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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION > **BASIC INSPECTION** Α DIAGNOSIS AND REPAIR WORKFLOW Work Flow INFOID:0000000007328632 **DETAILED FLOW** ${f 1}$. 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. D >> GO TO 2 $oldsymbol{2}.$ REPRODUCE THE MALFUNCTION INFORMATION Е Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur. F >> GO TO 3 $oldsymbol{3}.$ 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. Н >> GO TO 4 $oldsymbol{4}.$ IDENTIFY THE MALFUNCTIONING PARTS WITH "DTC/CIRCUIT DIAGNOSIS" Perform the diagnosis with "DTC/Circuit diagnosis" of the applicable system. >> GO TO 5 J ${f 5}$. REPAIR OR REPLACE THE MALFUNCTIONING PARTS Repair or replace the specified malfunctioning parts. **PWC** >> 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? M >> Inspection End. YES NO >> GO TO 3 N

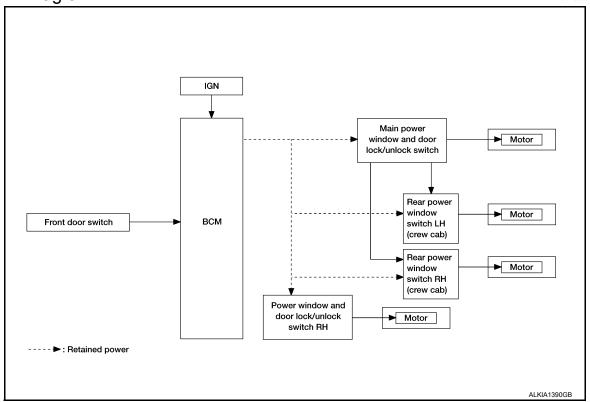
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SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000007328633



System Description

INFOID:0000000007328634

MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to main power window and door lock/unlock switch	Main power window and door lock/unlock switch function	Actuator	
Main power window and door lock/unlock switch	All power window motor UP/DOWN signal		Power window motors	
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	Power window control	Front power window motor RH	
Rear power window switch (crew cab)	Rear power window motor UP/DOWN signal		Rear power window motor	
BCM	RAP signal		Power window motors	

POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH INPUT/OUTPUT SIGNAL CHART

Item	Input signal to front power window switch	Front power window switch function	Actuator	
Power window and door lock/unlock switch RH	Front power window motor RH UP/ DOWN signal	Power window control	Front power window motor RH	
ВСМ	RAP signal			

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

POWER WINDOW OPERATION

- Power window system is operable during the retained power operation timer after turning ignition switch ON and OFF.
- Main power window and door lock/unlock switch can open/close all windows.
- Power window and door lock unlock switch RH & rear power window switches LH and RH (crew cab) can
 open/close the corresponding windows.

POWER WINDOW AUTO DOWN OPERATION (FRONT LH)

AUTO DOWN operation can be performed when main power window turns to AUTO.

RETAINED POWER OPERATION

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

Retained power function cancel conditions

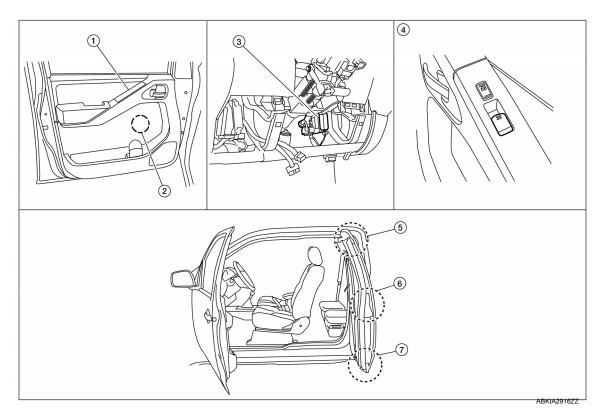
- Front door CLOSE (door switch OFF)→OPEN (door switch ON).
- · When ignition switch is ON.
- · When timer time passes. (45 seconds)

POWER WINDOW LOCK

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

Component Parts Location - King Cab

INFOID:0000000007328635



- Main power window and door lock/ unlock switch D7
- Power window and door lock/unlock 5. switch RH D105
- 7. Rear door switch lower D212, RH D313
- Front power window motor LH D9, RH D104
- Rear door switch upper LH D211, RH 6. D312
- BCM M18, M19, M20 (view with lower instrument panel LH removed)
- Front door switch LH D213, RH D314

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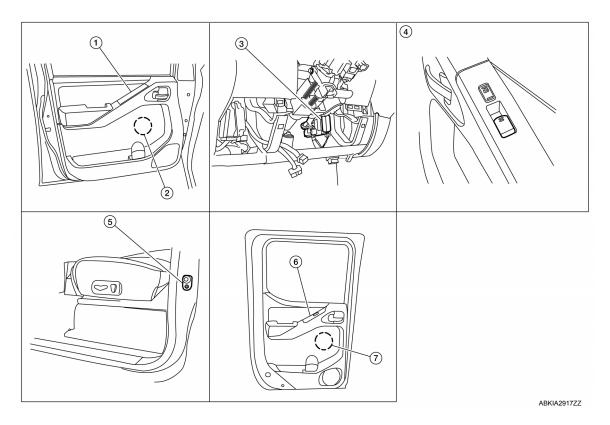
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Component Parts Location - Crew Cab

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- Main power window and door lock/ unlock switch D7
- 4. Power window and door lock/unlock 5. switch RH D105
- 7. Rear power window motor LH D204, RH D304
- . Front power window motor LH D9, RH D104
- Front door switch LH B8, RH B108
- BCM M18, M19, M20 (view with lower instrument panel LH removed)
- Rear power window switch LH D203, RH D303

Component Description

INFOID:0000000007328637

POWER WINDOW SYSTEM

Component	Function			
BCM	Supplies power supply to power window switch.Controls retained power.			
Main power window and door lock/unlock switch	Directly controls all power window motor of all doors.			
Power window and door lock/unlock switch RH	Controls front power window motor RH.			
Rear power window switch LH or RH (crew cab)	Controls rear power window motors LH and RH.			
Front power window motor LH	Starts operating with signals from main power window and door lock/unlock switch.			
Front power window motor RH	Starts operating with signals from main power window and door lock/unlock switch & power window and door lock/unlock switch RH.			
Rear power window motor LH or RH (crew cab)	Starts operating with signals from main power window and door lock/unlock switch & rear power window switch.			

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

Component	Function				
Rear door switch upper LH or RH (king cab)					
Rear door switch lower LH or RH (king cab)	Detects door open/close condition and transmits to BCM.				
Front door switch LH or RH					

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DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM: CONSULT Function (BCM - COMMON ITEM)

INFOID:0000000007808120

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
Ecu Identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	 The vehicle specification can be read and saved. The vehicle specification can be written when replacing BCM.
CAN Diag Support Mntr	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

		Direct Diagnostic Mode						
System	Sub System	Ecu Identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN Diag Support Mntr
Door lock	DOOR LOCK			×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEAD LAMP	× × ×						
Wiper and washer	WIPER	x x x						
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×			
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×	×	×		
Signal buffer system	SIGNAL BUFFER			×	×			
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

RETAINED PWR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

RETAINED PWR: CONSULT Function (BCM - RETAINED PWR)

INFOID:0000000007808121

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DATA MONITOR

Monitor Item [Unit]	Description		
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.		
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.		
DOOR SW-AS [On/Off]	Indicates condition of front door switch RH.		

ACTIVE TEST

Test Item	Description
RETAINED PWR	This test is able to check retained power operation [Off/On].

WORK SUPPORT

Support Item	Setting		Description
	MODE3	2 min	
RETAINED PWR SET	PWR SET MODE2 OFF Sets the retained access MODE1* 45 sec	Sets the retained accessory power operating time.	

^{*:} Initial setting

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< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000007808137

Regarding Wiring Diagram information, refer to BCS-43, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
57	Pottory newer supply	21 (10A)
70	Battery power supply	G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

Is the fuse blown?

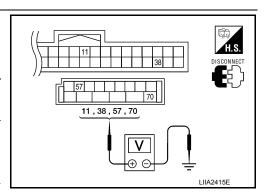
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Term	inals	Power	Condition	Voltage (V) (Ap-	
Connector	(+)	(-)	source	Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage	
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
IVIZU	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage	



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $oldsymbol{3}.$ CHECK GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

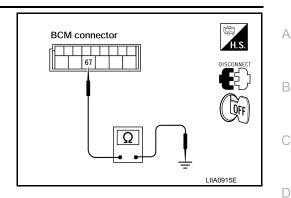
Check continuity between BCM harness connector and ground.

В	СМ		Continuity
Connector	Terminal	Ground	Continuity
M20	67		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



POWER WINDOW MAIN SWITCH (CREW CAB)

POWER WINDOW MAIN SWITCH (CREW CAB): Description

· BCM supplies power.

• It operates each power window motor via corresponding power window switch and makes window move up/down when main power window and door lock/unlock switch is operated.

POWER WINDOW MAIN SWITCH (CREW CAB): Component Function Check

INFOID:0000000007328642

INFOID:0000000007328641

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Main Power Window And Door Lock/Unlock Switch

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.

NO >> Refer to PWC-11, "POWER WINDOW MAIN SWITCH (CREW CAB): Diagnosis Procedure".

POWER WINDOW MAIN SWITCH (CREW CAB): Diagnosis Procedure

INFOID:0000000007328643

Regarding Wiring Diagram information, refer to PWC-55, "Wiring Diagram - Crew Cab".

1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- Check voltage between main power window and door lock/ unlock switch connector D7 terminal 5 and ground.

5 - Ground : Battery voltage

Is the measurement value within the specification?

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

Main power window and door lock/unlock switch connector CONNECT LIIA1703E

2. CHECK GROUND CIRCUIT

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< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector D7 terminal 14 and ground.

Connector	Terminals		Continuity
Main power window and door lock/unlock switch: D7	14	Ground	Yes

DISCONNECT OFF LIIA2188E

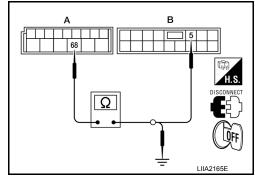
Is the inspection result normal?

- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch LH) GO TO 5
- YES >> Check main power window and door lock/unlock switch output signal (rear power window switch RH) GO TO 6
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 7
- YES >> Check main power window and door lock/unlock switch output signal (front power window switch LH) GO TO 8
- NO >> Repair or replace harness.

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY CIRCUIT

- Turn ignition switch OFF.
- Disconnect BCM and main power window and door lock/unlock switch.
- 3. Check continuity between BCM and main power window and door lock/unlock switch.

	Α	В		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
BCM: M20	68	Main power window and door lock/un- lock switch: D7	5	Yes	



Check continuity between BCM and ground.

	А		Continuity
Connector Terminal		Ground	Continuity
BCM: M20	68		No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

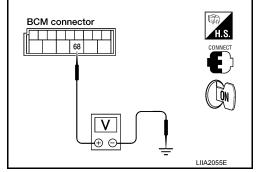
4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM.
- Turn ignition switch ON.
- 3. Check voltage between BCM connector M20 terminal 68 and ground.

68 - Ground : Battery voltage

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to <u>GI-46, "Intermittent Incident"</u>.
- NO >> Replace BCM. Refer to <u>BCS-49</u>, "Removal and Installation".



5. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POW-

< DTC/CIRCUIT DIAGNOSIS >

ER WINDOW SWITCH LH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

Te	erminal			
(+)			Window switch	Voltage (V)
Main power window and door lock/unlock switch	Terminal	(–)	position (rear LH)	(Approx.)
15			UP	Battery voltage
D7	13	Ground	DOWN	0
	16		UP	0
	10		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to <u>PWC-73</u>, "Removal and Installation".

6. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (REAR POWER WINDOW SWITCH RH)

- 1. Connect main power window and door lock/unlock switch.
- Turn ignition switch ON.
- Check voltage between main power window and door lock/unlock switch connector and ground.

Terminal				
(+)	(+)			
Main power win- dow and door lock/unlock switch connector	Terminal	(–)	Window switch position (rear RH)	Voltage (V) (Approx.)
	8		UP	Battery voltage
D7	0	Ground	DOWN	0
D1		Giodila	UP	0
	9		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

7. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH RH)

- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

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< DTC/CIRCUIT DIAGNOSIS >

•	Terminal			
(+)	(+)		14.5	
Main power win- dow and door lock/unlock switch connector	Terminal	(–)	Window switch position (front RH)	Voltage (V) (Approx.)
	3		UP	Battery voltage
D7		Ground	DOWN	0
	2	Giouria	UP	0
	2		DOWN	Battery voltage

Is the measurement value within the specification?

- YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".
- 8. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH LH)
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

-	Terminal			
(+)	(+)			
Main power win- dow and door lock/unlock switch connector	Terminal	(–)	Window switch position (front LH)	Voltage (V) (Approx.)
	6		UP	Battery voltage
D7			DOWN	0
D1	7	Ground	UP	0
	,		DOWN	Battery voltage

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-46. "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

POWER WINDOW MAIN SWITCH (CREW CAB): Component Inspection INFOID:000000007328644

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

1. Check main power window and door lock/unlock switch.

< DTC/CIRCUIT DIAGNOSIS >

Terr	ninal	Main power windo	Continuity	
5	3	Front RH		
5	15	Rear LH	UP	
5	8	Rear RH		
2	3	Front RH	Front RH	
15	16	Rear LH	NEUTRAL	Yes
8	9	Rear RH		
5	2	Front RH	ıt RH	
5	16	Rear LH	DOWN	
5	9	Rear RH		

2. Check continuity between main power window and door lock/unlock switch (power window lock switch). (Lock operation).

Tern	ninal	Main power window and door lock/unlock switch condition		Continuity
2		Front RH		
16		Rear LH	UP	
9		Rear RH		
2		Front DH	Front RH Rear LH NEUTRAL	No
3		FIORERE		
15	14	Poor I U		
16	14	Real LH		
8		Rear RH		
9		Real RH		
3		Front RH		
15		Rear LH	DOWN	
8		Rear RH		

3. Check continuity between main power window and door lock/unlock switch (power window lock switch). (Unlock operation).

Term	ninal	Main power window and door lock/unlock switch condition		Continuity
2		Front RH		
16		Rear LH	UP	
9		Rear RH		
2		Front RH		
3		FIOREKH		
15	14	Rear LH	NEUTRAL	Yes
16	14	Real LH	NEUTRAL	162
8		Rear RH		
9		Real KH		
3		Front RH		
15		Rear LH	DOWN	
8		Rear RH		

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< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

POWER WINDOW MAIN SWITCH (KING CAB)

POWER WINDOW MAIN SWITCH (KING CAB): Description

INFOID:0000000007328645

- · BCM supplies power.
- It operates each power window motor via corresponding power window switch and makes window move up/ down when main power window and door lock/unlock switch is operated.

POWER WINDOW MAIN SWITCH (KING CAB): Component Function Check

INFOID:0000000007328646

Main Power Window And Door Lock/Unlock Switch

${f 1}$. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH FUNCTION

Check power window motor operation with main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch power supply and ground circuit are OK.

NO >> Refer to PWC-16, "POWER WINDOW MAIN SWITCH (KING CAB): Diagnosis Procedure".

POWER WINDOW MAIN SWITCH (KING CAB): Diagnosis Procedure

INFOID:0000000007328647

Regarding Wiring Diagram information, refer to PWC-48, "Wiring Diagram - King Cab".

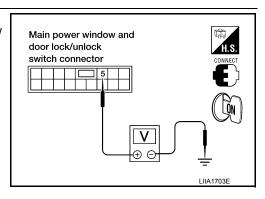
1. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch ON.
- 2. Check voltage between main power window and door lock/ unlock switch connector D7 terminal 5 and ground.

5 - Ground : Battery voltage

Is the measurement value within the specification?

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



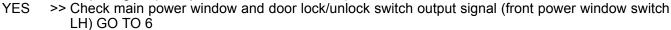
2. CHECK GROUND CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector D7 terminal 14 and ground.

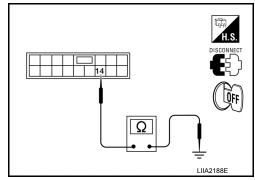
Connector	Te	erminals	Continuity
Main power window and door lock/unlock switch: D7	14	Ground	Yes

Is the inspection result normal?

YES >> Check main power window and door lock/unlock switch output signal (front power window switch RH) GO TO 5



NO >> Repair or replace harness.

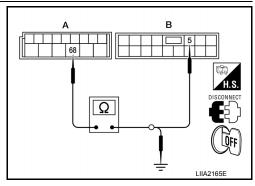


< DTC/CIRCUIT DIAGNOSIS >

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM and main power window and door lock/unlock switch.
- Check continuity between BCM and main power window and door lock/unlock switch.

	A	В		_		Continuity
Connector	Terminal	Connector	Terminal	Continuity		
BCM: M20	68	Main power window and door lock/un- lock switch: D7	5	Yes		



Check continuity between BCM and ground.

	A		Continuity
Connector	Terminal	Ground	Continuity
BCM: M20	68		No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

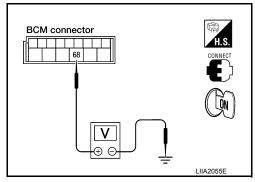
4. CHECK BCM OUTPUT SIGNAL

- 1. Connect BCM.
- 2. Turn ignition switch ON.
- 3. Check voltage between BCM connector M20 terminal 68 and ground.

68 - Ground : Battery voltage

<u>Is the measurement value within the specification?</u>

- YES >> Check intermittent incident. Refer to <u>GI-46, "Intermittent</u> Incident".
- NO >> Replace BCM. Refer to <u>BCS-49</u>, "Removal and Installation".



- 5. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH RH)
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

	Terminal			
(+)				
Main power win- dow and door lock/unlock switch connector	Terminal	(–)	Window switch position (front RH)	Voltage (V) (Approx.)
	3		UP	Battery voltage
D7	3	Ground	DOWN	
	2	Giodila	UP	(Approx.) Battery voltage 0 0
	2		DOWN	

Is the measurement value within the specification?

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< DTC/CIRCUIT DIAGNOSIS >

- YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".
- NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".
- **6.** CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL (FRONT POWER WINDOW SWITCH LH)
- 1. Connect main power window and door lock/unlock switch.
- 2. Turn ignition switch ON.
- 3. Check voltage between main power window and door lock/unlock switch connector and ground.

-	Terminal				
(+)					
Main power win- dow and door lock/unlock switch connector	Terminal	(–)	Window switch position (front LH)	Voltage (V) (Approx.)	
6			UP	Battery voltage	
D7	O	Ground	DOWN	0	
	7	Ground	UP	0	
	,		DOWN	Battery voltage	

Is the measurement value within the specification?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

POWER WINDOW MAIN SWITCH (KING CAB): Component Inspection INFOID:000

- 1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH
- 1. Turn ignition switch OFF.
- 2. Disconnect main power window and door lock/unlock switch.
- 3. Check main power window and door lock/unlock switch.

Terr	ninal	•	ow and door lock/un- ch condition	Continuity
5	3	Front RH	UP	
2	3	Front RH	NEUTRAL	Yes
5	2	Front RH	DOWN	

4. Check continuity between main power window and door lock/unlock switch (power window lock switch).

Main power window and door lock/un- lock switch	Terr	ninals	Condition	Continuity
		2	Lock switch UNLOCK	Yes
	14	2	Lock switch LOCK	No
	14		Lock switch UNLOCK	Yes
	3	Lock switch LOCK	No	

Is the inspection result normal?

YES >> Main power window and door lock/unlock switch is OK.

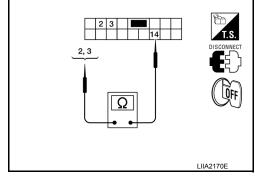
NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

FRONT POWER WINDOW SWITCH

FRONT POWER WINDOW SWITCH: Description

· BCM supplies power.

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< DTC/CIRCUIT DIAGNOSIS >

• Front power window motor RH will be operated if power window and door lock/unlock switch RH is operated.

FRONT POWER WINDOW SWITCH : Component Function Check

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Power Window And Door Lock/Unlock Switch RH

1. CHECK FRONT POWER WINDOW MOTOR RH FUNCTION

Check front power window motor RH operation with power window and door lock/unlock switch RH. <u>Is the inspection result normal?</u>

YES >> Power window and door lock/unlock switch RH power supply and ground circuit are OK.

NO >> Refer to PWC-19, "FRONT POWER WINDOW SWITCH: Diagnosis Procedure".

FRONT POWER WINDOW SWITCH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-55, "Wiring Diagram - Crew Cab", PWC-48, "Wiring Dia-

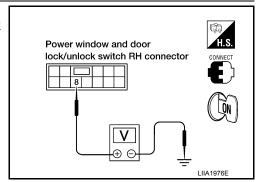
1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

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Check voltage between power window and door lock/unlock switch RH connector and ground.

Terr			
(+)		Voltage (V)	
Power window and door lock/ unlock switch RH connector	Terminal	(–)	(Approx.)
D105	8	Ground	Battery voltage



Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect BCM and power window and door lock/unlock switch RH.
- 3. Check continuity between BCM connector (A) and power window and door lock/unlock switch RH connector (B).

M20 (A) 68 D105 (B) 8 Yes	BCM connector	Terminal	Power window and door lock/unlock switch RH connector	Terminal	Continuity
	M20 (A)	68	D105 (B)	8	Yes

4. Check continuity between BCM connector (A) and ground.

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68	8
	H.S.
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	TOFF)

BCM connector	Terminal	Ground	Continuity
M20 (A)	68	Ground	No

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

$3.\,$ CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

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< DTC/CIRCUIT DIAGNOSIS >

- Disconnect power window and door lock/unlock switch RH and main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/unlock switch connector and front power 3. window switch RH connector.

Main power window and door lock/unlock switch connector	Terminal	Front power window switch RH connector	Terminal	Continuity
D7	3	D105	12	Yes
D/	2	D 103	11	165

Check continuity between main power window and door lock/unlock switch connector and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
	3	Ground	No
וט	2		INO

Is the inspection result normal?

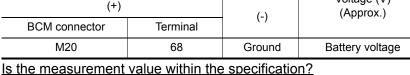
YES >> Replace power and door lock/unlock switch RH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

f 4 . CHECK BCM OUTPUT SIGNAL

- Connect BCM.
- Turn ignition switch ON. 2.
- Check voltage between BCM connector and ground.

	V II			
(+)		(-)	Voltage (V) (Approx.)	
BCM connector	Terminal	(-)	,	
M20 68		Ground	Battery voltage	



YES >> Check intermittent incident. Refer to GI-46, "Intermittent

>> Replace BCM. Refer to BCS-49, "Removal and Installation". NO

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Description

BCM supplies power.

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

REAR POWER WINDOW SWITCH: Component Function Check

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Rear Power Window Switch

${f 1}$. CHECK REAR POWER WINDOW MOTOR FUNCTION

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

Is the inspection result normal?

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YES >> Rear power window switch power supply and ground circuit are OK.

NO >> Refer to PWC-20, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

REAR POWER WINDOW SWITCH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-55, "Wiring Diagram - Crew Cab".

BCM connector LIIA2055F

PWC-20

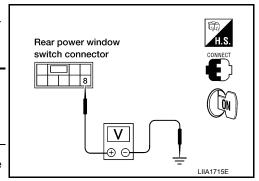
< DTC/CIRCUIT DIAGNOSIS >

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.

2. Check voltage between rear power window switch connector and ground.

Terminal					
(+)			Condition	Voltage (V)	
•	Rear power window switch connector Termina		(-)		(Approx.)
LH	D203	8	Ground	Ignition switch	Battery voltage
RH	D303	0	Giodila	ON	Battery voltage



Is the measurement value within the specification?

YES >> GO TO 2 (Rear power window switch LH)

YES >> GO TO 3 (Rear power window switch RH)

NO >> GO TO 4

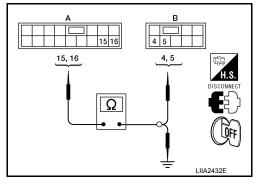
2. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH LH)

Turn ignition switch OFF.

2. Disconnect main power window and door lock/unlock switch and rear power window switch LH.

 Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch LH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch LH connector	Terminal	Continuity
D7 (A)	15	D203 (B)	4	Yes
Di (A)	16	D203 (B)	5	165



4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/un- lock switch connector	connector		Continuity
D7 (A)	15	Ground	No
Dr (A)	16		NO

Is the inspection result normal?

YES >> GO TO 5

NO >> Repair or replace harness.

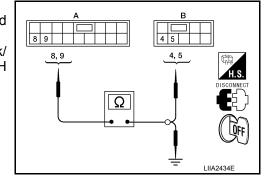
3. CHECK HARNESS CONTINUITY (REAR POWER WINDOW SWITCH RH)

1. Turn ignition switch OFF.

2. Disconnect main power window and door lock/unlock switch and rear power window switch RH.

 Check continuity between main power window and door lock/ unlock switch connector (A) and rear power window switch RH connector (B).

Main power window and door lock/unlock switch connector	Terminal	Rear power window switch RH connec- tor	Terminal	Continuity
D7 (A)	8	D303 (B)	4	Yes
Dr (A)	9	D303 (B)	5	163



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< DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between main power window and door lock/unlock switch connector (A) and ground.

Main power window and door lock/unlock switch connector	Terminal		Continuity
D7 (A)	8	Ground	No
D7 (A)	9		NO

Is the inspection result normal?

YES >> GO TO 5

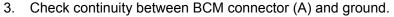
NO >> Repair or replace harness.

4. CHECK HARNESS CONTINUITY

1. Disconnect BCM and rear power window switch.

2. Check continuity between BCM connector (A) and rear power window switch connector (B).

BCM connector	Terminal	Rear power window switch connector		Terminal	Continuity
M20 (A)	68	LH	D203 (B)	Q	Yes
IVIZU (A)	00	RH	D303 (B)	0	165



BCM connector	Terminal	Ground	Continuity
M20 (A)	68	Ground	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49, "Removal and Installation".

NO >> Repair or replace harness.

5. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-22, "REAR POWER WINDOW SWITCH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace rear power window switch. Refer to PWC-75, "Removal and Installation - Rear Door Switch (If Equipped)".

REAR POWER WINDOW SWITCH: Component Inspection

INFOID:0000000007328655

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COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

	Term		Condition	Continuity
		5	DOWN	No
	6		NEUTRAL or UP	Yes
	0	8	NEUTRAL or UP	No
Rear power win-		0	DOWN	Yes
RH	7	4	UP	No
			NEUTRAL or DOWN	Yes
		8	NEUTRAL or DOWN	No
			UP	Yes
	8	2	-	Yes

< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to PWC-75, "Removal and Installation - Rear Door <a href="Switch (If Equipped)".

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< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000007328656

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

DRIVER SIDE: Component Function Check

INFOID:0000000007328657

CHECK POWER WINDOW MOTOR CIRCUIT

Check front power window motor LH operation when operating main power window and door lock/unlock switch.

Is the inspection result normal?

YES >> Front power window motor LH is OK.

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

DRIVER SIDE : Diagnosis Procedure

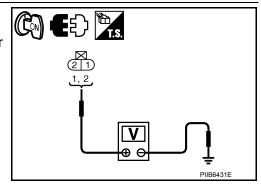
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Regarding Wiring Diagram information, refer to PWC-48, "Wiring Diagram - King Cab", PWC-55, "Wiring Diagram - King Cab", P gram - Crew Cab".

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH OUTPUT SIGNAL

- Disconnect front power window motor LH.
- Turn ignition switch ON.
- 3. Check voltage between front power window motor LH connector and ground.

T	Terminal			
(+)			Main power win- dow and door lock/	Voltage (V)
Power window motor LH con- nector	Terminal	(–)	unlock switch con- dition	(Approx.)
	2		UP	Battery voltage
D9		Ground	DOWN	0
D9	4	Giodila	UP	0
	I		DOWN	Battery voltage



Is the measurement value within the specification?

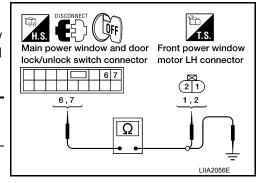
YES >> GO TO 3

NO >> GO TO 2

$oldsymbol{2}.$ CHECK HARNESS CONTINUITY

- Turn ignition switch OFF.
- Disconnect main power window and door lock/unlock switch.
- Check continuity between main power window and door lock/ unlock switch connector D7 and front power window motor LH connector D9.

Main power window and door lock/unlock switch connector	Terminal	Front power win- dow motor LH con- nector	Terminal	Continuity
	D7 6		2	Yes
	7	D9	1	165



< DTC/CIRCUIT DIAGNOSIS >

4. Check continuity between main power window and door lock/unlock switch connector D7 and ground.

Main power window and door lock/unlock switch connector	Terminal	0 1	Continuity
	6	Ground	No
D1	7		NO

Is the inspection result normal?

YES >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

NO >> Repair or replace harness.

$3.\,$ CHECK POWER WINDOW MOTOR

Check front power window motor LH.

Refer to PWC-25, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident"

NO >> Replace power window motor LH. Refer to GW-16, "Front Door Glass Regulator".

DRIVER SIDE: Component Inspection

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COMPONENT INSPECTION

1. CHECK FRONT POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to power window motor.

Terr	ninal	Motor condition
(+)	(–)	Wotor condition
1	2	DOWN
2	1	UP

Is the inspection result normal?

YES >> Front power window motor LH is OK.

NO >> Replace front power window motor LH. Refer to <u>GW-16</u>, "Front Door Glass Regulator".

PASSENGER SIDE

PASSENGER SIDE : Description

Door glass moves UP/DOWN by receiving the signal from main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

PASSENGER SIDE: Component Function Check

1. CHECK POWER WINDOW MOTOR CIRCUIT

Check power window motor operation when operating main power window and door lock/unlock switch or power window and door lock/unlock switch RH.

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Refer to PWC-25, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

Regarding Wiring Diagram information, refer to <u>PWC-48</u>, "Wiring Diagram - King Cab", <u>PWC-55</u>, "Wiring Diagram - Crew Cab".

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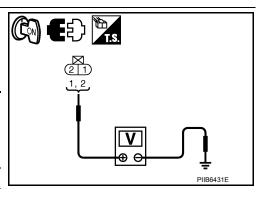
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< DTC/CIRCUIT DIAGNOSIS >

1. CHECK FRONT POWER WINDOW SWITCH RH OUTPUT SIGNAL

- 1. Disconnect front power window motor RH.
- 2. Turn ignition switch ON.
- Check voltage between front power window motor RH connector and ground.

Terminal			F			
(+)			Front power window motor	Voltage (V)		
Front power window motor RH connector	Terminal	(–)	RH condition	(Approx.)		
	104	2	UP	Battery voltage		
D104		2	_	Ground	DOWN	0
D10 4		4	Giodila	UP	0	
1		DOWN	Battery voltage			



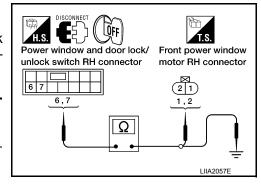
Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect power window and door lock/unlock switch RH.
- Check continuity between power window and door lock/unlock switch RH connector and front power window motor RH connector.

Power window and door lock/unlock switch RH connector	Terminal	Front power window motor RH connector	Terminal	Continuity
D105	6	D104	1	Yes
D103	7	D104	2	165



4. Check continuity between power window and door lock/unlock switch RH connector and ground.

Power window and door lock/unlock switch RH connector	Terminal	Ground	Continuity
D105	6		No
	7		NO

Is the inspection result normal?

YES >> Replace power window and door lock/unlock switch RH. Refer to PWC-74, "Removal and Installation".

NO >> Repair or replace harness.

3. CHECK FRONT POWER WINDOW MOTOR RH

Check front power window motor RH.

Refer to PWC-26, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace front power window motor RH. Refer to <u>GW-16</u>, "Front Door Glass Regulator".

PASSENGER SIDE : Component Inspection

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COMPONENT INSPECTION

< DTC/CIRCUIT DIAGNOSIS >

1. CHECK FRONT POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to front power window motor RH.

Terr	minal	Motor condition	
(+)	(-)	Wiotor condition	
1	2	DOWN	
2	1	UP	

Is the inspection result normal?

YES >> Front power window motor RH is OK.

NO >> Replace front power window motor RH. Refer to <u>GW-16</u>, "Front Door Glass Regulator".

REAR LH

REAR LH: Description

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

REAR LH: Component Function Check

1. CHECK REAR POWER WINDOW MOTOR LH CIRCUIT

Check rear power window motor LH operation with main power window and door lock/unlock switch or rear power window switch LH.

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-27, "REAR LH: Diagnosis Procedure".

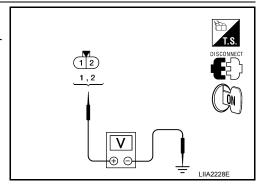
REAR LH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-55, "Wiring Diagram - Crew Cab".

1. CHECK REAR POWER WINDOW SWITCH OUTPUT SIGNAL

- 1. Disconnect rear power window motor LH.
- 2. Turn ignition switch ON.
- Check voltage between rear power window motor LH connector and ground.

Terminal				
(+)			Window	Voltage (V)
Rear power window motor LH connector	Terminal	(-)	condition	(Approx.)
	1	_	UP	Battery voltage
D204			Ground	DOWN
D20 4		Giodila	UP	0
		•	DOWN	Battery voltage
1 1 20 0 0				



Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

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< DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch LH.
- 3. Check continuity between rear power window switch LH connector (A) and rear power window motor LH connector (B).

Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	Continuity
D203 (A)	6	D204 (B)	1	Yes
D203 (A)	7	D204 (B)	2	165

Check continuity between rear power window switch LH connector (A) and ground.

	H.S. DISCONNECT	T.S.
-	A 6,7	B 1 2 1,2
	Ω	
•		

Rear power window switch LH connector	Terminal		Continuity
D203 (A)	6	Ground	No
	7		NO

Is the inspection result normal?

YES >> Check rear power window switch LH. Refer to PWC-20, "REAR POWER WINDOW SWITCH: Component Function Check".

NO >> Repair or replace harness.

$3.\,$ CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-28, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace rear power window motor LH. Refer to <u>GW-20</u>, "Rear <u>Door Glass Regulator"</u>.

REAR LH: Component Inspection

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INFOID:0000000007328669

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

Check motor operation by connecting the battery voltage directly to rear power window motor LH.

Terr	minal	Motor condition
(+)	(-)	Wotor condition
2	1	UP
1	2	DOWN

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to <u>GW-20</u>, "Rear <u>Door Glass Regulator"</u>.

REAR RH

REAR RH : Description

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

REAR RH: Component Function Check

${f 1}$. CHECK REAR POWER WINDOW MOTOR RH CIRCUIT

Check rear power window motor RH operation with operating main power window and door lock/unlock switch or rear power window switch RH.

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< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to PWC-29, "REAR RH: Diagnosis Procedure".

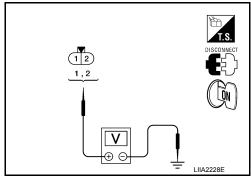
REAR RH: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-55, "Wiring Diagram - Crew Cab".

1. CHECK REAR POWER WINDOW SWITCH RH OUTPUT SIGNAL

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

Ter	minal	D			
(+)			Rear power window switch	Voltage (V)	
Rear power window motor RH connector	Terminal	(-)	RH condition	(Approx.)	
	2	Ground	UP	Battery voltage	
D304			DOWN	0	
D30 4	1	Giodila	UP	0	
			DOWN	Battery voltage	



Is the measurement value within the specification?

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

2. CHECK HARNESS CONTINUITY

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch RH.
- 3. Check continuity between rear power window switch RH connector (A) and rear power window motor RH connector (B).

Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	Continuity	
D303 (A)	6	D304 (B)	1	Yes	
D303 (A)	7	D304 (B)	2	165	

Check continuity between rear power window switch RH connector (A) and ground.

Rear power window switch RH connector	Terminal		Continuity
D303 (A)	6	Ground	No
	7	-	NO

Is the inspection result normal?

YES >> Check rear power window switch RH. Refer to PWC-20, "REAR POWER WINDOW SWITCH: Component Function Check".

NO >> Repair or replace harness.

3. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-30, "REAR RH: Component Inspection".

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< DTC/CIRCUIT DIAGNOSIS >

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Replace rear power window motor RH. Refer to GW-20, "Rear Door Glass Regulator".

REAR RH: Component Inspection

INFOID:0000000007328671

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Check motor operation by connecting the battery voltage directly to rear power window motor RH.

Terminal		Motor condition	
(+)	(-)	Wotor condition	
2	1	UP	
1	2	DOWN	

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Replace rear power window motor RH. Refer to <u>GW-20, "Rear Door Glass Regulator"</u>.

< DTC/CIRCUIT DIAGNOSIS >

DOOR SWITCH

KING CAB

KING CAB: Description INFOID:0000000007328672

Detects door open/close condition.

KING CAB: Component Function Check

1. CHECK FUNCTION

(II) With CONSULT

Check door switches in data monitor mode with CONSULT.

Monitor item	Condition	
DOOR SW-DR	CLOSE A OPENIO DE LA ONI	
DOOR SW-AS	CLOSE → OPEN: OFF → ON	

Is the inspection result normal?

YES >> Door switch is OK.

>> Refer to PWC-31, "KING CAB: Diagnosis Procedure". NO

KING CAB: Diagnosis Procedure

Regarding Wiring Diagram information, refer to PWC-48, "Wiring Diagram - King Cab".

1. CHECK DOOR SWITCHES INPUT SIGNAL

(With CONSULT

Check door switches ("DOOR SW-DR", "DOOR SW-AS") in DATA MONITOR mode with CONSULT. Refer to BCS-15, "DOOR LOCK: CONSULT Function (BCM - DOOR LOCK)".

· When any doors are open:

DOOR SW-DR :ON **DOOR SW-AS** :ON

When any doors are closed:

DOOR SW-DR :OFF **DOOR SW-AS** :OFF

Without CONSULT

Check voltage between BCM connector M18 or M19 terminals 12, 47 and ground.

Connec-	Item	Terminals		Condition	Voltage (V)	
tor	tor		(-)	Condition	(Approx.)	
M19	Front door switch LH	47	Ground	Open	0	
M18	Front door switch RH	12	Glound	Closed	Battery voltage	

12, 47

BCM connectors

Is the inspection result normal?

YES >> Door switch circuit is OK.

NO >> GO TO 2

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< DTC/CIRCUIT DIAGNOSIS >

2. CHECK DOOR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect BCM.
- Check continuity between front door switch connector D213 (LH), D314 (RH) terminal 2 and BCM connector M18, M19 terminals 12 and 47.

2 - 47 : Continuity should exist 2 - 12 : Continuity should exist

4. Check continuity between rear door switch upper connector D211 (LH), D312 (RH) terminal 1 and BCM connector M18, M19 terminals 12 and 47.

1 - 47 : Continuity should exist1 - 12 : Continuity should exist

5. Check continuity between rear door switch lower connector D212 (LH), D313 (RH) terminal 1 and BCM connector M18, M19 terminals 12 and 47.

1 - 47 : Continuity should exist 1 - 12 : Continuity should exist

6. Check continuity between front door switch connector D213 (LH), D314 (RH) terminal 2 and ground.

2 - Ground : Continuity should not exist

7. Check continuity between rear door switch upper connector D211 (LH), D312 (RH) terminal 1 and ground.

1 - Ground : Continuity should not exist

- 8. Check continuity between rear door switch lower connector D212 (LH), D313 (RH) terminal 1 and ground.
 - 1 Ground : Continuity should not exist

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

- 3. CHECK DOOR SWITCHES GROUND CIRCUIT
- Check continuity between front door switch connector D213 (LH), D314 (RH) terminal 3 and ground.

3 - Ground : Continuity should exist

2. Check continuity between rear door switch upper connector D211 (LH), D312 (RH) terminal 2 and ground.

2 - Ground : Continuity should exist

- 3. Check continuity between rear door switch lower connector D212 (LH), D313 (RH) terminal 2 and ground.
 - 2 Ground : Continuity should exist

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK DOOR SWITCHES

Check continuity between door switch terminals.

Item	Terminal	Condition	Continuity
Door switches (front)	2 – 3	Open	Yes
	2-3	Closed	No

< DTC/CIRCUIT DIAGNOSIS >

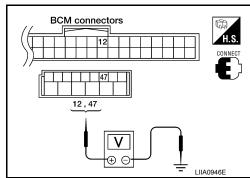
< DTC/CIRCUIT	DIAGNOSIS >				-
Door switches	4 0	Open	Yes		Λ
upper/lower (rear)	1 – 2	Closed	No		Α
Is the inspection r	esult normal?				
	ace BCM. Refer tace door switch.	o <u>BCS-49, "Re</u>	moval and Installation".		В
CREW CAB	ace door switch.				
CREW CAB :	Description			WEG/5 000000070007	С
	•			INFOID:0000000007328675	'
Detects door oper			h a alc		D
CREW CAB:	Component	Function C	песк	INFOID:000000007328676	ì
1. CHECK FUNC	CTION				Е
With CONSUL	т.				•
Check door switch	nes in data monit	or mode with C	CONSULT.		F
	Monitor item			Condition	
	DOOR SW-DR		CLOSE	$E \rightarrow OPEN$: OFF $\rightarrow ON$	G
	DOOR SW-AS		02002		
s the inspection r					
	switch is OK. to PWC-33. "CF	REW CAB : Dia	gnosis Procedure".		H
CREW CAB:	•			INFOID:000000007328677	,
31 (EVV	Diagnoolo 1 1	occuaro		INFOID.000000001320011	
De mendin a Minin a	Diagrams informs	utiam mafamta Di	MO EE WAlining Diagram	Crow Cabi	
Regarding wiring	Diagram informa	ition, refer to <u>P</u>	WC-55, "Wiring Diagram	<u>- Crew Cab</u> .	J
1. CHECK DOO!		DUT CICNIAI			
		PUI SIGNAL			PV
With CONSULT		-DR" "DOOP (SW-AS") in DATA MONIT	TOR mode with CONSULT. Refer to	
<u> BCS-15, "DOOR I</u>	<u>LOCK : CONSUL</u>		CM - DOOR LOCK)".	TOTA MODE WILL CONSOLL. INCIGE LO	
When any doors	s are open:				L
DOOR SW	V-DR : 0	N			
DOOR SW	V-AS : 0	N			N
When any doors	s are closed:				
DOOR SW	V-DR : O	FF			Ν
DOOR SW					
					O
Without CONS	BULT				

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< DTC/CIRCUIT DIAGNOSIS >

Check voltage between BCM connector M18 or M19 terminals 12, 47 and ground.

Connec-	Item	Termi		Condition	Voltage (V)	
tor	itom	(+)	(-)	Condition	(Approx.)	
M19	Front door switch LH	47	Ground	Open	0	
M18	Front door switch RH	12	Ground	Closed	Battery voltage	



Is the inspection result normal?

YES >> Door switch circuit is OK.

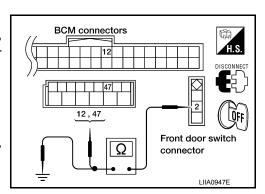
NO >> GO TO 2

2. CHECK DOOR SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- Check continuity between door switch connector B8 (Front LH), B108 (Front RH) terminal 2 and BCM connector M18, M19 terminals 12, and 47.

2 - 47 : Continuity should exist.2 - 12 : Continuity should exist.

- Check continuity between door switch connector B8 (Front LH), B108 (Front RH) terminal 2 and ground.
 - 2 Ground : Continuity should not exist.



Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK DOOR SWITCHES

1. Check continuity between door switch terminals.

Terminal		Condition	Continuity
2	Ground part of	Open	Yes
	door switch	Closed	No

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-49, "Removal and Installation".

NO >> Replace door switch.

POWER WINDOW LOCK SWITCH

< DTC/CIRCUIT DIAGNOSIS >

POWER WINDOW LOCK SWITCH

Description INFOID:0000000007328678

Ground circuit of main power window and door lock/unlock switch shuts off if power window lock switch of main power window and door lock/unlock switch is operated. This inhibits all operation, except for the main switch.

Component Function Check

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal main power window and door lock/unlock switch, and operation is checked. Does power window lock operate?

- YES >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".
- NO >> Check condition of harness and connector.

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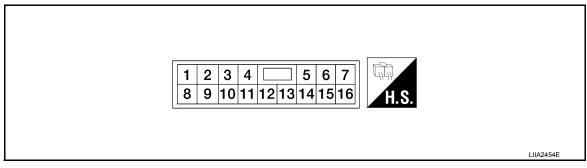
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ECU DIAGNOSIS INFORMATION

POWER WINDOW SYSTEM

Terminal Layout for Power Window Main Switch

INFOID:0000000007328680



Physical Values for Power Window Main Switch

INFOID:0000000007328681

Terminal	Wire Color	Item	Condition	Voltage (V) (Approx.)
2	G/Y	Front power window motor RH DOWN signal	When power window motor is operated DOWN	Battery voltage
3	L/W	Front power window motor RH UP signal	When power window motor is operated UP	Battery voltage
			When ignition switch ON	Battery voltage
			Within 45 seconds after ignition switch is turned to OFF	Battery voltage
5	W/R	RAP signal	More than 45 seconds after ignition switch is turned to OFF	0
			When front door LH or RH open or power window timer operates	0
6	G/R	Front power window motor LH UP signal	When power window motor is operated UP	Battery voltage
7	G/W	Front power window motor LH DOWN signal	When power window motor is operated DOWN	Battery voltage
8*	G/B	Rear power window RH UP signal	When rear RH switch in main power window and door lock/unlock switch is operated UP	Battery voltage
9*	R	Rear power window RH DOWN signal	When rear RH switch in main power window and door lock/unlock switch is operated DOWN	Battery voltage
14	В	Ground	_	0
15*	R/B	Rear power window LH UP signal	When rear LH switch in main power window and door lock/unlock switch is operated UP	Battery voltage
16*	R/Y	Rear power window LH DOWN signal	When rear LH switch in main power window and door lock/unlock switch is operated DOWN	Battery voltage

^{*:} Crew cab

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value INFOID:0000000007808122

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NOTE:

The Signal Tech II Tool (J-50190) can be used to perform the following functions. Refer to the Signal Tech II User Guide for additional information.

- Activate and display TPMS transmitter IDs
- Display tire pressure reported by the TPMS transmitter
- Read TPMS DTCs
- Register TPMS transmitter IDs
- · Test remote keyless entry keyfob relative signal strength

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	E
ACC ON CW	Ignition switch OFF or ON	Off	
ACC ON SW	Ignition switch ACC	On	
AID COND OW	A/C switch OFF	Off	F
AIR COND SW	A/C switch ON	On	
AIR PRESS FL	Front left tire air pressure value	kPa, kg/cm ² , psi	G
AIR PRESS FR	Front right tire air pressure value	kPa, kg/cm ² , psi	
AIR PRESS RL	Rear left tire air pressure value	kPa, kg/cm ² , psi	Н
AIR PRESS RR	Rear right tire air pressure value	kPa, kg/cm ² , psi	 ;
DDAKE OM	Brake pedal released	Off	
BRAKE SW	Brake pedal applied	On	
DUOLUE OW	Seat belt buckle unfastened	Off	
BUCKLE SW	Seat belt buckle fastened	On	J
DU7750	Buzzer in combination meter OFF	Off	
BUZZER	Buzzer in combination meter ON	On	
OADOO LAMB OW	Cargo lamp switch OFF	Off	PWC
CARGO LAMP SW	Cargo lamp switch ON	On	
CDL LOCK CW	Door lock/unlock switch does not operate	Off	
CDL LOCK SW	Press door lock/unlock switch to the LOCK side	On	
CDL LINI OCK CW	Door lock/unlock switch does not operate	Off	
CDL UNLOCK SW	Press door lock/unlock switch to the UNLOCK side	On	M
DOOD CW AC	Front door RH closed	Off	
DOOR SW-AS	Front door RH opened	On	N
DOOR SW-DR	Front door LH closed	Off	
DOOK SW-DK	Front door LH opened	On	
DOOD SW DI	Rear door LH closed	Off	0
DOOR SW-RL	Rear door LH opened	On	
DOOD SW DD	Rear door RH closed	Off	
DOOR SW-RR	Rear door RH opened	On	— Р
EAN ON SIC	Blower motor fan switch OFF	Off	
FAN ON SIG	Blower motor fan switch ON	On	
ED EOC SW	Front fog lamp switch OFF	Off	
FR FOG SW	Front fog lamp switch ON	On	

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
FR WIPER LOW	Front wiper switch OFF	Off
FR WIFER LOW	Front wiper switch LO	On
ED WIDED HI	Front wiper switch OFF	Off
FR WIPER HI	Front wiper switch HI	On
FR WIPER INT	Front wiper switch OFF	Off
FR WIFER IN	Front wiper switch INT	On
FR WIPER STOP	Any position other than front wiper stop position	Off
FR WIFER STOP	Front wiper stop position	On
HAZARD SW	When hazard switch is not pressed	Off
HAZARD SW	When hazard switch is pressed	On
HEAD LAMP SW 1	Headlamp switch OFF	Off
HEAD LAIVIP SVV I	Headlamp switch 1st	On
HEAD LAMP SW 2	Headlamp switch OFF	Off
HEAD LAIVIP SVV 2	Headlamp switch 1st	On
LI DEAM CW	High beam switch OFF	Off
HI BEAM SW	High beam switch HI	On
ID REGST FL1	ID registration of front left tire incomplete	YET
	ID registration of front left tire complete	DONE
ID REGST FR1	ID registration of front right tire incomplete	YET
	ID registration of front right tire complete	DONE
ID REGST RL1	ID registration of rear left tire incomplete	YET
ID REGGI KLI	ID registration of rear left tire complete	DONE
ID REGST RR1	ID registration of rear right tire incomplete	YET
ID REGGI KKI	ID registration of rear right tire complete	DONE
IGN ON SW	Ignition switch OFF or ACC	Off
IGN ON SW	Ignition switch ON	On
IGN SW CAN	Ignition switch OFF or ACC	Off
IGN SW CAN	Ignition switch ON	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7
KEY CYL LK-SW	Door key cylinder LOCK position	Off
KLI OILLK-SW	Door key cylinder other than LOCK position	On
KEY CYL UN-SW	Door key cylinder UNLOCK position	Off
KET OTE ON-OW	Door key cylinder other than UNLOCK position	On
KEY ON SW	Mechanical key is removed from key cylinder	Off
KET ON SW	Mechanical key is inserted to key cylinder	On
KEYLESS LOCK	LOCK button of key fob is not pressed	Off
NETELOO LOOK	LOCK button of key fob is pressed	On
KEYLESS PANIC	PANIC button of key fob is not pressed	Off
NETELOS FAINIO	PANIC button of key fob is pressed	On
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	Off
NET LEGS UNLUCK	UNLOCK button of key fob is pressed	On

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
LIGHT SW 1ST	Lighting switch OFF	Off
LIGHT SW 151	Lighting switch 1st	On
OIL PRESS SW	Ignition switch OFF or ACCEngine running	Off
	Ignition switch ON	On
PASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
DEAD DEE OW	Rear window defogger switch OFF	Off
REAR DEF SW	Rear window defogger switch ON	On
TUDNI CIONAL I	Turn signal switch OFF	Off
TURN SIGNAL L	Turn signal switch LH	On
TUDNI CIONIAL D	Turn signal switch OFF	Off
TURN SIGNAL R	Turn signal switch RH	On
VEHICLE SPEED	While driving	Equivalent to speedometer reading
AMA DAUNIO I ANAD	Low tire pressure warning lamp in combination meter OFF	Off
WARNING LAMP	Low tire pressure warning lamp in combination meter ON	On

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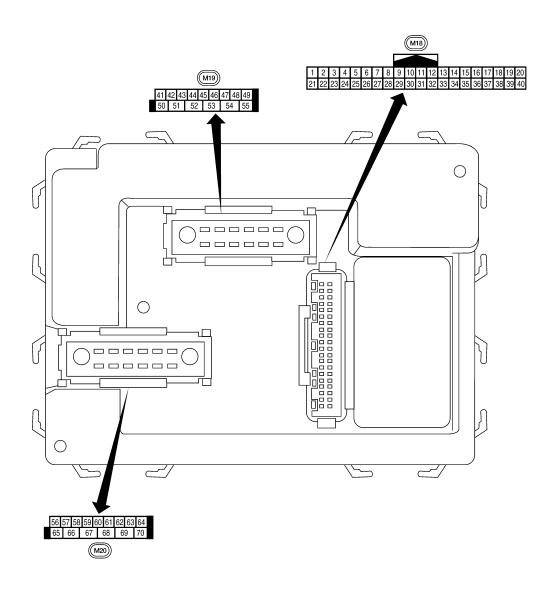
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Terminal Layout



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Physical Values

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< ECU DIAGNOSIS INFORMATION >

	Wire		Signal	Measuring condition		Reference value or waveform	
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)	
1	BR	Ignition keyhole illumi-	Output	OFF	Door is locked (SW OFF)	Battery voltage	
'		nation	Output	011	Door is unlocked (SW ON)	0V	
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + + 5 ms SKIA5291E	
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms	
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms SKIA5291E	
5	L R	Combination switch input 2 Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms SKIA5292E	
_	0.5	Front door lock as-			ON (open, 2nd turn)	Momentary 1.5V	
7	GR	sembly LH (key cylin- der switch) unlock	Input		OFF (closed)	0V	
		Front door lock as-		OFF	On (open)	Momentary 1.5V	
8	SB	sembly LH (key cylin- der switch) lock	Input		OFF (closed)	0V	
		Rear window defogger			Rear window defogger switch ON	0V	
9	Y	switch	Input	ON	Rear window defogger switch OFF	5V	
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage	
		Front door switch RH (All)			ON (open)	0V	
12	LG	Rear door switch upper RH (King Cab)	Input	OFF	OFF (closed)	Battery voltage	
		Rear door switch low- er RH (King Cab)				g	

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< ECU DIAGNOSIS INFORMATION >

	Wire		Signal		Measuring condition	Reference value or waveform					
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)					
13	L	Rear door switch RH	Input	OFF	ON (open)	0V					
		(Crew Cab)	mpat	011	OFF (closed)	Battery voltage					
15	W	Tire pressure warning check connector	Input	OFF	_	5V					
18	BR	Remote keyless entry receiver (Ground)	Output	OFF	_	0V					
19	٧	Remote keyless entry receiver (power supply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 					
20	G	Remote keyless entry receiver signal (Sig-	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 +-50 ms LIIA1894E					
20	9	nal)							G . 1	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 -1 0 -50 ms
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF → ON)	Just after turning ignition switch ON: Pointer of tester should move.					
23	G	Security indicator lamp	Output	OFF	Goes OFF → illuminates (Every 2.4 seconds)	Battery voltage → 0V					
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move.					
27	W	Compressor ON sig-	Input	ON	A/C switch OFF	5V					
	V V	nal	input	OIN	A/C switch ON	0V					
28	R	Front blower monitor	Input	ON	Front blower motor OFF	Battery voltage					
	11		pat	3,1	Front blower motor ON	0V					
29	G	Hazard switch	Input	OFF	ON	0V					
	-		r		OFF	5V					
31	GR	Cargo lamp switch	Input	OFF	ON	0V					
		-	-		OFF	Battery voltage					

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< ECU DIAGNOSIS INFORMATION >

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Item	input/ output	Ignition switch	Operation or condition	(Approx.)
32	0	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 +-+5ms SKIA5292E
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *-5ms SKIA5291E
35	BR	Combination switch output 2				(V)
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E
37	В	Key switch	Input	OFF	Key inserted Key removed	Battery voltage 0V
38	W/R	Ignition switch (ON)	Input	ON	—	Battery voltage
39	L	CAN-H	—	_	_	—
40	Р	CAN-L		_	_	_
45	V	Lock switch	Input	OFF	ON (lock) OFF	0V Battery voltage
46	LG	Unlock switch	Input	OFF	ON (unlock) OFF	0V Battery voltage
		Front door switch LH (All)			ON (open)	0V
47	GR	Rear door switch up- per LH (King Cab)	Input	OFF	OFF (closed)	Battery voltage
		Rear door switch low- er LH (King Cab)				
48	Р	Rear door switch LH (Crew Cab)	Input	OFF	ON (open)	0V Rattery voltage
		(3.5 545)			OFF (closed) Any door open (ON)	Battery voltage 0V
50	Р	Cargo lamp	Output	OFF	All doors closed (OFF)	Battery voltage
					All doors closed (OFF)	Dattery voltage

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< ECU DIAGNOSIS INFORMATION >

		3313 IIVI ORIVIATIO	Signal		Measuring cond	dition	
Terminal	Wire color	Item	input/ output	Ignition switch		or condition	Reference value or waveform (Approx.)
51	0	Trailer turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms
52	LG	Trailer turn signal (left)	Output	ON	Turn left ON		(V) 15 10 50 500 ms SKIA3009J
56	R/Y	Battery saver output	Output	OFF	15 minutes (early production) or 10 minutes (late production) after ignition switch is turned OFF		0V
				ON	-	_	Battery voltage
57	R/Y	Battery power supply	Input	_	_		Battery voltage
58	W	Optical sensor	Input	ON	When optical sensor is illuminated When optical sensor is not illu-		3.1V or more
					minated		0.6V or less
59	GR	Front door lock as-	Output	OFF	OFF (neutral)		0V
		sembly LH (unlock)	- Carpar	.	ON (unlock)		Battery voltage
60	LG	Turn signal (left)	Output	ON	Turn left ON		(V) 15 10 5 0 500 ms
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 0 500 ms SKIA3009J
63	BR	Interior room/map	Outout	OFF	Any door	ON (open)	0V
	DK	lamp	Output	OFF	switch OFF (closed)		Battery voltage
65	V	All door lock actuators	Output	OFF	OFF (neutral)		0V
	-	(lock)			ON (lock)		Battery voltage
		Front door lock actuator RH, rear door lock	.		OFF (neutral)		0V
66	L	actuators LH/RH (un- lock)	Output	OFF	ON (unlock)		Battery voltage
67	В	Ground	Input	ON	-		0V

< ECU DIAGNOSIS INFORMATION >

	Wire		Signal		Measuring condition	Reference value or waveform				
Terminal	color	Item	input/ output	input/ Ignition (Appro		(Approx.)				
					Ignition switch ON	Battery voltage				
					Within 45 seconds after ignition switch OFF	Battery voltage				
68 ¹	Power window power supply (RAP)	Output	_	More than 45 seconds after ignition switch OFF	0V					
				When front door LH or RH is open or power window timer operates	0V					
									Ignition switch ON	Battery voltage
					Within 45 seconds after ignition switch OFF	Battery voltage				
68 ²	SB	Power window power supply (RAP)	Output	_	_ [More than 45 seconds after ignition switch OFF	0V			
					When front door LH or RH is open or power window timer operates	0V				
69	Р	Power window power supply (BAT)	Output	OFF —		Battery voltage				
70	W	Battery power supply	Input	OFF	_	Battery voltage				

^{1:} King cab (with power door lock system)

Fail Safe

Fail-safe index

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

Display contents of CONSULT	Fail-safe	Cancellation
U1000: CAN COMM CIRCUIT	Inhibit engine cranking	When the BCM re-establishes communication with the other modules.

DTC Inspection Priority Chart

INFOID:0000000007808126

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

Priority	DTC
1	U1000: CAN COMM CIRCUIT
2	B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM

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^{2:} Crew cab (without power door lock system)

< ECU DIAGNOSIS INFORMATION >

Priority	DTC
3	C1729: VHCL SPEED SIG ERR C1735: IGNITION SIGNAL
4	 C1704: LOW PRESSURE FL C1705: LOW PRESSURE RR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RR C1711: [NO DATA] RR C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1720: [CODE ERR] FL C1721: [CODE ERR] FR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FL C1725: [BATT VOLT LOW] FR C1726: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RR

DTC Index

NOTE:

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 1
 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter
 remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch
 OFF → ON after returning to the normal condition if the malfunction is detected again.

CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_
U1000: CAN COMM CIRCUIT	_	_	BCS-26
B2190: NATS ANTTENA AMP	_	_	<u>SEC-18</u>
B2191: DIFFERENCE OF KEY	_	_	SEC-21
B2192: ID DISCORD BCM-ECM	_	_	SEC-22
B2193: CHAIN OF BCM-ECM	_	_	SEC-24
C1708: [NO DATA] FL	_	X	<u>WT-14</u>
C1709: [NO DATA] FR	_	X	<u>WT-14</u>
C1710: [NO DATA] RR	_	X	<u>WT-14</u>
C1711: [NO DATA] RL	_	X	<u>WT-14</u>
C1712: [CHECKSUM ERR] FL	_	X	<u>WT-16</u>
C1713: [CHECKSUM ERR] FR	_	X	<u>WT-16</u>
C1714: [CHECKSUM ERR] RR	_	X	<u>WT-16</u>
C1715: [CHECKSUM ERR] RL	_	X	<u>WT-16</u>

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Low tire pressure warning lamp ON	Reference page
C1716: [PRESSDATA ERR] FL	_	X	<u>WT-18</u>
C1717: [PRESSDATA ERR] FR	_	X	<u>WT-18</u>
C1718: [PRESSDATA ERR] RR	_	X	<u>WT-18</u>
C1719: [PRESSDATA ERR] RL	_	X	<u>WT-18</u>
C1720: [CODE ERR] FL	_	X	<u>WT-16</u>
C1721: [CODE ERR] FR	_	X	<u>WT-16</u>
C1722: [CODE ERR] RR	_	X	<u>WT-16</u>
C1723: [CODE ERR] RL	_	X	<u>WT-16</u>
C1724: [BATT VOLT LOW] FL	_	X	<u>WT-16</u>
C1725: [BATT VOLT LOW] FR	_	X	<u>WT-16</u>
C1726: [BATT VOLT LOW] RR	_	X	<u>WT-16</u>
C1727: [BATT VOLT LOW] RL	_	X	<u>WT-16</u>
C1729: VHCL SPEED SIG ERR	_	X	<u>WT-20</u>
C1735: IGNITION SIGNAL	_	Х	<u>WT-21</u>

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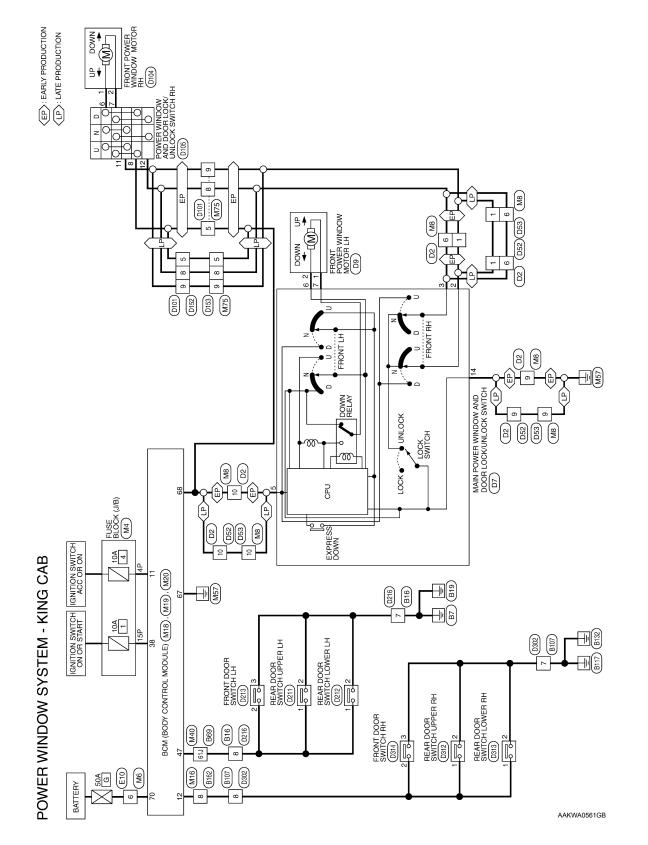
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WIRING DIAGRAM

POWER WINDOW SYSTEM

Wiring Diagram - King Cab



Connector Name WIRE TO WIRE Connector Color BROWN

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Connector No.

POWER WINDOW SYSTEM CONNECTORS - KING CAB

Connector No.	M4
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

Connector Name WIRE TO WIRE

M6

Connector No.

Connector Color WHITE

Connector Na	me FUS	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	lor WHI	TE 3
H.S.	7P 6P 5P 4P 16P 15P 14P 13P	7P 6P 5P 4P (
Terminal No. Wire	Color of Wire	Signal Name
4P	G/B	_
15P	W/R	_

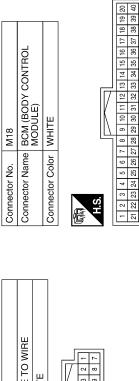
Signal Name	1	1	1	1	
Color of Wire	SB	Д	В	0	
Terminal No. Wire	1	9	6	10	

Wire	SB	Ь	В	0				
Terminal No. Wire	1	9	6	10				
					•			
	ı	1						
Signal Name	ı							
Color of Wire	>							
Terminal No. Wire	9							
		-						
Signal Name	ı	ı						

M19
Connector No.
M18
Connector No.
M16
tor No.

Connector Name | BCM (BODY CONTROL MODULE)

Connector Color WHITE



No. M16	Name WIRE TO WIRE	Color WHITE	0 CT
Connector No.	Connector Name	Connector Color	明.S.

WIRE TO WIRE	IITE	2 8 8 6 8	Signal Name	
me WIF	lor WHITE	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Color of Wire	-
Connector Name	Connector Color	明 H.S.	Terminal No.	o
		· 		

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DOOR SW (DR)

GR

DOOR SW (AS)

IGN SW

W/R

Signal Name

Color of Wire

Terminal No. 47

Signal Name ACC SW

Color of Wire

Terminal No. Ξ 38 42

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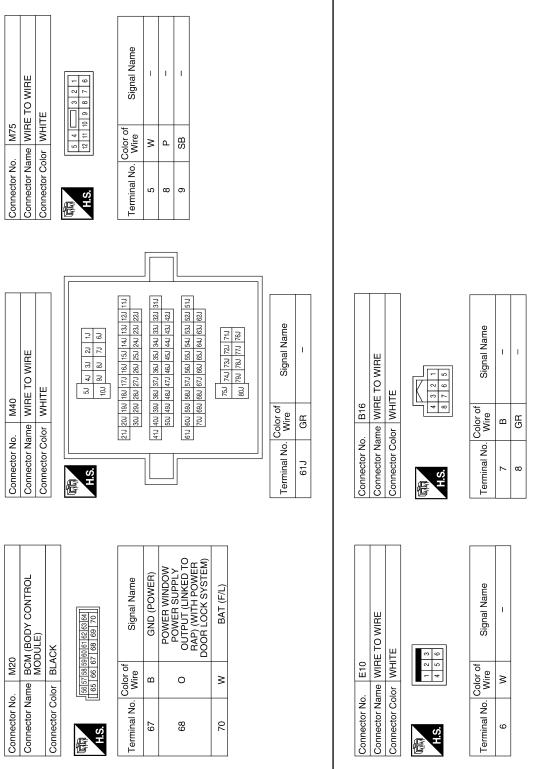
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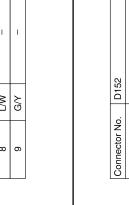
Connector No. B162 Connector Name WIRE TO WIRE Connector Color WHITE	1 2 3 4 5 6 7 8 9 10 111 12	Terminal No. Wire Signal Name B LG -					Connector No. D9	Connector Name FRONT POWER WINDOW MOTOR LH	_	H.S.	Color of	al NO.	- CG/W				
07 IRE TO WIRE HITE	6 2 1	Signal Name	1					MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	WHITE	1 2 3 4 6 7 8 9 10 11 12 13 14 15 16	of Signal Name	1	1	1 1	1	1	
Connector No. B107 Connector Name WIRE TO WIRE Connector Color WHITE	H.S.	al No.	8 R				Connector No. D7	Connector Name AN SV	Connector Color WI	H.S.	Terminal No. Wire	2 G/Y		5 W/R		14 B	
Connector No. B69 Connector Name WIRE TO WIRE Connector Color WHITE	11 22 33 41 51 61 61 77 88 93 10		[51.4] 52.2 [53.4] 54.4] 54.5 [54.6] 57.2 [58.4] 59.9 [50.4] [57.4] 52.2 [53.4] 55.5 [55.4] 55.8 [55.4] 55.9 [55.4	71.1 72.1 73.1 74.1 75.3 76.1 77.1 78.1 79.8 80.1	Š.	61J GR –	Connector No. D2	Connector Name WIRE TO WIRE Connector Color BROWN	-	6 7 8 9 10 11 12	Terminal No. Wire Signal Name	G/Y	_	10 W/R -			
Conne	原 H.S.	L 	 _		Termi	9	Conne	Conne		H.S.	Termi				A2910	GB	

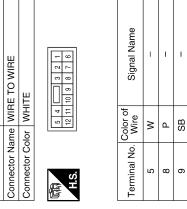
Revision: October 2015 PWC-51 2012 Frontier NAM

D101	WIRE TO WIRE	WHITE	1 2 3
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.

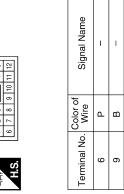
ninal No. Wire Signal Name	1	I	1
Color of Wire	W/R	Γ/M	G/Y
Terminal No.	5	8	6





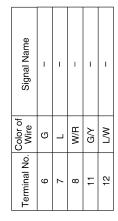




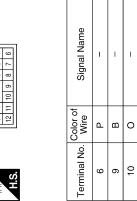


Signal Name	ı	I	1	
Color of Wire	Ь	В	0	
Terminal No. Wire	9	6	10	

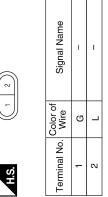
D105	Connector Name DOOR LOCK/UNLOCK SWITCH RH	WHITE
Connector No.	Connector Name	Connector Color WHITE







D104	Connector Name FRONT POWER WINDOW MOTOR RH	BROWN	
Connector No.	Connector Name	Connector Color BROWN	



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< WIRING DIAGRAM >

4		Signal Name	-	1
ביים וי	\ <u>{</u> [2]	Color of Wire	ГG	В
COLINECTOI COLOI	南 H.S.	Terminal No.	1	2

REAR POWER WINDOV MOTOR LH	X		Signal Name	Ι
	r BLACK	2	Color of Wire	Υ
Connector Name	Connector Color	(可) H.S.	Terminal No.	-

		1		Г				
RE TO WIRE	ITE		9 10 11 12		Signal Name	-	-	_
me WIF	lor WHITE		1 2 3		Color of Wire	*	Ь	SB
Connector Name WIRE TO WIRE	Connector Color	1	INS.		Terminal No.	5	8	6

ı	1		WIRE TO WIRE	ļ	4 8 5	Signal Name	1	
ГG	В	0	_		0 0	Color of Wire	В	
-	2	1	Connector No.	Connector Color	H.S.	Terminal No.	7	

Connector No.	D213		
Connector Name		FRONT DOOR SWITCH LH (KING CAB)	
Connector Color	lor WHITE	Ë	
赋利 H.S.			
Terminal No.	Color of Wire	Signal Name	
2	LG	ı	
٣	α	ı	

	REAR DOOR SWITCH LOWER LH		
D212	REAR D	BLACK	[2]
Connector No.	Connector Name	Connector Color BLACK	H.S.

REAR DOOR SWITCH LOWER LH	关		Signal Name	ı	-
	BLACK	\ <u>1</u> ~]	Color of Wire	_	В
me	힏		ŭ_		
Connector Name	Connector Color	喃 H.S.	Terminal No.	-	2

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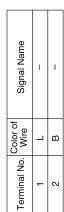
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Sonnector No. D313 Sonnector Name REAR DOOR SWITCH LOWER RH CONNECTOR BLACK	
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	Signal Name	1	ı
	Color of Wire	٦	а
响 H.S.	Terminal No. Wire	-	6

D312	Connector Name REAR DOOR SWITCH UPPER RH	BLACK	
Connector No.	Connector Name	Connector Color BLACK	

Connector No. D302
Connector Name WIRE TO WIRE

Connector Color WHITE



Signal Name	I	ı
Color of Wire	В	LG
erminal No.	7	8

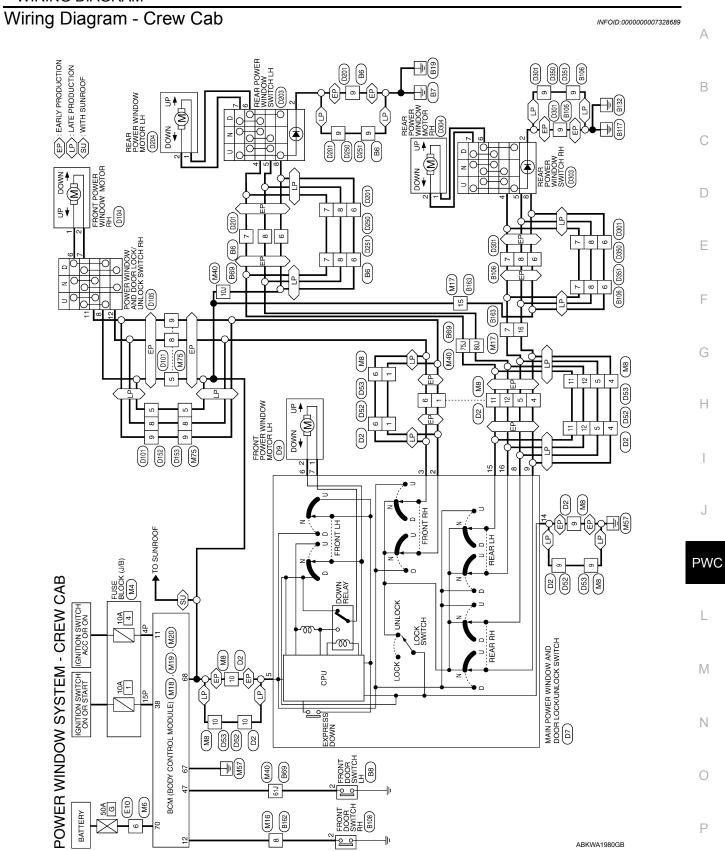
Signal Name	I	ı
Color of Wire	В	ГG
Terminal No.	7	8

Connector No.	. D314	
Connector Name		FRONT DOOR SWITCH RH (KING CAB)
Connector Color	lor WHITE	E
雨 H.S.	0 0 0	
Terminal No.	Color of Wire	Signal Name

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Connector Name | WIRE TO WIRE Connector Color BROWN

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Connector No.

POWER WINDOW SYSTEM CONNECTORS - CREW CAB

Connector No.	M4
Connector Name	Connector Name FUSE BLOCK (J/B)
Connector Color WHITE	WHITE

Connector Name WIRE TO WIRE

Connector No. M6

Connector Color WHITE

ctor No. M4 ctor Name FUSE BLOCK (J/B) ctor Color WHITE The Res part 4P The Res part 1P The Res
--

7P 6P 5P 4P (3P 2P 1P 16P 15P 14P 13P 12P 11P 10P 9P 8P	Signal Name	I	1
7P 6P 5P 4P 0	Color of Wire	G/B	0//4/
H.S.	Terminal No.	4P	-

Signal Name

Color of Wire

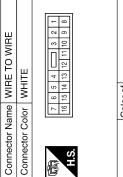
Terminal No.

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8 7 6	Signal Name	1	_	1	1	_	Ī	_	-
12 11 10 9	Color of Wire	SB	Ь	>	۵	В	0	ш	ГG
HS.	Terminal No.	-	4	5	9	6	10	11	12

M18	Connector Name BCM (BODY CONTROL MODULE)	WHITE
Connector No.	Connector Name	Connector Color WHITE





Signal Name	1	1	I
Color of Wire	Υ	Ν	Ь
Terminal No.	7	15	16

DOOR SW (AS)

IGN SW

W/R

Signal Name ACC SW

Color of Wire

Terminal No. Ξ 12 38

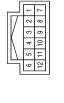
G/B 2

WHITE	2 t1 4 01 2 0 0 2 0 0 1 7
Connector Color	H.S.

Connector Name WIRE TO WIRE

M16

Connector No.





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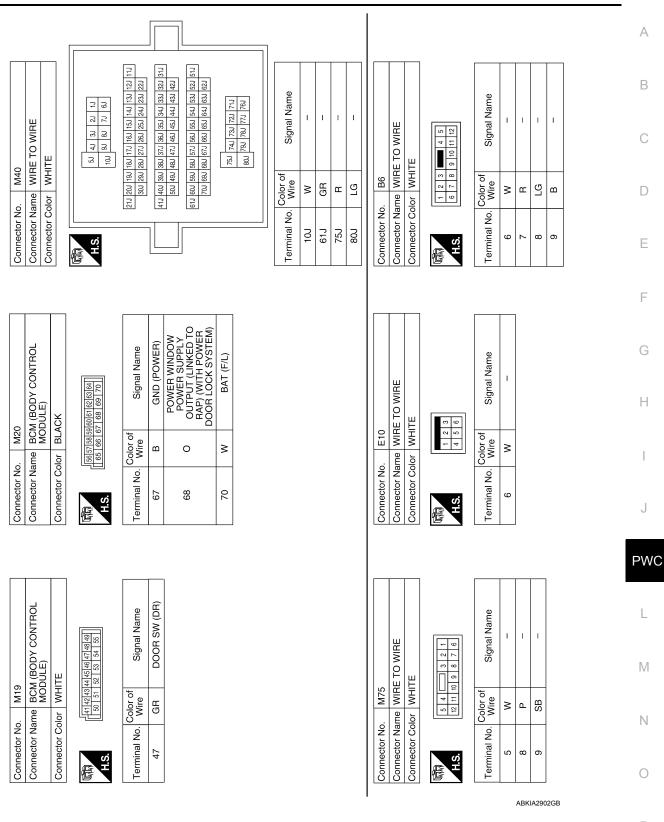
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< WIRING DIAGRAM >



PWC-57 Revision: October 2015 2012 Frontier NAM

Terminal No. Wire Signal Name 10J W	Connector No. B162 Connector Name WIRE TO WIRE Connector Color WHITE T 2 3 4 5 6 T 2 8 9 10 11 12 Terminal No. Wire Signal Name 8 LG
Connector No. B69	Connector No. B108 Connector Name FRONT DOOR SWITCH RH (CREW CAB) Connector Color WHITE A.S. Terminal No. Wire Signal Name 2 LG -
Connector No. B8 Connector Name FRONT DOOR SWITCH LH (CREW CAB) Connector Color WHITE Terminal No. Wire Signal Name 2 GR -	Connector No. B106

PWC-58 Revision: October 2015 2012 Frontier NAM

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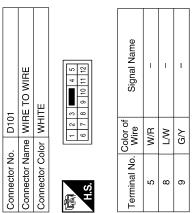
< WIRING DIAGRAM >

Connector No. B163	Connector No.). D2		Connector No.). D7	
Connector Name WIRE TO WIRE	Connector Name	-	WIRE TO WIRE	34		N POWER WINDOW
Connector Color WHITE	Connector Color	olor BROWN	NN			SWITCH
		6		Connector Color	-	WHITE
H.S.	H.S.	7 ~		是 H.S.	1 2 3 4 8 9 10 11	4
Terminal No. Wire Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
_	-	G/Y	ı	2	ď√	I
15 W -	4	œ	ı	3	Š	I
16 P –	5	G/B	ı	5	W/R	ı
	9	M	ı	9	G/R	ı
	6	В	1	7	G/W	Î
	10	M/R	ı	8	G/B	I
	11	B/B	-	6	ш	I
	12	Η/Y	1	14	В	ı
				15	B/B	-
				16	₽	ı
Connector No. D9	Connector No.). D52		Connector No.). D53	
Connector Name FRONT POWER WINDOW	Connector Name WIRE TO WIRE	ıme WIRE	TO WIRE	Connector Name	ame WIF	WIRE TO WIRE
_	Connector Color	olor BROWN	NN	Connector Color	-	BROWN
Connector Color BROWN						
H.S.	图 H.S.	5 4 11 10	8 3 7 6 1	H.S.	6 7 8	3 4 5 10 11 12
Terminal No. Wire Signal Name	Terminal No.	Color of Wire	Signal Name	Terminal No.	Color of Wire	Signal Name
1 G/W –	-	SB	1	-	SB	ı
2 G/R –	4	۵	ı	4	۵	ı
	2	\	1	5	>	1
	9	Ь	ı	9	Ь	-
	6	В	1	6	В	1
	10	0	1	10	0	I
	=	œ	ı	=	Œ	I
	12	re	1	12	LG	ı

Revision: October 2015 PWC-59 2012 Frontier NAM

Connector No.		D105
Connector Name		POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH
Connector Color		WHITE
H.S.	1 2 6 7	8 9 10 11 12
Terminal No.	Color of Wire	f Signal Name
9	ច	ı
7	٦	ı
8	W/R	_
11	J/9	-
12	\mathbb{N}	ı

Connector No.). D104	14
Connector Name		FRONT POWER WINDOW MOTOR RH
Connector Color		BROWN
H.S.		2
Terminal No.	Color of Wire	Signal Name
1	9	-
2		1



Connector No.	. D201	1
Connector Name WIRE TO WIRE	me WIR	E TO WIRE
Connector Color WHITE	lor WHI	TE
H.S.	5 4 11	0 9 3 7 1 1
Terminal No.	Color of Wire	Signal Name
9	>	ı
7	LG	ı
8	æ	ı
6	В	ı

Connector No.). D153	3
Connector Name WIRE TO WIRE	me WIF	E TO WIRE
Connector Color WHITE	olor WH	TE
是 H.S.	1 2 3 6 7 8	9 10 11 12
Terminal No.	Color of Wire	Signal Name
5	Μ	ı
æ	Ь	ı
6	SB	ı

55	WIRE TO WIRE	ПЕ	9 8 7 6	Signal Name	I	1	1
. D152	me WIF	lor WH	12 11 10 9	Color of Wire	Μ	Д	SB
Connector No.	Connector Name	Connector Color WHITE	所 H.S.	Terminal No.	5	8	6

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< WIRING DIAGRAM >

D250	RE TO WIRE	HTE	3	Signal Name	1
	me W	lor	6 7	Color of Wire	В
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	昏 H.S.	Terminal No. Wire	6

	H	
Connector No.). D204	
Connector Name		REAR POWER WINDOW MOTOR LH
Connector Color	olor BLACK	X
H.S.	Z	
Terminal No.	Color of Wire	Signal Name
-	>	I
2	_	1

)3	REAR POWER WINDOW SWITCH LH	WHITE	6 7 8	Signal Name	I	ı	ı	ı	ı	ı	
D203	e e	_	- 4 - 5	Color of Wire	В	LG	Œ	Υ	٦	M	
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	4	5	9	7	8	

	REAR POWER WINDOW SWITCH RH		[FIB]	Signal Name	ı	1	ı	ı	ı	
D303		or WHITE	1 4 5 6 7 2 8	Color of Wire S	В	re	Ж	>		
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	2	4	5	9	2	,

Connector No.). D301	1
Connector Name		WIRE TO WIRE
Connector Color	olor WHITE	TE
偃		3 2
H.S.	7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ferminal No.	Color of Wire	Signal Name
9	8	ı
7	LG	1
8	В	1
6	В	1

51	RE TO WIRE	빝	8 3 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Signal Name	_	
. D251	me WIF	lor WH	5 4 11 10 9	Color of Wire	В	
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.	Terminal No.	6	

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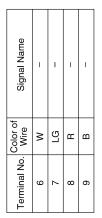
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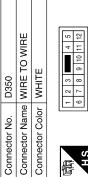
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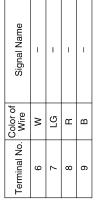
Connector No. D351 Connector Name WIRE TO WIRE Connector Color WHITE
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Signal Name	I	1
Color of Wire	>	Γ
Terminal No.	-	2

ABKIA4301GB

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH

Diagnosis Procedure

INFOID:0000000007328690

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${f 1}$. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to BCS-27, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Check main power window switch.

Refer to PWC-14, "POWER WINDOW MAIN SWITCH (CREW CAB): Component Inspection" or PWC-18, "POWER WINDOW MAIN SWITCH (KING CAB): Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

3. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check power window switch main power supply and ground circuit.

Refer to PWC-11, "POWER WINDOW MAIN SWITCH (CREW CAB): Component Function Check" or PWC-16, "POWER WINDOW MAIN SWITCH (KING CAB): Component Function Check".

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

NO >> Repair or replace the malfunctioning parts.

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Revision: October 2015 PWC-63 2012 Frontier NAM

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000007328691

1. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Check main power window switch.

Refer to <u>PWC-14</u>, "<u>POWER WINDOW MAIN SWITCH (CREW CAB)</u>: <u>Component Inspection"</u> or <u>PWC-18</u>, "<u>POWER WINDOW MAIN SWITCH (KING CAB)</u>: <u>Component Inspection</u>".

Is the inspection result normal?

YES >> GO TO 2

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

2. CHECK FRONT POWER WINDOW MOTOR LH

Check front power window motor LH.

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

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

Revision: October 2015 PWC-64 2012 Frontier NAM

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

Is the inspection result normal?

>> Inspection End.

YES

NO

FRONT PASSENGER SIDE POWER WINDOW ALONE DOES NOT OPER-Α **ATE** Diagnosis Procedure INFOID:0000000007328692 В 1. CHECK POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH RH Check power window and door lock/unlock switch RH. Refer to PWC-19, "FRONT POWER WINDOW SWITCH: Component Function Check". Is the inspection result normal? YES >> GO TO 2 D NO >> Repair or replace the malfunctioning parts. 2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH Е Check main power window and door lock/unlock switch. Refer to PWC-14, "POWER WINDOW MAIN SWITCH (CREW CAB): Component Inspection" or PWC-18, "POWER WINDOW MAIN SWITCH (KING CAB): Component Inspection". Is the inspection result normal? F >> GO TO 3 YES NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation". 3. CHECK FRONT POWER WINDOW MOTOR RH CIRCUIT Check front power window motor RH circuit. Н Refer to PWC-25, "PASSENGER SIDE: Component Function Check".

>> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

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REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

Diagnosis Procedure

INFOID:0000000007328693

1. CHECK REAR POWER WINDOW SWITCH LH

Check rear power window switch LH.

Refer to PWC-20, "REAR POWER WINDOW SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2

NO >> Repair or replace the malfunctioning parts.

2. Check main power window and door lock/unlock switch

Check main power window and door lock/unlock switch.

Refer to PWC-14, "POWER WINDOW MAIN SWITCH (CREW CAB): Component Inspection".

Is the inspection result normal?

YES >> GO TO 3

NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".

3. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-27, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE	А
Diagnosis Procedure	Α
1. CHECK REAR POWER WINDOW SWITCH RH	В
Check rear power window switch RH. Refer to PWC-20, "REAR POWER WINDOW SWITCH: Component Function Check".	
Is the inspection result normal?	С
YES >> GO TO 2 NO >> Repair or replace the malfunctioning parts.	
2. CHECK MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH	D
Check main power window and door lock/unlock switch. Refer to PWC-14, "POWER WINDOW MAIN SWITCH (CREW CAB): Component Inspection". Is the inspection result normal?	Е
YES >> GO TO 3 NO >> Replace main power window and door lock/unlock switch. Refer to PWC-73, "Removal and Installation".	F
3. CHECK REAR POWER WINDOW MOTOR RH	
Check rear power window motor RH. Refer to PWC-28, "REAR RH: Component Function Check".	G
Is the inspection result normal?	
YES >> Inspection End. NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".	Н
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AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATES NORMAL-LY (DRIVER SIDE)

< SYMPTOM DIAGNOSIS >

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

Diagnosis Procedure

INFOID:0000000007328695

1. REPLACE MAIN POWER WINDOW AND DOOR LOCK/UNLOCK SWITCH

Replace main power window and door lock/unlock switch and check operation. Refer to PWC-73, "Removal and Installation".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

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POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000007328696

1. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to <u>DLK-29, "CREW CAB : Component Function Check"</u> or <u>DLK-27, "KING CAB Component Function Check"</u>.

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

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POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000007328697

$1. \ \mathsf{REPLACE} \ \mathsf{MAIN} \ \mathsf{POWER} \ \mathsf{WINDOW} \ \mathsf{AND} \ \mathsf{DOOR} \ \mathsf{LOCK/UNLOCK} \ \mathsf{SWITCH}$

Replace main power window and door lock/unlock switch and check operation. Refer to PWC-73, "Removal and Installation".

Is the inspection result normal?

YES >> Inspection End.

NO >> Check intermittent incident. Refer to GI-46, "Intermittent Incident".

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRF-TFNSIONER"

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 SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not 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:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT 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
- 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.

Precaution for Work INFOID:0000000007328699

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and prevent them from being dropped.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with a new one.
- · Be sure to tighten bolts and nuts securely to the specified torque.
- · After installation is complete, be sure to check that each part works properly.
- Follow the steps below to clean components:
- Water soluble dirt:
- Dip a soft cloth into lukewarm water, wring the water out of the cloth and wipe the dirty area.
- Then rub with a soft, dry cloth.
- Oily dirt:
- Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%) and wipe the dirty
- Then dip a cloth into fresh water, wring the water out of the cloth and wipe the detergent off.
- Then rub with a soft, dry cloth.
- Do not use organic solvent such as thinner, benzene, alcohol or gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

Special Service Tool

INFOID:0000000007328700

Tool number (Kent-Moore No.) Tool name		Description
 (J-46534) Trim tool set	AWJIA0483ZZ	Removing trim components

POWER WINDOW MAIN SWITCH

< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

Removal and Installation

REMOVAL

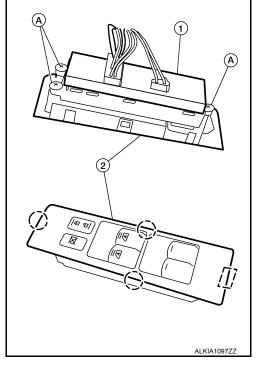
- Using a suitable tool, release the metal clip and pawls, then lift upward the main power window/door lock switch and finisher (2)
 LH as an assembly.
 - : Metal clip

(_): Pawl

CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 2. Disconnect the harness connectors.
- 3. Remove the main power window/door lock switch and finisher (2) LH assembly from the front door finisher.
- 4. Remove the three screws (A) from the main power window/door lock switch (1) LH.
- 5. Remove the main power window/door lock switch (1) LH from the main power window/door lock switch finisher (2) LH.



INSTALLATION

Installation is in the reverse order of removal.

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FRONT POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

FRONT POWER WINDOW SWITCH

Removal and Installation

INFOID:0000000007328702

REMOVAL

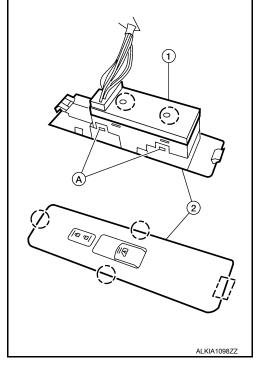
 Using a suitable tool, release the metal clip and pawls, then lift upward the front power window/door lock switch and finisher (2)
 RH as an assembly.

[]: Metal clip (]): Pawl

CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 2. Disconnect the harness connector.
- 3. Remove the front power window/door lock switch and finisher (2) RH assembly from the front door finisher.
- 4. Release the four tabs (A), two on each side, then separate the front power window/door lock switch (1) RH from the front power window/door lock switch finisher (2) RH.



INSTALLATION

Installation is in the reverse order of removal.

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

REAR POWER WINDOW SWITCH

Removal and Installation - Rear Door Switch (If Equipped)

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REMOVAL

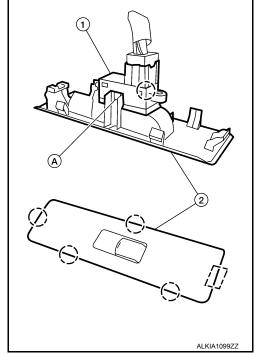
1. Using a suitable tool, release the metal clip and pawls, then lift upward the rear power window switch and finisher (2) as an assembly.

: Metal clip

(): Pawl CAUTION:

Wrap a cloth around suitable tool to protect components from damage.

- 2. Disconnect the harness connector.
- 3. Remove the rear power window switch and finisher (2) assembly from the rear door finisher.
- 4. Release the two tabs (A), one on each side, then separate the rear power window switch (1) from the rear power window switch finisher (2).



INSTALLATION

Installation is in the reverse order of removal.

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