

CONTENTS

FRONT & REAR WINDOW ANTI-PINCH
BASIC INSPECTION7
DIAGNOSIS AND REPAIR WORKFLOW
INSPECTION AND ADJUSTMENT8
ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL
ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT
SYSTEM DESCRIPTION10
POWER WINDOW SYSTEM10System Diagram10System Description10Component Parts Location12Component Description12
DIAGNOSIS SYSTEM (BCM)14
COMMON ITEM14 COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)14
RETAIND PWR
DTC/CIRCUIT DIAGNOSIS 16

POWER SUPPLY AND GROUND CIRCUIT	16
BCM	
BCM : Diagnosis Procedure	16
POWER WINDOW MAIN SWITCH	16
POWER WINDOW MAIN SWITCH: Diagnosis	
Procedure	16
FRONT POWER WINDOW SWITCH (PASSEN-	
GER SIDE)	17
FRONT POWER WINDOW SWITCH (PASSEN	
GER SIDE) : Diagnosis Procedure	17
REAR POWER WINDOW SWITCH	18
REAR POWER WINDOW SWITCH : Diagnosis	
Procedure	18
POWER WINDOW MOTOR	20
DRIVER SIDE	20
DRIVER SIDE : Description	
DRIVER SIDE: Component Function Check	20
DRIVER SIDE : Diagnosis Procedure	20
DRIVER SIDE : Component Inspection	21
PASSENGER SIDE	21
PASSENGER SIDE : Description	
PASSENGER SIDE: Component Function Chec	
DACCENCED CIDE : Diamonia Drandura	21
PASSENGER SIDE : Diagnosis Procedure PASSENGER SIDE : Component Inspection	
·	
REAR LH	
REAR LH : Description	
REAR LH: Component Function Check REAR LH: Diagnosis Procedure	
REAR LH : Component Inspection	24
REAR RH REAR RH : Description	
REAR RH : Component Function Check	
REAR RH : Diagnosis Procedure	

D

Е

F

PWC

REAR RH : Component Inspection	. 26	REAR RH : Component Function Check	
DOOR SWITCH	. 27	REAR RH : Diagnosis Procedure	. 44
Description		ECU DIAGNOSIS INFORMATION	. 46
Component Function Check			1 40
Diagnosis Procedure		BCM (BODY CONTROL MODULE)	. 46
Component Inspection		Reference Value	
Component inspection	. 20	Wiring Diagram - BCM	
ENCODER	. 29	Fail-safe	
		DTC Inspection Priority Chart	
DRIVER SIDE	. 29	DTC Inspection Friendly Chart	
DRIVER SIDE : Description	. 29	DTC Index	. 79
DRIVER SIDE : Component Function Check	. 29	POWER WINDOW MAIN SWITCH	. 82
DRIVER SIDE : Diagnosis Procedure		Reference Value	
-		Wiring Diagram - POWER WINDOW CONTROL	. 02
PASSENGER SIDE		SYSTEM	0.4
PASSENGER SIDE : Description	. 31		
PASSENGER SIDE: Component Function Check		Fail-safe	. 88
·	. 31	FRONT POWER WINDOW SWITCH	۵n
PASSENGER SIDE : Diagnosis Procedure	. 31	Reference Value	
g			. 90
REAR LH	. 33	Wiring Diagram - POWER WINDOW CONTROL	
REAR LH: Description	. 33	SYSTEM	
REAR LH: Component Function Check	. 33	Fail-safe	. 96
REAR LH: Diagnosis Procedure		REAR POWER WINDOW SWITCH	00
•			
REAR RH	. 35	Reference Value	. 98
REAR RH: Description	. 35	Wiring Diagram - POWER WINDOW CONTROL	
REAR RH: Component Function Check	. 35	SYSTEM	
REAR RH : Diagnosis Procedure		Fail-safe	104
DOOR KEY CYLINDER SWITCH Description Component Function Check Diagnosis Procedure	. 38 . 38	NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH	106
Component Inspection		Diagnosis Procedure	106
Component inspection	. 33		
POWER WINDOW SERIAL LINK	. 40	DRIVER SIDE POWER WINDOW ALONE	
		DOES NOT OPERATE	-
POWER WINDOW MAIN SWITCH	. 40	Diagnosis Procedure	107
POWER WINDOW MAIN SWITCH: Description	. 40		
POWER WINDOW MAIN SWITCH: Component		FRONT PASSENGER SIDE POWER WIN-	
Function Check	. 40	DOW DOES NOT OPERATE	108
POWER WINDOW MAIN SWITCH: Diagnosis		WILE DOWED WINDOW MAIN OWITCH IS OR	
Procedure	. 40	WHEN POWER WINDOW MAIN SWITCH IS OP-	
		ERATED	108
FRONT POWER WINDOW SWITCH (PASSEN-		WHEN POWER WINDOW MAIN SWITCH IS OP-	
GER SIDE)	. 41	ERATED : Diagnosis Procedure	108
FRONT POWER WINDOW SWITCH (PASSEN-		WILEN FRONT ROWER WINDOW CWITCH (RAC	
GER SIDE) : Description	. 41	WHEN FRONT POWER WINDOW SWITCH (PAS-	
FRONT POWER WINDOW SWITCH (PASSEN-		SENGER SIDE) IS OPERATED	108
GER SIDE) : Component Function Check	41	WHEN FRONT POWER WINDOW SWITCH	
FRONT POWER WINDOW SWITCH (PASSEN-		(PASSENGER SIDE) IS OPERATED : Diagnosis	
GER SIDE) : Diagnosis Procedure	12	Procedure	108
OLIN OIDE) . Diagriosis Frocedure	. +∠	WILEN DOTH DOWER WIND ON TAKE OWNER.	
REAR LH	. 42	WHEN BOTH POWER WINDOW MAIN SWITCH	
REAR LH : Description		AND FRONT POWER WINDOW SWITCH ARE	
REAR LH : Component Function Check		OPERATED	108
REAR LH : Diagnosis Procedure		WHEN BOTH POWER WINDOW MAIN SWITCH	
NEAN LIT. Diagnosis Flocedule	. 4 3	AND FRONT POWER WINDOW SWITCH ARE	
REAR RH	. 44	OPERATED : Diagnosis Procedure	108
REAR RH : Description		ŭ	

REAR LH SIDE POWER WINDOW ALONE	REAR LH113	
DOES NOT OPERATE109	REAR LH : Diagnosis Procedure114	Α
WHEN POWER WINDOW MAIN SWITCH IS OP-	REAR RH114	
ERATED109	REAR RH : Diagnosis Procedure114	Б
WHEN POWER WINDOW MAIN SWITCH IS OP-	POWER WINDOW RETAINED POWER OP-	В
ERATED : Diagnosis Procedure109	ERATION DOES NOT OPERATE PROPERLY	
WHEN REAR POWER WINDOW SWITCH LH IS		С
OPERATED109	Diagnosis Procedure115	
WHEN REAR POWER WINDOW SWITCH LH IS	POWER WINDOW DOWN FUNCTION DOES	
OPERATED : Diagnosis Procedure109		D
WHEN BOTH POWER WINDOW MAIN SWITCH	ERATION 116	
AND REAR POWER WINDOW SWITCH LH ARE	Diagnosis Procedure116	
OPERATED	•	Е
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE	POWER WINDOW DOWN FUNCTION DOES	
OPERATED : Diagnosis Procedure109	NOT WORK WHEN OPERATING WITH IN- TELLIGENT KEY117	
-	Description	F
REAR RH SIDE POWER WINDOW ALONE	Diagnosis Procedure117	
DOES NOT OPERATE110		
WHEN POWER WINDOW MAIN SWITCH IS OP-	I OWER WINDOW LOOK OWN ON BOLO	G
ERATED110	NOT FUNCTION	
WHEN POWER WINDOW MAIN SWITCH IS OP-	Diagnosis Procedure118	Н
ERATED : Diagnosis Procedure110	POWER WINDOW SWITCH DOES NOT IL-	
WHEN REAR POWER WINDOW SWITCH RH IS	LUMINATE119	
OPERATED110	DRIVER SIDE119	
WHEN REAR POWER WINDOW SWITCH RH IS	DRIVER SIDE : Diagnosis Procedure119	
OPERATED : Diagnosis Procedure110	•	
WHEN BOTH POWER WINDOW MAIN SWITCH	PASSENGER SIDE119 PASSENGER SIDE : Diagnosis Procedure119	J
AND REAR POWER WINDOW SWITCH RH ARE	PASSENGER SIDE : Diagnosis Procedure	
OPERATED110	REAR LH119	
WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE	REAR LH : Diagnosis Procedure119	PW
OPERATED : Diagnosis Procedure110	REAR RH119	
· ·	REAR RH : Diagnosis Procedure119	
ANTI-PINCH FUNCTION DOES NOT OPER-	PRECAUTION120	L
ATE111	FREGAUTION120	
DRIVER SIDE111	PRECAUTIONS120	M
DRIVER SIDE : Diagnosis Procedure111	Precaution for Supplemental Restraint System	1 V I
PASSENGER SIDE111	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	
PASSENGER SIDE : Diagnosis Procedure 111	SIONER"120	Ν
<u>-</u>	REMOVAL AND INSTALLATION121	
REAR LH :111 REAR LH : Diagnosis Procedure111	POWER WINDOW MAIN SWITCH121	
REAR LET . Diagnosis Procedure	Removal and Installation	0
REAR RH112	Removal and installation121	
REAR RH: Diagnosis Procedure112	FRONT POWER WINDOW SWITCH (PAS-	
AUTO OPERATION DOES NOT OPERATE	<u></u>	Р
BUT MANUAL OPERATE NORMALLY 113	Removal and Installation122	
	REAR POWER WINDOW SWITCH123	
DRIVER SIDE113 DRIVER SIDE : Diagnosis Procedure113	Removal and Installation123	
•	FRONT WINDOW ANTI-PINCH	
PASSENGER SIDE113	BASIC INSPECTION124	
PASSENGER SIDE : Diagnosis Procedure 113	DAGIO 11401 LOTTON124	

DIAGNOSIS AND REPAIR WORKFLOW 124	POWER WINDOW MOTOR139
Work Flow124	DRIVER SIDE139
INSPECTION AND ADJUSTMENT 125	DRIVER SIDE : Description
	DRIVER SIDE : Component Function Check 139
ADDITIONAL SERVICE WHEN REMOVING BAT-	DRIVER SIDE : Diagnosis Procedure
TERY NEGATIVE TERMINAL125	DRIVER SIDE : Component Inspection 140
ADDITIONAL SERVICE WHEN REMOVING	·
BATTERY NEGATIVE TERMINAL : Description125	PASSENGER SIDE140
ADDITIONAL SERVICE WHEN REMOVING	PASSENGER SIDE : Description 140
BATTERY NEGATIVE TERMINAL : Special Re-	PASSENGER SIDE: Component Function Check
pair Requirement125	. 140
ADDITIONAL SERVICE WHEN REPLACING	PASSENGER SIDE : Diagnosis Procedure 140
CONTROL UNIT125	PASSENGER SIDE : Component Inspection 141
ADDITIONAL SERVICE WHEN REPLACING	REAR LH142
CONTROL UNIT: Description125	REAR LH: Description142
ADDITIONAL SERVICE WHEN REPLACING	REAR LH: Component Function Check
CONTROL UNIT: Special Repair Requirement126	REAR LH: Diagnosis Procedure142
CONTROL ONIT : Special Repail Requirement 120	REAR LH: Component Inspection
SYSTEM DESCRIPTION127	NEAR EIT. Component inspection140
	REAR RH143
POWER WINDOW SYSTEM 127	REAR RH: Description143
System Diagram127	REAR RH: Component Function Check143
System Description127	REAR RH: Diagnosis Procedure144
Component Parts Location129	REAR RH: Component Inspection 145
Component Description129	DOOD CHUTCH
DIA ONO DIO OVOTENI (DOM)	DOOR SWITCH146
DIAGNOSIS SYSTEM (BCM) 131	Description
COMMON ITEM131	Component Function Check
COMMON ITEM : CONSULT-III Function (BCM -	Diagnosis Procedure
COMMON ITEM)131	Component Inspection147
	ENCODER148
RETAIND PWR132	LITOODEIX140
RETAIND PWR : CONSULT-III Function (BCM -	DRIVER SIDE148
RETAINED PWR)132	DRIVER SIDE : Description148
DTC/CIDCUIT DIA CNOCIC	DRIVER SIDE : Component Function Check 148
DTC/CIRCUIT DIAGNOSIS133	DRIVER SIDE : Diagnosis Procedure 148
POWER SUPPLY AND GROUND CIRCUIT 133	DACCENOED CIDE
TOWER GOTTET AND GROOMS GIRGOTT II 100	PASSENGER SIDE
BCM133	PASSENGER SIDE : Description 150 PASSENGER SIDE : Component Function Check
BCM : Diagnosis Procedure133	. 150
DOWED WINDOW MAIN CWITCH	PASSENGER SIDE : Diagnosis Procedure 150
POWER WINDOW MAIN SWITCH133	PASSENGER SIDE . Diagnosis Procedure 150
POWER WINDOW MAIN SWITCH : Diagnosis	DOOR KEY CYLINDER SWITCH153
Procedure133	Description 153
FRONT POWER WINDOW SWITCH (PASSEN-	Component Function Check
GER SIDE)134	Diagnosis Procedure153
FRONT POWER WINDOW SWITCH (PASSEN-	Component Inspection 154
GER SIDE) : Diagnosis Procedure134	
•	POWER WINDOW SERIAL LINK155
REAR POWER WINDOW SWITCH135	POWER WINDOW MAIN SWITCH155
REAR POWER WINDOW SWITCH : Diagnosis	
Procedure135	POWER WINDOW MAIN SWITCH: Description . 155 POWER WINDOW MAIN SWITCH: Component
REAR POWER WINDOW SWITCH 137	Function Check155
	POWER WINDOW MAIN SWITCH : Diagnosis
Description	Procedure155
Component Function Check	1 100euule 199
Diagnosis Procedure	
Component Inspection138	

Р	W	ľ	3

FRONT POWER WINDOW SWITCH (PASSEN- GER SIDE)156	REAR LH SIDE POWER WINDOW ALONE
FRONT POWER WINDOW SWITCH (PASSEN-	DOES NOT OPERATE216 A
· ·	WHEN POWER WINDOW MAIN SWITCH IS OP-
GER SIDE): Description156 FRONT POWER WINDOW SWITCH (PASSEN-	ERATED216
· ·	WHEN POWER WINDOW MAIN SWITCH IS OP-
GER SIDE): Component Function Check 156	ERATED : Diagnosis Procedure216
FRONT POWER WINDOW SWITCH (PASSEN-	ETATED : Diagnosis i Toocdare210
GER SIDE): Diagnosis Procedure157	WHEN REAR POWER WINDOW SWITCH LH IS
ECU DIAGNOSIS INFORMATION 158	OPERATED216
LOG BIAGNOGIO INI ORMATION	WHEN REAR POWER WINDOW SWITCH LH IS
BCM (BODY CONTROL MODULE)158	OPERATED : Diagnosis Procedure216
Reference Value158	D
Wiring Diagram - BCM182	WHEN BOTH POWER WINDOW MAIN SWITCH
Fail-safe188	AND REAR POWER WINDOW SWITCH LH ARE
DTC Inspection Priority Chart191	OPERATED 216
DTC Index191	WHEN BOTH POWER WINDOW MAIN SWITCH
	AND REAR POWER WINDOW SWITCH LH ARE
POWER WINDOW MAIN SWITCH194	OPERATED : Diagnosis Procedure216
Reference Value194	·
Wiring Diagram - POWER WINDOW CONTROL	REAR RH SIDE POWER WINDOW ALONE
SYSTEM196	DOES NOT OPERATE217
Fail-safe201	WHEN POWER WINDOW MAIN SWITCH IS OP-
	ERATED217
FRONT POWER WINDOW SWITCH203	WHEN POWER WINDOW MAIN SWITCH IS OP-
Reference Value203	ERATED : Diagnosis Procedure217
Wiring Diagram - POWER WINDOW CONTROL	LIVATED : Diagnosis Flocedure217
SYSTEM205	WHEN REAR POWER WINDOW SWITCH RH IS
Fail-safe210	OPERATED217
OVMETOM DIA ONOGIO	WHEN REAR POWER WINDOW SWITCH RH IS
SYMPTOM DIAGNOSIS212	OPERATED : Diagnosis Procedure217
NONE OF THE POWER WINDOWS CAN BE	
	WHEN BOTH POWER WINDOW MAIN SWITCH
OPERATED USING ANY SWITCH212	AND REAR POWER WINDOW SWITCH RH ARE
Diagnosis Procedure212	OPERATED217
DRIVER SIDE POWER WINDOW ALONE	WHEN BOTH POWER WINDOW MAIN SWITCH PW
DOES NOT OPERATE213	AND REAR POWER WINDOW SWITCH RH ARE
	OPERATED : Diagnosis Procedure217
Diagnosis Procedure213	ANTI-DINCH FUNCTION DOES NOT ODED
FRONT PASSENGER SIDE POWER WIN-	ANTI-FINCH FUNCTION DOES NOT OFER-
DOW DOES NOT OPERATE214	ATE218
DON DOLO NOT OF ENAME III.	DRIVER SIDE218
WHEN POWER WINDOW MAIN SWITCH IS OP-	I VI
ERATED214	DRIVER SIDE : Diagnosis Procedure218
WHEN POWER WINDOW MAIN SWITCH IS OP-	PASSENGER SIDE218
ERATED: Diagnosis Procedure214	PASSENGER SIDE : Diagnosis Procedure218
	G
WHEN FRONT POWER WINDOW SWITCH (PAS-	AUTO OPERATION DOES NOT OPERATE
SENGER SIDE) IS OPERATED214	BUT MANUAL OPERATE NORMALLY 219
WHEN FRONT POWER WINDOW SWITCH	
(PASSENGER SIDE) IS OPERATED : Diagnosis	DRIVER SIDE219
Procedure214	DRIVER SIDE : Diagnosis Procedure219
WHEN BOTH POWER WINDOW MAIN SWITCH	PASSENGER SIDE219
AND FRONT POWER WINDOW SWITCH ARE	PASSENGER SIDE : Diagnosis Procedure219
OPERATED214	POWER WINDOW RETAINED POWER OP-
WHEN BOTH POWER WINDOW SWITCH ARE	ERATION DOES NOT OPERATE PROPERLY
AND FRONT POWER WINDOW SWITCH ARE	. 220
OPERATED : Diagnosis Procedure214	Diagnosis Procedure220
	Diagnosis i 1006uure220

POWER WINDOW DOWN FUNCTION DOES	REAR LH	224
NOT OPERATE WITH KEY CYLINDER OP-	REAR LH: Diagnosis Procedure	224
ERATION 221	REAR RH	224
Diagnosis Procedure221	REAR RH : Diagnosis Procedure	
POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERATING WITH IN-	PRECAUTION	225
TELLIGENT KEY 222	PRECAUTIONS	225
Description222	Precaution for Supplemental Restraint System	
Diagnosis Procedure222	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	
g	SIONER"	225
POWER WINDOW LOCK SWITCH DOES	OIOILI	220
NOT FUNCTION223	REMOVAL AND INSTALLATION	226
Diagnosis Procedure223		
	POWER WINDOW MAIN SWITCH	226
POWER WINDOW SWITCH DOES NOT IL-	Removal and Installation	226
LUMINATE 224		
	FRONT POWER WINDOW SWITCH (PAS-	
DRIVER SIDE224	SENGER SIDE)	227
DRIVER SIDE : Diagnosis Procedure224	Removal and Installation	227
PASSENGER SIDE	REAR POWER WINDOW SWITCH	

DIAGNOSIS AND REPAIR WORKFLOW

[FRONT & REAR WINDOW ANTI-PINCH]

Р

< BASIC INSPECTION > **BASIC INSPECTION** Α DIAGNOSIS AND REPAIR WORKFLOW Work Flow INFOID:0000000003906108 **DETAILED FLOW** 1. OBTAIN INFORMATION ABOUT SYMPTOM Interview the customer to obtain as much malfunction information (conditions and environment when the malfunction occurred) as possible when the customer brings the vehicle in. D >> GO TO 2. $2.\mathsf{REPRODUCE}$ 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. ${f 3.}$ IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS" Use "Symptom diagnosis" from the symptom inspection result in step 2. Then identify where to start the diagnosis based on possible causes and symptoms. Н >> GO TO 4. f 4.IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS" Perform the diagnosis with "Component 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. Is the malfunctioning part repaired or replaced? M YES >> Trouble diagnosis is completed. NO >> GO TO 3. N

PWC-7 Revision: 2009 March 2009 FX35/FX50

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[FRONT & REAR WINDOW ANTI-PINCH]

INFOID:0000000003908225

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Description

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

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

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

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to PWC-88, "Fail-safe"
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

When the control unit replaced, the initialization in necessary.

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

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

Revision: 2009 March **PWC-8** 2009 FX35/FX50

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[FRONT & REAR WINDOW ANTI-PINCH]

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

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to PWC-88, "Fail-safe"
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function

PWC

Α

В

D

Е

M

Ν

0

Р

Revision: 2009 March PWC-9 2009 FX35/FX50

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram

INFOID:0000000003906113 IGN POWER MOTOR WINDOW MAIN **ENCODER** SWITCH REMOTE KEYLESS **ENTRY RECEIVER** FRONT DOOR LOCK **ASSEMBLY** всм (KEY CYLINDER SWITCH) FRONT DOOR **SWITCH** FRONT POWER WINDOW MOTOR SWITCH (passenger side) AND REAR POWER **ENCODER** WINDOW SWITCH (LH/RH) : Retained power

System Description

INFOID:0000000003906114

JMKIA2673GB

POWER WINDOW OPERATION

- Power window system is activated by power window switch operation when ignition switch turns ON, or during the retained power operation after ignition switch turns OFF.
- Power window main switch (driver side) can open/close all windows.
- Front & rear power window switch can open/close the corresponding windows.

POWER WINDOW AUTO-OPERATION

: Power window serial link

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

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 again.
- When timer time passes. (45 seconds)

POWER WINDOW LOCK FUNCTION

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

ANTI-PINCH OPERATION

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT & REAR WINDOW ANTI-PINCH]

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

OPERATION CONDITION

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

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

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door
- Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN FUNCTION

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

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

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

While retained power operation activate, keyless power window down function cannot be operated. Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to DLK-54, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

NOTE:

Use CONSULT-III to change settings.

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

PWC

J

Α

В

D

Е

F

Н

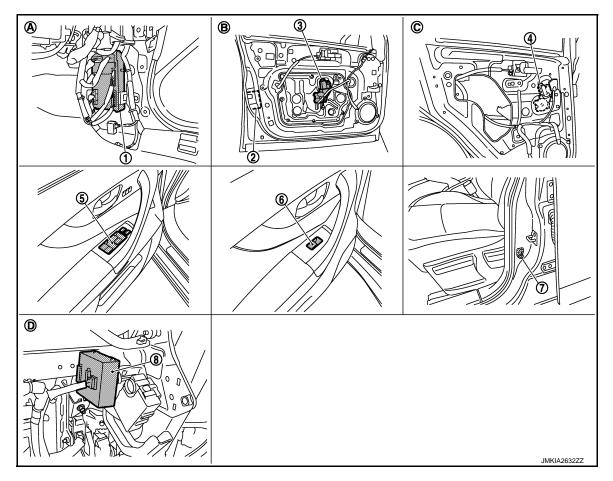
N

Р

PWC-11 Revision: 2009 March 2009 FX35/FX50

Component Parts Location

INFOID:0000000003906115



- 1. BCM M118, M119, M122, M123
- 4. Rear power window motor LH D52
- 7. Front door switch (driver side) B16
- A. View with dash side lower (passenger side) removed
- D. View whit instrument lower panel (driver side) removed
- Front door lock assembly (driver side) (key cylinder switch) D15
- 5. Power window main switch D8, D9
- 8. Remote keyless entry receiver M104
- B. View with front door finisher removed C.
- Front power window motor (driver side) D10
- 6. Rear power window switch LH D57
 - View with rear door finisher removed

Component Description

INFOID:0000000003906116

Component	Function
BCM	Supplies power supply to power window switch.Controls retained power.
Power window main switch	 Directly controls all power window motor of all doors. Controls anti-pinch operation of power window.
Front power window switch (passenger side)	 Controls anti-pinch operation of power window. Controls power window motor of passenger door.
Rear power window switch	 Controls anti-pinch operation of power window. Controls power window motor of rear right and left doors.
Power window motor	 Integrates the ENCODER and WINDOW MOTOR. Starts operating with signals from each power window switch. Transmits power window motor rotation as a pulse signal to power window switch.
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent key, and then transmits to BCM.

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT & REAR WINDOW ANTI-PINCH]

Component	Function
Front door lock assembly (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.
Front door switch (driver side/passenger side)	Front door open/close condition and transmits to BCM.

А

В

С

D

Е

F

G

Н

PWC

L

 \mathbb{N}

Ν

0

Ρ

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:0000000003906117

APPLICATION ITEM

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

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

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

^{*:} This item is displayed, but is not used.

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

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

- Vehicle Speed
- Odd Trip Meter

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[FRONT & REAR WINDOW ANTI-PINCH]

• Vehicle Condition (BCM detected condition)

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

IGN Counter

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

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

RETAIND PWR

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

INFOID:0000000003906118	

Data monitor

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

PWC

Α

В

D

Е

Ν

0

Р

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM: Diagnosis Procedure

INFOID:0000000003906119

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the fuse fusing?

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

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

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

(+) BCM		(-)	Voltage (Approx.)
Connector	Terminal		(/ .pp. •/)
M118	1	Ground	Pottory voltage
M119	11	Giound	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

всм			Continuity
Connector	Connector Terminal		Continuity
M119	13		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000003906120

${f 1}$.CHECK POWER SUPPLY CIRCUIT 1

- Turn ignition switch OFF.
- Disconnect power window main switch connectors.

PWC-16 Revision: 2009 March 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Turn ignition switch ON.

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

(+) Power window main switch		(-)	Voltage (V) (Approx.)
Connector	Terminal		(дрргох.)
D8	10	Ground	Battery voltage
D9	19	Ground	Dattery voltage

Is the inspection result normal?

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

2.CHECK GROUND CIRCUIT

Turn ignition switch OFF.

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

Power window main switch			Continuity
Connector Terminal		Ground	Continuity
D9	17		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

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

В	CM	Power window main switch		Continuity
Connector	Terminal	Connector	Terminal	Continuity
M118	2	D9	19	Existed
IVITIO	3	D8	10	LXISIEU

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M118	2	Giodila	Not existed
141110	3		INOL EXISTED

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

Turn ignition switch OFF.

PWC-17 Revision: 2009 March 2009 FX35/FX50

PWC

Α

В

D

Е

F

Н

Ν

Р

INFOID:0000000003906121

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

- 2. Disconnect front power window switch (passenger side) connector.
- Check voltage between front power window switch (passenger side) harness connector and ground.

	(+) Front power window switch (passenger side)		Voltage (V) (Approx.)
Connector Terminal			
D38	10	Ground	Battery voltage

Is the inspection result normal?

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

2.CHECK GROUND CIRCUIT

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

Front power window switch (passenger side)		Ground	Continuity
Connector Terminal			
D38 11			Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

- Disconnect BCM connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

В	BCM Front power window switch (passenger side) Continuit		·	
Connector	Terminal	Connector	Terminal	
M118	2	D38	10	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		
Connector	Terminal	Ground	Continuity
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Diagnosis Procedure

INFOID:0000000003906122

1. CHECK POWER SUPPLY CIRCUIT 1

- Turn ignition switch OFF.
- 2. Disconnect rear power window switch LH connector and rear power window switch RH connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between rear power window switch harnes connector and ground.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

(+) Rear power window switch			(–)	Voltage (V) (Approx.)	
Conr	Connector			(* (\$\rightarrow{\text{\$p\$}\cdot \text{\$o\$}\tex	
LH	D57	- 10	Ground	Pottony voltago	
RH	D77	10	Giouna	Battery voltage	

Is the inspection result normal?

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

2. CHECK GROUND CIRCUIT

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

Rear power window switch				Continuity
Conr	nector	Terminal	Ground	Continuity
LH	D57	11	Giodila	Existed
RH	D77	11		LAISIEU

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

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

В	CM	Rear power window switch		Continuity	
Connector	Terminal	Connector		Terminal	Continuity
M118	2	LH	D57	10	Evictod
IVIIIO	2	RH	D77	10	Existed

4. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector	Connector Terminal		Continuity	
M118	2		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

PWC

J

Α

В

D

Е

F

Н

Ν

Ρ

Revision: 2009 March PWC-19 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE : Description

INFOID:0000000003906123

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

DRIVER SIDE : Component Function Check

INFOID:0000000003906124

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

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

NO >> Refer to PWC-20, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000003906125

${\sf 1.}$ CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

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

(+) Front power window motor (driver side)		(–) Condition			Voltage (V) (Approx.)	
Connector	Terminal				(, (, (,),)	
	2			UP	Battery voltage	
D10	2	Ground	Power window main switch	DOWN	0	
ы	1	Giodila	d Fower window main switch	UP	0	
	1			DOWN	Battery voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK POWER WINDOW MOTOR

Check front power window motor (driver side).

Refer to PWC-21, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (driver side). Refer to <u>GW-21, "Removal and Installation"</u>.

3.check power window motor circuit

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

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector Terminal		
	8	D10	2	Existed
Do	11	010	1	EXISTEC

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

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Power windo	ow main switch		
Connector	Terminal		Continuity
	8	Ground	
D8	11	_	Not existed
Is the inspection result norm	al?		
YES \Rightarrow Replace power NO \Rightarrow Repair or replace 4. CHECK INTERMITTENT	e harness.	r to <u>PWC-121, "Removal a</u>	nd Installation".
Refer to GI-35, "Intermittent	Incident".		
>> INSPECTION E	ND		
DRIVER SIDE : Comp	oneni inspection		INFOID:0000000003906126
COMPONENT INSPECTI	ON		
1. CHECK POWER WINDO	W MOTOR		
Turn ignition switch OFF	=		
	window motor (driver side) by connecting the battery v		er window motor (driver side)
Front power window motor Terminal			
(driver side) connector	(+)	(-)	Motor operation
D10	1	2	DOWN
D10	2	1	UP
NO >> Replace front por PASSENGER SIDE : I	Description	side). Refer to <u>GW-21, "Re</u>	INFOID:0000000003906127
Door glass moves UP/DOW (passenger side).	N by receiving the signal p	ower window main switch o	or front power window switch
PASSENGER SIDE : (Component Function	n Check	INFOID:000000003906128
1. CHECK POWER WINDO	OW MOTOR CIRCUIT		
window switch (passenger s Is the inspection result norm	ide).		v main switch or front power
NO >> Refer to <u>PWC-2</u>	11. "PASSENGER SIDE : D	Diagnosis Procedure".	
PASSENGER SIDE : I	Diagnosis Procedure)	INFOID:000000003906129

- PASSENGER SIDE : Diagnosis Procedure
- $1.\mathsf{CHECK}$ FRONT POWER WINDOW MOTOR INPUT SIGNAL
- Turn ignition switch OFF.
- 2. Disconnect front power window motor (passenger side) connector.
- 3. Turn ignition switch ON.
- Check voltage between front power window motor (passenger side) harness connector and ground.

PWC-21 Revision: 2009 March

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

INFOID:0000000003906130

(+)				
Front power window motor (passenger side)		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
	D40 Ground 2	Ground		UP	Battery voltage
D40			Front power window switch	DOWN	0
D 40			(passenger side)	UP	0
				DOWN	Battery voltage

Is the inspection result normal?

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

2. CHECK POWER WINDOW MOTOR

Check front power window motor (passenger side).

Refer to PWC-22, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (passenger side). Refer to <u>GW-21</u>, "Removal and Installation".

3.check power window motor circuit

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

Front power window s	switch (passenger side)	Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D38	8	D40	1	Existed
D30	9	D40	2	LXISIGU

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

Front power window	Front power window switch (passenger side)		Continuity	
Connector	Terminal	Ground	Continuity	
D38	8	Ground	Not existed	
D36	9		Not existed	

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

1. CHECK POWER WINDOW MOTOR

- 1. Turn ignition switch OFF.
- Disconnect front power window motor (passenger side) connector.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Check motor operation by connecting the battery voltage directly to front power window motor (passenger side) connector.

Front power window motor (passen-	Terr	minal	- Motor condition	
ger side) connector	(+)	(-)	Wotor condition	
D40	1	2	UP	
	2	1	DOWN	

Is the inspection result normal?

>> Front power window motor (passenger side) is OK.

NO >> Replace front power window motor (passenger side). Refer to GW-21, "Removal and Installation".

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

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

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

>> Refer to PWC-23, "REAR LH: Diagnosis Procedure". NO

REAR LH : Diagnosis Procedure

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

	+) indow motor LH	motor LH (–) Condition			Voltage (V) (Approx.)
Connector	Terminal				, , ,
	1			UP	Battery voltage
D52	1	Ground	Rear power window switch LH	DOWN	0
3	Ground	ixear power window switch Err	UP	0	
	3			DOWN	Battery voltage

Is the inspection result normal?

>> GO TO 2. YES

NO >> GO TO 3.

2.CHECK REAR POWER WINDOW MOTOR

Check rear power window motor LH.

Refer to PWC-24, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window motor LH. Refer to GW-27, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

- Turn ignition switch OFF.
- Disconnect rear power window switch LH connector.

PWC

Α

В

D

Е

Н

INFOID:0000000003906131

INFOID:0000000003906132

INFOID:0000000003906133

N

Р

PWC-23 Revision: 2009 March 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D57	8	D52	1	Existed
D31	9		3	LXISIEU

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

Rear power wi	ndow switch LH		Continuity
Connector	Terminal	Ground	Continuity
D57	8	Giouria	Not existed
DSI	9		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

REAR LH: Component Inspection

INFOID:0000000003906134

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR LH

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

Rear power window motor LH	Terr	Motor condition	
connector	(+)	(–)	Wotor condition
DE2	1	3	UP
D52	3	1	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-27, "Removal and Installation"</u>.

REAR RH

REAR RH: Description

INFOID:0000000003906135

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

REAR RH: Component Function Check

INFOID:0000000003906136

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to PWC-25, "REAR RH : Diagnosis Procedure".

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

REAR RH: Diagnosis Procedure

INFOID:0000000003906137

Α

В

D

Е

Н

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

(+) Rear power wind	(+) Rear power window motor RH Connector Terminal (-)		Condition		Voltage (V) (Approx.)
Connector			Terminal		
	1	— Ground	Rear power window switch RH -	UP	Battery voltage
D72				DOWN	0
	2			UP	0
	3			DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-26, "REAR RH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window motor RH. Refer to <u>GW-27</u>, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power wi	ndow switch RH	Rear power window motor RH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D77	8	D72	1	Existed
DIT	9	012	3	LXISIEU

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

Rear power w	indow switch RH		Continuity
Connector	Terminal	Ground	Continuity
	8	8 Ground	
<i>011</i>	9		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

PWC

В /

IVI

Ν

0

Р

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

REAR RH: Component Inspection

INFOID:0000000003906138

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

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

Rear power window motor RH con-	Teri	minal	Motor condition	
nector	(+)	(-)	Wotor condition	
D72	1	3	UP	
	3	1	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-27</u>, "Removal and Installation".

Α

В

D

Е

F

Н

PWC

M

Ν

INFOID:0000000004042469

INFOID:0000000004042470

DOOR SWITCH

Description INFOID:000000004042468

Detects door open/closed condition.

Component Function Check

1.check function

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

Monitor item	Door condition	Display
DOOR SW-DR	CLOSE → OPEN	OFF → ON
DOOR SW-AS	GLOSE → OF EN	OI I -> OIN

Is the inspection result normal?

YES >> Door switch is OK.

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

Diagnosis Procedure

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

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

(+) Front door switch Connector Terminal		()	Voltage (V) (Approx.)	
		Terminal		(Approx.)
Driver side	B16			
Passenger side	B216	2	Ground	(V) 15 10 5 0 10 ms JPMIA0011GB

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.check door switch circuit

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and malfunction door switch harness connector.

BCM	BCM		Front door switch	
Connector	Terminal	Connector Terminal		Continuity
M123	124	B216	2	Exists
IVITZS	150	B16	2	LAISIS

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Terminal Ground	Continuity
M123	124	Ground	Not exist
IVI 123	150		INUL EXIST

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

3. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-28, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunction front door switch. Refer to <u>DLK-269</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

INFOID:0000000004042471

1. CHECK FRONT DOOR SWITCH

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

(+) Front door switch					
		(-)	Condition	Continuity	
Connector		Terminal			
Driver side	P16	B16 2		Door switch pressed	Not exist
Driver side	БІО		Ground part of	Door switch released	Exists
Decemberaide	D040	2	door switch	Door switch pressed	Not exist
Passenger side	B216	2		Door switch released	Exists

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace malfunction front door switch. Refer to <u>DLK-269</u>, "Removal and Installation".

ENCODER

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000003906139

Α

В

D

Е

Н

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

DRIVER SIDE: Component Function Check

INFOID:0000000003906140

1.CHECK ENCODER

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

Is the inspection result normal?

YES >> Encoder is OK.

>> Refer to PWC-29, "DRIVER SIDE : Diagnosis Procedure".

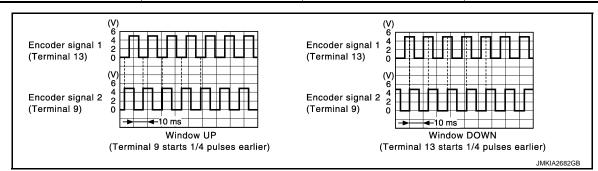
DRIVER SIDE: Diagnosis Procedure

INFOID:0000000003906141

1. CHECK ENCODER SIGNAL

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

(+)		0:1	
Power windo	w main switch	(-) Signal (Reference valu		
Connector	Terminal		(
	9	Ground	Poter to following signal	
Do	13	Ground	Refer to following signal	



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-121, "Removal and Installation".

NO >> GO TO 2.

2.CHECK ENCORDER SIGNAL CIRCUIT

Turn ignition switch OFF. 1.

- Disconnect power window main switch connector and front power window motor (driver side) connector. 2.
- Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector Terminal		
	9	D10	3	Existed
	13	D10	5	Existed

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

PWC-29 Revision: 2009 March 2009 FX35/FX50

PWC

Р

Ν

Power wind	low main switch		Continuity
Connector	Terminal	Ground	Continuity
	9		Not existed
Do	13		Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

(+) Front power window motor (driver side)		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(Αρριολ.)	
D10	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

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

Power window main switch		Front power window motor (driver side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
D8	15	D10	4	Existed

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

Power windo	Power window main switch		Continuity
Connector	Terminal	Ground	Continuity
D8	15		Not existed

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-121, "Removal and Installation".

NO >> Repair or replace harness.

5.CHECK GROUND CIRCUIT 1

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

Front power window motor (driver side)				Continuity	
Cor	nnector	Terminal	Ground	Continuity	
-	D10	6		Existed	

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to GW-21, "Removal and Installation".

NO >> GO TO 6.

6. CHECK GROUND CIRCUIT 2

1. Disconnect power window main switch connector.

Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	Power window main switch		Front power window motor (driver side)		
Connector	Terminal	Connector Terminal		- Continuity	
D8	2	D10	6	Existed	

Is the inspection result normal?

>> Replace power window main switch. Refer to PWC-121, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000003906142

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

PASSENGER SIDE: Component Function Check INFOID:0000000003906143

1. CHECK ENCODER

Check that passenger side door glass performs AUTO open/close operation normally by power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Encoder is OK.

>> Refer to PWC-31, "PASSENGER SIDE : Diagnosis Procedure". NO

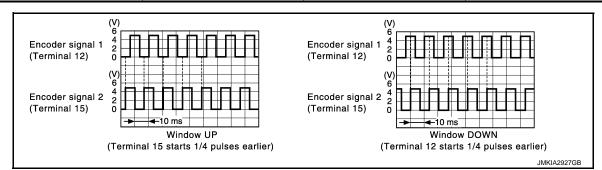
PASSENGER SIDE : Diagnosis Procedure

1.CHECK ENCODER SIGNAL

Turn ignition switch ON. Check signal between front power window switch (passenger side) harness connector and ground with

oscilloscope.

(+) Front power window switch (passenger side)		(-)	Signal (Reference value)	
Connector	Terminal		(**************************************	
D38	12 Ground		Refer to following signal	
D30	15	Giodila	Refer to following signal	



Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".

NO >> GO TO 2.

2.CHECK ENCORDER SIGNAL CIRCUIT

Turn ignition switch OFF.

PWC

Α

В

D

F

Н

INFOID:0000000003906144

Ν

PWC-31 Revision: 2009 March 2009 FX35/FX50

- Disconnect front power window switch (passenger side) connector and front power window motor (passenger side) connector.
- 3. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	Front power window switch (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
D38	12	D40	5	Existed
D30	15	540	3	LAISIEU

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

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D38	12	Ground	Not existed
	15	-	Not existed

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

(+) Front power window motor (passenger side)		(-)	Voltage (V) (Approx.)	
Connector	Terminal		(11 /	
D40	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4.CHECK GROUND CIRCUIT 1

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

Front power window mo		Continuity	
Connector	Terminal	Ground	Continuity
D40	6		Existed

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-21, "Removal and Installation"</u>. NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

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

Front power window s	witch (passenger side)	Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector Terminal		Continuity
D38	4	D40	4	Existed

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

Front power window switch (passenger side)			Continuity
Connector	Connector Terminal		Continuity
D38	4		Not existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installa-

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

- Disconnect front power window switch (passenger side) connector.
- Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	Front power window switch (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector Terminal		Continuity
D38	3	D40	6	Existed

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".

NO >> Repair or replace harness.

REAR LH

REAR LH: Description

Detects condition of the rear power window motor LH operation and transmits to rear power window switch LH as the pulse signal.

REAR LH: Component Function Check

1. CHECK ENCODER OPERATION

Check that rear door LH glass performs AUTO open/close operation normally by power window main switch or rear power window switch LH.

Is the inspection result normal?

YES >> Encoder operation is OK.

>> Refer to PWC-33, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

1. CHECK ENCODER SIGNAL

Turn ignition switch ON.

Check signal between rear power window switch LH harness connector and ground with oscilloscope.

(+) Rear power window switch LH		(-)	Signal (Reference value)
Connector	Terminal		(11010101100 141140)
	12	Ground	Refer to following signal
טטו	15	Giouria	Refer to following signal

PWC

Α

В

D

Е

F

Н

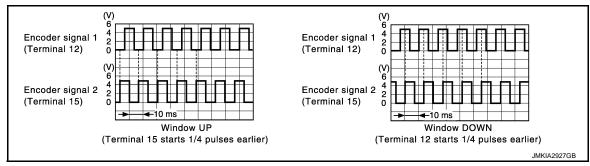
INFOID:0000000003906145

INFOID:0000000003906146

INFOID:0000000003906147

M

N



Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect rear power window switch LH connector and rear power window motor LH connector.
- Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power wi	ndow switch LH	Rear power window motor LH		Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
D57	12	D52	5	Existed	
531	15		6		

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

Rear power window switch LH			Continuity	
Connector	Terminal	Ground	Continuity	
D57	12	Ground	Not existed	
	15	1	Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

- 1. Connect rear power window switch LH connector.
- Turn ignition switch ON.
- 3. Check voltage between rear power window motor LH harness connector and ground.

(+) Rear power window motor LH		(-)	Voltage (V) (Approx.)
Connector	Terminal		(/ ipprox.)
D52	2	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. CHECK GROUND CIRCUIT 1

- Turn ignition switch OFF.
- Check continuity between rear power window motor LH harness connector and ground.

Rear power window motor LH			Continuity
Connector	Terminal	Ground	Continuity
D52	4		Existed

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Is the inspection result normal?

>> Replace rear power window motor LH. Refer to GW-27, "Removal and Installation".

NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT2

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

Rear power wi	Rear power window switch LH		Rear power window motor LH	
Connector	Terminal	Connector Terminal		Continuity
D57	4	D52	2	Existed

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

Rear power window switch LH			Continuity
Connector	Terminal	Ground	Continuity
D57	4		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

- Disconnect rear power window switch LH harness connector.
- Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D57	3	D52	4	Existed

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

REAR RH

REAR RH: Description

Detects condition of the rear power window motor RH operation and transmits to rear power window switch RH as the pulse signal.

REAR RH: Component Function Check

1. CHECK ENCODER OPERATION

Check that rear door RH glass performs AUTO open/close operation normally by power window main switch or rear power window switch RH.

Is the inspection result normal?

YFS >> Encoder operation is OK.

>> Refer to PWC-35, "REAR RH: Diagnosis Procedure". NO

REAR RH: Diagnosis Procedure

1. CHECK ENCODER SIGNAL

Turn ignition switch ON.

Revision: 2009 March

Check signal between rear power window switch RH harness connector and ground with oscilloscope.

PWC

INFOID:0000000003906148

INFOID:0000000003906149

Е

D

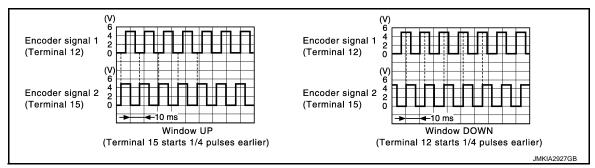
Α

N

INFOID:0000000003906150

2009 FX35/FX50

(+) Rear power window switch RH		(-)	Signal (Reference value)
Connector	Terminal		(Northernor Value)
D77	12	- Ground	Refer to following signal
	15		



Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-123, "Removal and Installation".

NO >> GO TO 2.

2.check encoder signal circuit

Turn ignition switch OFF.

- 2. Disconnect rear power window switch RH connector and rear power window motor RH connector.
- Check continuity between rear power window switch RH harness connector and rear power window motor RH harness connector.

Rear power window switch RH		Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	
D77	12	D72	5	Existed
	15		6	LAISIEU

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

Rear power window switch RH			Continuity
Connector	Terminal	Ground	Continuity
D77	12		Not existed
	15		

Is the inspection result normal?

YES >> GO TO 3.

NO

>> Repair or replace harness.

3.CHECK ENCODER POWER SUPPLY CIRCUIT 1

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

(+) Rear power window motor RH		(-)	Voltage (V) (Approx.)
Connector	Terminal		(, , , , , , , , , , , , , , , , , , ,
D72	2	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

4. CHECK GROUND CIRCUIT 1

Turn ignition switch OFF.

Check continuity between rear power window motor RH harness connector and ground. 2.

Rear power window motor RH			Continuity
Connector	Terminal	Ground	Continuity
D72	4		Existed

Is the inspection result normal?

YES >> Replace rear power window motor RH. Refer to GW-27, "Removal and Installation".

NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

Turn ignition switch OFF.

Disconnect rear power window switch RH connector. 2.

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

Rear power win	Rear power window switch RH		Rear power window motor RH	
Connector	Terminal	Connector	Terminal	Continuity
D77	4	D72	2	Existed

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

Rear power window switch RH			Continuity
Connector	Terminal	Ground	Continuity
D77	4		Not existed

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

Disconnect rear power window switch RH harness connector.

2. Check continuity between rear power window switch RH harness connector and rear power window motor RH harness connector.

Rear power wi	ndow switch RH	Rear power window motor RH		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D77	3	D72	4	Existed

PWC-37

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-123, "Removal and Installation".

NO >> Repair or replace harness.

2009 FX35/FX50

Revision: 2009 March

Α

В

D

Е

F

Н

PWC

L

Ν

Р

DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

DOOR KEY CYLINDER SWITCH

Description INFOID:000000004042472

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

Component Function Check

INFOID:00000000004042473

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-53</u>, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET GTE ER-GW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
KET CTL UN-SW	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to PWC-38, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004042474

1. CHECK DOOR KEY CYLINDER SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) (key cylinder switch) connect.
- 3. Turn ignition switch ON.
- Check voltage between front door lock assembly (driver side) (key cylinder switch) harness connector and ground.

	+) iver side) (key cylinder switch)	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(11 -)	
D15	5	Ground	5	
D13	6	Ground	3	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

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

Power window main switch		Front door lock assembly (driver side) (key cylinder switch)		Continuity
Connector	Terminal	Connector	Terminal	
	4	D15	6	Existed
D0	6	D13	5	LXISIEG

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

DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D8	4	Ground	Not existed
Бо	6		NOT EXISTED

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-121, "Removal and Installation".

NO >> Repair or replace harness.

${f 3.}$ CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

Front door lock assembly (driver s	side) (key cylinder switch)		Continuity
Connector	Terminal	Ground	Continuity
D15	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly (driver side) (key cylinder switch).

Refer to PWC-39, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side) (key cylinder switch). Refer to <u>DLK-258</u>, "<u>DOOR LOCK</u>: Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

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

Front door lock ass	Front door lock assembly (driver side) (key cylinder switch)		Key position	Continuity
Connector	Terminal		Key position	Continuity
	D15 6	4	Unlock	Existed
D15			Neutral / Lock	Not existed
D13			Lock	Existed
			Neutral / Unlock	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side) (key cylinder switch). Refer to <u>DLK-258</u>, "<u>DOOR LOCK</u>: Removal and Installation".

PWC

Р

INFOID:0000000004042475

Α

В

D

Е

Н

Revision: 2009 March **PWC-39** 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

INFOID:0000000003906151

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

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

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:00000000003906152

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(III) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-53</u>, "DOOR LOCK: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK</u>)".

Monitor item	С	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-40, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000003906153

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check signal between power window main switch harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

	(+) Power window main switch Connector Terminal		Signal (Reference value)
D8	14	Ground	(V) 15 10 5 0 10 ms

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

YES >> Replace power window main switch. Refer to PWC-121, "Removal and Installation". NO >> GO TO 2.

2.check power window serial link circuit

Disconnect BCM connector.

2. Check continuity between BCM harness connector and power window main switch harness connector.

В	BCM		Power window main switch	
Connector	Terminal	Connector	Terminal	Continuity
M123	132	D8	14	Existed

3. Check continuity between BCM harness connector and ground.

В	CM		Continuity	
Connector Terminal		Ground	Continuity	
M123	132		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Description

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

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

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Component Function Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(P) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to DLK-53, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	С	ondition
CDL LOCK SW	LOCK	: ON
CDL LOCK SW	UNLOCK	: OFF
CDL UNLOCK SW	LOCK	: OFF
CDL UNLOCK SVV	UNLOCK	: ON

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-42</u>, "<u>FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u>: <u>Diagnosis Procedure</u>".

PWC

Α

D

Е

M

Ν

Р

Revision: 2009 March PWC-41 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

IFOID:0000000003906156

INFOID:0000000003906157

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- 4. Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

(+) Front power window sw	Front power window switch (passenger side)		Signal (Reference value)
Connector	Terminal		,
D38	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".

NO >> GO TO 2.

2. CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Disconnect BCM connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

В	BCM Front power window switch (passenger side)		Continuity	
Connector	Terminal	Connector	Terminal	Continuity
M123	132	D38	16	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

REAR LH

REAR LH: Description

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

Front passenger side door window and rear door window operation signal

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

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

REAR LH: Component Function Check

INFOID:0000000003906158

Α

В

D

Е

Н

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(P) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-53</u>, "DOOR LOCK: <u>CONSULT-III Function</u> (BCM - DOOR LOCK)".

Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDE UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-43, "REAR LH: Diagnosis Procedure".

REAR LH: Diagnosis Procedure

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

1. Turn ignition switch OFF.

- Disconnect rear power window switch LH connector.
- 3. Check signal between rear power window switch LH harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

Rear power wind	dow switch LH Terminal	(-)	Signal (Reference value)
D57	16	Ground	(V) 15 10 5 0 10 ms

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

- 1. Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and rear power window switch LH harness connector.

В	CM	Rear power wi	ndow switch LH	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
M123	132	D57	16	Existed	

3. Check continuity between BCM harness connector and ground.

PWC

M

Ν

С

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

ВСМ			Continuity
Connector	Terminal	Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

REAR RH

REAR RH: Description

Power window main switch, front power window switch (passenger side), rear power window switch and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch, front power window switch (passenger side) and rear power window switch.

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side) and rear power window switch.

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

REAR RH: Component Function Check

INFOID:000000003906161

INFOID:0000000003906162

INFOID:0000000003906160

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(P) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to DLK-53, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK SW	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-44, "REAR RH: Diagnosis Procedure".

REAR RH: Diagnosis Procedure

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect rear power window switch RH connector.
- 3. Check signal between rear power window switch RH harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- 4. Check that signals which are shown in the figure below can be detected during 10 second just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

< DTC/CIRCUIT DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

(+) Rear power wind Connector	low switch RH Terminal	(-)	Signal (Reference value)
D77	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-123, "Removal and Installation".

NO >> GO TO 2.

2.check power window serial link circuit

1. Disconnect BCM connector.

2. Check continuity between BCM harness connector and rear power window switch RH harness connector.

В	CM	Rear power wi	Continuity	
Connector	Terminal	Connector	Connector Terminal	
M123	132	D77	16	Existed

3. Check continuity between BCM harness connector and ground.

ВС	CM		Continuity	
Connector	Connector Terminal		Continuity	
M123	132		Not existed	

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82, "Exploded View"</u>.

NO >> Repair or replace harness.

PWC

Α

В

D

Е

Ν

C

Р

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FK WIFEK HI	Front wiper switch HI	On
FR WIPER LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
FR WASHER SW	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED INT	Other than front wiper switch INT	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED OTOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
DD 14/4 OLIED O.4/	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
	Rear wiper is not in STOP position	On
	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
	Other than lighting switch HI	Off
HI BEAM SW	Lighting switch HI	On
115 A D 1 A 1 A D 0 W 4	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
LIEAD LAMB OW	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DA COINO CIAI	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIGHT CAY	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOO 2047	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status	_
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off	
DOOR SW-DR	Driver door closed	Off	_
DOOK SW-DK	Driver door opened	On	_
DOOR SW-AS	Passenger door closed	Off	_
OOK SW-AS	Passenger door opened	On	-
OOR SW-RR	Rear RH door closed	Off	_
OOK SW-KK	Rear RH door opened	On	_
OOR SW-RL	Rear LH door closed	Off	_
OOK SW-KE	Rear LH door opened	On	_
OOR SW-BK	Back door closed	Off	
JOOR SW-BR	Back door opened	On	_
SDL LOCK OW	Other than power door lock switch LOCK	Off	_
CDL LOCK SW	Power door lock switch LOCK	On	_
SDL LINI OOK SW	Other than power door lock switch UNLOCK	Off	_
CDL UNLOCK SW	Power door lock switch UNLOCK	On	_
YEV OVELLY OW	Other than driver door key cylinder LOCK position	Off	_
(EY CYL LK-SW	Driver door key cylinder LOCK position	On	_
(E) (O) ((LINLO) ((Other than driver door key cylinder UNLOCK position	Off	_
(EY CYL UN-SW	Driver door key cylinder UNLOCK position	On	=
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	_
IAZARD SW	Hazard switch is OFF	Off	_
1AZARD SW	Hazard switch is ON	On	_
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	_
R CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	Р
TR/BD OPEN SW	Back door opener switch OFF	Off	
TODD OF ENGIN	While the back door opener switch is turned ON	On	
RNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	_
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off	_
THE EGON	LOCK button of the Intelligent Key is pressed	On	
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off	
	UNLOCK button of the Intelligent Key is pressed	On	
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off	_
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off	
	PANIC button of the Intelligent Key is pressed	On	
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off	
CIAL I / VV OI LIN	UNLOCK button of the Intelligent Key is pressed and held	On	
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off	_
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	_
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	_
JE HUAL SENSUK	Dark outside of the vehicle	Close to 0 V	_

PWC-47 Revision: 2009 March 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
REQ SW -DR	Driver door request switch is not pressed	Off
REQ SW -DR	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
REQ SW -AS	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
INLEQ SW -BD/TIN	Back door request switch is pressed	On
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off
PUSH 3W	Push-button ignition switch (push switch) is pressed	On
ION DIVO E/D	Ignition switch in OFF or ACC position	Off
IGN RLY2 -F/B	Ignition switch in ON position	On
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
BRAKE SW 1	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW I	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
BRAKE SW 2	The brake pedal is not depressed	Off
DRANE SW Z	The brake pedal is depressed	On
DETE/CANCL SW	Selector lever in P position	Off
	Selector lever in any position other than P	On
SFT PN/N SW	Selector lever in any position other than P and N	Off
	Selector lever in P or N position	On
0/1. 1.001/	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
S/L -UNLOCK	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
0/L DEL AV E/D	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
LINILIZ CENI, DD	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
DUOLLOW IDDM	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
ICN DIVA E/D	Ignition switch in OFF or ACC position	Off
IGN RLY1 -F/B	Ignition switch in ON position	On
DETE CIAL IDDIA	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
OFT DN UDDM	Selector lever in any position other than P and N	Off
SFT PN -IPDM	Selector lever in P or N position	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
OFT.N. MET	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
LINGINE STATE	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOOK-IF DIVI	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
3/L UNLK-IPDIVI	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
3/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
FINIT LING STILL	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEV CW CLOT	The Intelligent Key is not inserted into key slot	Off
KEY SW -SLOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIDMIDA	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
CONFIRM ID3	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIDM IDO	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

Revision: 2009 March PWC-49 2009 FX35/FX50

В

Α

D

С

Е

F

G

Н

|

0

PWC

M

Ν

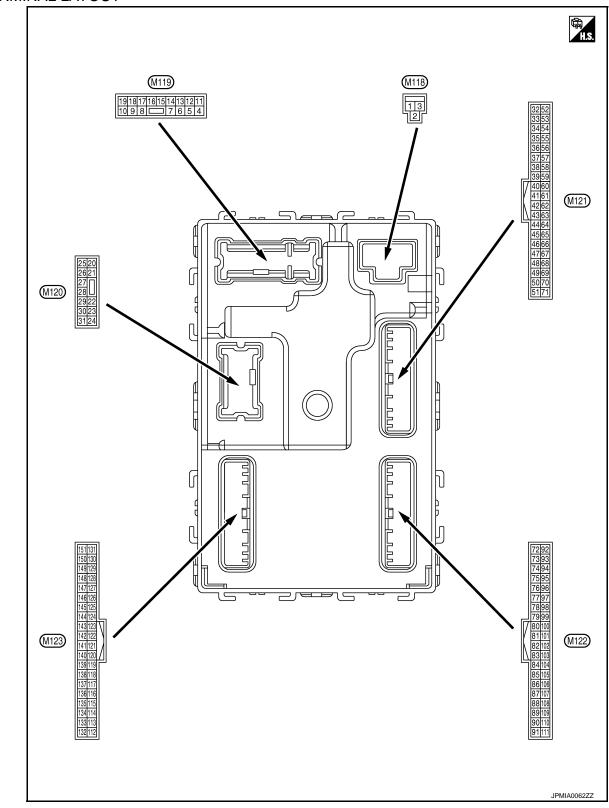
0

Р

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRM IDT	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TD 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
1173	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
172	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done

TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 March PWC-51 2009 FX35/FX50

В

C

Α

D

Е

F

G

Н

J

PWC

M

0

Ν

Р

	Terminal No. Description				Value	
+ (Wire	e color)	Signal name	Input/ Output	Condition		(Approx.)
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	12 V
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V
		Interior room lamp			battery saver is activated. oom lamp power supply)	0 V
4 (P)	Ground	power supply (Battery saver signal)	Output	ed.	battery saver is not activat- or room lamp power supply)	12 V
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	12 V
(V)	Ground	LOCK	Output	1 asseriger door	Other than UNLOCK (Actuator is not activated)	0 V
7	Ground	Step lamp	Output	Step lamp	ON	0 V
(Y)	Ground	Step lamp	Output	Step lamp	OFF	12 V
8	Ground	All doors, fuel lid LOCK	Output	atput All doors, fuel lid	LOCK (Actuator is activated)	12 V
(V)	Ground		Output		Other than LOCK (Actuator is not activated)	0 V
9	Ground	Driver door, fuel lid	Output	Dutput Driver door, fuel lid	UNLOCK (Actuator is activated)	12 V
(G)	Ground	UNLOCK			Other than UNLOCK (Actuator is not activated)	0 V
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door and rear LH door	UNLOCK (Actuator is activated)	12 V
(BR)	Cround	LOCK	Output		Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage
13 (B)	Ground	Ground	_	Ignition switch ON		0 V
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(1)					ACC or ON	0 V
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s
						6.5 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
+ (VVIr	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
				Other than under	condition	5.0 V	
19 (SB)	Ground	Room lamp timer	Output	(Door is unlocke	mp timer is activated. ed. etc) unction is activated.	0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E	
					Turn signal switch OFF	6.5 V 0 V	
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s	
26	0	December	Outrout	December	OFF (Stopped)	6.5 V 0 V	
(G)	Ground	Rear wiper	Output	Rear wiper	ON (Operated)	12 V	
34	Constitution	Luggage room anten-	Outra	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
34 (SB) Ground	Ground	round na (–)			ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 1

< ECU DIAGNOSIS INFORMATION >

	inal No.	· · · · · · · · · · · · · · · · · · ·		Value		
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
35	Ground	Luggage room anten-		, Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(V)	Glound	na (+)	Cutput	Orf	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
38		Back door antenna (-)	Output	When the back door opener re- quest switch is operated with ig- nition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(B)	Ground		Cutput		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
39	Ground	Back door antenna	Output	When the back door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(W)	Glouliu	(+)	Culput	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V
(Y)	Crodita	E/R) control	Jaipat	-g	ON	0 V

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
+	- COIOT)	Signal name	Input/ Output		Condition	(Approx.)	
48	Ground	Back door opener	Output	Back door opener	Not pressed	12 V	
(W)	Cround	switch operation	Carput	switch	Pressed	0 V	
52	Ground	and Starter relay control Output	Output	Ignition switch	When selector lever is in P or N position	12 V	
(LG)	Ground	Clarici relay control	Output	ON	When selector lever is not in P or N position	0 V	
					ON (Pressed)	0 V	
61 (W)	Ground	Back door opener request switch	Input	Back door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB	
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 10 ms 10 ms JPMIA0016GB	
					Not in stop position	0 V	
66	Ground	Back door switch	Input	Back door switch	OFF (Door close)	12 V	
(LG)	Cround	Back door owner	mpat	Back addr switch	ON (Door open)	0 V	
					Pressed	0 V	
67 (P)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 10 10 10 10 10 10 10 10 10 10 10 10	
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) 15 10 5 0 JPMIA0594GB 8.5 - 9.0 V	
					ON (Door open)	0 V	

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 10 10ms 1 10ms 1 10ms 1 10ms 10ms 10m
					ON (Door open)	0 V
72	Ground	Room antenna 2 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)	Glodina	(Center console)	Cutput	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(G) G	Ground	(Center console)	Output	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description		_		Value	٨
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
74		Passenger door antenna (–)	Output	When the passenger door re-	When Intelligent Key is in the antenna detection area	15 10 5 0 1 s JMKIA0062GB	B C
(SB)	Ground			quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
75	Ground	Passenger door antenna (+)	Output	When the passenger door request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15	G H
(BR)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	J L
76	Cround	Driver door antenna (-)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	50	M
(V)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10	O

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(VVIre	e color)	Signal name	Input/ Output		Condition	(Approx.)
77	Ground	Driver door antenna (+)	Output	When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB
(LG)	Glodina			switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
78	Ground	Room antenna 1 (–) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 JMKIA0062GB
(Y)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
79	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(BR)					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 S S S S S S S S S

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(P)	Siound	block (J/B)] control	Juipui	ON		12 V
		Remote keyless entry receiver communica-	niver communica- Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(GR)		tion	Output	When operating e	either button on the Intelligent	(V) 15 10 5 0 1 ms JMKIA0065GB

PWC

M

Ν

0

Р

Revision: 2009 March **PWC-59** 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+ (VVIre	e color)	Signal name	Input/ Output		Condition	(Approx.)
		Combination switch INPUT 5	Input	Combination switch	All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
87	Ground				Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
(BR)					Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	Α.
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	B C
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	E F
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	G H
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB	PW(
					Any of the conditions below with all switches OFF Wiper intermittent dial 1 Wiper intermittent dial 2 Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	M
89	Ground	Push-button ignition	Input	Push-button ignition switch (Push	Pressed	0 V	0
(SB)	Ciduid	switch (Push switch)	-	switch)	Not pressed	12 V	
90 (P)	Ground	CAN-L	Input/ Output		_	_	Р
91 (L)	Ground	CAN-H	Input/ Output		_	_	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
+	e color)	Signal name	Input/ Output		Condition	(Approx.)
					OFF	12 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB 6.5 V
					ON	0 V
93 (V)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(•)					ON or ACC	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ground	7.00 Telay control	Output	igilition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		<u> </u>	12 V
97	0	Steering lock condi-	1	Otro de la la el	LOCK status	0 V
(L)	Ground	tion No. 1	Input	Steering lock	UNLOCK status	12 V
98	Crownd	Steering lock condi-	lanus	Steering lock	LOCK status	12 V
(P)	Ground	tion No. 2	Input	Steering lock	UNLOCK status	0 V
99	Ground	Selector lever P posi-	Input	Selector lever	P position	0 V
(R)	Ground	tion switch	прис	Selector level	Any position other than P	12 V
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
102		Blower fan motor re-			OFF or ACC	1.0 V 0 V
(O)	Ground	lay control	Output	Ignition switch	ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	12 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	Λ
(Wir	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
106	Ground	Steering lock unit	Output	Ignition switch	OFF or ACC	12 V	В
(W)		power supply			ON All switches OFF	0 V	С
						2 ms JPMIA0041GB	D E
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB	F G
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	Turn signal switch RH	1.3 V (V) 15 10 5 0 JPMIA0036GB 1.3 V	H
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	PW L
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	M N

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0038GB	
108 (R)	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB	
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
			Input		All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	В
		Combination switch INPUT 2		Combination switch (Wiper intermittent dial 4)	Lighting switch PASS	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	E F G
109 (Y)	Ground				Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB	Н
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB	J PWC
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V	M
					ON	0 V	0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V	Р

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
			Output		LOCK status	12 V
111 (GR)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 JPMIA0156GB 8.7 V
113	113 Ground Optical sensor Ir	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V	
(P)	Oround	Option scrisor	Прис	ON	When dark outside of the vehicle	Close to 0 V
116 (BR)	Ground	Stop lamp switch 1	Input		_	Battery voltage
118		Stop lamp switch 2 (Without ICC)		Stop lamp switch	OFF (Brake pedal is not depressed) ON (Brake pedal is depressed)	0 V Battery voltage
(P)	Ground	Stop lamp switch 2	Input	Stop lamp switch OFF (Brake pedal is not depressed) and ICC brake hold relay OFF		0 V
		(With ICC)			ON (Brake pedal is de- rake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) ₁₅ 10 5 0
					UNLOCK status (Unlock switch sensor ON)	0 V
121				When the Intellige	nt Key is inserted into key slot	12 V
(BR)	Ground	Key slot switch	Input	When the Intelliger	nt Key is not inserted into key	0 V
122 (V)	Ground	ACC feedback	Input	Ignition switch	OFF ACC at ON	0 V
(*)					ACC or ON	Battery voltage

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description		_		.,,	
(Wir	e color)	Signal name	Input/		Condition	Value (Approx.)	Α
+	_	Oignai name	Output				
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V	В
(W)					ON	Battery voltage	
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	C
					ON (Deer enema)	8.5 - 9.0 V	Е
					ON (Door opene)	0 V	
132 (O)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 10 ms 10 ms	F
				1		10.2 V	Н
				Ignition switch OFF or ACC		12 V	
134 (GR)	Ground	LOCK indicator lamp	Output	LOCK indicator lamp	OFF ON	Battery voltage 0 V	
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	
138	0	0	0 1 1	1	OFF	0 V	J
(Y)	Ground	Sensor power supply	Output	Ignition switch	ACC or ON	5.0 V	
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V	PW
(R)	Giodila	position	input	Selector level	Except P and N positions	0 V	
					ON	0 V	
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB	M N
					OFF	12 V	
					All switches OFF	0 V	0
					Lighting switch 1ST		
				Complete	Lighting switch HI	(V) 15	Р
142 (O)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermittent dial 4)	Lighting switch 2ND Turn signal switch RH	15 10 5 0	P
					- J	JPMIA0031GB	
						10.7 V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				V-I
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)
					All switches OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	
143	Ground	Combination switch	Output	Combination	Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5
(P)	Ground	OUTPUT 1	·	switch	Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	5 0 JPMIA0032GB 10.7 V
					All switches OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	
144	Ground	Combination switch OUTPUT 2	Output	Combination switch	Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10
(G)					Rear washer switch ON (Wiper intermittent dial 4)	0
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF	0 V
					Front wiper switch INT	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO Lighting switch AUTO	(V) 15 10 5 0 2 ms
						10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	(11)
				Combination	Lighting switch 2ND	(V) 15 10
146 (SB)	Ground	Combination switch OUTPUT 4	Output	switch (Wiper intermit-	Lighting switch PASS	5
(SB)		OUTPUT 4	·	(Wiper intermit- tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Terminal No.		Description				Value
(Wire color)		Signal name	Input/ Output	Condition		(Approx.)
150 (GR)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) ₁₅ 10 5 0 → 10ms JPMIA0594GB 8.5 - 9.0 V
					ON (Door open)	0 V
151 (G)	Ground	Rear window defog- ger relay control	Output	Rear window de- fogger	Active	0 V
					Not activated	Battery voltage

F

Α

В

С

D

Е

G

Н

J

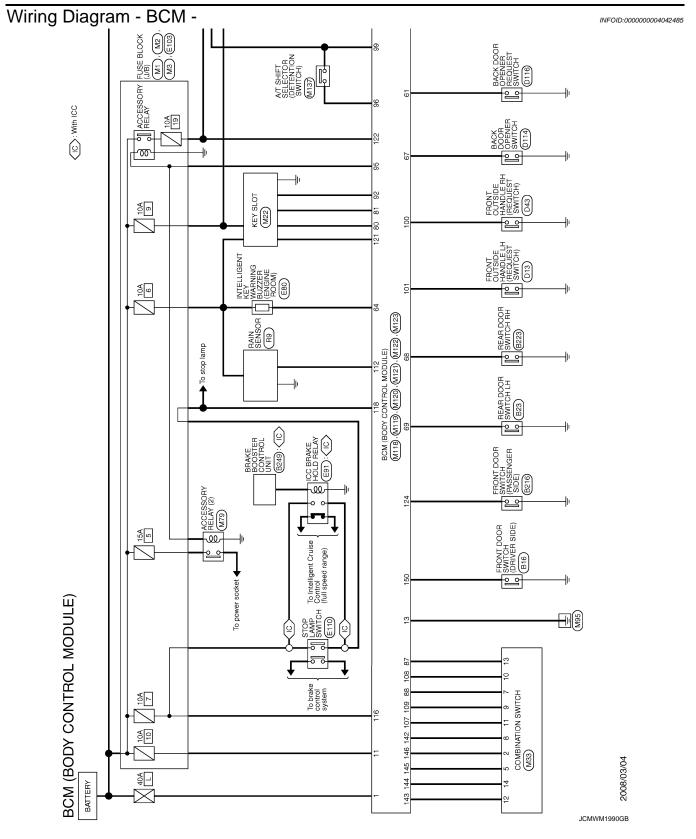
PWC

 \mathbb{M}

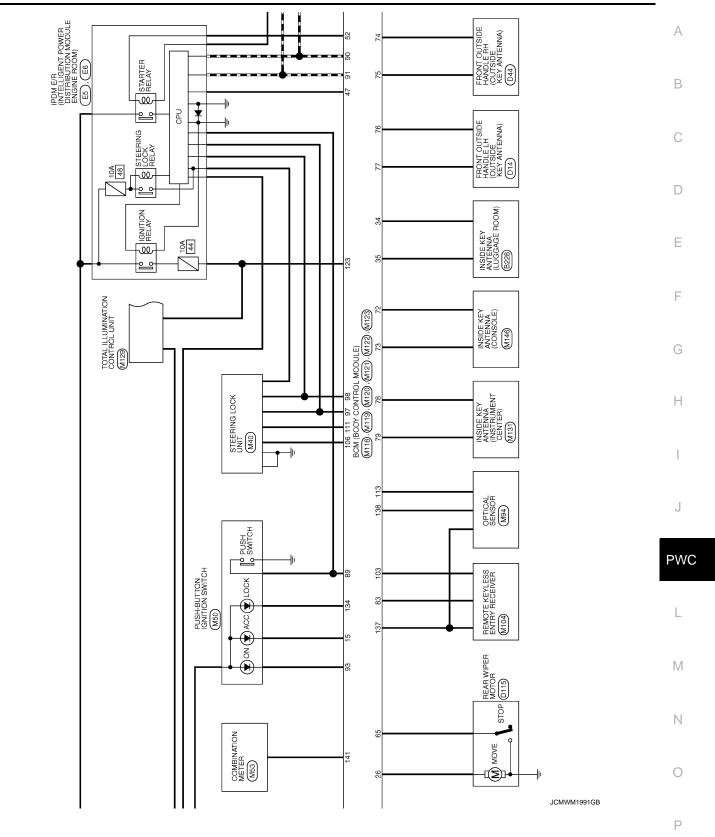
Ν

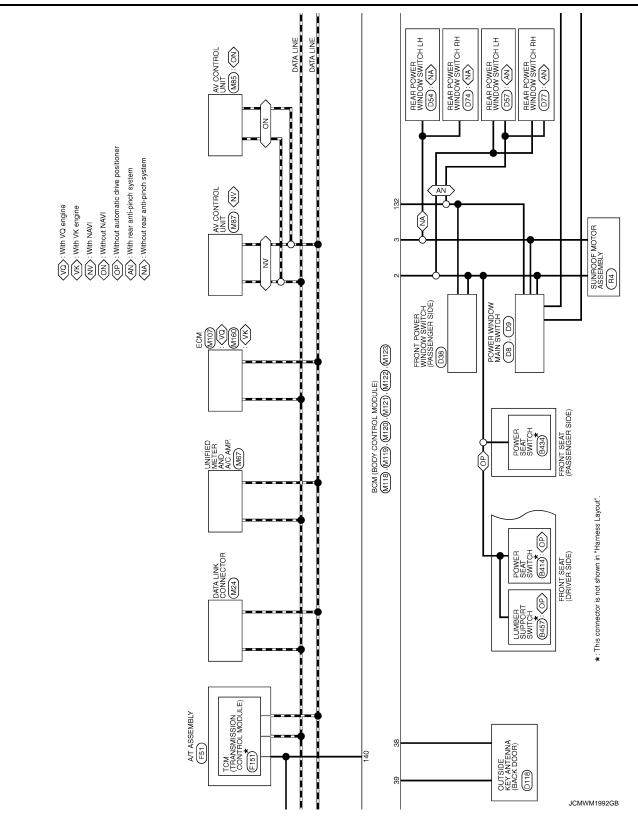
0

Р



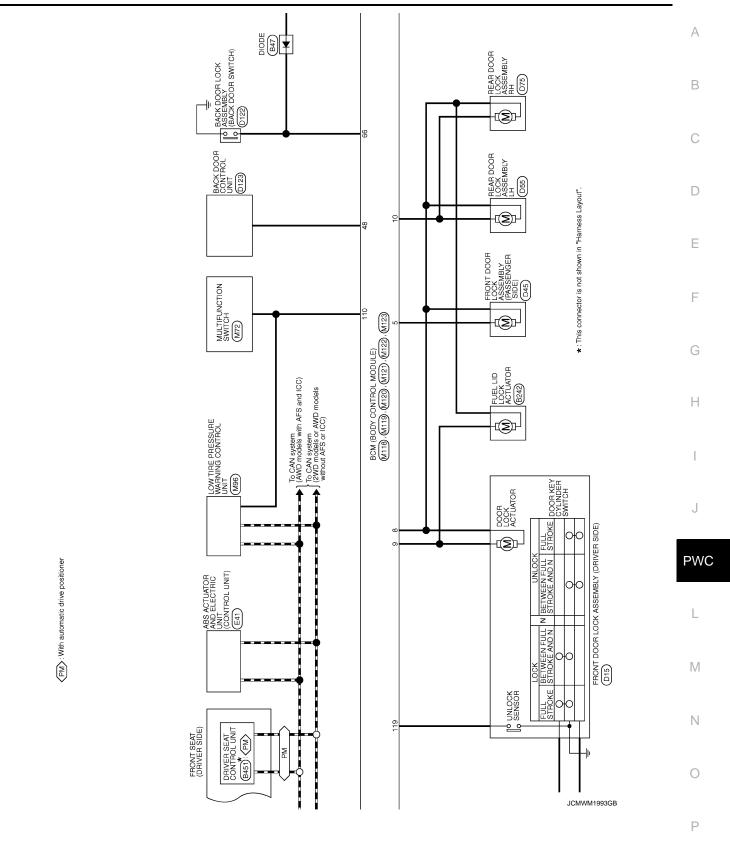
< ECU DIAGNOSIS INFORMATION >

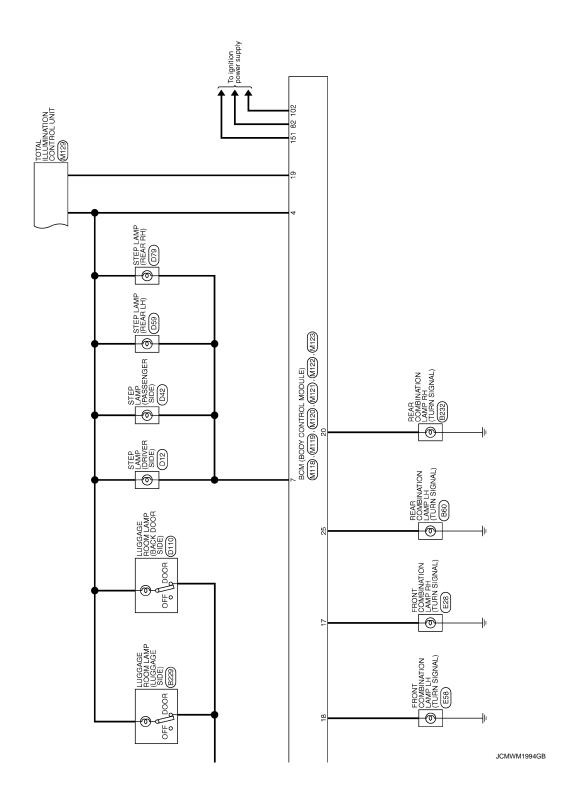




< ECU DIAGNOSIS INFORMATION >

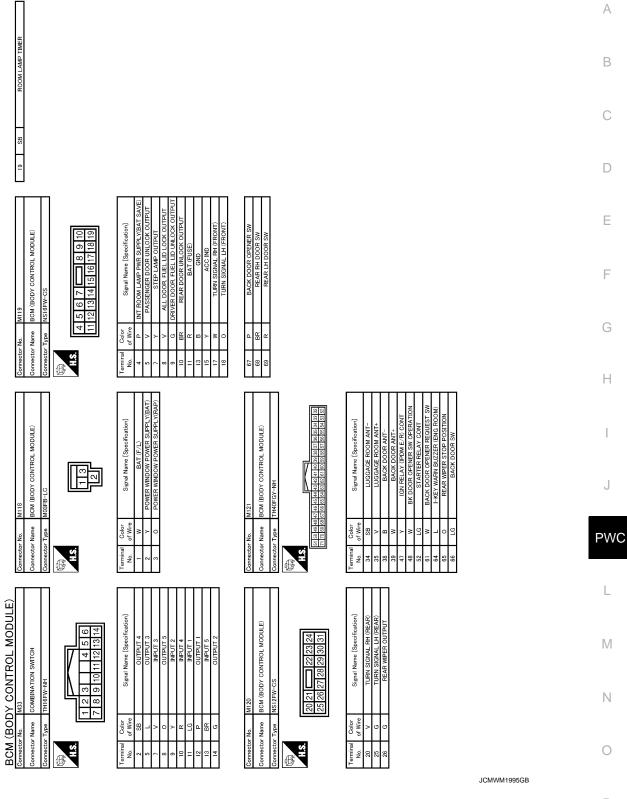
[FRONT & REAR WINDOW ANTI-PINCH]





< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]



PWC-75 Revision: 2009 March 2009 FX35/FX50 Р

RECEIVER/SENSOR GND	SENSOR POWER SUPPLY	SHIFT N/P	SECURITY INDICATOR OUTPUT	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	DRIVER DOOR SW	REAR WINDOW DEFOGGER RELAY CONT
В	Υ	ď	5	0	Ь	9	٦	SB	GR	5
137	138	140	141	142	143	144	145	146	150	151

Connection No.	CH100
Joinnector No.	MILES
Connector Name	BCM (BODY CONTROL MODULE)
Sonnector Type	TH40FG-NH
H.S. 131 130 128 128 131 130 148 128	

	_		_	_	_		_		_	_	_
Signal Name [Specification]	RAIN SENSOR SERIAL LINK	OPLICAL SENSOR	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	ACC F/B	IGN F/B	PASSENGER DOOR SW	POWER WINDOW SW COMM	LOCK IND
Color of Wire	GR	Ь	BR	Ь	SB	BR	^	W	FC	0	GR
Terminal No.	112	113	116	118	119	121	122	123	124	132	134

KEYLESS ENTRY RECEIVER SIGNAL	COMBI SW INPUT 5	COMBI SW INPUT 3	MS HSUA	CAN-L	CAN-H	KEY SLOT ILL	ON IND	ACC RELAY CONT	A/T SHIFT SELECTOR POWER SUPPLY	S/L CONDITION 1	S/L CONDITION 2	SHIFT P	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	KEYLESS ENTRY RECEIVER POWER SUPPLY	S/L UNIT POWER SUPPLY	COMBI SW INPUT 1	COMBI SW INPUT 4	COMBI SW INPUT 2	HAZARD SW	S/L UNIT COMM
GR	BR	۸	SB	Ь	7	FG	>	0	GR	7	۵	۳	9	SB	0	BR	W	PT	Я	Υ	5	GR
83	87	88	68	06	91	92	93	92	96	6	86	66	100	101	102	103	106	107	108	109	110	111

읪	- No. M122	Name BCM (BODY CONTROL MODULE)	Type TH40FB-NH	
BCM (E	Connector No.	Connector Name	Connector Type	H.S.

Signal Name [Specification]	ROOM ANT2-	ROOM ANT2+	PASSENGER DOOR ANT-	PASSENGER DOOR ANT+	DRIVER DOOR ANT-	DRIVER DOOR ANT+	ROOM ANT1-	ROOM ANT1+	IMMOBI ANTENNA CONTROL	IMMOBI ANTENNA SIGNAL	IGN RELAY (F/B) CONT
Color of Wire	~	g	SB	BB	>	ΓC	Υ	BR	GR	W	Ь
Terminal No.	72	73	74	75	9/	77	78	79	80	81	82

JCMWM1996GB

Fail-safe

INFOID:0000000005176728

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

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

PWC-77 Revision: 2009 March 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Display contents of CONSULT	Fail-safe	Cancellation					
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)					
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN)					
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status					
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) 					
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)					
B2612: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)					
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal					
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal					
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal					
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization					
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (Battery voltage)					

HIGH FLASHER OPERATION

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

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

NOTE:

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

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF \Rightarrow ON and front wiper switch is INT position, BCM operates a fail-safe control.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stops.

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

- 2. Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000004042487

Α

В

C

D

Е

F

Н

PWC

Ν

0

Ρ

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

Priority	DTC	
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: PUSH-BTN IGN SW B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B2600: IGNITION RELAY B2609: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2605: BIOS STATE SIG LOST B2612: S/L STATUS B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2619: BCM B2619: BCM B2619: VEHICLE TYPE B262: KEY REGISTRATION U0415: VEHICLE SPEED SIG 	
5	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

INFOID:0000000004042488

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-16</u>, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

[FRONT & REAR WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	_	_	_	_
U1000: CAN COMM	_	_	_	BCS-34
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-35
U0415: VEHICLE SPEED SIG	_	_	_	BCS-36
B2013: ID DISCORD BCM-S/L	×	×	_	SEC-50
B2014: CHAIN OF S/L-BCM	×	×	_	SEC-51
B2190: NATS ANTENNA AMP	×	_	_	<u>SEC-42</u>
B2191: DIFFERENCE OF KEY	×	_	_	SEC-45
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-46
B2193: CHAIN OF BCM-ECM	×	_	_	<u>SEC-48</u>
B2195: ANTI SCANNING	×	_	_	SEC-49
B2553: IGNITION RELAY	_	×	_	PCS-50
B2555: STOP LAMP	_	×	_	<u>SEC-54</u>
B2556: PUSH-BTN IGN SW	_	×	×	<u>SEC-56</u>
B2557: VEHICLE SPEED	×	×	×	<u>SEC-58</u>
B2560: STARTER CONT RELAY	×	×	×	SEC-59
B2562: LOW VOLTAGE	_	×	_	BCS-37
B2601: SHIFT POSITION	×	×	×	SEC-60
B2602: SHIFT POSITION	×	×	×	<u>SEC-63</u>
B2603: SHIFT POSI STATUS	×	×	×	<u>SEC-65</u>
B2604: PNP SW	×	×	×	<u>SEC-68</u>
B2605: PNP SW	×	×	×	SEC-70
B2606: S/L RELAY	×	×	×	SEC-72
B2607: S/L RELAY	×	×	×	<u>SEC-73</u>
B2608: STARTER RELAY	×	×	×	SEC-75
B2609: S/L STATUS	×	×	×	SEC-77
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT	_	×	×	SEC-81
B260C: STEERING LOCK UNIT	_	×	×	SEC-82
B260D: STEERING LOCK UNIT	_	×	×	SEC-83
B260F: ENG STATE SIG LOST	×	×	×	<u>SEC-84</u>
B2612: S/L STATUS	×	×	×	<u>SEC-88</u>
B2614: ACC RELAY CIRC	_	×	×	PCS-54
B2615: BLOWER RELAY CIRC	_	×	×	PCS-56
B2616: IGN RELAY CIRC	_	×	×	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	SEC-92
B2618: BCM	×	×	×	PCS-60
B2619: BCM	×	×	×	<u>SEC-94</u>
B261A: PUSH-BTN IGN SW	_	×	×	<u>SEC-95</u>
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	<u>SEC-98</u>

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2621: INSIDE ANTENNA	_	×	_	DLK-61
B2622: INSIDE ANTENNA	_	×	_	DLK-63
B2623: INSIDE ANTENNA	_	×	_	DLK-65
B26E7: TPMS CAN COMM	_	_	_	BCS-38
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-86
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	<u>SEC-87</u>

Е

D

Α

В

F

G

Н

J

PWC

M

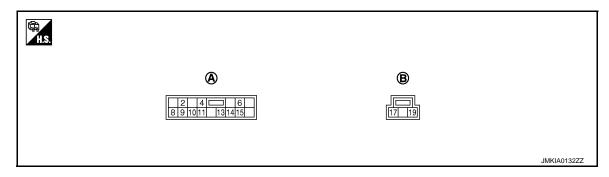
Ν

0

Р

Reference Value

TERMINAL LAYOUT



A. D8 B. D9

PHYSICAL VALUES POWER WINDOW MAIN SWITCH

	inal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
2 (LG)	Ground	Encoder ground	_	_	0
4 (V)	Ground	Door key cylinder switch LOCK signal		Key position (Neutral → Locked)	5 → 0
6 (Y)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
8 (L)	Ground	Front driver side power win- dow motor UP signal	Output	When front LH switch in power window main switch is operated UP	Battery voltage
9 (W)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
				IGN SW ON	Battery voltage
10	Ground	Retained power signal	Input	Within 45 second after ignition switch is turned to OFF	Battery voltage
(O)				When driver side or pas- senger side door is opened during retained power operation	0
11 (G)	Ground	Front driver side power window motor DOWN signal	Output	When front LH switch in power window main switch is operated DOWN	Battery voltage

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Terminal No. (wire color)		Description		Condition	Voltage [V]	
+	-	Signal name	Input/ Output	Condition	(Approx.)	
13 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB	
14 (V)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 10 10 ms JPMIA0013GB	
15 (W)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	Battery voltage	
17 (B)	Ground	Ground	_	_	0	
19 (Y)	Ground	Battery power supply	Input	_	Battery voltage	

PWC

Α

В

D

Е

F

Н

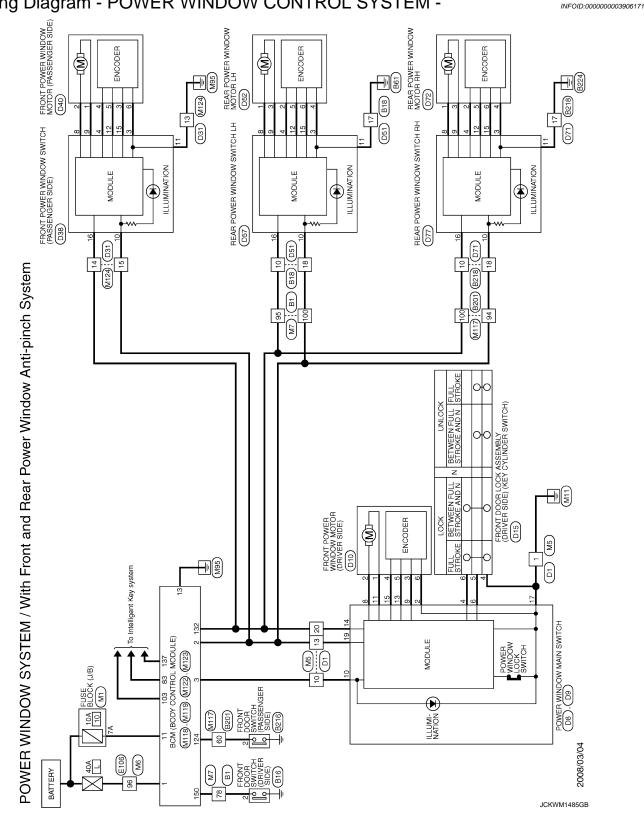
M

Ν

0

Р

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

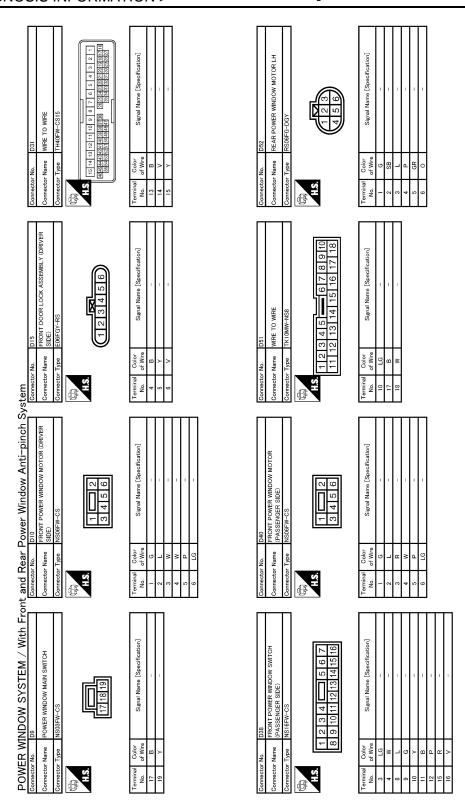


< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	WRE TO WRE THBOFW-CS16-TM4	POWER WINDOW MAIN SWITCH NS16FW-CS 2 3 4	АВ
	Commetter No. 8201 Commetter Name WRE TO WIRE Commetter Type TH80FW-CS16 Commetter Name TH80FW-CS16 Co	Connector No. D8	C D
	BIS WRE TO WRE TK10FW-NSS	Name WIRE TO WIRE TH40PW-CS15	E F
inch System	Connector No.	Connector Connec	G H
ower Window Anti-p	FRONT DOOR SWITCH (DRIVER SIDE) A03FW Signal Mane [Specification]	Signal Name [Specification]	J
nt and Rear P	Connector No. Connector No. Connector Name F Connector Type / H.S. H.S. Color No. of Wire 2 GR	Connector Name WIR	PWC
POWER WINDOW SYSTEM / With Front and Rear Power Window Anti-pinch System	YW-CSI6-TM4 YW-CSI6-TM4 Signal Name (Specification)	Signul Name (Specification)	L M
OWER WINDOW	Connector No. B1	Connector No. B216 Connector Name SIDE) Connector Type AO3TW Connector Type AO3TW No of Wire Sign 2 GR	N O
		JCKWM1486GB	Р
			۲

Revision: 2009 March **PWC-85** 2009 FX35/FX50



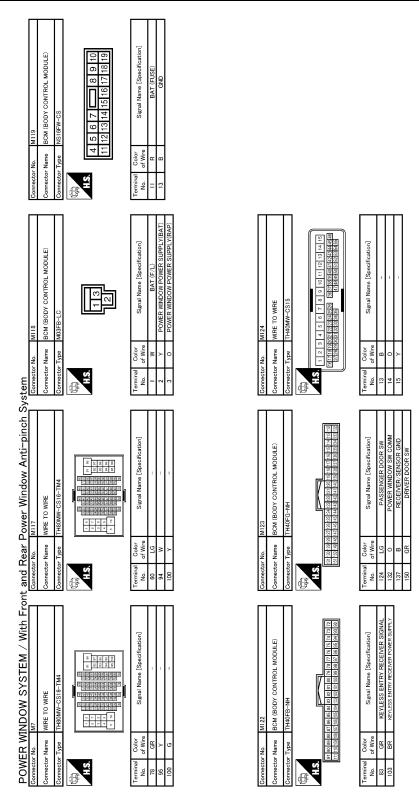
JCKWM1487GB

[FRONT & REAR WINDOW ANTI-PINCH]

Connector No. D77 Connector Name REAR POWER WINDOW SWITCH RH Connector Type NS16FW-CS	A B C
Cornector Name REAR POWER WINDOW MOTOR RH	E F G
Connector Name Conn	J
Connector Name	M N
JCKWM1488GB	Р

Revision: 2009 March **PWC-87** 2009 FX35/FX50

JCKWM1489GB



Fail-safe

FAIL-SAFE CONTROL

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

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.
Fully closed position up- date malfunction	When door glass is continuously operated UP or DOWN for the specified value or more without fully closing door glass (approximately 10 time or more).

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

- Auto-up operation
- Anti-pinch function
- Retained power function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

PWC

Р

PWC-89 Revision: 2009 March 2009 FX35/FX50 Α

В

D

Е

F

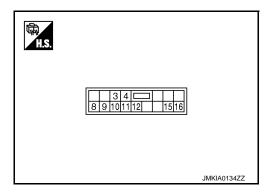
Н

J

Ν

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES FRONT POWER WINDOW SWITCH

Terminal No. (wire color)		Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (LG)	Ground	Encoder ground	_	_	0
4 (W)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	Battery voltage
8 (L)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	Battery voltage
9 (G)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	Battery voltage
10 (Y)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 4 2 0 10 ms

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Terminal No. (wire color) Description		Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (R)	Ground	Encoder pulse signal 2	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (V)	Ground	Power window serial link	Input/ Output	When ignition switch ON or power window timer operates	(V) 15 10 5 0 10 ms JPMIA0013GB

G

Α

В

С

D

Е

F

Н

J

PWC

M

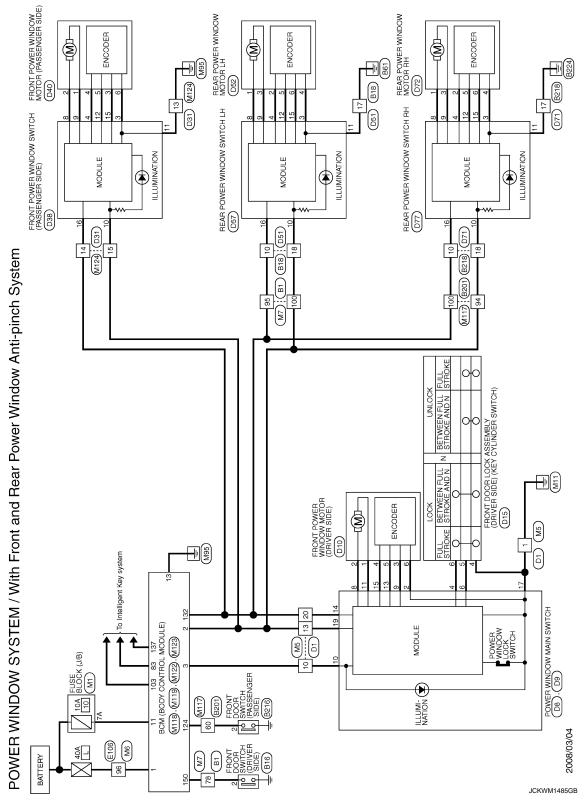
Ν

0

Р

INFOID:0000000003906174

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -

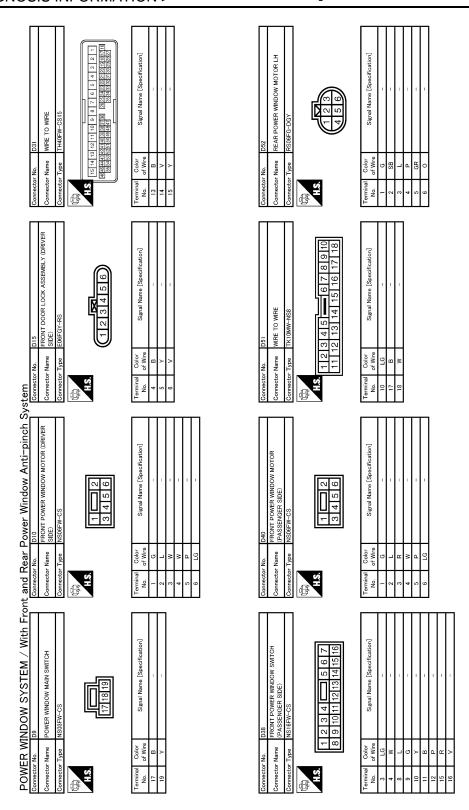


< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	Specification]	ы switch 5 6 7 14 15 16	Specification	A B
	WIRE TO WIRE THROPW-CSIG-TM4 Signal Name Signal Name	DOWER WINDOW MAIN NS 16PW-CS 12 3 4 11 12 13 14 12 13 14 12 13 14 12 13 14 12 13 14 13 14 13 14 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Color Signal Name [Specification] of Wire V	С
	Connector No. Connector Type Connector Type Terminal Color No. of Wire 60 GR 94 LG 100 Y	Connector No. Connector Type	Terminal No in No	D
	3 12 1 1 1 Specification	0 0 0 0 0 0 0 0 0 0	Decification]	Е
	E TO WIRE OFW-NSB T C T T T T T T T T	No. D1 NIRE TO WIRE TH40FW-CS15	Signal Name (Specification)	F
te m	100 9 8 110 9 8 1 100 9 8 M M M M M M M M M M M M M M M M M M	Connector No. DI Connector Name WIII Connector Type TH. S. [15] 14 [2] 14 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 15 [2] 1	Color Colo	G
Svs.				Н
odow Anti-pi	FRONT DOOR SWITCH (DRIVER SIDE) AGSFW Signal Name (Specification)	14 13 12 11	Signal Name [Specification]	I
ower Wir	FFONT DOOR SW A03FW Signal N	E218 WIRE TO WIRE TK10FW-NS8	Signal	J
ont and Rear Power Window Anti-pinch System	Connector No. Connector Type Connector Type Connector Type Color No. Of Wire 2 GR	Connector No. B21 Connector Name WIRN Connector Trype TKI	Terminal Color No. 10 W V T 17 B T 18 LG	PWC
/ith Fron		E I	2	L
POWER WINDOW SYSTEM / With Fr	WRE CSI6-TM4 CSI6-TM4 CSI6-TM4 Signal Name (Specification)	B216 FRONT DOOR SWITCH (PASSENGER SIDE) A03FW	Signal Name [Specification]	M
MOGNI/	WIRE TO WIRE THROFW-CSI 6-TM4 WIRE TO WIRE WIRE WIRE WIRE WIRE WIRE WIRE WIRE	B216 FRONT DOO SIDE) A03FW		Ν
OWFR W	Connector No. Connector Name Connector Type Connector Type No. Of Wire No. Of Wire No. Of Wire 100 W	Connector No. Connector Name Connector Type	Color Colo	0
ц		[이 이 이 ¹ 보	JCKWM1486GB	
				Р

Revision: 2009 March PWC-93 2009 FX35/FX50



JCKWM1487GB

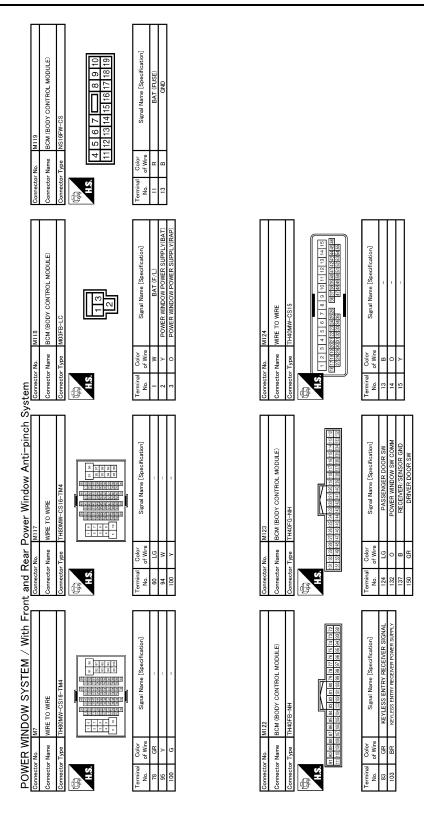
< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

	#	[co	[July 1971]		А
	P77 REAR POWER WINDOW SWITCH FIH NS18FW-CS 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Signal Name [Specification]	WIRE CSIG-TMA CSIG-TM		В
		Color of Wire Sign	MARKE TO NAMER TO NAM		С
	Connector No. Connector Type	No. o o o o o o o o o o o o o o o o o o	Connector No. Connector Name Connector Type H.S. Terminal Color No. of Wire 96 W		D
	OTOR RH	ecification)			Е
	REAR POWER WINDOW MOTOR RHRSUBFG-DGY	Signal Name (Specification)	Name MAS Name TH40MW-CS 15		F
и	9 e	Color Colo	ninal Secto		G
h Syster	Com Com Com		Ten		Н
ow Anti-pinc	■ 6 7 8 9 10 15 16 17 18	Signal Name [Specification]	MZ MZ MZ AZ AZ AZ AZ AZ AZ AZ		I
wer Wind	D71 wre WIRE TO WIRE TKIOMW-NS8 2 3 4 5	Signal Na	SE BL		J
ont and Rear Power Window Anti-pinch System	Connector No. D7 Connector Name WI Connector Type TR 11 2 3 11 12	Terminal Color No. of Wire 10 LG 17 B B 18 W	Connector No. MI Connector Type NS Terminal Color No. of Wire 7A R		PWC
/ With F <u>r</u> on		F			L
	DB7 REAR POWER WINDOW SWITCH LH NS16FW-CS 2 3 4 6 5 6 7 9 10 11 12 13 14 15 16	Signal Name (Specification)	TO WIRE TW-CSIG-TM4 W-CSIG-TM4 Signal Name (Specification)		M
POWER WINDOW SYSTEM			0.13 W W.R. O. T.		Ν
POWER V	Connector Name Connector Type HS.	Color Colo	Connector No. Connector Name Connector Type Terminal Color No. of Wire 96 W		0
•				JCKWM1488GB	D

Revision: 2009 March PWC-95 2009 FX35/FX50

JCKWM1489GB



Fail-safe

FAIL-SAFE CONTROL

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

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.
Fully closed position up- date malfunction	When door glass is continuously operated UP or DOWN for the specified value or more without fully closing door glass (approximately 10 time or more).

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

- Auto-up operation
- Anti-pinch function
- Retained power function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

PWC

IVI

Р

Revision: 2009 March PWC-97 2009 FX35/FX50

Α

В

С

D

Е

F

G

Н

,

N/I

Ν

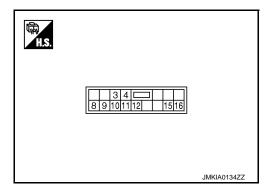
C

ŀ

REAR POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

REAR POWER WINDOW SWITCH

Terminal No. (wire color)		Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (P)	Ground	Encoder ground	_	_	0
4 (SB)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	Battery voltage
8 (G)	Ground	Power window motor UP signal	Output	When power window motor is operated UP	Battery voltage
9 (L)	Ground	Power window motor DOWN signal	Output	When power window motor is operated DOWN	Battery voltage
10 (W)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (GR)	Ground	Encoder pulse signal 1	Input	When power window motor operates	(V) 6 4 2 0 10 ms JMKIA0070GB

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Terminal No. (wire color)		Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (O)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms
16 (LG)	Ground	Power window serial link	Input/ Output	When ignition switch ON or power window timer operates	(V) 15 10 5 0 10 ms JPMIA0013GB

G

F

Α

В

D

Е

Н

J

PWC

M

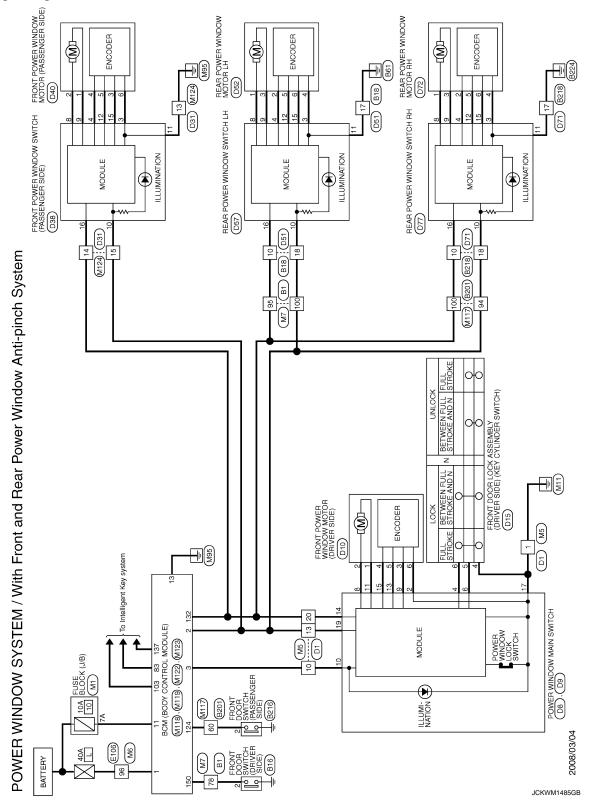
Ν

0

Р

INFOID:0000000003906177

Wiring Diagram - POWER WINDOW CONTROL SYSTEM -



< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

WIRE CS 16-TM4 C	UNDOW MAIN SWITCH CS 4	АВ
Connector No. 6201 Connector Name WIRE TO WRE Connector Type TH90FW-CS16-TN4 I Signal Name Connector Type Sign	Connector No. D8 Connector Name Connector Name Connector Type NIS 167W-CS NIS 167W-CS	C
[2] 11 [2] 11 [2] 11		Е
9 8 7 6 5 4 3 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	D1 WIRE TO WRE TH40FW-CS15 TH40FW CS16 TH31211109 8 7	F
ttor Nam	Connector No. Connector Name Connector Name Connector Type	Н
Signal Name [Specification]	Signal Name [Specification]	I
and Rear F Connector Name Connector Type Terminal Color No. of Wife 2 GR	Connector No. 6218 Connector Name WIRE TO WIRE Connector Type TKIOFW-NISB Connector Type 8 7 6 11 15 15 16 15 15 16 15 15 16 16 15 15 16 16 15 15 16 16 15 15 16 16 15 15 16 16 15 15 16 16 16 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	PWC
M / With Front	ASSENGER orfication]	L
INDOW SYSTE BITTOWIRE TO WIRE THEOFW-CSID-TM4 Signal Name [Ss.	BEZIG FRONT DOOR SWITCH (PASSENGER SIDE) A03FW Signal Name [Specification]	M
POWER WI Connector Name Connector Type Connector Type Terminal Color No. of Wire 78 95 7 100 W	Connector Name Connector Type Connector Type Terminal Color No. of Wire 2 GR	O JCKWM1486GB
		P

Revision: 2009 March PWC-101 2009 FX35/FX50

POWER WINDOW SYSTEM / With Front and Rear Power Window Anti-pinch System Connector Name DOWER WINDOW MAIN SWITCH Connector Type NISDSPW-CS WHANTER TO BE T	nt and Rear Gomector No. Connector Name Connector Type	Rear Power Window Anti-pinch No. DIO POWER WINDOW MOTOR (DRIVER STREET) Type NSGFW-CS 1 2 3 5 6	Anti-pinch Sy	Stem Connector No. Connector Name Connector Type	D15 EMENT DOOR LOCK ASSEMBLY (DRIVER SIDE) EMETCY-RS T 2 3 4 5 6	Connector No. Connector Name Connector Type H.S. 15 16 14 15	No. D21 Name WRE TO WRE Type TH40FW-CS15 Si 4 is 12 in 10 9 8 7 6 5 4 9 2 1 Section of the transmission of the transmissio	
Terminal Color Signal Name [Specification] No. of Wire	Terminal No. 1 1 2 2 3 3 4 4 4 6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Color Signal Name (Specification) of Wire W W W LG - LG	pecification)	Terminal Color No. of Wire 4 B 4 5 7 Y 6 Color Color	Signal Name (Specification)	Terminal Color No. of Wire 13 Bire 14 V 15 Y 15 Y 15 Y 15 Y 15 Y Y Y Y Y Y Y Y Y	Signal Name (Specification)	
Connector No. D38 Connector Name FRONT POWER WINDOW SWITCH (PASSENGER SIDE) Connector Type NS16FW-CS Connector Type NS16FW-CS (1 2 3 4	Connector No. Connector Name Connector Type H.S.	No. D40 Name FRONT POWER WINDOW MOTOR (PASSENGER SIDE) Type NSOGFW-CS 1	WOOTOR	Connector No. Connector Name Counsector Type 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D51 WIRE TO WIRE TTK (DMW-NS) 3 4 5 6 7 8 9 10 12 13 14 15 16 17 18	Connector No. Connector Name Connector Type H.S.	PS2 REAR POWER WINDOW MOTOR LH RS06FG-DG7	
Terminal Color Signal Name [Specification] No. of Wire - 4 W - 8 L - 9 G - 10 Y - 11 B - 12 P - 16 V -	Terminal No. 2 2 2 3 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Color Signal Name [Specification] Of Wire Specification Color Colo	pecification)	Color Color	Signal Name [Specification]	Terminal Color	Signal Name [Specification]	

JCKWM1487GB

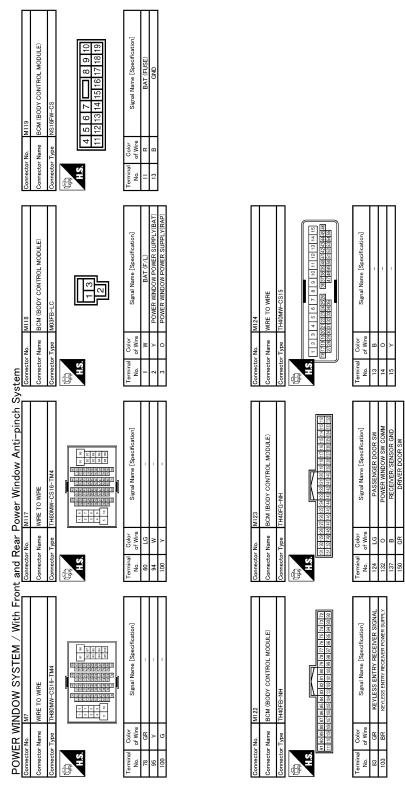
< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

D77 REAR POWER WINDOW SWITCH RH INSTBFW-CS	12 13 14 15 16	Signal Name [Specification]	WRE CSI6-TM4 CSI6-TM4 Signal Name [Specification]		АВ
Connector No. D17 Connector Name REAR POWE Connector Type NS16FW-CS	H.S. 1 2 3 4 8 9 10 11	Terminal Color of Wire of the Color of Wire of the Color of t	Connector Name WIRE TO WIRE Connector Type TH8DMW-CSIG-TM4 TH8DMW-CSIG-TM4 Terminal Color No. of Wire Signal Name [C
D72 REAR POWER WINDOW MOTOR RH RSOGFG-DGY	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Signal Name [Specification]	Name WIRE TO WIRE Type TH40MW-CS15		E F
9 0	HS	Terminal Color No. of Wire	Connector No. MS		G H
Ont and Rear Power Window Anti-pinch System Connector No. D71 Connector Type	12 13 14 15 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	Signal Name [Specification]	NSGFW-MZ NSGFW-MZ Signal Name [Specification]	_	J
At and Rear Connector No. Connector Name Connector Type	<u>~</u>	Color Colo	Connector No. Connector Name Connector Type H.S. H.S. A.S. A.S		PWC
SYSTEM / With Fr	1213141516	Signal Name [Specification]	W-CSI6-TM W-CSI6-TM Signal Name [Specification]		L
POWER WINDOW Connector No. D57 Connector Name REAR POWE Connector Type NSIBEW-CS	H.S. 1234 891011	Color Color Color No. of Wire Color	Connector Name WIRE TO WIPE Connector Name WIRE TO WIPE Connector Type TH80FW-CSI 6-TMA H.S. R. H. R. R. H. R. R. H. R.		N O
<u> </u>				JCKWM1488GB	Б
					Р

Revision: 2009 March PWC-103 2009 FX35/FX50

JCKWM1489GB



Fail-safe

FAIL-SAFE CONTROL

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

< ECU DIAGNOSIS INFORMATION >

[FRONT & REAR WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.
Fully closed position up- date malfunction	When door glass is continuously operated UP or DOWN for the specified value or more without fully closing door glass (approximately 10 time or more).

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

- Auto-up operation
- Anti-pinch function
- Retained power function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

PWC

Р

PWC-105 Revision: 2009 March 2009 FX35/FX50 Α

В

D

Е

F

Н

J

Ν

0

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [FRONT & REAR WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY **SWITCH**

Diagnosis Procedure

INFOID:0000000003906179

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

PWC-16, "BCM: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK POWER WINDOW MAIN SWITCH SERIAL LINK CIRCUIT

Check power window serial link circuit.

Refer to PWC-40, "POWER WINDOW MAIN SWITCH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE	
Diagnosis Procedure	Α,
1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT	В
Check power window switch power supply and ground circuit. Refer to PWC-16, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".	C
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	
2.CHECK DRIVER SIDE POWER WINDOW MOTOR	D
Check driver side power window motor. Refer to PWC-20 , "DRIVER SIDE: Component Function Check". Is the measurement value within the specification?	Е
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. 3. CONFIRM THE OPERATION	F
Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".	G
NO >> GO TO 1.	Н
	I
	J
	PW
	L
	M
	N

Revision: 2009 March **PWC-107** 2009 FX35/FX50

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000003906181

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit.

Refer to PWC-41, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED:

Diagnosis Procedure

INFOID:0000000003906182

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-121, "Removal and Installation"

>> INSPECTION END

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED: Diagnosis Procedure

$1.\mathsf{CHECK}$ FRONT POWER WINDOW SWITCH (PASSENGER SIDE) POWER SUPPLY AND GROUND CIRCUIT

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

Refer to PWC-17, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit.

Refer to PWC-21, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE [FRONT & REAR WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS > REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE Α WHEN POWER WINDOW MAIN SWITCH IS OPERATED WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure ${f 1}$.CHECK REAR POWER WINDOW SWITCH LH SERIAL LINK CIRCUIT Check rear power window switch LH serial link circuit. Refer to PWC-43, "REAR LH: Component Function Check". Is the inspection result normal? D YES >> GO TO 2. >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION Е Confirm the operation again. Is the result normal? >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". F >> GO TO 1. WHEN REAR POWER WINDOW SWITCH LH IS OPERATED WHEN REAR POWER WINDOW SWITCH LH IS OPERATED: Diagnosis Procedure INFOID:0000000003906185 ${f 1}$.REPLACE REAR POWER WINDOW SWITCH LH Н Replace rear power window switch LH. Refer to PWC-121, "Removal and Installation" >> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW **PWC** SWITCH LH ARE OPERATED: Diagnosis Procedure INFOID:0000000003906186 ${f 1}$.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT L Check rear power window switch power supply and ground circuit. Refer to PWC-18, "REAR POWER WINDOW SWITCH: Diagnosis Procedure". Is the inspection result normal? >> GO TO 2. >> Repair or replace the malfunctioning parts. 2.CHECK REAR POWER WINDOW MOTOR LH Ν Check rear power window motor LH. Refer to PWC-23, "REAR LH: Component Function Check". Is the inspection result normal? >> GO TO 3. >> Repair or replace the malfunctioning parts. 3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

NO

YES

YES

NO

YES

NO

NO

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000003906187

1. CHECK REAR POWER WINDOW SWITCH RH SERIAL LINK CIRCUIT

Check rear power window switch RH serial link circuit.

Refer to PWC-44, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED

WHEN REAR POWER WINDOW SWITCH RH IS OPERATED: Diagnosis Procedure

INFOID:0000000003906188

1. REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to PWC-121, "Removal and Installation"

>> INSPECTION END

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED: Diagnosis Procedure

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

Check rear power window switch power supply and ground circuit.

Refer to PWC-18, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH.

Refer to PWC-24, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

ANTI-PINCH FUNCTION DOES NOT OPERATE
< SYMPTOM DIAGNOSIS > [FRONT & REAR WINDOW ANTI-PINCH]
ANTI-PINCH FUNCTION DOES NOT OPERATE
DRIVER SIDE
DRIVER SIDE : Diagnosis Procedure
1. PERFORM INITIALIZATION PROCEDURE
Initialization procedure is performed and operation is confirmed. Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".
Is the inspection result normal? YES >> INSPECTION END. NO >> GO TO 2.
2. CHECK ENCODER (DRIVER SIDE) CIRCUIT
Check encoder (driver side) circuit. Refer to PWC-29, "DRIVER SIDE: Diagnosis Procedure".
Is the inspection result normal?
YES >> GO TO 3. NO >> Repair or replace the malfunction parts.
3. CONFIRM THE OPERATION
Confirm the operation again.
Is the result normal?
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.
PASSENGER SIDE
PASSENGER SIDE : Diagnosis Procedure
1. PERFORM INITIALIZATION PROCEDURE
Initialization procedure is performed and operation is confirmed. Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".
Is the inspection result normal?
YES >> INSPECTION END. NO >> GO TO 2.
2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT
Check encoder (passenger side) circuit. Refer to PWC-31, "PASSENGER SIDE : Diagnosis Procedure".
Is the inspection result normal?
YES >> GO TO 3.
NO $>>$ Repair or replace the malfunction parts. 3.CONFIRM THE OPERATION
Confirm the operation again.
Is the result normal?
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.
REAR LH
REAR LH : Diagnosis Procedure
1. PERFORM INITIALIZATION PROCEDURE

PWC-111 Revision: 2009 March 2009 FX35/FX50

Initialization procedure is performed and operation is confirmed.

ANTI-PINCH FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

Refer to <u>PWC-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END.

NO >> GO TO 2.

2.CHECK ENCODER (REAR LH) CIRCUIT

Check encoder (rear LH) circuit.

Refer to PWC-33, "REAR LH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000003906193

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to <u>PWC-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END.

NO >> GO TO 2.

2.CHECK ENCODER (REAR RH) CIRCUIT

Check encoder (rear RH) circuit.

Refer to PWC-35, "REAR RH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunction parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-	
<pre>LY < SYMPTOM DIAGNOSIS ></pre>	
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-	٨
MALLY	А
DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	В
1.PERFORM INITIALIZATION PROCEDURE	С
Initialization procedure is performed and operation is confirmed. Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".	D
Is the inspection result normal? YES >> INSPECTION END	
NO SECUTO 2	Е
2.CHECK ENCODER (DRIVER SIDE) CIRCUIT	
Check encoder (driver side) circuit. Refer to PWC-29, "DRIVER SIDE : Component Function Check".	F
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	G
3.CONFIRM THE OPERATION	
Confirm the operation again.	Н
Is the result normal?	
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	ı
PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	J
1.PERFORM INITIALIZAITON PROCEDURE	
Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special	WC
Repair Requirement". Is the inspection result normal?	
YES >> INSPECTION END	L
NO >> GO TO 2.	
	M
Check encoder (passenger side) circuit. Refer to PMC-31 , "PASSENGER SIDE: Component Function Check".	
io the mapedian result norman.	Ν
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
	0
Confirm the operation again.	
	Р
YES >> Check intermittent incident. Refer to <u>GI-35, "Intermittent Incident"</u> . NO >> GO TO 1.	
REAR LH	

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL-LY

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

REAR LH: Diagnosis Procedure

INFOID:0000000003906196

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement"

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (REAR LH) CIRCUIT

Check encoder (rear LH) circuit.

Refer to PWC-33, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.confirm the operation

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000003906197

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to <u>PWC-8</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (REAR RH) CIRCUIT

Check encoder (rear RH) circuit.

Refer to PWC-35, "REAR RH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPER-ATE PROPERLY

INFOID:0000000003906198

Α

C

D

Е

F

Н

Diagnosis Procedure

1. CHECK DOOR SWITCH

Check door switch.

Refer to PWC-27, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35. "Intermittent Incident".

NO >> GO TO 1.

J

PWC

M

N

0

Р

POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLIN-DER OPERATION

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLINDER OPERATION

Diagnosis Procedure

INFOID:0000000004172894

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is performed and operation is confirmed.

Refer to PWC-8, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement"

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

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

Check driver side door lock assembly (key cylinder switch).

Refer to PWC-38, "Component Function Check"

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident"

NO >> GO TO 1.

POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERATING WITH INTELLIGENT KEY

~ SV	MPT	$\bigcup M$	$DI\Delta C$	OINE	212	_

Р

< SYMPTOM DIAGNOSIS >	[FRONT & REAR WINDOW ANTI-PINCH]
POWER WINDOW DOWN FUNCTION D	OES NOT WORK WHEN OPERAT-
ING WITH INTELLIGENT KEY	
Description	INFOID:000000003910618
NOTE:	
Before performing the diagnosis in the following procedure	e, check "Work Flow". Refer to DLK-8, "Work Flow".
Diagnosis Procedure	INFOID:000000003910619
1. CHECK REMOTE KEYLESS ENTRY FUNCTION	
Check remote keyless entry function.	
Does door lock/unlock with Intelligent key button?	
YES >> GO TO 2.	
NO >> Go to <u>DLK-189</u> , " <u>Description"</u> . 2.CHECK POWER WINDOW OPERATION	
Check power window operation. Does power window up/down with power window main sw	itch?
YES >> GO TO 3.	item:
NO >> Go to PWC-16. "POWER WINDOW MAIN SW	/ITCH : Diagnosis Procedure".
3. CHECK "PW DOWN SET" SETTING IN "WORK SUPP	ORT"
Check "PW DOWN SET" setting in "WORK SUPPORT". Refer to <u>DLK-54</u> , "INTELLIGENT KEY: CONSULT-III Fund	ction (BCM - INTELLIGENT KEY)".
Is the inspection result normal?	
YES >> GO TO 4. NO >> Set "PW DOWN SET" setting in "WORK SUPI	DORT"
4. CONFIRM THE OPERATION	-OKT.
Confirm the operation again.	
Is the result normal?	
YES >> Check intermittent incident. Refer to GI-35, "In	ntermittent Incident".
NO >> GO TO 1.	

Revision: 2009 March PWC-117 2009 FX35/FX50

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[FRONT & REAR WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

Diagnosis Procedure

INFOID:0000000003906200

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-121, "Removal and Installation".

>> INSPECTION END

POWER WINDOW SWITCH DOES NOT ILLUMINATE

POWER WINDOW SWITCH DOES NOT ILLU < SYMPTOM DIAGNOSIS > [FRONT & RI	JMINATE EAR WINDOW ANTI-PINCH]
POWER WINDOW SWITCH DOES NOT ILLUMINATE	
DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	INFOID:000000003906201
1.REPLACE POWER WINDOW MAIN SWITCH	
Replace power window main switch. Refer to PWC-121, "Removal and Installation".	
>> INSPECTION END PASSENGER SIDE	
PASSENGER SIDE : Diagnosis Procedure	INFOID:000000003906202
1.REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)	
Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".	
>> INSPECTION END REAR LH	
REAR LH : Diagnosis Procedure	INFOID:000000003906203
1. REPLACE REAR POWER WINDOW SWITCH LH	
Replace rear power window switch LH. Refer to PWC-123, "Removal and Installation".	
>> INSPECTION END REAR RH	
REAR RH : Diagnosis Procedure	INFOID:000000003906204
1. REPLACE REAR POWER WINDOW SWITCH RH	
Replace rear power window switch RH. Refer to PWC-123 , "Removal and Installation".	
>> INSPECTION END	

PRECAUTIONS

[FRONT & REAR WINDOW ANTI-PINCH]

PRECAUTION

PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

POWER WINDOW MAIN SWITCH

< REMOVAL AND INSTALLATION >

[FRONT & REAR WINDOW ANTI-PINCH]

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

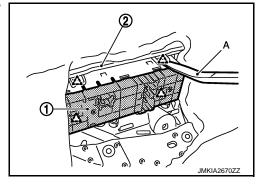
Removal and Installation

REMOVAL

- Remove the front door finisher.
 Refer to <u>INT-11</u>, "<u>Exploded View</u>" and <u>INT-11</u>, "<u>Removal and Installation</u>".
- 2. Power window main switch (1) is removed from power window main switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of front door finisher.



INSTALLATION

Install in the reverse order of removal.

NOTE:

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

PWC

Α

В

C

D

Е

Н

INFOID:0000000003906206

Ν

C

Р

Revision: 2009 March PWC-121 2009 FX35/FX50

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< REMOVAL AND INSTALLATION >

[FRONT & REAR WINDOW ANTI-PINCH]

INFOID:0000000003910462

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

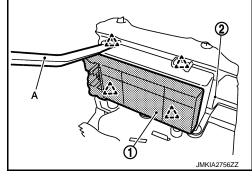
Removal and Installation

REMOVAL

- Remove the front door finisher.
 Refer to <u>INT-11</u>, "<u>Exploded View</u>" and <u>INT-11</u>, "<u>Removal and Installation</u>".
- 2. Front power window switch (passenger side) (1) is removed from front power window switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of front door finisher.



INSTALLATION

Install in the reverse order of removal.

NOTE:

If front power window switch (passenger side) is replaced or is removed, it is necessary to perform the initialization procedure.

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[FRONT & REAR WINDOW ANTI-PINCH]

REAR POWER WINDOW SWITCH

Removal and Installation

INFOID:0000000003910463

Α

В

D

Е

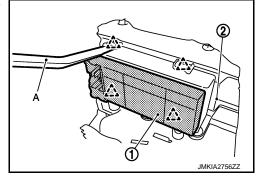
Н

REMOVAL

- Remove the rear door finisher.
 Refer to <u>INT-14, "Exploded View"</u> and <u>INT-14, "Removal and Installation"</u>.
- 2. Rear power window switch (1) is removed from rear power window switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of rear door finisher.



INSTALLATION

Install in the reverse order of removal.

NOTE:

If rear power window switch is replaced or is removed, it is necessary to perform the initialization procedure.

PWC

M

Ν

0

Р

Revision: 2009 March PWC-123 2009 FX35/FX50

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

DETAILED FLOW

1. OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2. REPRODUCE THE MALFUNCTION INFORMATION

Check the malfunction on the vehicle that the customer describes.

Inspect the relation of the symptoms and the condition when the symptoms occur.

>> GO TO 3.

3. IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"

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

>> GO TO 4.

4. IDENTIFY MALFUNCTIONING PARTS WITH "COMPONENT DIAGNOSIS"

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

>> GO TO 5.

REPAIR OR REPLACE THE MALFUNCTIONING PARTS

Repair or replace the specified malfunctioning parts.

>> GO TO 6.

6. FINAL CHECK

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

Is the malfunctioning part repaired or replaced?

YES >> Trouble diagnosis is completed.

NO >> GO TO 3.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

INSPECTION AND ADJUSTMENT

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Description INFOID:0000000003908227

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

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

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

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement INFOID:0000000003908228

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to PWC-201, "Fail-safe"
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Description

When the control unit replaced, the initialization in necessary.

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

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

PWC

J

Α

В

D

Е

M

Ν

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

[FRONT WINDOW ANTI-PINCH]

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

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

- Auto-up operation
- Anti-pinch function

ADDITIONAL SERVICE WHEN REPLACING CONTROL UNIT: Special Repair Requirement

INITIALIZATION PROCEDURE

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

CHECK ANTI-PINCH FUNCTION

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

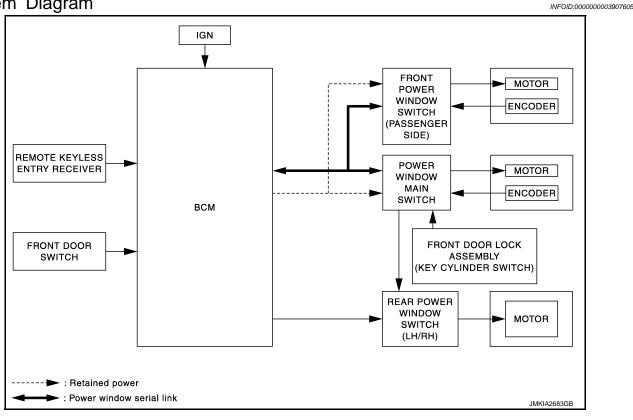
CAUTION:

- Perform initial setting when auto-up operation or anti-pinch function does not operate normally.
- Check that AUTO-UP operates before inspection when system initialization is performed.
- Never check with hands or other body parts because they may be pinched. Never get pinched.
- It may switch to fail-safe mode if open/close operation is performed continuously without fully closing. Perform initial setting in that situation. Refer to PWC-201, "Fail-safe"
- Finish initial setting. Otherwise, next operation cannot be done.
- 1. Auto-up operation
- 2. Anti-pinch function

SYSTEM DESCRIPTION

POWER WINDOW SYSTEM

System Diagram



System Description

POWER WINDOW OPERATION

 Power window system is activated by power window switch operation when ignition switch turns ON, or during the retained power operation after ignition switch turns OFF.

Power window main switch (driver side) can open/close all windows.

Front & rear power window switch can open/close the corresponding windows.

POWER WINDOW AUTO-OPERATION (FRONT DRIVER SIDE & PASSENGER SIDE)

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

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 FUNCTION

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

PWC

INFOID:0000000003907606

Α

D

Р

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

ANTI-PINCH OPERATION (FRONT DRIVER SIDE & PASSENGER SIDE)

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

OPERATION CONDITION

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

NOTE:

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

DOOR KEY CYLINDER SWITCH OPERATION

Hold the door key cylinder to the LOCK or UNLOCK direction for 1.5 seconds or more to OPEN or CLOSE all power windows when ignition switch is OFF. In addition, it stops when key position is moved to NEUTRAL when operating.

OPERATION CONDITION

- Ignition switch OFF.
- Hold door key cylinder to LOCK position for 1.5 seconds or more to perform CLOSE operation of the door glass.
- Hold door key cylinder to UNLOCK position for 1.5 seconds or more to perform OPEN operation of the door glass.

KEYLESS POWER WINDOW DOWN OPERATION (FRONT DRIVER SIDE & PASSENGER SIDE)

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

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

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

While retained power operation activate, keyless power window down function cannot be operated. Keyless power window down operation mode can be changed by "PW DOWN SET" mode in "WORK SUP-PORT". Refer to DLK-54, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

NOTE:

Use CONSULT-III to change settings.

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

[FRONT WINDOW ANTI-PINCH]

Component Parts Location

INFOID:0000000003907607

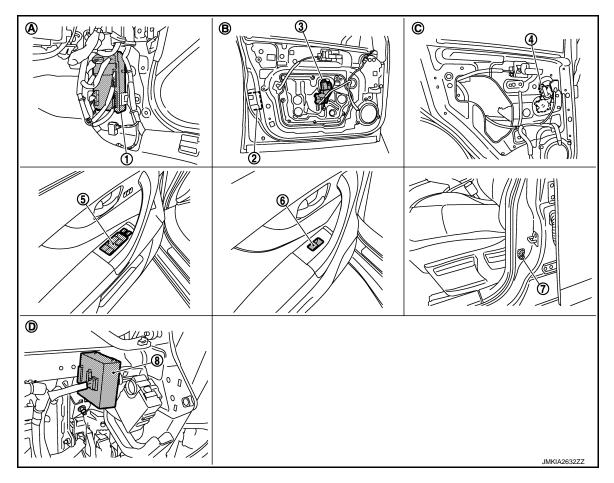
Α

В

D

Е

Н



- 1. BCM M118, M119, M122, M123
- 4. Rear power window motor LH D52
- 7. Front door switch (driver side) B16
- A. View with dash side lower (passenger side) removed
- D. View with instrument lower panel (driver side) removed
- 2. Front door lock assembly (driver side) (key cylinder switch) D15
- 5. Power window main switch D8, D9
- 8. Remote keyless entry receiver M104
- B. View with front door finisher removed C.
- Front power window motor (driver side) D10
- 6. Rear power window switch LH D54
 - View with rear door finisher removed

Component Description

INFOID:0000000003907608

Component	Function		
ВСМ	Supplies power supply to power window switch.Controls retained power.		
Power window main switch	 Directly controls all power window motor of all doors. Controls anti-pinch operation of power window. 		
Front power window switch (passenger side)	 Controls power window motor of passenger door. Controls anti-pinch operation of power window. 		
Rear power window switch	Controls power window motor of rear right and left doors.		
Front power window motor	 Integrates the ENCODER POWER and WINDOW MOTOR. Starts operating with signals from power window main switch & front power window switch (passenger side). Transmits power window motor rotation as a pulse signal to power window switch. 		

Revision: 2009 March PWC-129 2009 FX35/FX50

PWC

M

N

0

Р

POWER WINDOW SYSTEM

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

Component	Function	
Rear power window motor	Starts operating with signals from power window main switch & rear power window switch.	
Remote keyless entry receiver	Receives lock/unlock signal from the intelligent key, and then transmits to BCM.	
Front door lock assembly (key cylinder switch)	Transmits operation condition of key cylinder switch to power window main switch.	
Front door switch (driver side/passenger side)	Front door open/close condition and transmits to BCM.	

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

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

INFOID:0000000003907609

Α

В

D

Е

F

APPLICATION ITEM

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

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

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

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

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

FREEZE FRAME DATA (FFD) AND IGN COUNTER

Freeze Frame Data

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

PWC

M

Ν

^{*:} This item is displayed, but is not used.

Vehicle Speed

Odo/Trip Meter

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

[FRONT WINDOW ANTI-PINCH]

• Vehicle Condition (BCM detected condition)

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

IGN Counter

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

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

RETAIND PWR

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

INFOID:0000000003907610

Data monitor

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

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

DTC/CIRCUIT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT

BCM

BCM : Diagnosis Procedure

INFOID:0000000003907611

Α

В

D

Е

F

Н

1. CHECK FUSE AND FUSIBLE LINK

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

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

Is the inspection result normal?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

В	CM		Continuity
Connector	Terminal	Ground	Continuity
M119	13		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident"

>> INSPECTION END

POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connectors.

PWC

Ν

Р

INFOID:0000000003907612

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

- Turn ignition switch ON.
- 4. Check voltage between power window main switch harness connector and ground.

	+) w main switch	(-)	Voltage (V) (Approx.)	
Connector	Terminal		(- FB. 674)	
D8	10	Ground	Battery voltage	
D9	19	Giouna	Dattery Voltage	

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK GROUND CIRCUIT

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

Power window main switch			Continuity	
Connector	Terminal	Ground	Continuity	
D9	17		Existed	

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

${f 3.}$ CHECK POWER SUPPLY CIRCUIT 2

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

В	ВСМ		Power window main switch	
Connector	Terminal	Connector	Terminal	Continuity
M118	2	D9	19	Existed
IVITIO	3	D8	10	LXISTEG

4. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M118	2	Giodila	Not existed
WITO	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident"

>> INSPECTION END

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

1. Turn ignition switch OFF.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

2. Disconnect front power window switch (passenger side) connector.

3.	Check voltage between f	ront power window	switch	(passenger side)) harness connector	and ground.

(+)			
Front power window switch (passenger side)		(–)	Voltage (V) (Approx.)
Connector	Connector Terminal		
D38	10	Ground	Battery voltage

Is the inspection result normal?

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

2.CHECK GROUND CIRCUIT

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

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	
D38	11		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3.CHECK POWER SUPPLY CIRCUIT 2

1. Disconnect BCM connector.

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

ВСМ		Front power window switch (passenger side)		Continuity
Connector	Terminal	Connector Terminal		
M118	2	D38	10	Existed

3. Check continuity between BCM harness connector and ground.

BCM			
Connector	Terminal	Ground	Continuity
M118	2		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident"

>> INSPECTION END

REAR POWER WINDOW SWITCH

REAR POWER WINDOW SWITCH: Diagnosis Procedure

1. CHECK POWER SUPPLY CIRCUIT 1

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

PWC

Α

В

D

F

Н

. .

IVI

Ν

C

INFOID:0000000003907614

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

(+) Rear power window switch		(-)	Voltage (V) (Approx.)	
Con	Connector			(Арргох.)
LH	D54	1	Ground	Battery voltage
RH	D74	'	Giodria	Battery voltage

Is the inspection result normal?

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

2. CHECK GROUND CIRCUIT

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

Rear power window switch			Continuity	
Conr	Connector Term		Ground	Continuity
LH	D54	7	Ground	Existed
RH	D74	,		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

3. CHECK POWER SUPPLY CIRCUIT 2

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

В	CM	Rear power window switch		Continuity	
Connector	Terminal	Connector		Terminal	Continuity
M11 Q	M118 3	LH	D54	1	Existed
IVIIIO		RH	D74	'	LXISIEU

4. Check continuity between BCM harness connector and ground.

BO		Continuity	
Connector	Terminal	Ground	Continuity
M118	3		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident"

>> INSPECTION END

REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

REAR POWER WINDOW SWITCH

Description INFOID:0000000003907615

BCM supplies power.

 When power window switch is operated, corresponding power window motor is activated and rear door glass moves UP/DOWN.

Component Function Check

1. CHECK REAR POWER WINDOW FUNCTION

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

Is the inspection result normal?

>> Rear power window switch is OK. YES

>> Refer to PWC-137, "Diagnosis Procedure". NO

Diagnosis Procedure

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

Turn ignition switch ON.

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

(+) Rear power window switch		(-)	(–) Condition		Voltage (V) (Approx.)	
Conr	Connector Terminal					(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
					UP	Battery voltage
111	LH D54	2		Power window main switch (rear LH)	DOWN	0
LH		3	- Ground —		UP	0
					DOWN	Battery voltage
		2		Power window main switch (rear RH)	UP	Battery voltage
DII	RH D74				DOWN	0
KΠ		2			UP	0
		3			DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.check rear power window switch

Check rear power window switch.

Refer to PWC-138, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window switch. Refer to PWC-228, "Removal and Installation".

3.CHECK HARNESS CONTINUITY

Turn ignition switch OFF.

Disconnect power window main switch connector and rear power window switch connector.

Check continuity between power window main switch harness connector and rear power window switch harness connector.

Н

Α

В

D

F

INFOID:0000000003907616

INFOID:0000000003907617

PWC

M

Ν

REAR POWER WINDOW SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Power windo	w main switch	Rear power window switch			Continuity
Connector	Terminal	Connector		Terminal	Continuity
	1	LH	D54	2	- Existed
De	3			3	
D8 -	5	DU	D74	3	
	7	RH		2	

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

Power window r	main switch		Continuity	
Connector	Terminal		Continuity	
	1	Ground		
D8	3	Giouna	Not existed	
	5		Not existed	
	7			

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident"

>> INSPECTION END

Component Inspection

INFOID:0000000003907618

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW SWITCH

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

Rear power window switch	Terminal		Power window switch condition	Continuity
	1	5	UP	Existed
	3	4	OI .	
D54 (LH)	3	4	NEUTRAL	
D74 (RH)	5	2	NEOTIVAL	
	1	4	DOWN	
	5	2	DOWN	

Is the inspection result normal?

YES >> Rear power window switch is OK.

NO >> Replace rear power window switch. Refer to PWC-228, "Removal and Installation".

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW MOTOR

DRIVER SIDE

DRIVER SIDE : Description

cription INFOID:000000003907619

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

DRIVER SIDE : Component Function Check

INFOID:0000000003907620

Α

В

D

Е

F

Н

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

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

NO >> Refer to PWC-139, "DRIVER SIDE : Diagnosis Procedure".

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000003907621

1. CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

Turn ignition switch OFF.

- 2. Disconnect front power window motor (driver side) connector.
- 3. Turn ignition switch ON.

4. Check voltage between front power window motor (driver side) harness connector and ground.

(+) Front power window motor (driver side)		(–) Condition			Voltage (V) (Approx.)
Connector	Terminal				(44)
2				UP	Battery voltage
D10	2	Ground	Power window main switch	DOWN	0
1	Giouria	Fower window main switch	UP	0	
	1			DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK POWER WINDOW MOTOR

Check front power window motor (driver side).

Refer to PWC-140, "DRIVER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (driver side). Refer to GW-21, "Removal and Installation".

3.check power window motor circuit

Turn ignition switch OFF.

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

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector	Terminal	
D8	8	D10	2	Existed
D0	11	010	1	LAISIEU

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

PWC

•

Р

Ν

M

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Power wind	ow main switch		Continuity	
Connector	Connector Terminal		Continuity	
D8	8	Ground	Not existed	
	11		INOL EXISTED	

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

DRIVER SIDE: Component Inspection

INFOID:0000000003907622

COMPONENT INSPECTION

1. CHECK POWER WINDOW MOTOR

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

Front power window motor	Teri	Motor operation	
(driver side) connector	(+)	(-)	Wotor operation
D10	1	2	DOWN
	2	1	UP

Is the inspection result normal?

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

NO >> Replace front power window motor (driver side). Refer to <u>GW-21, "Removal and Installation"</u>.

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:0000000003907623

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

PASSENGER SIDE: Component Function Check

INFOID:0000000003907624

1. CHECK POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

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

NO >> Refer to PWC-140, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000003907625

1. CHECK FRONT POWER WINDOW MOTOR INPUT SIGNAL

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

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

(+) Front power window motor (passenger side)		(–)	Condition		Voltage (V) (Approx.)
Connector	Terminal				
	4		Front power window switch (passenger side)	UP	Battery voltage
D40	ı	0		DOWN	0
D40 —		Ground		UP	0
	2			DOWN	Battery voltage

Is the inspection result normal?

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

2.CHECK POWER WINDOW MOTOR

Check front power window motor (passenger side).

Refer to PWC-141, "PASSENGER SIDE: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace front power window motor (passenger side). Refer to <u>GW-21</u>, "Removal and Installation".

3.check power window motor circuit

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

Front power window switch (passenger side)		Front power window r	Continuity	
Connector	Terminal	Connector	Terminal	Continuity
D38	8	D40	1	Existed
D30	9	D40	2	LXISIEU

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

Front power window s	switch (passenger side)		Continuity	
Connector Terminal		Ground	Continuity	
D38	8	Ground	Not existed	
D30	9		Not existed	

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-227, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

PASSENGER SIDE : Component Inspection

COMPONENT INSPECTION

1. CHECK POWER WINDOW MOTOR

- Turn ignition switch OFF.
- 2. Disconnect front power window motor (passenger side) connector.

PWC

Α

В

D

Е

F

Н

M

Ν

0

INFOID:0000000003907626

Revision: 2009 March PWC-141 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Check motor operation by connecting the battery voltage directly to front power window motor (passenger side) connector.

Front power window motor (passen-	Terr	minal	Motor condition
ger side) connector	(+)	(-)	Wotor condition
D40	1	2	UP
	2	1	DOWN

Is the inspection result normal?

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

NO >> Replace front power window motor (passenger side). Refer to <u>GW-21. "Removal and Installation"</u>.

REAR LH

REAR LH: Description

INFOID:0000000003907627

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

REAR LH: Component Function Check

INFOID:0000000003907628

1. CHECK REAR POWER WINDOW MOTOR CURCUIT

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

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Refer to PWC-142, "REAR LH: Diagnosis Procedure"

REAR LH: Diagnosis Procedure

INFOID:0000000003907629

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

(+) Rear power window motor LH		(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal				, , ,
	1	Ground	Rear power window switch LH	UP	Battery voltage
D52				DOWN	0
3	Giodila	iteai powei wilidow switch Li i	UP	0	
	3			DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK REAR POWER WINDOW MOTOR

Check rear power window motor LH.

Refer to PWC-143, "REAR LH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window motor LH. Refer to <u>GW-27</u>, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect rear power window switch LH connector.

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

3. Check continuity between rear power window switch LH harness connector and rear power window motor LH harness connector.

Rear power window switch LH		Rear power window motor LH		Continuity
Connector	Terminal	Connector Terminal		Continuity
D54	5	D52	1	Existed
D54	4	D32	3	LAISIGU

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

Rear power wi	ndow switch LH		Continuity
Connector	Terminal	Ground	Continuity
D54	5	Giodila	Not existed
	4		INOL GAISIGU

Is the inspection result normal?

YES >> Replace rear power window switch LH. Refer to PWC-228, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

REAR LH: Component Inspection

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR

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

Rear power window motor LH con-	Terminal		Motor condition	
nector	(+)	(–)	Wotor Condition	
D52	3	1	DOWN	
D32	1	3	UP	

Is the inspection result normal?

YES >> Rear power window motor LH is OK.

NO >> Replace rear power window motor LH. Refer to <u>GW-27, "Removal and Installation"</u>.

REAR RH

REAR RH: Description

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

REAR RH: Component Function Check

1. CHECK REAR POWER WINDOW MOTOR CIRCUIT

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

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Refer to PWC-144, "REAR RH : Diagnosis Procedure".

PWC

Α

В

D

Е

F

INFOID:0000000003907630

N /I

IVI

Ν

IN

INFOID:0000000003907631

INFOID:0000000003907632

Р

Revision: 2009 March PWC-143 2009 FX35/FX50

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

REAR RH: Diagnosis Procedure

INFOID:000000000390763

1. CHECK REAR POWER WINDOW MOTOR INPUT SIGNAL

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

	(+) Rear power window motor RH		Condition		Voltage (V) (Approx.)
Connector	Terminal				
	1			UP	Battery voltage
D72	1	- Ground	Rear power window switch RH	DOWN	0
D72	3		Real power willdow switch Kh	UP	0
				DOWN	Battery voltage

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2. CHECK REAR POWER WINDOW MOTOR

Check rear power window motor RH.

Refer to PWC-145, "REAR RH: Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace rear power window motor RH. Refer to <u>GW-27</u>, "Removal and Installation".

3.CHECK POWER WINDOW MOTOR CIRCUIT

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

Rear power wi	ndow switch RH	w switch RH Rear power window motor RH		Continuity
Connector	Terminal	Connector Terminal		
D74	5	D72	1	Existed
D/4	4	072	3	LAISIEU

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

Rear power wi		Continuity		
Connector	Terminal	Ground	Continuity	
D74	5	Giodila	Not existed	
	4		NOT EXISTED	

Is the inspection result normal?

YES >> Replace rear power window switch RH. Refer to PWC-228, "Removal and Installation".

NO >> Repair or replace harness.

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

POWER WINDOW MOTOR

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

REAR RH: Component Inspection

INFOID:0000000003907634

COMPONENT INSPECTION

1. CHECK REAR POWER WINDOW MOTOR RH

Α

В

D

Е

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

Rear power window motor RH con-	Terr	minal	- Motor condition	
nector	(+)	(-)	Wotor condition	
D72	3	1	DOWN	
	1	3	UP	

Is the inspection result normal?

YES >> Rear power window motor RH is OK.

NO >> Replace rear power window motor RH. Refer to GW-27, "Removal and Installation".

F

Н

J

PWC

M

Ν

0

Р

[FRONT WINDOW ANTI-PINCH]

DOOR SWITCH

Description INFOID:000000004042476

Detects door open/closed condition.

Component Function Check

INFOID:0000000004042477

1. CHECK FUNCTION

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

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

Is the inspection result normal?

YES >> Door switch is OK.

NO >> Refer to PWC-146, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:00000000004042478

1. CHECK FRONT DOOR SWITCH INPUT SIGNAL

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

(+) Front door switch			(–)	Voltage (V) (Approx.)	
Connector	Connector			(προσ.)	
Driver side	B16				
Passenger side	B216	2	Ground	(V) 15 10 5 0 10 ms	

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK DOOR SWITCH CIRCUIT

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and malfunction door switch harness connector.

BCM		Front door sw	itch	Continuity
Connector	Terminal	Connector	Terminal	Continuity
M123	124	B216	2	Exists
WIZS	150	B16	2	LXISIS

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M123	124	Giodila	Not exist
WIIZS	150		Not exist

DOOR SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

3. CHECK FRONT DOOR SWITCH

Check front door switch.

Refer to PWC-147, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace malfunction front door switch. Refer to <u>DLK-269</u>, "Removal and Installation".

4. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection

1. CHECK FRONT DOOR SWITCH

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

(+) Front door switch				Continuity			
		(-)	Condition				
Connector		Terminal					
Driver side	D16	B16 2		Door switch pressed	Not exist		
Driver side	БІО		Ground part of	Door switch released	Exists		
December side	D216	2	door switch	Door switch pressed	Not exist		
Passenger side	D210	2		B216 2		Door switch released	Exists

Is the inspection result normal?

YES >> Front door switch is OK.

NO >> Replace malfunction front door switch. Refer to <u>DLK-269</u>, "Removal and Installation".

PWC

Α

В

D

Е

F

Н

INFOID:0000000004042479

M

Ν

0

Р

Revision: 2009 March PWC-147 2009 FX35/FX50

ENCODER

DRIVER SIDE

DRIVER SIDE: Description

INFOID:0000000003907635

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

DRIVER SIDE: Component Function Check

INFOID:0000000003907636

1. CHECK ENCODER

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

Is the inspection result normal?

YES >> Encoder is OK.

NO >> Refer to <u>PWC-148</u>, "<u>DRIVER SIDE</u>: <u>Diagnosis Procedure</u>".

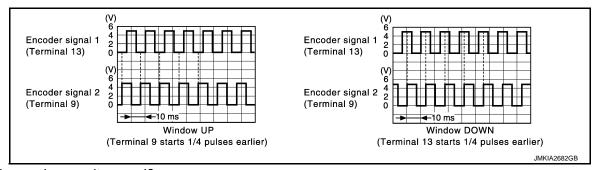
DRIVER SIDE: Diagnosis Procedure

INFOID:0000000003907637

1. CHECK ENCODER SIGNAL

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

(+) Power window main switch		(-)	Signal (Reference value)	
Connector	Terminal		(**************************************	
	9	Ground	Poter to following signal	
Do	13	Giound	Refer to following signal	



Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

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

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector Terminal		
D8	9	D10	3	Existed
	13	510	5	LAISIEU

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

[FRONT WINDOW ANTI-PINCH]

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

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

${f 3.}$ CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

(+)			Voltage (V)	
Front power window motor (driver side)		(–)	Voltage (V) (Approx.)	
Connector	Terminal		(11 - 7	
D10	4	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. CHECK GROUND CIRCUIT 2

1. Turn ignition switch OFF.

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

Front power window	Front power window motor (driver side)		Continuity
Connector	Connector Terminal		Continuity
D10	D10 6		Existed

Is the inspection result normal?

YES >> Replace front power window motor (driver side). Refer to <u>GW-21, "Removal and Installation"</u>.

NO >> GO TO 6.

5. CHECK ENCORDER POWER SUPPLY CIRCUIT 2

Turn ignition switch OFF.

2. Disconnect power window main switch connector.

 Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	Power window main switch		Front power window motor (driver side)	
Connector	Terminal	Connector Terminal		Continuity
D8	15	D10	4	Existed

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

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

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> Repair or replace harness.

6.CHECK GROUND CIRCUIT 2

1. Disconnect power window main switch connector.

PWC

M

Ν

Р

Α

В

D

Е

F

Н

Revision: 2009 March PWC-149 2009 FX35/FX50

Check continuity between power window main switch harness connector and front power window motor (driver side) harness connector.

Power windo	w main switch Front power window motor (driver side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity
D8	2	D10	6	Existed

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> Repair or replace harness.

PASSENGER SIDE

PASSENGER SIDE: Description

INFOID:0000000003907638

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

PASSENGER SIDE: Component Function Check

INFOID:0000000003907639

1.CHECK ENCODER

Check that passenger side door glass performs AUTO open/close operation normally by power window main switch or front power window switch (passenger side).

Is the inspection result normal?

YES >> Encoder is OK.

NO >> Refer to PWC-150, "PASSENGER SIDE : Diagnosis Procedure".

PASSENGER SIDE : Diagnosis Procedure

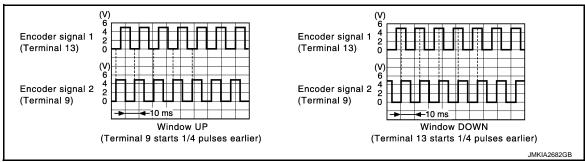
INFOID:0000000003907640

1. CHECK ENCODER SIGNAL

1. Turn ignition switch ON.

Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope.

(+)			0	
Front power window switch (passenger side)		(–)	Signal (Reference value)	
Connector	Terminal		(**************************************	
D38	12	Ground	Refer to following signal	
D30	15	Giodila	iverer to following signal	



Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-227, "Removal and Installation".

NO >> GO TO 2.

2. CHECK ENCORDER SIGNAL CIRCUIT

1. Turn ignition switch OFF.

ENCODER

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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

Front power window switch (passenger side)		Front power window motor (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	Continuity
D38	12	D40	5	Existed
D30	15	D40	3	LAISIEU

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

Front power window switch (passenger side)			Continuity	
Connector	Terminal	Ground	Continuity	
D38	12	Ground	Not existed	
D30	15	-	inoi existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3.CHECK ENCORDER POWER SUPPLY CIRCUIT 1

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

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

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 5.

4. CHECK GROUND CIRCUIT 2

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

Front power window motor (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D40	6		Existed

Is the inspection result normal?

YES >> Replace front power window motor (passenger side). Refer to <u>GW-21, "Removal and Installation"</u>. NO >> GO TO 6.

5.CHECK ENCORDER POWER SUPPLY CIRCUIT ${ t 2}$

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

Front power window s	switch (passenger side)	Front power window motor (passenger side)		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
D38	4	D40	4	Existed	

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

PWC

M

Ν

Α

В

D

Е

F

Н

C

ENCODER

[FRONT WINDOW ANTI-PINCH]

Front power window switch (passenger side)			Continuity
Connector	Terminal	Ground	Continuity
D38	4		Not existed

Is the inspection result normal?

- YES >> Replace front power window switch (passenger side). Refer to PWC-227, "Removal and Installation".
- NO >> Repair or replace harness.

6. CHECK GROUND CIRCUIT 2

- 1. Disconnect front power window switch (passenger side) connector.
- 2. Check continuity between front power window switch (passenger side) harness connector and front power window motor (passenger side) harness connector.

Front power window s	power window switch (passenger side) Front power window motor (passenger side)		Front power window motor (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
D38	3	D40	6	Existed

Is the inspection result normal?

- YES >> Replace front power window switch (passenger side). Refer to PWC-227, "Removal and Installation".
- NO >> Repair or replace harness.

DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

DOOR KEY CYLINDER SWITCH

Description INFOID:00000000442480

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

Component Function Check

INFOID:0000000004042481

Α

D

Е

1. CHECK DOOR KEY CYLINDER SWITCH INPUT SIGNAL

Check ("KEY CYL LK-SW", "KEY CYL UN-SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to <u>DLK-53</u>, "DOOR LOCK: <u>CONSULT-III Function</u> (<u>BCM - DOOR LOCK)"</u>.

Monitor item	Condition		
KEY CYL LK-SW	Lock	: ON	
RET GTE ER-GW	Neutral / Unlock	: OFF	
KEY CYL UN-SW	Unlock	: ON	
RETUTE ON-3VV	Neutral / Lock	: OFF	

Is the inspection result normal?

YES >> Door key cylinder switch is OK.

NO >> Refer to PWC-153, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000004042482

1. CHECK DOOR KEY CYLINDER SWITCH SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front door lock assembly (driver side) (key cylinder switch) connect.
- 3. Turn ignition switch ON.
- Check voltage between front door lock assembly (driver side) (key cylinder switch) harness connector and ground.

(+) Front door lock assembly (driver side) (key cylinder switch)		(-)	Voltage (V)
Connector	Terminal	()	(Approx.)
D15	5	Ground	5
טוט	6	Ground	3

Is the inspection result normal?

YES >> GO TO 3.

NO >> GO TO 2.

2.CHECK DOOR KEY CYLINDER SWITCH CIRCUIT

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

Power window main	switch	Front door lock assembly (driver side) (key cylinder switch)		Continuity
Connector	Terminal	Connector	Terminal	
	4	D15	6	Existed
D6	6	- D13	5	LAISIEU

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

PWC

IVI

Ν

Р

DOOR KEY CYLINDER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

INFOID:0000000004042483

Power window main switch			Continuity
Connector	Terminal	Ground	Continuity
D8	4	Giodila	Not existed
Do	6		NOT EXISTED

Is the inspection result normal?

YES >> Replace power window main switch. Refer to PWC-226, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK DOOR KEY CYLINDER SWITCH GROUND CIRCUIT

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

Front door lock assembly (driver s	ide) (key cylinder switch)		Continuity
Connector	Terminal	Ground	Continuity
D15	4		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness.

4. CHECK DOOR KEY CYLINDER SWITCH

Check front door lock assembly (driver side) (key cylinder switch).

Refer to PWC-154, "Component Inspection".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Replace front door lock assembly (driver side) (key cylinder switch). Refer to <u>DLK-258</u>, "DOOR LOCK: Removal and Installation".

5. CHECK INTERMITTENT INCIDENT

Refer to GI-35, "Intermittent Incident".

>> INSPECTION END

Component Inspection COMPONENT INSPECTION

1. CHECK DOOR KEY CYLINDER SWITCH

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

Front door lock ass	Front door lock assembly (driver side) (key cylinder switch)		Key position	Continuity	
Connector	Terr	ninal	Rey position	Continuity	
	5		Unlock	Existed	
D15	3	4	Neutral / Lock	Not existed	
DIS	6		4	Lock	Existed
			Neutral / Unlock	Not existed	

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace front door lock assembly (driver side) (key cylinder switch). Refer to <u>DLK-258, "DOOR LOCK : Removal and Installation"</u>.

POWER WINDOW SERIAL LINK POWER WINDOW MAIN SWITCH

POWER WINDOW MAIN SWITCH: Description

INFOID:0000000003907641

Α

В

D

Е

Н

Power window main switch, front power window switch (passenger side) and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch and front power window switch (passenger side).

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side).

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

POWER WINDOW MAIN SWITCH: Component Function Check

INFOID:0000000003907642

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(III) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to DLK-53, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	C	ondition	
CDL LOCK SW	LOCK	: ON	
CDL LOCK 3W	UNLOCK	: OFF	
CDL UNLOCK SW	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to PWC-155, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

POWER WINDOW MAIN SWITCH: Diagnosis Procedure

INFOID:0000000003907643

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- Turn ignition switch OFF.
- 2. Disconnect power window main switch connector.
- 3. Check signal between power window main switch harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- 4. Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

(+) Power window	Power window main switch		Signal (Reference value)	
Connector	Terminal			
D8	14	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB	

Is the inspection result normal?

PWC

M

Ν

Р

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

YES >> Replace power window main switch. Refer to PWC-121, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

Disconnect BCM connector.

2. Check continuity between BCM harness connector and power window main switch harness connector.

В	BCM Power window n		Power window main switch	
Connector	Terminal	Connector	Terminal	Continuity
M123	132	D8	14	Existed

Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-82, "Exploded View".

NO >> Repair or replace harness.

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Description NFOID.

Power window main switch, front power window switch (passenger side) and BCM transmit and receive the signal by power window serial link.

The signal mentioned below is transmitted from BCM to power window main switch and front power window switch (passenger side).

Keyless power window down signal

The signal mentioned below is transmitted from power window main switch to front power window switch (passenger side).

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

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Component Function Check

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

(P) With CONSULT-III

Check ("CDL LOCK SW", "CDL UNLOCK SW") in "DATA MONITOR" mode for "POWER DOOR LOCK SYSTEM" with CONSULT-III. Refer to DLK-53, "DOOR LOCK: CONSULT-III Function (BCM - DOOR LOCK)".

Monitor item	Condition		
CDL LOCK SW	LOCK	: ON	
	UNLOCK	: OFF	
CDI TINII CON SIM	LOCK	: OFF	
CDL UNLOCK SW	UNLOCK	: ON	

Is the inspection result normal?

YES >> Power window serial link is OK.

NO >> Refer to <u>PWC-157</u>, "<u>FRONT POWER WINDOW SWITCH (PASSENGER SIDE)</u>: <u>Diagnosis Procedure</u>".

POWER WINDOW SERIAL LINK

< DTC/CIRCUIT DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure

NEOID-0000000000007646

В

D

Е

Н

1. CHECK POWER WINDOW SWITCH INPUT SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect front power window switch (passenger side) connector.
- Check signal between front power window switch (passenger side) harness connector and ground with oscilloscope when door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".
- 4. Check that signals which are shown in the figure below can be detected during 10 seconds just after door lock and unlock switch (driver side and passenger side) is turned to "LOCK" or "UNLOCK".

(+) Front power window sw Connector	itch (passenger side) Terminal	(-)	Signal (Reference value)
D38	16	Ground	(V) 15 10 5 0 10 ms JPMIA0013GB

Is the inspection result normal?

YES >> Replace front power window switch (passenger side). Refer to PWC-122, "Removal and Installation".

NO >> GO TO 2.

2.CHECK POWER WINDOW SERIAL LINK CIRCUIT

- Disconnect BCM connector.
- Check continuity between BCM harness connector and front power window switch (passenger side) harness connector.

В	BCM Front power window switch (passenger side)		Front power window switch (passenger side)	
Connector	Terminal	Connector	Terminal	Continuity
M123	132	D38	16	Existed

3. Check continuity between BCM harness connector and ground.

BCM			Continuity
Connector	Terminal	Ground	Continuity
M123	132		Not existed

Is the inspection result normal?

YES >> Replace BCM. Refer to <u>BCS-82</u>, "Exploded View".

NO >> Repair or replace harness.

PWC

M

Ν

 \cap

Ρ

ECU DIAGNOSIS INFORMATION

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status
FR WIPER HI	Other than front wiper switch HI	Off
FR WIPER HI	Front wiper switch HI	On
ED WIDED LOW	Other than front wiper switch LO	Off
FR WIPER LOW	Front wiper switch LO	On
ED MACHED OM	Front washer switch OFF	Off
FR WASHER SW	Front washer switch ON	On
ED WIDED INT	Other than front wiper switch INT	Off
FR WIPER INT	Front wiper switch INT	On
ED WIDED OTOD	Front wiper is not in STOP position	Off
FR WIPER STOP	Front wiper is in STOP position	On
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position
DD 144DED 014	Other than rear wiper switch ON	Off
RR WIPER ON	Rear wiper switch ON	On
	Other than rear wiper switch INT	Off
RR WIPER INT	Rear wiper switch INT	On
DD 14/4 OLIED OW	Rear washer switch OFF	Off
RR WASHER SW	Rear washer switch ON	On
RR WIPER STOP	Rear wiper is in STOP position	Off
	Rear wiper is not in STOP position	On
TUDN GIONAL D	Other than turn signal switch RH	Off
TURN SIGNAL R	Turn signal switch RH	On
TUDNI CIONIAL I	Other than turn signal switch LH	Off
TURN SIGNAL L	Turn signal switch LH	On
TAIL LAND CVA	Other than lighting switch 1ST and 2ND	Off
TAIL LAMP SW	Lighting switch 1ST or 2ND	On
HI BEAM SW	Other than lighting switch HI	Off
HI BEAIVI SVV	Lighting switch HI	On
LIEAD LAMD CW/4	Other than lighting switch 2ND	Off
HEAD LAMP SW 1	Lighting switch 2ND	On
HEAD LAMP SW/2	Other than lighting switch 2ND	Off
HEAD LAMP SW 2	Lighting switch 2ND	On
DASSING SW	Other than lighting switch PASS	Off
PASSING SW	Lighting switch PASS	On
ALITO LIGHT SW	Other than lighting switch AUTO	Off
AUTO LIGHT SW	Lighting switch AUTO	On
ED EOC 8144	Front fog lamp switch OFF	Off
FR FOG SW	Front fog lamp switch ON	On

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status	_
RR FOG SW	NOTE: The item is indicated, but not monitored.	Off	
DOOR SW-DR	Driver door closed	Off	_ _
DOOK SW-DR	Driver door opened	On	_
OOOR SW-AS	Passenger door closed	Off	_
JOOR SW-AS	Passenger door opened	On	_
OOR SW-RR	Rear RH door closed	Off	_
JOOR SW-RR	Rear RH door opened	On	_
OOR SW-RL	Rear LH door closed	Off	_
OOK SW-KL	Rear LH door opened	On	
OOOR SW-BK	Back door closed	Off	_
JOOK SW-BK	Back door opened	On	_
DI LOCK OW	Other than power door lock switch LOCK	Off	_
CDL LOCK SW	Power door lock switch LOCK	On	_
SOL TIME OOK OW	Other than power door lock switch UNLOCK	Off	_
CDL UNLOCK SW	Power door lock switch UNLOCK	On	_
VEV OVELLY OW	Other than driver door key cylinder LOCK position	Off	_
KEY CYL LK-SW	Driver door key cylinder LOCK position	On	_
(E) (O) (I IN O) ()	Other than driver door key cylinder UNLOCK position	Off	_
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On	_
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off	_
HAZARD SW	Hazard switch is OFF	Off	_
TAZARD SW	Hazard switch is ON	On	=
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off	
FR CANCEL SW	NOTE: The item is indicated, but not monitored.	Off	Р
TR/BD OPEN SW	Back door opener switch OFF	Off	
III/DD OI LIN SW	While the back door opener switch is turned ON	On	
FRNK/HAT MNTR	NOTE: The item is indicated, but not monitored.	Off	_
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off	_
	LOCK button of the Intelligent Key is pressed	On	
RKE-UNLOCK	UNLOCK button of the Intelligent Key is not pressed	Off	
ONLOOK	UNLOCK button of the Intelligent Key is pressed	On	_
RKE-TR/BD	NOTE: The item is indicated, but not monitored.	Off	
RKE-PANIC	PANIC button of the Intelligent Key is not pressed	Off	_
MIL I / II II O	PANIC button of the Intelligent Key is pressed	On	
RKE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off	
NINE-F/VV OFEIN	UNLOCK button of the Intelligent Key is pressed and held	On	_
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simultaneously	Off	_
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On	-
ODTICAL SENSOR	Bright outside of the vehicle	Close to 5 V	_
OPTICAL SENSOR	Dark outside of the vehicle	Close to 0 V	_

PWC-159 Revision: 2009 March 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
REQ SW -DR	Driver door request switch is not pressed	Off
ILQ SW -DIX	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
REQ 3W -A3	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off
REQ SW -BD/TR	Back door request switch is not pressed	Off
REQ 3W -BD/TR	Back door request switch is pressed	On
DUCH CW	Push-button ignition switch (push switch) is not pressed	Off
PUSH SW	Push-button ignition switch (push switch) is pressed	On
IONI DINO E/D	Ignition switch in OFF or ACC position	Off
IGN RLY2 -F/B	Ignition switch in ON position	On
CLUCH SW	NOTE: The item is indicated, but not monitored.	Off
DDAKE OM 4	The brake pedal is depressed when No. 7 fuse is blown	Off
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is normal	On
DDALKE OW O	The brake pedal is not depressed	Off
BRAKE SW 2	The brake pedal is depressed	On
	Selector lever in P position	Off
DETE/CANCL SW	Selector lever in any position other than P	On
	Selector lever in any position other than P and N	Off
SFT PN/N SW	Selector lever in P or N position	On
	Steering is unlocked	Off
S/L -LOCK	Steering is locked	On
	Steering is locked	Off
S/L -UNLOCK	Steering is unlocked	On
	Ignition switch in OFF or ACC position	Off
S/L RELAY-F/B	Ignition switch in ON position	On
	Driver door is unlocked	Off
UNLK SEN -DR	Driver door is locked	On
	Push-button ignition switch (push-switch) is not pressed	Off
PUSH SW -IPDM	Push-button ignition switch (push-switch) is pressed	On
	Ignition switch in OFF or ACC position	Off
IGN RLY1 -F/B	Ignition switch in ON position	On
	Selector lever in any position other than P	Off
DETE SW -IPDM	Selector lever in P position	On
	Selector lever in any position other than P and N	Off
SFT PN -IPDM	Selector lever in P or N position	On
	Selector lever in any position other than P	Off
SFT P -MET	Selector lever in P position	On
	Selector lever in any position other than N	Off
SFT N -MET	Selector lever in N position	On

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
S/L LOCK-IPDM	Steering is unlocked	Off
3/L LOOK-IF DIVI	Steering is locked	On
S/L UNLK-IPDM	Steering is locked	Off
3/L UNLK-IPDIVI	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
3/L RELAT-REQ	Steering lock system is the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
I KWII ENO STKI	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
KET 3W -3LOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency of the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives accords with any key ID registered to BCM.	Done
CONFIDM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
CONFIRM ID4	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
COM IKWI IDS	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done
CONFIDM ID2	The key ID that the key slot receives is not recognized by the second key ID registered to BCM.	Yet
CONFIRM ID2	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done

Revision: 2009 March PWC-161 2009 FX35/FX50

В

Α

С

Е

D

F

G

Н

J

PWC

M

Ν

0

Р

< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID registered to BCM.	Yet
CONFIRM IDT	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
TP 4	The ID of fourth Intelligent Key is not registered to BCM	Yet
17 4	The ID of fourth Intelligent Key is registered to BCM	Done
TP 3	The ID of third Intelligent Key is not registered to BCM	Yet
IF 3	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
172	The ID of second Intelligent Key is registered to BCM	Done
TD 4	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done

Α

В

C

D

Е

F

G

Н

J

PWC

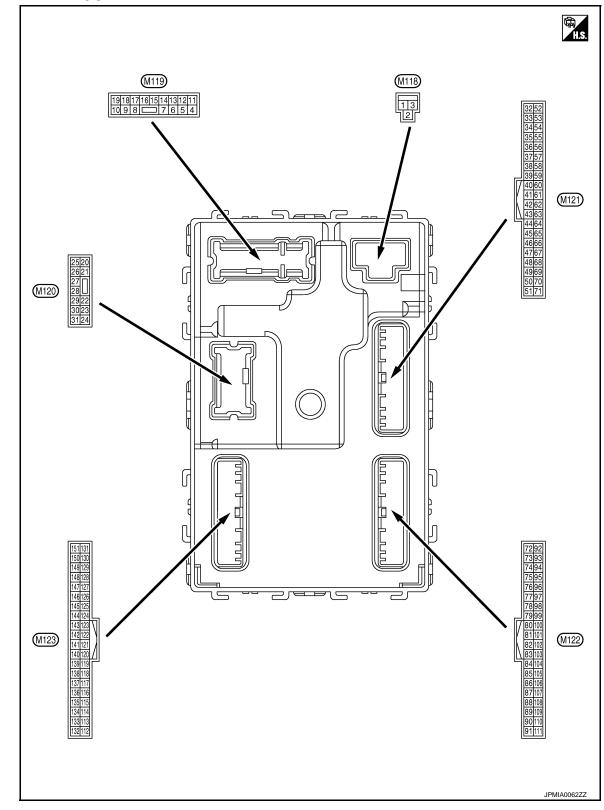
M

Ν

0

Р

TERMINAL LAYOUT



PHYSICAL VALUES

Revision: 2009 March

PWC-163 2009 FX35/FX50

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output	Condition		(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch OF	F	12 V	
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch ON		12 V	
4		Interior room lamp			battery saver is activated. oom lamp power supply)	0 V	
4 (P)	Ground	power supply (Battery saver signal)	Output	ed.	battery saver is not activat- or room lamp power supply)	12 V	
5	Ground	Passenger door UN-	Output	Passenger door	UNLOCK (Actuator is activated)	12 V	
(V)	Ground	LOCK	Output	r asseriger door	Other than UNLOCK (Actuator is not activated)	0 V	
7	Ground	Step lamp	Output	Step lamp	ON	0 V	
(Y)	Ground	этер таптр	Output	Step lamp	OFF	12 V	
8	Ground	All doors, fuel lid LOCK		Output	All doors, fuel lid	LOCK (Actuator is activated)	12 V
(V)	Ground		Output	All doors, ruer lid	Other than LOCK (Actuator is not activated)	0 V	
9	Ground	Driver door, fuel lid	Output	Driver door, fuel	UNLOCK (Actuator is activated)	12 V	
(G)	Ground	UNLOCK	Output	lid	Other than UNLOCK (Actuator is not activated)	0 V	
10	Ground	Rear RH door and rear LH door UN-	Output	Rear RH door	UNLOCK (Actuator is activated)	12 V	
(BR)	Cround	LOCK	Output	and rear LH door	Other than UNLOCK (Actuator is not activated)	0 V	
11 (R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	
13 (B)	Ground	Ground	_	Ignition switch ON		0 V	
15 (Y)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
(1)					ACC or ON	0 V	
					Turn signal switch OFF	0 V	
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s	
						6.5 V	

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description			O a maditi a m	Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
					Turn signal switch OFF	0 V	
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
				Other than under	condition	5.0 V	
19 (SB)	Ground	Room lamp timer	Output	(Door is unlocke	mp timer is activated. ed. etc) unction is activated.	0 V	
					Turn signal switch OFF	0 V	
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
					Turn signal switch OFF	0 V	
25 (G)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V	
26	Ground	Rear wiper	Output	Rear wiper	OFF (Stopped)	0 V	
(G)					ON (Operated)	12 V	
34	Ground	Luggage room anten-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 1	
(SB)		na (–)	-)	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	

	inal No.	Description				Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
35	Ground	Luggage room anten-	Outout	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB	
(V)	Glound	na (+)	Output	Put OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
38	Ground	Back door antenna (–	Output	When the back door opener re- quest switch is operated with ig- nition switch OFF	door openor re-	15 10 5	
(B)	Clound)	Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
39	Ground		door opener re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB		
(W)	Ground		Output		When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
47	Ground	Ignition relay (IPDM	Output	Ignition switch	OFF or ACC	12 V	
(Y)	Cidana	E/R) control	Carput	-gritton owiton	ON	0 V	

< ECU DIAGNOSIS INFORMATION >

Terminal No.		Description				Value	
(Wire	e color) –	Signal name	Input/ Output		Condition	Value (Approx.)	
48	Cround	Back door opener	Output	Back door opener	Not pressed	12 V	
(W)	Ground	switch operation	Output	switch	Pressed	0 V	
52	Ground	Starter relay control	Output	Ignition switch	When selector lever is in P or N position	12 V	
(LG)	Ground	Clarici Totaly control	Output	ON	When selector lever is not in P or N position	0 V	
					ON (Pressed)	0 V	
61 (W)	Ground	Back door opener request switch	Input	Back door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V	
64		Intelligent Key warn-		Intelligent Key	Sounding	0 V	
(L)	Ground	ing buzzer (Engine room)	Output	warning buzzer (Engine room)	Not sounding	12 V	
65 (O)	Ground	Rear wiper stop position	Input	Rear wiper	In stop position	(V) 15 10 5 0 10 ms JPMIA0016GB	
					Not in stop position	0 V	
66	Ground	Back door switch	Input	Back door switch	OFF (Door close)	12 V	
(LG)			•		ON (Door open)	0 V	
					Pressed	0 V	
67 (P)	Ground	Back door opener switch	Input	Back door opener switch	Not pressed	(V) 15 10 5 0 JPMIA0594GB 8.5 - 9.0 V	
68 (BR)	Ground	Rear RH door switch	Input	Rear RH door switch	OFF (Door close)	(V) ₁₅ 10 5 0	
						8.5 - 9.0 V	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value				
+	e color)	Signal name	Input/ Output		Condition	(Approx.)				
69 (R)	Ground	Rear LH door switch	Input	Rear LH door switch	OFF (Door close)	(V) ₁₅ 10 5 0 *** 10ms JPMIA0594GB 8.5 - 9.0 V				
					ON (Door open)	0 V				
72	Ground	Room antenna 2 (–)	Output		0.4.4	0.4.4	lanition switch	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(R)	Glound	(Center console)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB				
73	Ground	Room antenna 2 (+) (Center console)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 S S S S S S S S S				
(G)	Ground				When Intelligent Key is not in the passenger compartment	(V) 15 10 1				

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
74		Passenger door an-		When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	ВС
(SB)	Ground	tenna (-)	Output	quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E F
75	Ground	Passenger door an-	Output	When the passenger door re-	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	Н
(BR)	Glound	tenna (+)		quest switch is operated with ig- nition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	J PWC
76	Ground	Driver door antenna (–)	Output	When the driver door request switch is operat- ed with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	M
(V)	Ground				When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	O P

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description				Value				
+	-	Signal name	Input/ Output		Condition	(Approx.)				
77		Driver door antenna		When the driver door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB				
(LG)	Ground	(+)	Output	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB				
78	Ground	Room antenna 1 (–)	Output	Output	Output	Output	lanition switch	Questit Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(Y)	Glound	(Instrument panel)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 11 1 s JMKIA0063GB				
79	Ground	Room antenna 1 (+) (Instrument panel)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB				
(BR)	Ground				When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB				

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	inal No.	Description				Value
+ (vvire	e color)	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp.	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82	Ground	Ignition relay [Fuse	Output	Ignition switch	OFF or ACC	0 V
(P)	Giodila	block (J/B)] control	Output	ignition switch	ON	12 V
83 (GR)	Ground	Remote keyless entry receiver communica-	Input/ Output	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(GK)		tion	Output	When operating e	either button on the Intelligent	(V) 15 10 5 1 ms JMKIA0065GB

PWC

M

Ν

0

Р

Revision: 2009 March PWC-171 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	ı			Value
+	- COIOI)	Signal name Input/		Condition		(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
87	Ground	Combination switch Co	Combination	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB	
(BR)		INPUT 5	Input	switch	Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms JPMIA0040GB 1.3 V

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				V.1.	
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V	B C
					Lighting switch HI (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	E
88 (V)	Ground	Combination switch INPUT 3	Input	Combination switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	G H
					Rear washer switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	PWC
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	(V) 15 10 5 0 2 ms JPMIA0040GB	M
89	Crownd	Push-button ignition	loout	Push-button igni-	Pressed	1.3 V 0 V	0
(SB)	Ground	switch (Push switch)	Input	tion switch (Push switch)	Not pressed	12 V	
90 (P)	Ground	CAN-L	Input/ Output		_	_	Р
91 (L)	Ground	CAN-H	Input/ Output		_	_	

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value
(VVir	e color)	Signal name	Input/ Output		Condition	(Approx.)
			<u>'</u>		OFF	12 V
92 (LG)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	6.5 V 0 V
93	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage
(V)				.9	ON or ACC	0 V
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V
(O)	Ground	Acc relay control	Output	igilition switch	ACC or ON	12 V
96 (GR)	Ground	A/T shift selector (Detention switch) power supply	Output		_	12 V
97	Cravad	Steering lock condi-	lanus	Ctooring look	LOCK status	0 V
(L)	Ground	tion No. 1	Input	Steering lock	UNLOCK status	12 V
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V
(P)	Ordana	tion No. 2	mpar	Clocking look	UNLOCK status	0 V
99	Ground	Selector lever P posi-	Input	ut Selector lever	P position	0 V
(R)		tion switch	· 		Any position other than P	12 V
					ON (Pressed)	0 V
100 (G)	Ground	Passenger door request switch	Input	Passenger door request switch	OFF (Not pressed)	15 10 5 0 10 ms JPMIA0016GB 1.0 V
					ON (Pressed)	0 V
101 (SB)	Ground	Driver door request switch	Input	Driver door request switch	OFF (Not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB 1.0 V
102	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0 V
(O)	Cround	lay control	Carpar	.gon ownor	ON	12 V
103 (BR)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	12 V

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Terminal No. (Wire color)		Description		O an distant		Value	
+	e color)	Signal name	Input/ Output		Condition	(Approx.)	
106 (W)	Ground	Steering lock unit power supply	Output	Ignition switch	OFF or ACC	12 V 0 V	
					All switches OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Turn signal switch LH	(V) 15 10 5 0 2 ms JPMIA0037GB 1.3 V	
107 (LG)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V	
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3 V	ł
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V	

Revision: 2009 March PWC-175 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	1			Value		
+	e color) _	Signal name	Input/ Output	Condition		(Approx.)		
					All switches OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB 1.4 V		
					Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 0 2 ms JPMIA0038GB 1.3 V		
108 (R)	Ground	Combination switch INPUT 4	Input Combination switch				Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3 V
				Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0040GB			
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms JPMIA0039GB 1.3 V		

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	
	e color)	Signal name	Input/ Output		Condition	(Approx.)	Α
					All switches OFF	15 10 5 0 2 ms	B C
					Lighting switch PASS	10 5 0 2 ms JPMIA0037GB 1.3 V	E F
109 (Y)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15	G H
			Front wiper switch INT	15 10 5	J PW		
					Front wiper switch HI	50	M N
					ON		0
110 (G)	Ground	Hazard switch	Input	Hazard switch	OFF	(V) 15 10 5 0 10 ms JPMIA0012GB 1.1 V	Ρ

< ECU DIAGNOSIS INFORMATION >

	Terminal No. Description			Val.		
	e color)	Signal name	Input/		Condition	Value (Approx.)
+	_		Output		LOCK status	12 V
111 (GR)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB
					For 15 seconds after UN- LOCK	12 V
					15 seconds or later after UNLOCK	0 V
112 (GR)	Ground	Rain sensor serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 JPMIA0156GB 8.7 V
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V
(P)		'	'	ON	When dark outside of the vehicle	Close to 0 V
116 (BR)	Ground	Stop lamp switch 1	Input		_	Battery voltage
440		Stop lamp switch 2 (Without ICC)		Stop lamp switch	OFF (Brake pedal is not depressed) ON (Brake pedal is depressed)	0 V Battery voltage
118 (P)	Ground	Stop lamp switch 2	Input		OFF (Brake pedal is not de- brake hold relay OFF	0 V
		(With ICC)			ON (Brake pedal is de- rake hold relay ON	Battery voltage
119 (SB)	Ground	Front door lock assembly driver side (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) ₁₅ 10 5 0 ***10ms JPMIA0594GB 8.5 - 9.0 V
					UNLOCK status (Unlock switch sensor ON)	0 V
121				When the Intellige	nt Key is inserted into key slot	12 V
(BR)	Ground	Key slot switch	Input	When the Intelliger slot	nt Key is not inserted into key	0 V
122 (V)	Ground	ACC feedback	Input	Ignition switch	OFF ACC or ON	0 V Battery voltage
	l .		1	<u> </u>		

< ECU DIAGNOSIS INFORMATION >

	inal No.	Description				Value	A
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	Α
123	Ground	IGN feedback	lanut	Ignition switch	OFF or ACC	0 V	В
(W)	Ground	IGN reedback	Input	ignition switch	ON	Battery voltage	D
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) ₁₅ 10 5 0	C
					ON (Door opene)	8.5 - 9.0 V 0 V	Е
132 (O)	Ground	Power window switch communication	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB	F G
				Ignition switch OF	F or ACC	12 V	П
134	_			LOCK indicator	OFF	Battery voltage	
(GR)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V	
137 (B)	Ground	Receiver and sensor ground	Input	Ignition switch ON		0 V	
138	Ground	Sensor power supply	Output	Ignition switch	OFF	0 V	J
(Y)	Cround	Concor power cuppry	Catput	ignition owner	ACC or ON	5.0 V	
140	Ground	Selector lever P/N	Input	Selector lever	P or N position	12 V	PWC
(R)		position			Except P and N positions	0 V	
					ON	0 V	ı
141 (G)	Ground	Security indicator	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s	M
						11.3 V	
					OFF	12 V	
					All switches OFF	0 V	0
					Lighting switch 1ST	(10)	
				Combination	Lighting switch HI	(V) 15	Р
142 (O)	Ground	Combination switch OUTPUT 5	Output	switch (Wiper intermit- tent dial 4)	Lighting switch 2ND Turn signal switch RH	10 5 0 2 ms	
						JPMIA0031GB 10.7 V	

< ECU DIAGNOSIS INFORMATION >

	inal No. e color)	Description	T		O and disting	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	0 V
				Combination	Front wiper switch HI (Wiper intermittent dial 4)	
143	Ground	Combination switch	Output		Rear wiper switch INT (Wiper intermittent dial 4)	(V) 15 10 5
(P)	Ground	OUTPUT 1	Output	switch	Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	5 0
					All switches OFF (Wiper intermittent dial 4)	0 V
				t Combination switch	Front washer switch ON (Wiper intermittent dial 4)	
144	Ground	Combination switch OUTPUT 2	Output		Rear wiper switch ON (Wiper intermittent dial 4)	(V) 15
(G)					Rear washer switch ON (Wiper intermittent dial 4)	10 5 0
					Any of the conditions below with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	2 ms JPMIA0033GB
					All switches OFF	0 V
					Front wiper switch INT	
145 (L)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	Front wiper switch LO Lighting switch AUTO	(V) 15 10 5 0 2 ms
						10.7 V
					All switches OFF	0 V
					Front fog lamp switch ON	(V) 15 10
4.40		O and the ord		Combination	Lighting switch 2ND	
146 (SB)	Ground	round Combination switch OUTPUT 4 Output	Output	switch (Wiper intermit- tent dial 4)	Lighting switch PASS Turn signal switch LH	2 ms
						JPMIA0035GB 10.7 V

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	inal No.	Description				Value		
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)		
150 (GR)	Ground	Driver door switch	er door switch Input Driver door switch		OFF (Door close)	(V) ₁₅ 10 5 0 → 10ms JPMIA0594GB 8.5 - 9.0 V		
					ON (Door open)	0 V		
151	Ground	Rear window defog-	Output	Rear window de-	Active	0 V		
(G)	(Fround)		fogger	Not activated	Battery voltage			

F

Α

В

С

D

Е

G

Н

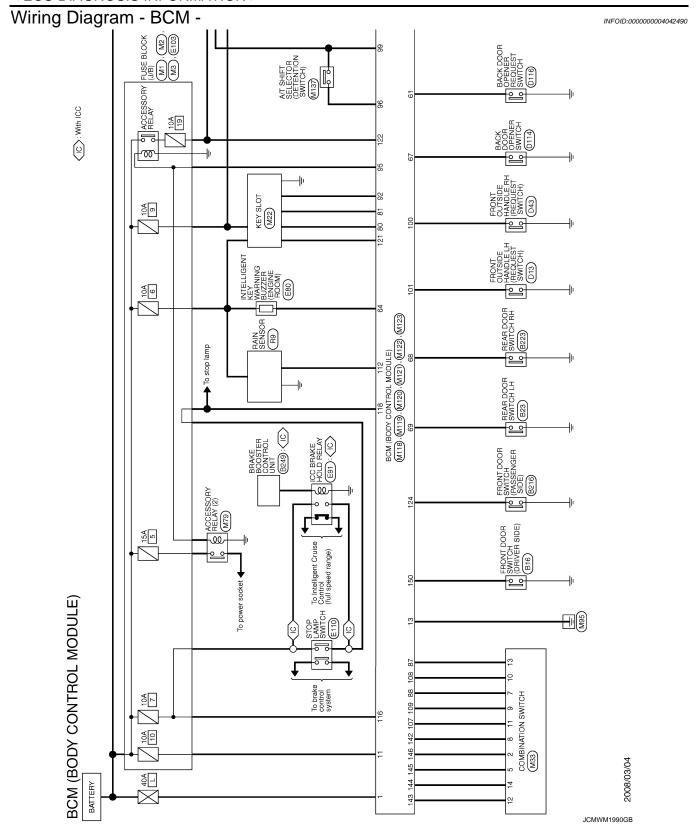
PWC

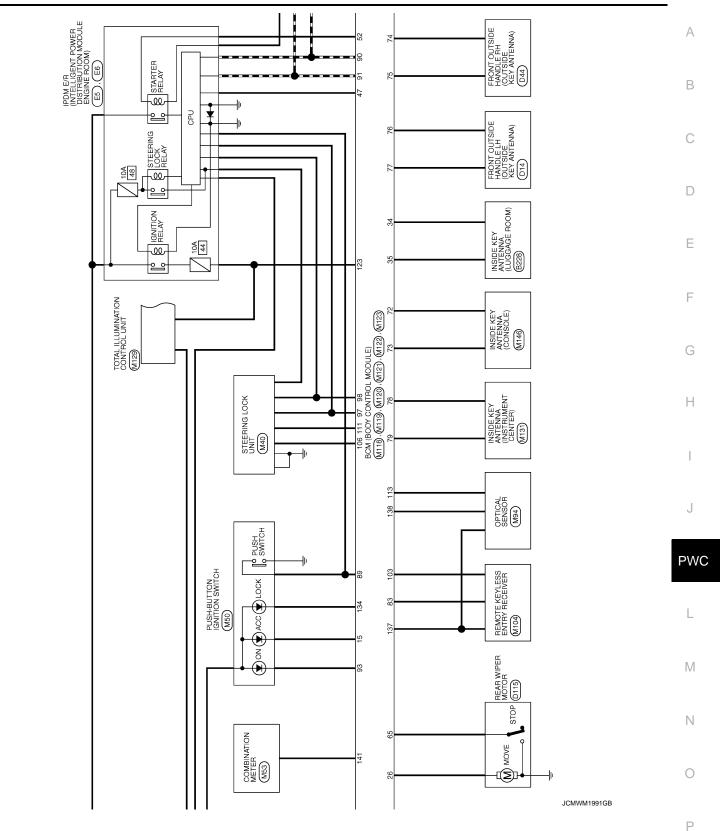
M

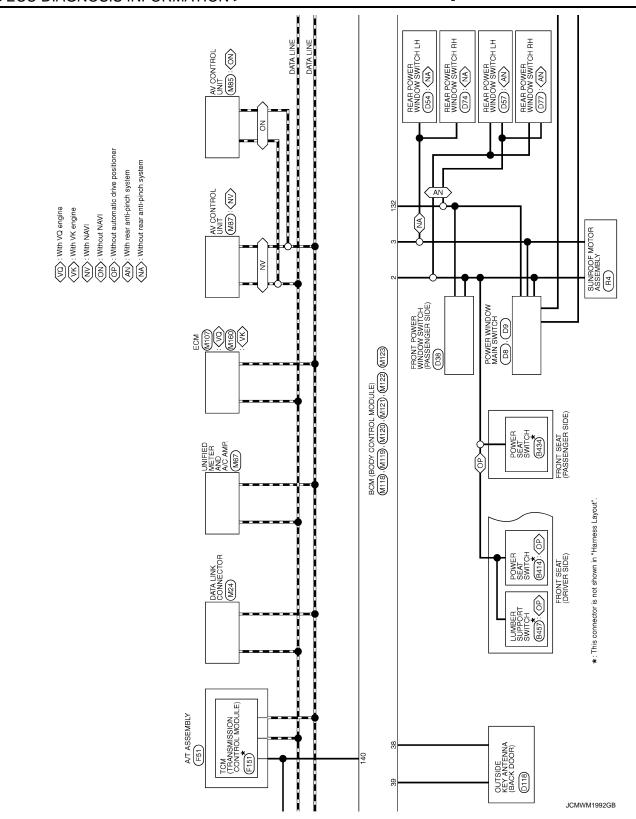
Ν

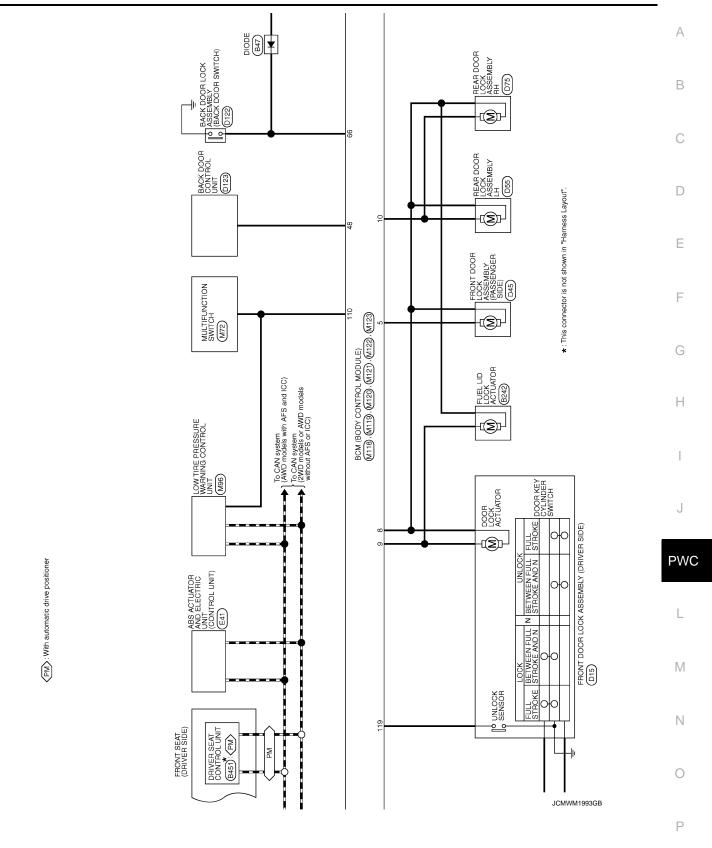
0

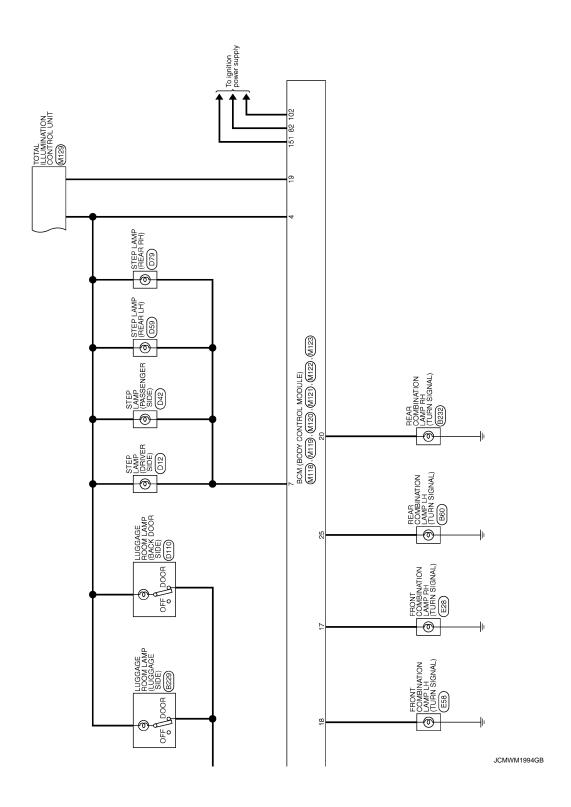
Р











< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

ROOM LAMP TIMER					АВ
88					С
<u> </u>					D
ODULE)	eefication] Julian Victor Save Julian Victor Output Julian Octor Output Julian Octor Output SE) BE	PENER SW DOR SW OOR SW			Е
MII9 NSIBFW-CS 5 6 7 8 9 10 12 13 14 15 16 17 18 19	Signal Name [Specification] INT ROOM LAMP PWIR SUPPL VIGAT SAVE) PASSENGER DOOR UNLOOK OUTPUT ALL DOOR FUEL LID LOOK OUTPUT REAR DOOR WILLOOK OUTPUT REAR DOOR WILLOOK OUTPUT REAR DOOR LIDE LIDE ACC IND TURN SIGNAL RH (FRONT) TURN SIGNAL LH (FRONT)	BACK DOOR OPENER SW REAR HH DOOR SW REAR LH DOOR SW			F
No. Name Type	Oolog Oo Wire Oo	а <u>В</u> х			G
Connector Connector	Terminal No. 18 No. 19	69 69			Н
VOL MODULE)	Signal Name [Specification] BAT (F/L) POWER WINDOW POWER SUPPLY(RAP) POWER WINDOW POWER SUPPLY(RAP)	COL MODULE)	Signal Name (Specification) LUGGAGE ROOM ANT- LUGGAGE ROOM ANT- LUGGAGE ROOM ANT- BACK DOOR ANT- IGAN ELAY (PDME FR) IGAN ELAY (CONT BK DOOR OFENER REQUEST SW I-KEY WARN BUZZER (ENG ROOM) REAR WIPER STOP POSITION REAR WIPER STOP POSITION		I
MIIB BOM (BODY CONTROL MODULE) MOSFB-LC	Signal Name Signal Name Name Name Name Name Name Name Name	MIZI BCM (BODY CONTROL MODULE) TH40FGY-NH TH46FGY-NH Telesial staged along a grap as g	Signal Nam LUGGAG LUGGAG BACK GN RELAY IGN RELAY BK DOOR OPE BACK DOOR OPE		J
Connector No. If Connector Type Domestor Type P. H.S.	Terminal Color No. of Wire 1 W W 2 Y Y 2 Y Y S Color Color	Connector No. MI21 Connector Type ITH40FGY Connector Type ITH40FGY A.S. STEP SEE SEE SEE SEE SEE SEE SEE SEE SEE S	Terminal Color No. 15 WB 28 SB 35 V V 35 SB 28 SB 29 W 47 V 47 V 47 W 48 W		PWC
) Trej	[6		च _{कि के}		L
ROL MODU swrrch 4 5 6 1112 1314	Signal Nane [Specification] OUTPUT 4 OUTPUT 3 INPUT 5 INPUT 6 INPUT 1 OUTPUT 1 INPUT 1 OUTPUT 1 INPUT 5 OUTPUT 2 INPUT 5 OUTPUT 2 INPUT 5	MI20 BGM (BODY CONTROL MODULE) NSIZPW-GS 20 21 22 23 24 25 26 27 28 29 30 31	Signal Name [Specification] TURN SIGNAL EN (REAR) TURN SIGNAL LH (REAR) REAR WIPER OUTPUT		M
BCM (BODY CONTROL MODULE) Somector No. M33 Connector Name COMBINATION SWITCH COMBINATION SWITCH THISTW-NH TO B 9 10 11 12 13 14					Ν
BCM (BO Connector No. Connector Name Connector Type	Color Colo	Connector No. Connector Type	Color Color Color		0
				JCMWM1995GB	Р

Revision: 2009 March PWC-187 2009 FX35/FX50

RECEIVER/SENSOR GND	SENSOR POWER SUPPLY	SHIFT N/P	SECURITY INDICATOR OUTPUT	COMBI SW OUTPUT 5	COMBI SW OUTPUT 1	COMBI SW OUTPUT 2	COMBI SW OUTPUT 3	COMBI SW OUTPUT 4	DRIVER DOOR SW	REAR WINDOW DEFOGGER RELAY CONT
В	Υ	Я	5	0	Ь	9	٦	SB	GR	5
137	138	140	141	142	143	144	145	146	150	191

Connector No	M193
Collinación 140.	MILES
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	TH40FG-NH
H.S. Bissississississississississississississ	(2)

Signal Name [Specification]	RAIN SENSOR SERIAL LINK	OPLICAL SENSOR	STOP LAMP SW 1	STOP LAMP SW 2	DR DOOR UNLOCK SENSOR	KEY SLOT SW	ACC F/B	IGN F/B	PASSENGER DOOR SW	POWER WINDOW SW COMM	TOCK IND
Color of Wire	GR	Ь	BR	Р	SB	BR	۸	W	LG	0	GR
Terminal No.	112	113	116	118	119	121	122	123	124	132	134

KEYLESS ENTRY RECEIVER SIGNAL	COMBI SW INPUT 5	COMBI SW INPUT 3	PUSH SW	CAN-L	CAN-H	KEY SLOT ILL	ON IND	ACC RELAY CONT	A/T SHIFT SELECTOR POWER SUPPLY	S/L CONDITION 1	S/L CONDITION 2	SHIFT P	PASSENGER DOOR REQUEST SW	DRIVER DOOR REQUEST SW	BLOWER FAN MOTOR RELAY CONT	KEYLESS ENTRY RECEIVER POWER SUPPLY	S/L UNIT POWER SUPPLY	COMBI SW INPUT 1	COMBI SW INPUT 4	COMBI SW INPUT 2	HAZARD SW	S/L UNIT COMM
GR	BR	۸	SB	Ь	7	PΠ	۸	0	GR	٦	Ь	æ	g	SB	0	BR	W	LG	×	Υ	5	GR
83	87	88	68	06	91	92	93	92	96	6	86	66	100	101	102	103	106	107	108	109	110	111

BCM (BODY CONTROL MODULE) Connector No. M122	Connector Name BCM (BODY CONTROL MODULE)	Connector Type TH40FB-NH	H.S. SI ON THE STATE OF THE STA
-----------------------------------------------	------------------------------------------	--------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Signal Name [Specification]	ROOM ANT2-	ROOM ANT2+	PASSENGER DOOR ANT-	PASSENGER DOOR ANT+	DRIVER DOOR ANT-	DRIVER DOOR ANT+	ROOM ANT1-	ROOM ANTI+	IMMOBI ANTENNA CONTROL	IMMOBI ANTENNA SIGNAL	IGN BEL AY (F/B) CONT
Color of Wire	ч	9	SB	BR	^	LG	Υ	BR	GR	W	٥
Terminal No.	72	73	74	75	9/	77	78	79	80	81	00

JCMWM1996GB

Fail-safe

FAIL-SAFE CONTROL BY DTC

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

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

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

PWC-189 Revision: 2009 March 2009 FX35/FX50

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Display contents of CONSULT	Fail-safe	Cancellation
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status becomes consistent • Steering lock relay signal (Request signal) • Steering lock relay signal (Condition signal)
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent • Starter motor relay control signal • Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilled • Power position changes to ACC • Receives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control inside BCM becomes normal
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization
B26E9: S/L STATUS	Inhibit engine cranking Inhibit steering lock	When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled • Steering condition No. 1 signal: LOCK (0 V) • Steering condition No. 2 signal: LOCK (Battery voltage)

HIGH FLASHER OPERATION

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

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

NOTE:

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

FAIL-SAFE CONTROL BY RAIN SENSOR MALFUNCTION

- BCM judges the rain sensor serial link error by the rain sensor serial link condition and detects the rain sensor malfunction by rain sensor malfunction signal.
- When BCM detects the rain sensor serial link error or the rain sensor malfunction while front wiper AUTO operation, BCM operates a fail-safe control.

NOTE:

If rain sensor malfunction is detected when ignition switch is turned OFF \Rightarrow ON and front wiper switch is INT position, BCM operates a fail-safe control.

REAR WIPER MOTOR PROTECTION

BCM detects the rear wiper stopping position according to the rear wiper stop position signal.

When the rear wiper stop position signal does not change for more than 5 seconds while driving the rear wiper, BCM stops power supply to protect the rear wiper motor.

Condition of cancellation

1. More than 1 minute is passed after the rear wiper stops.

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

- 2. Turn rear wiper switch OFF.
- Operate the rear wiper switch or rear washer switch.

DTC Inspection Priority Chart

INFOID:0000000004042492

Α

В

C

D

Е

F

Н

PWC

Ν

0

Ρ

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

Priority	DTC	
1	B2562: LOW VOLTAGE	
2	U1000: CAN COMM U1010: CONTROL UNIT (CAN)	
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING 	
4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: PUSH-BTN IGN SW B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSI STATUS B2604: PNP SW B2605: PNP SW B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STATUS B2609: S/L STATUS B2600: IGNITION RELAY B2609: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2600: STEERING LOCK UNIT B2601: STEERING LOCK UNIT B2605: BIOS STATE SIG LOST B2612: S/L STATUS B2615: BLOWER RELAY CIRC B2616: IGN RELAY CIRC B2616: IGN RELAY CIRC B2619: BCM B2619: BCM B2619: VEHICLE TYPE B262: KEY REGISTRATION U0415: VEHICLE SPEED SIG 	
5	B2621: INSIDE ANTENNA B2622: INSIDE ANTENNA B2623: INSIDE ANTENNA	

DTC Index

INFOID:0000000004042493

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-16</u>, "COM-MON ITEM: CONSULT-III Function (BCM - COMMON ITEM)".

Revision: 2009 March PWC-191 2009 FX35/FX50

[FRONT WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
No DTC is detected. Further testing may be required.	_	_	_	-
U1000: CAN COMM	_	_	_	BCS-34
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-35
U0415: VEHICLE SPEED SIG	_	_	_	BCS-36
B2013: ID DISCORD BCM-S/L	×	×	_	SEC-50
B2014: CHAIN OF S/L-BCM	×	×	_	SEC-51
B2190: NATS ANTENNA AMP	×	_	_	SEC-42
B2191: DIFFERENCE OF KEY	×	_	_	SEC-45
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-46
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-48
B2195: ANTI SCANNING	×	_	_	SEC-49
B2553: IGNITION RELAY	_	×	_	PCS-50
B2555: STOP LAMP	_	×	_	<u>SEC-54</u>
B2556: PUSH-BTN IGN SW	_	×	×	SEC-56
B2557: VEHICLE SPEED	×	×	×	SEC-58
B2560: STARTER CONT RELAY	×	×	×	SEC-59
B2562: LOW VOLTAGE	_	×	_	BCS-37
B2601: SHIFT POSITION	×	×	×	SEC-60
B2602: SHIFT POSITION	×	×	×	SEC-63
B2603: SHIFT POSI STATUS	×	×	×	SEC-65
B2604: PNP SW	×	×	×	SEC-68
B2605: PNP SW	×	×	×	SEC-70
B2606: S/L RELAY	×	×	×	SEC-72
B2607: S/L RELAY	×	×	×	SEC-73
B2608: STARTER RELAY	×	×	×	SEC-75
B2609: S/L STATUS	×	×	×	SEC-77
B260A: IGNITION RELAY	×	×	×	PCS-52
B260B: STEERING LOCK UNIT	_	×	×	SEC-81
B260C: STEERING LOCK UNIT	_	×	×	SEC-82
B260D: STEERING LOCK UNIT	_	×	×	SEC-83
B260F: ENG STATE SIG LOST	×	×	×	<u>SEC-84</u>
B2612: S/L STATUS	×	×	×	SEC-88
B2614: ACC RELAY CIRC	_	×	×	PCS-54
B2615: BLOWER RELAY CIRC	_	×	×	PCS-56
B2616: IGN RELAY CIRC	_	×	×	PCS-58
B2617: STARTER RELAY CIRC	×	×	×	SEC-92
B2618: BCM	×	×	×	PCS-60
B2619: BCM	×	×	×	SEC-94
B261A: PUSH-BTN IGN SW	_	×	×	SEC-95
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	SEC-98

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle Condition	Intelligent Key warn- ing lamp ON	Reference page
B2621: INSIDE ANTENNA	_	×	_	<u>DLK-61</u>
B2622: INSIDE ANTENNA	_	×	_	<u>DLK-63</u>
B2623: INSIDE ANTENNA	_	×	_	<u>DLK-65</u>
B26E7: TPMS CAN COMM	_	_	_	BCS-38
B26E9: S/L STATUS	×	×	× (Turn ON for 15 seconds)	SEC-86
B26EA: KEY REGISTRATION	_	×	× (Turn ON for 15 seconds)	<u>SEC-87</u>

Е

D

Α

В

F

G

Н

J

PWC

M

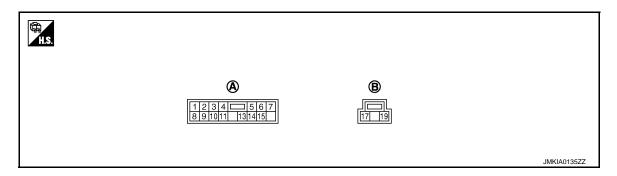
Ν

0

Р

Reference Value

TERMINAL LAYOUT



A. D8 B. D9

PHYSICAL VALUES POWER WINDOW MAIN SWITCH

	inal No. e color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
1 (W)	Ground	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is UP at operated.	Battery voltage
2 (LG)	Ground	Encoder ground	_	_	0
3 (GR)	Ground	Rear power window motor LH DOWN signal	Output	When rear LH switch in pow- er window main switch is DOWN at operated.	Battery voltage
4 (V)	Ground	Door key cylinder switch LOCK signal	Input	Key position (Neutral → Locked)	5 → 0
5 (SB)	Ground	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is DOWN at operated.	Battery voltage
6 (Y)	Ground	Door key cylinder switch UNLOCK signal	Input	Key position (Neutral → Unlocked)	5 → 0
7 (BR)	Ground	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is UP at operated.	Battery voltage
8 (L)	Ground	Front driver side power window motor UP signal	Output	When front LH switch in power window main switch is UP at operated.	Battery voltage
9 (W)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Terminal No. (wire color)		Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output		(Approx.)
				IGN SW ON	Battery voltage
10	Ground	Rap signal	Input	Within 45 second after ignition switch is turned to OFF	Battery voltage
(O)			'	When driver side or passenger side door is opened during retained power operation	0
11 (G)	Ground	Front driver side power window motor DOWN signal	Output	When front LH switch in power window main switch is DOWN at operated.	Battery voltage
13 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
14 (V)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 JPMIA0013GB
15 (W)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates.	12
17 (B)	Ground	Ground	_	_	0
19 (Y)	Ground	Battery power supply	Input	_	Battery voltage

PWC

Α

В

С

D

Е

F

G

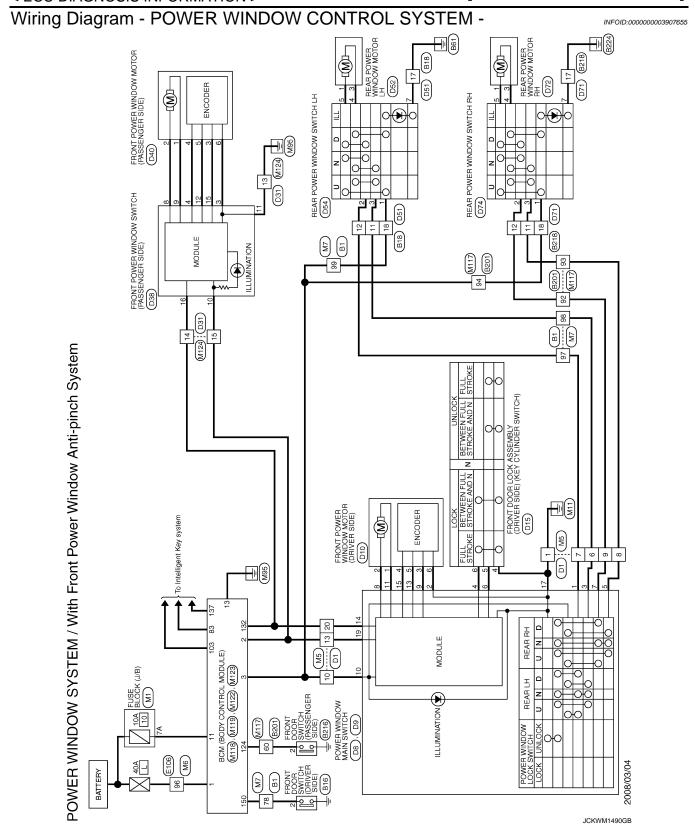
Н

M

Ν

0

Р



Feation]			А
WIRE TO WIRE THBOFW-CS16-TM4 THBOFW-CS16-TM4 IN PART OF THE			В
Name WIRE			С
Connecto Conne			D
3 2 1 3 2 1 12 11	4 0 1 1 2 1 2 1 2 2 1 2 2		Е
No. B18 Type TK10FW-NS3 10 9 8 7 6	No. D1		F
Connector No. B18	Connector Name Will		G
Connector Name Connector Typ C	Connector Na. Connector Typ. Connector Na. Connecto		Н
dow Anti-pinch System BIS FRONT DOOR SWITCH (DRIVER SIDE) A03FW Signal Name [Specification]	No. B218 Type TK10FW-NS3 Type TK10FW-NS3 10 9 8 7 6 = 5 4 3 2 1 18 17 16 15 14 13 12 11 18 17 16 15 14 13 12 11 Color Write Signal Name (Specification)		I
Glish RRONT DOOR SW AGGEW Signal Na Signal Na	8218 WIRE TO WIRE TKIGFW-NSB 7 6 6 6 7 16 15 1 8 7 6 6 9 7 6 6 10 10 10 10 10 10 10 10		J
Ont Power Window Anti-pinch System Connector Name FRONT DOOR SWITCH (DRIVER SIDE) Connector Type AG3FW Connector Type AG3FW Terminal Color No. of Wire Signal Name [Specification] Z GR	Connector No. B2 Connector No. Connector Name WIR Connector Type TKT Connector Type TKT Color C		PWC
			L
POWER WINDOW SYSTEM / With Fr	B216 FRONT DOR SWITCH (PASSENGER A03FW Signal Name (Specification)		M
INDOW SYS BI WIRE TO WIRE THEOFW-CS16-TM4 Signal Nam	BE16 FRONT DO AOSFW SI		Ν
Connector Na Connector Na Connector Type Connector Type Connector Type Na Or Of Na Of Wire 78 99 W 98 GR 99 W	Connector No. Connector Name Connector Type No. of Wire 2 GR		0
		JCKWM1491GB	Р
			Р

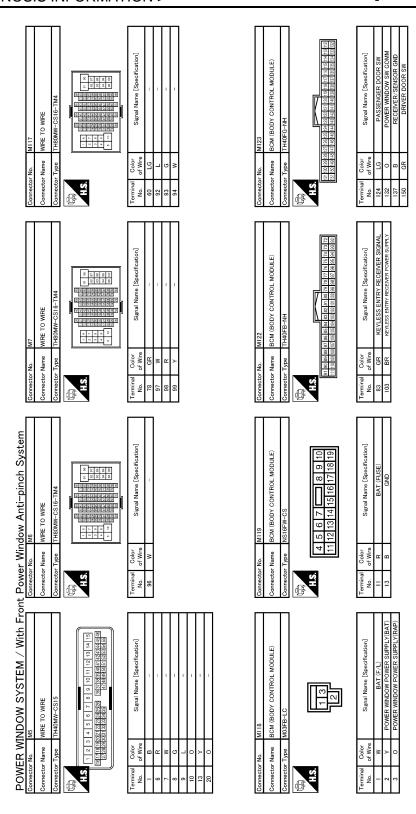
Revision: 2009 March PWC-197 2009 FX35/FX50

Connector No. D10 Connector Name SIDE) Connector Type NSDSFW-CS H.S. 1 C 2 2 3 4 5 6	Terminal Color Signal Name [Specification] No. of Wire S O C C C C C C C C C	Connector No. D40 Connector Name FRONT POWER WINDOW MOTOR Connector Name (PASSENGER SIDE) Connector Type NSOBFW-CS TI T 2 3 4 5 6	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] 2 2 2 2 3 R 4 W 5 5 6 LG - 6 LG - - 6 LG - 6
Connector No. D9 Connector Name POWER WINDOW MAIN SWITCH Connector Type NS03FW-CS WASOFFW-CS TAS	Terminal Color Signal Name [Specification] 17 B 19 Y	Connector No. D38 Connector Name FRONT POWER WINDOW SWITCH	Terminal Color Signal Name [Specification] No. of Wire - 3 LG - 8 L 9 G 11 8 12 P 15 R 16 V 17 18 19 10 10 11 12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 17 18 19
nt Power Window Anti-pinch System		Connector Name WIRE TO WIRE Connector Type TH40PW-CS15 (A)	Terminal Color Signal Name [Specification]
POWER WINDOW SYSTEM / With Front Power Window Anti-pinch System Connector No. D8 13 P - Connector Name POWER WINDOW MAIN SWITCH 13 P - Connector Type MS16FW-CS - - - ALS 1 2 3 4 - - ALS 1 2 3 4 - - -	Terminal Color No. of Wire Signal Name [Specification] No. of Wire No. of	Connector No. D15 Connector Name SIDE) Connector Type E09FGY-RS Connector Type (12 3 4 5 6)	Terminal Color Signal Name [Specification] No. of Wire Signal Name [Specification] Signal Name [Specification]

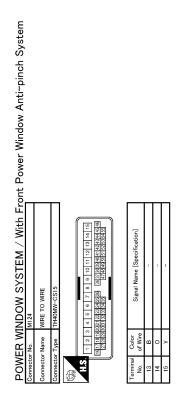
JCKWM1492GB

7 8 9 10 6 17 18	Specification	1A 4A Specification]		АВ
Connector No. D71 Connector Name WIRE TO WIRE Connector Type TK10MW-NS8 Connector Type TK10MW-NS8 T1 2 3 4 5 6 7 11 12 13 14 15 16 7	of Wire Signal Name [Specification] RR	M1 PUSE BLOCK (J/B) NS06FW-M2 3A 2A 8A 7A6A5A Signal Name [inc.]		С
Connector No Connector Na Connector Ty	Terminal No. 11 11 12 17 18 18	Connector No. Connector Na. Connector Typ. H.S. H.S. Terminal Co. No. of Yes.	₹L V	D
мтон гн	eoffication)	e effication]		Е
D54 NSOBFW-CS 2 3 4 5 1	Signal Name [Specification]	WIRE TO WIRE TH80FW-CS16-TM4 Head		F
96 9	Color of Wire	lor Vire	3	G
Connector No. Connector Name Connector Type	Terminal No. 1 1 2 2 2 2 4 4 4 5 5 7 7	Connector No. Connector Name Connector Type Connector Type This This No. Terminal Tolory No.	90	Н
Ont Power Window Anti-pinch System Connector Name REAR POWER WINDOW MOTOR LH Connector Type RSOBFG-DGY M.S. (1 2 3)	Signal Name (Specification)	D74 REAR POWER WINDOW SWITCH RH INSOBEW-CS [23451] Signal Name [Specification]	1 1 1 1 1 1	I
dow Anti-	Signal P	NSOBEW-CS NSOBEW-CS Signal N		J
E Power Windc Gomestor Ne. D5 Comestor Neme RE Gomestor Type RS	Terminal Color No. of Wise of Wise 3 L. 3 L.	Connector No. D74 Connector Name REA Connector Type NS00 H.S. H.S. Terminal Cofor No. of Wire	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	PWC
4			П	L
POWER WINDOW SYSTEM / With Fr Somector No. DSI Somector Name WIRE TO WIRE Somector Type IK10MW-NS8 H.S. 2 3 4 5 6 7 8 9 10 1 12 13 14 15 16 17 18	Signal Name (Specification)	REAR POWER WINDOW MOTOR RH RSOBFG-DGY 1 2 3 4 5 6 Signul Name [Specification]	1 1	M
INDOW S DE1 WIRE TO WIRE TKIOMW-NSB 3 4 5		D72 REAR PC RS06FG-		N
POWER WI Connector Ne. Connector Name Connector Type M.S. H.S. 1 2 1 1 1	Terminal Color No. 11 R 11 R 17 B 17 B 18 W	Connector No. Connector Name Connector Type H.S. H.S. Terminal Color No. of Wire	- °	0
			JCH	wm1493GB

Revision: 2009 March PWC-199 2009 FX35/FX50



JCKWM1494GB



PWC

Α

В

C

D

Е

F

Н

M

Ν

0

JCKWM1495GB

Fail-safe

FAIL-SAFE CONTROL

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

[FRONT WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.
Fully closed position up- date malfunction	When door glass is continuously operated UP or DOWN for the specified value or more without fully closing door glass (approximately 10 time or more).

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

- Auto-up operation
- Anti-pinch function
- Retained power function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

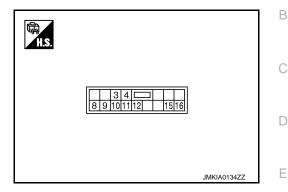
< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

FRONT POWER WINDOW SWITCH

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

FRONT POWER WINDOW SWITCH

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
3 (LG)	Ground	Encoder ground	_	_	0
4 (W)	Ground	Encoder power supply	Output	When ignition switch ON or power window timer operates	Battery voltage
8 (L)	Ground	Power window motor UP signal	Output	When power window motor is UP at operated.	Battery voltage
9 (G)	Ground	Power window motor DOWN signal	Output	When power window motor is DOWN at operated.	Battery voltage
10 (Y)	Ground	Battery power supply	Input	_	Battery voltage
11 (B)	Ground	Ground	_	_	0
12 (P)	Ground	Encoder pulse signal 1	Input	When power window motor operates.	(V) 6 4 2 0 10 ms

PWC

J

Α

F

G

Н

M

Ν

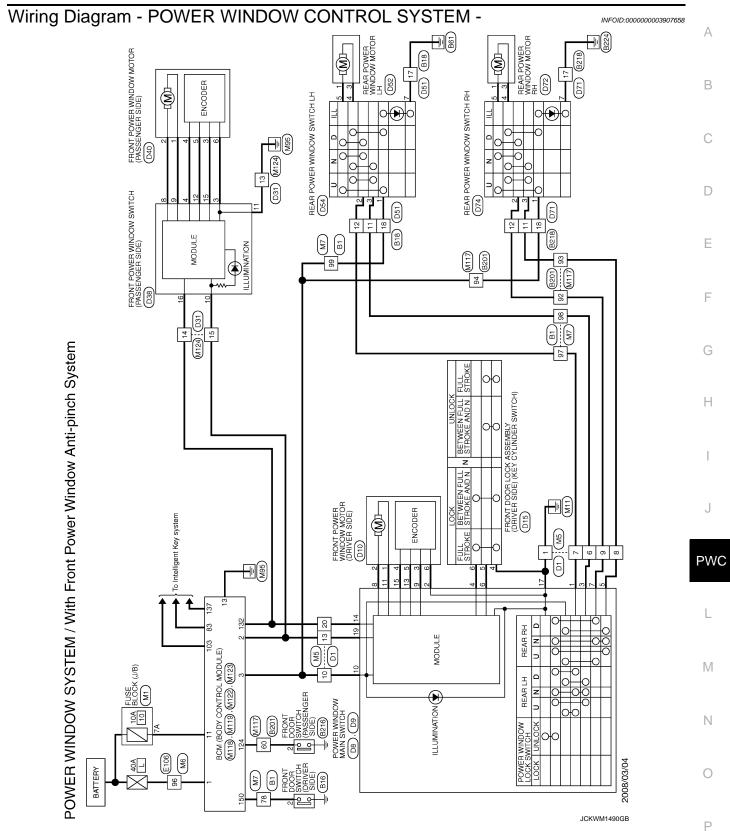
0

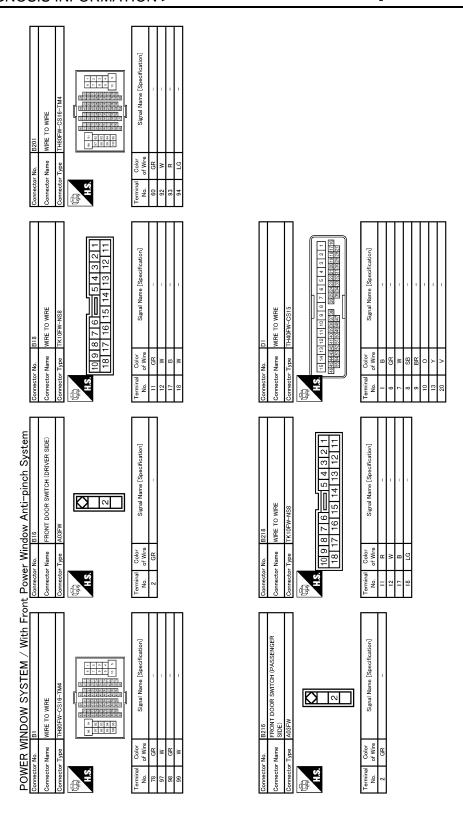
Ρ

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	nal No. color)	Description		Condition	Voltage [V]
+	-	Signal name	Input/ Output	Condition	(Approx.)
15 (R)	Ground	Encoder pulse signal 2	Input	When power window motor operates.	(V) 6 4 2 0 10 ms JMKIA0070GB
16 (V)	Ground	Power window serial link	Input/ Output	IGN SW ON or power window timer operating.	(V) 15 10 5 0 10 ms JPMIA0013GB





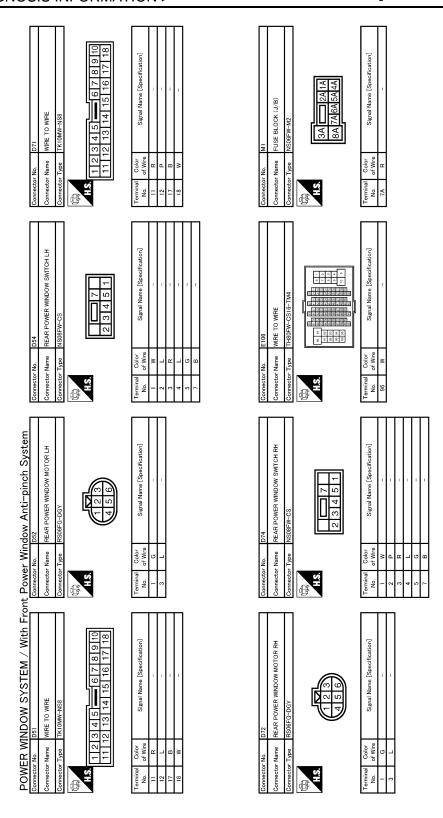
JCKWM1491GB

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

DIO FRONT POWER WINDOW MOTOR (DRIVER SIDE) NSOGEW-CS 1 0 2 4 5 6	Signal Name [Specification]	PRONT POWER WINDOW MOTOR (PASSENGER SIDE) NSGBFW-GS 1	Signal Name [Specification]		АВ
Connector Ne DIO Connector Name SIDE) Connector Type NSDB	Teminal Color No. of Wire 2 L C 2 L C 3 W W 4 W 6 5 C 6 L G 6 L G 6 C 6 C 6 C 6 C 6 C 6 C 6 C 6 C 6 C 6	Connector No. Connector Name (PAS). Connector Type NS06	Terminal Color No. of Wife Color No. of Wife Color Color		C
D9 POWER WINDOW MAIN SWITCH INSOSPW-CS 17 18 19	Signal Name [Specification]	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Signal Name (Specification)		E F
Connector No. D9 Connector Name POWER WINI Connector Type NSO3FW-CS H.S.	Color Color No. of Wire No. of Wire	Connector No. D38 FRONT POW Connector Type NS16FW-CS H.S. 1 2 3 4 1 2 3 4	New Color New Color New Of Wire Sign 1		G
pinch System		1 2 2 2 2 2 2 2 2 2	Signal Name [Specification]		ı
ont Power Window Anti-pinch System		Connector Name WIRE TO WIRE	Color Colo		PWC
Front Control			<u> </u>		L
POWER WINDOW SYSTEM / With Fragmeter No. DB	Signal Name (Specification)	D15 FRONT DOOR LOCK ASSEMBLY (DRIVER SIDE) EGBEGY-RS [Mathematical Color of the co	Signal Name [Specification]		M
No. D6 No. D6 No. D7 No. D6 No. D7 No	Color of Wire S S S S S C C C C C C C C C C C C C C	و و	Oolor Oolor V V V		Ν
POWER W. Connector No. Connector Name Connector Type M.S. H.S.	Terminal No. No. 1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Connector No. Connector Type Connector Type	Terminal No. 6		0
				JCKWM1492GB	Р

Revision: 2009 March PWC-207 2009 FX35/FX50



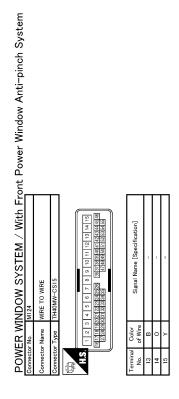
JCKWM1493GB

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

	85382	reoffication)	(ODULE)	oronification) OOOR SW ISW COMM ISOR CND OR SW		А
	Connector No. MI 17 Connector Name WRE TO WITE Connector Type TH80MV-CS16-TM4 H.S. Connector Type TH80MV-CS16-TM4	Color of Wire LG G	Cornector No. M123 Connector Name BCM (BODY CONTROL MODULE) Connector Type TH40FG-N4H M3 H.S. FINDER OF THE SERVICE OF THE	Color Signal Name (Specification) Of Wire PASSENGER DOOR SW LG POWER WINDOW SW COMM B RECEIVER/SENSOR GND GR DRIVER DOOR SW DRIVER DOOR SW		С
	Connector Connec	Terminal No. 60 60 82 93 93 94	Connectt Connectt	Terminal No. 124 132 137 150		D
		pecification	MODULE) 77 1615 72 72 72 72 72 72 72 72 72 72 72 72 72	peofication) CEIVER SIGNAL FER POWER SUPPLY		Е
	WIRE TO WIRE THBOMW-CSIG-TM4	Signal Name [Specification]	M122 BCM (BODY CONTROL MODULE) TH40FB-NH TH40FB-NH SI SE	Signal Name (Speeification) KEYLESS ENTRY RECEIVER POWER SIGNAL KEYLESS ENTRY RECEIVER POWER SIGNAL		F
Ī	Connector No. M7 Connector Type THE	Terminal Color No. of Wire 78 GR 78 GR 99 R W 99 R Y	Connector No. M122 Connector Name BCM 100 Connector Type TH400 M.S. H.S. If ice design is a sign in the independent of the inde	Calor Calor Calor No. of Wre St. o		G
[Н
ont Power Window Anti-pinch System	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Signal Name [Specification]	VIROL MODULE)	Signal Name [Specification] BAT (FUSE) GND		I
ıdow Anti−p	MIRE TO WIRE THBOWN-CS16-TM4		M119 BCM (BODY CO) NS16FW-CS 5 6 7	Ш	•	J
ıt Power Wi	Connector No. Connector Name Connector Type	Terminal Color No. of Wire 96 Wire	Connector No. Connector Name Connector Type H.S. H.S.	Color No. Color No.		PWC
/ With Fror				n] LY(RAP)		L
	No. M5	Signal Name (Specification)	MAT18 BCM (BODY CONTROL MODULE) MO3FB-LC 113	Signal Name (Specification) BAT (F/L) POWER WINDOW POWER SUPPLY POWER WINDOW POWER SUPPLY		M
INDOW	M5	σ I I I I I I I I I I I I I I I I I I I	M118 BCM (BOD) M03FB-LC	POWER POWER		Ν
POWER WINDOW SYSTEM	Connector No. Connector Type	Terminal Color No. 1	Connector No. Connector Type Connector Type	Color No. Color No. Color No. Color No. Color No. Color Color		0
					JCKWM1494GB	Р

Revision: 2009 March PWC-209 2009 FX35/FX50



JCKWM1495GB

Fail-safe

FAIL-SAFE CONTROL

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

< ECU DIAGNOSIS INFORMATION >

[FRONT WINDOW ANTI-PINCH]

Malfunction	Malfunction condition
Pulse sensor malfunction	When one pulse signal that is the specified value or more is detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Both pulse sensors mal- function	When both pulse signals are not detected continuously for the specified time or more, while door glass is being operated UP or DOWN.
Pulse direction malfunction	When a pulse signal indicating that window is moving in the opposite direction against the power window motor is detected for the specified value or more, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 1	When the actual door glass position that is out of specified value is detected compared to the door glass fully closed position memorized in module, while door glass is being operated UP or DOWN.
Glass recognition position malfunction 2	When pulse count that is out of the door glass full stroke value or more is detected, while door glass is being operated UP or DOWN.
Fully closed position up- date malfunction	When door glass is continuously operated UP or DOWN for the specified value or more without fully closing door glass (approximately 10 time or more).

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

- Auto-up operation
- Anti-pinch function
- Retained power function

When fail-safe control is activated, perform initialization procedure to recover. If a malfunction is detected in power window switch or more, fail-safe control is activated again.

PWC

Р

PWC-211 Revision: 2009 March 2009 FX35/FX50

В

Α

Е

D

F

Н

J

Ν

0

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY SWITCH [FRONT WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NONE OF THE POWER WINDOWS CAN BE OPERATED USING ANY **SWITCH**

Diagnosis Procedure

INFOID:0000000003907660

1. CHECK BCM POWER SUPPLY AND GROUND CIRCUIT

Check BCM power supply and ground circuit.

Refer to PWC-16, "BCM: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

Ν

Р

DRIVER SIDE POWER WINDOW ALONE DOES NOT OPERATE Α Diagnosis Procedure INFOID:0000000003907661 1. CHECK POWER WINDOW MAIN SWITCH POWER SUPPLY AND GROUND CIRCUIT В Check power window switch power supply and ground circuit. Refer to PWC-133, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. D 2.CHECK DRIVER SIDE POWER WINDOW MOTOR Check driver side power window motor. Refer to PWC-139, "DRIVER SIDE: Component Function Check". Е Is the measurement value within the specification? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. F 3.CONFIRM THE OPERATION Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". NO >> GO TO 1. Н J **PWC** M

Revision: 2009 March PWC-213 2009 FX35/FX50

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000003907662

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) SERIAL LINK CIRCUIT

Check front power window switch (passenger side) serial link circuit.

Refer to <u>PWC-156</u>, "FRONT <u>POWER WINDOW SWITCH (PASSENGER SIDE)</u>: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED

WHEN FRONT POWER WINDOW SWITCH (PASSENGER SIDE) IS OPERATED:

Diagnosis Procedure

INFOID:0000000003907663

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-227, "Removal and Installation"

>> INSPECTION END

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND FRONT POWER WINDOW SWITCH ARE OPERATED: Diagnosis Procedure

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

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

Refer to PWC-134, "FRONT POWER WINDOW SWITCH (PASSENGER SIDE): Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK PASSENGER SIDE POWER WINDOW MOTOR CIRCUIT

Check passenger side power window motor circuit.

Refer to PWC-140, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

Revision: 2009 March PWC-214 2009 FX35/FX50

FRONT PASSENGER SIDE POWER WINDOW DOES NOT OPERATE [FRONT WINDOW ANTI-PINCH]

< SYMPTOM DIAGNOSIS >

NO >> GO TO 1.

Α

В

С

D

Е

F

G

Н

J

PWC

L

M

Ν

0

Ρ

REAR LH SIDE POWER WINDOW ALONE DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

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

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure

INFOID:0000000003907665

1. CHECK REAR POWER WINDOW SWITCH

Check rear power window switch.

Refer to PWC-137, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED

WHEN REAR POWER WINDOW SWITCH LH IS OPERATED: Diagnosis Procedure

INFOID:0000000003907666

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

Check rear power window switch power supply and ground circuit.

Refer to PWC-135, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to PWC-228, "Removal and Installation".

>> INSPECTION END

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH LH ARE OPERATED: Diagnosis Procedure

1. CHECK REAR POWER WINDOW MOTOR LH

Check rear power window motor LH.

Refer to PWC-142, "REAR LH: Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE [FRONT WINDOW ANTI-PINCH] < SYMPTOM DIAGNOSIS > REAR RH SIDE POWER WINDOW ALONE DOES NOT OPERATE WHEN POWER WINDOW MAIN SWITCH IS OPERATED

WHEN POWER WINDOW MAIN SWITCH IS OPERATED: Diagnosis Procedure 1. CHECK REAR POWER WINDOW SWITCH Check rear power window switch. Refer to PWC-137, "Component Function Check". Is the inspection result normal? D YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. $2.\mathsf{confirm}$ the operation Е Confirm the operation again. Is the result normal? YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". F NO >> GO TO 1. WHEN REAR POWER WINDOW SWITCH RH IS OPERATED WHEN REAR POWER WINDOW SWITCH RH IS OPERATED: Diagnosis Procedure INFOID:0000000003907669 ${f 1}$.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT Н Check rear power window switch power supply and ground circuit. Refer to PWC-135, "REAR POWER WINDOW SWITCH: Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. 2.replace rear power window switch RH $\,$ Replace rear power window switch RH. Refer to PWC-228, "Removal and Installation".

>> INSPECTION END WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW

WHEN BOTH POWER WINDOW MAIN SWITCH AND REAR POWER WINDOW SWITCH RH ARE OPERATED: Diagnosis Procedure INFOID:0000000003907670

1. CHECK REAR POWER WINDOW MOTOR RH

Check rear power window motor RH. Refer to PWC-143, "REAR RH: Component Function Check".

Is the inspection result normal?

SWITCH RH ARE OPERATED

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1. **PWC**

M

Ν

Р

Α

ANTI-PINCH FUNCTION DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

ANTI-PINCH FUNCTION DOES NOT OPERATE

DRIVER SIDE

DRIVER SIDE: Diagnosis Procedure

INFOID:0000000003907671

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to <u>PWC-125</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL : Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2. CHECK ENCODER (DRIVER SIDE) CIRCUIT

Check encoder (driver side) circuit.

Refer to PWC-148, "DRIVER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000003907672

1.PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to <u>PWC-125</u>, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT

Check encoder (passenger side) circuit.

Refer to PWC-150, "PASSENGER SIDE: Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NORMAL- LY	
< SYMPTOM DIAGNOSIS > [FRONT WINDOW ANTI-PINCH]	
AUTO OPERATION DOES NOT OPERATE BUT MANUAL OPERATE NOR-MALLY	А
DRIVER SIDE	
DRIVER SIDE : Diagnosis Procedure	В
1.PERFORM INITIALIZATION PROCEDURE	С
Initialization procedure is executed and operation is confirmed. Refer to PWC-125 , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".	
Is the inspection result normal? YES >> INSPECTION END	D
NO >> GO TO 2. 2.CHECK ENCODER (DRIVER SIDE) CIRCUIT	Е
Check encoder (driver side) circuit. Refer to PWC-148, "DRIVER SIDE : Component Function Check".	F
Is the inspection result normal? YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	G
3.CONFIRM THE OPERATION	
Confirm the operation again. Is the result normal?	Н
YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident". NO >> GO TO 1. PASSENGER SIDE	I
PASSENGER SIDE : Diagnosis Procedure	J
1.PERFORM INITIALIZAITON PROCEDURE	
Initialization procedure is executed and operation is confirmed. Refer to PWC-125 , "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Requirement"	PWC
Repair Requirement". Is the inspection result normal? YES >> INSPECTION END NO >> GO TO 2.	L
2. CHECK ENCODER (PASSENGER SIDE) CIRCUIT Check encoder (passenger side) circuit	M

Refer to PWC-125, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special	P۷
Repair Requirement". Is the inspection result normal?	
YES >> INSPECTION END	L
NO >> GO TO 2.	
2.CHECK ENCODER (PASSENGER SIDE) CIRCUIT	M
Check encoder (passenger side) circuit. Refer to PMC-150 , "PASSENGER SIDE : Component Function Check".	
Is the inspection result normal?	Ν
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	
3. CONFIRM THE OPERATION	0
Confirm the operation again.	

Ρ

PWC-219 Revision: 2009 March 2009 FX35/FX50

YES >> Check intermittent incident. Refer to GI-35. "Intermittent Incident".

Is the result normal?

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW RETAINED POWER OPERATION DOES NOT OPERATE PROPERLY

Diagnosis Procedure

INFOID:0000000003907675

1. CHECK DOOR SWITCH

Check door switch.

Refer to PWC-146, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35. "Intermittent Incident".

POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLIN-DER OPERATION

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW DOWN FUNCTION DOES NOT OPERATE WITH KEY CYLINDER OPERATION

Diagnosis Procedure

INFOID:0000000004172902

Α

В

D

Е

F

Н

1. PERFORM INITIALIZATION PROCEDURE

Initialization procedure is executed and operation is confirmed.

Refer to PWC-125, "ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL: Special Repair Requirement".

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

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

Check driver side door lock assembly (key cylinder switch).

Refer to PWC-153, "Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

NO >> GO TO 1.

PWC

M

Ν

Р

Revision: 2009 March PWC-221 2009 FX35/FX50

POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERATING WITH INTELLIGENT KEY

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW DOWN FUNCTION DOES NOT WORK WHEN OPERAT-ING WITH INTELLIGENT KEY

Description INFOID:000000000391062

NOTE:

Before performing the diagnosis in the following procedure, check "Work Flow". Refer to GI-31, "Work Flow".

Diagnosis Procedure

INFOID:0000000003910622

1. CHECK REMOTE KEYLESS ENTRY FUNCTION

Check remote keyless entry function.

Does door lock/unlock with Intelligent key button?

YES >> GO TO 2.

NO >> Go toDLK-99, "Description"

2.CHECK POWER WINDOW OPERATION

Check power window operation.

Does power window up/down with power window main switch?

YES >> GO TO 3.

NO >> Go to PWC-133, "POWER WINDOW MAIN SWITCH: Diagnosis Procedure".

3.CHECK "PW DOWN SET" SETTING IN "WORK SUPPORT"

Check "PW DOWN SET" setting in "WORK SUPPORT".

Refer to DLK-54, "INTELLIGENT KEY: CONSULT-III Function (BCM - INTELLIGENT KEY)".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Set "PW DOWN SET" setting in "WORK SUPPORT".

4.CONFIRM THE OPERATION

Confirm the operation again.

Is the result normal?

YES >> Check intermittent incident. Refer to GI-35, "Intermittent Incident".

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW LOCK SWITCH DOES NOT FUNCTION Diagnosis Procedure

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch. Refer to PWC-226, "Removal and Installation".

>> INSPECTION END

PWC

J

Α

В

C

D

Е

F

Н

INFOID:0000000003907677

M

Ν

0

Р

POWER WINDOW SWITCH DOES NOT ILLUMINATE

< SYMPTOM DIAGNOSIS >

[FRONT WINDOW ANTI-PINCH]

POWER WINDOW SWITCH DOES NOT ILLUMINATE

DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure

INFOID:0000000003907678

1. REPLACE POWER WINDOW MAIN SWITCH

Replace power window main switch.

Refer to PWC-226, "Removal and Installation".

>> INSPECTION END

PASSENGER SIDE

PASSENGER SIDE: Diagnosis Procedure

INFOID:0000000003907679

1. REPLACE FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Replace front power window switch (passenger side).

Refer to PWC-227, "Removal and Installation".

>> INSPECTION END

REAR LH

REAR LH: Diagnosis Procedure

INFOID:0000000003907680

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

Check rear power window switch power supply and ground circuit.

Refer to PWC-135, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2.REPLACE REAR POWER WINDOW SWITCH LH

Replace rear power window switch LH.

Refer to PWC-228, "Removal and Installation".

>> INSPECTION END

REAR RH

REAR RH: Diagnosis Procedure

INFOID:0000000003907681

${f 1}$.CHECK REAR POWER WINDOW SWITCH POWER SUPPLY AND GROUND CIRCUIT

Check rear power window switch power supply and ground circuit.

Refer to PWC-135, "REAR POWER WINDOW SWITCH: Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace harness.

2 REPLACE REAR POWER WINDOW SWITCH RH

Replace rear power window switch RH.

Refer to PWC-228, "Removal and Installation".

>> INSPECTRION END

PRECAUTIONS

< PRECAUTION >

[FRONT WINDOW ANTI-PINCH]

PRECAUTION

PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIR BAG".
- 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PWC

Α

В

D

Е

Н

N

0

Р

Revision: 2009 March PWC-225 2009 FX35/FX50

POWER WINDOW MAIN SWITCH

< REMOVAL AND INSTALLATION >

[FRONT WINDOW ANTI-PINCH]

REMOVAL AND INSTALLATION

POWER WINDOW MAIN SWITCH

Removal and Installation

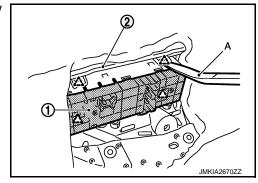
INFOID:0000000003910530

REMOVAL

- Remove the front door finisher.
 Refer to <u>INT-11</u>, "<u>Exploded View</u>" and <u>INT-11</u>, "<u>Removal and Installation</u>".
- Power window main switch (1) is removed from power window main switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of front door finisher.



INSTALLATION

Install in the reverse order of removal.

NOTE:

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

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

< REMOVAL AND INSTALLATION >

[FRONT WINDOW ANTI-PINCH]

FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

Removal and Installation

INFOID:0000000003910531

Α

В

C

D

Е

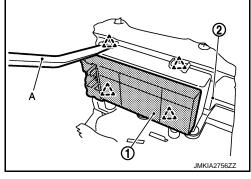
Н

REMOVAL

- Remove the front door finisher.
 Refer to <u>INT-11</u>, "Exploded View" and <u>INT-11</u>, "Removal and Installation".
- 2. Front power window switch (passenger side) (1) is removed from front power window switch finisher (2) using flat-bladed screw driver (A) etc.

CAUTION:

Never fold pawl of front door finisher.



INSTALLATION

Install in the reverse order of removal.

NOTE:

If front power window switch (passenger side) is replaced or is removed, it is necessary to perform the initialization procedure.

PWC

N /I

Ν

0

Р

REAR POWER WINDOW SWITCH

< REMOVAL AND INSTALLATION >

[FRONT WINDOW ANTI-PINCH]

REAR POWER WINDOW SWITCH

Removal and Installation

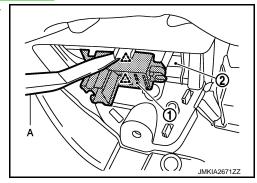
INFOID:0000000003910533

REMOVAL

- Remove the rear door finisher.
 Refer to <u>INT-14, "Exploded View"</u> and <u>INT-14, "Removal and Installation"</u>.
- 2. Rear power window switch (1) is removed from rear power window switch finisher (2) using flat-head screw driver (A) etc.

CAUTION:

Never fold pawl of rear door finisher.



INSTALLATION

Install in the reverse order of removal.