SECTION GW

GLASSES, WINDOW SYSTEM & MIRRORS

CONTENTS

PRECAUTIONS

PFP:00001

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

BIS000MM

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

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

Maintenance Information

BIS0016I

If any of following part is replaced, always replace with new* one.
If it's not (or fail to do so), the electrical system may not be operated properly.
*: New one means a virgin control unit that has never been energized on-board.

RHD MODELS

- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM
- IPDM E/R
- Combination meter
- EPS control unit

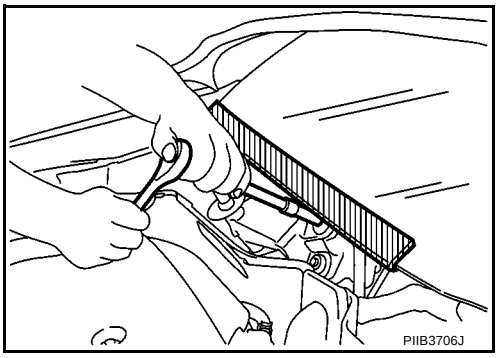
LHD MODELS

- BCM (Models without Intelligent Key system)
- Intelligent Key unit (Models with Intelligent Key system)
- ECM

Precautions for Procedures without Cowl Top Cover

BIS000MN

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc.



Precautions

BIS000MO

- When removing or disassembling any part, be careful not to damage or deform it. Protect parts, which may get in the way with cloth.
- When removing parts with a screwdriver or other tool, protect parts by wrapping them with vinyl or tape.
- Keep removed parts protected with cloth.
- If a clip is deformed or damaged, replace it.

- If an unreusable part is removed, replace it with a new one.
- Tighten bolts and nuts firmly to the specified torque.
- After re-assembly has been completed, make sure each part functions correctly.
- Remove stains in the following way.

Water-soluble stains:
Dip a soft cloth in warm water, and then squeeze it tightly. After wiping the stain, wipe with a soft dry cloth.
Oil stain:
Dissolve a synthetic detergent in warm water (density of 2 to 3% or less), dip the cloth, then clean off the stain with the cloth. Next, dip the cloth in fresh water and squeeze it tightly. Then clean off the detergent completely. Then wipe the area with a soft dry cloth.

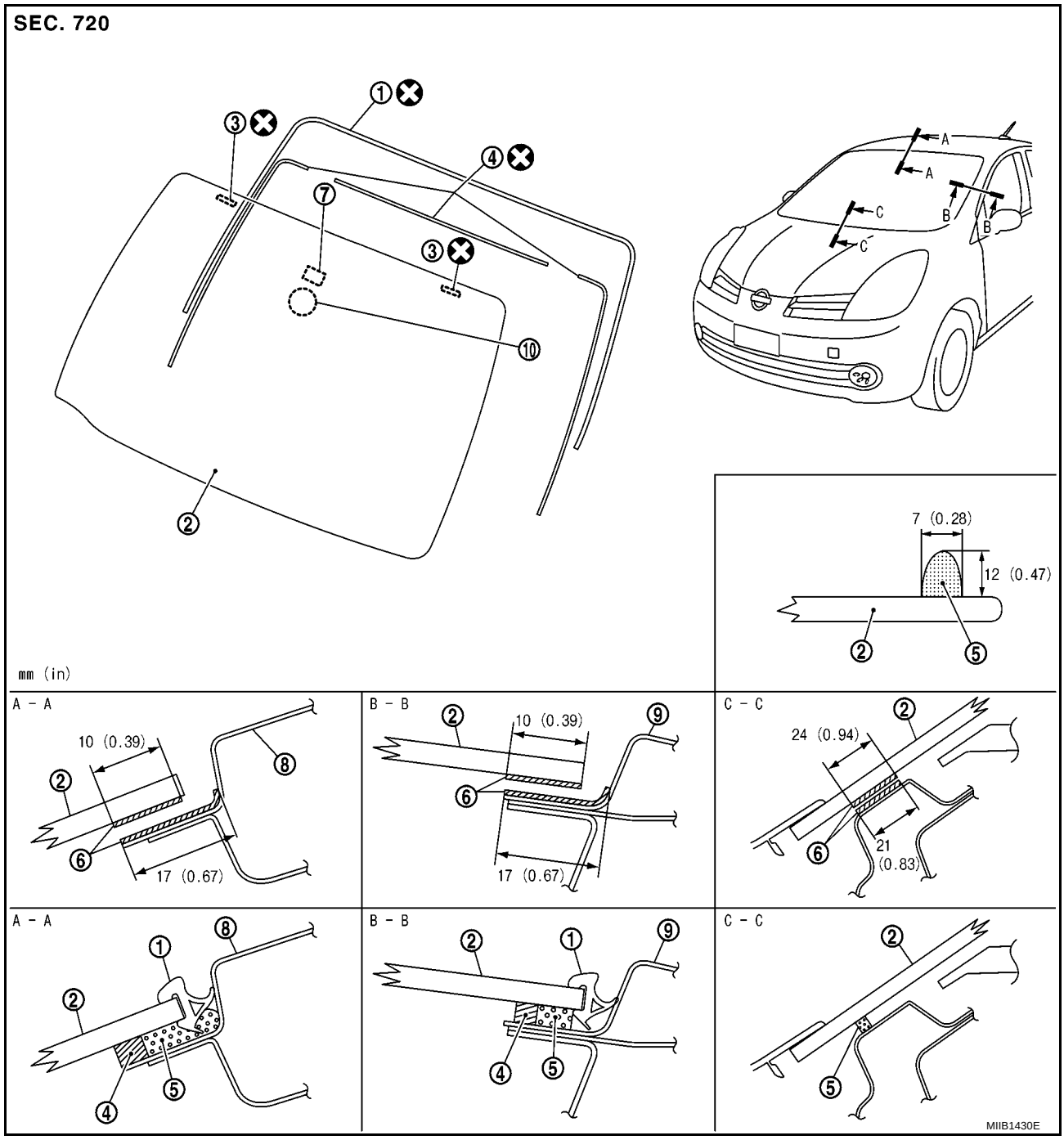
- Do not use any organic solvent, such as thinner or benzine.

WINDSHIELD GLASS

PFP:72712

Removal and Installation

BIS000MP



1. Windshield molding
2. Windshield glass
3. Clip
4. Dam sealant
5. Sealant
6. Primer
7. Mirror base
8. Roof side outer panel
9. Body side outer panel
10. Rain sensor base

REMOVAL

1. Remove inside mirror. Refer to GW-104, "INSIDE MIRROR"
2. Remove front pillar garnish. Refer to EI-26, "BODY SIDE TRIM"
3. Remove headlining. Refer to EI-30, "HEADLINER" .
4. Remove front wiper arm. Refer to WW-42, "Removal and Installation of Front Wiper Arms, Adjustment of Wiper Arms Stop Location"

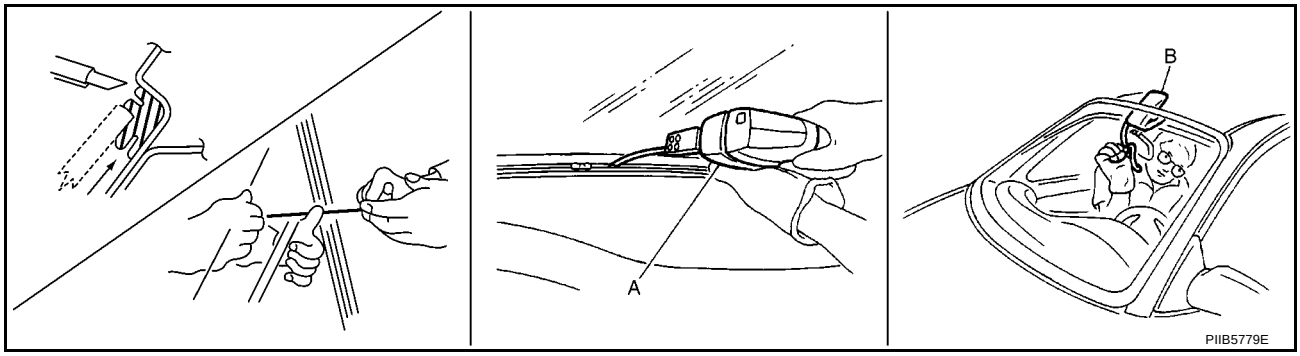
5. Remove cowl top cover. Refer to EI-12, "COWL TOP" .

6. Apply a protective tape around the windshield glass to protect the painted surface from damage.
7. Remove glass using piano wire or power cutting tool A and an inflatable pump bag B.

NOTE:
If a windshield glass will be reused, mark the body and the glass with mating marks.

WARNING:
When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

CAUTION:
- **When a windshield glass is reused, do not use a cutting knife or power cutting tool.**
- **Be careful not to scratch the glass when removing.**
- **Do not set or stand the glass on its edge. Small chips may develop into cracks.**



8. Remove the windshield glass, using suction lifter.

INSTALLATION

- The dam rubber should be installed in position.
- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger compartment air pressure when a door is closed.
- The fastener and the molding must be installed securely so that it is in position and leaves no gap. Install the moldings in order of lower to upper corner, connect joint, and then corner to center.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

WARNING:
- **Keep heat and open flames away as primers and adhesive are flammable.**
- **The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.**
- **Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.**
- **Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the windshield in case of an accident.**

CAUTION:
- **Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.**
- **Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.**
- **Do not leave primers or adhesive cartridge unattended with their caps open or off.**
- **The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperature and lower humidity.**

Repairing Water Leaks

Leaks can be repaired without removing and reinstalling glass.

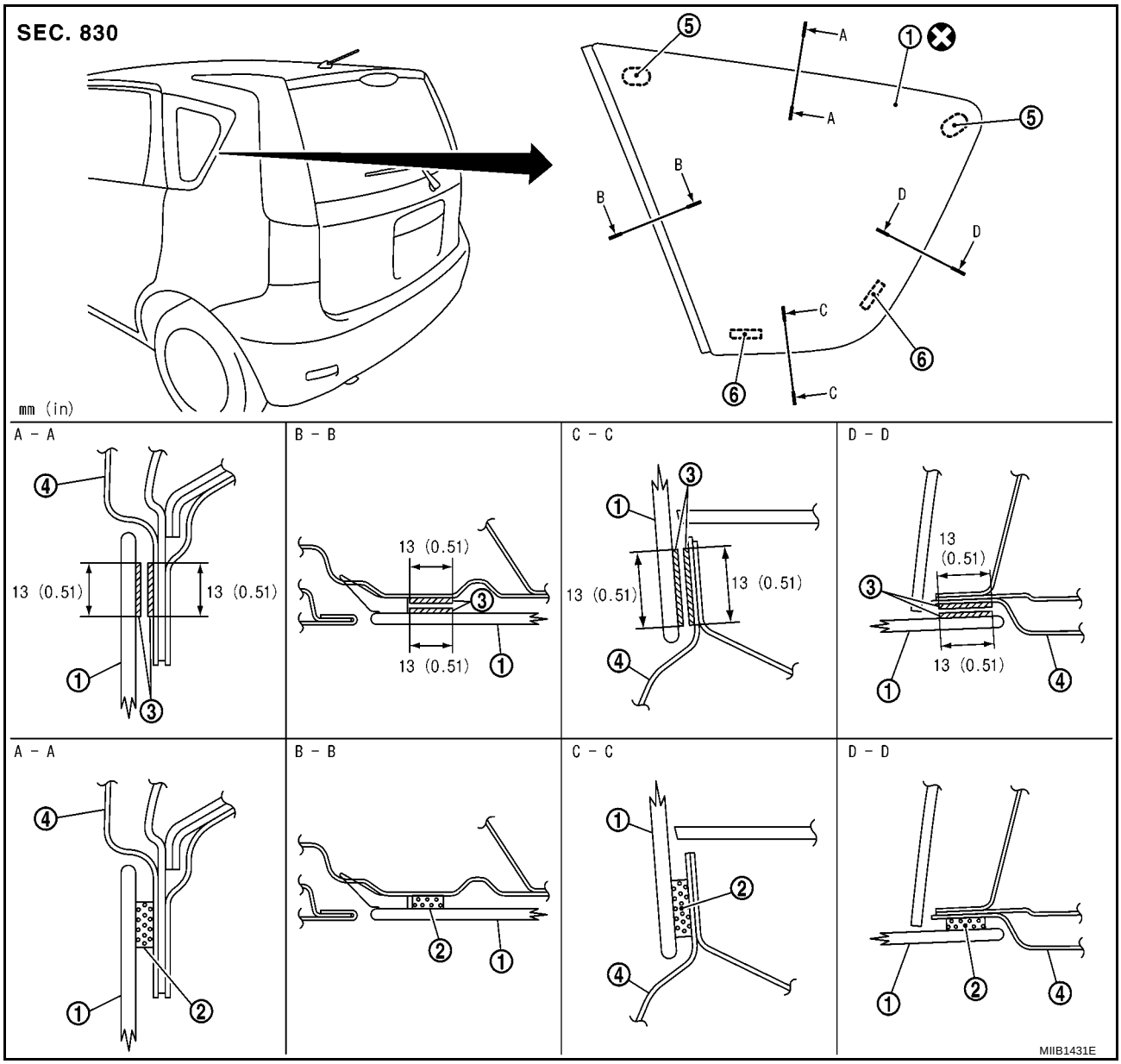
If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage.
This can be done by applying water to the windshield area while pushing glass outward.
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

SIDE WINDOW GLASS

PFP:83300

Removal and Installation

BIS000MQ



1. Side window glass
2. Sealant
3. Primer
4. Body side outer panel
5. Spacer
6. Clip

REMOVAL

1. Remove rear pillar finisher. Refer to EI-26, "BODY SIDE TRIM"
2. Apply a protective tape around the side window glass to protect the painted surface from damage.

Remove side window glass using piano wire or power cutting tool and an inflatable pump bag.

WARNING:

When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

CAUTION:

- **Be careful not to scratch the glass when removing.**
- **Do not set or stand the glass on its edge. Small chips may develop into cracks.**

INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.

- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger room air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

WARNING:

- **Keep heat and open flames away as primers and adhesive are flammable.**
- **The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.**
- **Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.**
- **Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the side window in case of an accident.**

CAUTION:

- **Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.**
- **Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.**
- **Do not leave primers or adhesive cartridge unattended with their caps open or off.**
- **The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidities. The curing time will increase under lower temperature and lower humidity.**

Repairing Water Leaks

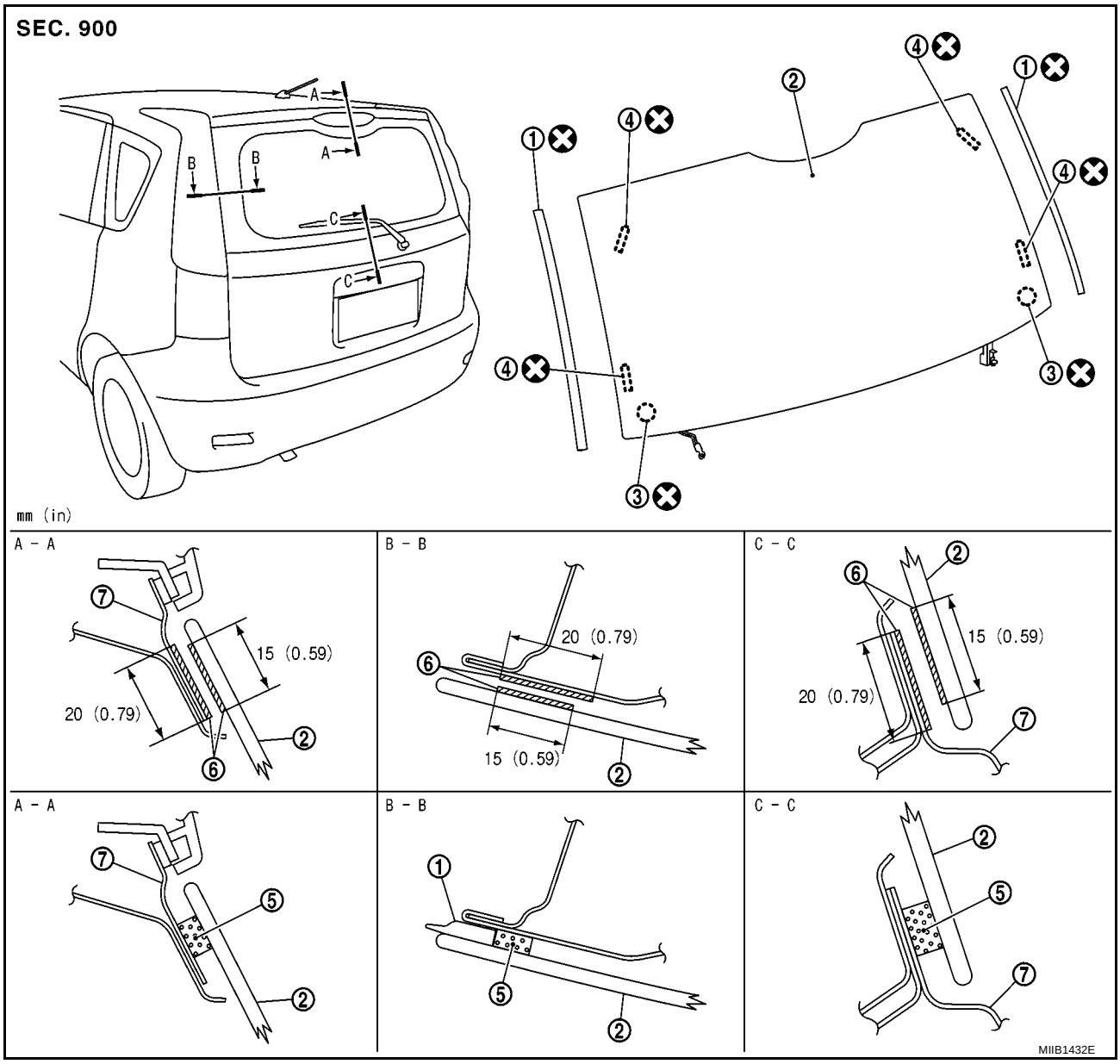
Leaks can be repaired without removing and reinstalling glass.
If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage. This can be done by applying water to the side window area while pushing glass outward.
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

BACK DOOR WINDOW GLASS

PFP:90300

Removal and Installation

BIS000MR

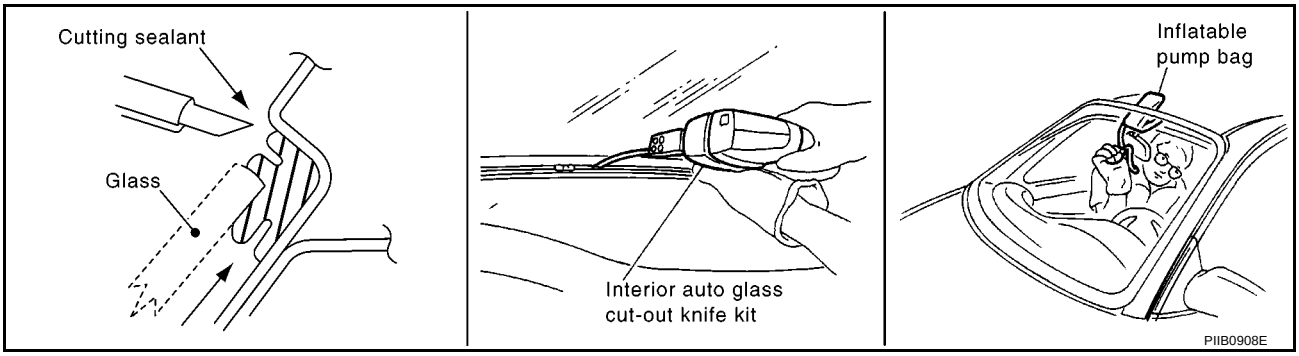


1. Back door window molding
2. Back door window glass
3. Clip
4. Spacer
5. Sealant
6. Primer
7. Back door outer panel

REMOVAL

1. Remove back door finisher inner. Refer to EI-22, "BACK DOOR TRIM" .
2. Remove rear wiper arm. Refer to WW-69, "Removal and Installation of Rear Wiper Arm, Adjustment of Wiper Arm Stop Location"
3. Apply protective tape around windshield glass to protect the painted surface from damage.

4. After removing molding, remove glass using cutting knife or power cutting tool and an inflatable pump bag.



NOTE:
If a back door window glass is to be reused, mark the body and the glass with mating marks.

WARNING:
When cutting the glass from the vehicle, always wear safety glasses and heavy gloves to help prevent glass splinters from entering your eyes or cutting your hands.

CAUTION:
- **When a rear window glass is reused, do not use a cutting knife or power cutting tool.**
- **Be careful not to scratch the glass when removing.**
- **Do not set or stand the glass on its edge. Small chips may develop into cracks.**

5. Remove the back door window glass, using suction liter.

INSTALLATION

- Use a genuine Nissan Urethane Adhesive Kit (if available) or equivalent and follow the instructions furnished with it.
- While the urethane adhesive is curing, open a door window. This will prevent the glass from being forced out by passenger room air pressure when a door is closed.
- The molding must be installed securely so that it is in position and leaves no gap.
- Inform the customer that the vehicle should remain stationary until the urethane adhesive has completely cured (preferably 24 hours). Curing time varies with temperature and humidity.

WARNING:
- **Keep heat and open flames away as primers and adhesive are flammable.**
- **The materials contained in the kit are harmful if swallowed, and may irritate skin and eyes. Avoid contact with the skin and eyes.**
- **Use in an open, well ventilated location. Avoid breathing the vapors. They can be harmful if inhaled. If affected by vapor inhalation, immediately move to an area with fresh air.**
- **Driving the vehicle before the urethane adhesive has completely cured may affect the performance of the back door window glass in case of an accident.**

CAUTION:
- **Do not use an adhesive which is past its usable term. Shelf life of this product is limited to six months after the date of manufacture. Carefully adhere to the expiration or manufacture date printed on the box.**
- **Keep primers and adhesive in a cool, dry place. Ideally, they should be stored in a refrigerator.**
- **Do not leave primers or adhesive cartridge unattended with their caps open or off.**
- **The vehicle should not be driven for at least 24 hours or until the urethane adhesive has completely cured. Curing time varies depending on temperature and humidity. The curing time will increase under lower temperature and lower humidity.**

Repairing Water Leaks

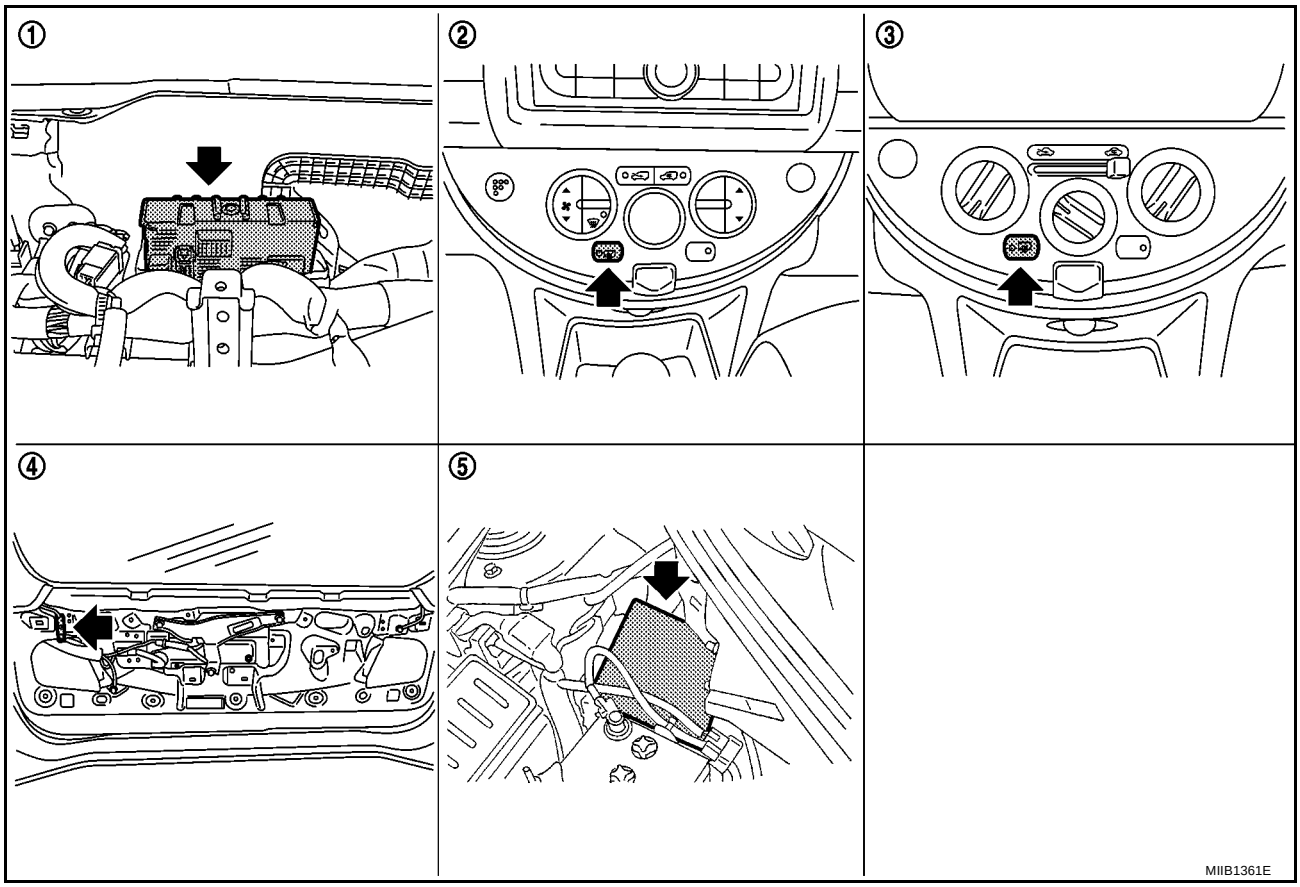
Leaks can be repaired without removing and reinstalling glass.
If water is leaking between the urethane adhesive material and body or glass, determine the extent of leakage. This can be done by applying water to the side window area while pushing glass outward.
To stop the leak, apply primer (if necessary) and then urethane adhesive to the leak point.

REAR WINDOW DEFOGGER

PFP:25350

Component Parts and Harness Connector Location

BIS000MS



1. BCM (Body Control Module) M57, M59
2. Rear Window defogger switch (Built in A/C auto amp.) M64, M65 (With auto A/C models)
3. Rear Window defogger switch (Built in heater control panel) M62 (Without auto A/C models)
4. Rear window defogger connector B49
5. IPDM E/R E11,E12

System Description

BIS000MT

The rear window defogger system is controlled by BCM (Body Control Module) and IPDM E/R (Intelligent Power Distribution Module Engine Room).
The rear window defogger operates only for approximately 15 minutes.
Power is at all times supplied

- through 15A fuse [No. 55, and 56, located in the IPDM E/R]
- to rear window defogger relay
- through 20A fuse [No. 61 (with gasoline engine) and 62, located in the fuse block (J/B)]
- to IPDM E/R
- through 40A fusible link [letter **J** , located in the fuse block (J/B)]
- to BCM terminal 74 and 79
- through 10A fuse [No. 7, located in the fuse block (J/B)]
- to A/C auto amp terminal 1.

With the ignition switch turned to ON or START position,
Power is supplied

- through 10A fuse [No. 5, located in the fuse block (J/B)]
- to BCM terminal 24
- to A/C auto amp terminal 17.

Ground is supplied

- to BCM terminal 2 and 70
- through body grounds M21, and M66.
- to A/C auto amp terminal 10 (with auto A/C)
- to heater control panel terminal 8 (without auto A/C)
- through body grounds M21 and M66.
- to internal CPU of IPDM E/R terminal 3 and 54
- through body grounds E28 and E44.

When rear window defogger switch is turned to ON,
Ground is supplied

- to BCM terminal 4
- through A/C auto amp terminal 14 (with auto A/C)
- through heater control panel terminal 3 (without auto A/C)
- through A/C auto amp terminal 10 (with auto A/C)
- through heater control panel terminal 8 (without auto A/C)
- through body grounds M21 and M66.

Then rear window defogger switch is illuminated.
Then BCM recognizes that rear window defogger switch is turned to ON.
Then it sends rear window defogger switch signals to IPDM E/R via DATA LINE (CAN-H, CAN-L).
When IPDM receives rear window defogger switch signals,
Ground is supplied

- to rear window defogger relay terminal
- through internal CPU of IPDM E/R terminal
- through internal CPU of IPDM E/R and IPDM E/R terminal 54
- through body grounds E28 and E44.

and then rear window defogger relay is energized.
When rear window defogger relay is turned ON,
Power is supplied,

- through rear window defogger relay terminals
- through IPDM E/R terminal 8
- to rear window defogger terminal 1.

Rear window defogger is grounded.
With power and ground supplied, rear window defogger filaments heat and defog the rear window.
When rear window defogger relay is turned to ON,
Power is supplied (with mirror defogger)

- through rear window defogger relay terminal
- through IPDM E/R terminal 8
- through 10A fuse [No. 2, located in the fuse block (J/B)]
- to door mirror defogger (Driver side and passenger side) terminal 2.

Door mirror defogger (Driver side and passenger side) terminal 3 is grounded through body grounds M21 and M66.
With power and ground supplied, door mirror defogger filaments heat and defog the mirror.

CAN Communication

BIS000MU

SYSTEM DESCRIPTION

CAN (Controller Area Network) is a serial communication line for real time application. It is an on-vehicle multiplex communication line with high data communication speed and excellent error detection ability. Many electronic control units are equipped onto a vehicle, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, control units are connected with 2 communication lines (CAN H line, CAN L line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

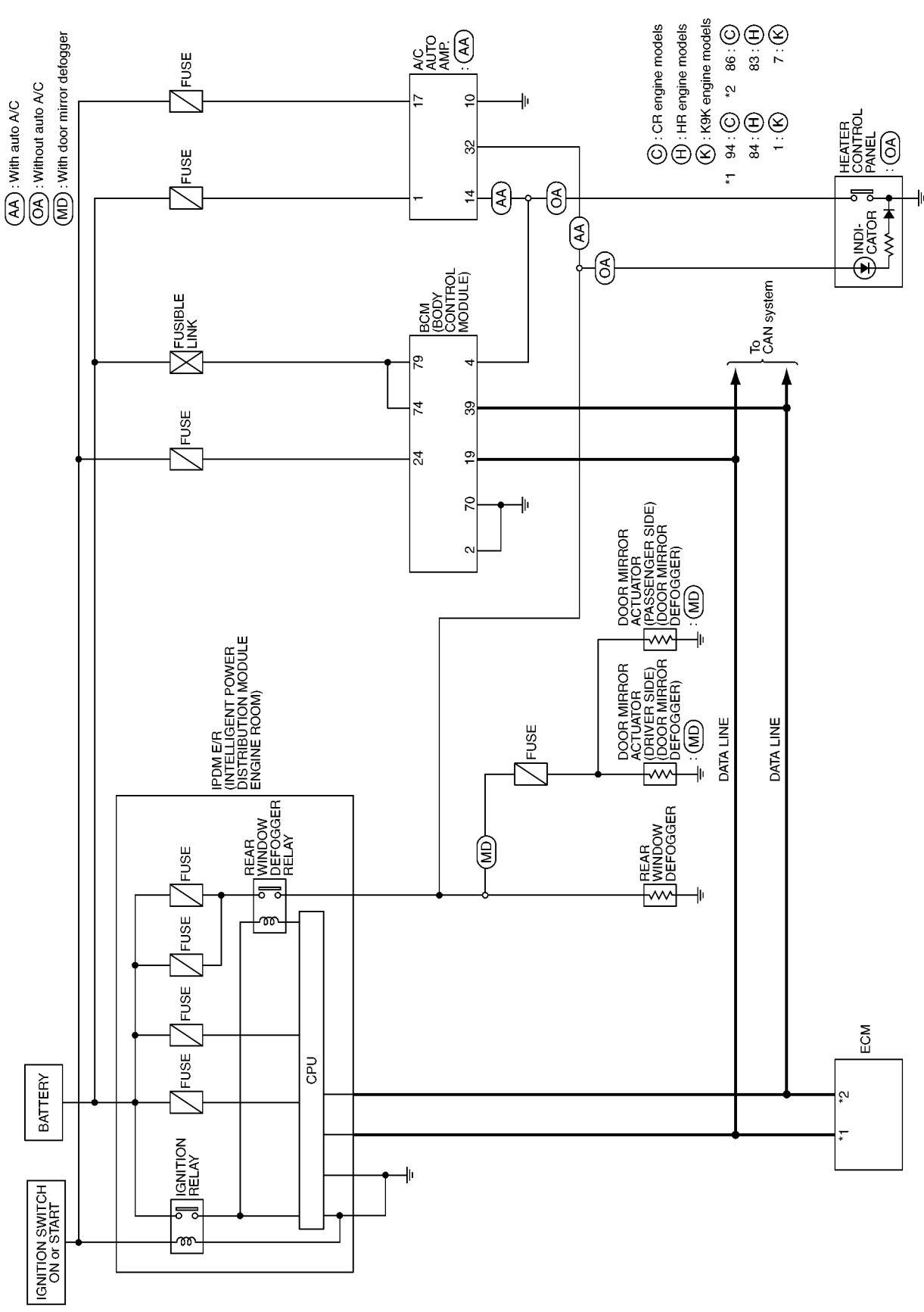
CAN Communication Unit

BIS000MV

Refer to LAN-27, "CAN Communication Unit" .

Schematic

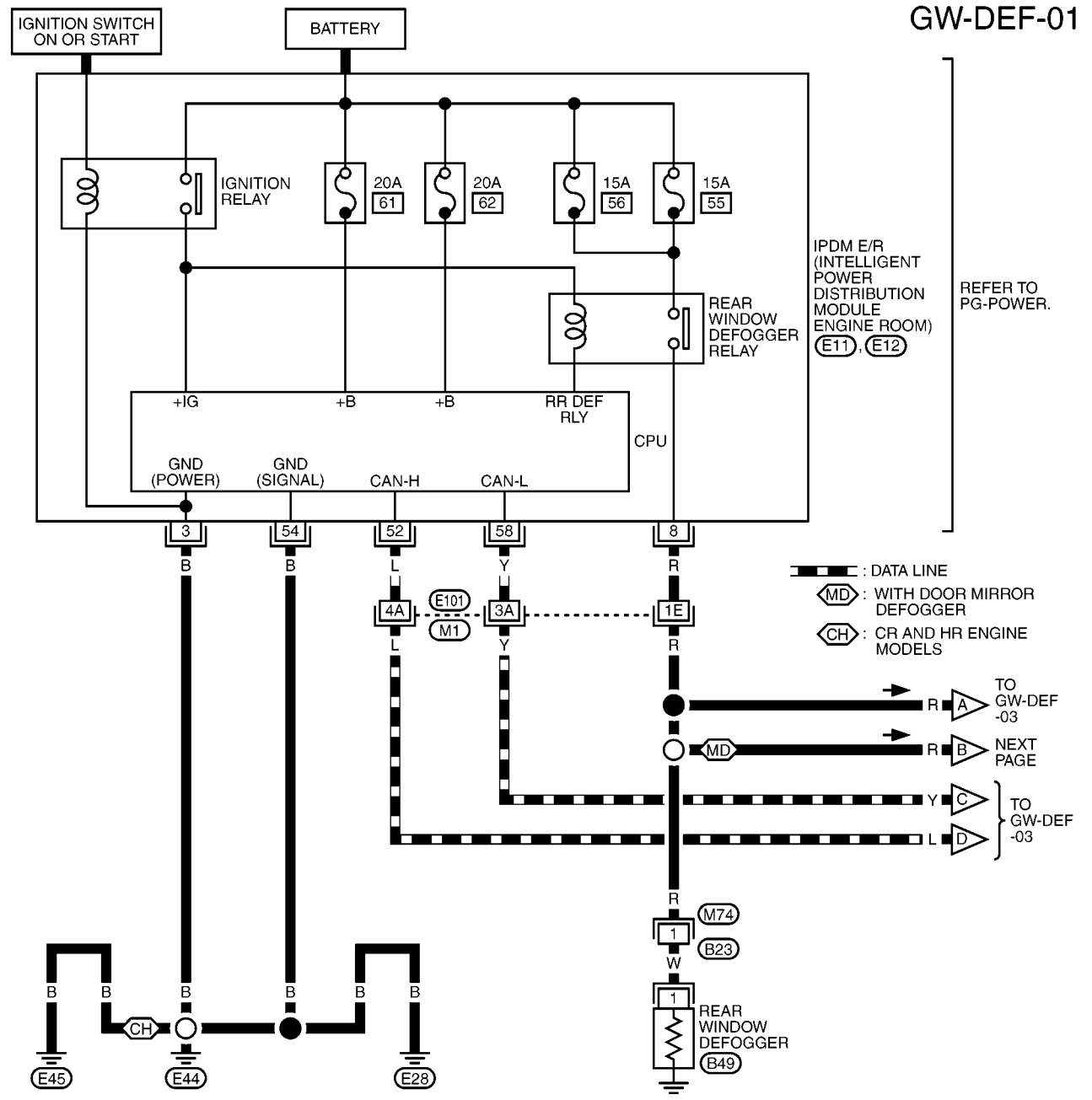
BIS000MW

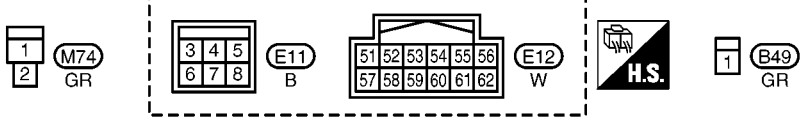


MIWA0670E

Wiring Diagram — DEF —

BIS000MX

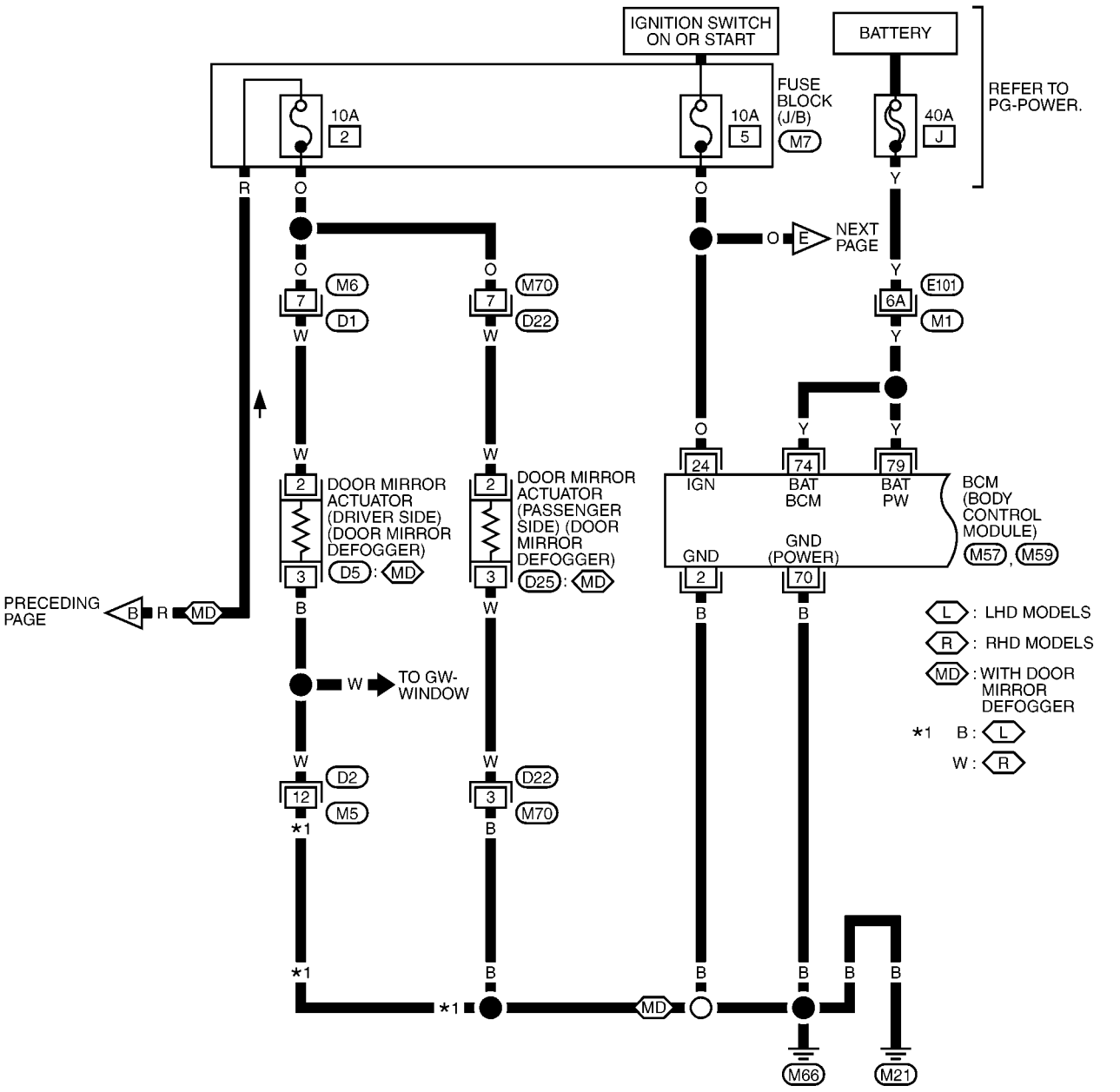


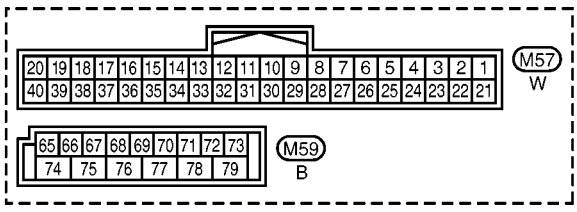


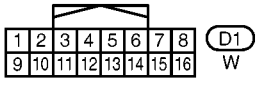
REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)

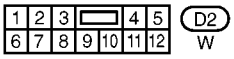
MIWA0671E

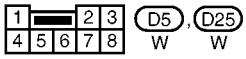
GW-DEF-02

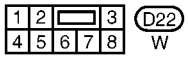








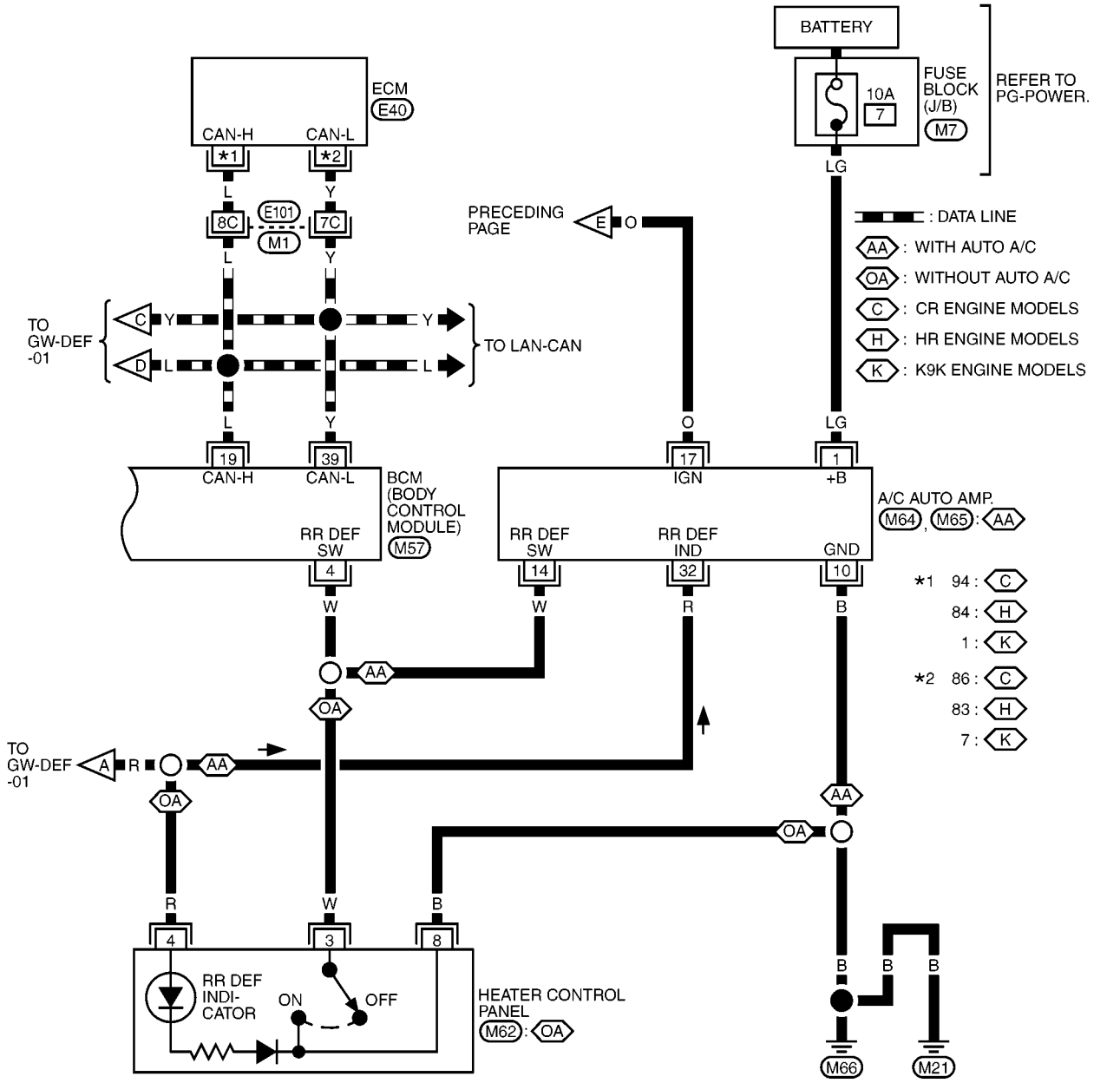


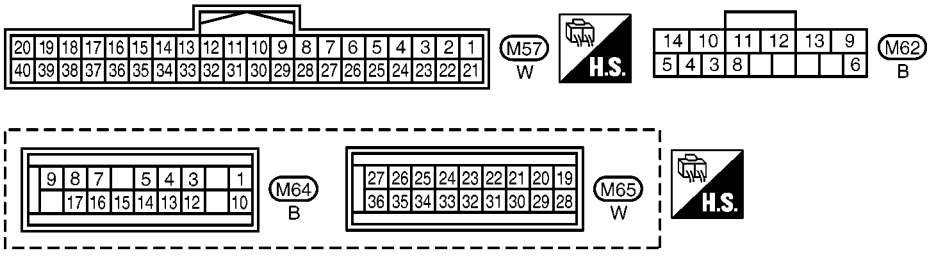


REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

MIWA0672E

GW-DEF-03





REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)
M7 - FUSE BLOCK - JUNCTION BOX (J/B)
E40 - ELECTRICAL UNITS

MIWA0673E

Terminal and Reference Value for BCM

BIS000MY

Terminal	Wire color	Item	Signal Input/ Output	Condition	Voltage (V) (Approx.)
2	B	Ground	—	—	0
4	W	Rear window defogger switch signal	Input	When rear window defogger switch is pressed.	0
				When rear window defogger switch is OFF.	5
19	L	CAN- H	Input/ Output	—	—
24	O	Ignition switch ON or START	Input	Ignition switch (ON or START position)	Battery voltage
39	Y	CAN- L	Input/ Output	—	—
70	B	Ground	—	—	0
74	Y	BAT power supply	Input	—	Battery voltage
79	Y	BAT power supply	Input	—	Battery voltage

Terminal and Reference Value for IPDM E/R

BIS000MZ

Terminal	Wire color	Item	Signal Input/ Output	Condition	Voltage (V) (Approx.)
3	B	Ground (Power)	—	—	0
8	R	Rear window defogger relay output signal	Output	When rear window defogger switch is ON.	Battery voltage
				When rear window defogger switch is OFF.	0
52	L	CAN- H	Input/ Output	—	—
54	B	Ground (Signal)	—	—	0
58	Y	CAN- L	Input/ Output	—	—

Work Flow

BIS000N0

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to GW-12, "System Description" .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to GW-20, "Trouble Diagnoses Symptom Chart" .
4. Does rear window defogger operate normally? YES: GO TO 5, NO: GO TO 3.
5. INSPECTION END.

CONSULT-II Inspection Procedure

BIS000N1

Inspection Item, Diagnosis Mode	Description
DATA MONITOR	The input/output data of the BCM is displayed in real time.
ACTIVE TEST	The BCM sends a drive signal to electronic components to check their operation.

Refer to GI-36, "CONSULT-II Start Procedure" .

DATA MONITOR

Display Item List

Monitor item “Operation”		Content
REAR DEF SW	“ON / OFF”	Displays “Press (ON) / others (OFF)” status determined with the rear window defogger switch.

Monitor item “Operation”		Content
IGN ON SW	“ON / OFF”	Displays “IGN SW ON (ON) / OFF (OFF)” status determined with the ignition switch signal.
ENGINE STATUS	“STOP / STALL / RUN / CRA ”	Displays “Engine stop (STOP) / engine stall (STALL) / engine running (RUN) / engine cranking (CRA) ” as judged from engine status.

ACTIVE TEST

Display Item List

Test item	Content
REAR DEFOGGER	Gives a drive signal to the rear window defogger to activate it.

Trouble Diagnoses Symptom Chart

BIS000N2

- Check that other systems using the signal of the following systems operate normally.

Symptom	Diagnoses / service procedure	Refer to page
Rear window defogger and door mirror defogger do not operate. (With door mirror defogger)	1. Check BCM power supply and ground circuit.	GW-21
	2. Check IPDM E/R auto active test.	PG-22
	3. Check rear window defogger switch circuit (with auto A/C).	GW-22
	3. Check rear window defogger switch circuit (without auto A/C).	GW-23
	4. Check rear window defogger power supply circuit.	GW-25
	5. Replace IPDM E/ R.	PG-37
Rear window defogger does not operated. (without door mirror defogger)	1. Check BCM power supply and ground circuit.	GW-21
	2. Check IPDM E/R auto active test.	PG-22
	3. Check rear window defogger switch circuit (with auto A/C).	GW-22
	3. Check rear window defogger switch circuit (without auto A/C).	GW-23
	4. Check rear window defogger power supply circuit.	GW-25
	5. Check rear window defogger circuit.	GW-26
	6. Check filament.	GW-30
	7. Replace IPDM E/ R.	PG-37
Rear window defogger does not operate but both of door mirror defoggers operate. (With door mirror defogger)	1. Check rear window defogger circuit.	GW-26
	2. Check filament.	GW-30
Both of door mirror defoggers do not operated but rear window defogger operate. (With door mirror defogger)	1. Check door mirror defogger power supply circuit.	GW-27
Driver side door mirror defogger does not operated. (With door mirror defogger)	1. Check driver side door mirror defogger circuit.	GW-28
Passenger side door mirror defogger does not operated. (With door mirror defogger)	1. Check passenger side door mirror defogger circuit.	GW-29

Check BCM Power Supply and Ground Circuit

BIS000N3

First perform the “SELF-DIAG RESULTS” in “BCM” with CONSULT-II, then perform the each trouble diagnosis of malfunction system indicated “SELF-DIAG RESULTS” of “BCM”, Refer to BCS-9, "CONSULT-II Function (BCM)" .

1. FUSE INSPECTION

- Check 10A fuse [No. 5, located in fuse block (J/B)]
- Check 40A fusible link (letter **J** located in the fuse and fusible link box).

NOTE:
Refer to GW-12, "Component Parts and Harness Connector Location" .

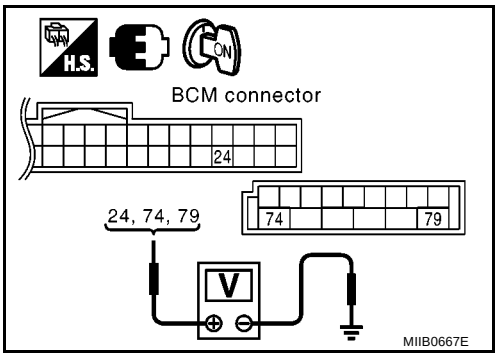
OK or NG

OK >> GO TO 2.
NG >> If fuse is blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M57, M59 terminal 24, 74, 79 and ground.

24 – Ground :Battery voltage.
74 – Ground :Battery voltage.
79 – Ground :Battery voltage.



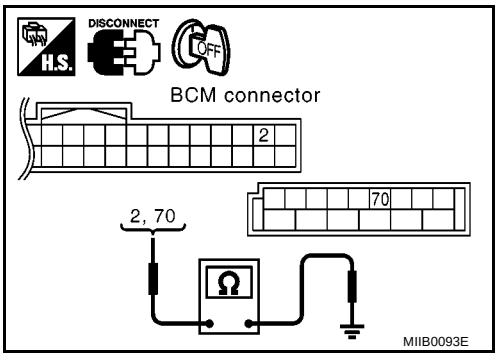
OK or NG

OK >> GO TO 3.
NG >> Check BCM power supply circuit for open or short.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector M57, M59 terminal 2, 70 and ground.

2 – Ground :Continuity should exist.
70 – Ground :Continuity should exist.



OK or NG

OK >> Power supply and ground circuit is OK.
NG >> Check BCM ground circuit for open or short.

Check Rear Window Defogger Switch Circuit / With Auto A/C

BIS000N4

1. CHECK REAR WINDOW DEFOGGER SWITCH OPERATION

With CONSULT-II

Check (“REAR DEF SW”, “IGN ON SW”) in DATA MONITOR mode with CONSULT-II. Refer to GW-19 .

When engine is running

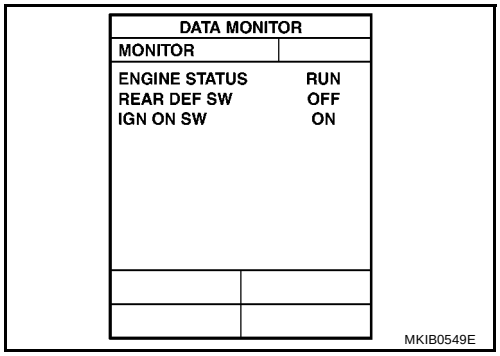
ENGINE STATUS :RUN

When rear defogger switch is turned to ON

REAR DEF SW :ON

When ignition switch is turned to ON

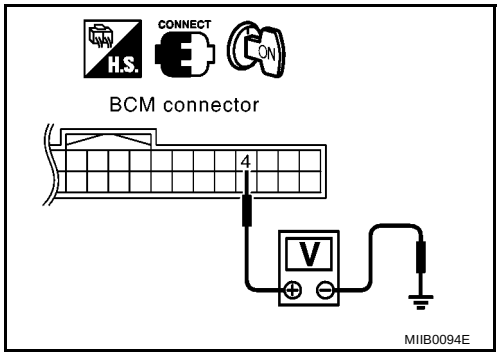
IGN ON SW :ON



Without CONSULT-II

1. Turn ignition switch ON.
2. Check voltage between BCM connector ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
M57	4	Ground	Rear window defogger switch is pressed.	0
			Rear window defogger switch is OFF.	5



OK or NG

OK >> Rear window defogger switch check is OK.
NG >> GO TO 2.

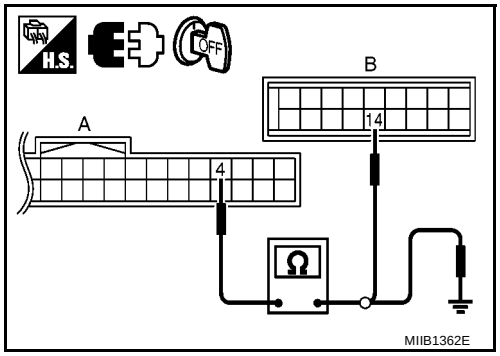
2. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and A/C auto amp connector.
3. Check continuity between BCM connector and A/C auto amp connector.

A		B		Continuity
BCM connector	Terminal	A/C auto amp connector	Terminal	
M57	4	M64	14	Yes

4. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M57	4		No



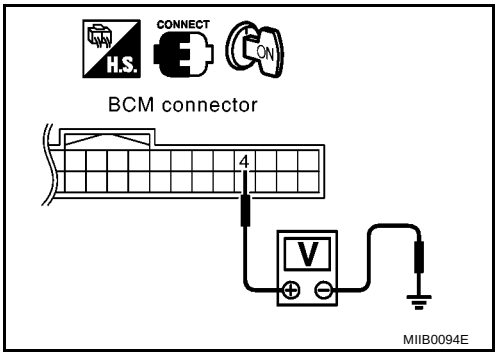
OK or NG

OK >> GO TO 3.
NG >> Repair or replace harness between BCM and A/C auto amp.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M57 terminal 4 and ground.

4 – Ground :Approx. 5



OK or NG

OK >> Replace rear window defogger switch. Refer to ATC-112, "Removal and Installation of Controller"

NG >> Replace BCM.

Check Rear Window Defogger Switch Circuit / Without Auto A/C

BIS000N5

1. CHECK REAR WINDOW DEFOGGER SWITCH OPERATION

With CONSULT-II

Check (“REAR DEF SW”, “IGN ON SW”) in DATA MONITOR mode with CONSULT-II. Refer to GW-19 .

When engine is running

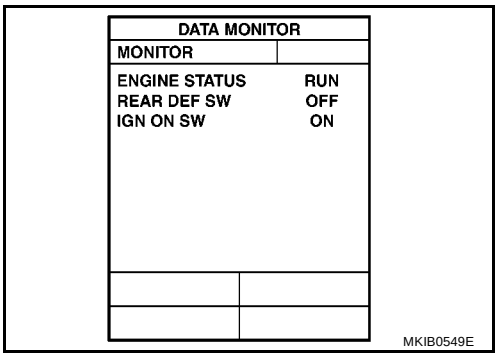
ENGINE STATUS :RUN

When rear defogger switch is turned to ON

REAR DEF SW :ON

When ignition switch is turned to ON

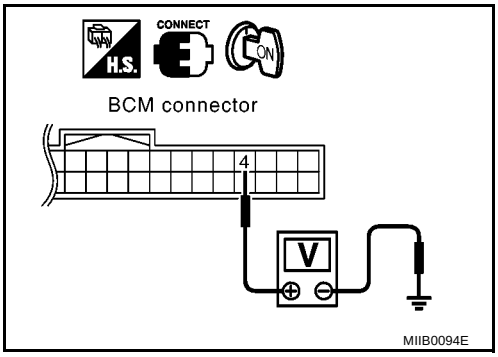
IGN ON SW :ON



Without CONSULT-II

1. Turn ignition switch ON.
2. Check voltage between BCM connector ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
M57	4	Ground	Rear window defogger switch is pressed.	0
			Rear window defogger switch is OFF.	5



OK or NG

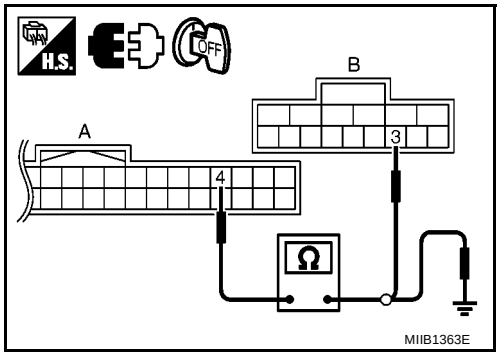
OK >> Rear window defogger switch check is OK.

NG >> GO TO 2.

2. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and heater control panel connector.
3. Check continuity between BCM connector and heater control panel connector.

A		B		Continuity
BCM connector	Terminal	Heater control panel connector	Terminal	
M57	4	M62	3	Yes



4. Check continuity between BCM connector and ground

A		Ground	Continuity
BCM connector	Terminal		
M57	4		No

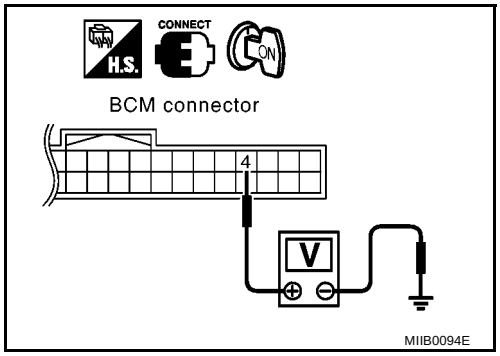
OK or NG

OK >> GO TO 3.
NG >> Repair or replace harness between BCM and heater control panel.

3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M57 terminal 4 and ground.

4 – Ground :Approx. 5



OK or NG

OK >> Replace heater control panel. Refer to MTC-62, "Removal and Installation" .
NG >> Replace BCM.

Check Rear Window Defogger Power Supply Circuit

BIS000N6

1. CHECK FUSE

Check if any of the following fuses for IPDM E/R are blown.

COMPONENT PARTS	AMPERE	FUSE NO.
IPDM E/R	15A	#55
	15A	#56
	20A	#61
	20A	#62

NOTE:

Refer to GW-12, "Component Parts and Harness Connector Location" .

OK or NG

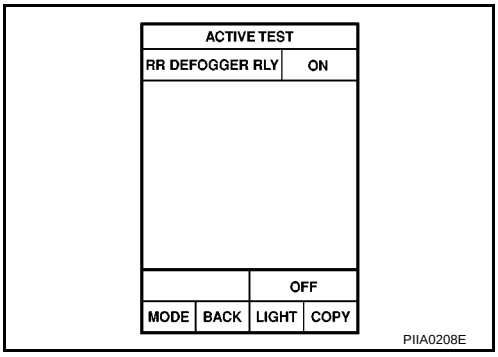
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to GW-12, "Component Parts and Harness Connector Location" .

2. CHECK REAR WINDOW DEFOGGER RELAY

Check rear window defogger relay in “ACTIVE TEST” mode with CONSULT-II. Refer to

Do you hear of the operation sound of rear window defogger relay.



OK or NG

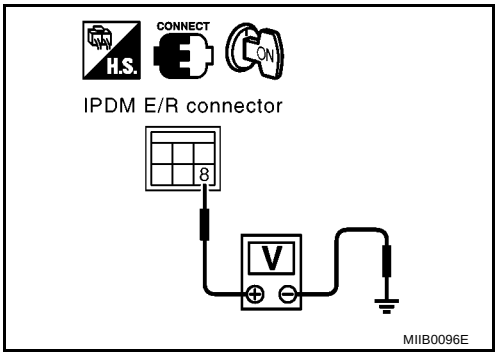
OK >> GO TO 3.

NG >> Replace IPDM E/R.

3. CHECK REAR WINDOW DEFOGGER RELAY OUTPUT SIGNAL

1. Turn rear window defogger switch ON.
2. Check voltage between IPDM E/R connector E11 terminal 8 and ground.

8 – Ground : Battery voltage



OK or NG

OK >> Rear window defogger power supply circuit check is OK.

NG >> Check connector for damage and loose connection.

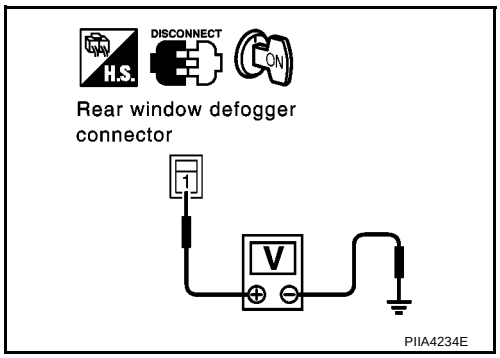
Check Rear Window Defogger Circuit

BIS000N7

1. CHECK REAR WINDOW DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect rear window defogger connector.
3. Turn ignition switch ON.
4. Check voltage between rear window defogger connector and ground.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
B49	1	Ground	Rear window defogger switch ON.	Battery voltage
			Rear window defogger switch OFF.	0



OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness between IPDM E/R and rear window defogger.

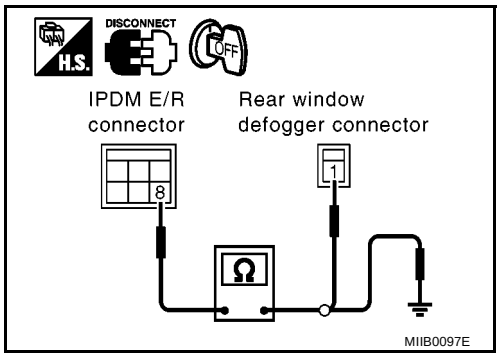
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect IPDM E/R connector.
3. Check continuity between IPDM E/R connector E11 terminal 8 and rear window defogger connector B49 terminal 1.

8 – 1 :Continuity should exist.

4. Check continuity between IPDM E/R connector E11 terminal 8 and ground.

8 – Ground :Continuity should not exist.



OK or NG

OK >> Check the condition of the harness and the connector.
NG >> Repair or replace harness.

Check Door Mirror Defogger Power Supply Circuit

BIS000N8

1. CHECK FUSE

Check if any of the following fuse for Fuse block (J/B) are blown.

COMPONENT PARTS	AMPERE	FUSE NO.
Fuse block (J/B)	10A	#2

NOTE:
Refer to GW-12, "Component Parts and Harness Connector Location" .

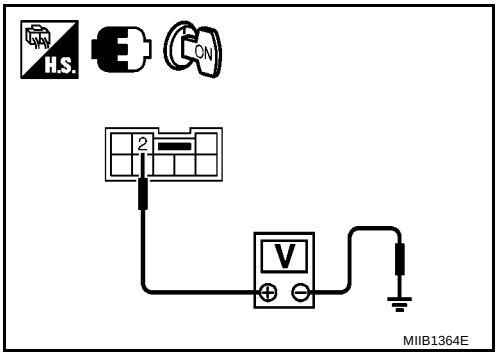
OK or NG

OK >> GO TO 2.
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to GW-12, "Component Parts and Harness Connector Location" .

2. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT 1

1. Turn ignition switch ON.
2. Check voltage between door mirror connector and ground.

Door mirror connector	Terminal (+)	Terminal (–)	Condition	Voltage (V) (Approx.)
D5 (driver side)	2	Ground	Rear window defogger switch ON	Battery voltage
D25 (passenger side)	2		Rear window defogger switch OFF	0



MIIB1364E

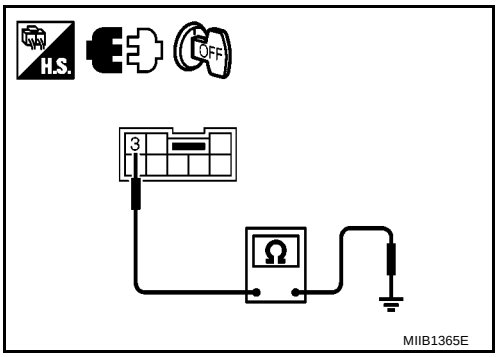
OK or NG

OK >> GO TO 3.
NG >> Check harness between IPDM E/R and door mirror.

3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror connector.
3. Check continuity between door mirror connector and ground.

A		Ground	Continuity
Door mirror connector	Terminal		
D5 (driver side)	3		Yes
D25 (passenger side)			



MIIB1365E

OK or NG

OK >> INSPECTION END.
NG >> Repair or replace harness.

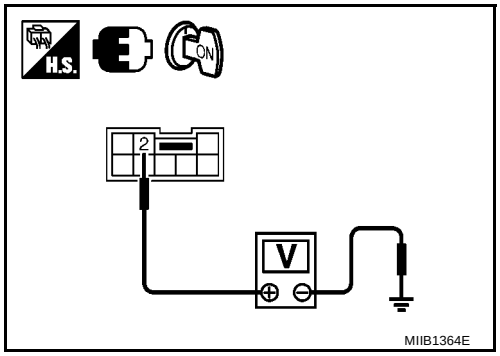
Check Driver Side Door Mirror Defogger Circuit

BIS000N9

1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between door mirror (driver side) connector and ground.

Door mirror (driver side) connector	Terminal (+)	Terminal (–)	Condition	Voltage (V) (Approx.)
D5	2	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0



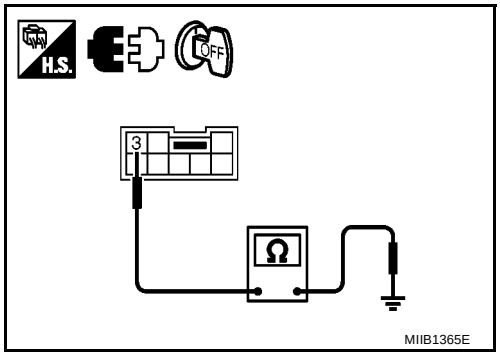
OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness between fuse block (J/B) and door mirror (driver side).

2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror (driver side) connector.
3. Check continuity between door mirror (driver side) connector and ground.

Door mirror connector	Terminal	Ground	Continuity
D5 (driver side)	3		Yes



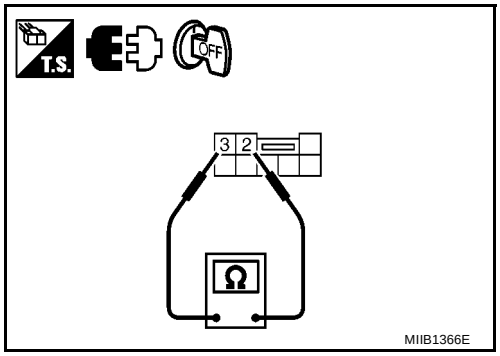
OK or NG

OK >> GO TO 3
NG >> Repair or replace harness between door mirror (driver side) and ground.

3. CHECK DOOR MIRROR DEFOGGER

Check continuity between each door mirror connector terminal.

Door mirror connector	Terminal (+)	Terminal (–)	Continuity
D5 (driver side)	2	3	Yes



OK or NG

OK >> Check the condition of the harness and the connector.
NG >> Replace door mirror (driver side).

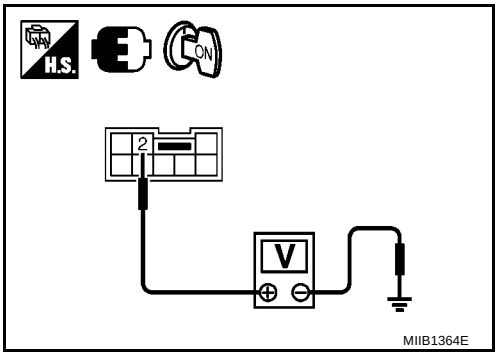
Check Passenger Side Door Mirror Defogger Circuit

BIS000NA

1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between door mirror (passenger side) connector and ground.

Door mirror (passenger side) connector	Terminal (+)	Terminal (–)	Condition	Voltage (V) (Approx.)
D25	2	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0



MIIB1364E

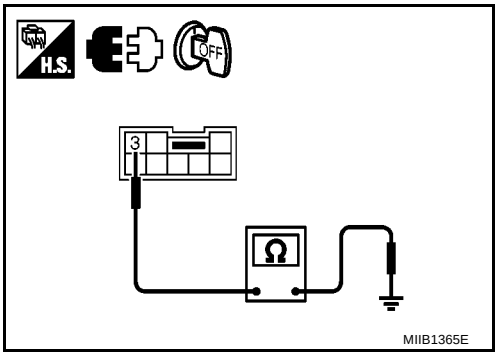
OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness between fuse block (J/B) and door mirror (passenger side).

2. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror (passenger side) connector.
3. Check continuity between door mirror (passenger side) connector and ground.

A		Ground	Continuity
Door mirror connector	Terminal		
D5 (passenger side)	3		Yes



MIIB1365E

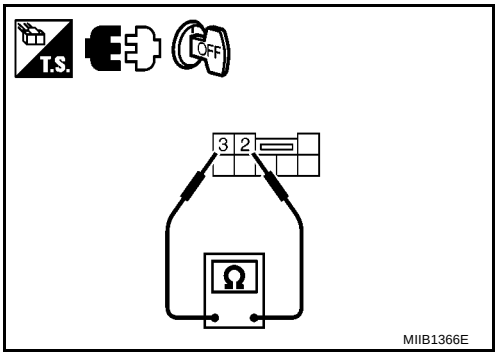
OK or NG

OK >> GO TO 3
NG >> Repair or replace harness between door mirror (passenger side) and ground.

3. CHECK DOOR MIRROR DEFOGGER

Check continuity between each door mirror connector terminal.

Door mirror connector	Terminal (+)	Terminal (–)	Continuity
D5 (passenger side)	2	3	Yes



MIIB1366E

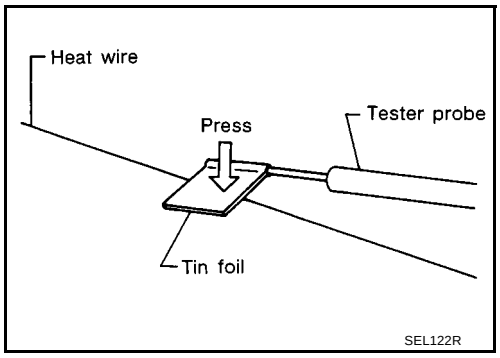
OK or NG

OK >> Check the condition of the harness and the connector.
NG >> Replace door mirror (passenger side).

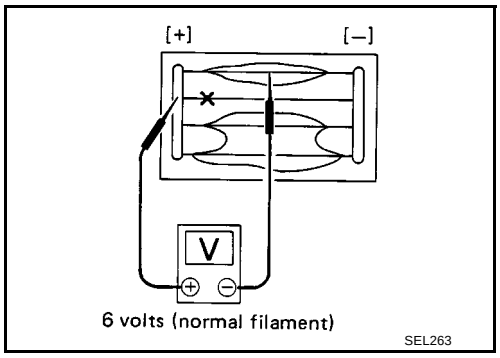
Filament Check

BIS000NB

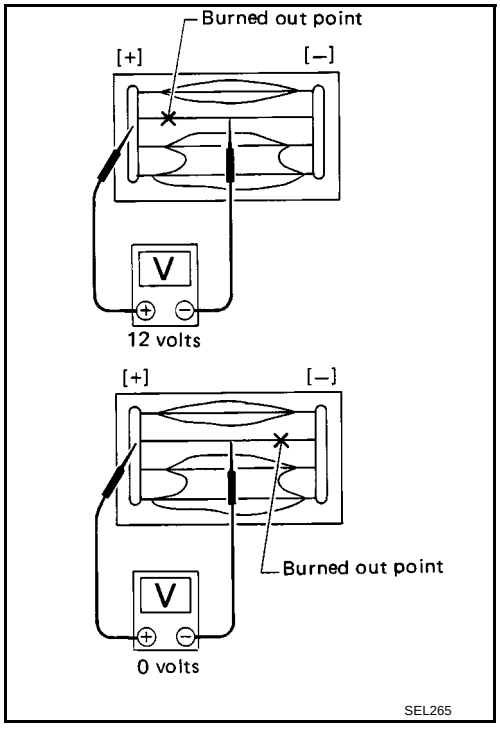
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



2. Attach probe circuit tester (in Volt range) to middle portion of each filament.



3. If a filament is burned out, circuit tester registers 0 or battery voltage.
4. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



Filament Repair

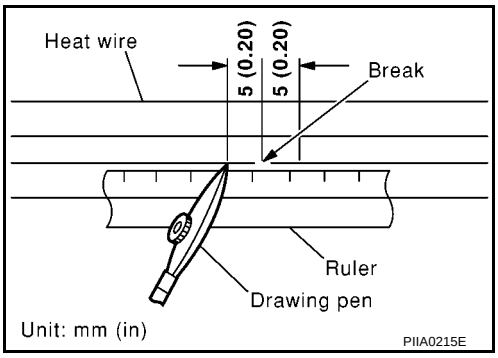
BIS000NC

REPAIR EQUIPMENT

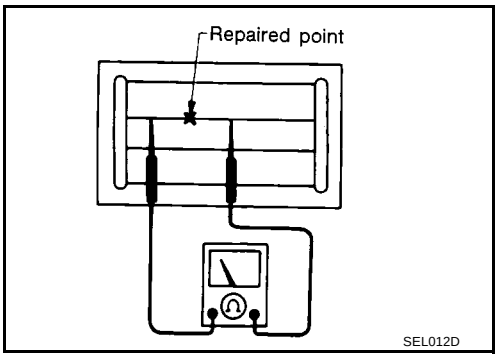
- Conductive silver composition (Dupont No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE

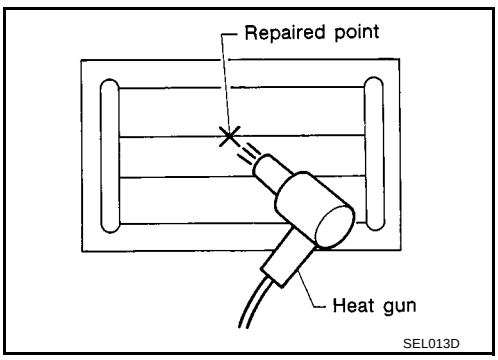
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition on break with drawing pen. Slightly overlap existing heat wire on both sides [preferably 5 mm (0.20 in)] of the break.



4. After repair has been completed, check repaired wire for continuity. This check should be conducted 10 minutes after silver composition is deposited.
   Do not touch repaired area while test is being conducted.



5. Apply a constant stream of hot air directly to the repaired area for approximately 20 minutes with a heat gun. A minimum distance of 3 cm (1.2 in) should be kept between repaired area and hot air outlet.
   If a heat gun is not available, let the repaired area dry for 24 hours.

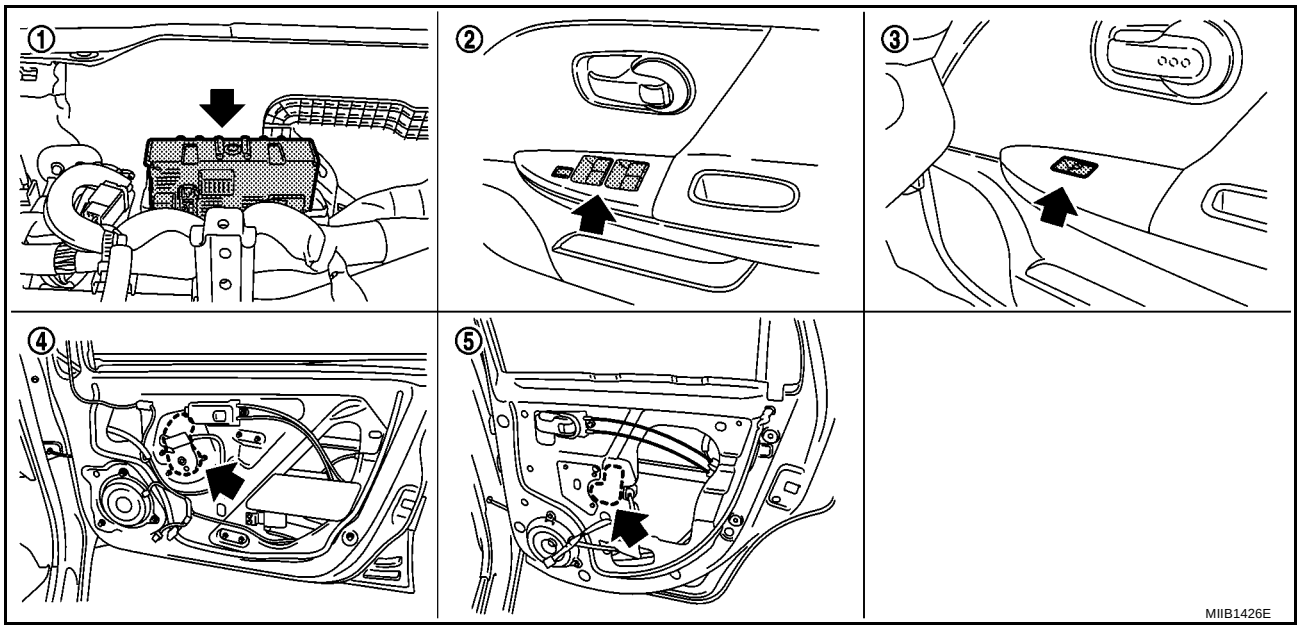


POWER WINDOW SYSTEM

PFP:25401

Component Parts and Harness Connector Location

BIS000UI



1. BCM M57, M59 (View with instrument upper panel removed)
2. Power window main switch D8, D9
3. Rear power window switch RH D63
4. Front power window motor (driver side) D4
5. Rear power window motor RH D64

System Description (With Front Power Window)

BIS000UJ

Power is supplied at all times

- to BCM terminal 74 and 79
- through 40A fusible link (letter **J** , located in the fuse and fusible link box), and
- to power window main switch terminal 5 (LHD models) or 6 (RHD models)
- through 40A fusible link (letter **J** , located in the fuse and fusible link box).

Ground is supplied at all times

- to BCM terminal 2 and 70
- through body grounds M21 and M66.
- to power window main switch terminal 12
- through body grounds M21 and M66.

With ignition switch in ON or START position, power is supplied

- to BCM terminal 24
- through 10A fuse [No. 5, located in the fuse block (J/B)], and
- to power window main switch terminal 1, front power window switch (passenger side) terminal 1
- through BCM terminal 78.

DRIVER DOOR

Window Up

When the driver side switch in the power window main switch is operated in the up position,
Power is supplied

- to front power window motor (driver side) terminal 3
- through power window main switch terminal 6 (LHD models) or 4 (RHD models)
- through CPU of power window main switch.

Ground is supplied

- to front power window motor (driver side) terminal 4
- through power window main switch terminal 7

- through CPU of power window main switch.

Then, the motor raises the window until the switch is released.

Window Down

When the driver side switch in the power window main switch is operated in the down position
Power is supplied

- to front power window motor (driver side) terminal 4
- through power window main switch terminal 7.
- through CPU of power window main switch.

Ground is supplied

- to front power window motor (driver side) terminal 3
- through power window main switch terminal 6 (LHD models) or 4 (RHD models).
- through CPU of power window main switch.

Then, the motor lowers the window until the switch is released.

PASSENGER DOOR [FRONT POWER WINDOW SWITCH (PASSENGER SIDE) OPERATION]

Window Up

When the front power window switch (passenger side) is operated in the up position,
Power is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 1
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 9 (LHD models) or 5 (RHD models)
- through power window lock switch
- through power window main switch terminal 12
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the front power window switch (passenger side) is operated in the down position,
Power is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 1
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5.
- through power window main switch terminal 2 (LHD models) or 13 (RHD models)
- through power window lock switch
- through power window main switch terminal 12
- through body ground M21 and M66.

Then, the motor lowers the window until the switch is released.

PASSENGER DOOR (POWER WINDOW MAIN SWITCH OPERATION)

Window Up

When the passenger side switch in the power window main switch is operated in the up position
Power is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2

- through power window main switch terminal 1 and 2 (LHD models) or 13 (RHD models)
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 9 (LHD models) or 5 (RHD models)
- through power window lock switch
- through power window main switch terminal 12
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the passenger side switch in the power window main switch is operated in the down position,
Power is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 1 and 9 (LHD models) or 5 (RHD models)
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2
- to power window main switch terminal 2 (LHD models) or 13 (RHD models).
- through power window lock switch
- through power window main switch terminal 12
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

AUTO OPERATION

The power window AUTO feature enables the driver to open or close the window without holding the window switch in the down or up position.

POWER WINDOW LOCK

The power window lock is designed to lock operation of all windows except for driver door window.
When power window lock switch is in LOCK position, ground of passenger and rear power window switches in the power window main switch are disconnected. This prevents the power window motors from operating.

ANTI-PINCH SYSTEM

Power window main switch monitors the power window motor operation and the power window position (full closed or other) for driver side power window by the signals from encoder and limit switch in front power window motor (driver side).
When power window main switch detects interruption during the following close operation,

- automatic close operation when ignition switch is in the “ON” position

power window main switch controls power window motor (driver side) for open and the power window will be lowered about 150 mm (5.91 in).

INITIALIZATION

Perform the initialization when the following operations are performed or when the auto up operation is not performed. Refer to GW-91, "SYSTEM INITIALIZATION" .

- When the power supply to the power window main switch or power window motor is cut off by the removal of battery terminal or the battery fuse is blown.
- Disconnection and connection of power window main switch harness connector.
- Removal and installation of regulator assembly.
- 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.

CAUTION:
The following operations are not performed under the condition that the initialization is not performed yet.

- Auto up operation

System Description (With Front & Rear Power Window)

BIS000V0

Power is supplied at all times

- to BCM terminal 74 and 79
- through 40A fusible link (letter **J** , located in the fuse and fusible link box), and
- to power window main switch terminal 19
- through 40A fusible link (letter **J** , located in the fuse and fusible link box).

Ground is supplied at all times

- to BCM terminal 2 and 70
- through body grounds M21 and M66.
- to power window main switch terminal 17
- through body grounds M21 and M66.

With ignition switch in ON or START position, power is supplied

- to BCM terminal 24
- through 10A fuse [No. 5, located in the fuse block (J/B)], and
- to power window main switch terminal 10, front power window switch (passenger side) terminal 1 and rear power window switch (RH and LH) terminal 1.
- trough BCM terminal 78

DRIVER DOOR

Window Up

When the driver side switch in the power window main switch is operated in the up position,
Power is supplied

- to front power window motor (driver side) terminal 3
- through power window main switch terminal 16
- through CPU of power window main switch.

Ground is supplied

- to front power window motor (driver side) terminal 4
- through power window main switch terminal 12
- through CPU of power window main switch.

Then, the motor raises the window until the switch is released.

Window Down

When the driver side switch in the power window main switch is operated in the down position
Power is supplied

- to front power window motor (driver side) terminal 4
- through power window main switch terminal 12.
- through CPU of power window main switch.

Ground is supplied

- to front power window motor (driver side) terminal 3
- through power window main switch terminal 16.
- through CPU of power window main switch.

Then, the motor lowers the window until the switch is released.

PASSENGER DOOR [FRONT POWER WINDOW SWITCH (PASSENGER SIDE) OPERATION]

Window Up

When the front power window switch (passenger side) is operated in the up position,
Power is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 1
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 11
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the front power window switch (passenger side) is operated in the down position,
Power is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 1
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5.
- through power window main switch terminal 8
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor lowers the window until the switch is released.

PASSENGER DOOR (POWER WINDOW MAIN SWITCH OPERATION)

Window Up

When the passenger side switch in the power window main switch is operated in the up position
Power is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2
- through power window main switch terminal 8 and 10
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 1
- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 11
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the passenger side switch in the power window main switch is operated in the down position,
Power is supplied

- to front power window motor (passenger side) terminal 1

- through front power window switch (passenger side) terminal 4 and 3
- through power window main switch terminal 11 and 10
- through BCM terminal 78.

Ground is supplied

- to front power window motor (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5 and 2
- to power window main switch terminal 8.
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

REAR DOOR (RH OR LH) [REAR POWER WINDOW SWITCH (RH OR LH) OPERATION]

Window Up

When the rear power window switch (RH or LH) is operated in the up position,
Power is supplied

- to rear power window motor (RH or LH) terminal 2
- through rear power window switch (RH or LH) terminal 5 and 1
- through BCM terminal 78.

Ground is supplied

- to rear power window motor (RH or LH) terminal 1
- through rear power window switch (RH or LH) terminal 4 and 3
- through power window main switch terminal 5 (RH) or 3 (LH).
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the rear power window switch (RH or LH) is operated in the down position,
Power is supplied

- to rear power window motor (RH or LH) terminal 1
- through rear power window switch (RH or LH) terminal 4 and 1
- through BCM terminal 78.

Ground is supplied

- to rear power window motor (RH or LH) terminal 2
- through rear power window switch (RH or LH) terminal 5 and 2
- through power window main switch terminal 7 (RH) or 1 (LH).
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor lowers the window until the switch is released.

REAR DOOR (RH OR LH) (POWER WINDOW MAIN SWITCH OPERATION)

Window Up

When the rear RH or LH switch in the power window main switch is operated in the up position,
Power is supplied

- to rear power window motor (RH or LH) terminal 2
- through rear power window switch (RH or LH) terminal 5 and 2
- through power window main switch terminal 7 (RH) or 1 (LH).
- through power window main switch terminal 10

- through BCM terminal 78.

Ground is supplied

- to rear power window motor (RH or LH) terminal 1
- through rear power window switch (RH or LH) terminal 4 and 3
- through power window main switch terminal 5 (RH) or 3 (LH)
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

Window Down

When the rear RH or LH switch in the power window main switch is operated in the down position,
Power is supplied

- to rear power window motor (RH or LH) terminal 1
- through rear power window switch (RH or LH) terminal 4 and 3
- through power window main switch terminal 5 (RH) or 3 (LH).
- through power window main switch terminal 10
- through BCM terminal 78.

Ground is supplied

- to rear power window motor (RH or LH) terminal 2
- through rear power window switch (RH or LH) terminal 5 and 2
- to power window main switch terminal 7 (RH) or 1 (LH)
- through power window lock switch
- through power window main switch terminal 17
- through body ground M21 and M66.

Then, the motor raises the window until the switch is released.

AUTO OPERATION

The power window AUTO feature enables the driver to open or close the window without holding the window switch in the down or up position.

POWER WINDOW LOCK

The power window lock is designed to lock operation of all windows except for driver door window.
When power window lock switch is in LOCK position, ground of passenger and rear power window switches in the power window main switch are disconnected. This prevents the power window motors from operating.

ANTI-PINCH SYSTEM

Power window main switch monitors the power window motor operation and the power window position (full closed or other) for driver side power window by the signals from encoder and limit switch in front power window motor (driver side).
When power window main switch detects interruption during the following close operation,

- automatic close operation when ignition switch is in the “ON” position

power window main switch controls power window motor (driver side) for open and the power window will be lowered about 150 mm (5.91 in).

INITIALIZATION

Perform the initialization when the following operations are performed or when the auto up operation is not performed. Refer to GW-91, "SYSTEM INITIALIZATION" .

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

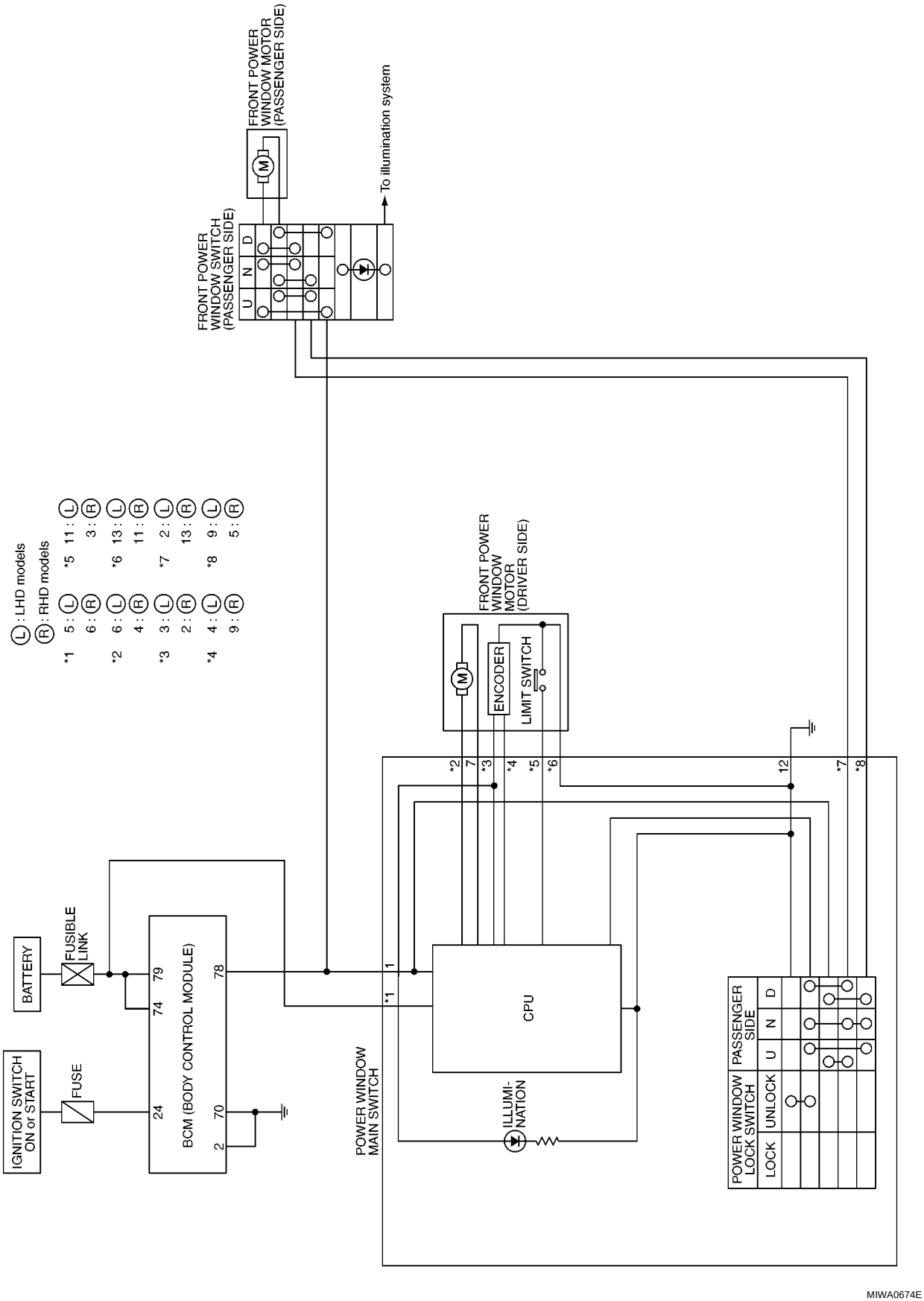
- Removal and installation of glass.
- Removal and installation of door glass run.

CAUTION:
The following operations are not performed under the condition that the initialization is not performed yet.

- Auto up operation

Schematic/With Front Power Window

BIS000UK

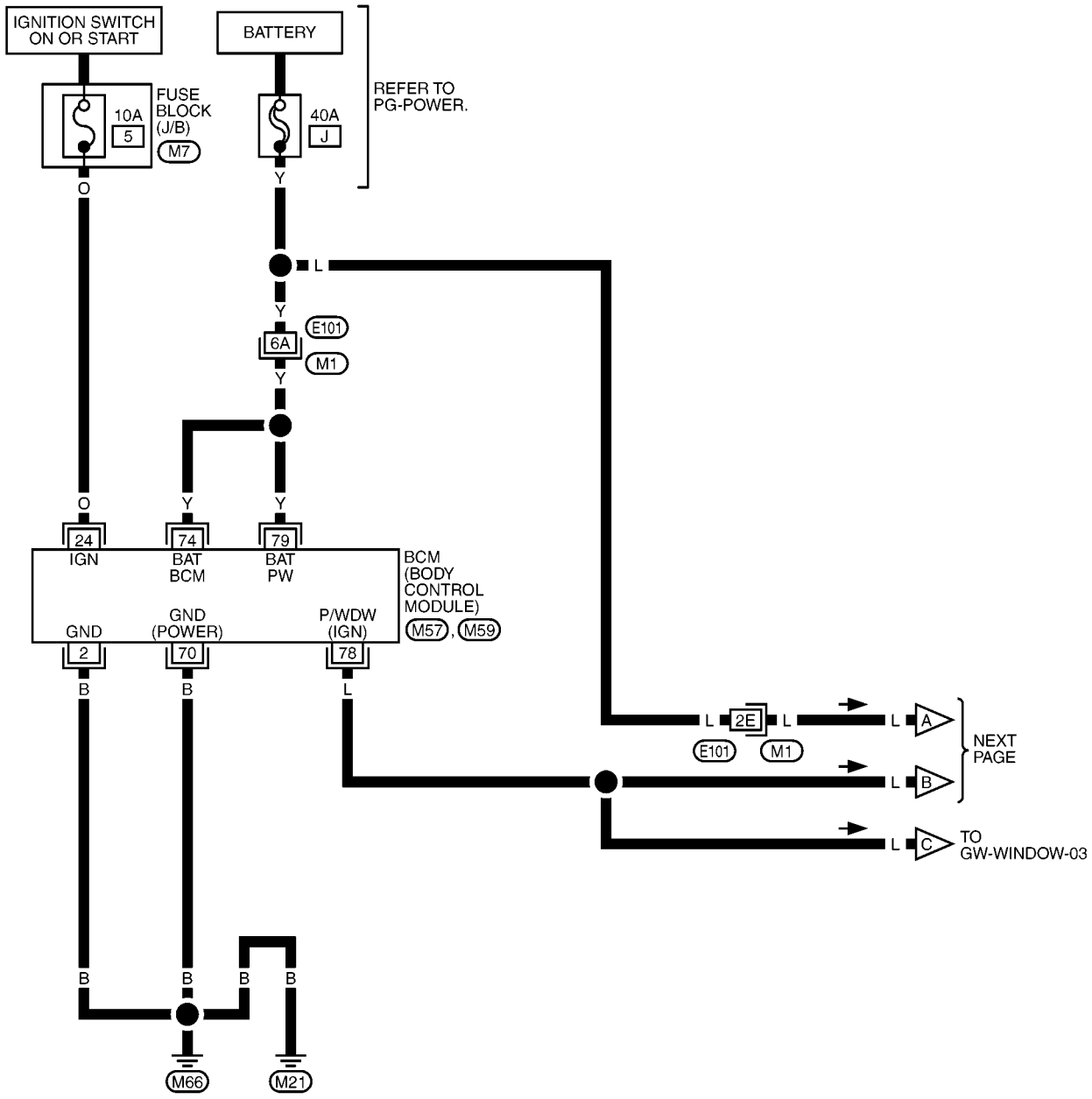


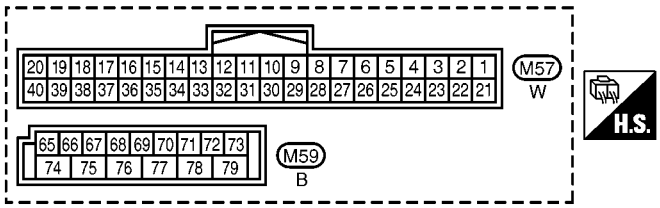
MIWA0674E

Wiring Diagram — WINDOW —/With Front Power Window

BIS000UL

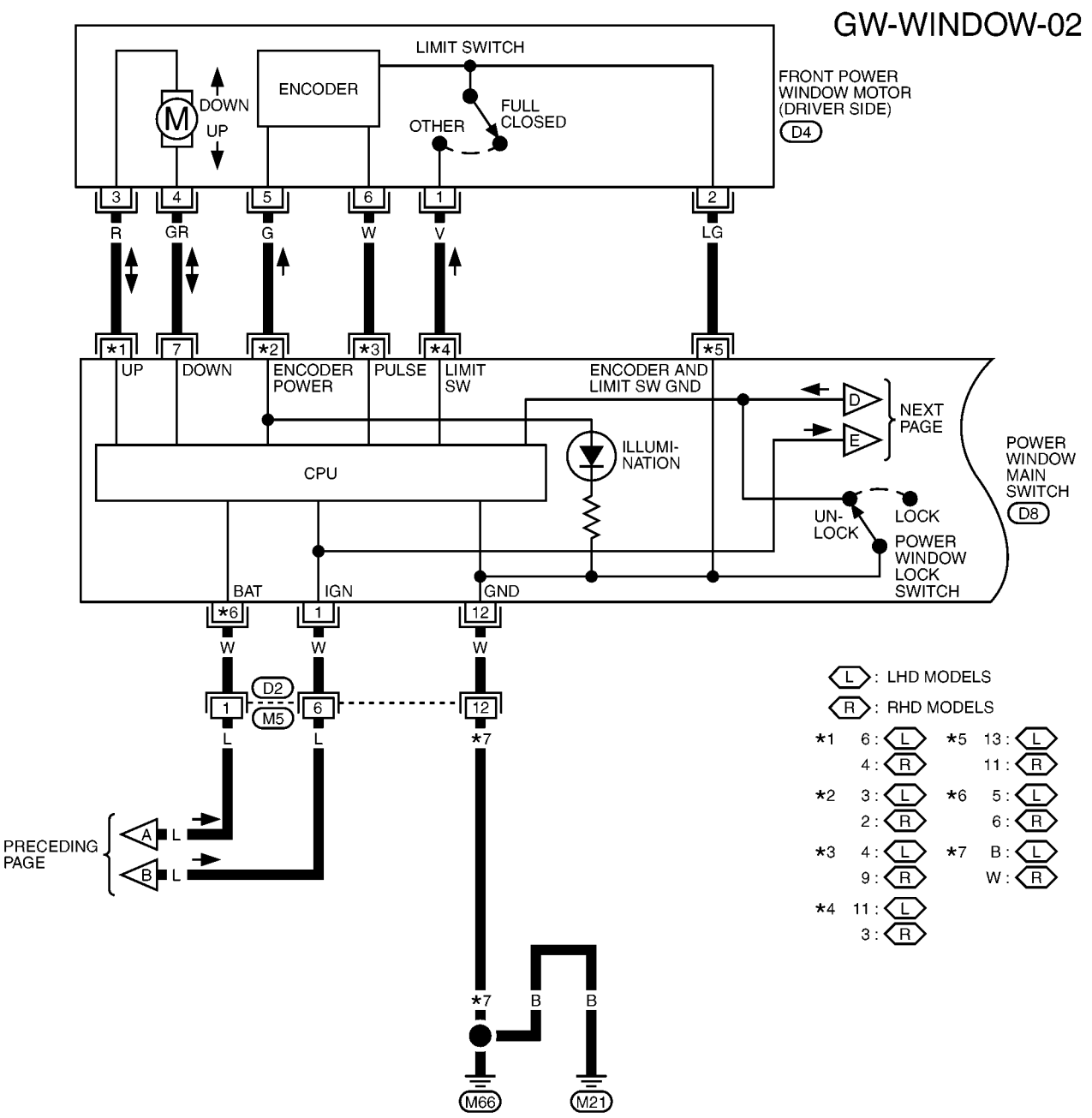
GW-WINDOW-01

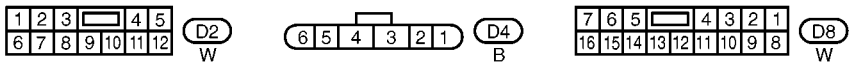




REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

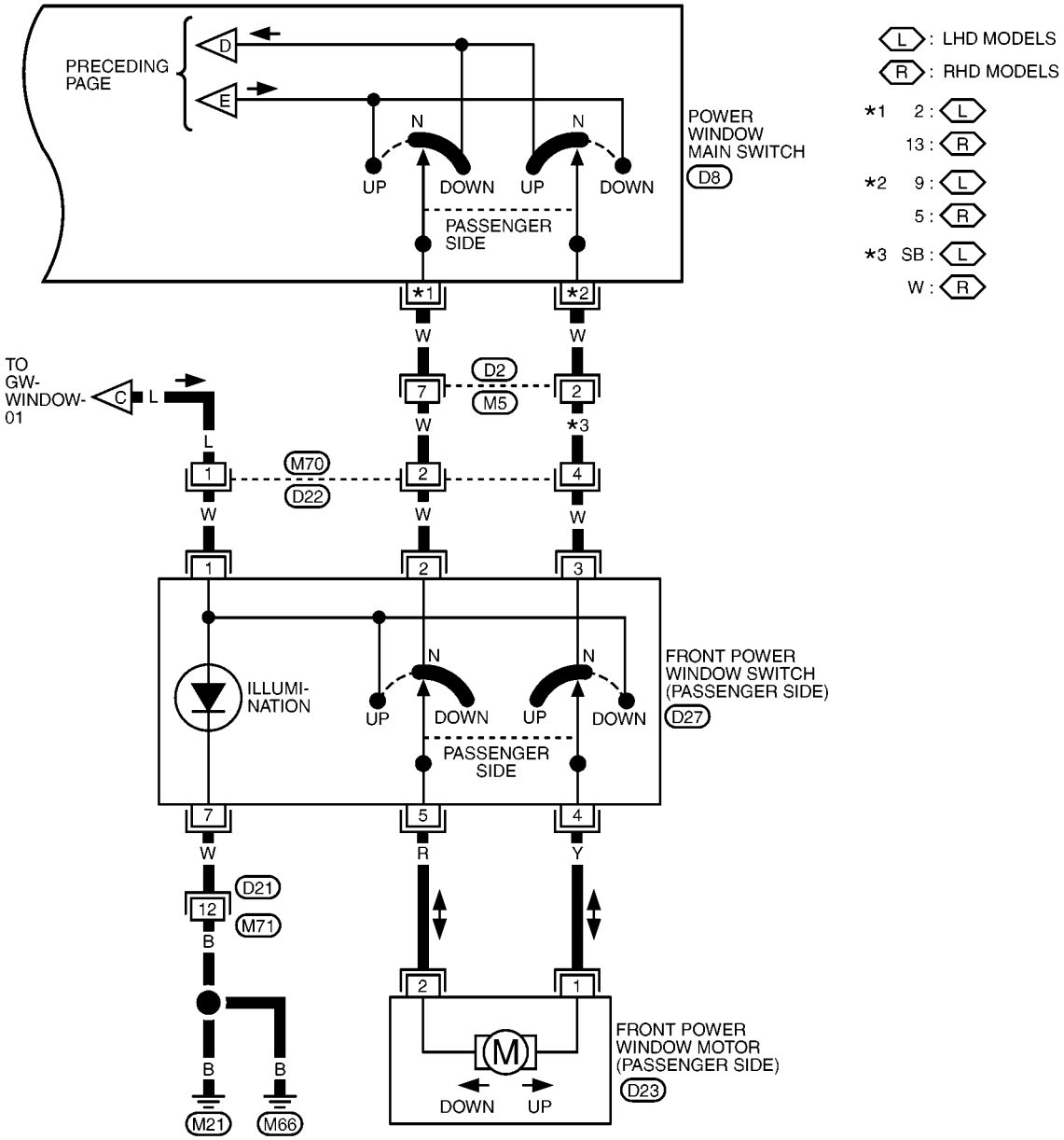
MIWA0675E

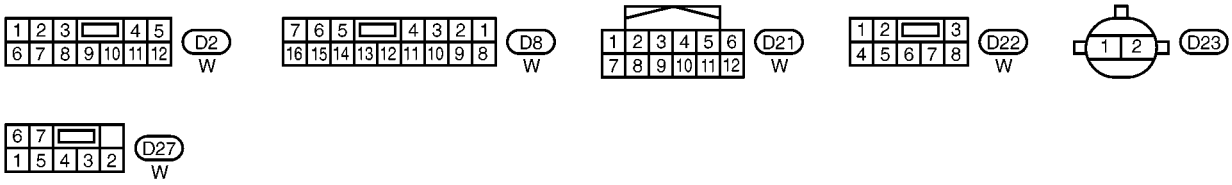

GW-WINDOW-02
LIMIT SWITCH
ENCODER
DOWN
UP
OTHER
FULL CLOSED
FRONT POWER WINDOW MOTOR (DRIVER SIDE)
D4
3 4 5 6 1 2
R GR G W V LG
*1 7 *2 *3 *4 *5
UP DOWN ENCODER POWER PULSE LIMIT SW ENCODER AND LIMIT SW GND
CPU
ILLUMI-NATION
D
E
NEXT PAGE
POWER WINDOW MAIN SWITCH
D8
UN-LOCK
LOCK
POWER WINDOW LOCK SWITCH
BAT IGN GND
*6 1 12
W W W
D2
M5
1 6 12
L L *7
PRECEDING PAGE
A L
B L
*7 B B
M66 M21
L : LHD MODELS
R : RHD MODELS
*1 6 : L 4 : R
*2 3 : L 2 : R
*3 4 : L 9 : R
*4 11 : L 3 : R
*5 13 : L 11 : R
*6 5 : L 6 : R
*7 B : L W : R


1 2 3 4 5
6 7 8 9 10 11 12
D2
W
6 5 4 3 2 1
D4
B
7 6 5 4 3 2 1
16 15 14 13 12 11 10 9 8
D8
W

MIWA0676E

GW-WINDOW-03

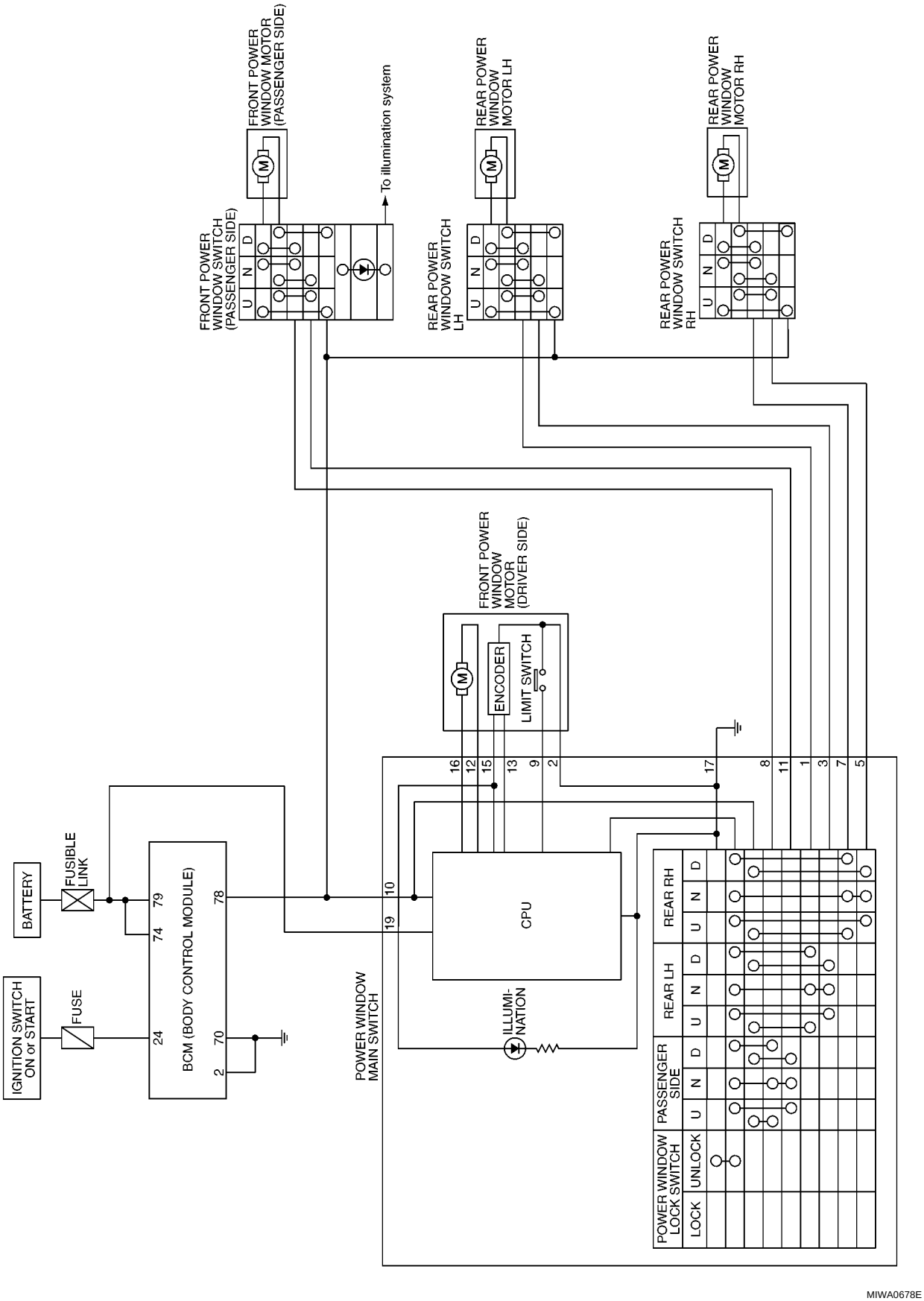




MIWA0677E

Schematic/With Front & Rear Power Window

BIS000V1

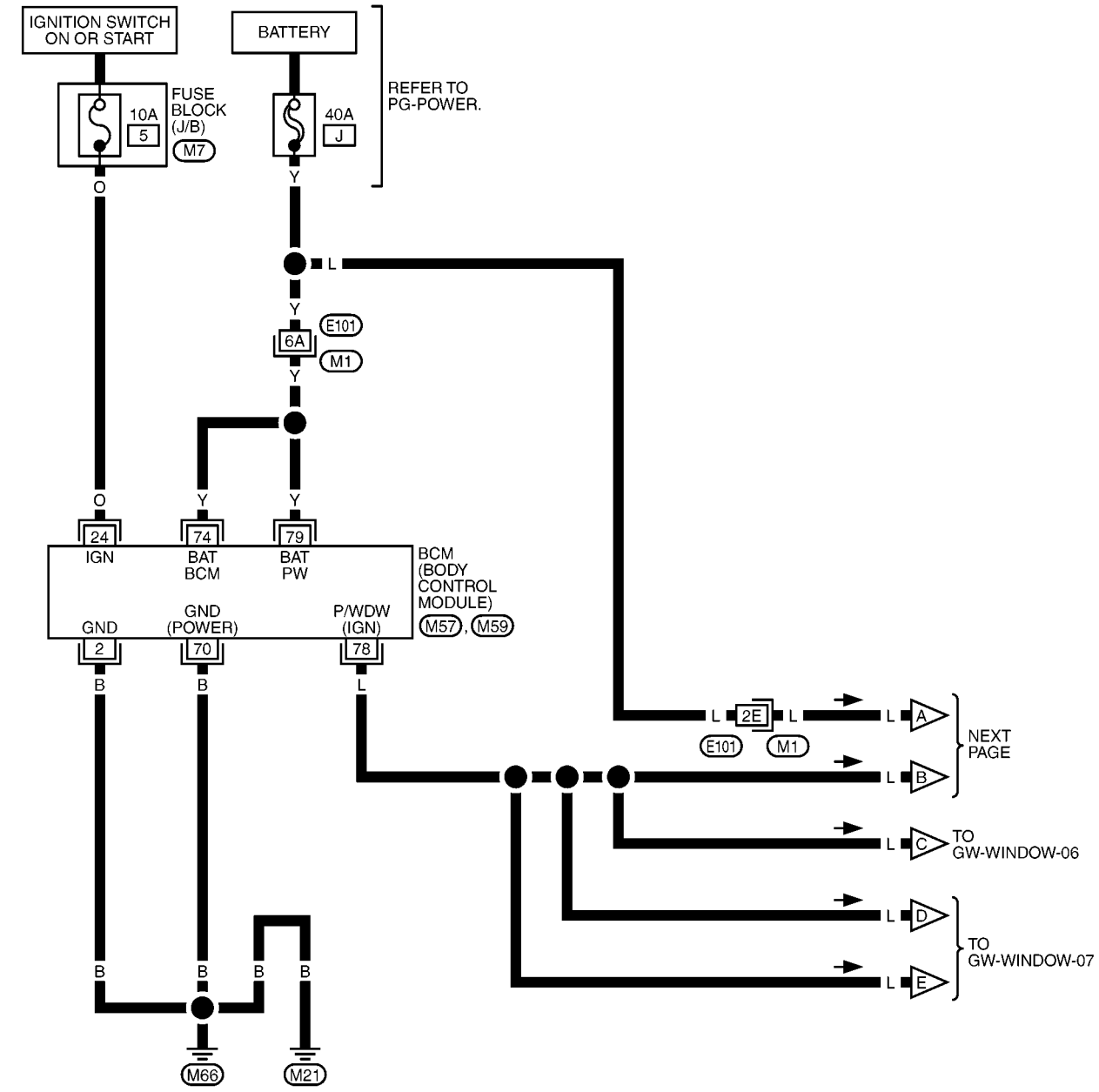


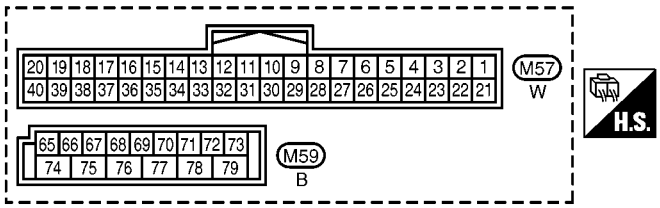
MIWA0678E

Wiring Diagram — WINDOW —/With Front & Rear Power Window

BIS000V2

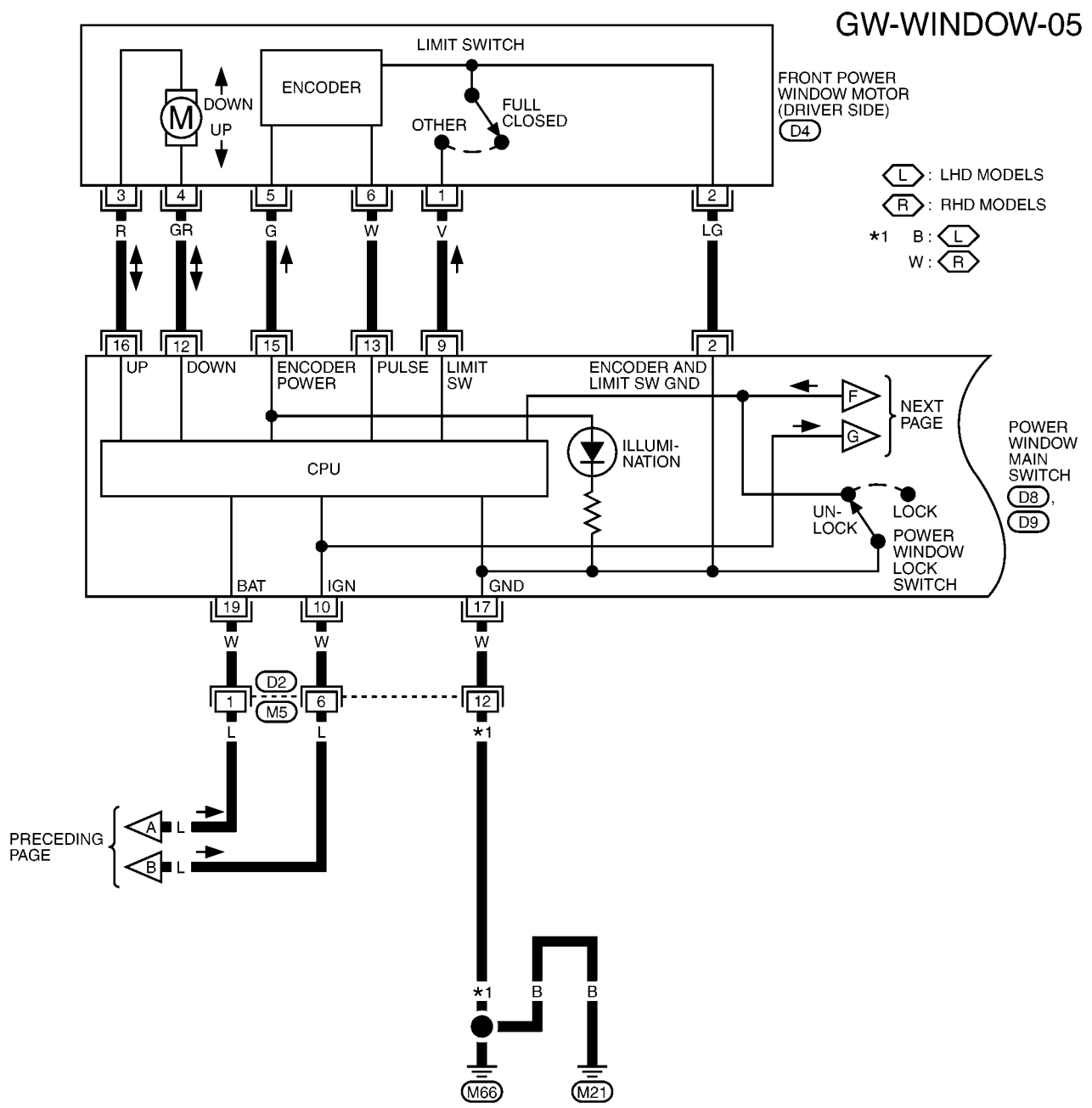
GW-WINDOW-04

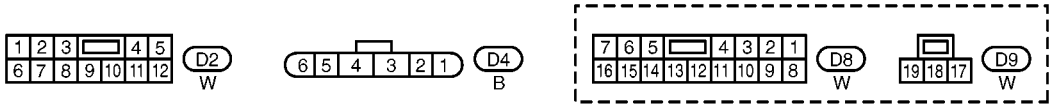




REFER TO THE FOLLOWING.
M1 - SUPER MULTIPLE JUNCTION (SMJ)
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

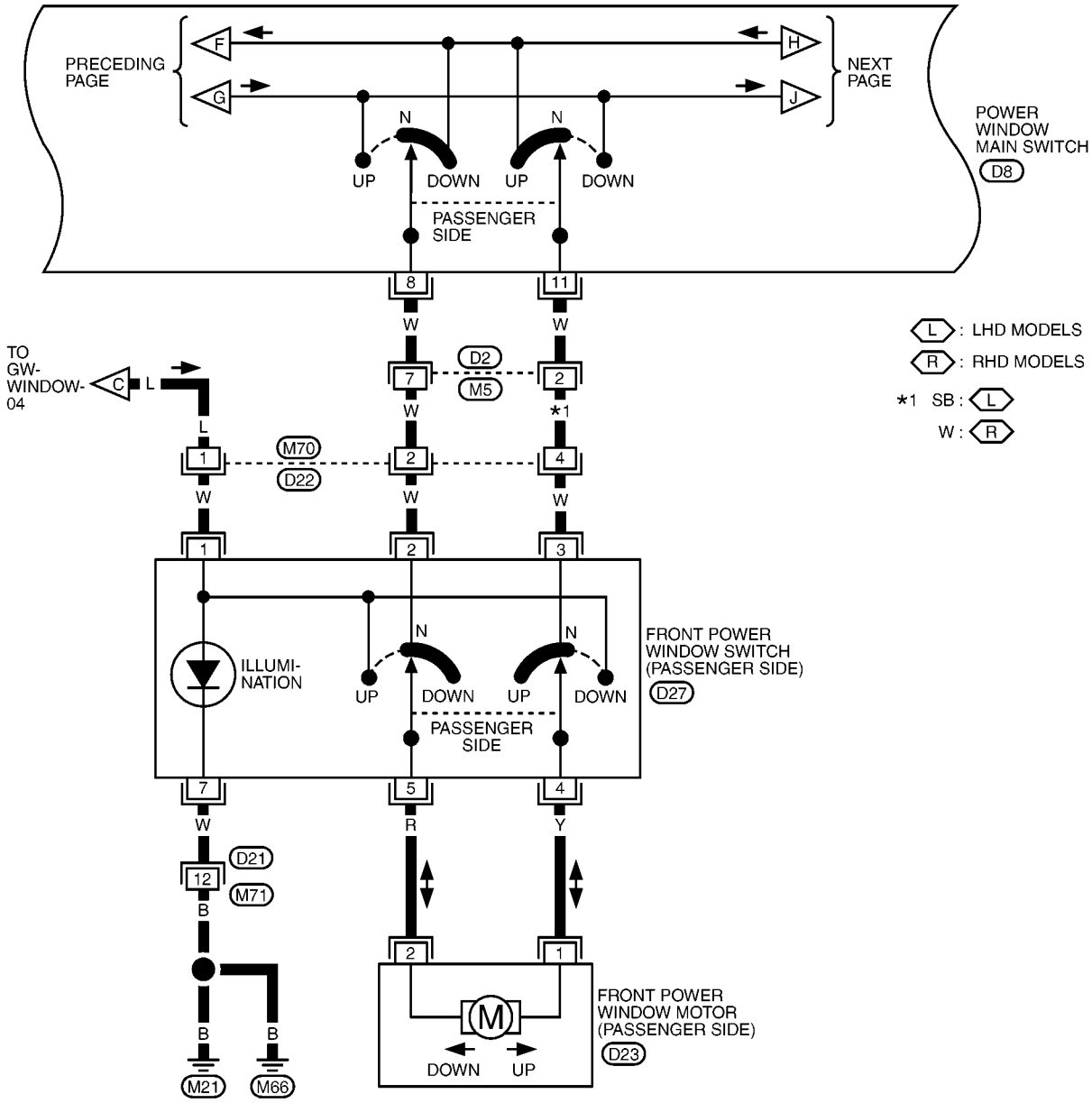
MIWA0679E

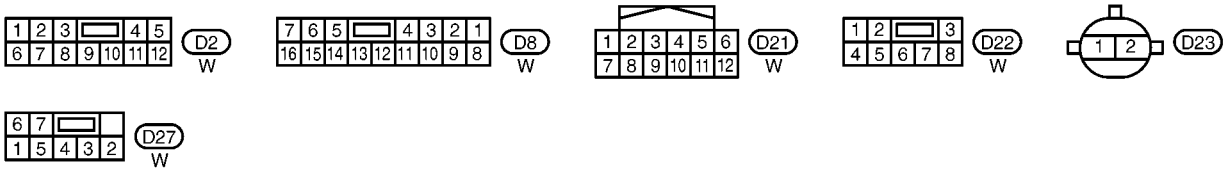

GW-WINDOW-05
LIMIT SWITCH
ENCODER
DOWN
UP
OTHER
FULL CLOSED
FRONT POWER WINDOW MOTOR (DRIVER SIDE)
D4
L : LHD MODELS
R : RHD MODELS
*1 B : L
W : R
3 4 5 6 1 2
R GR G W V LG
16 12 15 13 9 2
UP
DOWN
ENCODER POWER
PULSE
LIMIT SW
ENCODER AND LIMIT SW GND
CPU
ILLUMI-NATION
F
G
NEXT PAGE
UN-LOCK
LOCK
POWER WINDOW LOCK SWITCH
POWER WINDOW MAIN SWITCH
D8, D9
BAT
IGN
GND
19 10 17
W W W
D2
M5
1 6 12
L L *1
PRECEDING PAGE
A L
B L
*1 B B
M66
M21


1 2 3 4 5
6 7 8 9 10 11 12
D2
W
6 5 4 3 2 1
D4
B
7 6 5 4 3 2 1
16 15 14 13 12 11 10 9 8
D8
W
19 18 17
D9
W

MIWA0680E

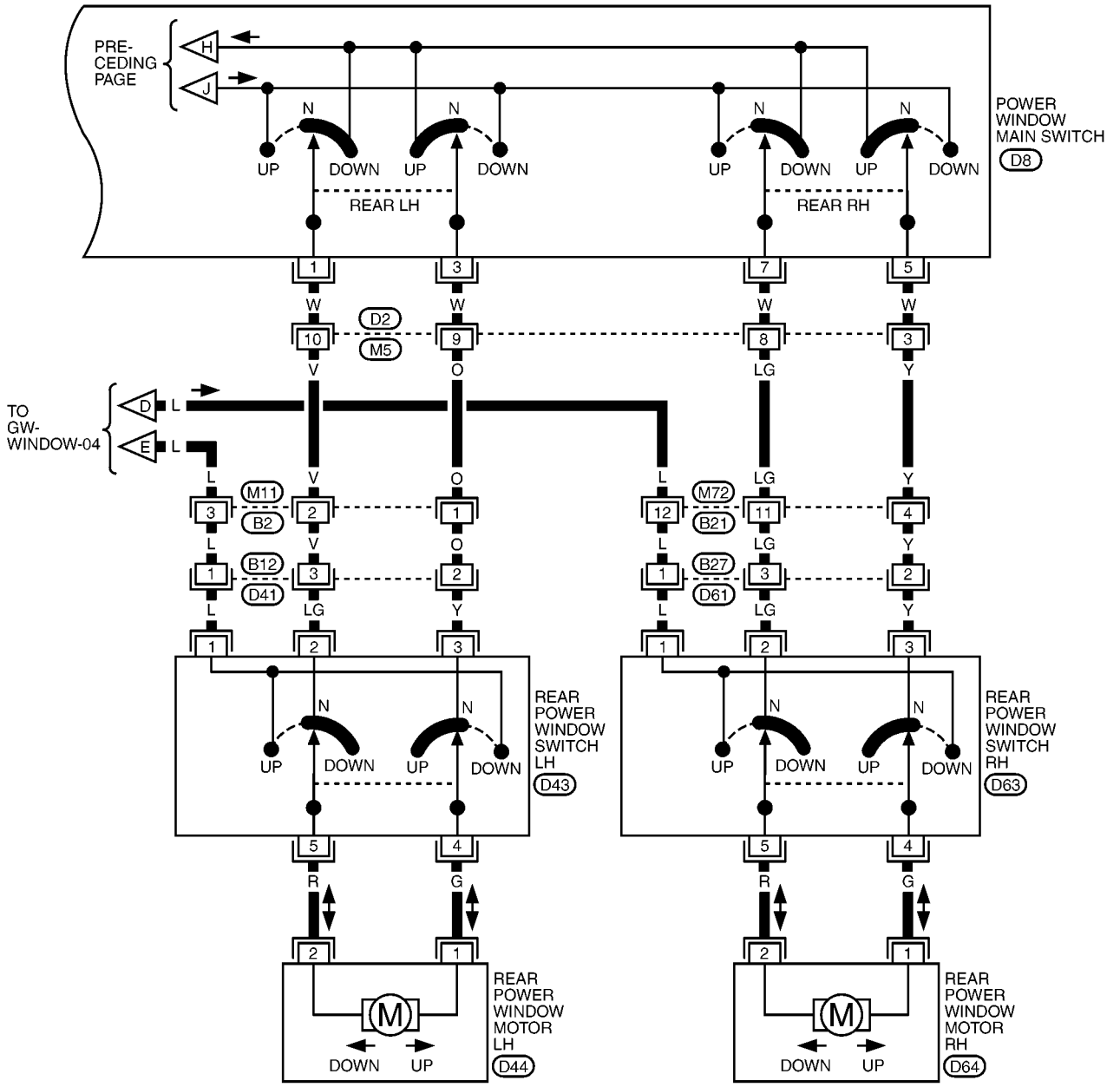
GW-WINDOW-06

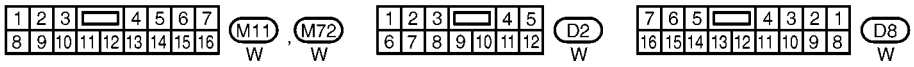


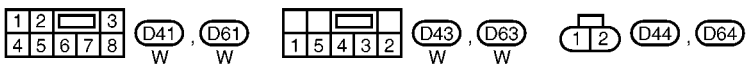


MIWA0681E

GW-WINDOW-07







MIWA0682E

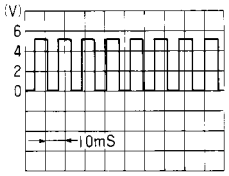
Terminal and Reference Value for BCM

BIS000UM

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
2	B	Ground	—	Ignition switch ON	0
24	O	Ignition switch (ON or START)	Input	Ignition switch (ON or START position)	Battery voltage
70	B	Ground (power)	—	Ignition switch ON	0
74	Y	Battery power supply (BCM)	Input	—	Battery voltage
78	L	Power window power supply (IGN)	Output	Ignition switch (ON or START position)	Battery voltage
				Other than above	0
79	Y	Battery power supply (power window)	Input	—	Battery voltage

Terminal and Reference Value for Power Window Main Switch/With Front Power Window (For LHD Models)

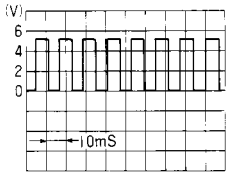
BIS000V4

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
1	W	Rap signal	Input	Ignition switch ON	Battery voltage
				Ignition switch OFF	0
2	W	Front power window motor (passenger side) UP signal	Output	When passenger side switch in power window main switch is operated in UP position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
3	G	Encoder power supply	Output	Ignition switch ON	10
4	W	Encoder pulse signal	Input	When power window motor operates.	 OCC3383D
5	W	Battery power supply	Input	—	Battery voltage
6	R	Front power window motor (driver side) UP signal	Output	When driver side switch in power window main switch is operated in UP position.	Battery voltage
7	GR	Front power window motor (driver side) DOWN signal	Output	When driver side switch in power window main switch is operated in DOWN position.	Battery voltage
9	W	Front power window motor (passenger side) DOWN signal	Output	When passenger side switch in power window main switch is operated in DOWN position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
11	V	Limit switch signal	Input	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
				Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
12	W	Ground	—	—	0
13	LG	Limit switch and encoder ground	—	—	0

Terminal and Reference Value for Power Window Main Switch/With Front Power Window (For RHD Models)

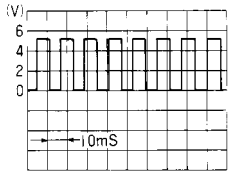
BIS000V3

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
1	W	Rap signal	Input	Ignition switch ON	Battery voltage
				Ignition switch OFF	0
2	G	Encoder power supply	Output	Ignition switch ON	10
3	V	Limit switch signal	Input	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
				Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5
4	R	Front power window motor (driver side) UP signal	Output	When driver side switch in power window main switch is operated in UP position.	Battery voltage
5	W	Front power window motor (passenger side) DOWN signal	Output	When passenger side switch in power window main switch is operated in DOWN position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
6	W	Battery power supply	Input	—	Battery voltage
7	GR	Front power window motor (driver side) DOWN signal	Output	When driver side switch in power window main switch is operated in DOWN position.	Battery voltage
9	W	Encoder pulse signal	Input	When power window motor operates.	 OCC3383D
11	LG	Limit switch and encoder ground	—	—	0
12	W	Ground	—	—	0
13	W	Front power window motor (passenger side) UP signal	Output	When passenger side switch in power window main switch is operated in UP position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0

Terminal and Reference Value for Power Window Main Switch/With Front & Rear Power Window

BIS000UN

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
1	W	Rear power window motor LH UP signal	Output	When rear LH switch in power window main switch is operated in UP position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
2	LG	Limit switch and encoder ground	—	—	0
3	W	Rear power window motor LH DOWN signal	Output	When rear LH switch in power window main switch is operated in DOWN position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
5	W	Rear power window motor RH DOWN signal	Output	When rear RH switch in power window main switch is operated in DOWN position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
7	W	Rear power window motor RH UP signal	Output	When rear RH switch in power window main switch is operated in UP position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
8	W	Front power window motor (passenger side) UP signal	Output	When passenger side switch in power window main switch is operated in UP position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
9	V	Limit switch signal	Input	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
				Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5
10	W	Rap signal	Input	Ignition switch ON	Battery voltage
				Ignition switch OFF	0
11	W	Front power window motor (passenger side) DOWN signal	Output	When passenger side switch in power window main switch is operated in DOWN position.	Battery voltage
				Other than above (Power window lock switch is unlock position.)	0
12	GR	Front power window motor (driver side) DOWN signal	Output	When driver side switch in power window main switch is operated in DOWN position.	Battery voltage

Terminal	Wire color	Item	Signal input/output	Condition	Voltage [V] (Approx.)
13	W	Encoder pulse signal	Input	When power window motor operates.	 OCC3383D
15	G	Encoder power supply	Output	Ignition switch ON	10
16	R	Front power window motor (driver side) UP signal	Output	When driver side switch in power window main switch is operated in UP position.	Battery voltage
17	W	Ground	—	—	0
19	W	Battery power supply	Input	—	Battery voltage

Work Flow

BIS000UO

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to GW-32, "System Description (With Front Power Window)" or GW-35, "System Description (With Front & Rear Power Window)" .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to GW-53, "Trouble Diagnosis Symptom Chart" .
4. Does power window system operate normally?
   YES: GO TO 5.
   NO: GO TO 3.
5. INSPECTION END

Trouble Diagnosis Symptom Chart

BIS000UP

Make sure other systems using the signal of the following systems operate normally.

Symptom	Repair order	Refer to page
None of the power windows can be operated using any switch.	1. Check BCM power supply and ground circuit	GW-54
	2. Check power window main switch power supply and ground circuit	GW-55*1 GW-56*2
Driver side power window alone does not operated.	1. Check front power window motor (driver side) circuit	GW-58*1 GW-60*2
	2. Replace power window main switch	EI-20
Front passenger side power window alone does not operated.	1. Check front power window motor (passenger side) circuit	GW-61*1 GW-65*2
Rear RH side power window alone does not operated.	1. Check rear power window motor RH circuit	GW-68
Rear LH side power window alone does not operated.	1. Check rear power window motor LH circuit	GW-71
Anti-pinch system does not operate normally (driver side).	1. Door window sliding part malfunction ● A foreign material adheres to window glass or glass run rubber ● Glass run rubber wear or deformation ● Sash is tilted too much, or not enough	—
	2. Limit switch adjustment	GW-91
	3. Check limit switch circuit (driver side)	GW-75*1 GW-78*2
	4. Check encoder circuit (driver side)	GW-80*1 GW-85*2
	5. Replace power window main switch	EI-20
Power window lock switch does not function.	1. Check power window lock switch	GW-88
Auto operation does not operate but manual operates normally (driver side).	1. Check encoder circuit (driver side)	GW-80*1 GW-85*2
	2. Replace power window main switch	EI-20

*1: With front power window
*2: With front & rear power window

Check BCM Power Supply and Ground Circuit

BIS000UQ

1. CHECK FUSE

- 10A fuse [No.5, located in fuse block (J/B)]
- 40A fusible link (letter **J** , located in the fuse and fusible link box)

NOTE:
Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

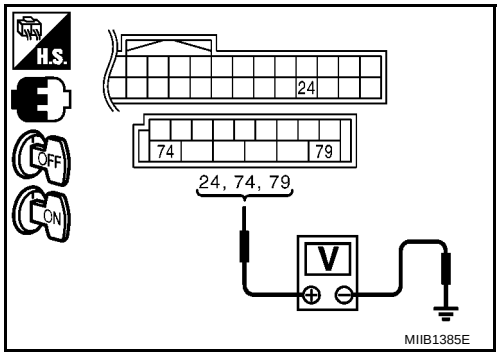
OK or NG

OK >> GO TO 2.
NG >> If fuse is blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4, "POWER SUPPLY ROUTING CIRCUIT" .

2. CHECK POWER SUPPLY CIRCUIT

Check voltage between BCM connector and ground.

BCM connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
M57	24	Ground	Ignition switch	ON	Battery voltage
M59	74			OFF	
	79				



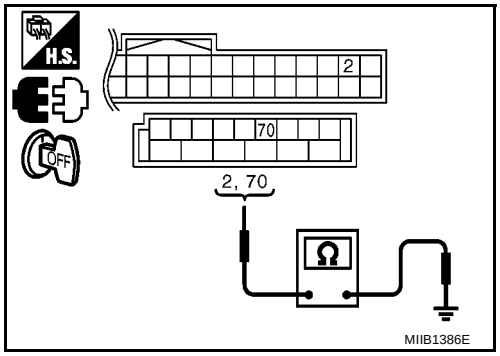
OK or NG

OK >> GO TO 3.
NG >> Check BCM power supply circuit for open or short.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector and ground.

BCM connector	Terminal	Ground	Continuity
M57	2		Yes
M59	70		



OK or NG

OK >> BCM power supply and ground circuit are OK.
NG >> Check BCM ground circuit for open.

Check Power Window Main Switch Power Supply and Ground Circuit

BIS000UR

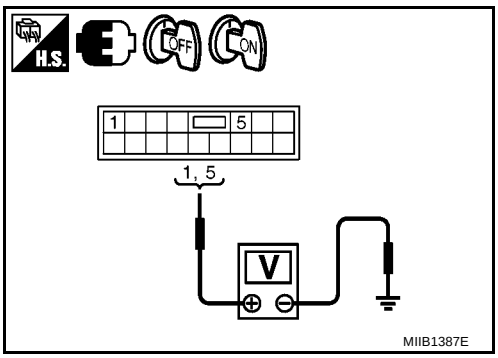
WITH FRONT POWER WINDOW

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window main switch connector and ground.

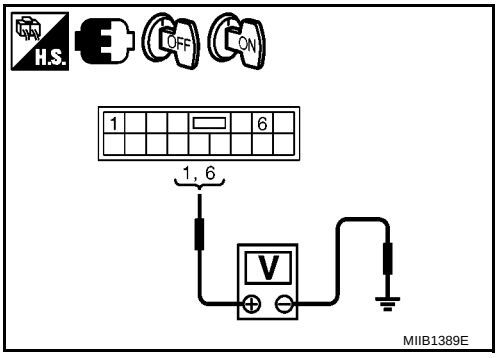
[LHD models]

Power window main switch connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D8	1	Ground	Ignition switch	ON	Battery voltage
	5			OFF	



[RHD models]

Power window main switch connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D8	1	Ground	Ignition switch	ON	Battery voltage
	6			OFF	



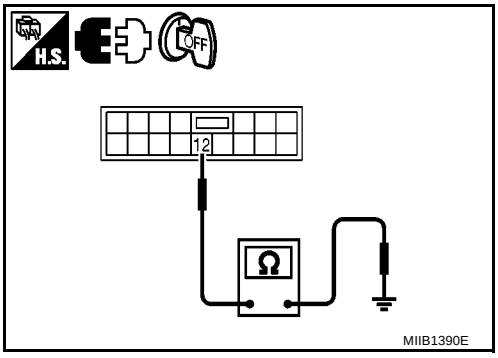
OK or NG

OK >> GO TO 2.
NG >> GO TO 3.

2. CHECK GROUND CIRCUIT

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

Power window main switch connector	Terminal	Ground	Continuity
D8	12		Yes

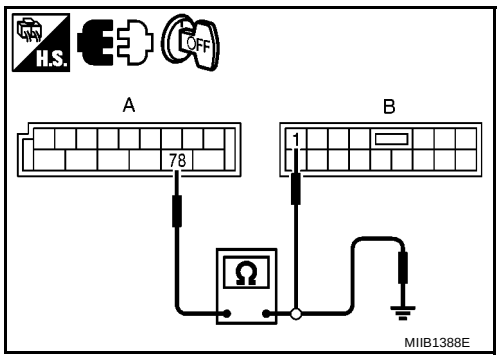


OK or NG

OK >> Power window main switch power supply and ground circuit are OK.
NG >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY

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



A		B		Continuity
BCM connector	Terminal	Power window main switch connector	Terminal	
M59	78	D8	1	Yes

3. Check continuity between BCM connector and ground.

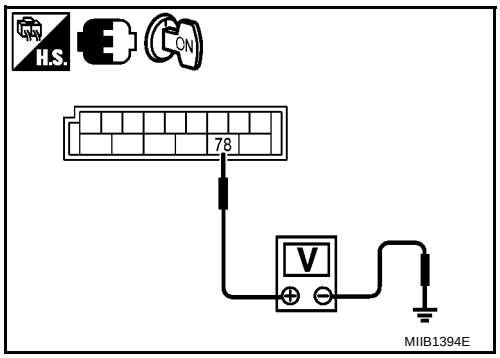
A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK BCM OUTPUT SIGNAL

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



BCM connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
M59	78	Ground	Battery voltage

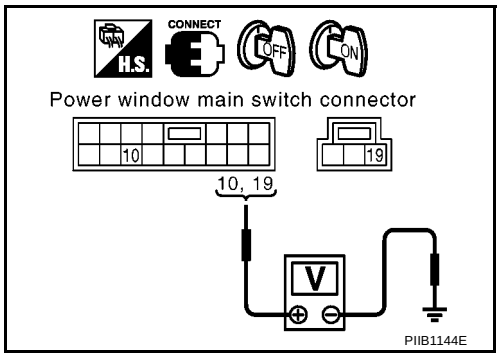
OK or NG

OK >> Check condition of harness and connector.
NG >> Replace BCM.

WITH FRONT & REAR POWER WINDOW

1. CHECK POWER SUPPLY CIRCUIT

Check voltage between power window main switch connector D8, D9 terminal 10, 19 and ground.



Connector	Terminal (Wire color)		Ignition switch condition	Voltage [V] (Approx.)
	(+)	(-)		
D8	10	Ground	ON	Battery voltage
D9	19		OFF	

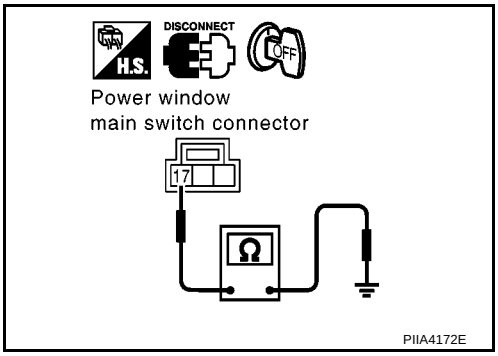
OK or NG

OK >> GO TO 2.
NG >> GO TO 3.

2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch connector D9 terminal 17 and ground.

17 – Ground : Continuity should exist.



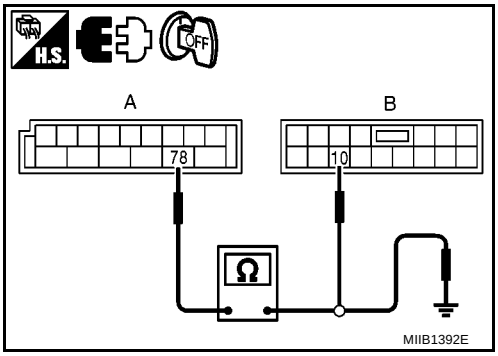
OK or NG

OK >> Power window main switch power supply and ground circuit are OK.
NG >> Repair or replace harness.

3. CHECK HARNESS CONTINUITY

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

A		B		Continuity
BCM connector	Terminal	Power window main switch connector	Terminal	
M59	78	D8	10	Yes



3. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

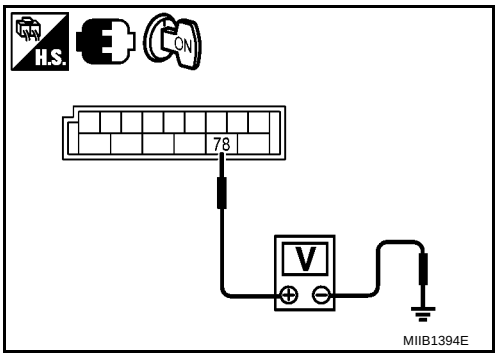
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK BCM OUTPUT SIGNAL

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

BCM connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
M59	78	Ground	Battery voltage



OK or NG

OK >> Check condition of harness and connector.
NG >> Replace BCM.

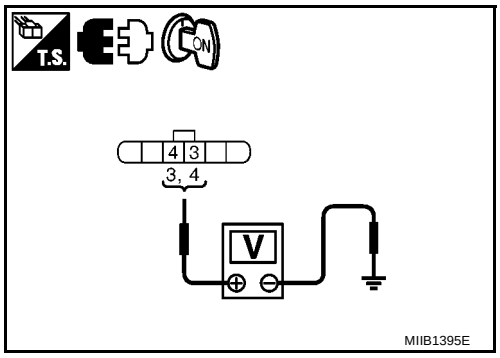
Check Front Power Window Motor (Driver Side) Circuit

BIS000US

WITH FRONT POWER WINDOW

1. CHECK POWER WINDOW MAIN SWITCH OUTPUT 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) connector and ground.



Front power window motor (driver side) connector	Terminal		Condition		Voltage [V] (Approx.)
	(+)	(–)			
D4	3	Ground	Power window main switch	UP	Battery voltage
				DOWN	0
	4			UP	0
				DOWN	Battery voltage

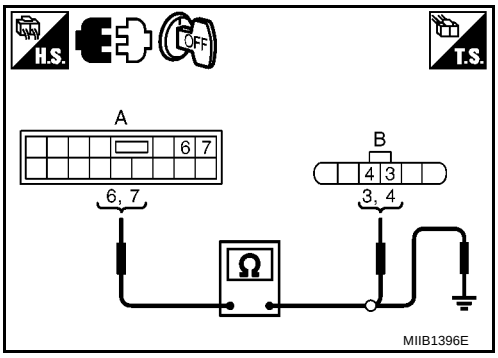
OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 2.

2. CHECK HARNESS CONTINUITY

[LHD models]

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



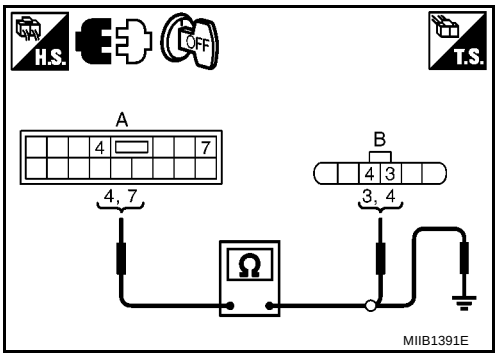
A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	6	D4	3	Yes
	7		4	

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	6		No
	7		

[RHD models]

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	4	D4	3	Yes
	7		4	

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	4		No
	7		

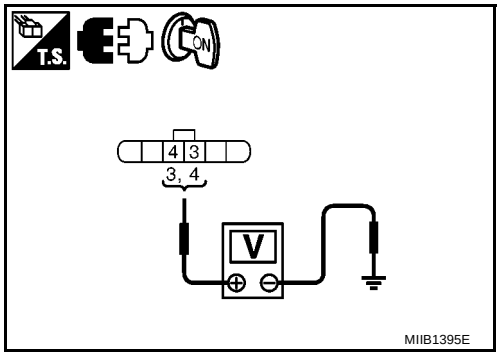
OK or NG

OK >> Replace power window motor.
NG >> Repair or replace harness between power window main switch and front power window motor (driver side).

WITH FRONT & REAR POWER WINDOW

1. CHECK POWER WINDOW MAIN SWITCH OUTPUT 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) connector and ground.



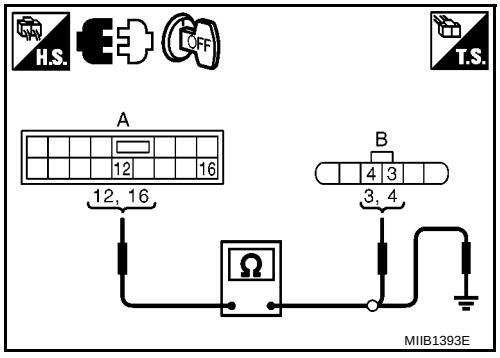
Front power window motor (driver side) connector	Terminal		Condition		Voltage [V] (Approx.)
	(+)	(–)			
D4	3	Ground	Power window main switch	UP	Battery voltage
				DOWN	0
	4			UP	0
				DOWN	Battery voltage

OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 2.

2. CHECK HARNESS CONTINUITY

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	12	D4	4	Yes
	16		3	

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	12		No
	16		

OK or NG

OK >> Replace power window motor.
NG >> Repair or replace harness between power window main switch and front power window motor (driver side).

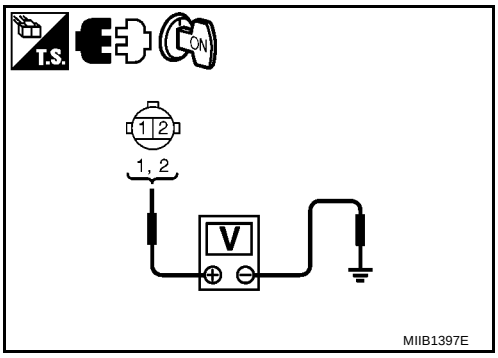
Check Front Power Window Motor (Passenger Side) Circuit

BIS000UT

WITH FRONT POWER WINDOW

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. 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) connector and ground.



Front power window motor (passenger side) connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D23	1	Ground	Switch*	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

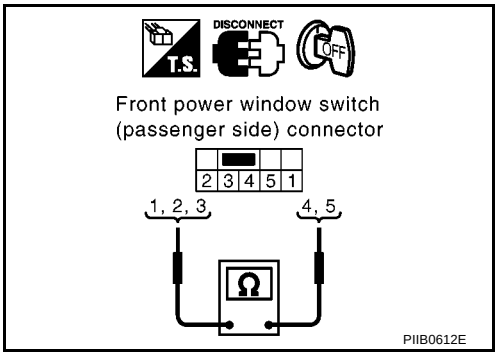
*: Power window main switch or front power window switch (passenger side)

OK or NG

OK >> Replace front power window motor (passenger side).
NG >> GO TO 2.

2. CHECK FRONT POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check continuity between front power window switch (passenger side) terminal 1, 2, 3 and 4, 5.



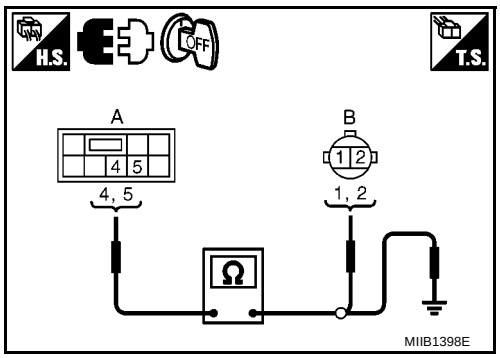
Terminals		Switch condition	Continuity
1	5	UP	Yes
	4	DOWN	
2	5	No operation	
3	4	No operation	

OK or NG

OK >> GO TO 3.
NG >> Replace front power window switch (passenger side).

3. CHECK HARNESS CONTINUITY 1

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



A		B		Continuity
Front power window switch (passenger side) connector	Terminal	Front power window motor (passenger side) connector	Terminal	
D27	4	D23	1	Yes
	5		2	

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

A		Ground	Continuity
Front power window switch (passenger side) connector	Terminal		
D27	4		No
	5		

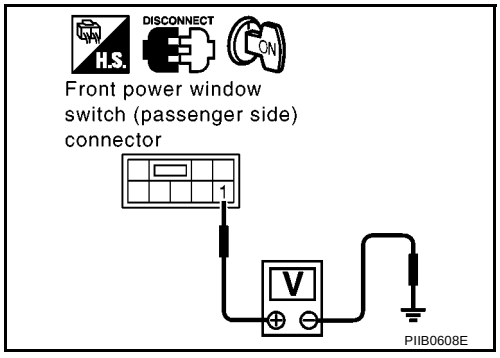
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK FRONT POWER WINDOW SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window switch (passenger side) connector D27 terminal 1 and ground.

1 – Ground : Battery voltage

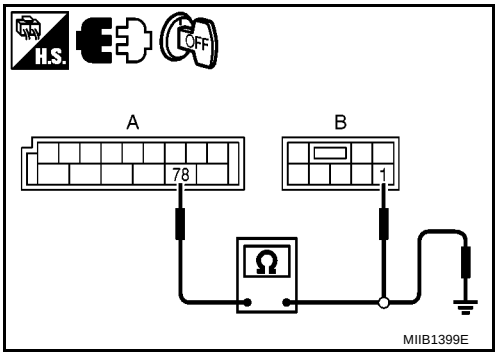


OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector and front power window switch (passenger side) connector.



A		B		Continuity
BCM connector	Terminal	Front power window switch (passenger side) connector	Terminal	
M59	78	D27	1	Yes

4. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

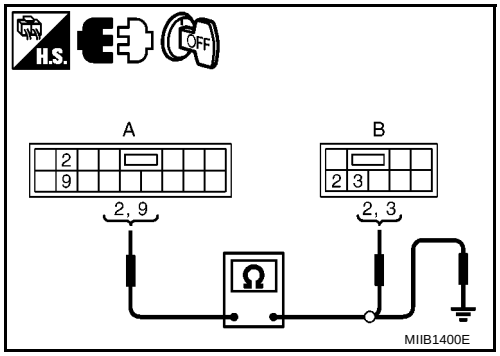
OK or NG

OK >> Check condition of harness and connector.
NG >> Repair or replace harness.

6. CHECK HARNESS CONTINUITY 3

[LHD models]

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



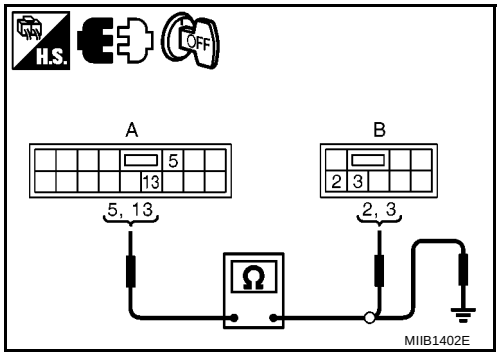
A		B		Continuity
Power window main switch connector	Terminal	Front power window switch (passenger side) connector	Terminal	
D8	2	D27	2	Yes
	9		3	

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	2		No
	9		

[RHD models]

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window switch (passenger side) connector	Terminal	
D8	13	D27	2	Yes
	5		3	

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	13		No
	5		

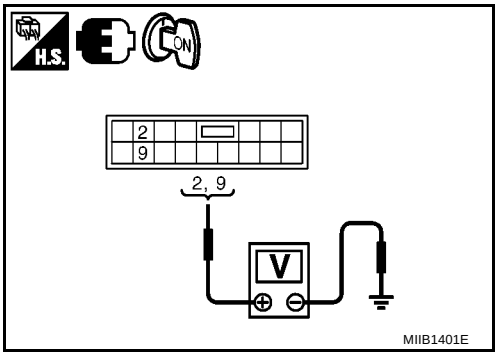
OK or NG

OK >> GO TO 7.
NG >> Repair or replace harness.

7. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

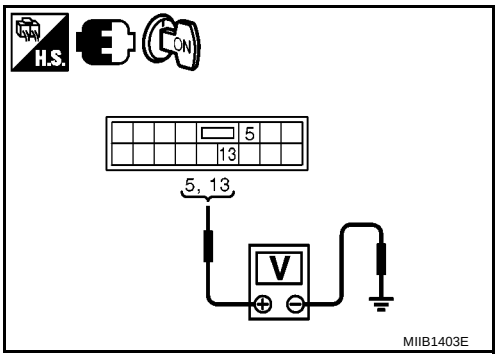
1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector and ground when operating passenger side switch in power window main switch.

[LHD models]



Power window main switch connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D8	2	Ground	Power window main switch	UP	Battery voltage
				DOWN	0
	9			UP	0
				DOWN	Battery voltage

[RHD models]



Power window main switch connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D8	13	Ground	Power window main switch	UP	Battery voltage
				DOWN	0
	5			UP	0
				DOWN	Battery voltage

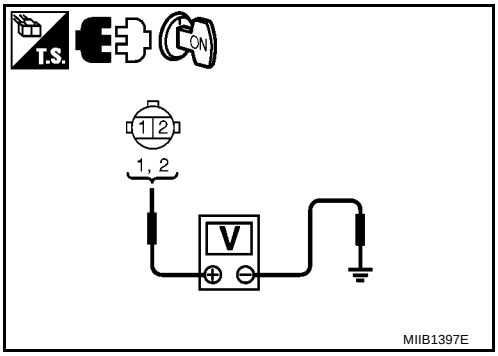
OK or NG

OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

WITH FRONT & REAR POWER WINDOW

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

1. 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) connector and ground.



Front power window motor (passenger side) connector	Terminal (+)	Terminal (–)	Condition		Voltage [V] (Approx.)
D23	1	Ground	Switch*	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

*: Power window main switch or front power window switch (passenger side)

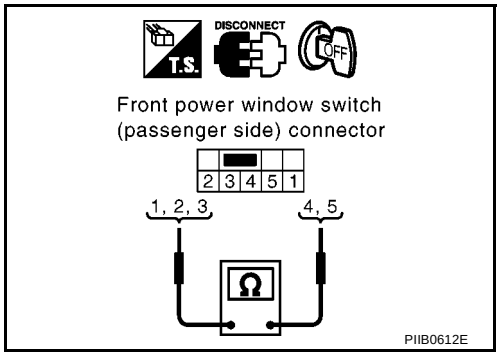
OK or NG

OK >> Replace front power window motor (passenger side).
NG >> GO TO 2.

2. CHECK FRONT POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) connector.
3. Check continuity between front power window switch (passenger side) terminal 1, 2, 3 and 4, 5.

Terminals		Switch condition	Continuity
1	5	UP	Yes
	4	DOWN	
2	5	No operation	
3	4	No operation	



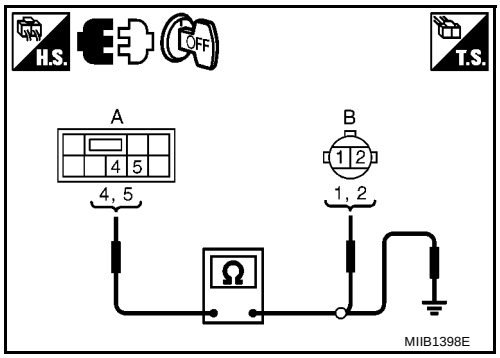
OK or NG

OK >> GO TO 3.
NG >> Replace front power window switch (passenger side).

3. CHECK HARNESS CONTINUITY 1

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

A		B		Continuity
Front power window switch (passenger side) connector	Terminal	Front power window motor (passenger side) connector	Terminal	
D27	4	D23	1	Yes
	5		2	



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

A		Ground	Continuity
Front power window switch (passenger side) connector	Terminal		
D27	4		No
	5		

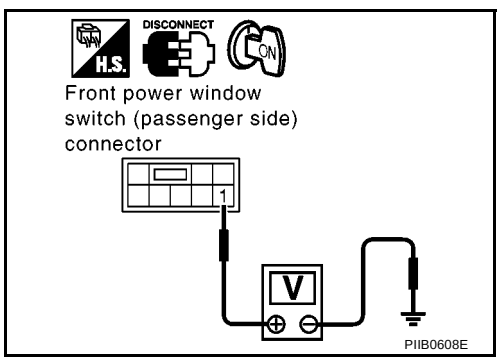
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK FRONT POWER WINDOW SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window switch (passenger side) connector D27 terminal 1 and ground.

1 – Ground : Battery voltage



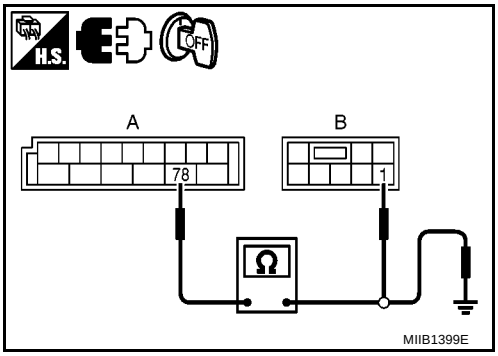
OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

1. Turn ignition switch OFF.
2. Disconnect BCM connector.
3. Check continuity between BCM connector and front power window switch (passenger side) connector.

A		B		Continuity
BCM connector	Terminal	Front power window switch (passenger side) connector	Terminal	
M59	78	D27	1	Yes



4. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

OK or NG

OK >> Check condition of harness and connector.
NG >> Repair or replace harness.

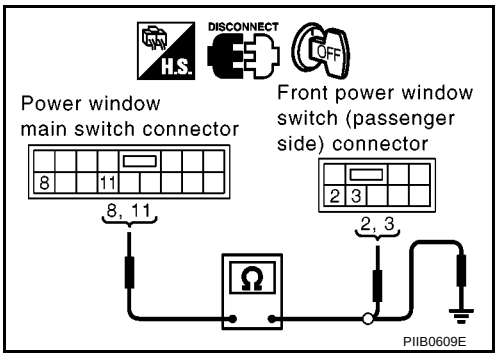
6. CHECK HARNESS CONTINUITY 3

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D8 terminal 8, 11 and front power window switch (passenger side) connector D27 terminal 2, 3.

8 – 2 : Continuity should exist.
11 – 3 : Continuity should exist.

3. Check continuity between power window main switch connector D8 terminal 8, 11 and ground.

8 – Ground : Continuity should not exist.
11 – Ground : Continuity should not exist.

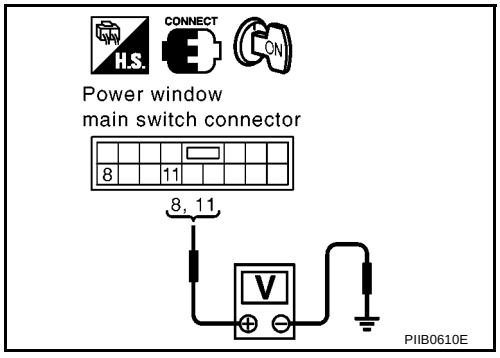


OK or NG

OK >> GO TO 7.
NG >> Repair or replace harness.

7. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector and ground when operating passenger side switch in power window main switch.



Connector	Terminals (Wire color)		Switch condition	Voltage [V] (Approx.)
	(+)	(-)		
D8	8	Ground	UP	Battery voltage
			DOWN	0
	11		UP	0
			DOWN	Battery voltage

OK or NG

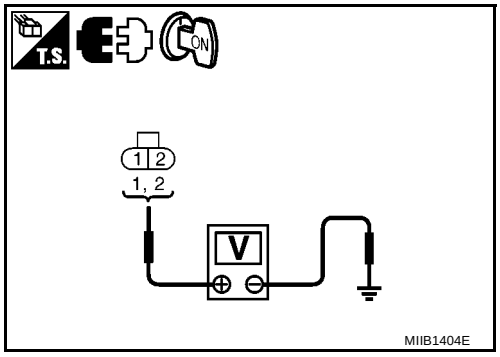
OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

Check Rear Power Window Motor RH Circuit

BIS000UU

1. CHECK POWER WINDOW SWITCH OUTPUT 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 connector and ground.



Rear power window motor RH connector	Terminal		Condition		Voltage [V] (Approx.)
	(+)	(–)			
D64	1	Ground	Switch*	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

*: Power window main switch or rear power window switch RH.

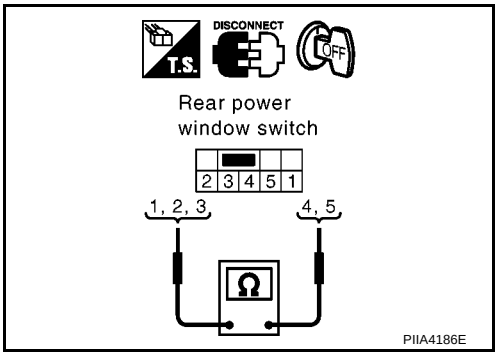
OK or NG

OK >> Replace rear power window motor RH.
NG >> GO TO 2.

2. CHECK REAR POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect rear power window switch RH connector.
3. Check continuity between rear power window switch RH terminal 1, 2, 3 and 4, 5.

Terminals		Switch condition	Continuity
1	5	UP	Yes
	4	DOWN	
2	5	No operation	
3	4	No operation	



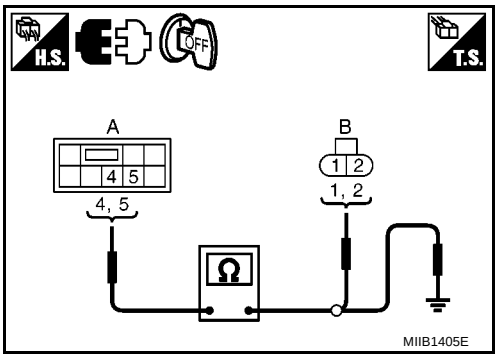
OK or NG

OK >> GO TO 3.
NG >> Replace rear power window switch RH.

3. CHECK HARNESS CONTINUITY 1

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

A		B		Continuity
Rear power window switch RH connector	Terminal	Rear power window motor RH connector	Terminal	
D63	4	D64	1	Yes
	5		2	



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

A		Ground	Continuity
Rear power window switch RH connector	Terminal		
D63	4		No
	5		

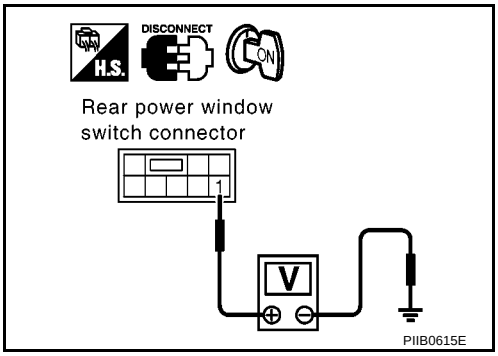
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between rear power window switch RH connector D63 terminal 1 and ground.

1 – Ground : Battery voltage

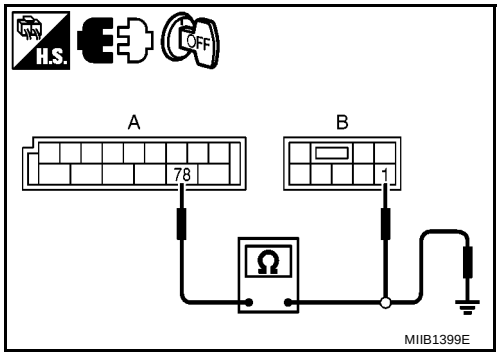


OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

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



A		B		Continuity
BCM connector	Terminal	Rear power window switch RH connector	Terminal	
M59	78	D63	1	Yes

4. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

OK or NG

OK >> Check condition of harness and connector.
NG >> Repair or replace harness.

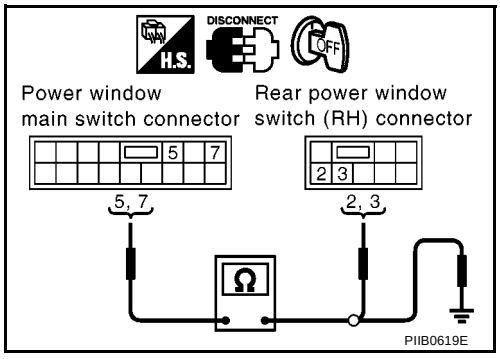
6. CHECK HARNESS CONTINUITY 3

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D8 terminal 5, 7 and rear power window switch RH connector D63 terminal 2, 3.

5 – 3 : Continuity should exist.
7 – 2 : Continuity should exist.

3. Check continuity between power window main switch connector D8 terminal 5, 7 and ground.

5 – Ground : Continuity should not exist.
7 – Ground : Continuity should not exist.



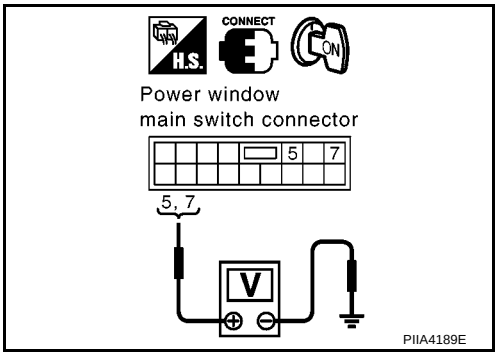
OK or NG

OK >> GO TO 7.
NG >> Repair or replace harness.

7. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector and ground when operating rear RH switch in power window main switch.

Connector	Terminals (Wire color)		Switch condition	Voltage [V] (Approx.)
	(+)	(-)		
D8	5	Ground	UP	0
			DOWN	Battery voltage
	7		UP	Battery voltage
			DOWN	0



OK or NG

OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

Check Rear Power Window Motor LH Circuit

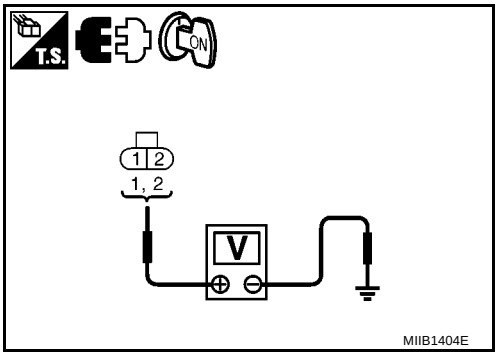
BIS000UV

1. CHECK POWER WINDOW SWITCH OUTPUT SIGNAL

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

Rear power window motor LH connector	Terminal		Condition		Voltage [V] (Approx.)
	(+)	(–)			
D44	1	Ground	Switch*	UP	0
				DOWN	Battery voltage
	2			UP	Battery voltage
				DOWN	0

*: Power window main switch or rear power window switch LH.



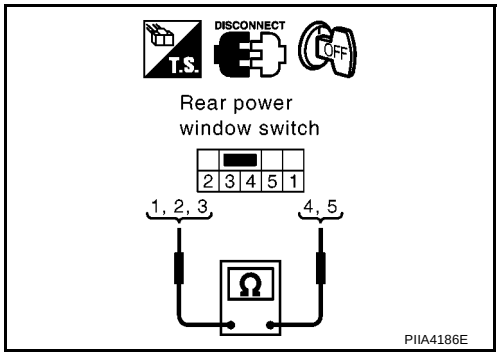
OK or NG

OK >> Replace rear power window motor LH.
NG >> GO TO 2.

2. CHECK REAR POWER WINDOW SWITCH

1. Turn ignition switch OFF.
2. Disconnect rear power window switch LH connector.
3. Check continuity between rear power window switch LH terminal 1, 2, 3 and 4, 5.

Terminals		Switch condition	Continuity
1	5	UP	Yes
	4	DOWN	
2	5	No operation	
3	4	No operation	



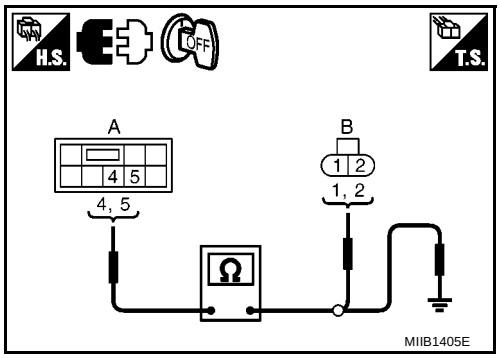
OK or NG

OK >> GO TO 3.
NG >> Replace rear power window switch LH.

3. CHECK HARNESS CONTINUITY 1

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

A		B		Continuity
Rear power window switch LH connector	Terminal	Rear power window motor LH connector	Terminal	
D43	4	D44	1	Yes
	5		2	



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

A		Ground	Continuity
Rear power window switch LH connector	Terminal		
D43	4		No
	5		

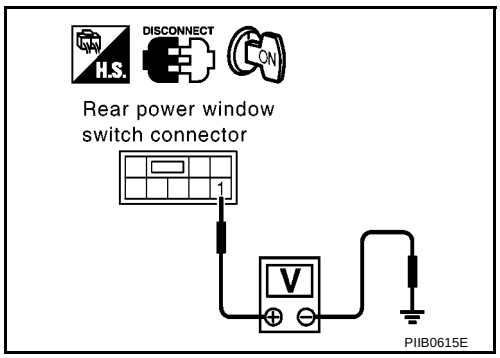
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK REAR POWER WINDOW SWITCH POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between rear power window switch LH connector D43 terminal 1 and ground.

1 – Ground : Battery voltage

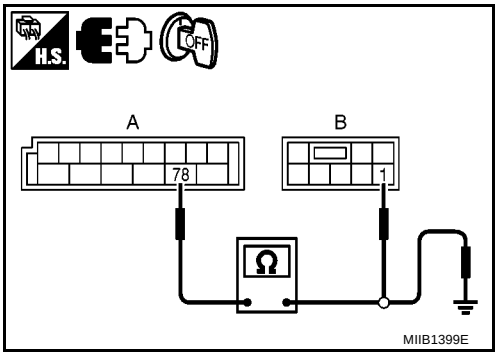


OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

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



A		B		Continuity
BCM connector	Terminal	Rear power window switch LH connector	Terminal	
M59	78	D43	1	Yes

4. Check continuity between BCM connector and ground.

A		Ground	Continuity
BCM connector	Terminal		
M59	78		No

OK or NG

OK >> Check condition of harness and connector.
NG >> Repair or replace harness.

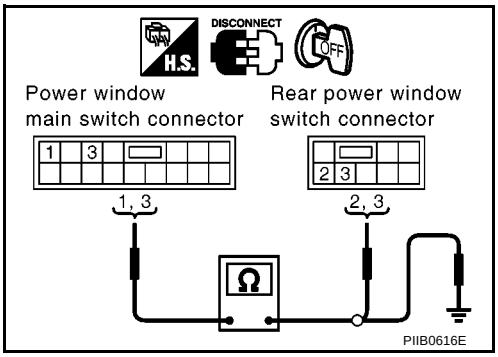
6. CHECK HARNESS CONTINUITY 3

1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector D8 terminal 1, 3 and rear power window switch LH connector D43 terminal 2, 3.

1 – 2 : Continuity should exist.
3 – 3 : Continuity should exist.

3. Check continuity between power window main switch connector D8 terminal 1, 3 and ground.

1 – Ground : Continuity should not exist.
3 – Ground : Continuity should not exist.

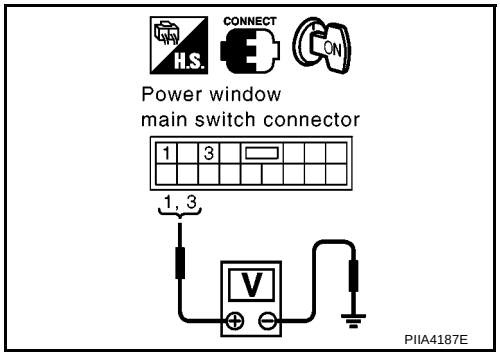


OK or NG

OK >> GO TO 7.
NG >> Repair or replace harness.

7. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Check voltage between power window main switch connector and ground when operating rear LH switch in power window main switch.



Connector	Terminals (Wire color)		Switch condition	Voltage [V] (Approx.)
	(+)	(-)		
D8	1	Ground	UP	Battery voltage
			DOWN	0
	3		UP	0
			DOWN	Battery voltage

OK or NG

OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

Check Limit Switch Circuit (Driver Side)

BIS000UW

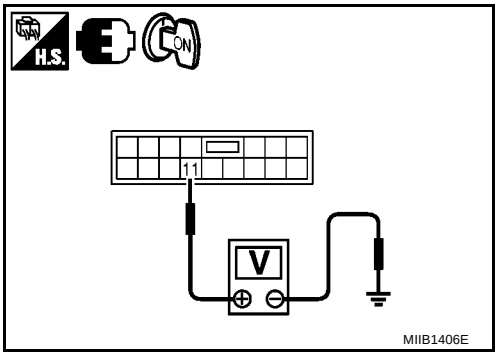
WITH FRONT POWER WINDOW

1. CHECK POWER WINDOW MAIN SWITCH LIMIT SWITCH SIGNAL

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

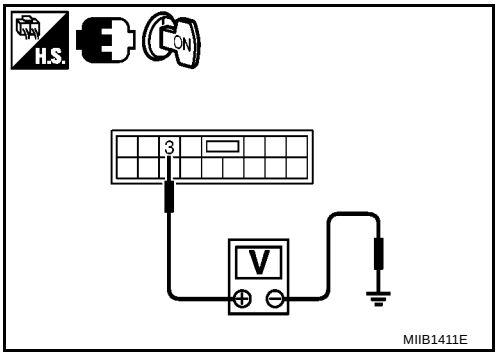
[LHD models]

Power window main switch connector	Terminal (+)	Terminal (–)	Condition	Voltage [V] (Approx.)
D8	11	Ground	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5



[RHD models]

Power window main switch connector	Terminal (+)	Terminal (–)	Condition	Voltage [V] (Approx.)
D8	3	Ground	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5



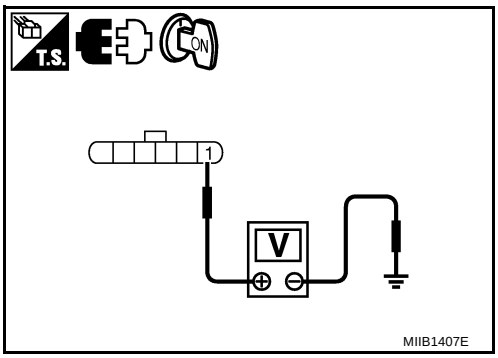
OK or NG

OK >> Limit switch circuit is OK.
NG >> GO TO 2.

2. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE 1

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) connector and ground.

Front power window motor (driver side) connector	Terminal (+)	Terminal (–)	Voltage [V] (Approx.)
D4	1	Ground	5

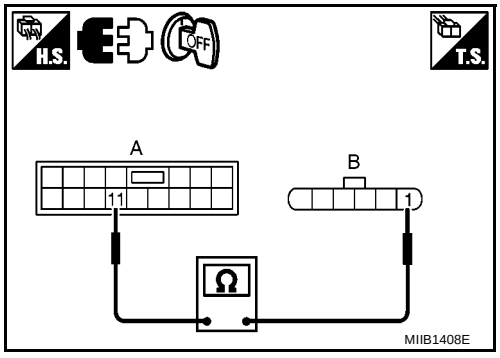


OK or NG

OK >> GO TO 5.
NG >> GO TO 3.

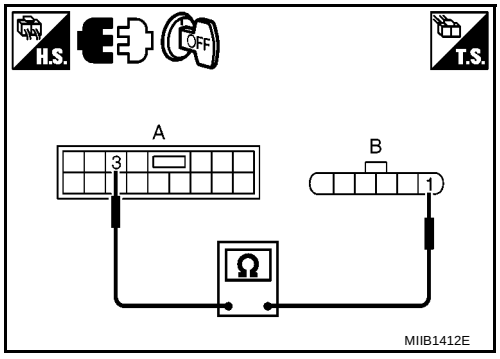
3. CHECK HARNESS CONTINUITY 1

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch connector and front power window motor (driver side) connector.
   [LHD models]



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	11	D4	1	Yes

[RHD models]



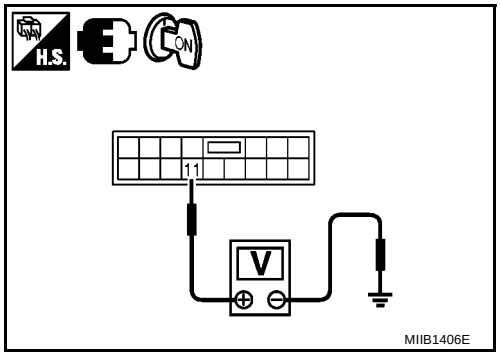
A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	3	D4	1	Yes

OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

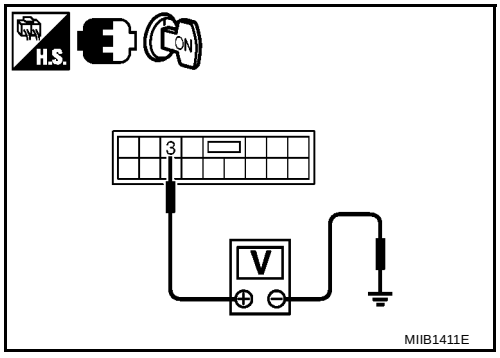
4. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE 2

1. Turn ignition switch ON.
2. Check voltage between power window main switch connector and ground.
   [LHD models]



Power window main switch connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
D8	11	Ground	5

[RHD models]



Power window main switch connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
D8	3	Ground	5

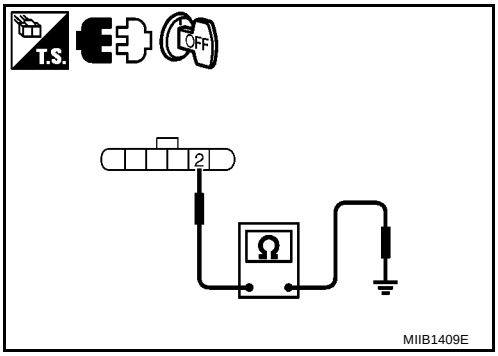
OK or NG

OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

5. CHECK GROUND CIRCUIT

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

Front power window motor (driver side) connector	Terminal	Ground	Continuity
D4	2		Yes



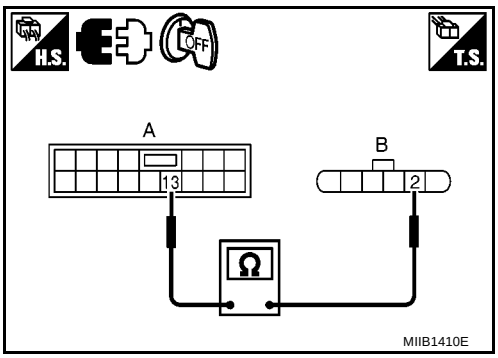
OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 6.

6. CHECK HARNESS CONTINUITY 2

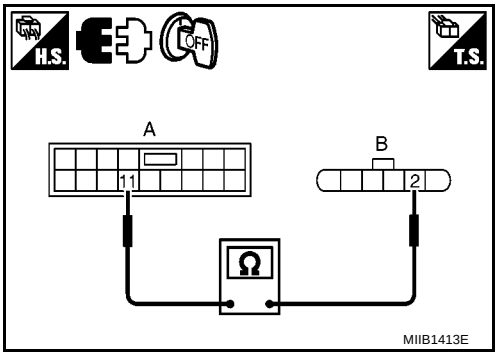
1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector and front power window motor (driver side) connector.
[LHD models]

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	13	D4	2	Yes



[RHD models]

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	11	D4	2	Yes



OK or NG

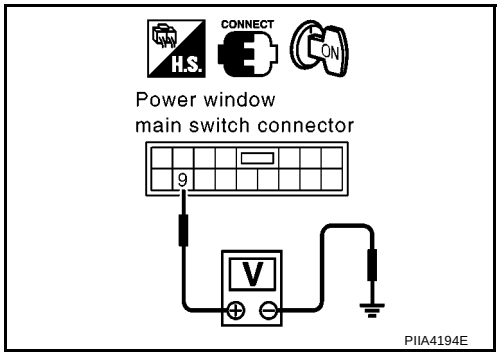
OK >> Replace power window main switch.
NG >> Repair or replace harness.

WITH RFONT & REAR POWER WINDOW

1. CHECK POWER WINDOW MAIN SWITCH LIMIT SWITCH SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage [V] (Approx.)
	(+)	(-)		
D8	9	Ground	Driver side door window is between fully-open position and just before fully-closed position (ON)	0
			Driver side door window is between just before fully-closed position and fully-closed position (OFF)	5



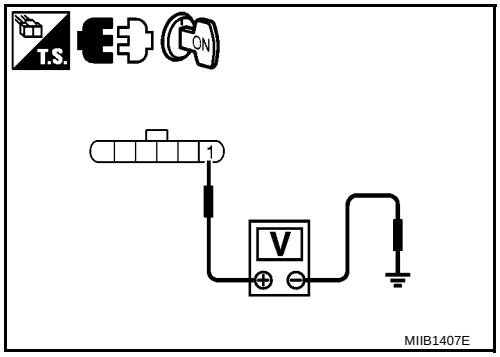
OK or NG

OK >> Limit switch circuit is OK.
NG >> GO TO 2.

2. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE 1

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) connector and ground.

Front power window motor (driver side) connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
D4	1	Ground	5



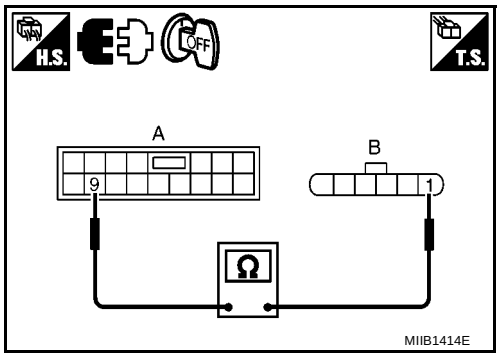
OK or NG

OK >> GO TO 5.
NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

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

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	9	D4	1	Yes



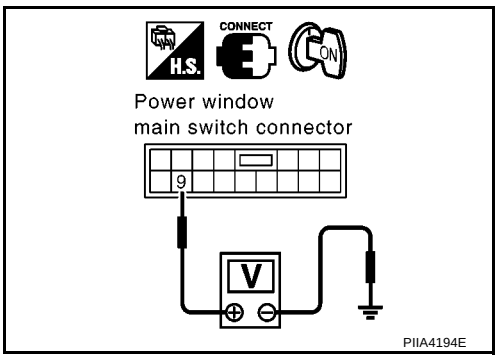
OK or NG

OK >> GO TO 4.
NG >> Repair or replace harness.

4. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE 2

1. Turn ignition switch ON.
2. Check voltage between power window main switch connector D8 terminal 9 and ground.

9 – Ground : Approx. 5V



OK or NG

OK >> Check condition of harness and connector.
NG >> Replace power window main switch.

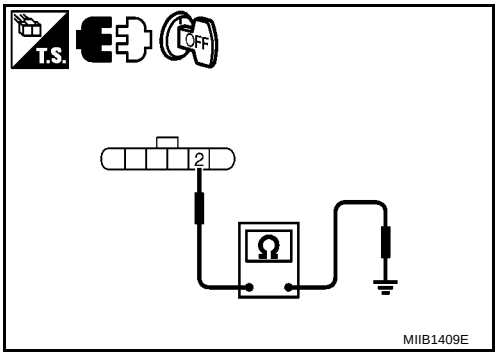
5. CHECK GROUND CIRCUIT

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

Front power window motor (driver side) connector	Terminal	Ground	Continuity
D4	2		Yes

OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 6.



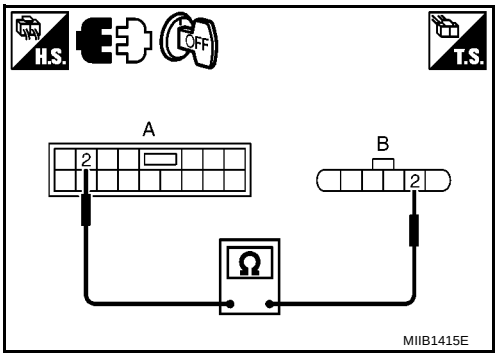
6. CHECK HARNESS CONTINUITY 2

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

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	2	D4	2	Yes

OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

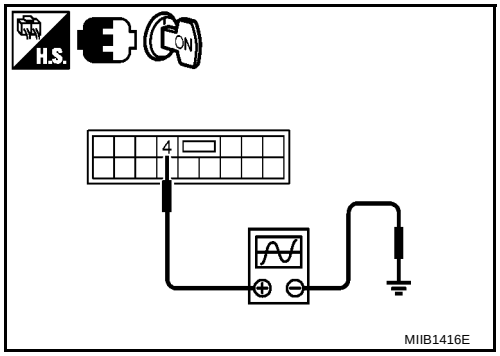


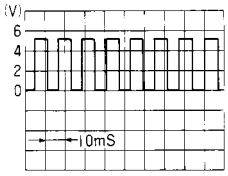
Check Encoder Circuit (Driver Side)
BIS000UX

WITH FRONT POWER WINDOW

1. CHECK ENCODER SIGNAL

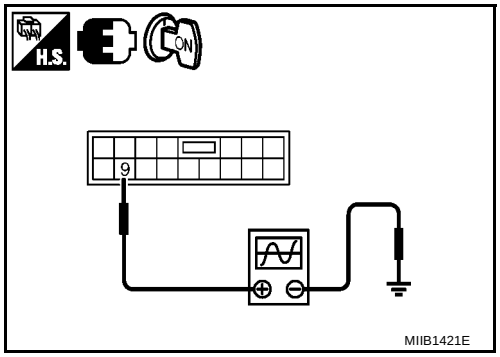
1. Turn ignition switch ON.
2. Check signal between power window main switch connector and ground with oscilloscope.
   [LHD models]

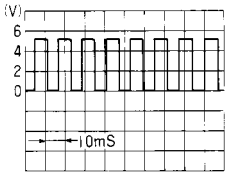


Power window main switch connector	Terminal (+)	Terminal (–)	Condition	Signal (Reference value)
D8	4	Ground	When power window motor operates	

OCC3383D

[RHD models]



Power window main switch connector	Terminal (+)	Terminal (–)	Condition	Signal (Reference value)
D8	9	Ground	When power window motor operates	

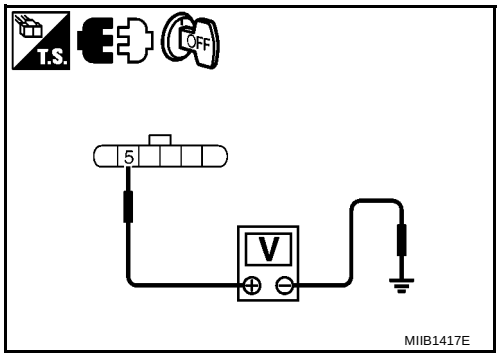
OCC3383D

OK or NG

OK >> Encoder circuit is OK.
NG >> GO TO 2.

2. CHECK ENCODER POWER SUPPLY

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) connector and ground.



Front power window motor (driver side) connector	Terminal (+)	Terminal (–)	Voltage [V] (Approx.)
D4	5	Ground	10

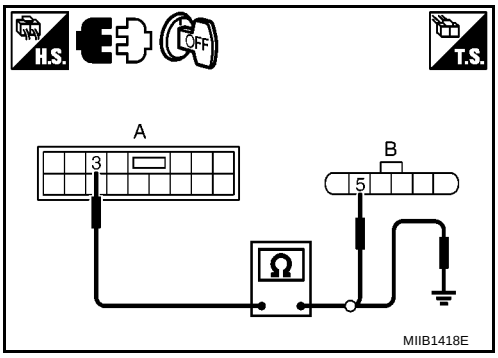
OK or NG

OK >> GO TO 4.
NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

[LHD models]

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



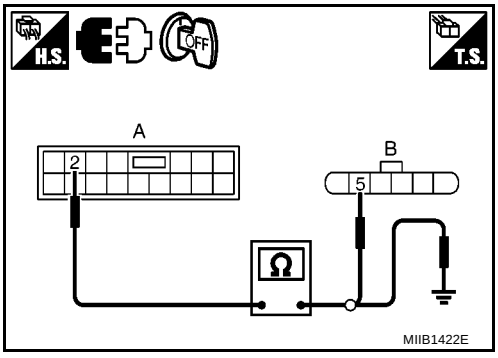
A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	3	D4	5	Yes

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	3		No

[RHD models]

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	2	D4	5	Yes

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	2		No

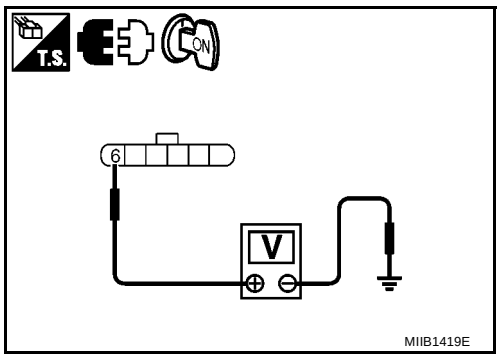
OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

4. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE

1. Check voltage between front power window motor (driver side) connector and round.

Front power window motor (driver side) connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
D4	6	Ground	5



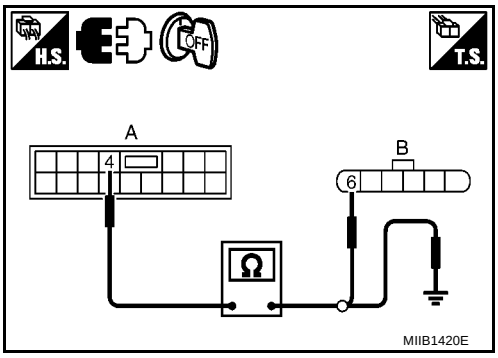
OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

[LHD models]

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



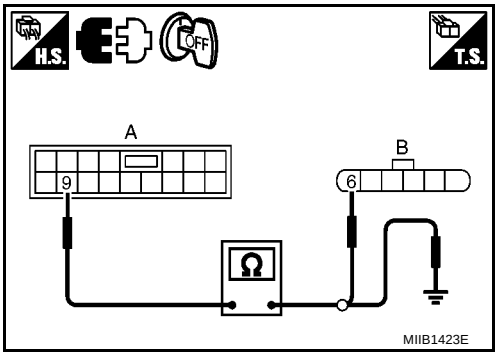
A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	4	D4	6	Yes

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	4		No

[RHD models]

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	9	D4	6	Yes

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

A		Ground	Continuity
Power window main switch connector	Terminal		
D8	9		No

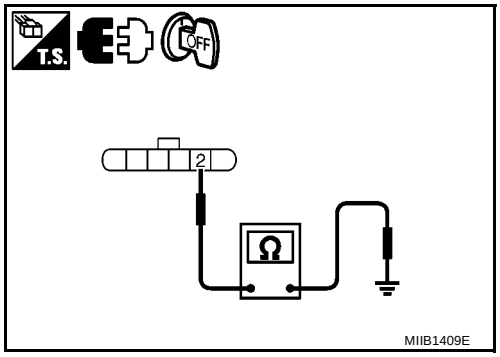
OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

6. CHECK GROUND CIRCUIT

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

Front power window motor (driver side) connector	Terminal	Ground	Continuity
D4	2		Yes



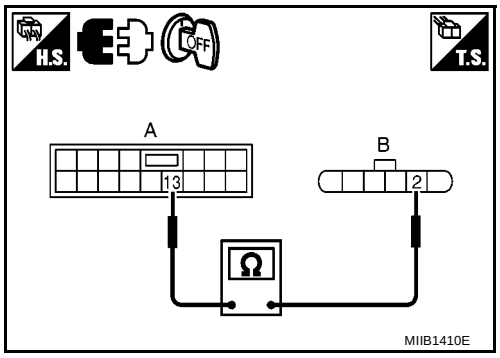
OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 7.

7. CHECK HARNESS CONTINUITY 3

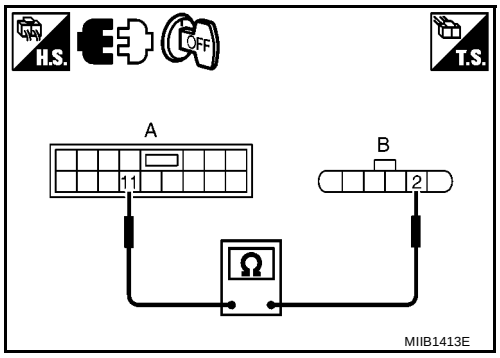
1. Disconnect power window main switch connector.
2. Check continuity between power window main switch connector and front power window motor (driver side) connector.
[LHD models]

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	13	D4	2	Yes



[RHD models]

A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	11	D4	2	Yes



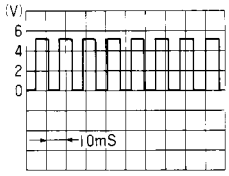
OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

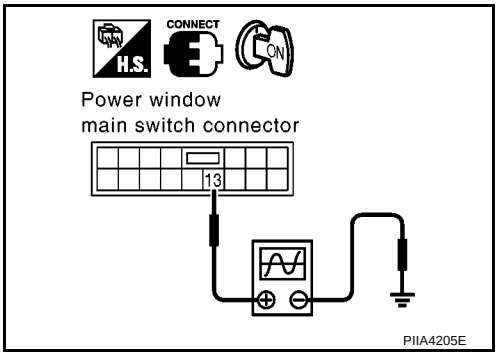
WITH FRONT & REAR POWER WINDOW

1. CHECK ENCODER SIGNAL

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

Connector	Terminals (Wire color) (+)	Terminals (Wire color) (-)	Condition	Signal (Reference value)
D8	13	Ground	opening	

OCC3383D



PIIA4205E

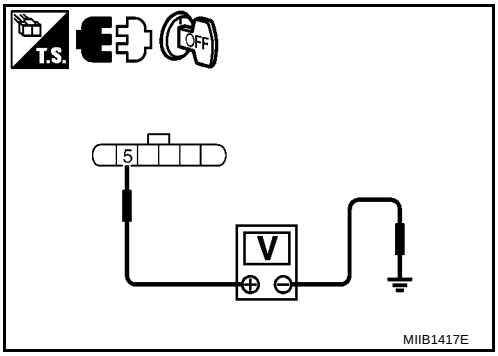
OK or NG

OK >> Encoder circuit is OK.
NG >> GO TO 2.

2. CHECK ENCODER POWER SUPPLY

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) connector and ground.

Front power window motor (driver side) connector	Terminal (+)	Terminal (–)	Voltage [V] (Approx.)
D4	5	Ground	10



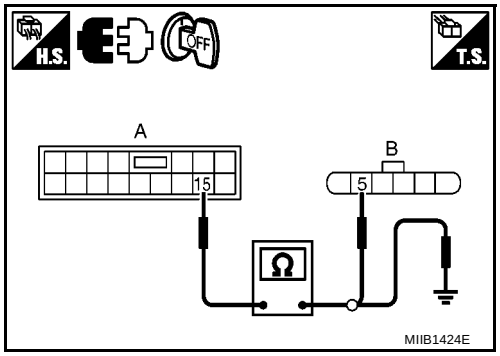
MIIB1417E

OK or NG

OK >> GO TO 4.
NG >> GO TO 3.

3. CHECK HARNESS CONTINUITY 1

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	15	D4	5	Yes

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

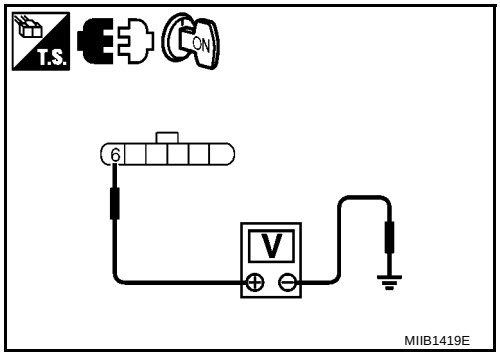
A		Ground	Continuity
Power window main switch connector	Terminal		
D8	15		No

OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

4. CHECK POWER WINDOW MAIN SWITCH OUTPUT VOLTAGE

1. Check voltage between front power window motor (driver side) connector and round.



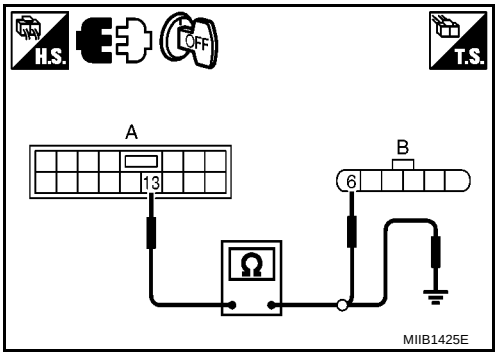
Front power window motor (driver side) connector	Terminal		Voltage [V] (Approx.)
	(+)	(–)	
D4	6	Ground	5

OK or NG

OK >> GO TO 6.
NG >> GO TO 5.

5. CHECK HARNESS CONTINUITY 2

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	13	D4	6	Yes

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

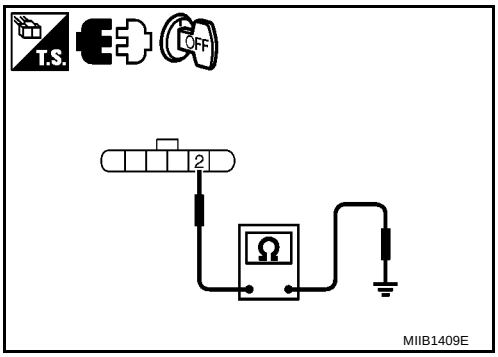
A		Ground	Continuity
Power window main switch connector	Terminal		
D8	13		No

OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

6. CHECK GROUND CIRCUIT

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



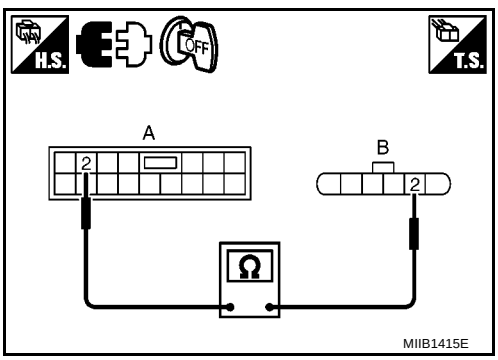
Front power window motor (driver side) connector	Terminal	Ground	Continuity
D4	2		Yes

OK or NG

OK >> Replace front power window motor (driver side).
NG >> GO TO 7.

7. CHECK HARNESS CONTINUITY 3

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



A		B		Continuity
Power window main switch connector	Terminal	Front power window motor (driver side) connector	Terminal	
D8	2	D4	2	Yes

OK or NG

OK >> Replace power window main switch.
NG >> Repair or replace harness.

Check Power Window Lock Switch

BIS0014S

1. CHECK POWER WINDOW LOCK SIGNAL

Exchanges for a normal power window main switch, and check operation.

Does power window lock operate?

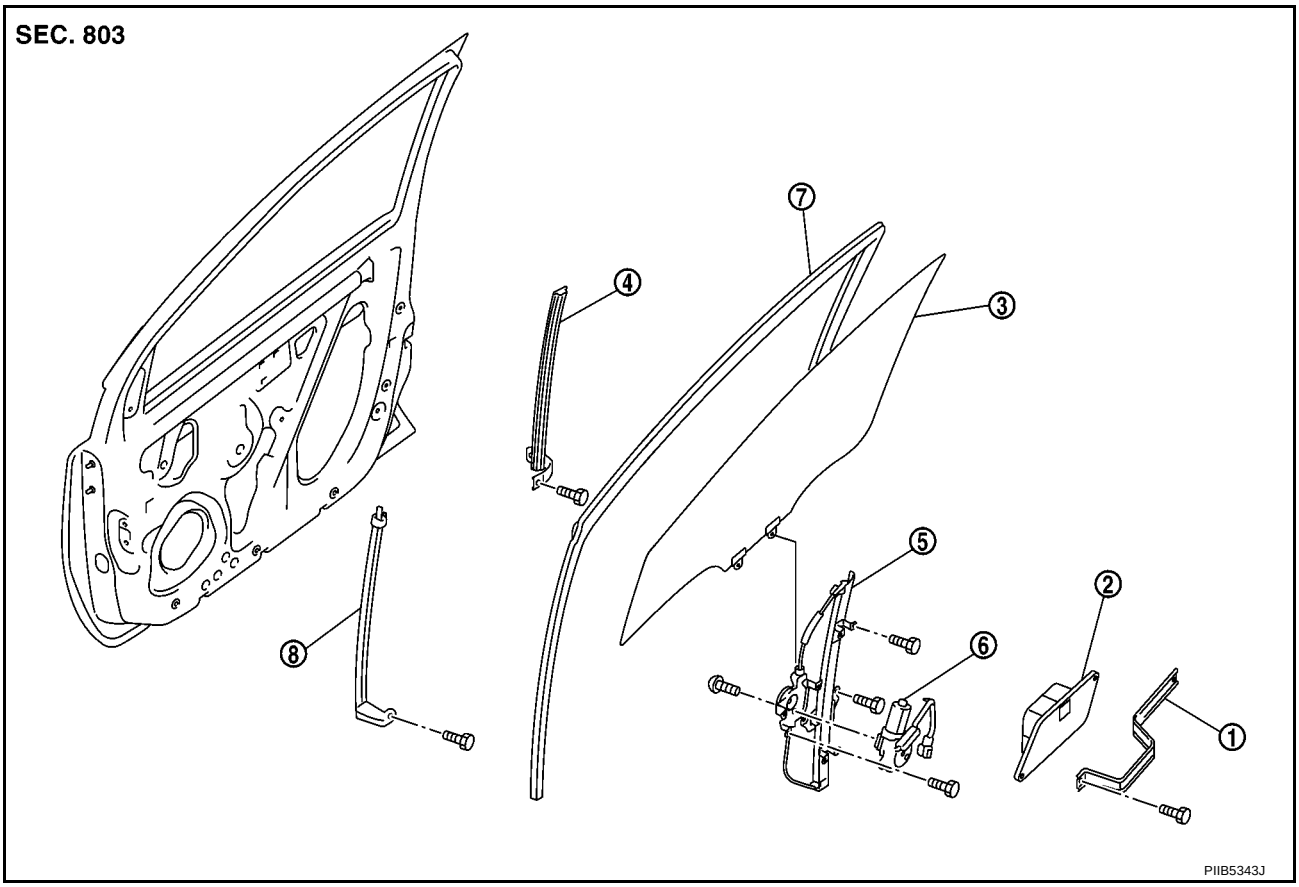
YES >> Replace power window main switch.
NO >> Check condition of harness and connector.

FRONT DOOR GLASS AND REGULATOR

PFP:80300

Removal and Installation

BIS000O1

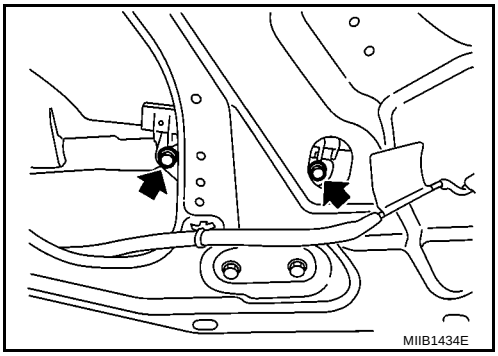


1. Pull handle bracket
2. Inner pad
3. Door glass
4. Lower sash (rear)
5. Regulator assembly
6. Power window motor
7. Door glass run
8. Lower sash (front)

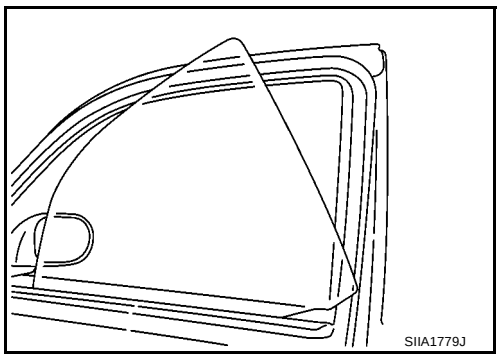
DOOR GLASS

Removal

1. Remove front door finisher. Refer to EI-20, "DOOR FINISHER" .
2. Remove pull handle bracket.
3. Fully close door glass.
4. Disconnect front speaker harness connector, and then remove sealing screen.
   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
5. Remove clip, and then remove inner pad.
6. While supporting door glass, operate power window switch to raise/lower door glass until glass bolts can be seen.
7. Remove door glass bolts.



8. While holding door glass, raise glass up from rear edge while pulling glass out of sash toward the inside of the door.



9. Remove lower sash (rear).
10. Remove door glass run.
11. Remove lower sash (front).

Installation

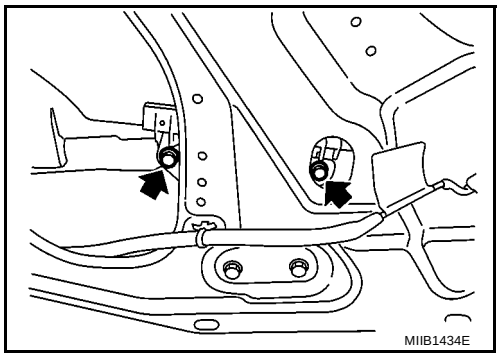
Install in the reverse order of removal.

REGULATOR ASSENBLY

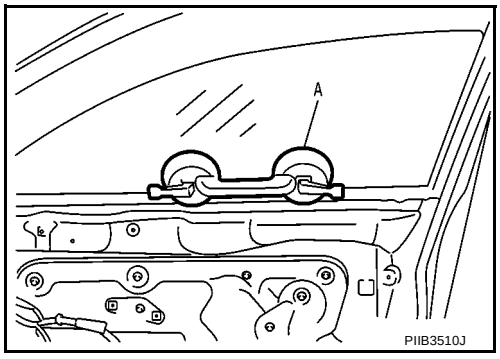
Removal

1. Remove front door finisher. Refer to EI-20, "DOOR FINISHER" .
2. Remove pull handle bracket.
3. Disconnect front speaker harness connector, and then remove sealing screen.

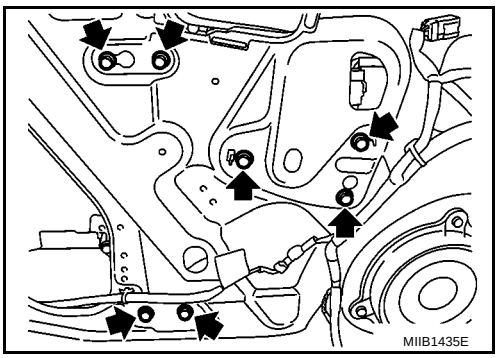
   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
4. Remove clips, and then remove inner pad.
5. Operate the power window main switch to raise/lower the door window until the glass mounting bolts can be seen.
6. Remove the glass mounting bolts.



7. Raise up the door glass and hold with a suction lifter A.



8. Remove power window motor bolts.



9. Disconnect the harness connector for the power window motor, and remove regulator assembly.

Installation

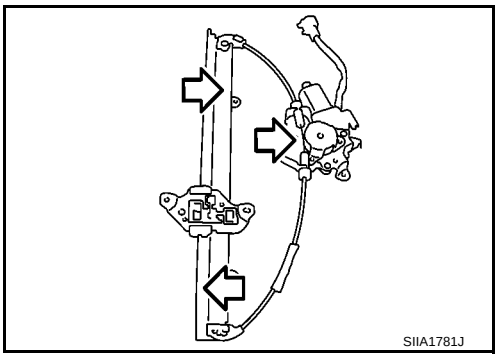
Install in the reverse order of removal.

Inspection after Removal

Check the regulator assembly for the following. If a failure is detected, replace or grease it.

- Wire wear
- Regulator assembly deformation
- Grease condition on each sliding part

Apply grease (Nissan MP Special Grease No. 2) to the areas indicted by the arrows in the figure.



Inspection after Installation

BIS0014Y

SYSTEM INITIALIZATION

If any of the following work has been done, initialize the system.

- Electric power supply to power window switch or motor is interrupted by blown fuse or disconnecting battery cable, etc.
- Removal and installation of the regulator assembly.
- Removal and installation of the motor from the regulator assembly.
- Removal and installation of the harness connector of the power window switch.
- Operate the regulator assembly as a unit.
- Removal and installation of the door glass.
- Removal and installation of the door glass run.

Initialization

After installing each component to the vehicle, follow the steps below.

1. Disconnect the minus terminal of battery or disconnect power window switch's harness connector temporarily, then reconnect after at least 1 minute.
2. Turn ignition switch ON.
3. Press and hold the Driver Down window switch until the window glass has reached the Lower Mechanical limit.
4. Release the Driver Down window switch.
5. Pull and hold the Driver Up window switch (to the second 'detent') until the window glass gas reached the Upper Mechanical limit and continue to hold the Driver Up window switch for a further 5 seconds after the glass has reached the Upper Mechanical limit (it is necessary that this whole operation is done with one continuous pull of the Driver Up switch).
6. Release the Driver Up window switch.
7. Inspection of the anti-pinch system function.

INSPECT THE FUNCTION OF THE ANTI-PINCH SYSTEM.

1. Fully open the door glass.
2. Place a wooden piece (wooden hammer handle etc.) at near fully closed position.
3. Carry out fully closing operation with auto up switch.
   - Check that the glass reverses without pinching the wooden piece, is lowered approx.150mm (5.91in) or for 2 seconds and then stops.
   - The glass should not be raised with power window main switch operated while it is reversing or lowering.

   CAUTION:
   - **Do not inspect with pinching a part of workers body, a hand etc. Work carefully not to be pinched.**
   - **Check that auto up function is normal before inspection following the system initialization.**

FITTING INSPECTION

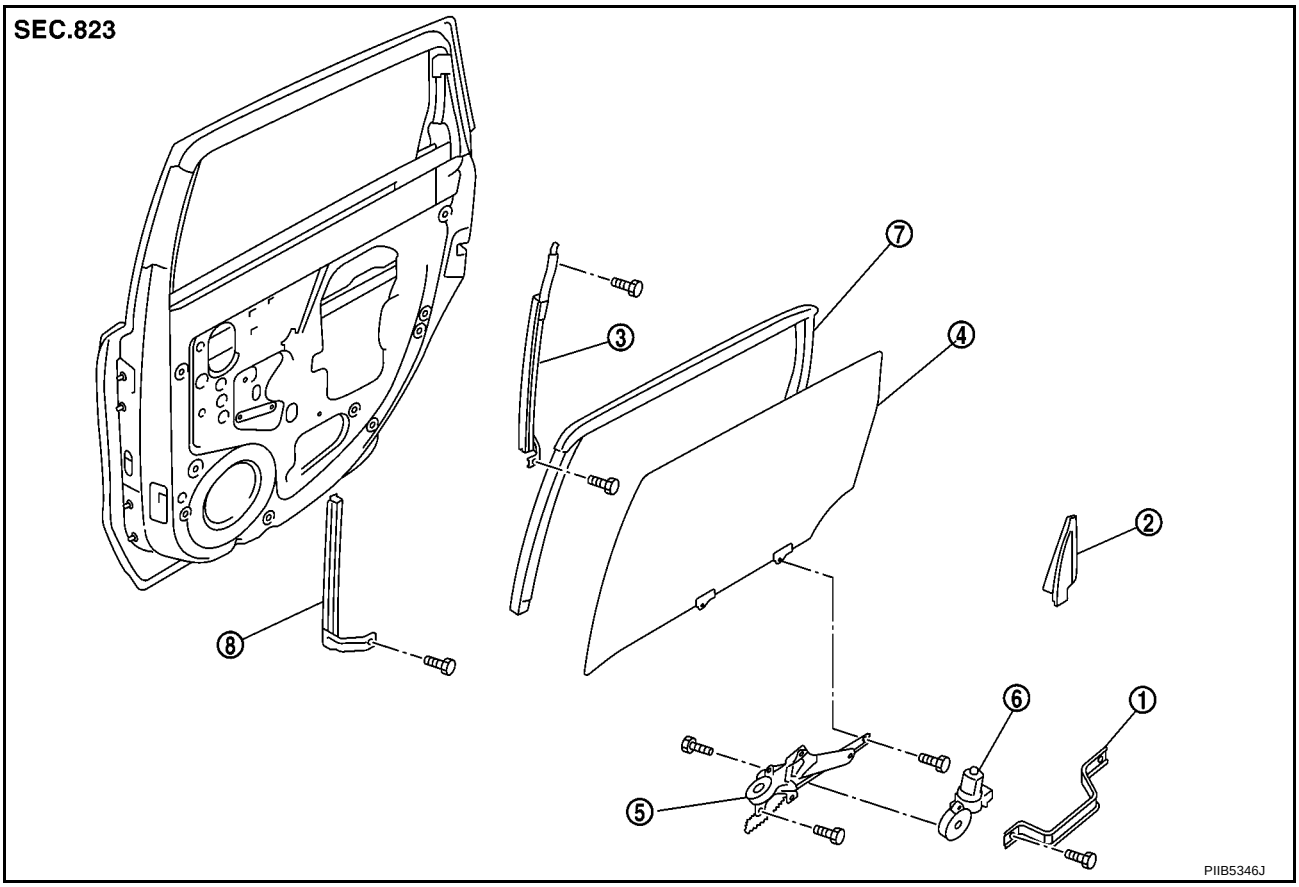
- Make sure glass is securely fit into door glass run groove.
- Lower glass slightly (approximately 10 to 20 mm), and confirm clearance to the sash is parallel. If clearance between glass and sash is not parallel, loosen bolts for regulator assembly, glass, and carrier plate, and then correct glass position.

REAR DOOR GLASS AND REGULATOR

PFP:82300

Removal and Installation

BIS000O2



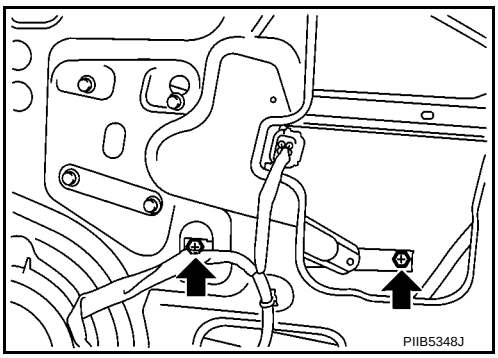
1. Pull handle bracket
2. Corner inner cover
3. Lower sash (rear)
4. Door glass
5. Regulator assembly
6. Power window motor
7. Door glass run
8. Lower sash (front)

DOOR GLASS

Removal

1. Fully open door glass.
2. Remove rear door finisher. Refer to EI-20, "DOOR FINISHER" .
3. Remove pull handle bracket.
4. Remove rear speaker harness connector.
5. Remove inner corner cover.
6. Remove sealing screen.

   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
7. Remove lower sash (rear) bolts, and remove lower sash (rear).
8. While supporting door glass, operate power window switch to raise/lower door glass until glass bolts can be seen.
9. Remove door glass bolts.
10. Pull door glass up to remove it.



11. Pull out and remove door glass run from door panel.
12. Remove lower sash (front) bolts, and then remove lower sash (front).

Installation

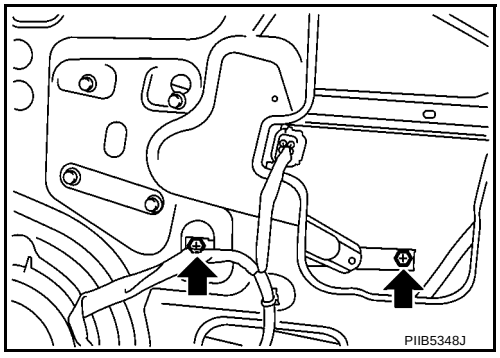
Install in the reverse order of removal.

REGULATOR ASSEMBLY

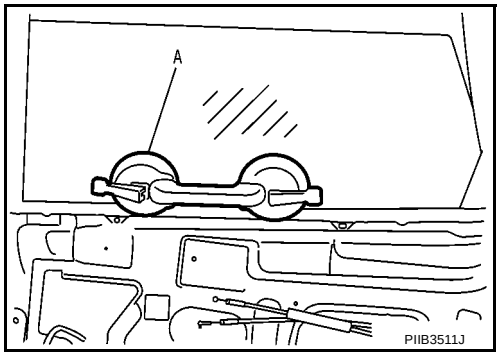
Removal

1. Remove rear door finisher. Refer to EI-20, "DOOR FINISHER" .
2. Remove pull handle bracket.
3. Remove rear speaker harness connector.
4. Remove sealing screen.

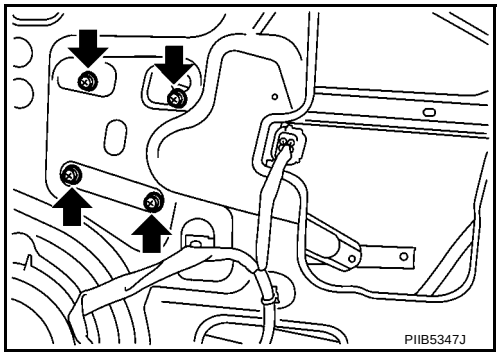
   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
5. Operate power window switch to raise/lower door glass until glass bolts can be seen.
6. Remove door glass bolts.



7. Raise up the door glass and hold with a suction lifter A.



8. Remove regulator assembly bolts to remove assembly out of door panel.



Installation

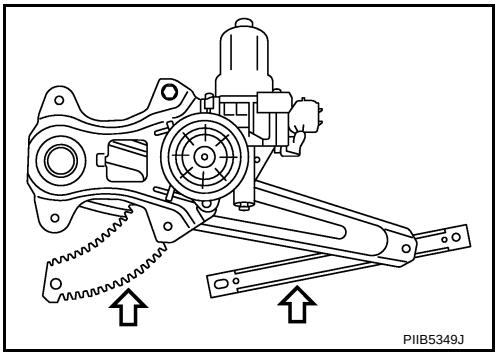
Install in the reverse order of removal.

Installation after Removal

Check the regulator assembly for the following. If a failure is detected, replace or grease it.

- Gear wear
- Regulator assembly deformation
- Grease condition on each sliding part

Apply grease (Nissan MP Special Grease No. 2) to the areas indicted by the arrows in the figure.



INSPECTION AFTER INSTALLATION

FITTING INSPECTION

- Make sure the window is seated in the groove of the glass run.
- Lower glass slightly (approximately 10 to 20 mm), and confirm clearance to the sash is parallel. If clearance between glass and sash is not parallel, loosen bolts for regulator assembly, glass, and main channel, and then correct glass position.

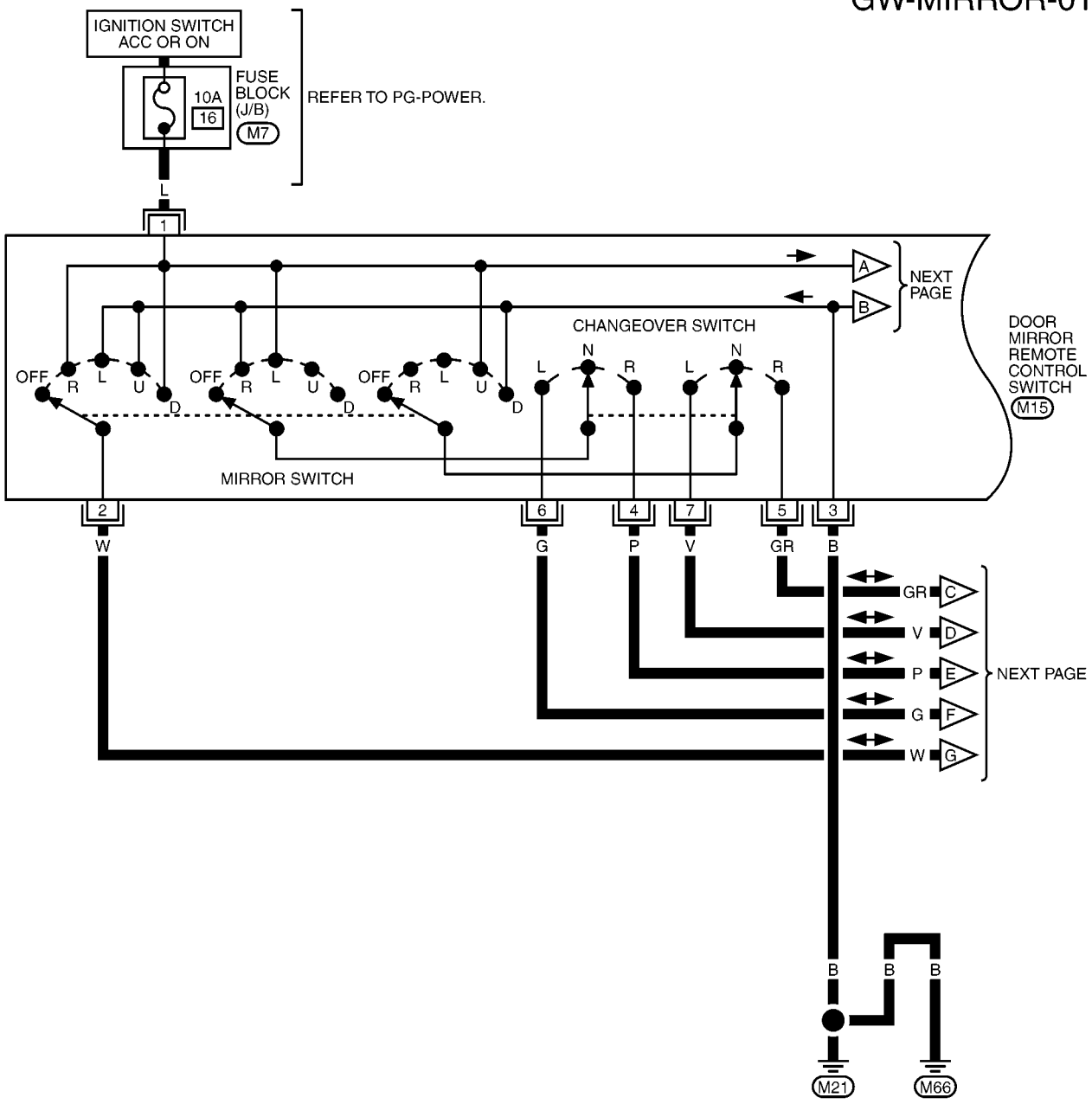
DOOR MIRROR

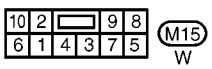
PFP:96301

Wiring Diagram — MIRROR — LHD Models (With Retract)

BIS000O3

GW-MIRROR-01

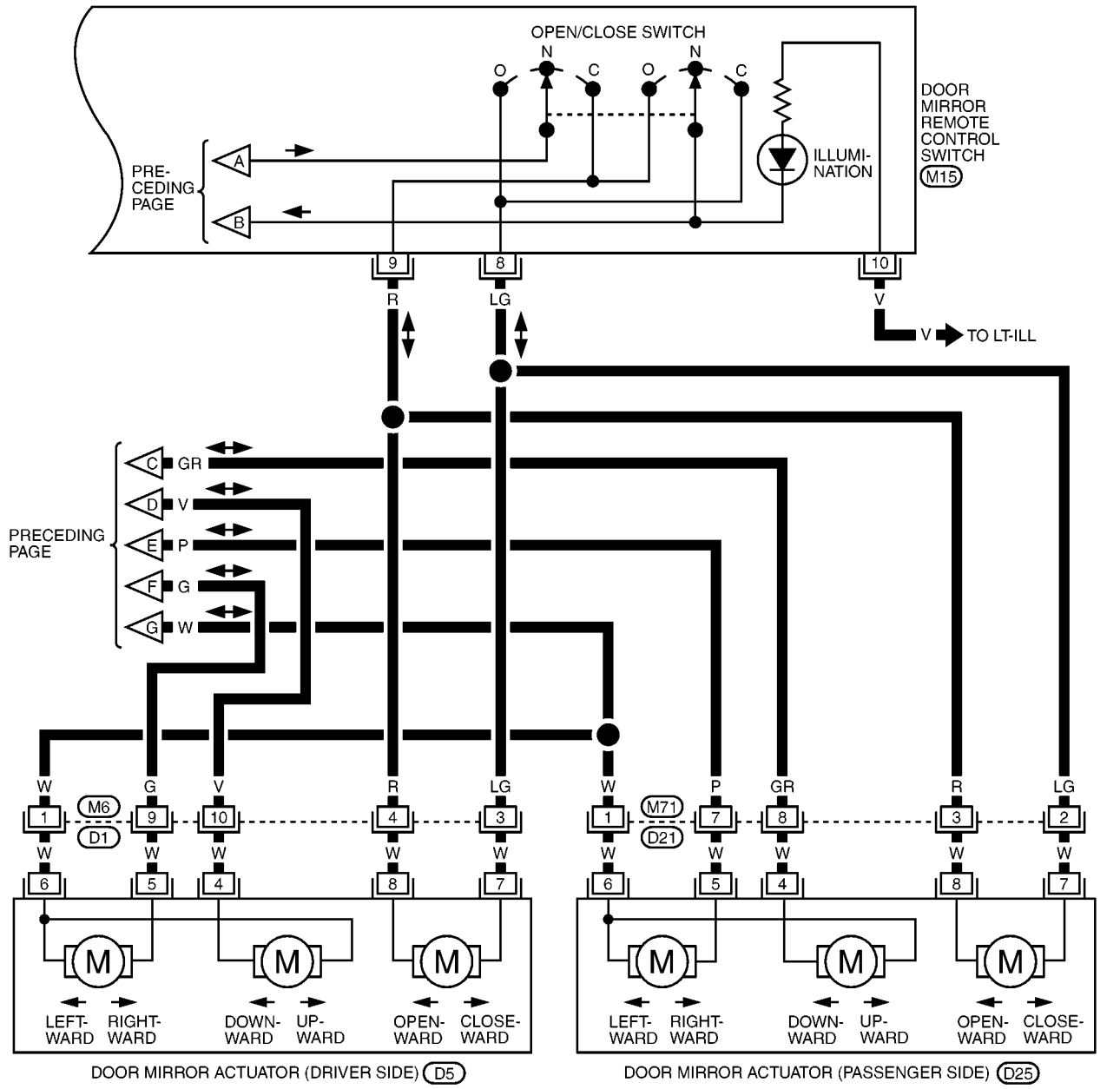


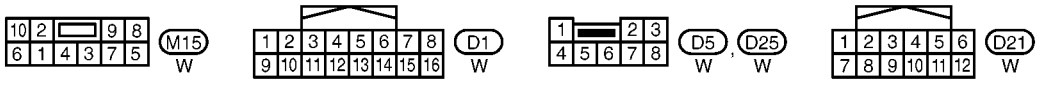


REFER TO THE FOLLOWING.
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

MIWA0683E

GW-MIRROR-02



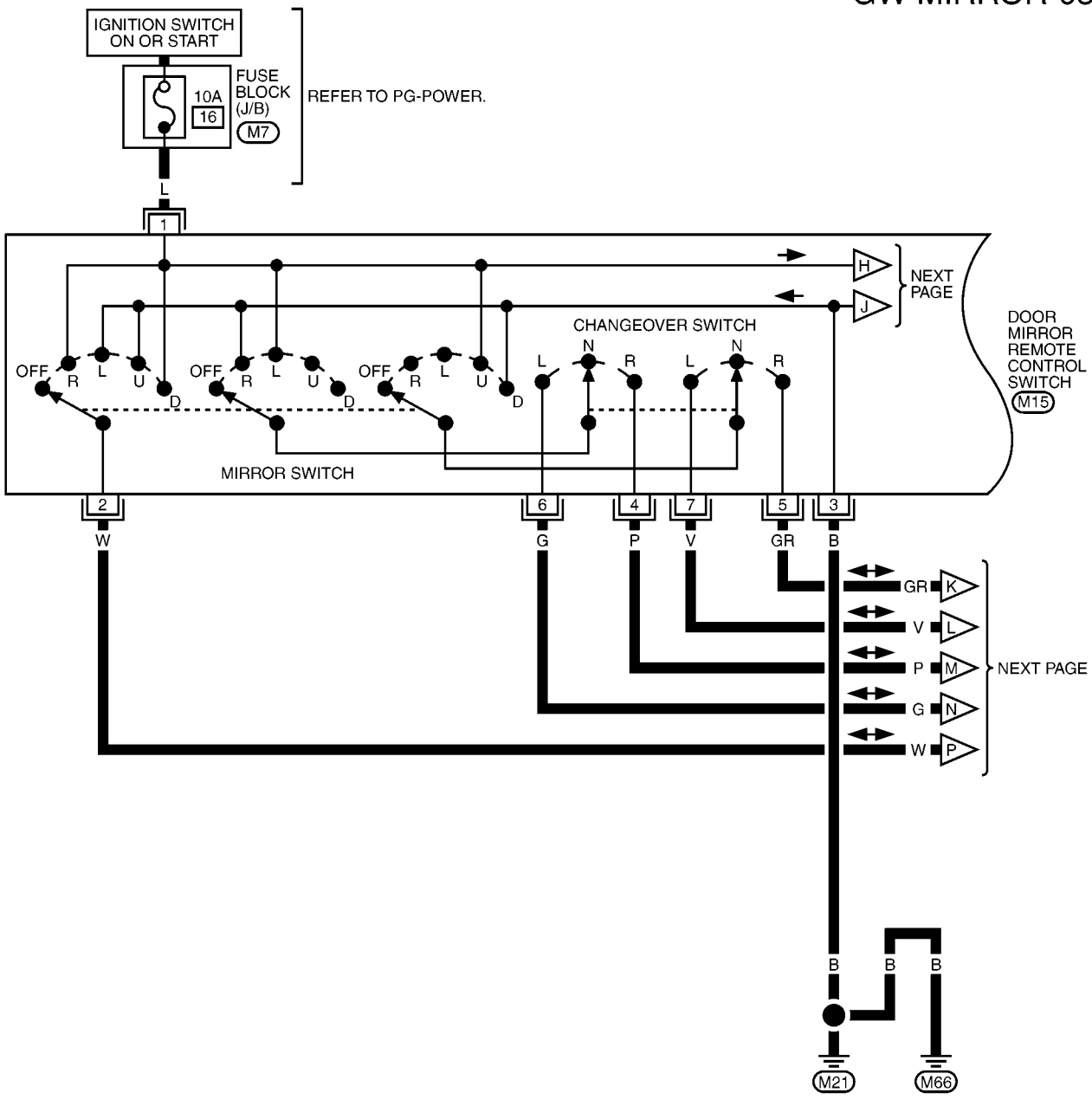


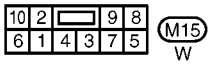
MIWA0684E

Wiring Diagram — MIRROR — RHD Models (With Retract)

BIS000O4

GW-MIRROR-03

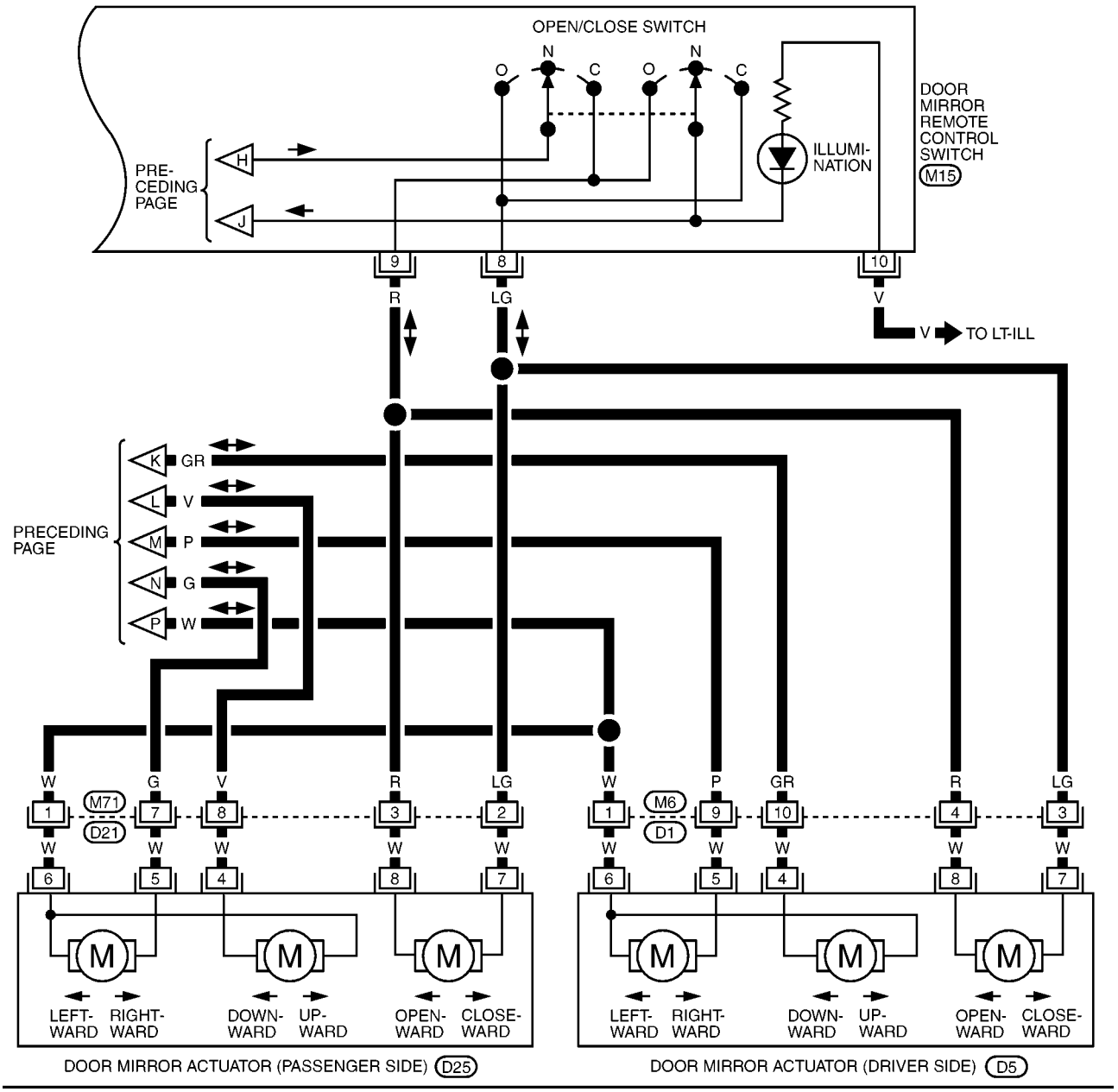


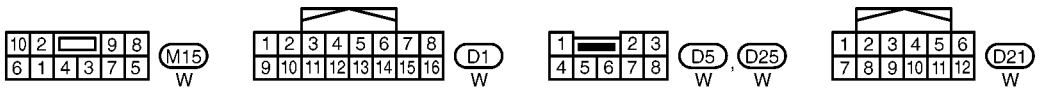


REFER TO THE FOLLOWING.
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

MIWA0685E

GW-MIRROR-04



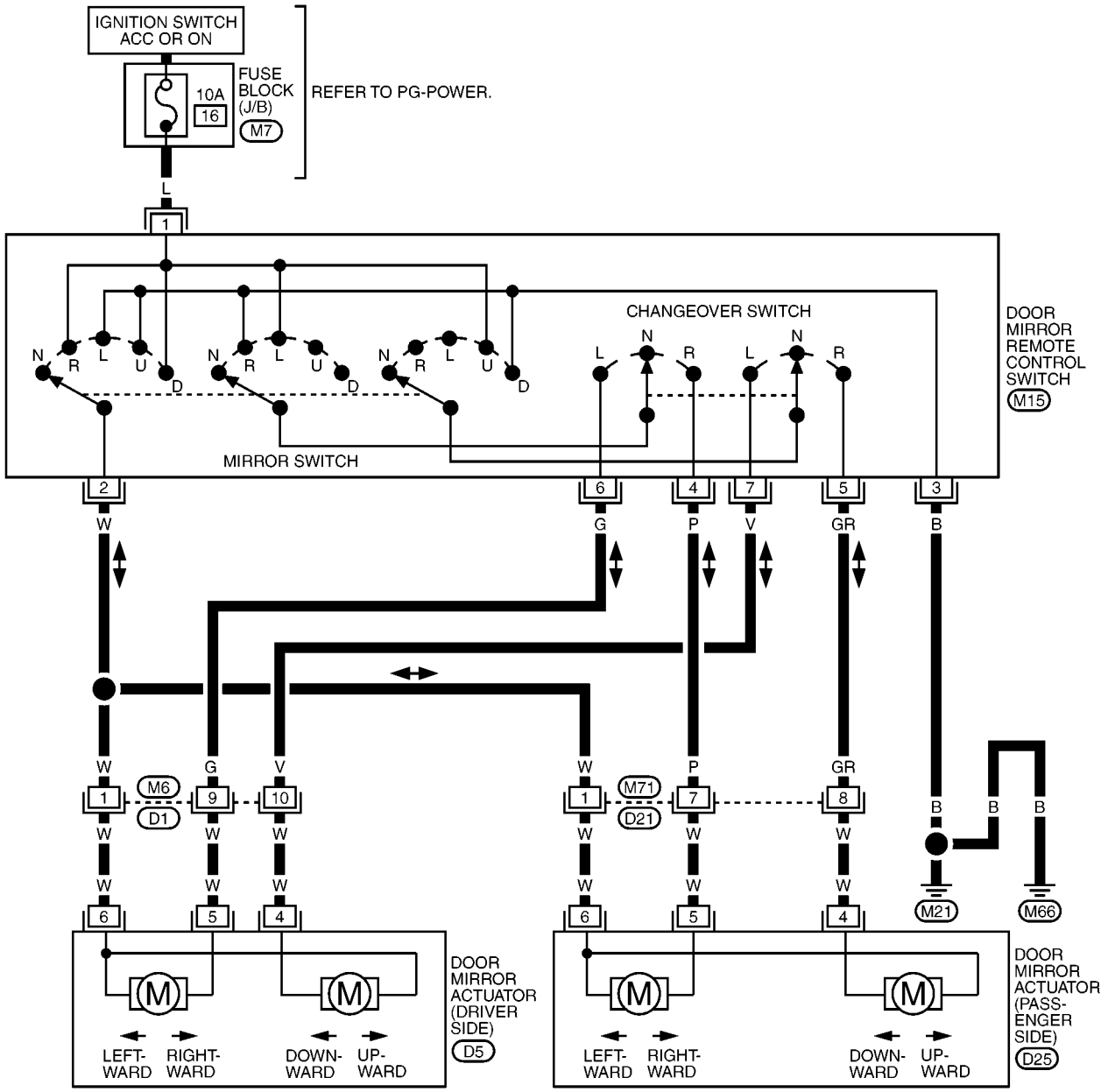


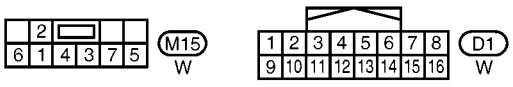
MIWA0686E

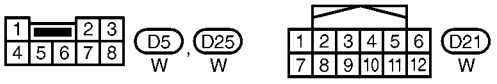
Wiring Diagram — MIRROR — LHD Models (Without Retract)

BIS000UH

GW-MIRROR-05





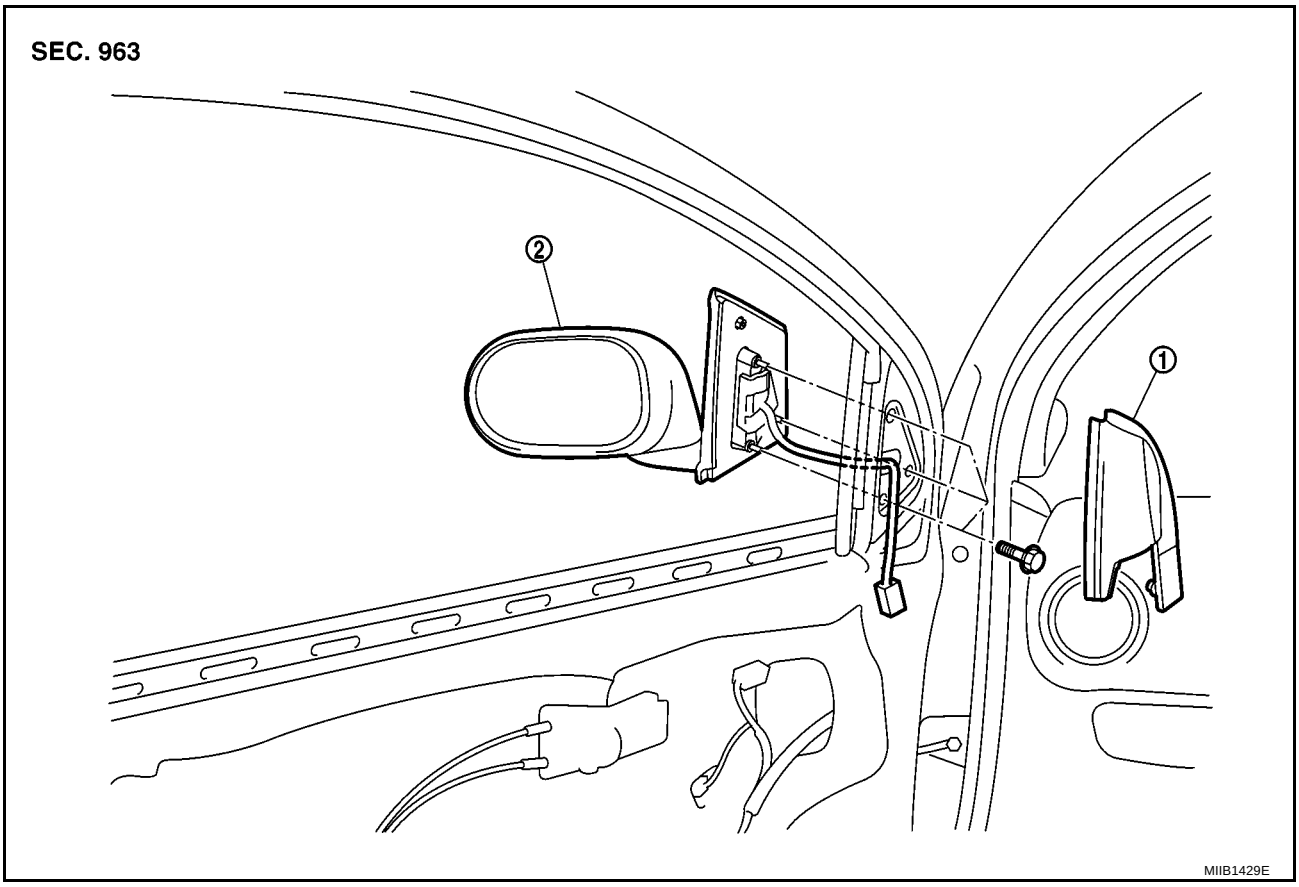


REFER TO THE FOLLOWING.
M7 - FUSE BLOCK - JUNCTION BOX (J/B)

MIWA0687E

Removal and Installation

BIS000O5



1. Corner cover
2. Door mirror assembly

CAUTION:
Be careful not to damage mirror body.

REMOVAL

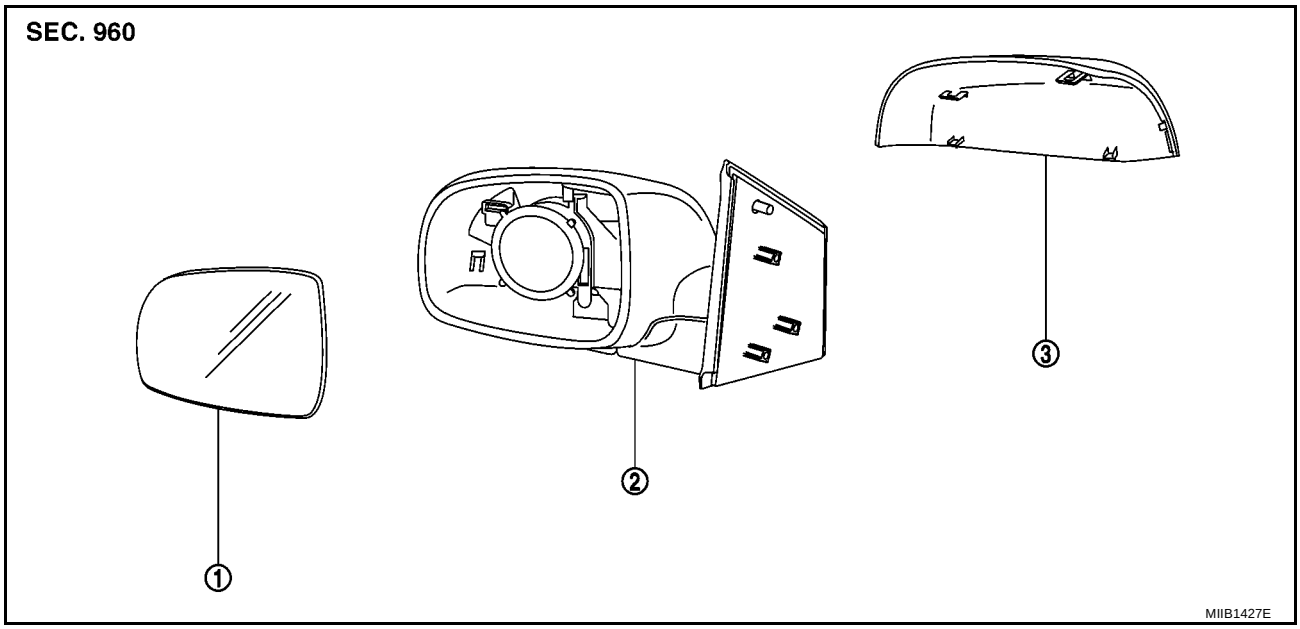
1. Remove front door finisher. Refer to EI-20, "DOOR FINISHER" .
2. Remove corner cover.
3. Disconnect door mirror harness connector. (Electric door mirrors only)
4. Remove door mirror bolts and door mirror assembly.

INSTALLATION

Install in the reverse order of removal.

Disassembly and Assembly

BIS000O6



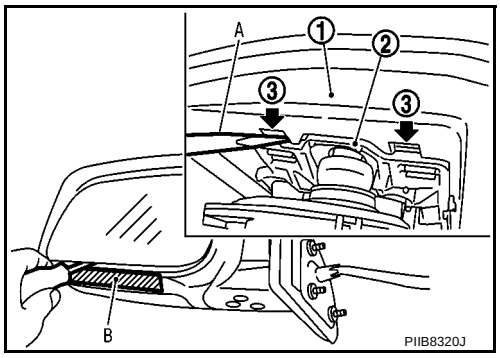
1. Mirror body (mirror holder)
2. Mirror housing assembly
3. Cover

DISASSEMBLY

1. Place the mirror body with mirror glass facing upward.
2. Put a strip of protective tape B on mirror body.
3. As shown in the figure, insert a small slotted screwdriver A into the recess between mirror base (mirror holder)(1) and mirror holder bracket (2) and push up two pawls (3) to remove mirror holder lower half side.

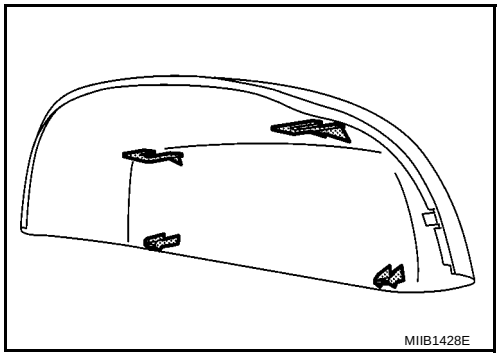
   NOTE:
   Insert screwdriver into recesses, and push up while rotating (twist) to make work easier.

   CAUTION:
   When pushing up the tabs, do not forcibly push up only 1 concave but try to push up using 2 concave positions.



4. Remove two terminals of mirror heater attachment.
5. Lightly lift up lower side of mirror surface from mirror surface, and detach two pawls of upper side as if pulling it out. Remove mirror surface from mirror body.

   NOTE:
   Be certain not to allow grease on sealing agent in center of mirror body assembly (actuator) or back side of mirror surface (mirror holder).
6. Remove cover.

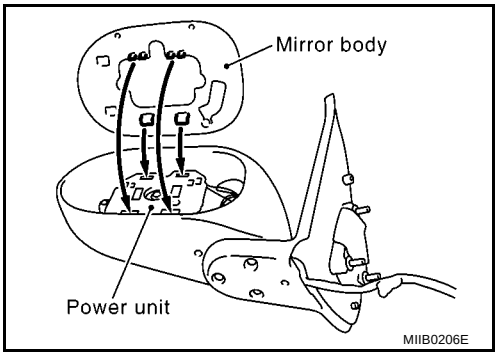


ASSEMBLY

Install in the reverse order of removal.

CAUTION:

- **Engage upper tabs of mirror glass (mirror holder) with power unit. Then, press lower part of mirror glass down until lower part snaps into place and engages lower tabs.**
- **After finishing work, visually confirm that lower tabs (2) at the bottom of mirror face are securely engaged.**



INSIDE MIRROR

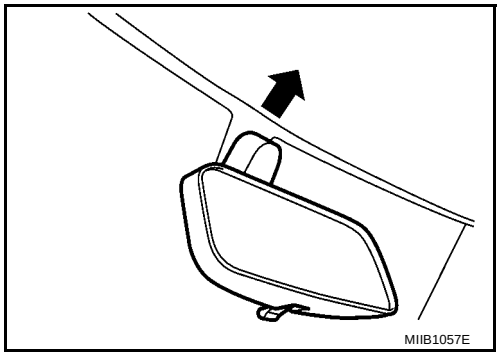
PFP:96321

Removal and Installation

BIS000O7

REMOVAL

Pull the inside mirror upward to remove it.



INSTALLATION

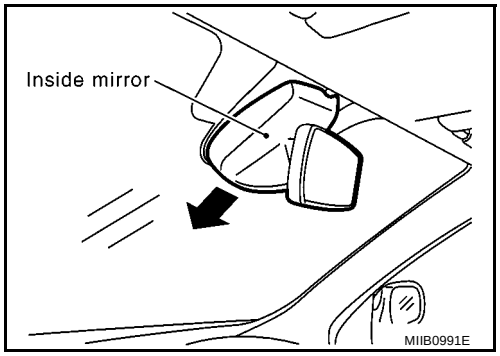
Install in the reverse order of removal.

Removal and Installation (With Rain Sensor)

BIS000O8

REMOVAL

Slide the inside mirror downward to remove.



INSTALLATION

Install in the reverse order of removal.