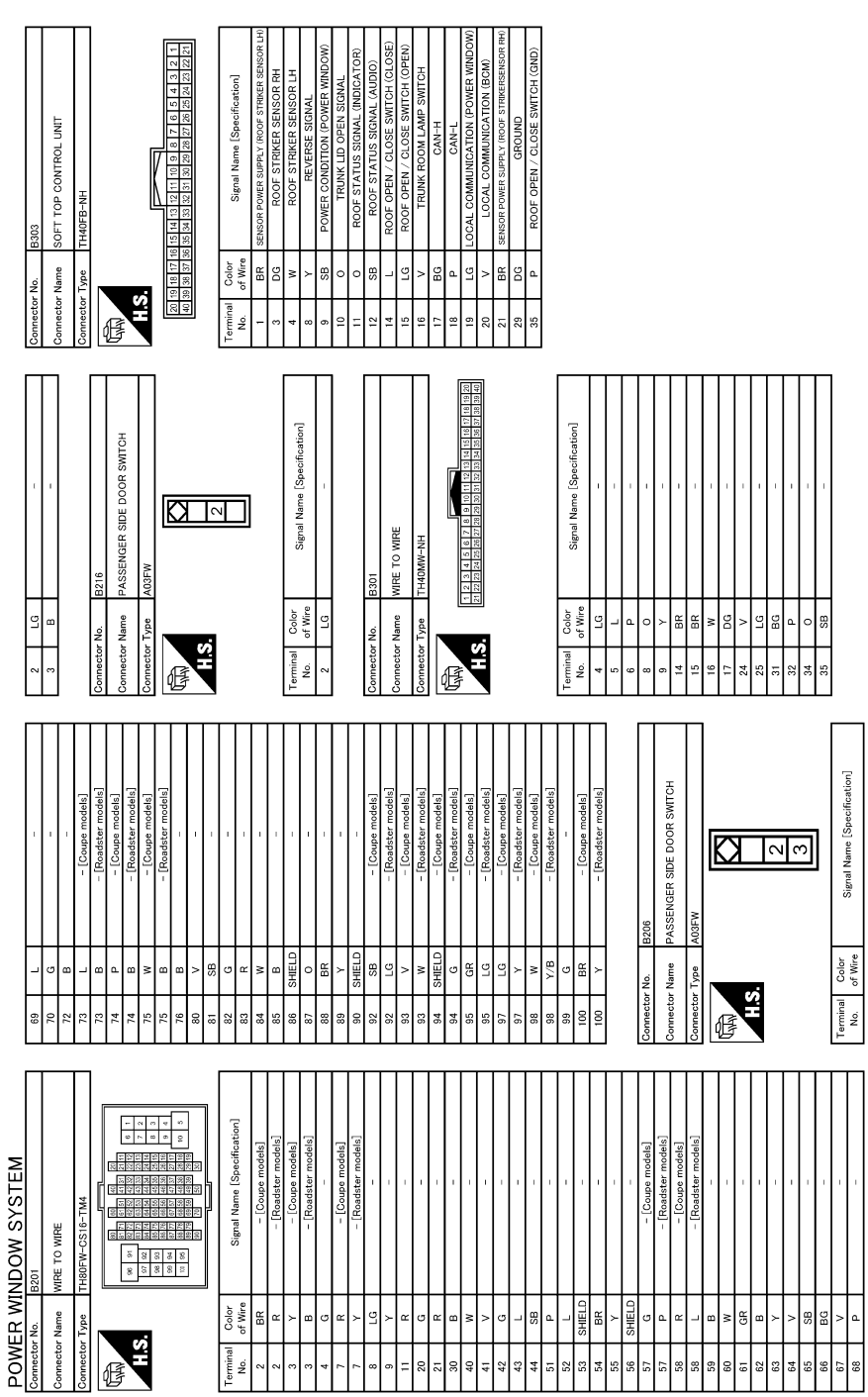
Terminal No.	Color of Wire	Signal Name [Specification]
2	GR	–
3	B	–

Connector No.	B81
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NH

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
4	W	–
5	BR	–
6	B	–
8	Y	–
9	BG	–
14	GR	–
15	SB	–
16	V	–
17	G	–
24	LG	–
25	V	–
31	L	–
32	P	–
34	BG	–
35	R	–

JRKWC4030GB



JRKWC4031GB

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]
7	Y	–
8	Y	–
9	G	–
10	BG	–
11	P	– [With BOSE system]
11	V	– [Without BOSE system]
12	L	–
13	B	–
14	SB	– [Coupe models]
14	Y	– [Roadster models]
15	W	–
19	Y	–
23	Y/B	–
25	R	–
26	SHIELD	–
35	G	–
44	L	–
47	B	–
48	SB	–
49	W	–
50	LG	–
51	R	–
52	V	–
53	BG	–
54	GR	–
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]
1	W	–
4	Y	–
5	BG	–
6	GR	–
7	V	–
8	L	–
9	LG	–
10	Y	–
11	BR	–
12	SB	– [Coupe models]
12	Y	– [Roadster models]
13	R	–
14	G	–
15	B	–

Connector No.	D10
Connector Name	DRIVER SIDE POWER WINDOW MOTOR
Connector Type	FHB06FGY-Z

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–
3	BR	–
4	BG	–
5	LG	–
6	L	–

Connector No.	D15
Connector Name	DRIVER SIDE DOOR LOCK ASSEMBLY
Connector Type	E06FGY-RS

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	BG	–
2	G	–
3	SB	–
4	B	–
5	V	–
6	GR	–

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

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
10	V	–
11	LG	–
12	P	– [With BOSE system]
12	LG	– [Without BOSE system]
13	V	– [Coupe models without BOSE system]
13	L	– [Except for coupe models without BOSE system]
14	B	–
15	W	–
19	Y	–
23	Y/B	–
25	R	–
26	SHIELD	–
35	G	–
44	L	–
50	Y	–
51	Y	–

52	G	–
53	BG	–
54	GR	–
55	L	–

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

H.S.

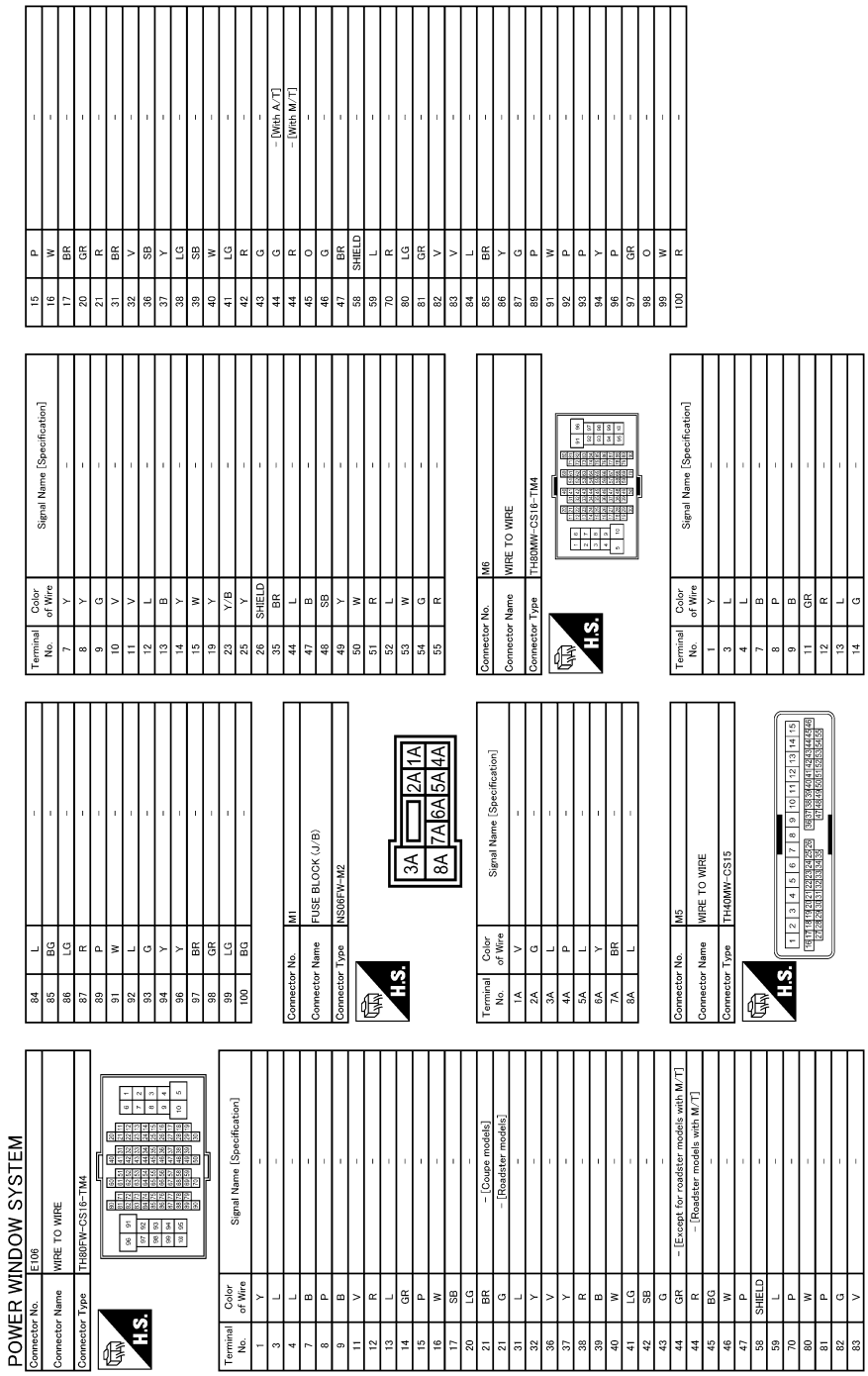
Terminal No.	Color of Wire	Signal Name [Specification]
3	G	–
4	BG	–
8	L	–
9	BR	–
10	W	–
11	B	–
12	R	–
14	Y	–
15	LG	–
16	Y	–

Connector No.	D40
Connector Name	PASSENGER SIDE POWER WINDOW MOTOR
Connector Type	FHB06FGY-Z

H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	G	–
2	R	–
3	BR	–
4	BG	–
5	LG	–
6	L	–

JRKWC4032GB



JRKWC4033GB

POWER WINDOW SYSTEM

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

H.S.

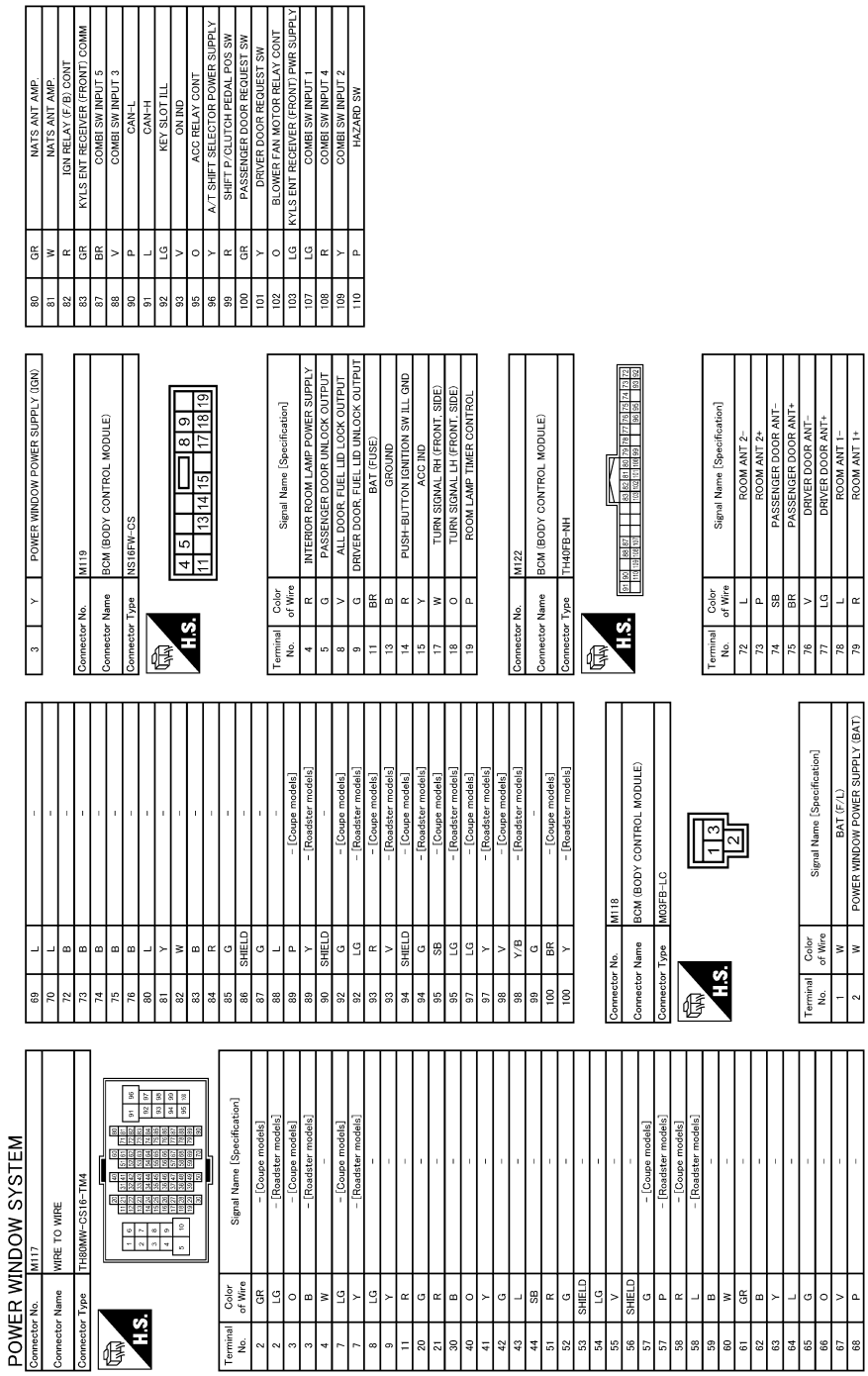
Terminal No.	Color of Wire	Signal Name [Specification]
1	BR	–
2	O	–
3	LG	–
4	O	–
6	V	–
7	LG	–
8	SB	–
9	GR	–
11	Y	–
12	V	–
13	BR	–
14	V	–
15	B	–
16	V	–
17	R	–
18	L	–
20	SB	–
21	G	–
22	GR	–
23	V	–
24	R	–
25	L	–
26	P	–
27	B	–
28	SHIELD	–
31	W	–
32	B	–
33	W	–
34	R	–
35	B	–
36	L	–
40	L	–
41	R	–
42	GR	–
43	R	–
44	R	–
45	O	–
46	SHIELD	– [Coupe models]
46	G	– [Roadster models]
47	R	–
48	SHIELD	–
51	V	–
52	R	–
57	SHIELD	–
58	B	–
60	L	–
61	R	–
62	SHIELD	–
63	R	–
64	G	–
65	SHIELD	–
66	LG	–
67	V	–
68	SHIELD	–
69	L	–
70	P	–
71	V	–
72	P	–
73	BR	–
74	GR	–
75	O	–
80	Y	–
81	W	–
82	BR	–
83	GR	–
84	L	–
85	LG	–
86	V	–
87	BR	–
88	SB	–
93	Y	–
94	SB	– [Coupe models]
94	L	– [Roadster models]
95	GR	– [Coupe models]
95	W	– [Roadster models]
96	L	–
97	LG	– [Coupe models]
97	Y	– [Roadster models]
98	BG	– [Coupe models]
98	Y / B	– [Roadster models]
99	W	–
100	B	–

Connector No.	M104
Connector Name	REMOTE KEYLESS ENTRY RECEIVER (FRONT)
Connector Type	LABO4FB

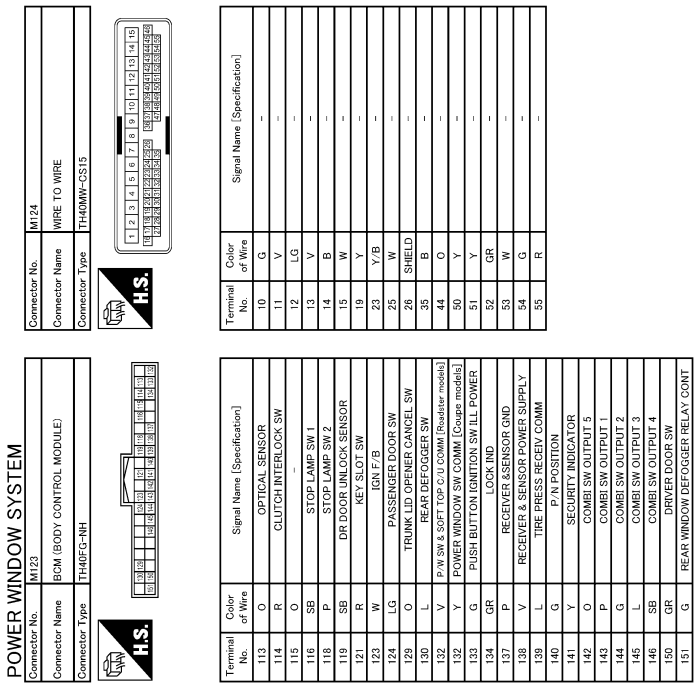
H.S.

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	GROUND
2	GR	SIGNAL OUTPUT
4	LG	BATTERY

JRKWC4034GB



JRKWC4035GB



Terminal No.	Color of Wire	Signal Name [Specification]
113	O	OPTICAL SENSOR
114	R	CLUTCH INTERLOCK SW
115	O	–
116	SB	STOP LAMP SW 1
118	P	STOP LAMP SW 2
119	SB	DR DOOR UNLOCK SENSOR
121	R	KEY SLOT SW
123	W	IGN F/B
124	LG	PASSENGER DOOR SW
129	O	TRUNK LID OPENER CANCEL SW
130	L	REAR DEFOGGER SW
132	V	P/W SW & SOFT TOP C/U COMM [Roadster models]
132	Y	POWER WINDOW SW COMM [Coupe models]
133	G	PUSH BUTTON IGNITION SW ILL POWER
134	GR	LOCK IND
137	P	RECEIVER &SENSOR GND
138	V	RECEIVER & SENSOR POWER SUPPLY
139	L	TIRE PRESS RECEIV COMM
140	G	P/N POSITION
141	Y	SECURITY INDICATOR
142	O	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

Terminal No.	Color of Wire	Signal Name [Specification]
10	G	–
11	V	–
12	LG	–
13	V	–
14	B	–
15	W	–
19	Y	–
23	Y/B	–
25	W	–
26	SHIELD	–
35	B	–
44	O	–
50	Y	–
51	Y	–
52	GR	–
53	W	–
54	G	–
55	R	–

JRKWC4036GB

Fail-Safe

INFOID:0000000009697486

FAIL-SAFE CONTROL

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

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

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

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

SYMPTOM DIAGNOSIS

POWER WINDOWS DO NOT OPERATE WITH ANY POWER WINDOW SWITCHES

Description

INFOID:0000000009363555

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

Diagnosis Procedure

INFOID:0000000009363556

1.CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.
Refer to BCS-54, "Diagnosis Procedure".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Description

INFOID:0000000009363557

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

Diagnosis Procedure

INFOID:0000000009363558

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

Check power window main switch power supply and ground circuit.
Refer to PWC-125, "POWER WINDOW MAIN SWITCH : Diagnosis Procedure".

Is the inspection result normal?

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

2.CHECK DRIVER SIDE POWER WINDOW MOTOR

Check driver side power window motor.
Refer to PWC-128, "DRIVER SIDE : Component Function Check".

Is the measurement value within the specification?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Description

INFOID:0000000009363559

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

Diagnosis Procedure

INFOID:0000000009363560

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

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

Is the inspection result normal?

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

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR

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

Is the measurement value within the specification?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000009363561

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

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363562

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-220, "DRIVER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000009363563

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

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363564

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-220, "PASSENGER SIDE : Diagnosis Procedure".

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMALLY

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363565

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-115, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2.CHECK ENCODER (DRIVER SIDE) CIRCUIT

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

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363566

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.
Refer to PWC-115, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.
Refer to PWC-134, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW RETAINED POWER FUNCTION DOES NOT OPERATE NORMALLY

Description

INFOID:0000000009363567

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

Diagnosis Procedure

INFOID:0000000009363568

1.CHECK DOOR SWITCH

Check door switch.
Refer to DLK-286, "Component Function Check".

Is the inspection result normal?

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

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

DOOR KEY CYLINDER SWITCH DOES NOT OPERATE POWER WINDOWS

Description

INFOID:0000000009363569

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

Diagnosis Procedure

INFOID:0000000009363570

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.
Refer to PWC-115, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

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

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

Check driver side door lock assembly (door key cylinder switch).
Refer to DLK-297, "Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

KEYLESS POWER WINDOW DOWN DOES NOT OPERATE

Description

INFOID:0000000009363571

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

Diagnosis Procedure

INFOID:0000000009363572

1.CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent Key button?

YES >> GO TO 2.
NO >> Refer to DLK-333, "Diagnosis Procedure".

2.CHECK POWER WINDOW OPERATION

Check power window operation.

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

YES >> GO TO 3.
NO >> Refer to PWC-216, "Diagnosis Procedure".

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

Check “PW DOWN SET” setting in “WORK SUPPORT”.
Refer to DLK-234, "INTELLIGENT KEY : CONSULT Function (BCM - INTELLIGENT KEY) (For Roadster)".

Is the inspection result normal?

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

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000009363573

1.REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

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

POWER WINDOW SWITCH ILLUMINATION DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363574

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

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

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363575

1. REPLACE POWER WINDOW SUB-SWITCH

Replace power window sub-switch.

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

AUTOMATIC WINDOW ADJUSTING FUNCTION DOES NOT OPERATE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000009363576

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-220, "DRIVER SIDE : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-136, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000009363577

1.CHECK AUTO UP OPERATION

Check AUTO UP operation.

Is the inspection result normal?

YES >> GO TO 2.
NO >> Refer to PWC-220, "PASSENGER SIDE : Diagnosis Procedure".

2.CHECK DOOR SWITCH

Check door switch.
Refer to PWC-137, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

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

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-45, "Intermittent Incident".
NO >> GO TO 1.

PRECAUTION

PRECAUTIONS

FOR USA AND CANADA

FOR USA AND CANADA : Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000009363578

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

WARNING:

Always observe the following items for preventing accidental activation.

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

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

WARNING:

Always observe the following items for preventing accidental activation.

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

FOR USA AND CANADA : Precaution for Battery Service

INFOID:0000000009363579

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

FOR MEXICO

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

INFOID:0000000009363580

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the “SRS AIR BAG” and “SEAT BELT” of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**

- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see “SRS AIR BAG”.**
- **Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

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

WARNING:

Always observe the following items for preventing accidental activation.

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

FOR MEXICO : Precaution for Battery Service

INFOID:0000000009363581

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.

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

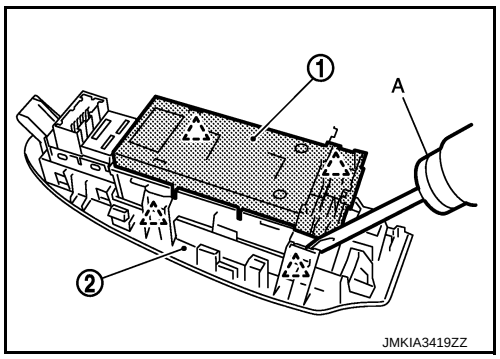
Removal and Installation

INFOID:0000000009363582

REMOVAL

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

: Pawl



CAUTION:
Never fold the pawl of power window main switch finisher.
NOTE:
The same procedure is also performed for power window sub-switch.

INSTALLATION

Install in the reverse order of removal.
NOTE:
Power window main switch is replaced or is removed it is necessary to do the initialization procedure.
Refer to PWC-116, "ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT : Special Repair Requirement".