

**SECTION GW**

**GLASSES, WINDOW SYSTEM & MIRRORS**

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# PRECAUTIONS

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## PRECAUTIONS

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

EIS0015U

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 harness connectors.

# WINDSHIELD AND WINDOWS

PFP:72700

EIS0015V

## WINDSHIELD AND WINDOWS

### Removal and Installation REMOVAL

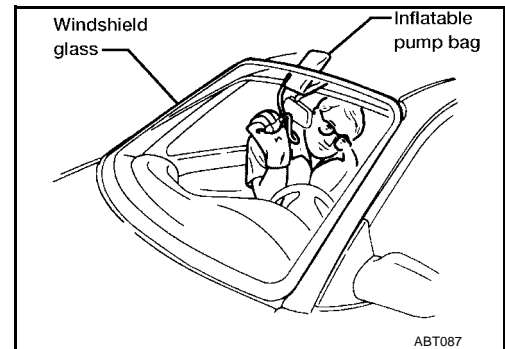
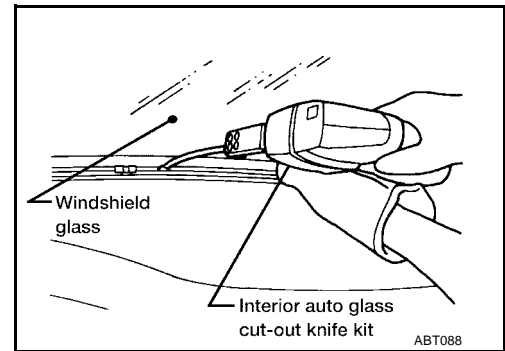
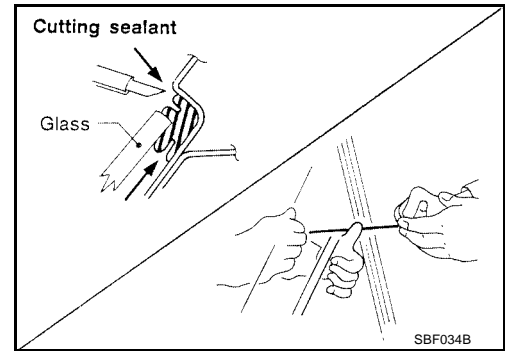
After removing interior moldings and trim to access edge of glass, remove glass using piano wire or power cutting tool and an inflatable pump bag.

#### **WARNING:**

When removing 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 genuine Nissan Urethane Adhesive Kit 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 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 windshield in case of an accident.

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## WINDSHIELD AND WINDOWS

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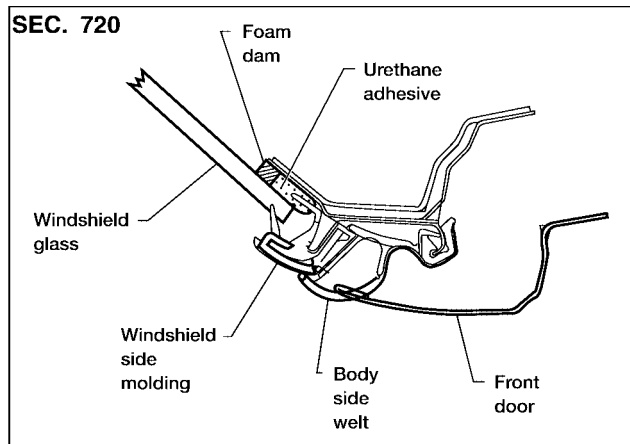
### **CAUTION:**

- 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 higher temperatures and lower humidities.

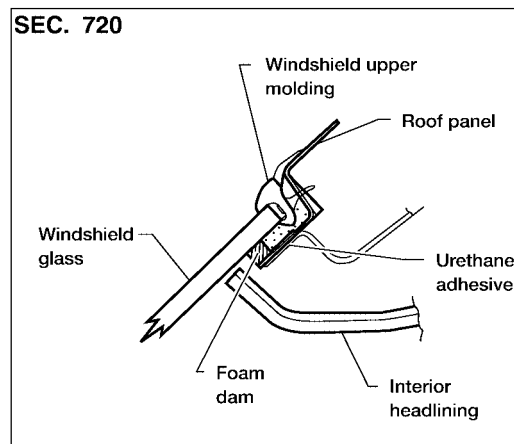
# WINDSHIELD AND WINDOWS

## WINDSHIELD AND REAR WINDOW

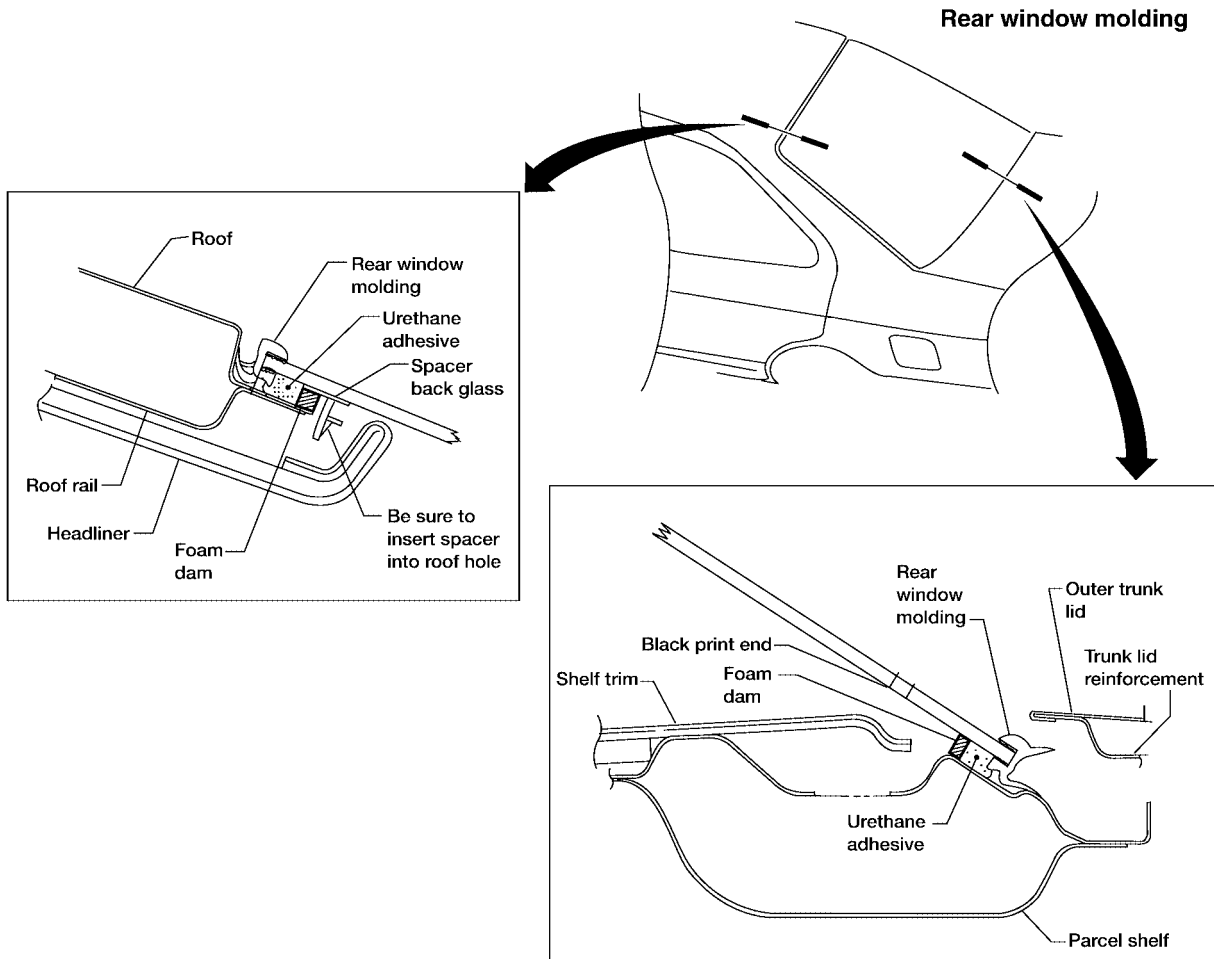
### Windshield side molding



### Windshield upper molding



### Rear window molding



WBT114

### Repairing Water Leaks for Windshield

Leaks can be repaired without removing and reinstalling glass.

**If water is leaking between caulking material and body or glass, determine the extent of leakage. This can be determined by applying water while pushing glass outward.**

To stop the leak, apply primer and then sealant to the leak point.

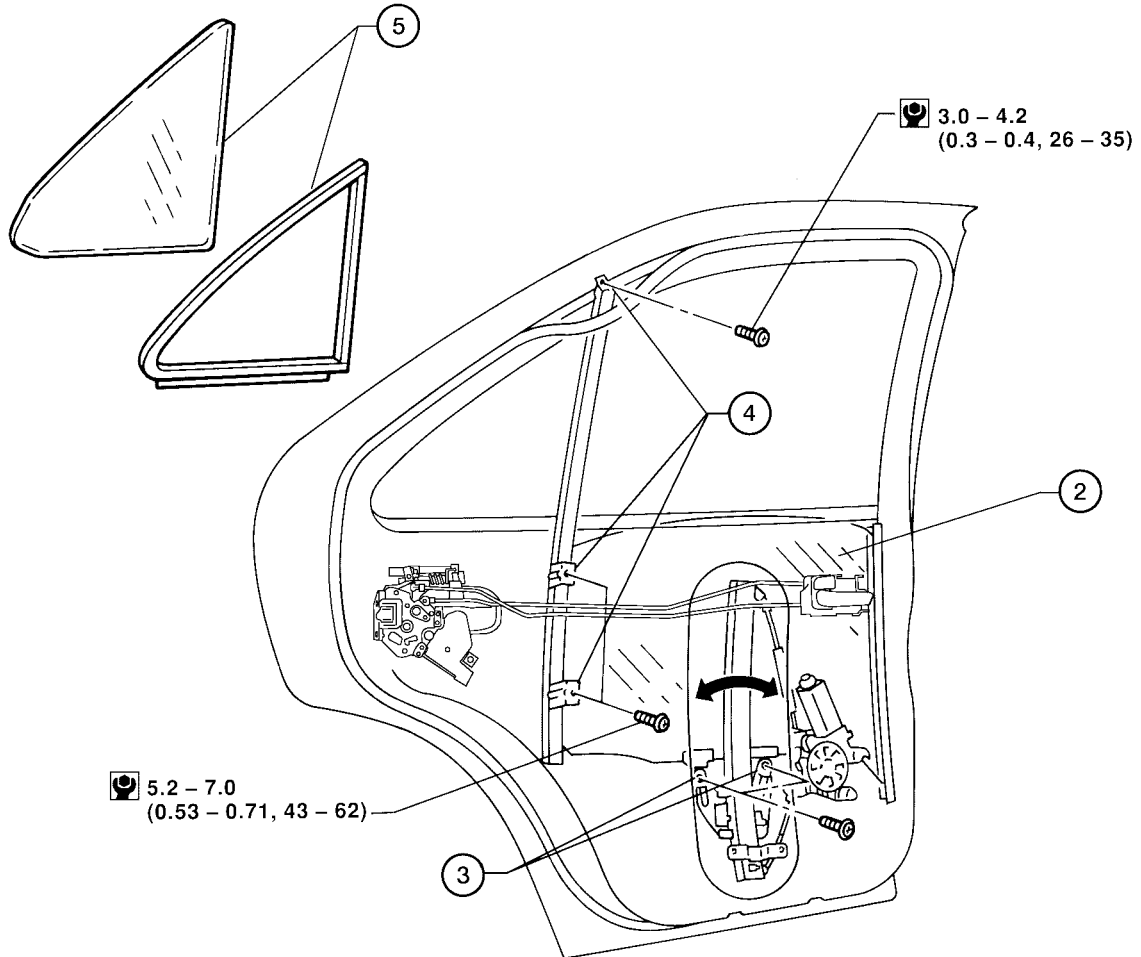
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# WINDSHIELD AND WINDOWS

## QUARTER WINDOW

SEC. 820-823-825



 : N·m (kg-m, in-lb)

WBT074

1. Remove the rear door finisher. Refer to [EI-31, "Removal and Installation"](#) .
2. Lower the rear window.
3. Remove two screws securing rear glass, then remove rear glass.
4. Remove two bolts and one top screw securing rear door center sash, then remove rear door center sash.
5. Remove quarter glass and rubber seal.

## POWER WINDOW

### System Description

EIS0015W

Power is supplied at all times:

- from 30A fusible link (letter **d** , located in the fuse and fusible link box)
- to circuit breaker terminal +,
- through circuit breaker terminal -,
- to power window relay terminal 5.

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

- through 10A fuse [No. 10, located in the fuse block (J/B)],
- to power window relay terminal 1.

Ground is supplied:

- to power window relay terminal 2
- through body grounds M28 and M54.

The power window relay is energized and power is supplied:

- through power window relay terminal 3,
- to main power window and door lock/unlock switch terminal 1,
- to front power window switch RH terminal 5,
- to rear power window switch LH and RH terminal 5.

### MANUAL OPERATION

#### Front Door LH

Ground is supplied:

- to main power window and door lock/unlock switch terminal 3,
- through body grounds M28 and M54.

#### WINDOW UP

When the front LH switch in the main power window and door lock/unlock switch is pressed in the up position, power is supplied:

- to front power window motor LH terminal UP,
- through main power window and door lock/unlock switch terminal 9.

Ground is supplied:

- to front power window motor LH terminal DN,
- through main power window and door lock/unlock switch terminal 8.

Then, the motor raises the window until the switch is released, or until the window reaches the end of its travel.

#### WINDOW DOWN

When the LH switch in the main power window and door lock/unlock switch is pressed in the down position, power is supplied:

- to front power window motor LH terminal DN,
- through main power window and door lock/unlock switch terminal 8.

Ground is supplied:

- to front power window motor LH terminal UP,
- through main power window and door lock/unlock switch terminal 9.

Then, the motor lowers the window until the switch is released, or until the window reaches the end of its travel.

#### Front Door RH

Ground is supplied:

- to main power window and door lock/unlock switch terminal 3,
- through body grounds M28 and M54.

#### NOTE:

Numbers in parentheses are terminal numbers, when power window switch is pressed in the UP and DOWN positions respectively.

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# POWER WINDOW

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## MAIN SWITCH OPERATION

Power is supplied:

- through main power window and door lock/unlock switch (5, 6),
- to front power window switch RH (3, 4).

The subsequent operation is the same as the sub-switch operation.

## SUB-SWITCH OPERATION

Power is supplied:

- through front power window switch RH (1, 2),
- to front power window motor RH (UP, DN).

Ground is supplied:

- to front power window motor RH (DN, UP),
- through front power window switch RH (2, 1),
- to front power window switch RH (4, 3),
- through main power window and door lock/unlock switch (6, 5).

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

## Rear Door

Rear door windows will raise and lower in the same manner as front door RH window.

## AUTO OPERATION

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

The AUTO feature only operates on the driver's window.

## POWER WINDOW LOCK

The power window lock is designed to lock operation of all windows except for driver's door window.

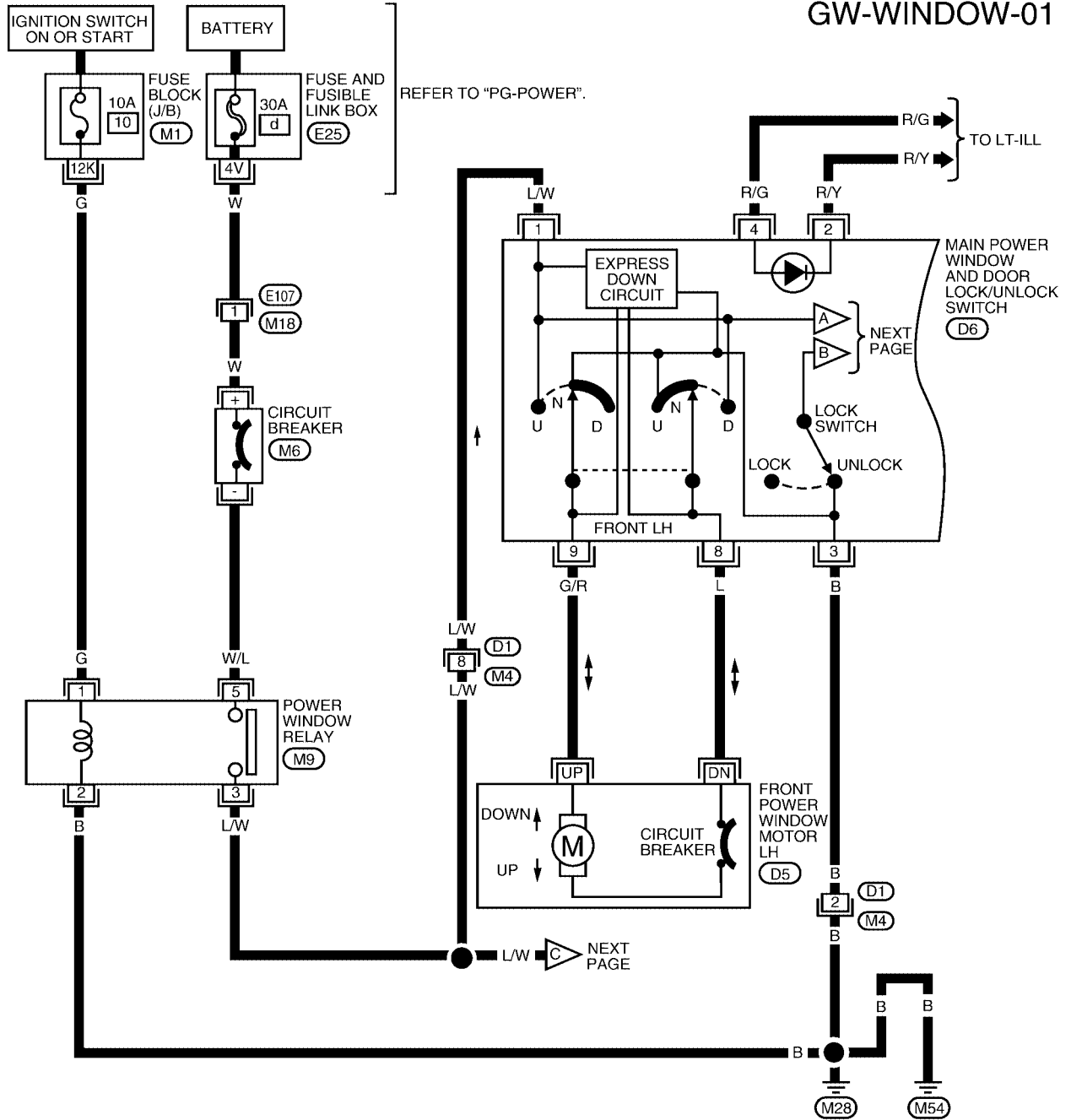
When the lock switch is pressed to lock position, ground of the sub-switches in the main power window and door lock/unlock switch is disconnected. This prevents the power window motors from operating.



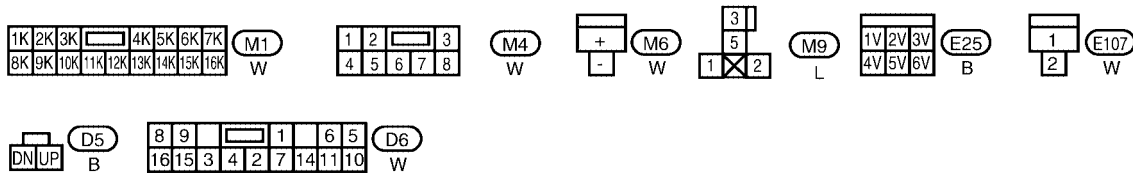
# POWER WINDOW

## Wiring Diagram — WINDOW —

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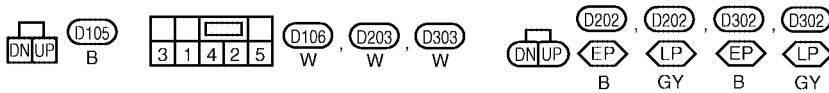
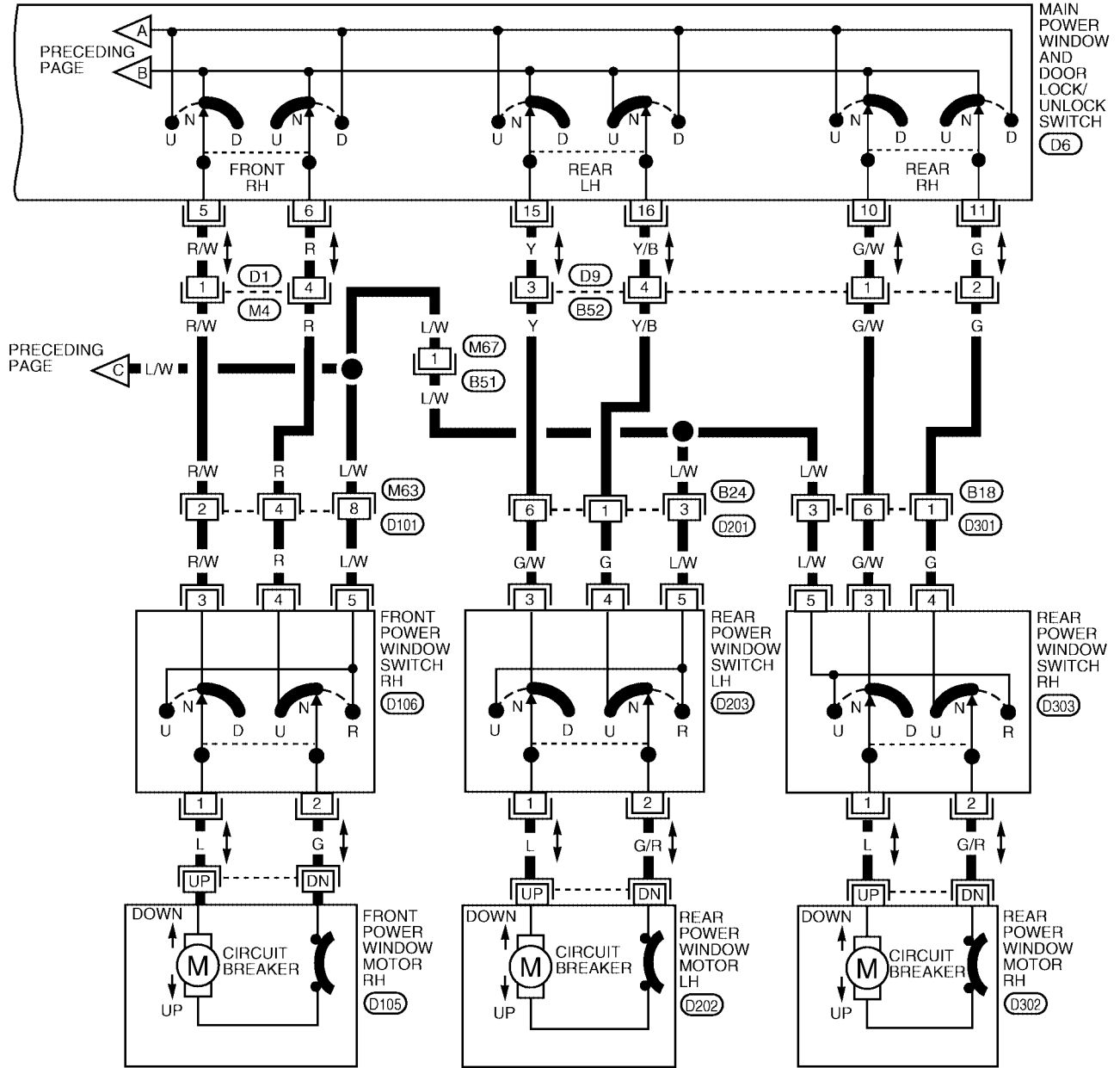


WIWA0093E

# POWER WINDOW

EP : EARLY PRODUCTION  
LP : LATE PRODUCTION

## GW-WINDOW-02



# POWER WINDOW

## Trouble Diagnoses

EIS0015Y

Symptom	Possible cause	Repair order
None of the power windows can be operated using any switch.	<ol style="list-style-type: none"> <li>1. 10A fuse, 30A fusible link</li> <li>2. M6 circuit breaker</li> <li>3. Power window relay</li> <li>4. M6 circuit breaker and power window relay related wiring</li> <li>5. Ground circuit</li> <li>6. Main power window and door lock/unlock switch</li> </ol>	<ol style="list-style-type: none"> <li>1. Check 10A fuse [No. 10, located in fuse block (J/B)], 30A fusible link (letter <b>d</b> , located in fuse and fusible link box).</li> <li>2. Check M6 circuit breaker.</li> <li>3. Check power window relay.</li> <li>4. Check the following.                             <ul style="list-style-type: none"> <li>- Check harness between M6 circuit breaker and 30A fusible link (letter <b>d</b> , located in fuse and fusible link box).</li> <li>- Check harness between M6 circuit breaker and power window relay.</li> <li>- Check harness between power window relay and power window relay main power window and door lock/unlock switch.</li> <li>- Check harness between 10A fuse [No. 10, located in fuse block (J/B)] and power window relay.</li> </ul> </li> <li>5. Check the following.                             <ul style="list-style-type: none"> <li>- Check ground circuit of main power window and door lock/unlock switch terminal 3.</li> <li>- Check power window relay ground circuit.</li> </ul> </li> <li>6. Check main power window and door lock/unlock switch.</li> </ol>
Driver side power window cannot be operated but other windows can be operated.	<ol style="list-style-type: none"> <li>1. Driver side power window regulator circuit</li> <li>2. Driver side power window regulator</li> <li>3. Main power window and door lock/unlock switch circuit</li> <li>4. Main power window and door lock/unlock switch</li> </ol>	<ol style="list-style-type: none"> <li>1. Check harness between main power window and door lock/unlock switch and driver side power window regulator for open or short circuit.</li> <li>2. Check driver side power window regulator.</li> <li>3. Check harness between power window relay and main power window and lock/unlock switch.</li> <li>4. Check main power window and door lock/unlock switch.</li> </ol>
One or more power windows except driver's side window cannot be operated.	<ol style="list-style-type: none"> <li>1. Power window sub-switches</li> <li>2. Power window regulators</li> <li>3. Main power window and door lock/unlock switch</li> <li>4. Power window circuit</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power window sub-switch.</li> <li>2. Check power window regulator.</li> <li>3. Check main power window and door lock/unlock switch.</li> <li>4. Check the following.                             <ul style="list-style-type: none"> <li>- Check harness between the power window sub switch terminal 5 and power window relay.</li> <li>- Check harnesses between main power window and door lock/unlock switch and power window sub-switch for open/short circuit.</li> <li>- Check harnesses between power window sub-switch and power window regulator for open/short circuit.</li> </ul> </li> </ol>
Power windows except driver's side window cannot be operated using main power window and door lock/unlock switch but can be operated by power window sub-switch.	<ol style="list-style-type: none"> <li>1. Main power window and door lock/unlock switch</li> </ol>	<ol style="list-style-type: none"> <li>1. Check main power window and door lock/unlock switch.</li> </ol>

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# FRONT DOOR GLASS AND REGULATOR

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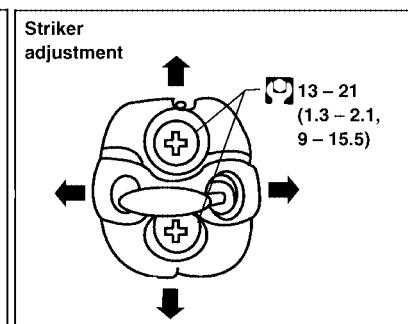
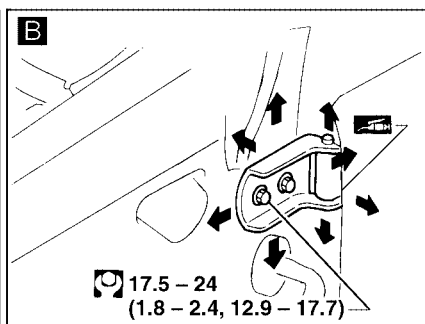
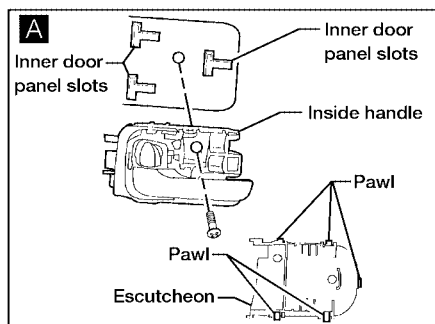
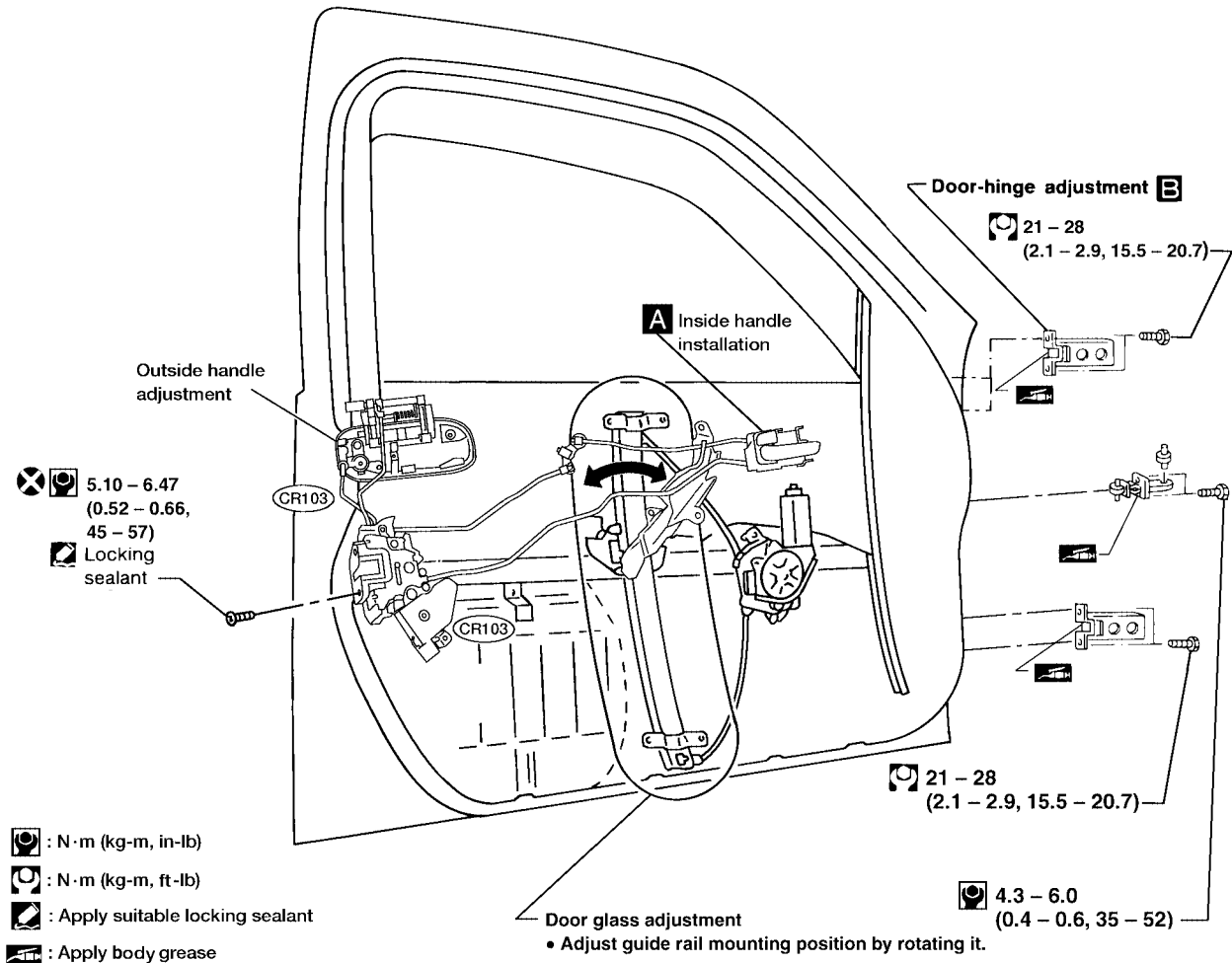
EIS0015Z

## FRONT DOOR GLASS AND REGULATOR

### Front Door

- For removal of door finisher, refer to [EI-31, "Removal and Installation"](#).
- After adjusting the door or door lock, check the door lock operation.

SEC. 800-803-805



WIIA0006E

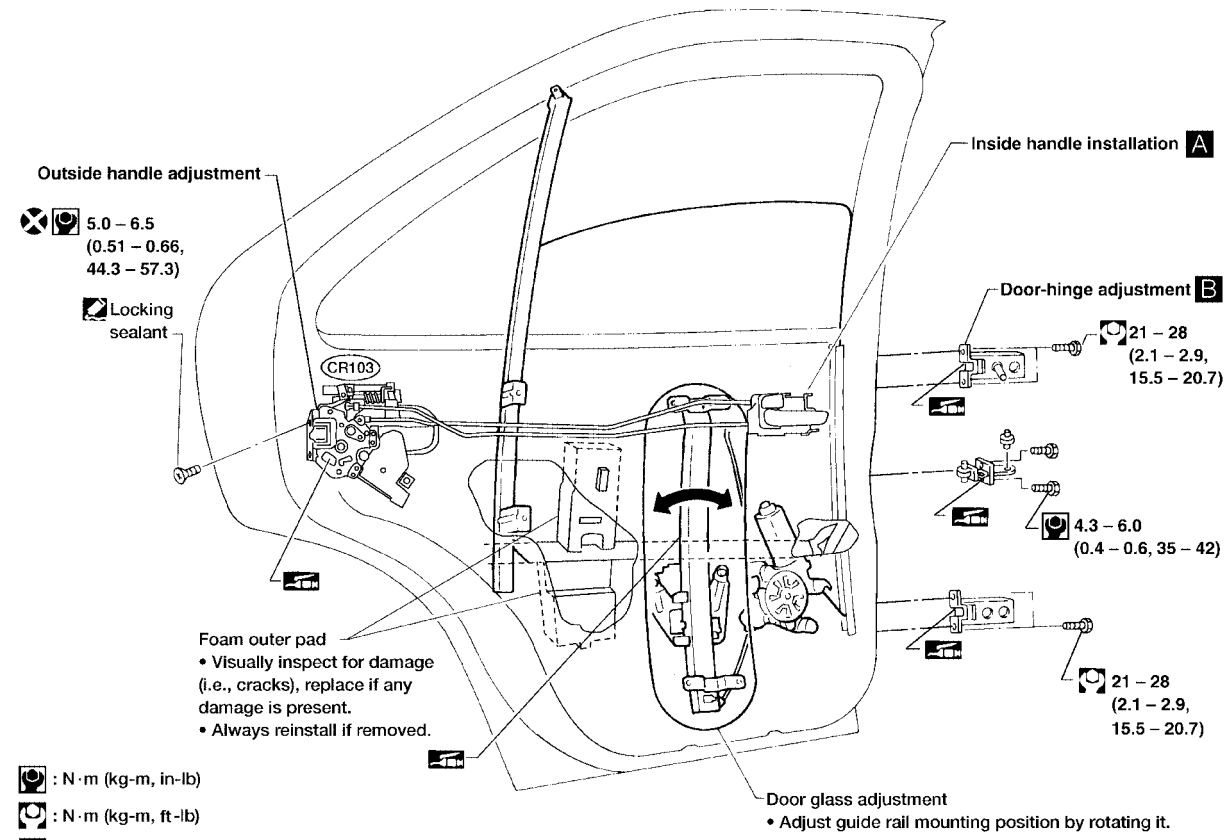
# REAR DOOR GLASS AND REGULATOR

## REAR DOOR GLASS AND REGULATOR

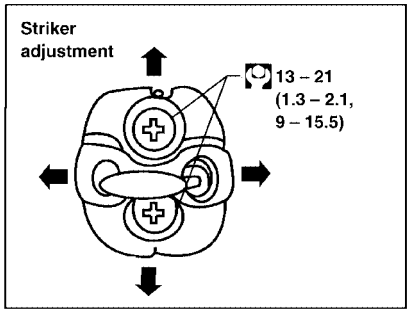
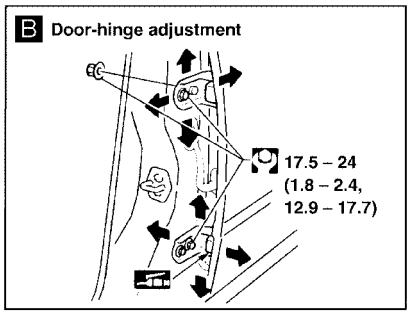
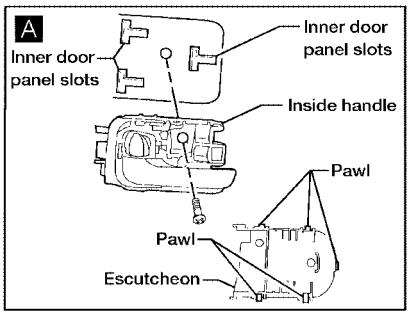
### Rear Door

PFP:82300

EIS00160



- : N·m (kg-m, in-lb)
- : N·m (kg-m, ft-lb)
- : Apply suitable locking sealant
- : Apply body grease



WIIA0002E

# DOOR MIRROR

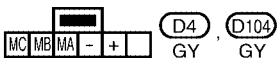
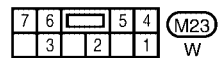
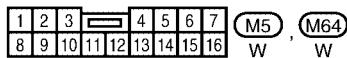
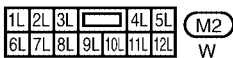
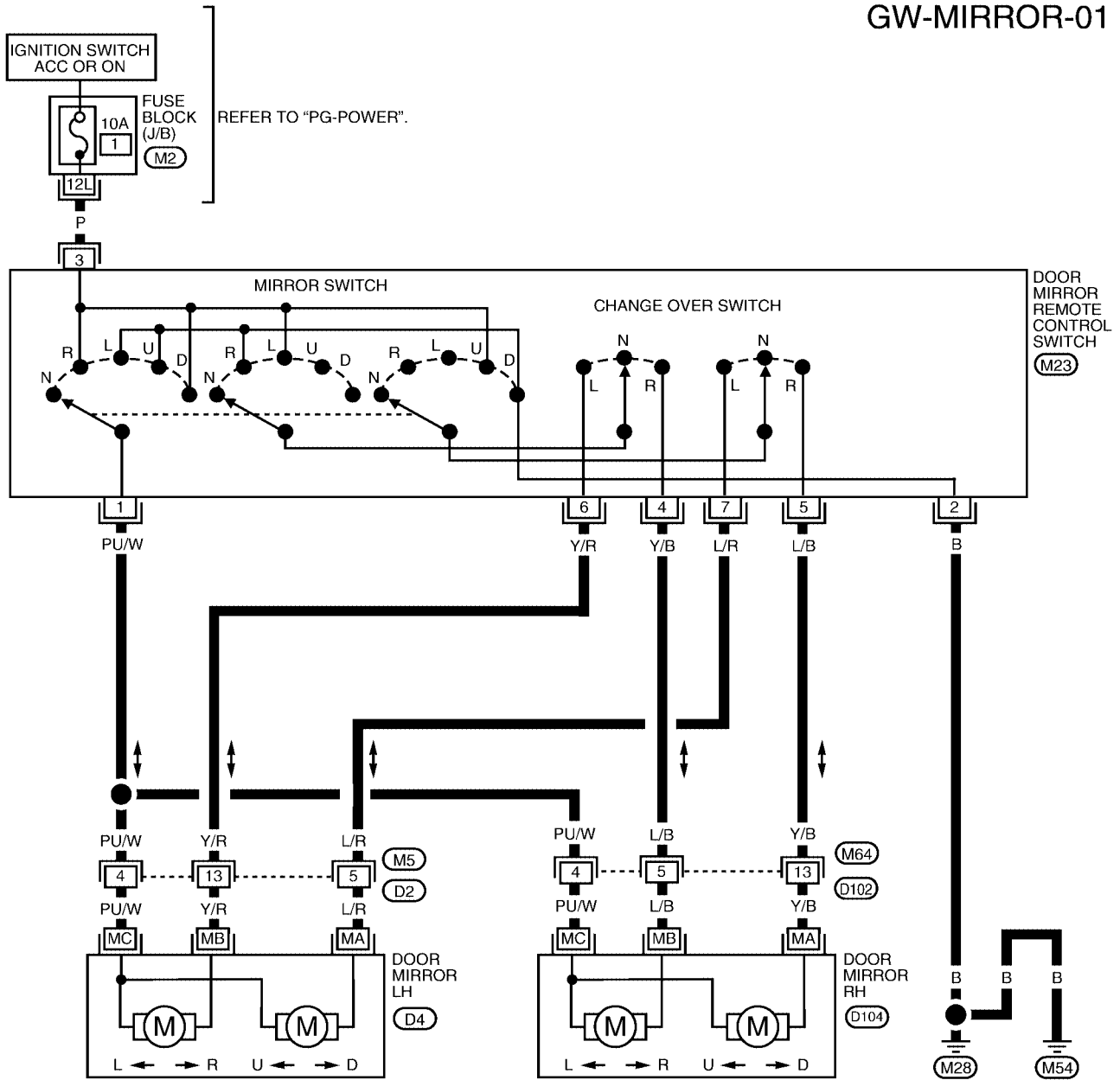
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EIS00161

## DOOR MIRROR

### Wiring Diagram — MIRROR —

## GW-MIRROR-01



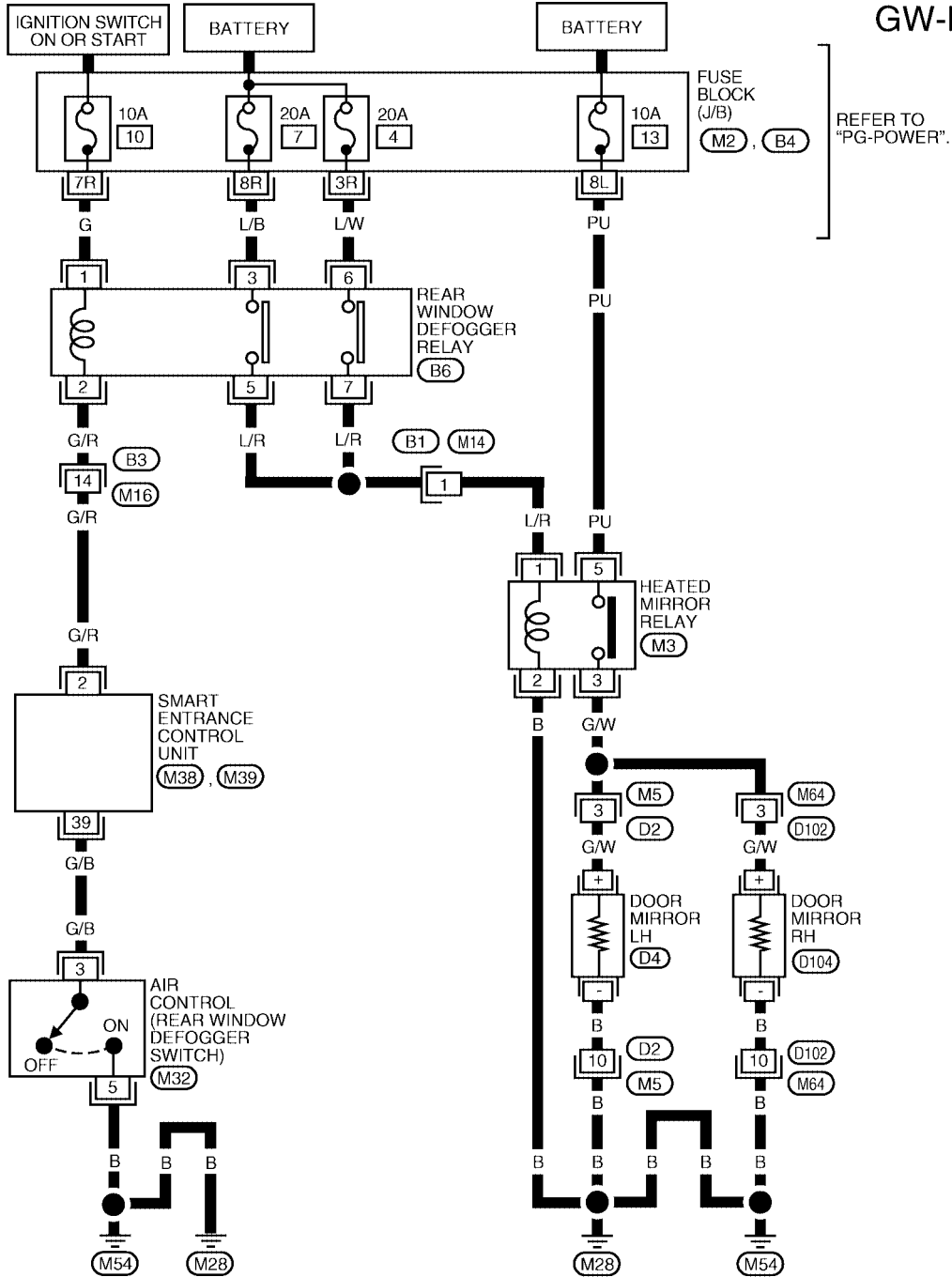
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# DOOR MIRROR

## Wiring Diagram — H/MIRR —

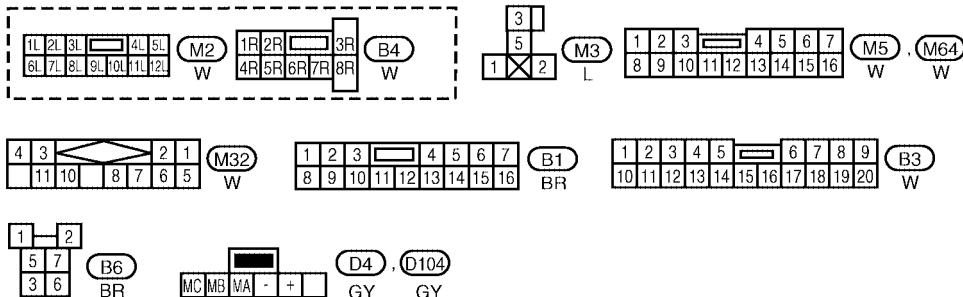
EIS00162

GW-H/MIRR-01



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REFER TO THE FOLLOWING.  
M38, M39 - ELECTRICAL UNITS

WIWA0096E

# DOOR MIRROR

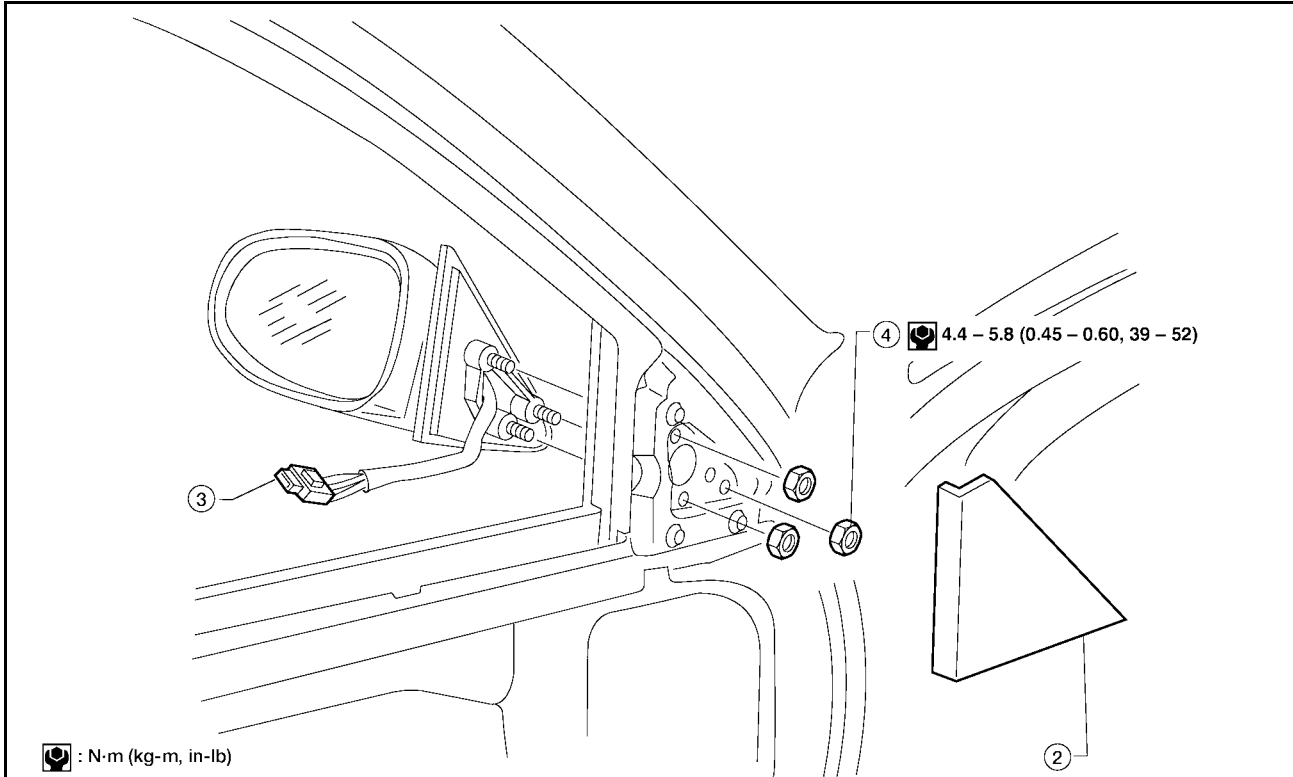
EIS00163

## Removal and Installation

### CAUTION:

Be careful not to scratch door mirror body.

1. Remove door finisher. Refer to [EI-31, "Removal and Installation"](#).
2. Remove inner cover from front corner of door.
3. Disconnect door mirror harness connector.
4. Remove three nuts securing door mirror assembly.



### Mirror glass replacement

#### CAUTION:

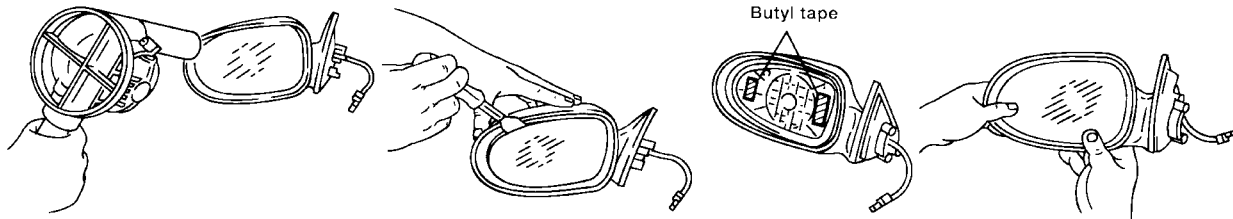
Do not exceed specified temperature or time limit. Excess heat or duration may cause damage to the mirror housing.

#### • Removal

1. Use a heat lamp (at least 500 watts) to thoroughly warm the frame edge of the door mirror glass to approximately 70°C (159°F) for three minutes.
2. Insert a stiff blade scraper between the mirror glass and the frame. Pry the glass loose.
3. Remove any remaining adhesive (butyl tape) from the mounting surface on the frame.

#### • Installation

1. Install butyl/adhesive tape (2 pieces) on the frame.
2. Warm the mirror glass frame edge thoroughly with a heat lamp.
3. Position mirror glass on frame. Carefully press on the mirror glass to seat it in place.



WBT052



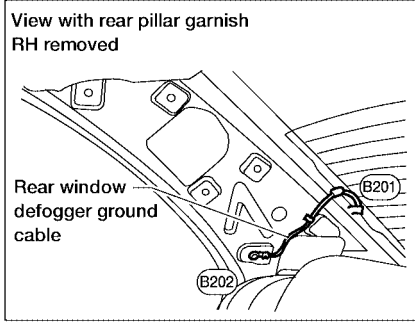
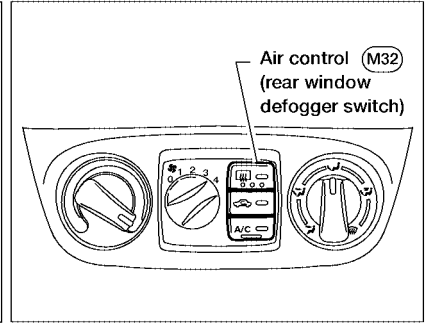
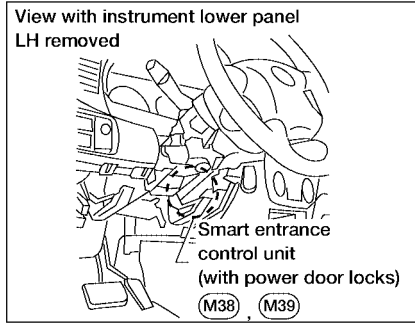
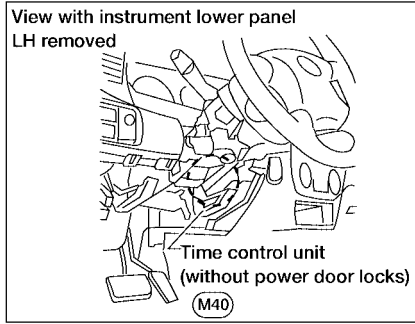
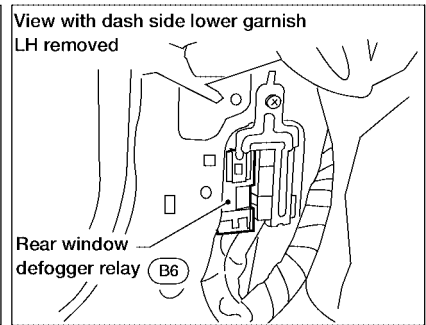
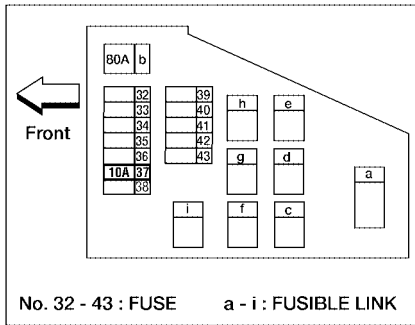
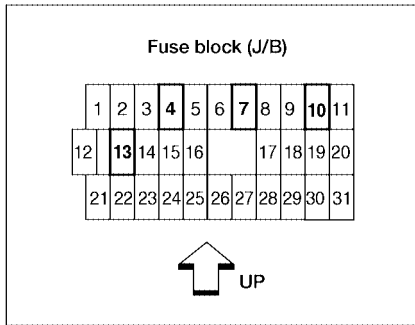
# REAR WINDOW DEFOGGER

## REAR WINDOW DEFOGGER

PF2:25350

### Component Parts and Harness Connector Location

EIS00164



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# REAR WINDOW DEFOGGER

EIS00165

## System Description WITHOUT POWER DOOR LOCKS

The rear window defogger system is controlled by the time control unit. The rear window defogger operates for approximately 15 minutes.

Power is supplied at all times:

- to rear window defogger relay terminal 3
- through 20A fuse [No. 7, located in the fuse block (J/B)],
- to rear window defogger relay terminal 6
- through 20A fuse [No. 4, located in the fuse block (J/B)], and
- to time control unit terminal 7
- through 10A fuse [No. 13, located in the fuse block (J/B)].

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to the rear window defogger relay terminal 1, and
- to time control unit terminal 9.

Ground is supplied to terminal 5 of the rear window defogger switch (built into the air control) through body grounds M28 and M54.

When the rear defogger switch is turned ON, ground is supplied:

- through terminal 3 of the rear window defogger switch
- to time control unit terminal 3.

Terminal 10 of the time control unit then supplies ground to the rear window defogger relay terminal 2.

With power and ground supplied, the rear window defogger relay is energized.

Power is supplied:

- through terminals 5 and 7 of the rear window defogger relay
- to the rear window defogger.

The rear window defogger has an independent ground.

With power and ground supplied, the rear window defogger filaments heat and defog the rear window.

When the system is activated, the rear window defogger indicator illuminates in the rear window defogger switch.

Power is supplied:

- to terminal 4 of the rear window defogger switch
- from terminals 5 and 7 of the rear window defogger relay.

Terminal 5 of the rear window defogger switch is grounded through body grounds M28 and M54.

## WITH POWER DOOR LOCKS

The rear window defogger system is controlled by the smart entrance control unit. The rear window defogger operates for approximately 15 minutes.

Power is supplied at all times:

- to rear window defogger relay terminal 3
- through 20A fuse [No. 7, located in the fuse block (J/B)],
- to rear window defogger relay terminal 6
- through 20A fuse [No. 4, located in the fuse block (J/B)], and
- to smart entrance control unit terminal 10
- through 10A fuse (No. 37, located in the fuse and fusible link box).

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

- through 10A fuse [No. 10, located in the fuse block (J/B)]
- to the rear window defogger relay terminal 1, and
- to smart entrance control unit terminal 33.

Ground is supplied to terminal 5 of the rear window defogger switch (built into the air control) through body grounds M28 and M54.

When the rear defogger switch is turned ON, ground is supplied:

- through terminal 3 of the rear window defogger switch

## REAR WINDOW DEFOGGER

---

- to smart entrance control unit terminal 39.

Terminal 2 of the smart entrance control unit then supplies ground to the rear window defogger relay terminal 2.

With power and ground supplied, the rear window defogger relay is energized.

Power is supplied:

- through terminals 5 and 7 of the rear window defogger relay
- to the rear window defogger.

The rear window defogger has an independent ground.

With power and ground supplied, the rear window defogger filaments heat and defog the rear window.

When the system is activated, the rear window defogger indicator illuminates in the rear window defogger switch.

Power is supplied:

- to terminal 4 of the rear window defogger switch
- from terminals 5 and 7 of the rear window defogger relay.

Terminal 5 of the rear window defogger switch is grounded through body grounds M28 and M54.

A

B

C

D

E

F

G

H

GW

J

K

L

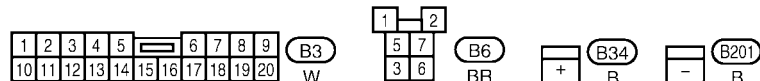
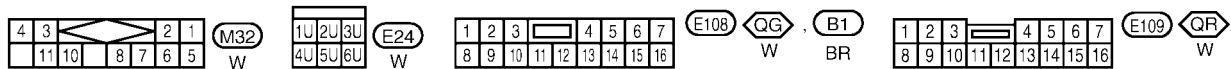
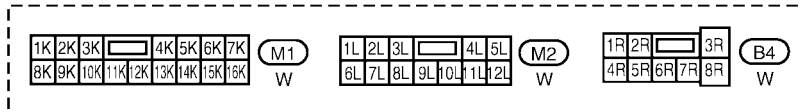
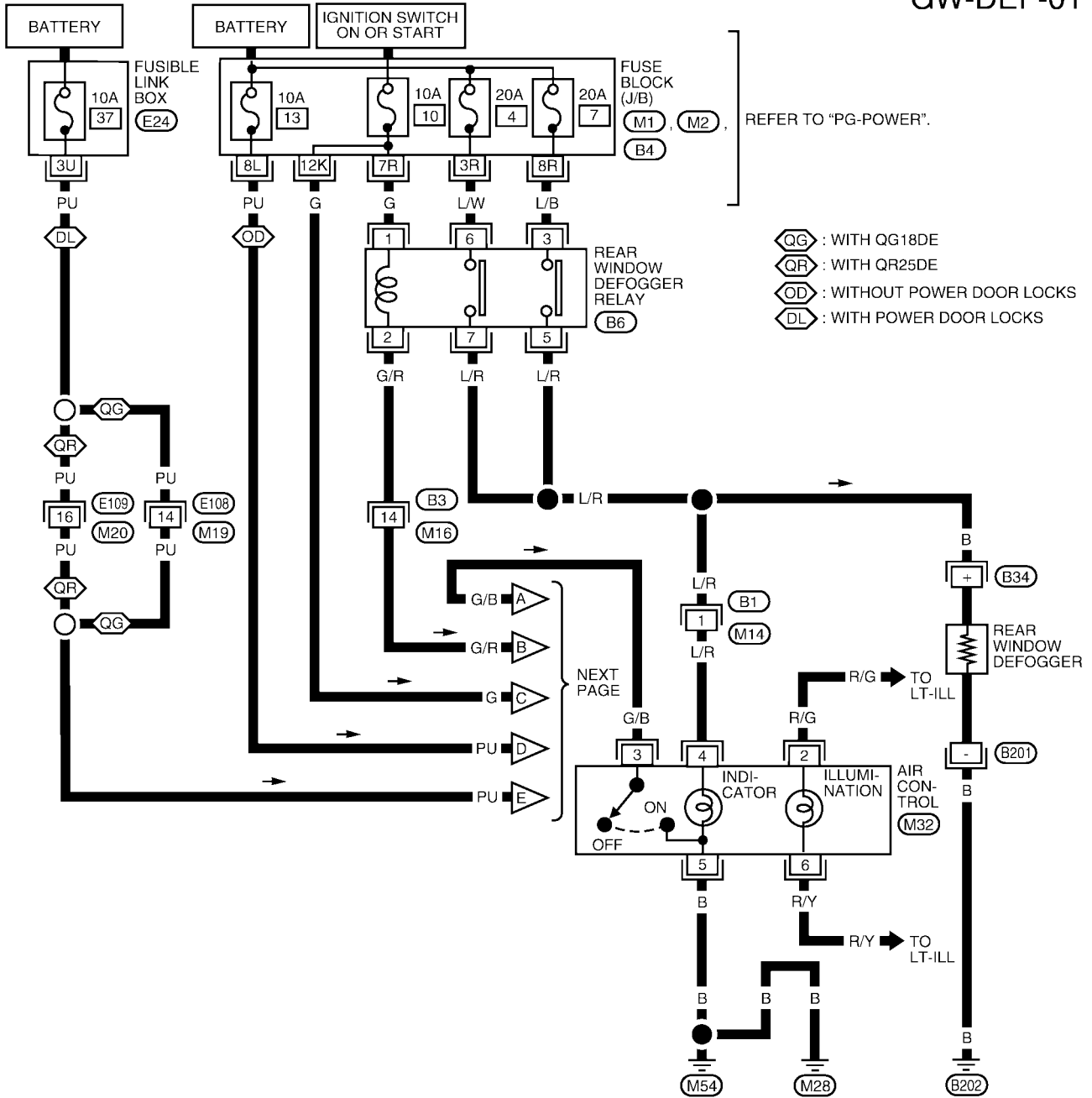
M

# REAR WINDOW DEFOGGER

## Wiring Diagram — DEF —

EIS00166

GW-DEF-01

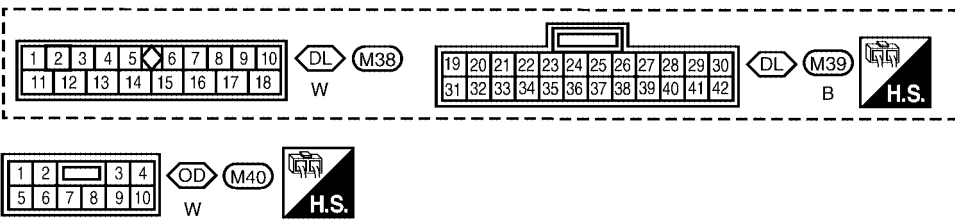
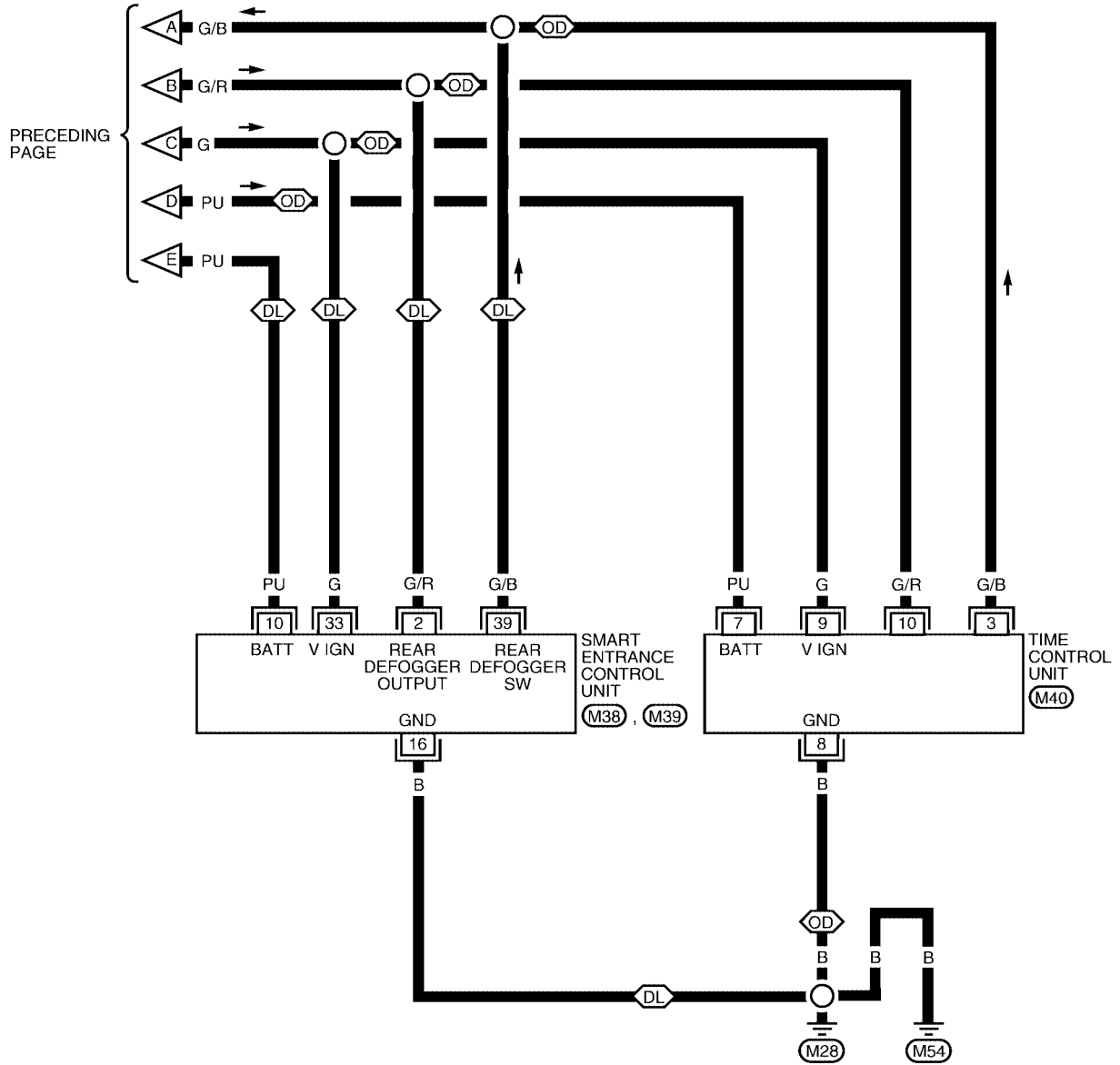


WIWA0097E

# REAR WINDOW DEFOGGER

GW-DEF-02

⬡OD : WITHOUT POWER DOOR LOCKS  
 ⬡DL : WITH POWER DOOR LOCKS



WIWA0037E

# REAR WINDOW DEFOGGER

TIME CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND (WITHOUT POWER DOOR LOCKS)

TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)
3	G/B	AIR CONTROL (REAR WINDOW DEFOGGER SWITCH)	OFF	5V
			ON	0V
7	PU	POWER SOURCE (FUSE)	—	12V
8	B	GROUND	—	—
9	G	IGNITION SWITCH (ON)	IGNITION KEY IN ON POSITION	12V
		IGNITION SWITCH (START)	IGNITION KEY IN START POSITION	12V
10	G/R	REAR WINDOW DEFOGGER RELAY	OFF	0V
			ON (IGNITION KEY IN ON POSITION)	12V

SMART ENTRANCE CONTROL UNIT TERMINALS AND REFERENCE VALUE MEASURED BETWEEN EACH TERMINAL AND GROUND (WITH POWER DOOR LOCKS)

TERMINAL	WIRE COLOR	ITEM	CONDITION	DATA (DC)
2	G/R	REAR WINDOW DEFOGGER RELAY	OFF	0V
			ON (IGNITION KEY IN ON POSITION)	12V
10	PU	POWER SOURCE (FUSE)	—	12V
16	B	GROUND	—	—
33	G	IGNITION SWITCH (ON)	IGNITION KEY IN ON POSITION	12V
		IGNITION SWITCH (START)	IGNITION KEY IN START POSITION	12V
39	G/B	AIR CONTROL (REAR WINDOW DEFOGGER SWITCH)	OFF	5V
			ON	0V

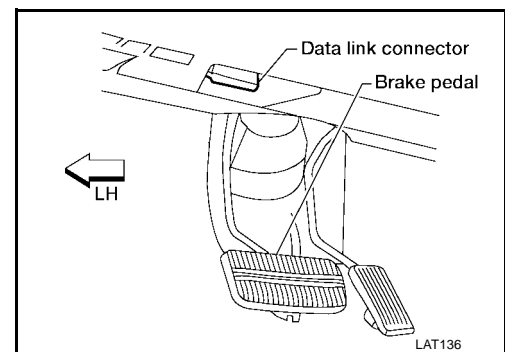
## CONSULT-II Inspection Procedure (With Power Door Locks) “REAR DEFOGGER”

EIS00167

### CAUTION:

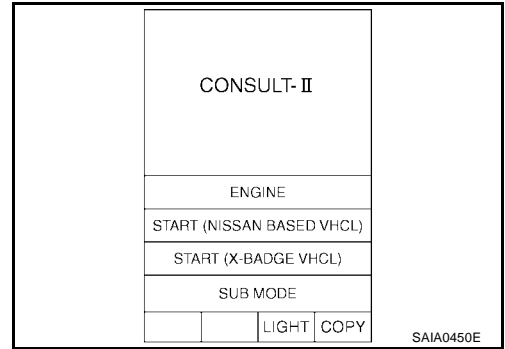
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

1. Turn ignition switch OFF.
2. Connect “CONSULT-II” and CONSULT-II CONVERTER to data link connector.

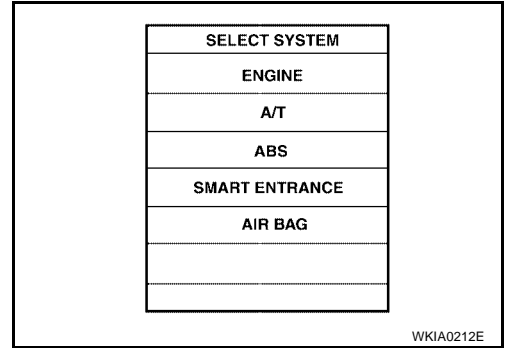


# REAR WINDOW DEFOGGER

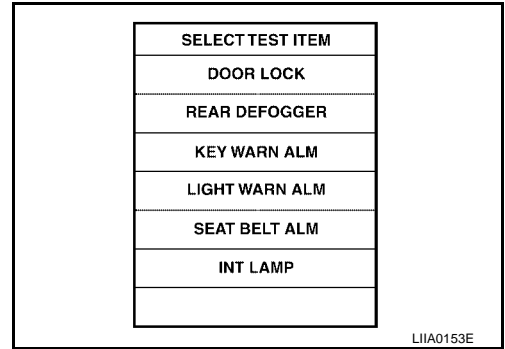
- Turn ignition switch ON.
- Touch "START (NISSAN BASED VHCL)".



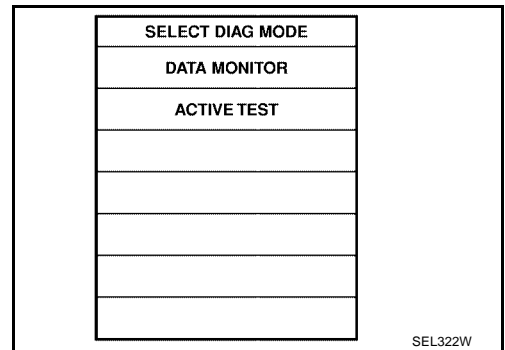
- Touch "SMART ENTRANCE".  
If "SMART ENTRANCE" is not indicated, go to [GI-38, "CONSULT-II Data Link Connector \(DLC\) Circuit"](#).



- Touch "REAR WINDOW DEFOGGER".



- Select diagnosis mode, "DATA MONITOR" and "ACTIVE TEST".



## CONSULT-II Application Items (With Power Door Locks) "REAR DEFOGGER"

EIS00168

### Data Monitor

Monitored Item	Description
IGN ON SW	Indicates [ON/OFF] condition of ignition switch.
REAR DEF SW	Indicates [ON/OFF] condition of rear window defogger switch.

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

GW

# REAR WINDOW DEFOGGER

## Active Test

Test Item	Description
REAR DEFOGGER	This test is able to check rear window defogger operation. Rear window defogger activates when "ON" on CONSULT-II screen is touched.

## Trouble Diagnoses (Without Power Door Locks) DIAGNOSTIC PROCEDURE

EIS00169

**Symptom: Rear Window Defogger Does Not Activate, or Does Not Go Off After Deactivating.**

### 1. CHECK REAR WINDOW DEFOGGER OUTPUT SIGNAL

1. Turn ignition switch to ON position.
2. Check voltage between time control unit harness connector M40 terminal 10 (G/R) and ground.

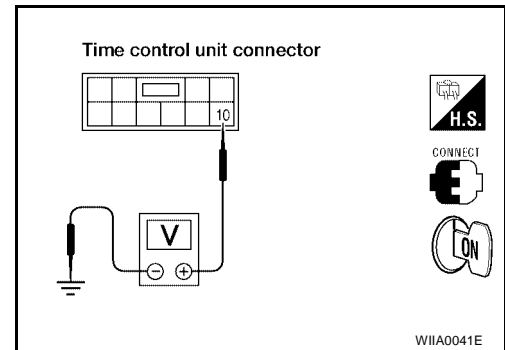
**Voltage (V) Approx.:**

**Rear window defogger switch is "OFF" : 12V**

**Rear window defogger switch is "ON" : 0V**

OK or NG

- OK >> Check the following.
- Refer to [GW-30, "Filament Check"](#) .
- NG >> GO TO 2.



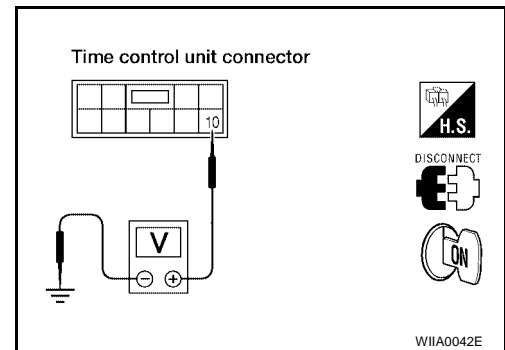
### 2. CHECK DEFOGGER RELAY COIL SIDE CIRCUIT

1. Disconnect time control unit harness connector M40.
2. Turn ignition switch to ON position.
3. Check voltage between time control unit harness connector M40 terminal 10 (G/R) and ground.

**Battery voltage should exist.**

OK or NG

- OK >> GO TO 3.
- NG >> Check the following.
- 10A fuse [No. 10, located in the fuse block (J/B)]
  - Rear window defogger relay
  - Harness for open or short between 10A fuse [No. 10, located in the fuse block (J/B)] and rear window defogger relay
  - Harness for open or short between rear window defogger relay and time control unit





# REAR WINDOW DEFOGGER

## 3. CHECK REAR WINDOW DEFOGGER SWITCH INPUT SIGNAL

Check continuity between time control unit harness connector M40 terminal 3 (G/B) and ground.

**Continuity:**

**Rear window defogger switch is pushed. Continuity should exist.**

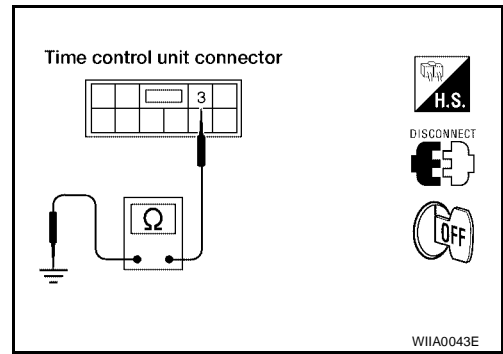
**Rear window defogger switch is released. Continuity should not exist.**

OK or NG

OK >> GO TO 4.

NG >> Check the following.

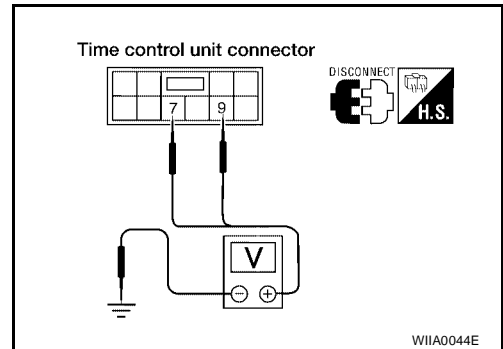
- Rear window defogger switch  
(Refer to [GW-30. "REAR WINDOW DEFOGGER SWITCH"](#) .)
- Harness for open or short between time control unit and rear window defogger switch
- Rear window defogger switch ground circuit



## 4. CHECK POWER SUPPLY AND IGNITION INPUT SIGNAL

Check voltage between time control unit harness connector M40 terminals 7 (PU), 9 (G) and ground.

Terminals		Ignition switch position		
(+)	(-)	OFF	ACC	ON
7	Ground	Battery voltage	Battery voltage	Battery voltage
9	Ground	0V	0V	Battery voltage



OK or NG

OK >> GO TO 5.

NG >> Check the following.

- 10A fuse [No. 10 or No. 13, located in the fuse block (J/B)]
- Harness for open or short between time control unit and fuse

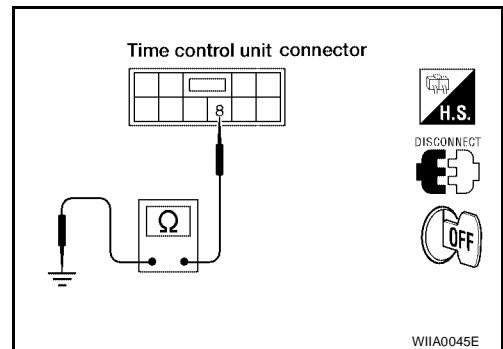
## 5. CHECK TIME CONTROL UNIT GROUND CIRCUIT

Check continuity between time control unit harness connector M40 terminal 8 and ground.

**Continuity should exist.**

Yes >> Replace time control unit.

No >> Repair harness or connectors.



# REAR WINDOW DEFOGGER

EIS0016A

## Trouble Diagnoses (With Power Door Locks) DIAGNOSTIC PROCEDURE

Symptom: Rear Window Defogger Does Not Activate, or Does Not Go Off After Activating.

### 1. CHECK REAR WINDOW DEFOGGER OUTPUT SIGNAL

#### ④ With CONSULT-II

Select "ACTIVE TEST" in "REAR DEFOGGER" with CONSULT-II.

ACTIVE TEST

REAR DEFOGGER    OFF

ON

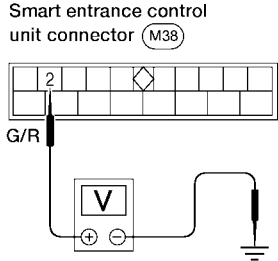
Rear window defogger and rear window defogger switch indicator should operate when the "ON" button on the CONSULT-II screen is touched.

SEL353W


#### ⊗ Without CONSULT-II

1. Turn ignition switch to ON position.
2. Check voltage between smart entrance control unit harness terminal 2 and ground.



Smart entrance control unit connector (M38)



G/R



CONNECT



**Voltage [V]:**  
Rear window defogger switch is "OFF".  
Approx. 12  
Rear window defogger switch is "ON".  
0

LEL482

#### OK or NG

OK    >> Check the following.

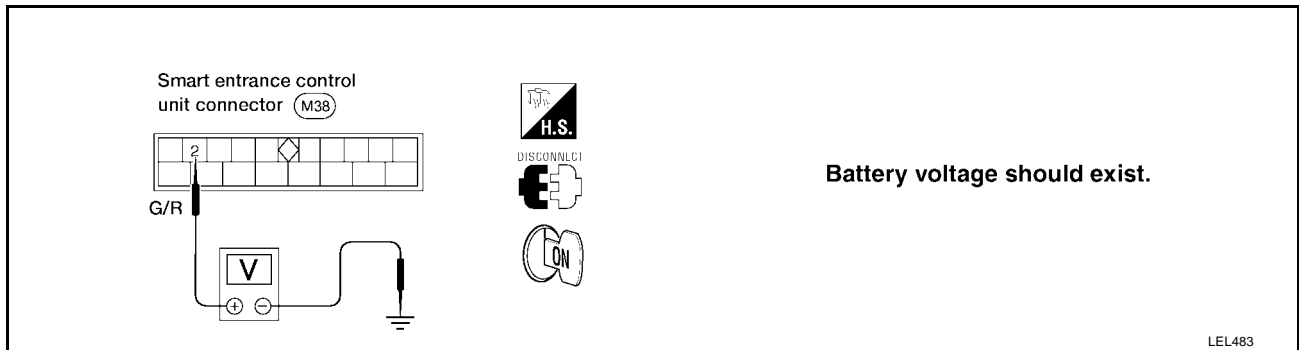
- Refer to [GW-30, "REAR WINDOW DEFOGGER RELAY"](#) .
- Rear window defogger circuit
- Refer to [GW-30, "Filament Check"](#) .

NG    >> GO TO 2.

# REAR WINDOW DEFOGGER

## 2. CHECK DEFOGGER RELAY COIL SIDE CIRCUIT

1. Disconnect control unit connector.
2. Turn ignition switch to ON position.
3. Check voltage between smart entrance control unit terminal 2 and ground.



### OK or NG

OK >> GO TO 3.

NG >> Check the following.

- 10A fuse [No. 10, located in the fuse block (J/B)]
- Rear window defogger relay
- Harness for open or short between 10A fuse [No. 10, located in the fuse block (J/B)] and rear window defogger relay
- Harness for open or short between rear window defogger relay and smart entrance control unit

A

B

C

D

E

F

G

H

GW

J

K

L

M

# REAR WINDOW DEFOGGER

## 3. CHECK REAR WINDOW DEFOGGER SWITCH INPUT SIGNAL

### With CONSULT-II

Select "REAR DEF SW" in "DATA MONITOR" mode with CONSULT-II.

DATA MONITOR	
MONITOR	
REAR DEF SW	ON

When rear window defogger switch is pushed:  
**REAR DEF SW should be ON.**

SEL352W

### Without CONSULT-II

Check continuity between smart entrance control unit terminal 39 and ground.

**H.S.**

DISCONNECT

**OFF**

**Continuity:**  
Rear window defogger switch is pushed.  
Continuity should exist.  
Rear window defogger switch is released.  
Continuity should not exist.

LEL484

### OK or NG

OK >> GO TO 4.

NG >> Check the following.

- Refer to [GW-30, "REAR WINDOW DEFOGGER SWITCH"](#) .
- Harness for open or short between smart entrance control unit and rear window defogger switch
- Rear window defogger switch ground circuit

## 4. CHECK POWER SUPPLY AND IGNITION INPUT SIGNAL

Check voltage between smart entrance control unit terminals 10 and 33 and ground.

**H.S.**

DISCONNECT

Terminals		Ignition switch position		
(+)	(-)	OFF	ACC	ON
10	Ground	Battery voltage	Battery voltage	Battery voltage
33	Ground	0V	0V	Battery voltage

LEL485

### OK or NG

OK >> GO TO 5.

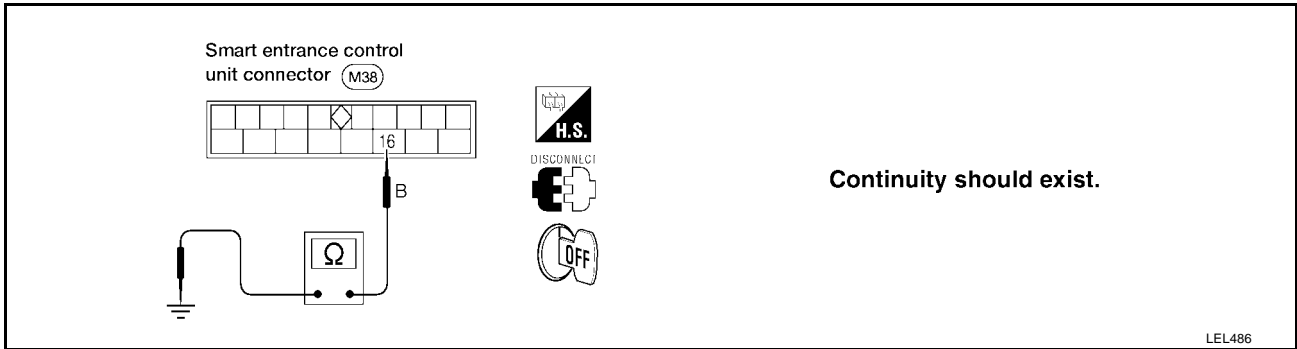
NG >> Check the following.

- 10A fuse [No. 10 or No. 37, located in the fuse block (J/B)]
- Harness for open or short between smart entrance control unit and fuse

# REAR WINDOW DEFOGGER

## 5. CHECK SMART ENTRANCE CONTROL UNIT GROUND CIRCUIT

Check continuity between smart entrance control unit terminal 16 and ground.



- Yes >> Replace smart entrance control unit.
- No >> Repair harness or connectors.

A  
B  
C  
D  
E  
F  
G  
H  
J  
K  
L  
M

GW

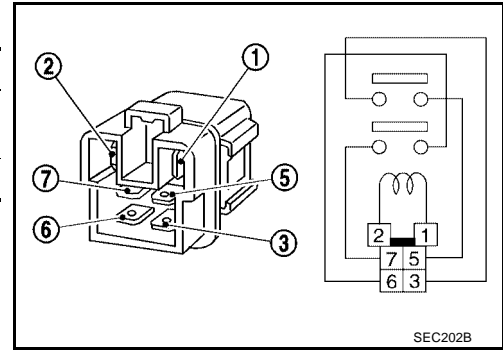
# REAR WINDOW DEFOGGER

EIS0016B

## Electrical Components Inspection REAR WINDOW DEFOGGER RELAY

Check continuity between terminals 3 and 5, 6 and 7.

Condition	Continuity
12V direct current supply between terminals 1 and 2	Yes
No current supply	No

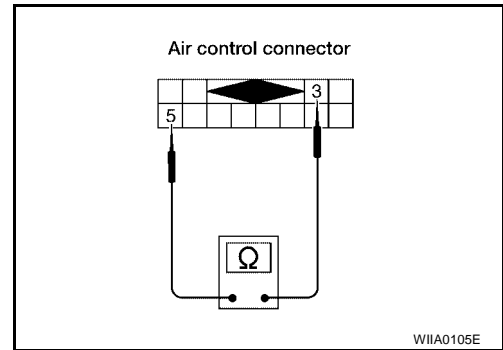


SEC202B

## REAR WINDOW DEFOGGER SWITCH

With air control (rear window defogger switch) connector M32 disconnected, check continuity between terminals 3 and 5 when rear window defogger switch is pushed and released.

Terminals		Condition	Continuity
(+)	(-)	Switch pushed	Yes
3	5	Switch released	No

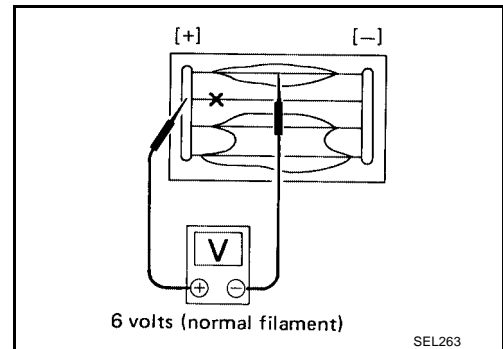


WIIA0105E

## Filament Check

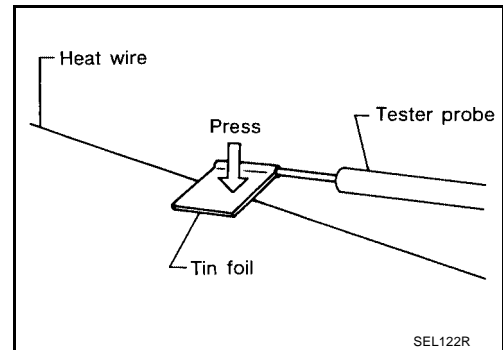
- Attach probe circuit tester (in volt range) to middle portion of each filament.

EIS0016C



SEL263

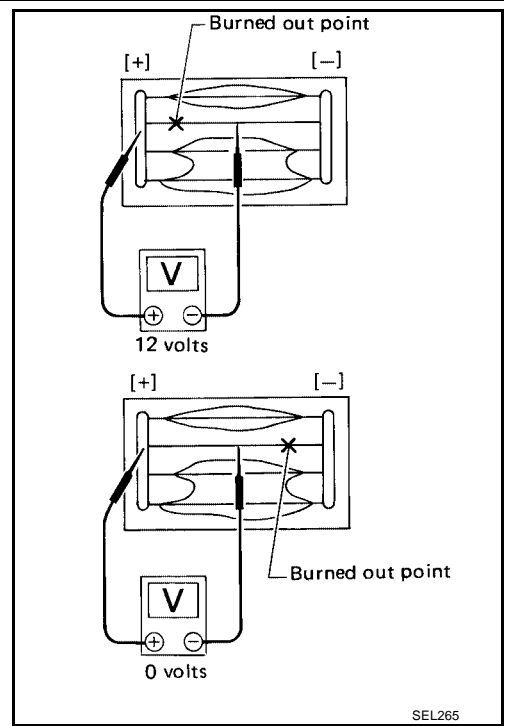
- When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



SEL122R

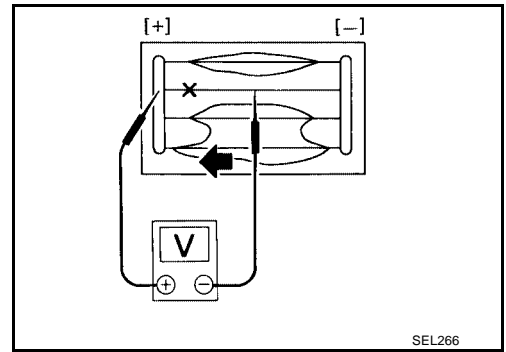
# REAR WINDOW DEFOGGER

2. If a filament is burned out, circuit tester registers 0 or 12 volts.



A  
B  
C  
D  
E  
F  
G

3. To locate burned out point, move probe to left and right along filament. Test needle will swing abruptly when probe passes the point.



H  
GW  
J  
K

## Filament Repair REPAIR EQUIPMENT

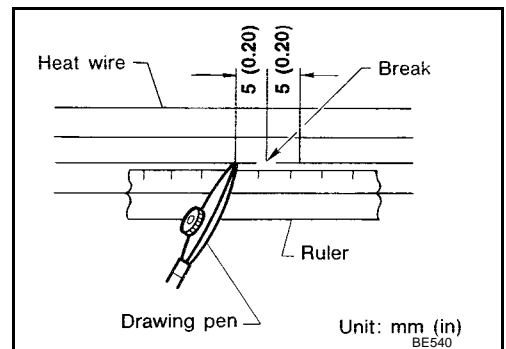
1. Conductive silver composition (Dupont No. 4817 or equivalent)
2. Ruler 30 cm (11.8 in) long
3. Drawing pen
4. Heat gun
5. Alcohol
6. Cloth

EIS0016D

L  
M

## REPAIRING PROCEDURE

1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.

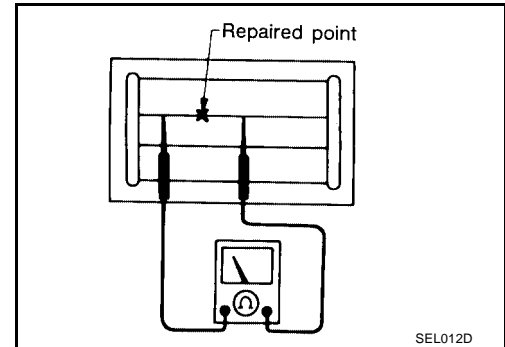


## REAR WINDOW DEFOGGER

2. Apply a small amount of conductive silver composition to tip of drawing pen.

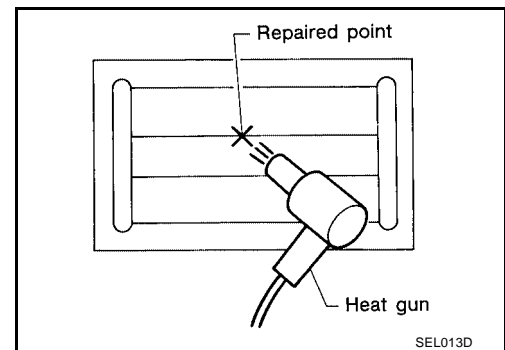
### **Shake silver composition container before use.**

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.





# REAR VIEW MIRROR

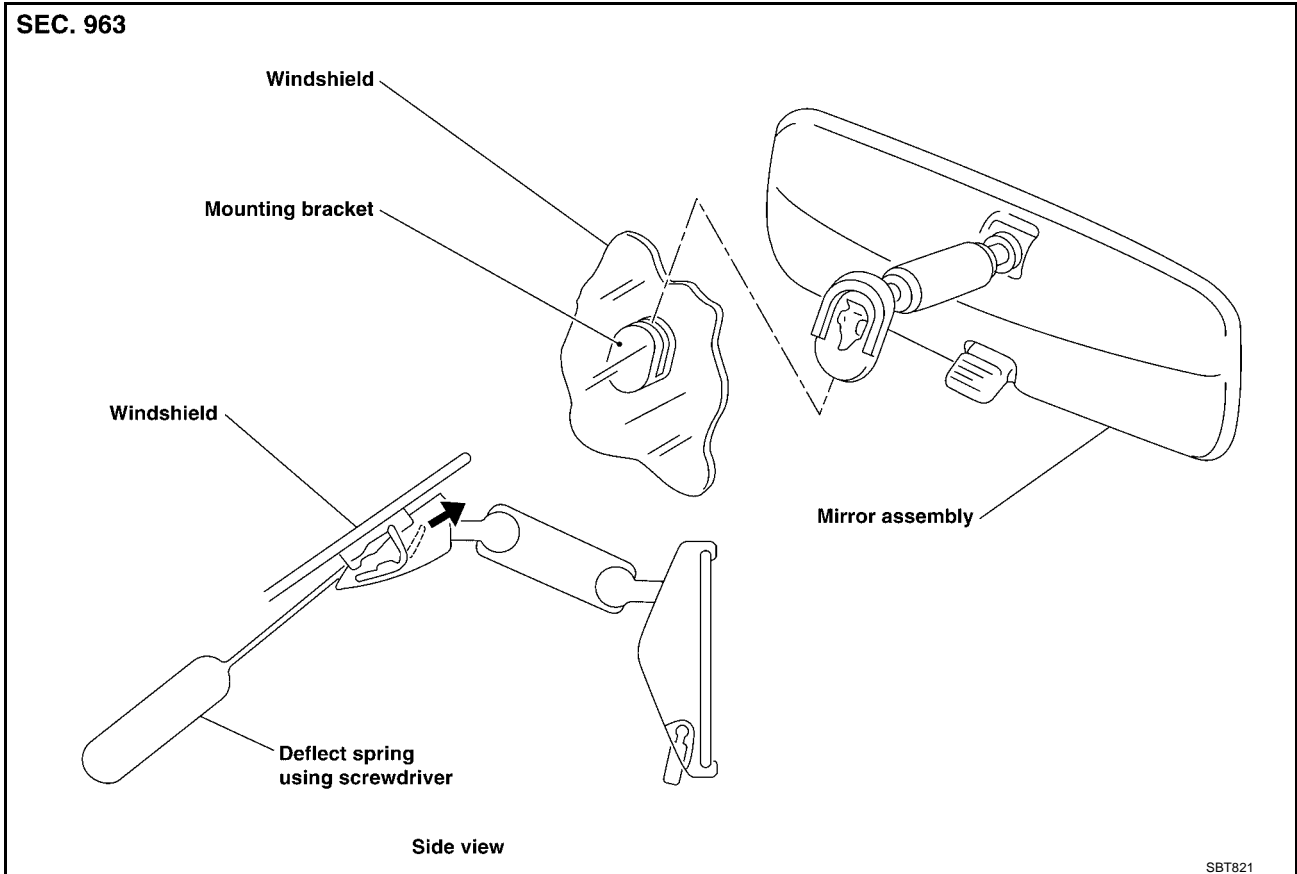
PFP:96321

EIS0016E

## REAR VIEW MIRROR

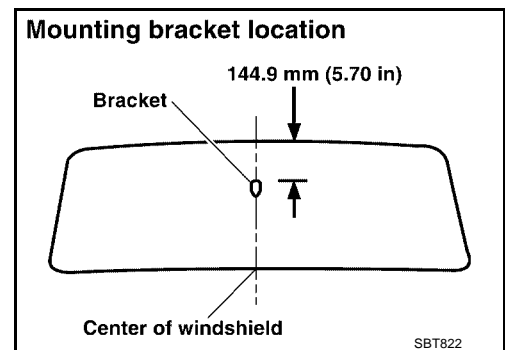
### Removal and Installation REMOVAL

Remove rear view mirror by pushing deflect spring with screwdriver as shown in the figure.



### INSTALLATION

1. Install mounting bracket as follows:
  - a. Determine mounting bracket position on windshield by measuring from top of windshield to top of mounting bracket as shown in the figure.
  - b. Mark location on outside of windshield with wax pencil or equivalent.
  - c. Clean attaching point on inside of windshield with an alcohol-saturated paper towel.
  - d. Sand bonding surface of mounting bracket with sandpaper (No. 320 or No. 360).
  - e. Clean bonding surface of mounting bracket with an alcohol-saturated paper towel.
  - f. Apply Genuine Mirror Adhesive or equivalent to bonding surface of mounting bracket. Refer to [GI-45. "RECOMMENDED CHEMICAL PRODUCTS AND SEALANTS"](#).
  - g. Install mounting bracket at pre-marked position and press mounting bracket against glass for 30 to 60 seconds.
  - h. After five minutes, wipe off excess adhesive with an alcohol-moistened paper towel.
2. Install rear view mirror.



# REAR VIEW MIRROR

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