SECTION GW

GLASSES, WINDOW SYSTEM & MIRRORS

CONTENTS

PRECAUTIONS

PFP:00001

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

EIS004PK

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.**

Precautions

EIS004PL

- 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.

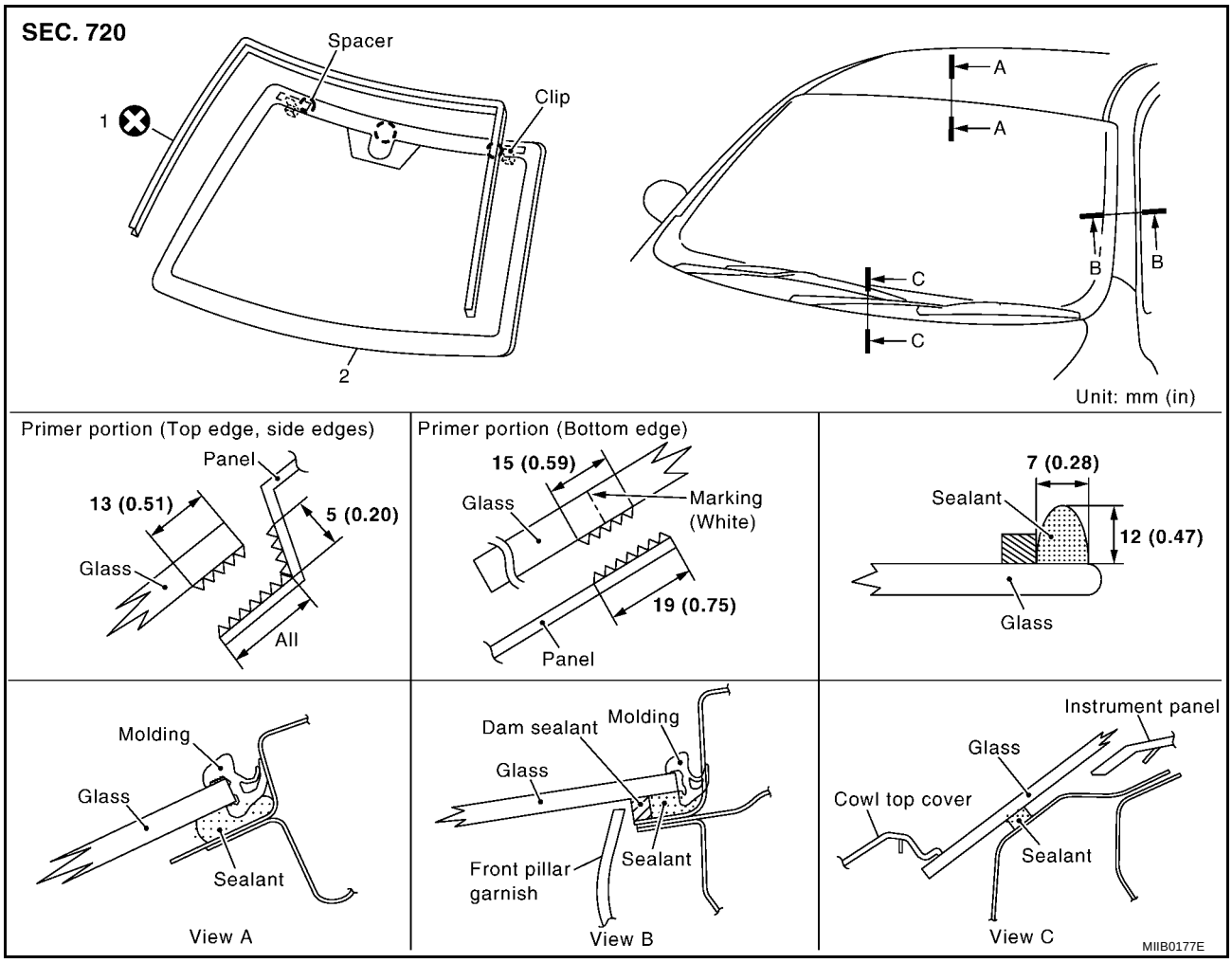
- Do not use any organic solvent, such as thinner or benzine.

WINDSHIELD GLASS

PFP:72712

Removal and Installation

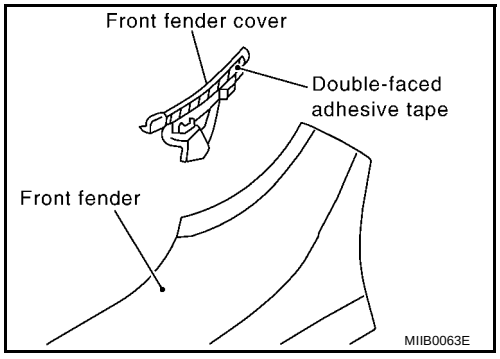
EIS004K7



1. Windshield molding
2. Windshield glass

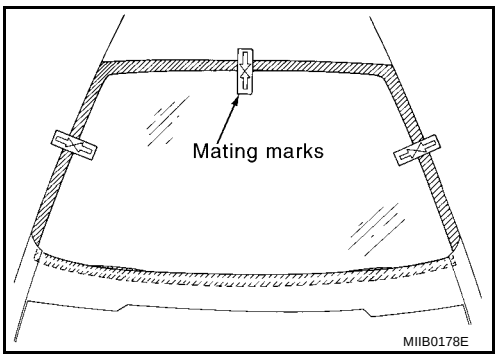
REMOVAL

1. Remove headliner. Refer to EI-25, "HEADLINER" in EI section.
2. Remove cowl top cover. Refer to EI-11, "COWL TOP" in EI section.
3. Peel off double-sided tape and remove front fender covers (LH/RH) from front fenders (LH/RH).



4. Apply protective tape around windshield glass to protect the painted surface from damage.
5. Guiding a cutter knife along glass, cut the surface of moldings.
6. With pliers, draw out all the remaining molding left in flanged area of body to remove it completely from adhering surface on glass.

- When re-using the windshield glass, put match marks on body and glass.



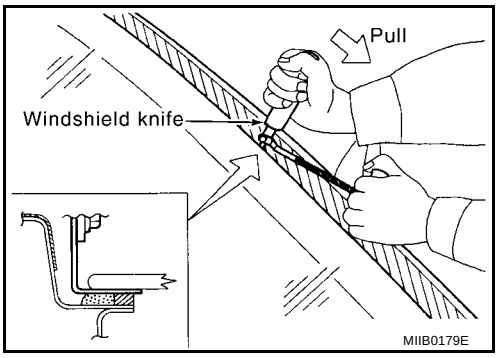
7. Cut adhesive.
   - Depending on the tool in use, follow the procedures below:

   CAUTION:
   If windshield glass is reused, do not use a windshield knife. (It may scratch glass surface.)

a. With a windshield knife (when replacing glass).

i. To smoothly cut with windshield knife, apply soapy water onto the adhesive on the body side surrounding the windshield.

ii. Insert windshield knife into the bonded area. Cut adhesive by pulling the knife, keeping the tip parallel to glass edge.



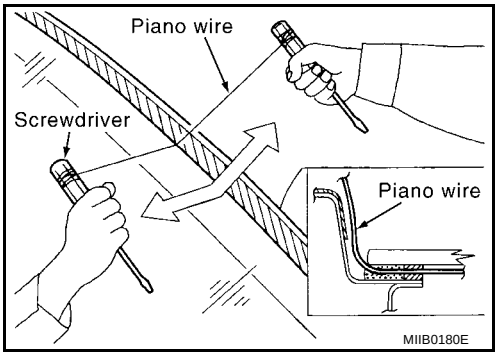
b. With a piano wire (when reusing glass)

i. Working from inside cabin, drill a through hole in the adhesive with a drill or pick.

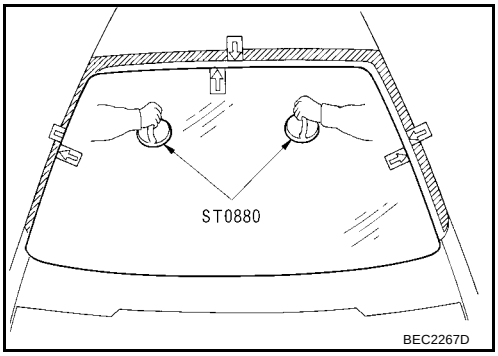
ii. From inside the passenger room, pass a piano wire through the hole and tie both ends to screwdrivers or similar tools.

iii. With two persons, one holding one end of the piano wire outside the vehicle while the other holding the other end inside the vehicle, pulling the wire alternately to cut off the adhesive.

CAUTION:
- **Do not press piano wire excessively against glass edge.**
- **Position a copper plate to keep the piano wire clear of plastic parts such as the instrument panel.**



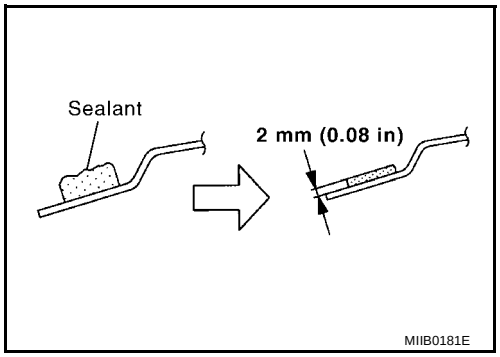
8. Use rubber suction cups (SST) to remove glass from the vehicle.



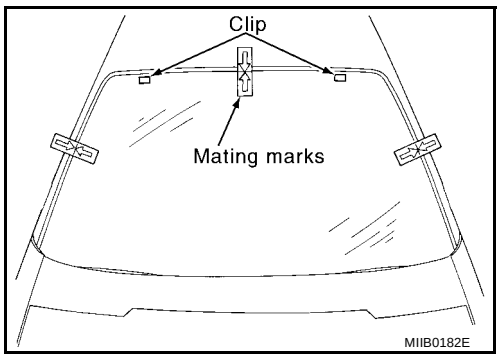
INSTALLATION

1. Using a knife or spatula, trim the adhesive (sealant) remaining on body down to approximately 2 mm thick so that the contour becomes smooth.

   CAUTION:
   If bonded area on body is scratched, be sure to repair it with a 2-component urethane. Do not use lacquer.



2. Put the clip in the panel hole.
3. When installing new glass, mount glass onto the vehicle and paint mating marks on body and glass, then remove glass again.
4. When reusing glass, use a knife or spatula to remove the remaining adhesive (sealant) and smooth out the surface.
5. Clean bonded area on glass with white gasoline.



6. Apply primer G along the entire circumference of glass.

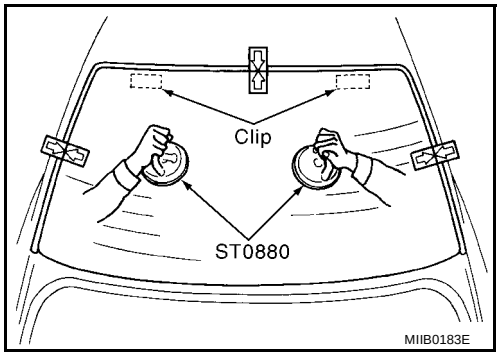
   CAUTION:
   There are 2 types of primer. Never confuse the application methods.
   Primer M: for painted surfaces
   Primer G: for glass

   NOTE:
   The essential function of primers is to strengthen adhesion between glass and painted surface.

7. Apply primer M on areas where adhesive contacts on the side of vehicle body.

   CAUTION:
   - **If primer M adheres to a painted surface other than bonding area, or if it overflows, quickly remove it with white gasoline.**
   - **Place a copper plate to keep primer M clear of the instrument panel.**

8. After applying primers, apply the adhesive along the entire circumference of the glass as shown in the figure, and within the time specified in the instructions for the adhesive.
   - Open adhesive by cutting off the nozzle tip and set it in a sealant gun.
9. After setting rubber suction cups (SST) to glass, align mating marks on body and glass. Install glass to the body.
10. Press entire surface of glass lightly to fit it completely.
11. Remove protective tape.
12. Using a spatula, repair any adhesive overflow or shortage to make the surface smooth.



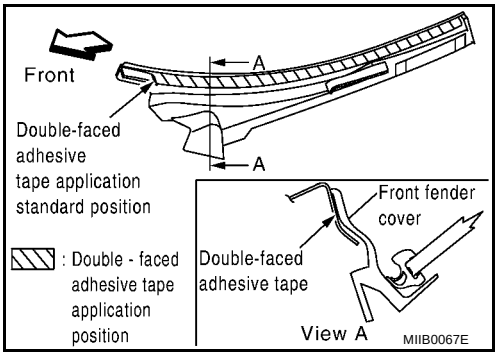
13. Position windshield moldings and allow their adhesion. Refer to EI-14, "WINDSHIELD MOLDING" in EI section.

    CAUTION:
    - **Be sure to install windshield molding before adhesive hardens.**

- **After installing glass, keep door windows open and avoid driving vehicle until adhesive has completely cured.**

14. Check for water leaks.
15. Remove double-sided tape from front fender cover and apply primer (Sumitomo 3M K520) to double-sided tape application position shown in the figure. Then apply new double-sided tape and install front fender.

Double-sided adhesive tape	**: Part equivalent to Sumitomo 3M-5571 (t: 0.8)**



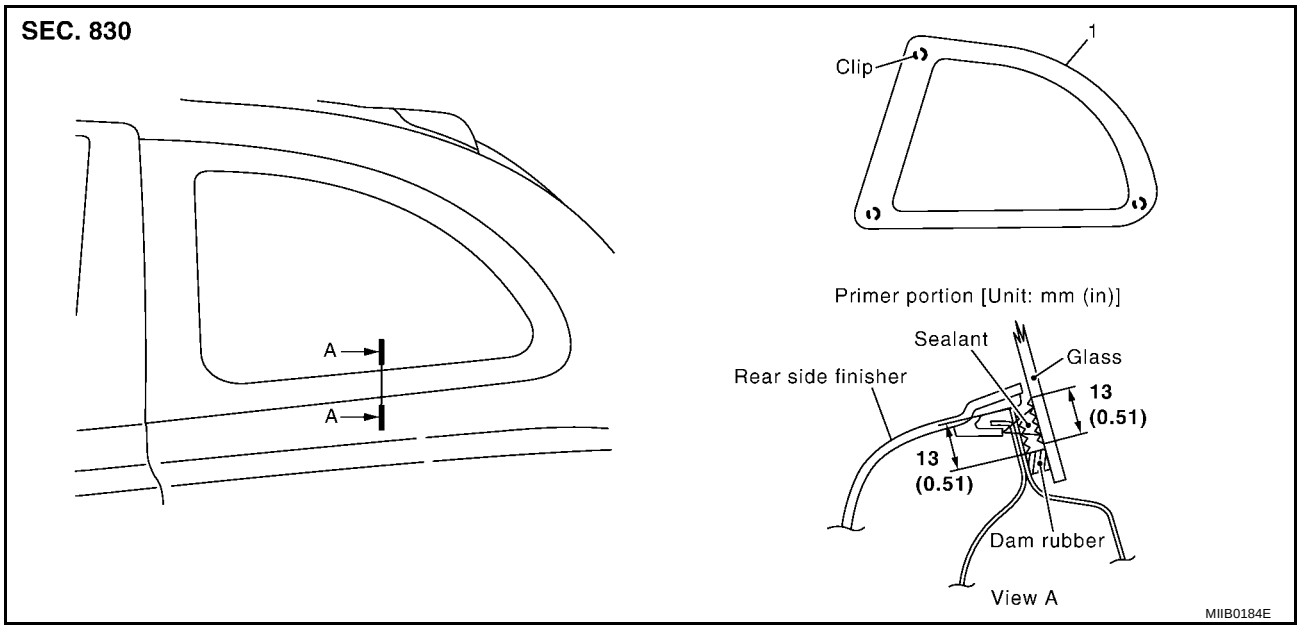
16. Install cowl top cover. Refer to EI-11, "COWL TOP" in EI section.
17. Install headliner. Refer to EI-25, "HEADLINER" in EI section.

SIDE WINDOW GLASS

PFP:83300

Removal and Installation

EIS004K8

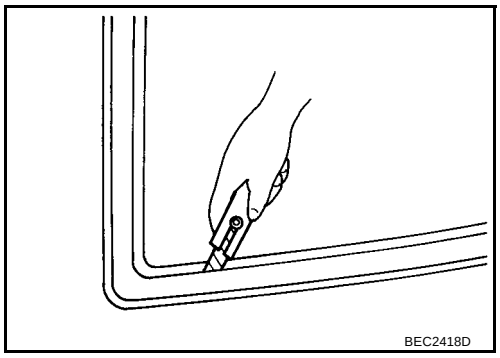


1. Side window glass

REMOVAL

1. Remove rear side finisher and lock pillar upper garnish. Refer to EI-21, "Removal and Installation (3-Door)" in EI section.
2. Apply protective tape on body panel along the circumference side window glass to protect coated surfaces from damage.
3. For the side window glass vehicle front side, open front door, and from outside of vehicle insert cutter knife between side window glass and lock pillar panel and cut adhesive parallel to glass.
4. For side window glass adhesion areas other than the above, working from inside vehicle, insert cutter knife between side door window glass and body panel. Guide cutter edge along glass to cut off adhesive.

   CAUTION:
   Cut carefully so that the tip end of cutter knife does not contact painted surface.
5. Remove glass out of vehicle, unclipping.

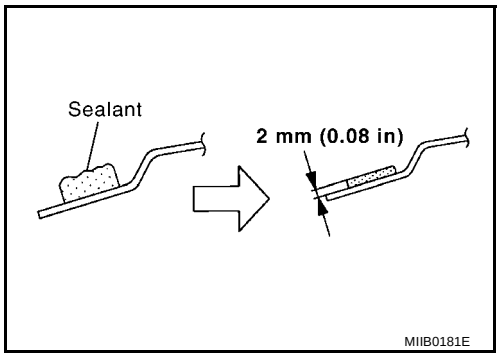


INSTALLATION

1. With a knife, scrape off adhesive remaining on the vehicle body to as thin and flat as 2 mm.

CAUTION:
If scratches are made on vehicle-side bonding surface, be sure to repair it. Always use 2-component type urethane paint. Do not use lacquer type paint.

2. Using a knife or spatula to remove the remaining adhesive and smooth out the surface. (When glass is reused)
3. Clean bonded area on glass with white gasoline.
4. Apply primer G along the entire circumference of glass.



CAUTION:
As 2 primers will be used, they must be used exactly as specified.
Primer M: for painted surfaces

Primer G: for glass

NOTE:

The essential function of primers is to strengthen adhesion between the glass and painted surface primer.

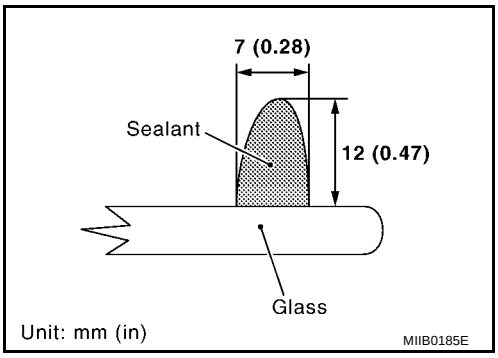
5. Apply primer M on areas where adhesive contacts on the side of vehicle body.

CAUTION:

If primer M adheres to a painted surface other than bonding area, or if it overflows, quickly remove it with white gasoline.

6. After applying primers, apply the adhesive along the entire circumference of the glass as shown in the figure, and within the time specified in the instructions for the adhesive.

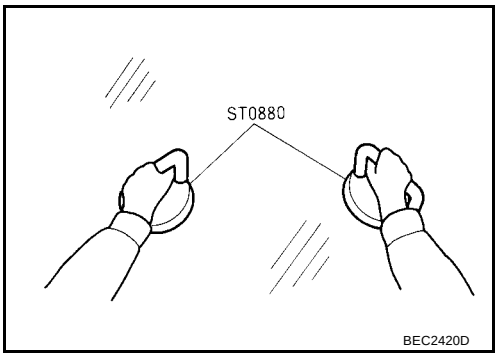
- Open adhesive by cutting off the nozzle tip and set it in a sealant gun.



7. After setting rubber suction cups (SST) to glass, align mating marks on body and glass. Install glass to the body.
8. Press entire surface of glass lightly to fit it completely.
9. Remove protective tape.
10. Using a spatula, go over areas with excessive or insufficient adhesive and neatly smooth the surface.

    CAUTION:

    After installing glass, keep door windows open and avoid driving vehicle until adhesive has completely cured.
11. Check for water leaks.
12. Install rear side finisher and lock pillar upper garnish. Refer to EI-17, "DOOR FINISHER" in EI section.

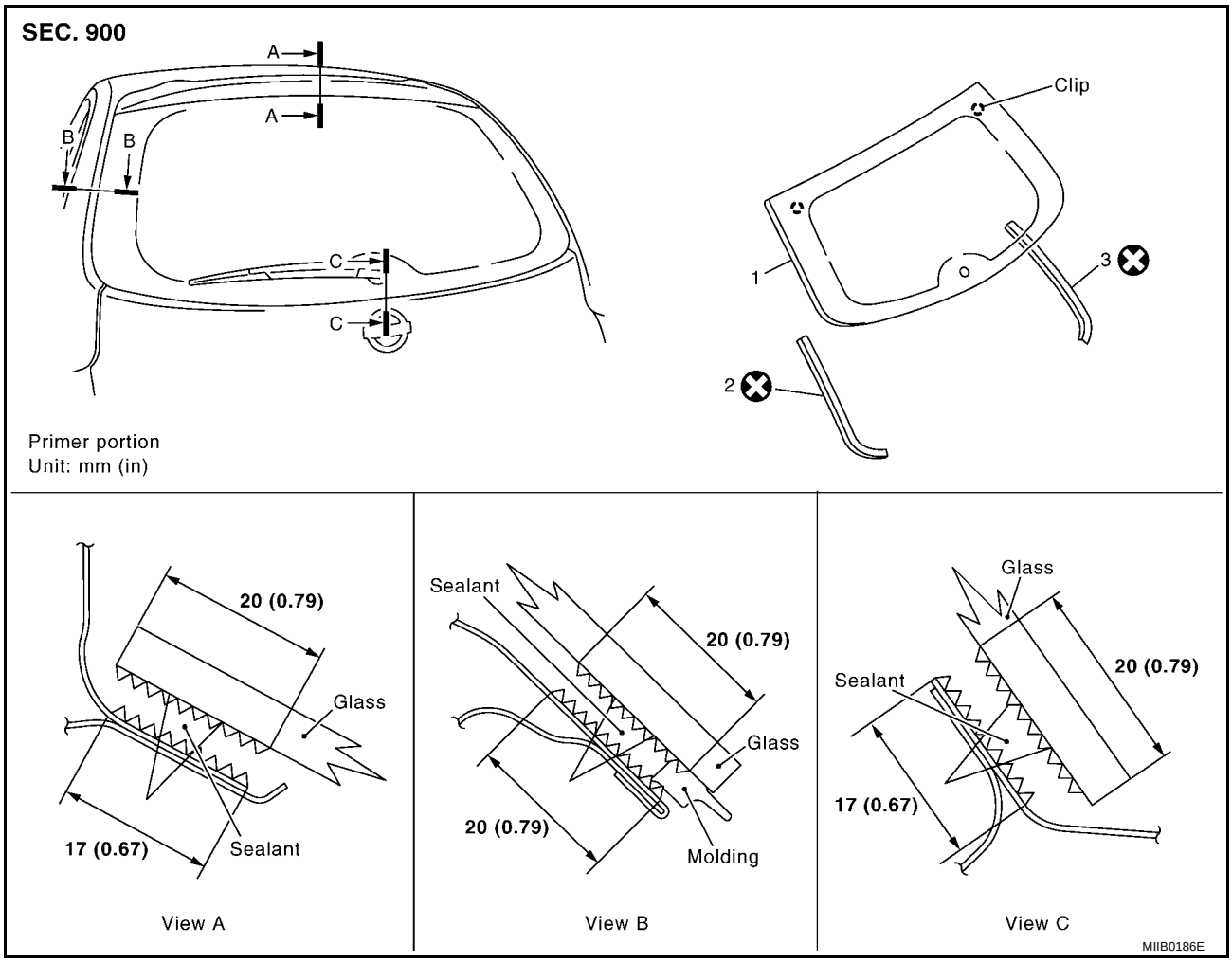


BACK DOOR WINDOW GLASS

PFP:90300

Removal and Installation

EIS004K9



1. Back door window glass
2. Back door window molding (LH side)
3. Back door window molding (RH side)

REMOVAL

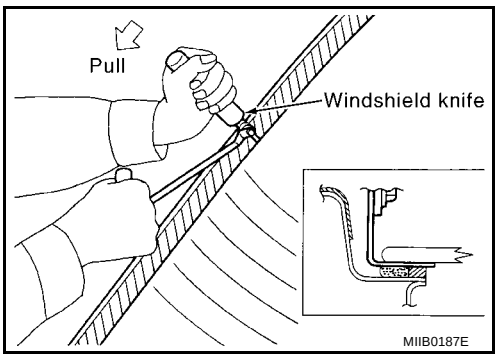
1. Remove back door finisher. Refer to EI-19, "BACK DOOR TRIM" in EI section.
2. Remove high mounted stop lamp. Refer to LT-97, "Bulb Replacement" in LT section.
3. Remove rear wiper arm and rear wiper motor. Refer to WW-69, "Removal and Installation of Rear Wiper Arm" and WW-70, "Removal and Installation of Rear Wiper Motor" in WW section.
4. Disconnect rear window defogger connector.
5. Apply protective tape around windshield glass to protect the painted surface from damage.
6. Cut adhesive.
   - Depending on the tool in use, follow the procedures below:

   CAUTION:
   When reusing the glass, do not use the windshield knife. (Because it will damage the glass)

a. With a windshield knife (when replacing glass).

i. For smooth movement of windshield knife, apply soapy water around bonded area on glass hatch panel.

ii. Insert windshield knife into the bonded area from passenger room side. Cut adhesive by pulling the knife, keeping the tip parallel to glass edge.



b. With a piano wire (when reusing glass)

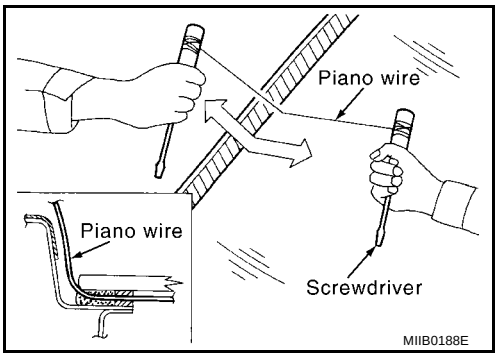
i. Working from inside the passenger room, make a hole in the adhesive with the cutter.

ii. From inside the passenger room, pass a piano wire through the hole and tie both ends to screwdrivers or similar tools.

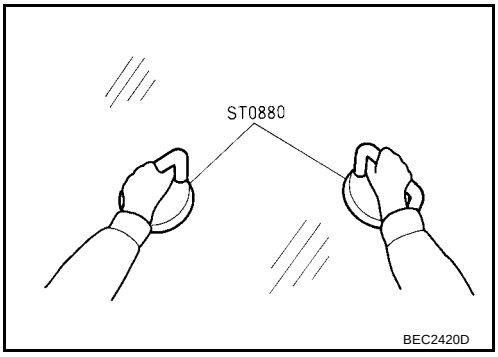
iii. With two persons, one holding one end of the piano wire outside the vehicle while the other holding the other end inside the vehicle, pulling the wire alternately to cut off the adhesive.

CAUTION:

- **Do not press piano wire excessively against glass edge.**



7. Unclip and remove glass from the vehicle with rubber suction cups (SST).



INSTALLATION

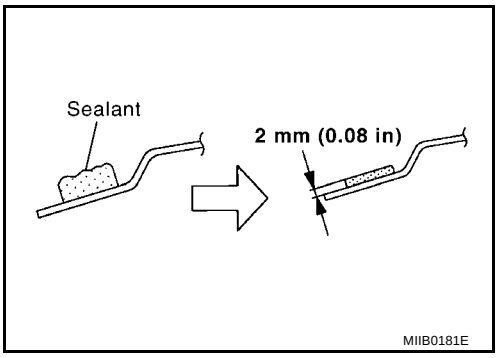
1. Using a knife or spatula, trim the bond remaining on body down to approximately 2 mm thick so that the contour becomes smooth.

   CAUTION:

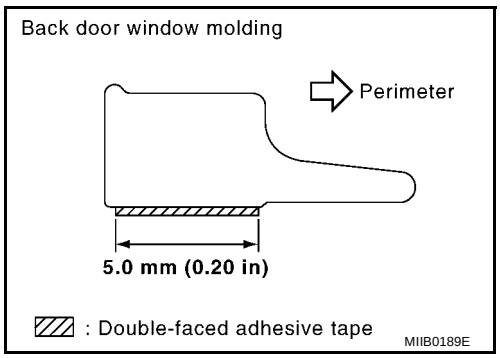
   If scratches or flaws are made on the body surface in the width of adhesion, be sure to repair them with 2-liquid type urethane paint. Do not use lacquer type paint.

2. When reusing glass, use a knife or spatula to remove the remaining adhesive and smooth out the surface.

3. With white gasoline, clean the glass surface where adhesive is applied and the surrounding areas.



4. Bond the back door window molding to the perimeter of the glass using double-sided tape. (Bond aligning double-sided tape bonded area to glass edge.)



5. Apply primer G along the entire circumference of glass.

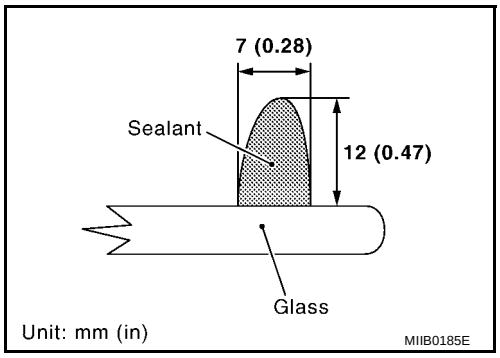
CAUTION:
As 2 primers will be used, they must be used exactly as specified.
Primer M: for painted surfaces
Primer G: for glass

NOTE:
The essential function of primers is to strengthen adhesion between the glass and painted surface primer.

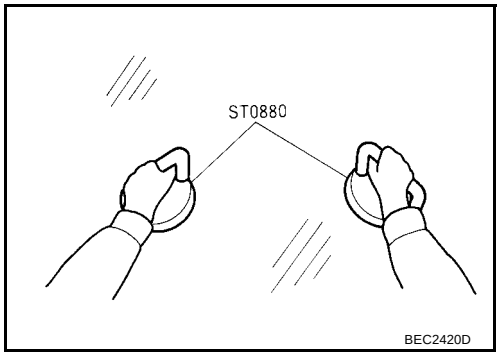
6. Apply primer M on areas where adhesive contacts on the side of vehicle body.

CAUTION:
If primer M adheres to a painted surface other than bonding area, or if it overflows, quickly remove it with white gasoline.

7. After applying primers, apply the adhesive along the entire circumference of the glass as shown in the figure, and within the time specified in the instructions for the adhesive.
   - Open adhesive by cutting off the nozzle tip and set it in a sealant gun.



8. After setting rubber suction cups (SST) to glass, align the clips with the holes on the body panel and install.



9. Press entire surface of glass lightly to fit it completely.
10. Remove protective tape.
11. Using a spatula, repair any adhesive overflow or shortage and make the surface smooth.

CAUTION:
After installing glass, keep door windows open and avoid driving vehicle until adhesive has completely cured.

12. Check for water leaks.
13. Connect rear window defogger connector.

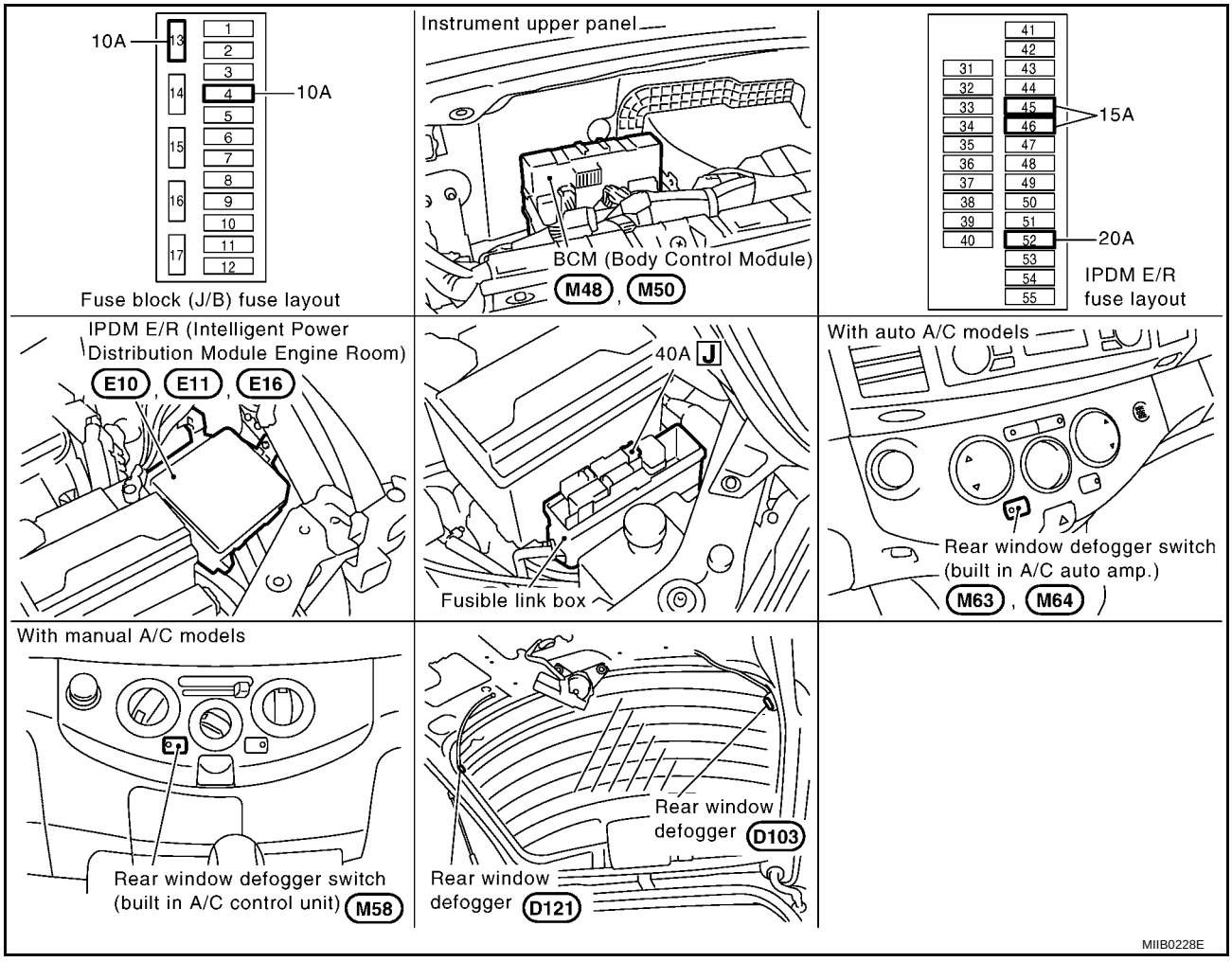
14. Install rear wiper arm and rear wiper motor. Refer to WW-69, "Removal and Installation of Rear Wiper Arm" and WW-70, "Removal and Installation of Rear Wiper Motor" in WW section.
15. Install high-mounted stop lamp. Refer to LT-97, "Bulb Replacement" in LT section.
16. Install back door finisher. Refer to EI-19, "BACK DOOR TRIM" in EI section.

REAR WINDOW DEFOGGER

PFP:25350

Component Parts and Harness Connector Location

EIS004KA



System Description

EIS004KB

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. 45, and 46, located in the IPDM E/R]
- to rear window defogger relay terminal
- through 20A fuse [No. 52, located in the fuse block (J/B)]
- to IPDM E/R terminal
- through 40A fusible link [letter **J** , located in the fuse block (J/B)]
- to BCM terminal 79.

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

- through 10A fuse [No. 4, located in the fuse block (J/B)]
- to BCM terminal 24, and
- to A/C auto amp terminal 2 (with auto A/C) or
- to heater control panel terminal 4 (without auto A/C).

Ground is supplied

- to BCM terminal 2 and 70
- through body grounds M19, and M20.

- to A/C auto amp terminal 14 (with auto A/C) or
- to heater control panel terminal 10 (without auto A/C)
- through body grounds M19 and M20.
- to internal CPU of IPDM E/R terminal 3 and 54
- through body grounds E25, E26 and E40.

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

- to BCM terminal 4
- through A/C auto amp terminal 7 (with auto A/C) or
- through heater control panel terminal 9 (without auto A/C)
- through A/C auto amp terminal 14 (with auto A/C) or
- through heater control panel terminal 10 (without auto A/C)
- through body grounds M19 and M26.

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 E25, E26 and E40.

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 terminal 2, is grounded through body ground D122.
With power and ground supplied, rear window defogger filaments heat and defog the rear window.
When rear window defogger relay is turned to ON, (with mirror defogger)
Power is supplied (with mirror defogger)

- through rear window defogger relay terminal
- through IPDM E/R terminal 8
- through 10A fuse [No. 13, located in the fuse block (J/B)]
- to door mirror defogger (Driver side and passenger side) terminal 6.

Door mirror defogger (Driver side and passenger side) terminal 8 is grounded through body grounds M19 and M20.
With power and ground supplied, door mirror defogger filaments heat and defog the mirror.

CAN Communication

EIS004KC

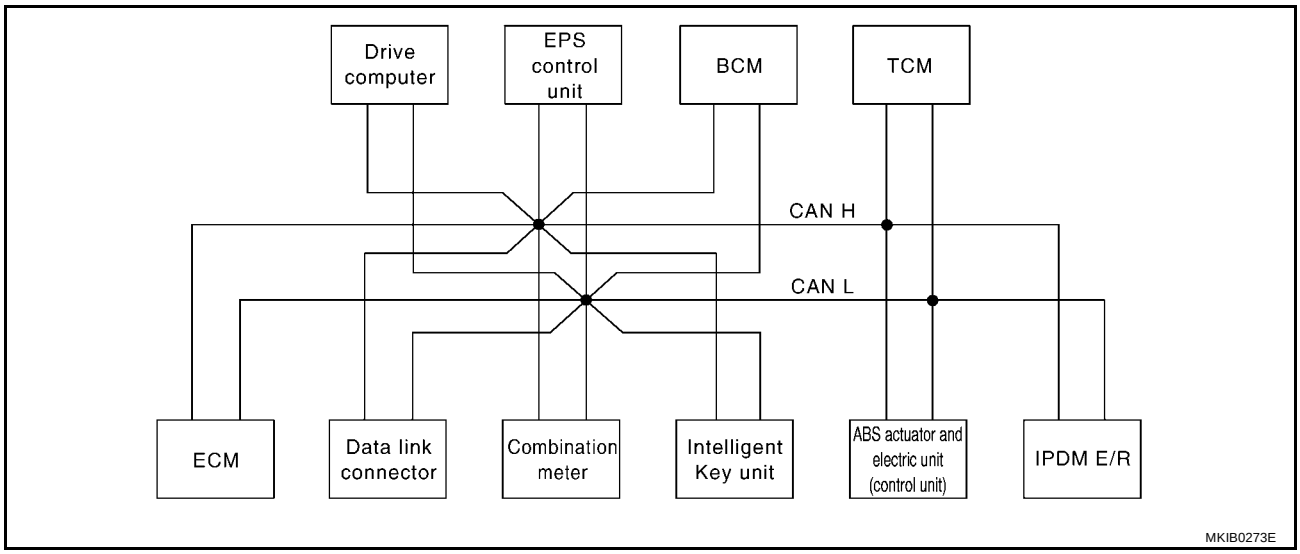
SYSTEM DESCRIPTION

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. A modern vehicle is equipped with many electronic control units, and each control unit shares information and links with other control units during operation (not independent). In CAN communication, two control units are connected with two communication lines (CAN H-line, L-line) allowing a high rate of information transmission with less wiring. Each control unit transmits/receives data but selectively reads required data only.

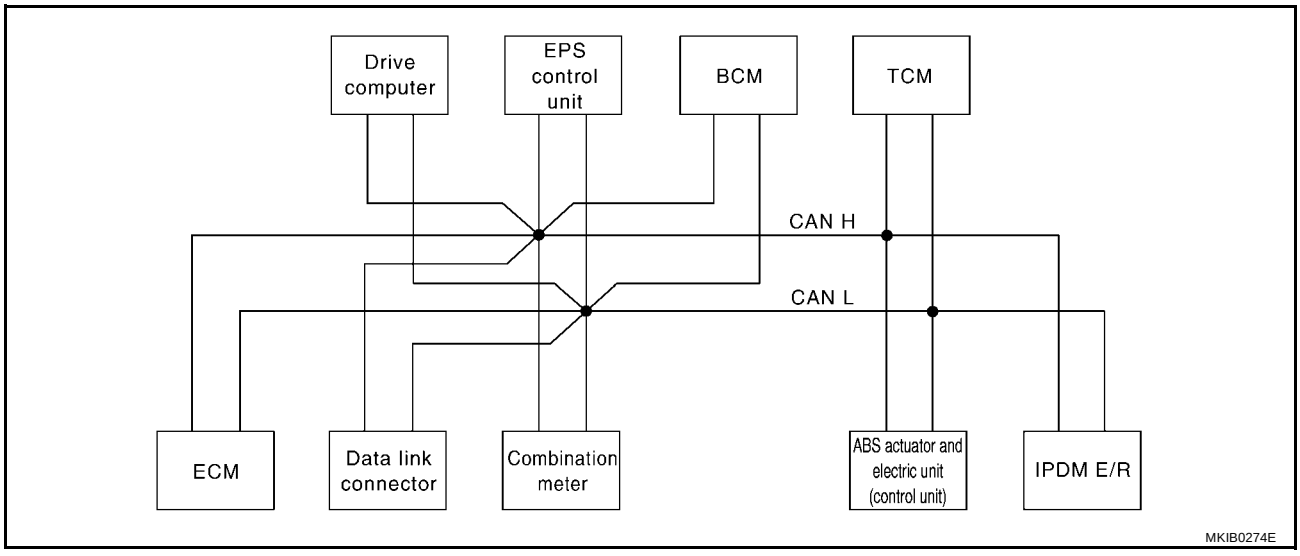
A/T MODELS

System diagram

- With intelligent key unit



- Without intelligent key unit



Input/output signal chart

T: Transmit R: Receive

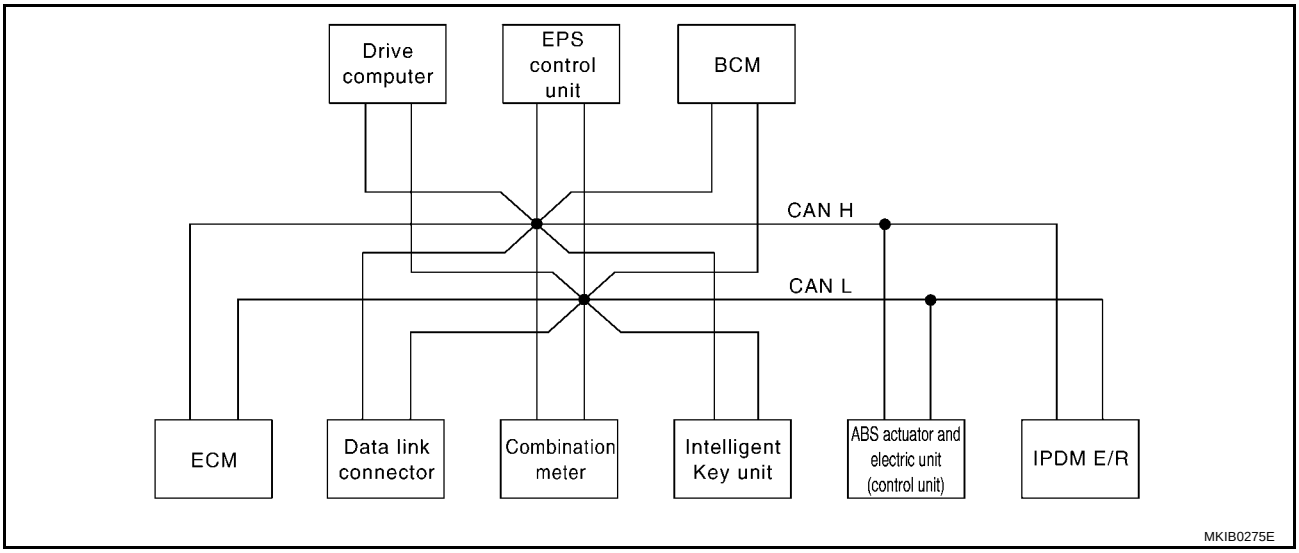
Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
Engine speed signal	T	R		R	R				
Engine coolant temperature signal	T	R							
A/T self-diagnosis signal	R							T	
Output shaft revolution signal	R							T	
Accelerator pedal position signal	T							R	
Closed throttle position signal	T							R	
Wide open throttle position signal	T							R	
A/T shift position signal		R						T	
Stop lamp switch signal		T						R	
O/D OFF indicator lamp signal		R						T	
Engine and A/T integrated control signal	T							R	
	R							T	
Fuel consumption monitor signal	T	R							
Oil pressure switch signal		R		R					T
A/C compressor request signal	T								R
Heater fan switch signal	R					T			
Cooling fan speed request signal	T								R
Cooling fan speed status signal	R								T
Position lights request signal		R		R		T			R
Position light status signal	R								T
Low beam request signal						T			R
Low beam status signal	R								T
High beam request signal		R				T			R
High beam status signal	R								T
Day time light request signal						T			R
Vehicle speed signal	R	R			R		T		
	R	T	R	R	R	R			
Sleep/wake up signal		R	R			T			R
Door switch signal		R	R	R		T			R
Turn indicator signal		R				T			
Buzzer output signal		R				T			
		R	T						
MI signal	T	R		R					
Front wiper request signal						T			R
Front wiper stop position signal						R			T
Rear window defogger switch signal						T			R

Signals	ECM	Combi-nation meter.	Intelli-gent Key unit	Drive com-puter	EPS control unit	BCM	ABS actuator and electric unit (control unit)	TCM	IPDM E/R
Rear window defogger control signal	R								T
Drive computer signal		T		R					
EPS warning lamp signal		R		R	T				
ABS warning lamp signal		R		R			T		
ABS operation signal	R						T		
Brake warning lamp signal		R		R			T		
Buck-up lamp signal					R	T			
Fuel low warning signal		T		R					
Battery charge malfunction signal		T		R					
Air bag system warning signal		T		R					
Brake fluid level warning signal		T		R					
Engine coolant temperature warning signal		T		R					
Front fog lamp request signal		R				T			R
Rear fog lamp status signal		R				T			
Headlamp washer request signal						T			R
Door lock/unlock request signal			R			T			
Door lock/unlock status signal			R			T			
KEY indicator signal		R	T						
LOCK indicator signal		R	T						

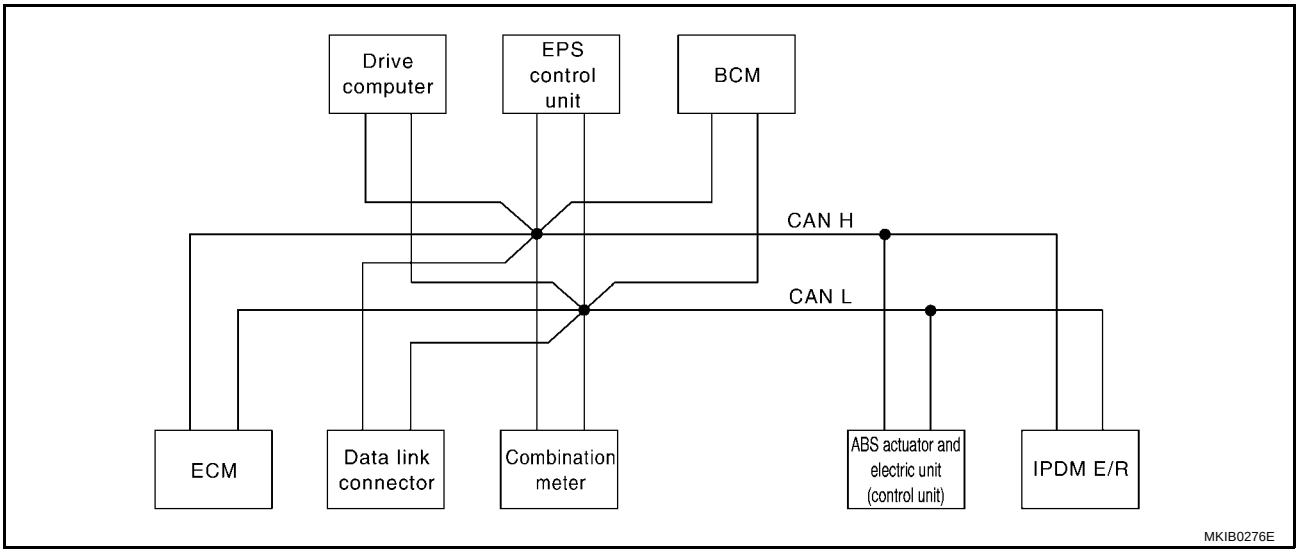
M/T MODELS

System diagram

- With intelligent key unit



- Without intelligent key unit



Input/output signal chart

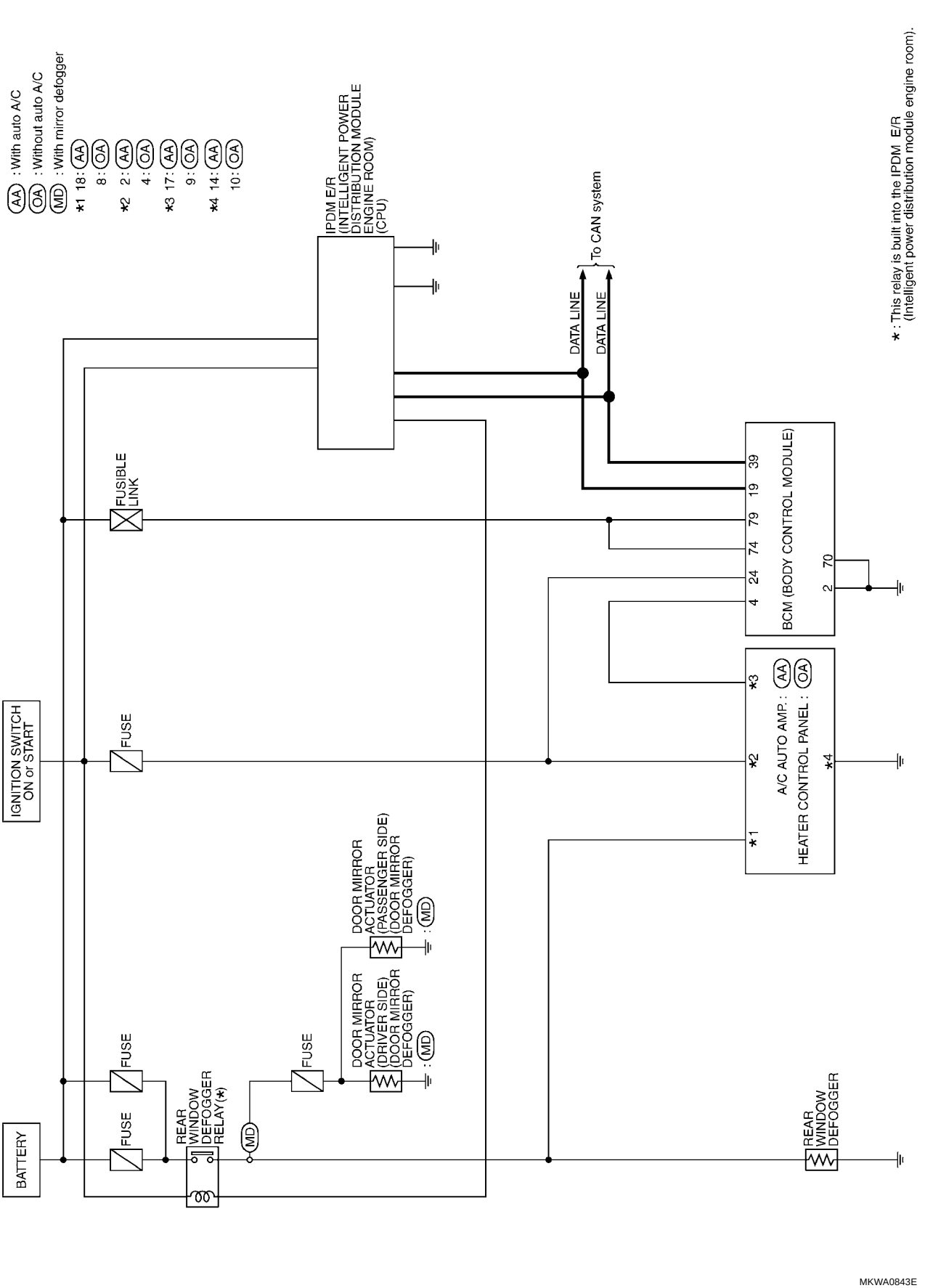
T: Transmit R: Receive

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Engine speed signal	T	R		R	R			
Engine coolant temperature signal	T	R						
Fuel consumption monitor signal	T	R						
Oil pressure switch signal		R		R				T
A/C compressor request signal	T							R
Heater fan switch signal	R					T		
Cooling fan speed request signal	T							R
Cooling fan speed status signal	R							T
Position lights request signal		R		R		T		R

Signals	ECM	Combination meter.	Intelligent Key unit	Drive computer	EPS control unit	BCM	ABS actuator and electric unit (control unit)	IPDM E/R
Position light status signal	R							T
Low beam request signal						T		R
Low beam status signal	R							T
High beam request signal		R				T		R
High beam status signal	R							T
Day time light request signal						T		R
Vehicle speed signal	R	R			R		T	
	R	T	R	R	R	R		
Sleep/wake up signal		R	R			T		R
Door switch signal		R	R	R		T		R
Turn indicator signal		R				T		
Buzzer output signal		R				T		
		R	T					
MI signal	T	R		R				
Front wiper request signal						T		R
Front wiper stop position signal						R		T
Rear window defogger switch signal						T		R
Rear window defogger control signal	R							T
Drive computer signal		T		R				
EPS warning indicator signal		R		R	T			
ABS warning lamp signal		R		R			T	
ABS operation signal	R			R			T	
Brake warning lamp signal		R					T	
Buck-up lamp signal					R	T		
Fuel low warning signal		T		R				
Battery charge malfunction signal		T		R				
Air bag system warning signal		T		R				
Brake fluid level warning signal		T		R				
Engine coolant temperature warning signal		T		R				
Front fog lamp request signal		R				T		R
Rear fog lamp status signal		R				T		
Headlamp washer request signal						T		R
Door lock/unlock request signal			R			T		
Door lock/unlock status signal			R			T		
KEY indicator signal		R	T					
LOCK indicator signal		R	T					

Schematic – DEF –

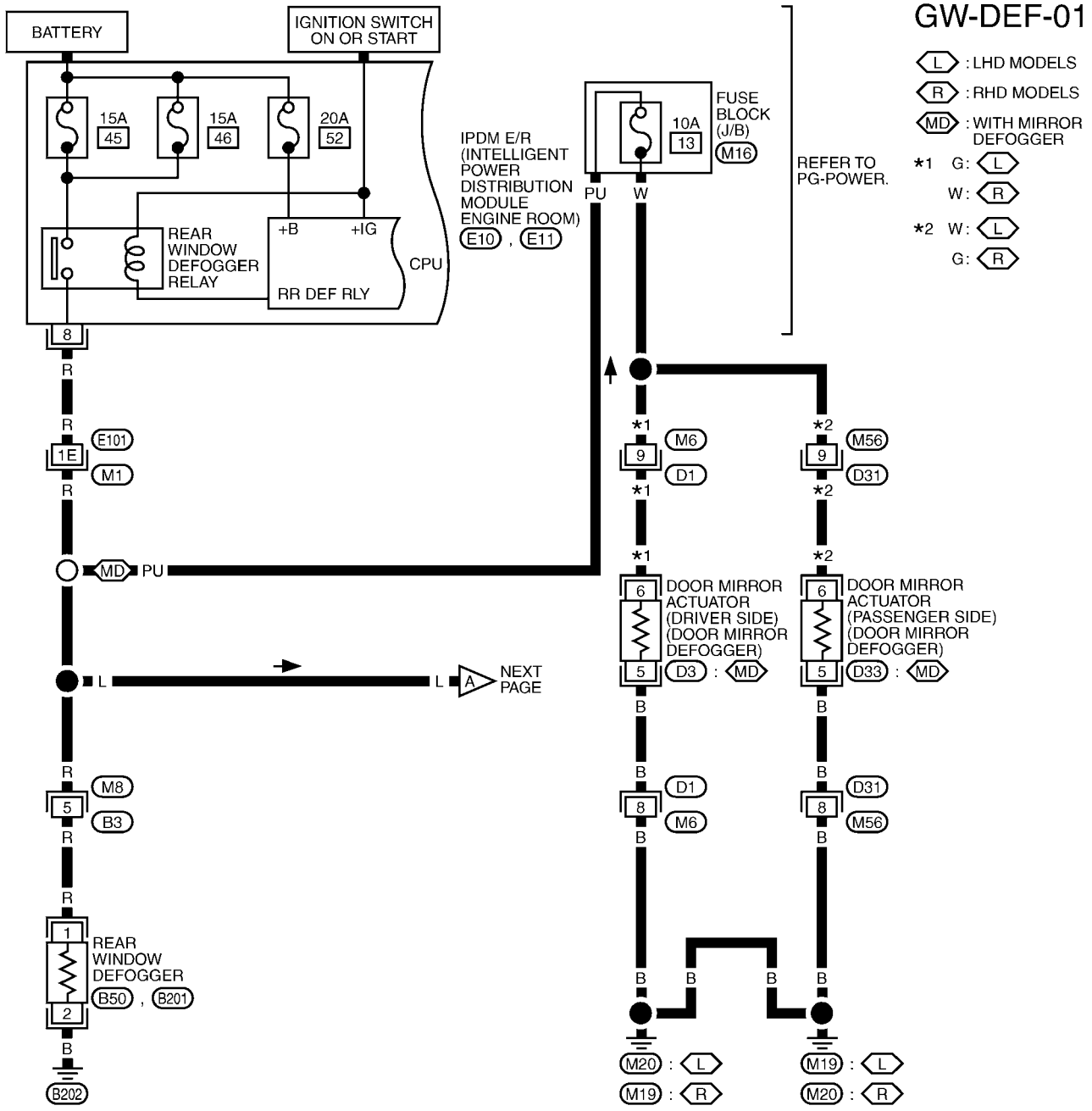
EIS004KD

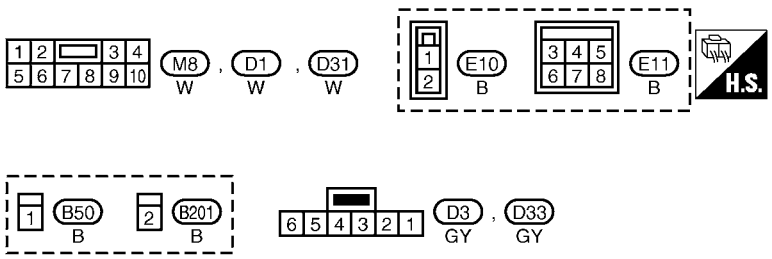


MKWA0843E

Wiring Diagram –DEF–

EIS004KE



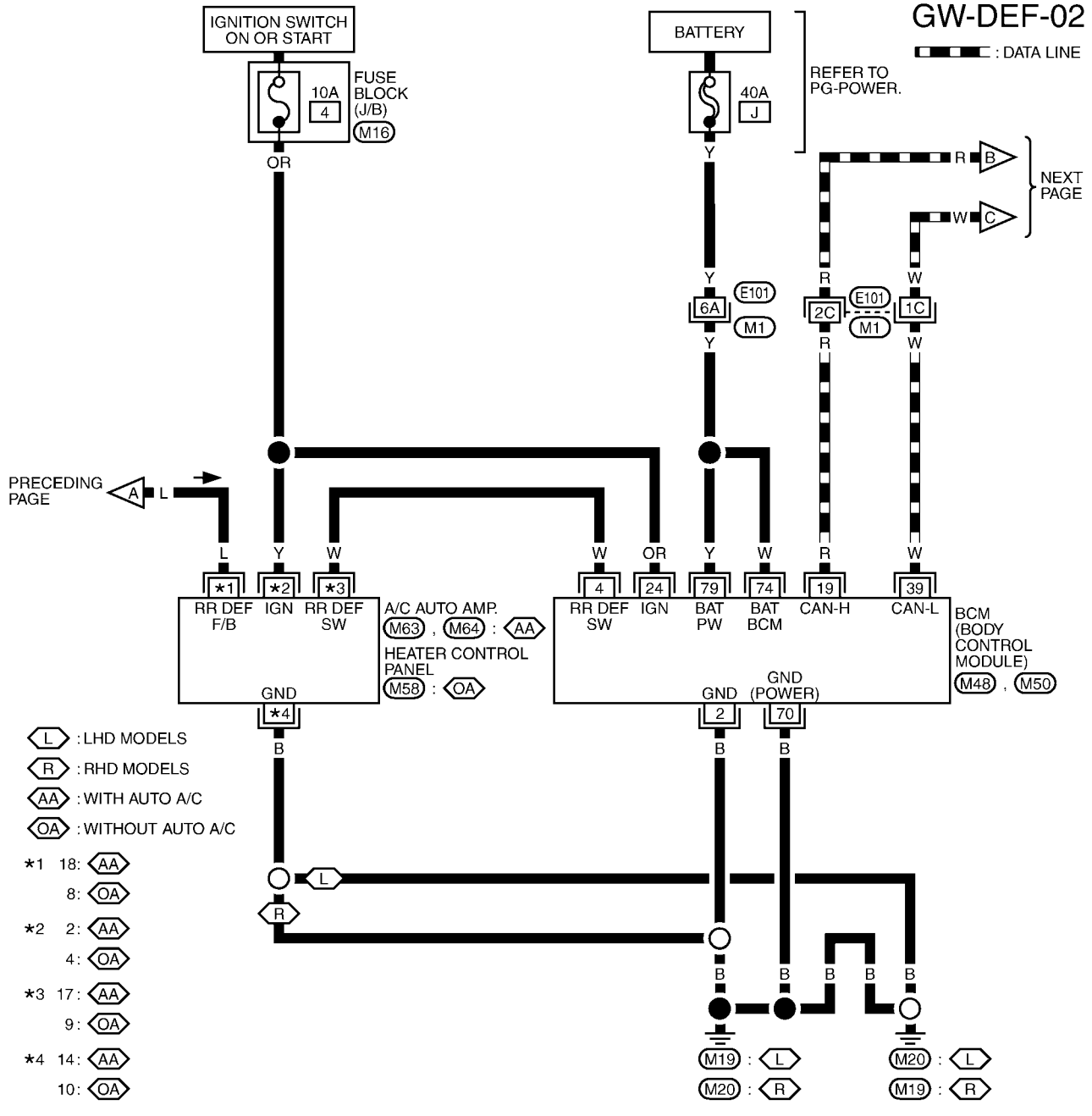


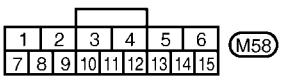
REFER TO THE FOLLOWING.

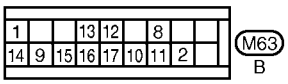
M1 -SUPER MULTIPLE JUNCTION (SMJ)

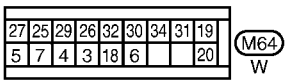
M16 -FUSE BLOCK-JUNCTION BOX (J/B)

MKWA0844E



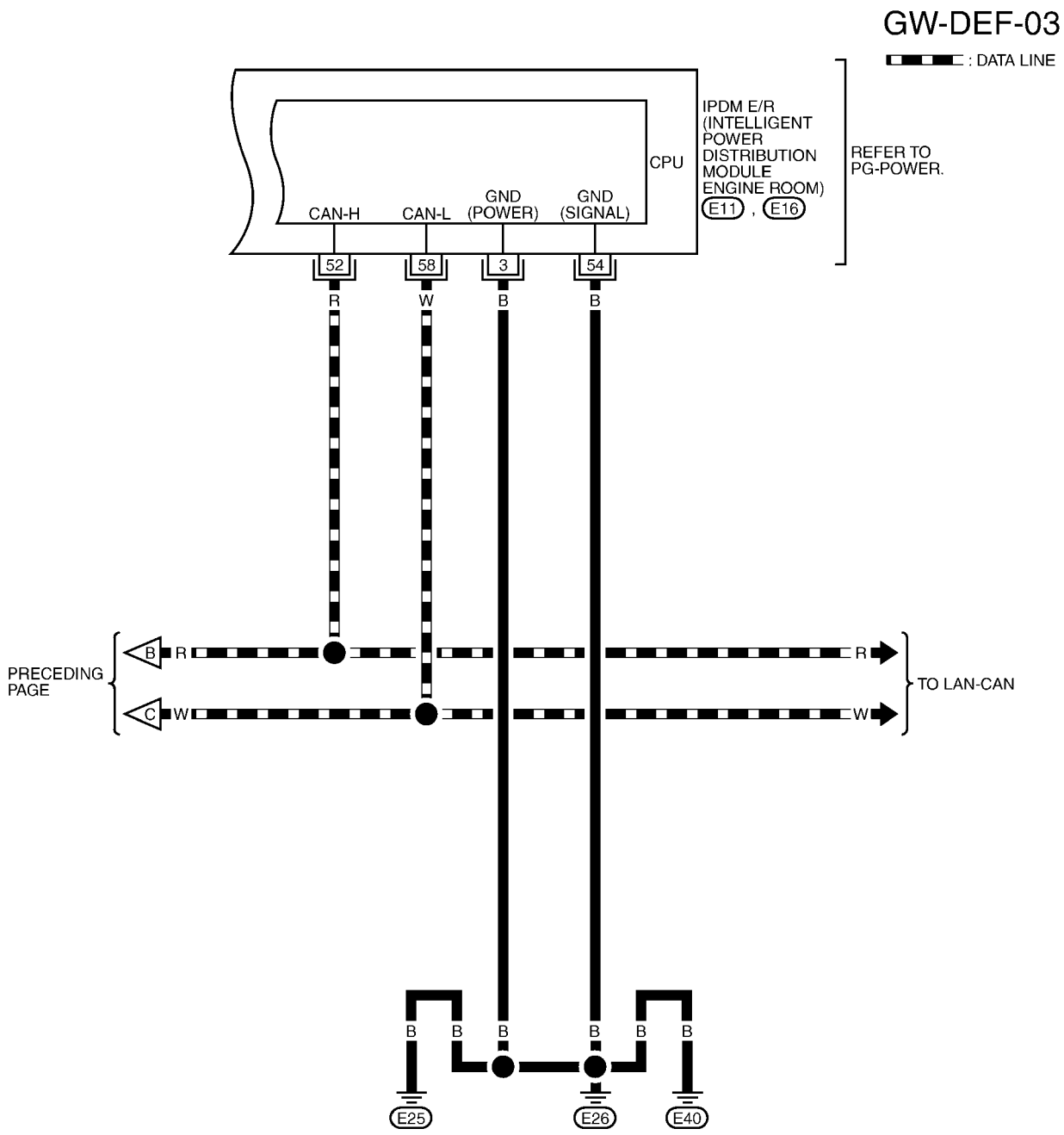


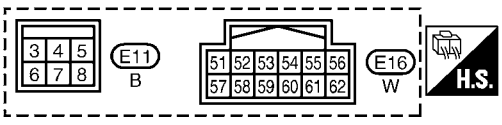




REFER TO THE FOLLOWING.
M1 -SUPER MULTIPLE JUNCTION (SMJ)
M16 -FUSE BLOCK-JUNCTION BOX (J/B)
M48 , M50 -ELECTRICAL UNITS

MKWA0845E


GW-DEF-03
: DATA LINE
CPU
IPDM E/R
(INTELLIGENT
POWER
DISTRIBUTION
MODULE
ENGINE ROOM)
E11 , E16
REFER TO
PG-POWER.
CAN-H
CAN-L
GND
(POWER)
GND
(SIGNAL)
52
58
3
54
R
W
B
B
PRECEDING
PAGE
B
C
R
W
TO LAN-CAN
E25
E26
E40


3 4 5
6 7 8
E11
B
51 52 53 54 55 56
57 58 59 60 61 62
E16
W
H.S.

MKWA0846E

Terminal and Reference Value for BCM

EIS004KF

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

Terminal and Reference Value for IPDM E/R

EIS004KG

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

Work Flow

EIS004KH

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to GW-14, "System Description" .
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to GW-28, "Trouble Diagnoses Symptom Chart" .
4. Does rear window defogger operate normally? YES: GO TO 5, NO: GO TO 3.
5. INSPECTION END.

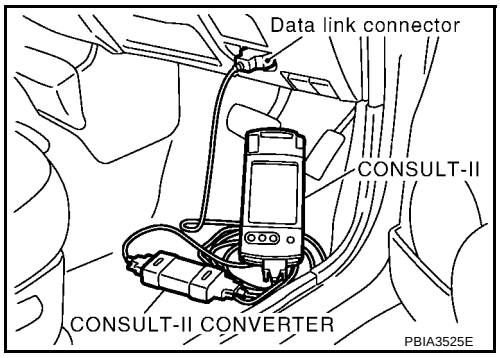
CONSULT-II Inspection Procedure

EIS004KI

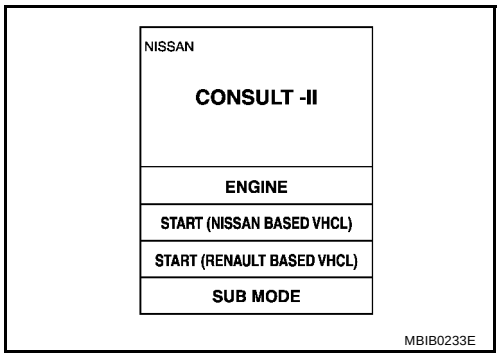
CAUTION:

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

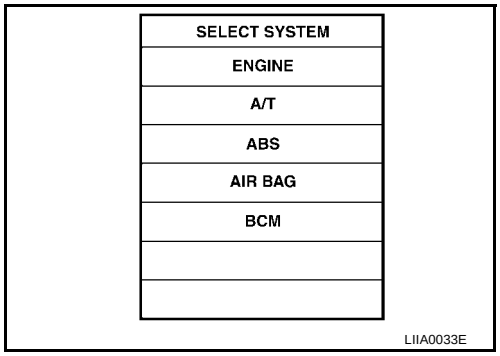
1. Turn ignition switch “OFF”.
2. Connect “CONSULT-II” and CONSULT-II CONVERTER to data link connector.



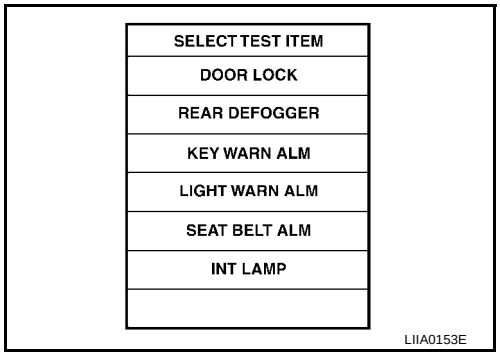
3. Turn ignition switch “ON”.
4. Touch “START (NISSAN BASED VHCL)”.



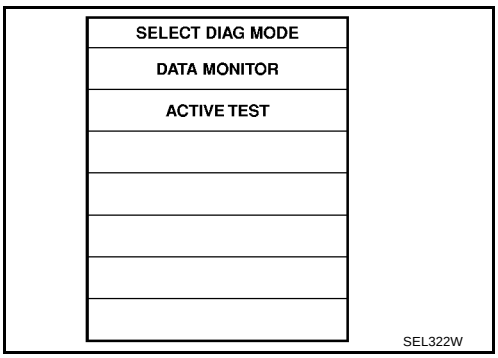
5. Touch “BCM”.
   If “BCM” is not indicated, go to GI-36, "CONSULT-II Data Link Connector (DLC) Circuit" .



6. Touch “REAR DEFOGGER”.



7. Select diagnosis mode,“DATA MONITOR” and “ACTIVE TEST”.



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.
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

EIS004KJ

- 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. BCM power supply and ground circuit check.	GW-28
	2. IPDM E/R auto active test check.	PG-29
	3. Rear window defogger switch circuit check (with auto A/C).	GW-30
	3. Rear window defogger switch circuit check (without auto A/C).	GW-31
	4. Rear window defogger power supply circuit check.	GW-33
	5. Replace IPDM E/ R.	PG-41
Rear window defogger does not operated. (without door mirror defogger)	1. BCM power supply and ground circuit check.	GW-28
	2. IPDM E/R auto active test check.	PG-29
	3. Rear window defogger switch circuit check (with auto A/C).	GW-30
	3. Rear window defogger switch circuit check (without auto A/C).	GW-31
	4. Rear window defogger power supply circuit check.	GW-33
	5. Rear window defogger circuit check.	GW-34
	6. Filament check.	GW-38
	7. Replace IPDM E/ R.	PG-41
Rear window defogger does not operate but both of door mirror defoggers operate.(With door mirror defogger)	1. Rear window defogger circuit check.	GW-34
	2. Filament check.	GW-38
Both of door mirror defoggers do not operated but rear window defogger operate. (With door mirror defogger)	1. Door mirror defogger power supply circuit check.	GW-35
Driver side door mirror defogger does not operated. (With door mirror defogger)	1. Driver side door mirror defogger circuit check.	GW-36
Passenger side door mirror defogger does not operated. (With door mirror defogger)	1. Passenger side door mirror defogger circuit check.	GW-37

BCM Power Supply and Ground Circuit Check

EIS004KK

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-14, "CONSULT-II" .

1. FUSE INSPECTION

- Check 10A fuse [No.4, located in fuse block (J/B)]
- Check 40A fusible link (letter **J** located in the fuse and fusible link box).

NOTE:
Refer to GW-14, "Component Parts and Harness Connector Location" .

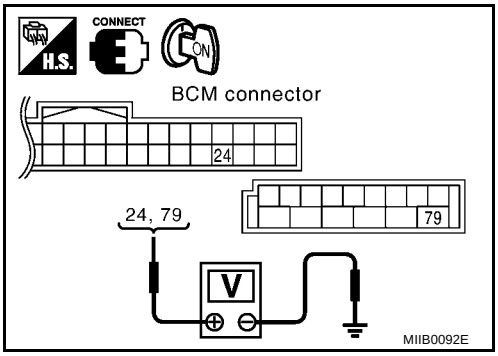
OK or NG

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" .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M48, M50 terminal 24, 79 and ground.

24 (OR) – Ground :Battery voltage.
79 (Y) – Ground :Battery voltage.



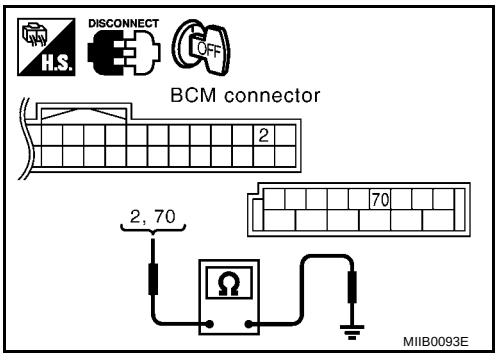
OK or NG

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 M48, M50 terminal 2, 70 and ground.

2 (B) – Ground :Continuity should exist.
70 (B) – Ground :Continuity should exist.



OK or NG

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

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

EIS004KL

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-27 .

When engine is running

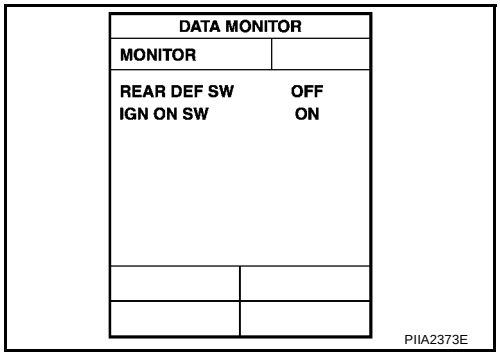
ENGINE STATUS :RUN

When rear defogger switch is turned to ON

REAR DEF SW :ON

When ignition switch is turned to ON

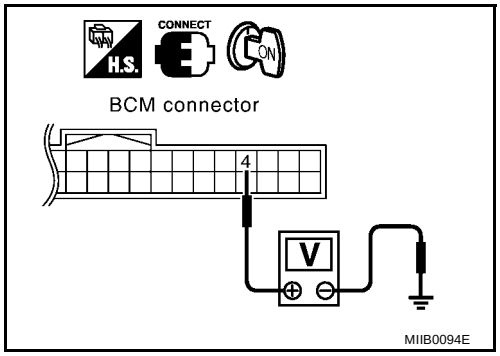
IGN ON SW :ON



With out CONSULT-II

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
M48	4 (W)	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 M48 terminal 4 and A/C auto amp connector M63 terminal 17.

4 (W) – 17 (W) :Continuity should exist

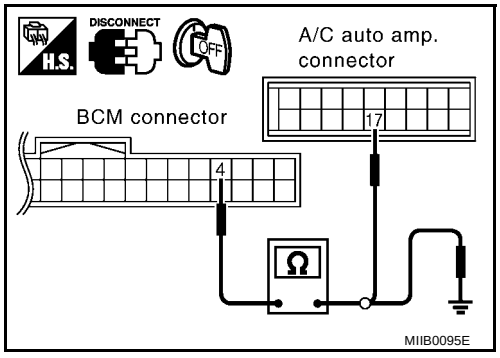
4. Check continuity between BCM connector M48 terminal 4 and ground

4 (W) – Ground :Continuity should not exist

OK or NG

OK >> GO TO 3.

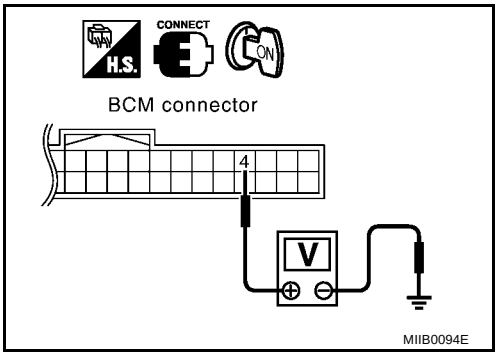
NG >> Repair or replace harness between BCM and A/C auto amp.



3. CHECK BCM OUTPUT SIGNAL

1. Connect BCM connector.
2. Turn ignition switch ON.
3. Check voltage between BCM connector M48 terminal 4 and ground.

4 (W) – Ground :Approx. 5



OK or NG

OK >> Replace rear window defogger switch. Refer to ATC-47, "Removal and Installation"

NG >> Replace BCM.

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

EIS004OV

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-27 .

When engine is running

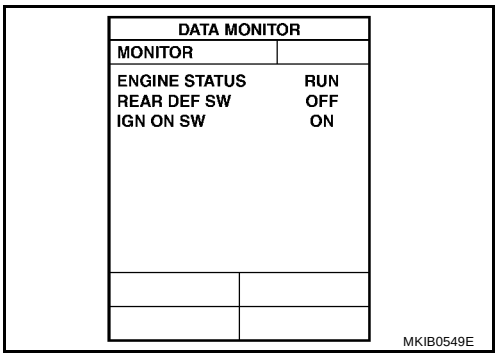
ENGINE STATUS :RUN

When rear defogger switch is turned to ON

REAR DEF SW :ON

When ignition switch is turned to ON

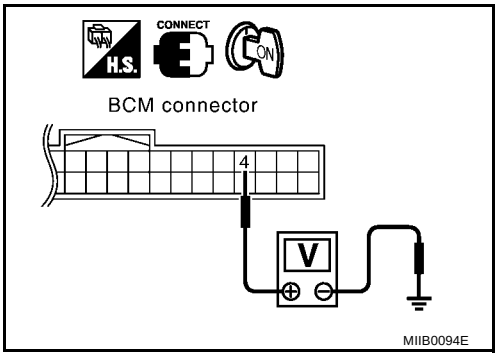
IGN ON SW :ON



With out CONSULT-II

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
M48	4 (W)	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

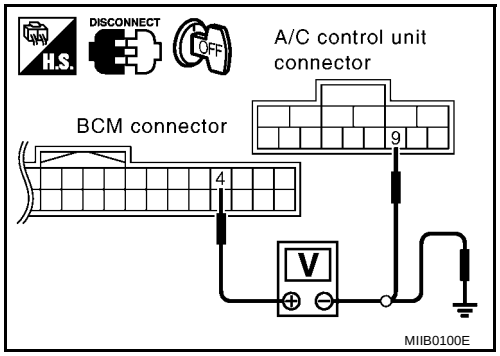
2. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and heater control panel connector.
3. Check continuity between BCM connector M48 terminal 4 and heater control panel connector M58 terminal 9.

4 (W) – 9 (W) :Continuity should exist

4. Check continuity between BCM connector M48 terminal 4 and ground

4 (W) – Ground :Continuity should not exist



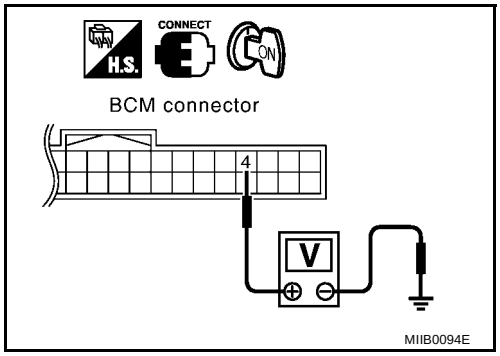
OK or NG

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 M48 terminal 4 and ground.

4 (W) – Ground :Approx. 5



OK or NG

OK >> Replace heater control panel. Refer to MTC-38, "Removal and Installation"
NG >> Replace BCM.

Rear Window Defogger Power Supply Circuit Check

EIS004KM

1. CHECK FUSE

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

COMPONENT PARTS	TERMINAL NO. (SIGNAL)	AMPERE	FUSE NO.
IPDM E/R	3 (BAT power supply)	15A	#45
		15A	#46

NOTE:

Refer to GW-14, "Component Parts and Harness Connector Location" .

OK or NG

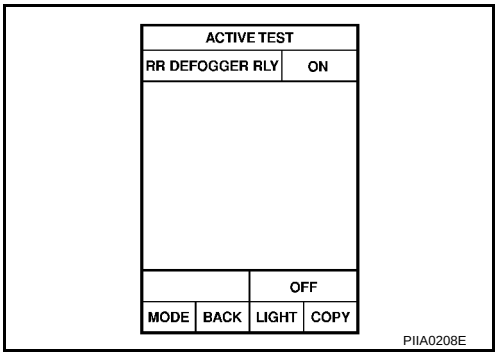
OK >> GO TO 2.

NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to GW-14, "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

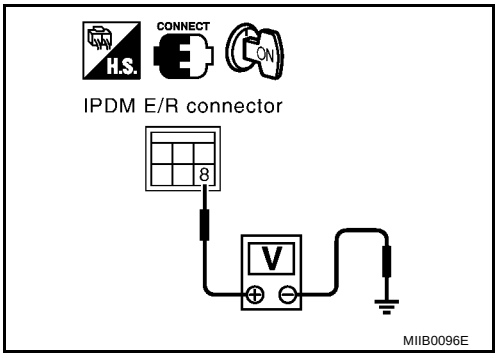
OK >> GO TO 3

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 (R) – Ground : Battery voltage



OK or NG

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

NG >> Check connector for damage and loose connection.

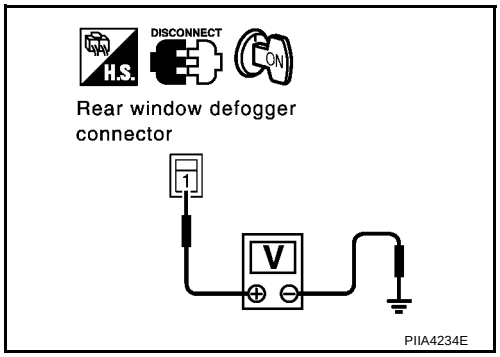
Rear Window Defogger Circuit Check

EIS004KN

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.)
	(+)	(–)		
D103	1 (B)	Ground	Rear window defogger switch ON.	Battery voltage
			Rear window defogger switch OFF.	0



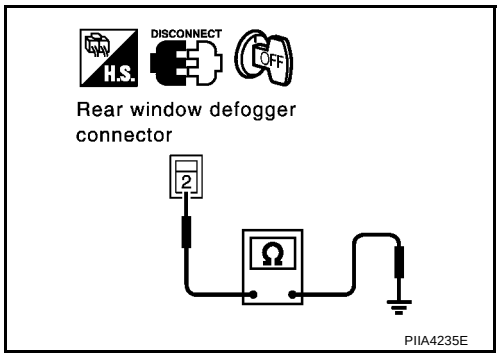
OK or NG

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

2. CHECK REAR WINDOW DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between rear window defogger connector D121 terminal 2 and ground.

2(B) – Ground :Continuity should exist



OK or NG

OK >> Check filament, Refer to GW-38, "Filament Check"
- If filament is OK.
  Check the condition of the harness and the connector.
- If filament is NG.
  Repair filament.

NG >> Repair or replace harness between rear window defogger and ground.

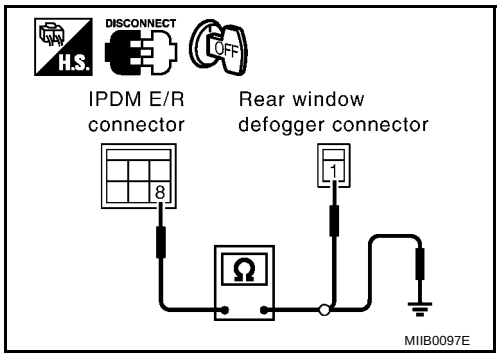
3. CHECK HARNESS CONTINUITY

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 D103 terminal 1.

8 (R) – 1 (B) :Continuity should exist.

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

8 (R) – Ground :Continuity should not exist.



OK or NG

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

Door Mirror Defogger Power Supply Circuit Check

EIS004KO

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	#13

NOTE:
Refer to GW-14, "Component Parts and Harness Connector Location" .

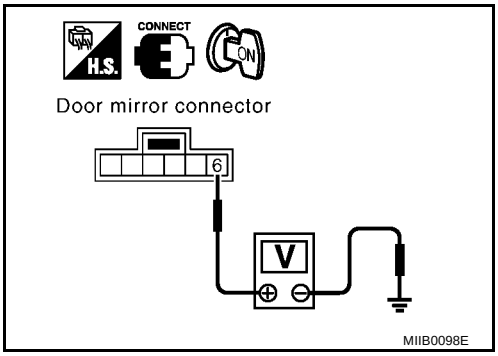
OK or NG

OK >> GO TO 2.
NG >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse, refer to GW-14, "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.

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
D3 (driver side)	6 (G) (LHD) (W) (RHD)	Ground	Rear window defogger switch ON	Battery voltage
D33 (passenger side)	6 (W) (LHD) (G) (RHD)		Rear window defogger switch OFF	0



OK or NG

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

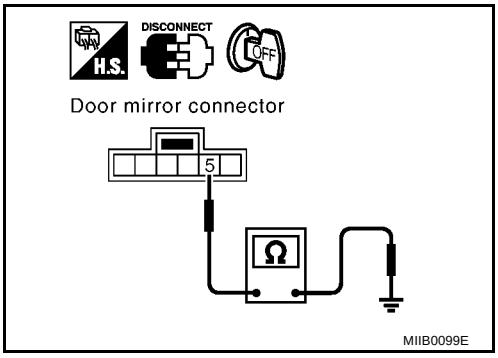
3. CHECK DOOR MIRROR DEFOGGER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect door mirror connector.
3. Check continuity between door mirror connector D3 (driver side), D33 (passenger side) terminal 5 and ground.

5 (B) – Ground :Continuity should exist.

OK or NG

OK >> INSPECTION END.
NG >> Repair or replace harness between fuse block (J/B) and malfunction door mirror connector.



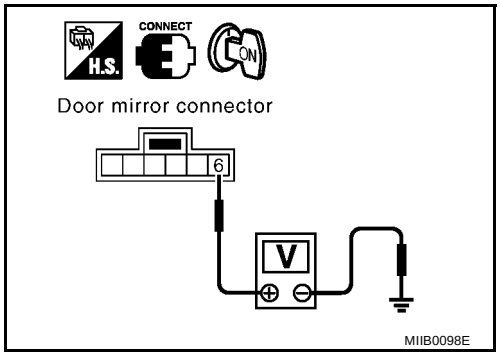
Driver Side Door Mirror Defogger Circuit Check

EIS004KP

1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
D3	6 (G) (LHD) (W) (RHD)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF.	0



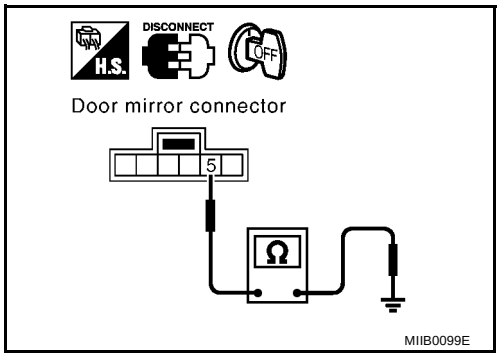
OK or NG

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 D3 terminal 5 and ground.

5 (B) – Ground : Continuity should exist.



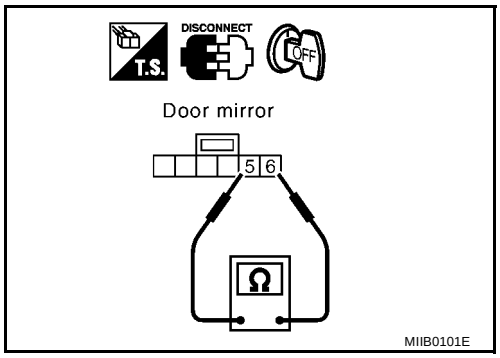
OK or NG

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 D3 (driver side) terminal 5 and 6.

5 – 6 :Continuity should exist.



OK or NG

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

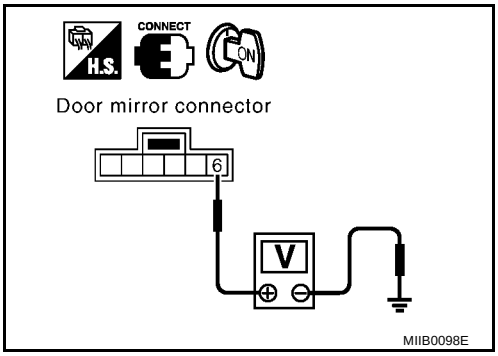
Passenger Side Door Mirror Defogger Circuit Check

EIS004KQ

1. CHECK DOOR MIRROR DEFOGGER POWER SUPPLY CIRCUIT

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

Connector	Terminal (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(–)		
D33	6 (W) (LHD) (G) (RHD)	Ground	Rear window defogger switch ON	Battery voltage
			Rear window defogger switch OFF	0



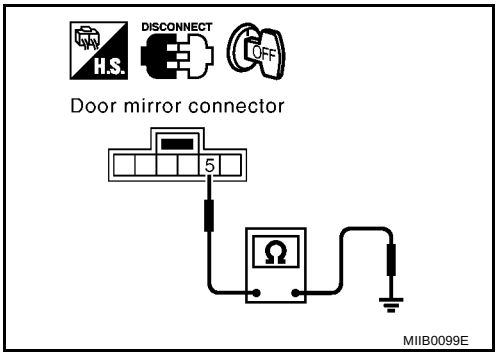
OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness between fuse block (J/B) and door mirror (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 D33 terminal 5 and ground.

5 (B) – Ground : Continuity should exist.



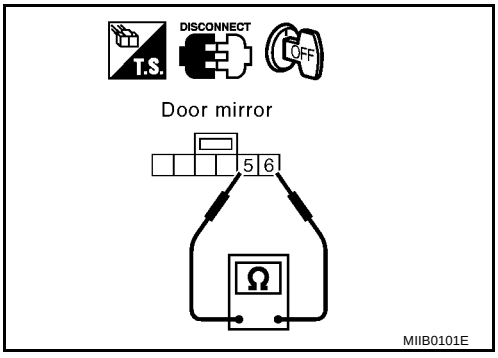
OK or NG

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 D33 (passenger side) terminal 5 and 6.

5 – 6 :Continuity should exist.



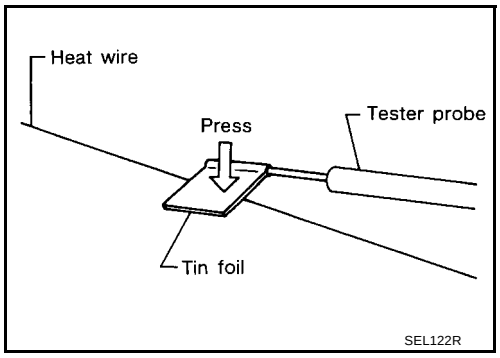
OK or NG

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

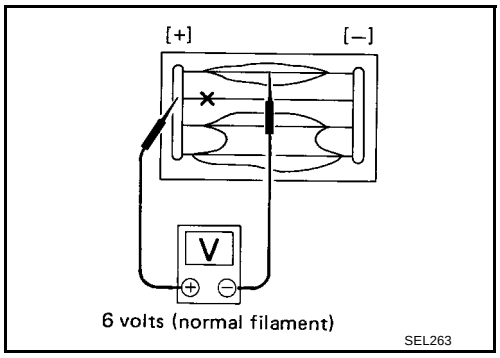
Filament Check

EIS004KR

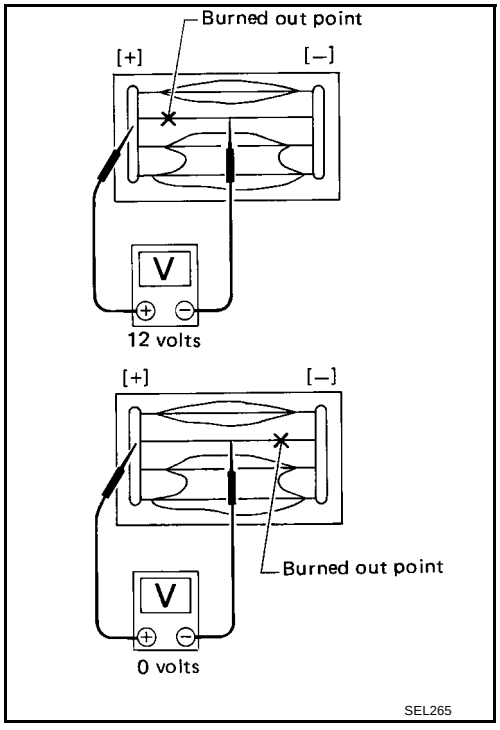
1. When measuring voltage, wrap tin foil around the top of the negative probe. Then press the foil against the wire with your finger.



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

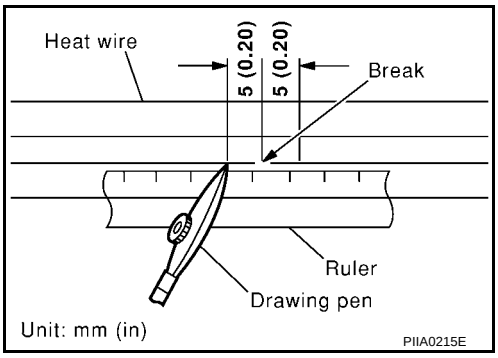
EIS004KS

REPAIR EQUIPMENT

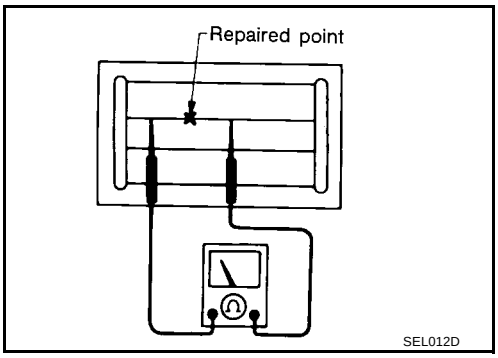
- Conductive silver composition (Dopant No. 4817 or equivalent)
- Ruler 30 cm (11.8 in) long
- Drawing pen
- Heat gun
- Alcohol
- Cloth

REPAIRING PROCEDURE

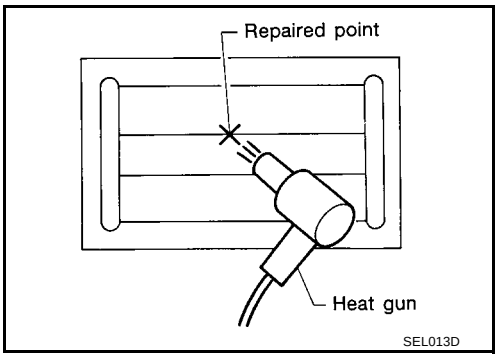
1. Wipe broken heat wire and its surrounding area clean with a cloth dampened in alcohol.
2. Apply a small amount of conductive silver composition to tip of drawing pen.
   Shake silver composition container before use.
3. Place ruler on glass along broken line. Deposit conductive silver composition 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.

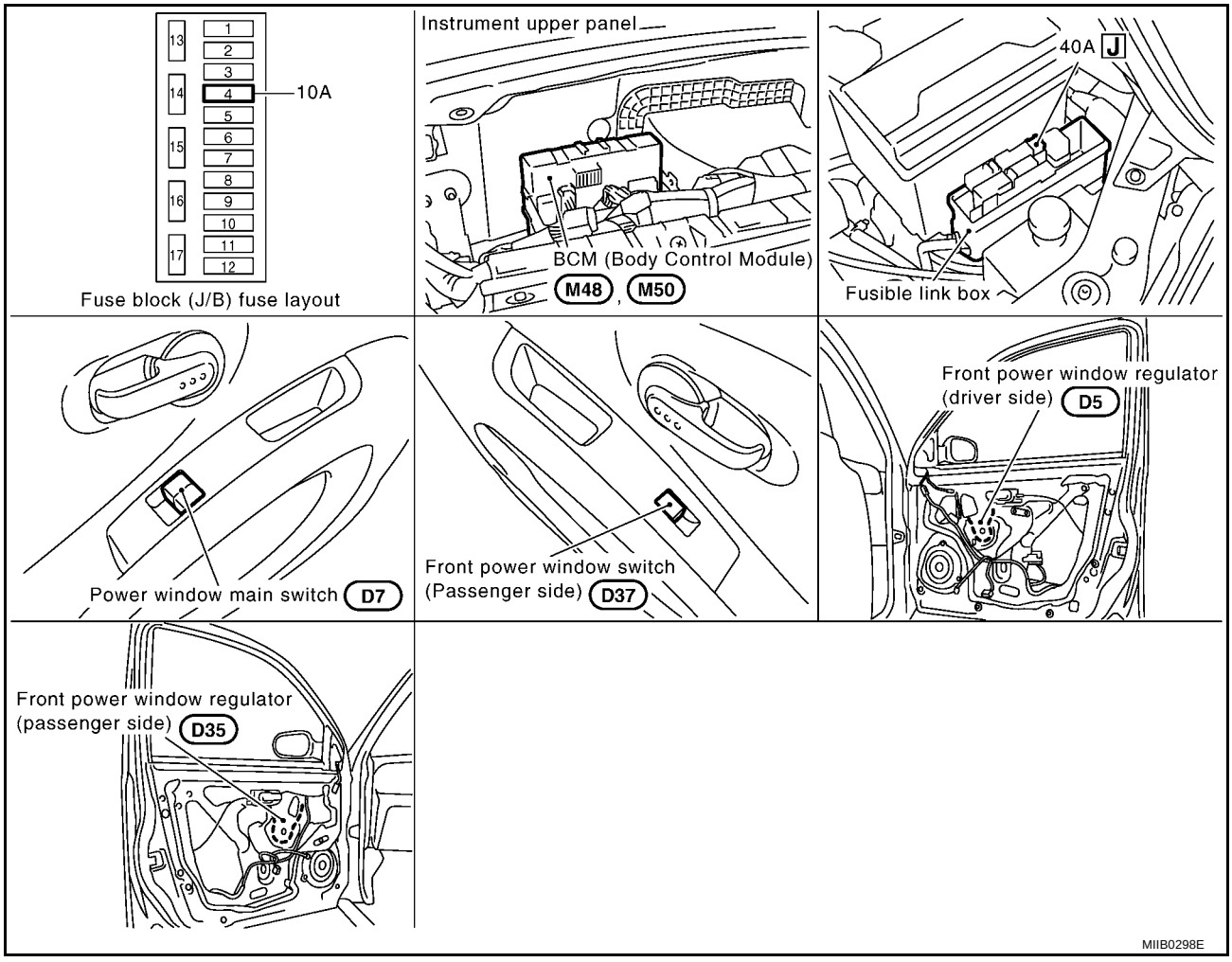


POWER WINDOW SYSTEM

PFP:25401

Component Parts and Harness Connector Location

EIS004PM



System Description

EIS004PN

Power is supplied at all time

- from 40A fusible link (letter **J** , located in the fuse and fusible link box)
- to BCM terminal 74 and 79.

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

- through 10A fuse [No.4,located in the fuse block (J/B)]
- to BCM terminal 24.
- through BCM terminal 78
- to power window main switch terminal 5
- to front power window switch (passenger side) terminal 1.

Ground supplied

- to BCM terminal 2 and 70
- through body grounds M19 and M20.

FRONT DRIVER SIDE DOOR

Ground is supplied

- to power window main switch terminal 7
- through body grounds M19 and 20.

Window Up

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

- through power window main switch terminal 2 (LHD), 6 (RHD)
- to front power window regulator (driver side) terminal 1.

Ground is supplied

- to front power window regulator (driver side) terminal 2
- through power window main switch terminal 3 (LHD), 4 (RHD).

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 pressed in the down position
Power is supplied

- through power window main switch terminal 3 (LHD), 4 (RHD)
- to front power window regulator (driver side) terminal 2.

Ground is supplied

- to front power window regulator (driver side) terminal 1
- through power window main switch terminal 2 (LHD), 6 (RHD).

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

FRONT PASSENGER SIDE DOOR

Ground is supplied

- to power window main switch terminal 7
- through body grounds M19 and M20.

Power Window Main Switch Operation

WINDOW UP

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

- through power window main switch terminal 6 (LHD), 2 (RHD)
- through front power window switch (passenger side) terminal 2
- through front power window switch (passenger side) terminal 5
- to front power window regulator (passenger side) terminal 1.

Ground is supplied

- to front power window regulator (passenger side) terminal 2
- through front power window switch (passenger side) terminal 4
- through front power window switch (passenger side) terminal 3
- through power window main switch terminal 4 (LHD), 3 (RHD)

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

WINDOW DOWN

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

- through power window main switch terminal 4 (LHD), 3 (RHD)
- through front power window switch (passenger side) terminal 3
- through front power window switch (passenger side) terminal 4
- to front power window regulator (passenger side) terminal 2.

Ground is supplied

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

- through front power window switch (passenger side) terminal 5
- through front power window switch (passenger side) terminal 2
- through power window main switch terminal 6 (LHD), 2(RHD).

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

Front Power Window Switch (Passenger Side) Operation

WINDOW UP

When the passenger side switch is pressed in the up position
Power is supplied

- through front power window switch (passenger side) terminal 5
- to front power window regulator (passenger side) terminal 1.

Ground is supplied

- to front power window regulator terminal 2
- through front power window switch (passenger side) terminal 4
- through front power window switch (passenger side) terminal 3
- through power window main switch terminal 4 (LHD), 3 (RHD).

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

WINDOW DOWN

When the passenger side switch is pressed in the down position
Power is supplied

- through front power window switch (passenger side) terminal 4
- to front power window regulator (passenger side) terminal 2.

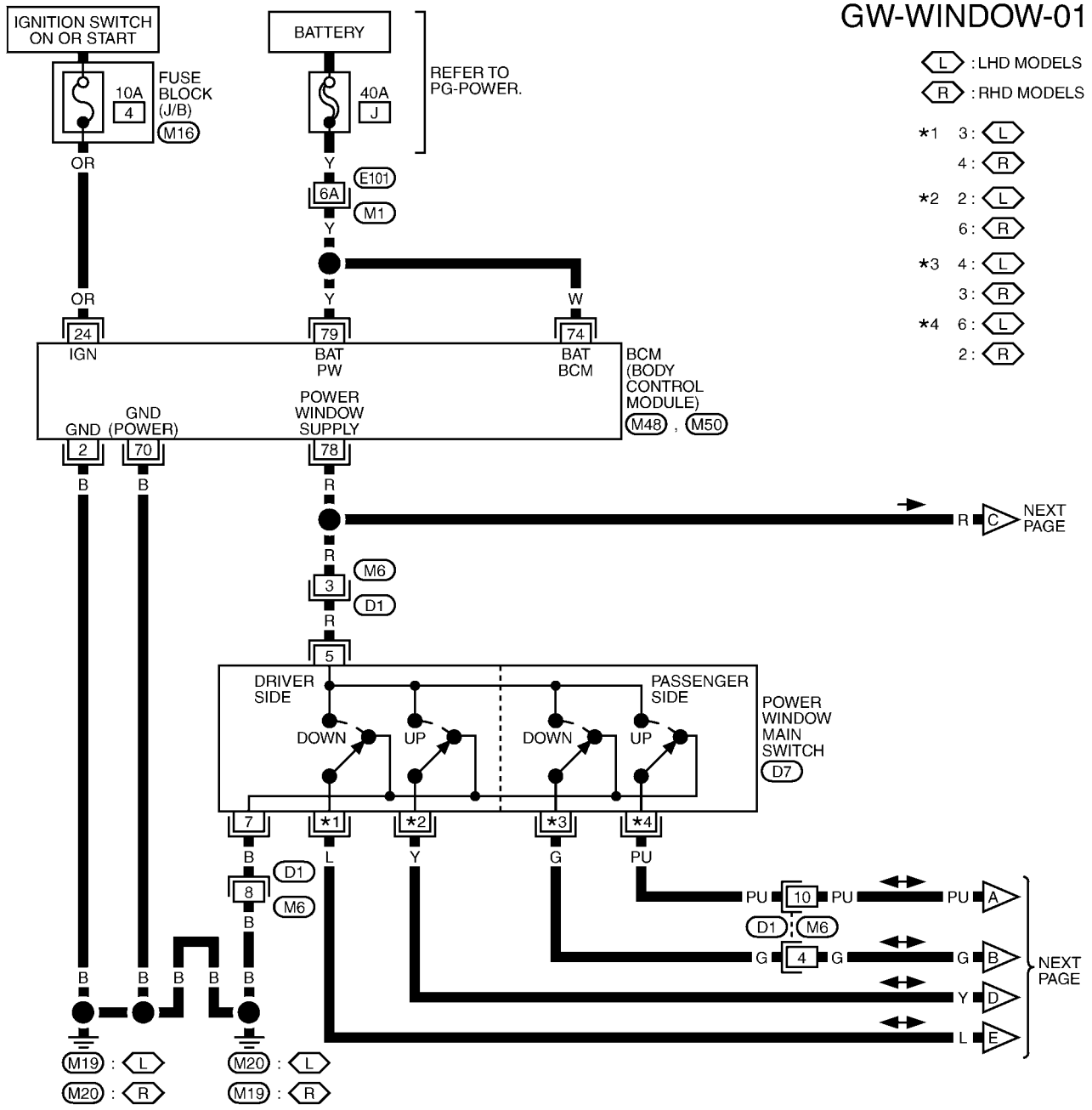
Ground is supplied

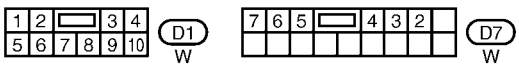
- to front power window regulator terminal 1
- through front power window switch (passenger side) terminal 5
- through front power window switch (passenger side) terminal 2
- through power window main switch terminal 6 (LHD), 2 (RHD).

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

Wiring Diagram – WINDOW –

EIS004PP

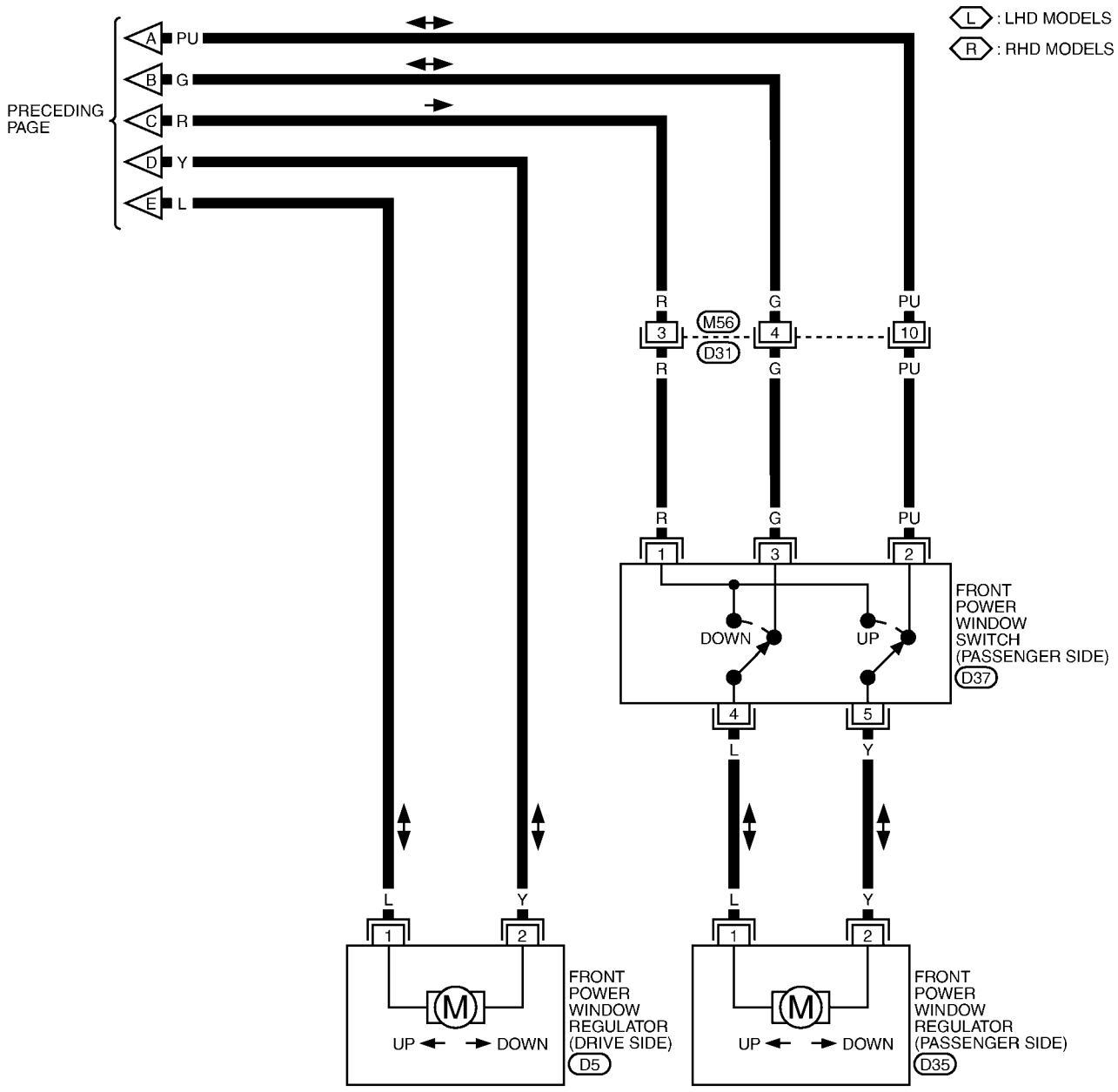


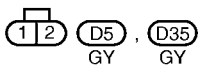


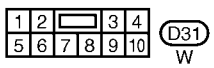
REFER TO THE FOLLOWING.
M1 -SUPER MULTIPLE JUNCTION (SMJ)
M16 -FUSE BLOCK-JUNCTION BOX (J/B)
M48 , M50 -ELECTRICAL UNITS

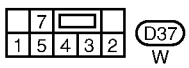
MKWA0847E

GW-WINDOW-02









MKWA0848E

Terminal and Reference Value for BCM

EIS004PS

Terminal	Wire color	Item	Condition	Voltage (V) (Approx.)
2	B	Ground	—	0
24	OR	Ignition switch (ON or START)	Ignition switch (ON or START position)	Battery voltage
70	B	Ground (power)	—	0
74	W	Battery power supply (BCM)	—	Battery voltage
78	R	Power window power supply	Ignition switch (ON or START position)	Battery voltage
			Other than above	0
79	Y	Battery power supply (power window)	—	Battery voltage

Work Flow

EIS004PT

1. Check the symptom and customer's requests.
2. Understand the outline of system. Refer to GW-40, "System Description"
3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to GW-46, "Trouble Diagnosis Symptom Chart"
4. Does power window system operate normally? Yes, GO TO 5, If No, GO TO 3.
5. INSPECTION END

Trouble Diagnosis Symptom Chart

EIS004PV

Symptom	Repair order	Refer to page
None of the power windows can be operated using any switch.	1. BCM power supply and ground circuit check	GW-46
	2. Power window switch power supply and ground circuit check	GW-47
	3. Power window main switch check	GW-49
Driver side power window alone does not operate.	1. Power window regulator (driver side) check (LHD models)	GW-49
	1. Power window regulator (driver side) check (RHD models)	GW-50
	2. Replace power window main switch	EI-17
Passenger side power window alone does not operate.	1. Front power window regulator (passenger side) check	GW-51
	2. Front power window switch (passenger side) check	GW-51
	3. Front power window switch (passenger side) circuit check (LHD models)	GW-52
	3. Front power window switch (passenger side) circuit check (RHD models)	GW-53
	4. Replace power window main switch	EI-17
Passenger side power window does not operate using front power window switch (passenger side), but power window main switch can be operate.	1. Front power window switch (passenger side) power supply check	GW-54
	2. Front power window switch (passenger side) check	GW-51

BCM Power Supply and Ground Circuit Check

EIS004QL

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-14, "CONSULT-II" .

1. FUSE INSPECTION

- Check 10A fuse [No.4, located in fuse block (J/B)]
- Check 40A fusible link (letter **J** located in the fuse and fusible link box).

NOTE:
Refer to GW-40, "Component Parts and Harness Connector Location" .

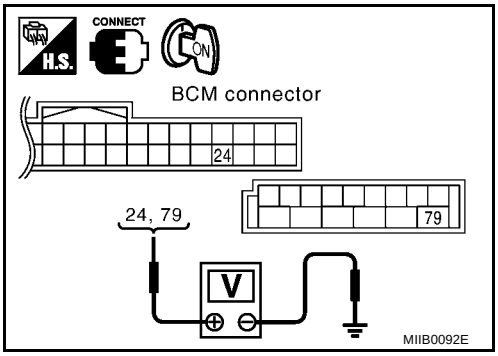
OK or NG

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" .

2. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M48, M50 terminal 24, 79 and ground.

24 (OR) – Ground :Battery voltage.
79 (Y) – Ground :Battery voltage.



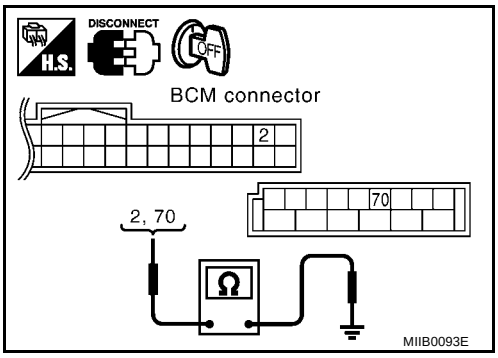
OK or NG

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 M48, M50 terminal 2, 70 and ground.

2 (B) – Ground :Continuity should exist.
70 (B) – Ground :Continuity should exist.



OK or NG

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

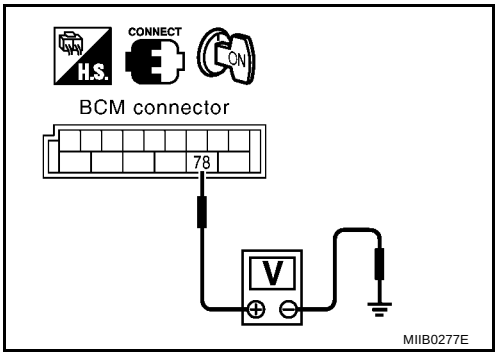
Power Window Switch Power Supply and Ground Circuit Check

EIS004PX

1. CHECK POWER SUPPLY CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between BCM connector M50 terminals 78 and ground.

78 (R) – Ground : Battery voltage



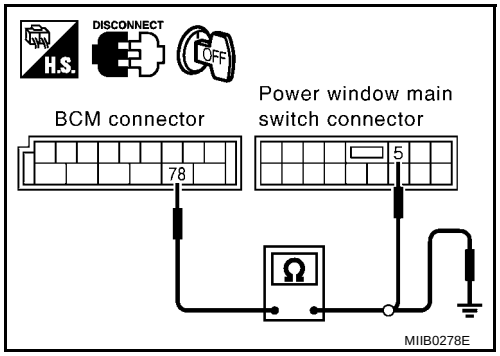
OK or NG

OK >> GO TO 2.
NG >> Replace BCM.

2. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect BCM, power window main switch and front power window switch (passenger side) connector.
3. Check continuity between BCM connector M50 terminal 78 and power window main switch connector D7 terminal 5, and ground.

78 (R) – 5 (R) : Continuity should exist.
78 (R) – Ground : Continuity should not exist.

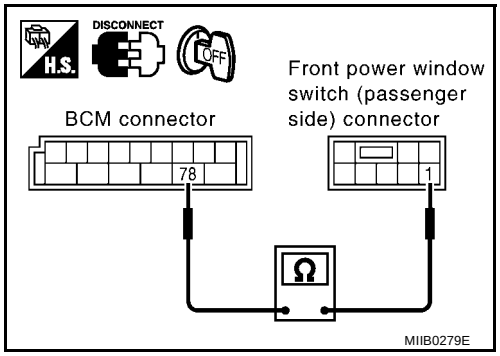


4. Check continuity between BCM connector M50 terminal 78 and front power window switch (passenger side) connector D37 terminal 1.

78 (R) – Ground : Continuity should exist.

OK or NG

OK >> GO TO 3
NG >> Repair or replace harness.



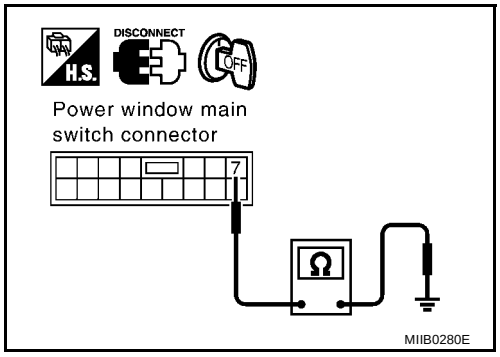
3. CHECK GROUND CIRCUIT

Check continuity between power window main switch connector D7 terminal 7 and ground.

7 (B) – Ground : Continuity should exist.

OK or NG

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



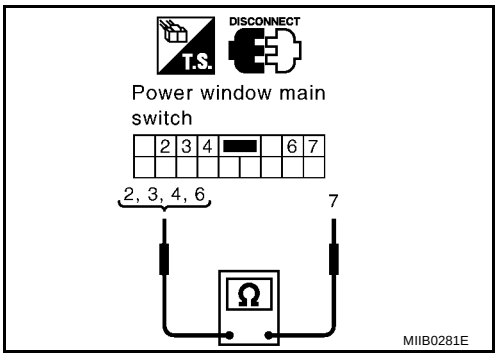
Power Window Main Switch Check

EIS004QM

1. CHECK POWER WINDOW MAIN SWITCH

1. Turn ignition switch OFF.
2. Disconnect power window main switch connector.
3. Check continuity between power window main switch 2, 3, 4, 6 and 7.

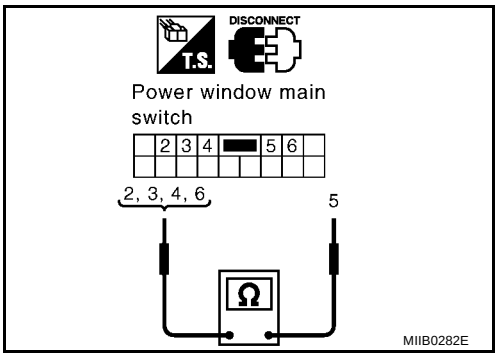
2 – 7 : Continuity should exist.
3 – 7 : Continuity should exist.
4 – 7 : Continuity should exist.
6 – 7 : Continuity should exist.



4. Power window main switch operate, check continuity between power window main switch 2, 3, 4, 6 and 5.

Terminals		Condition	Continuity
2, (6)	5	Driver side UP	Yes
3, (4)		Driver side DOWN	
4, (3)		Passenger side DOWN	
6, (2)		Passenger side UP	

( ) : RHD models



OK or NG

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

Front Power Window Regulator (Driver Side) Check (LHD models)

EIS004QN

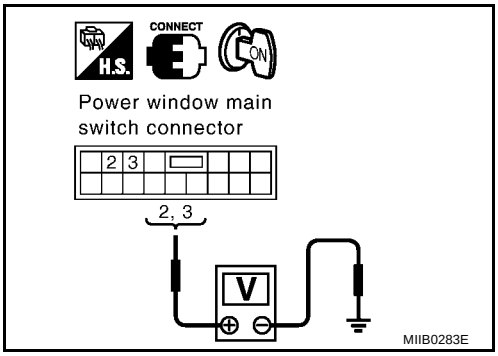
1. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

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

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	2 (Y)	Ground	Driver side UP	Battery voltage
	3 (L)		Driver side DOWN	

OK or NG

OK >> GO TO 2.
NG >> Replace power window main switch.



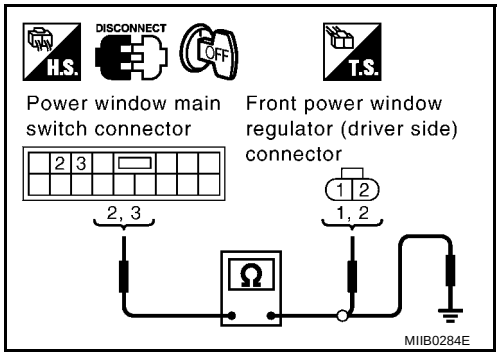
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and front power window regulator (driver side) connector.
3. Check continuity between power window main switch connector D7 terminal 2, 3 and front power window regulator (driver side) connector D5 terminal 1, 2.

2 (Y) – 2 (Y) : Continuity should exist.
3 (L) – 1 (L) : Continuity should exist.

4. Check continuity between power window main switch connector D7 terminal 2, 3 and ground.

2 (Y) – Ground : Continuity should not exist.
3 (L) – Ground : Continuity should not exist.



OK or NG

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

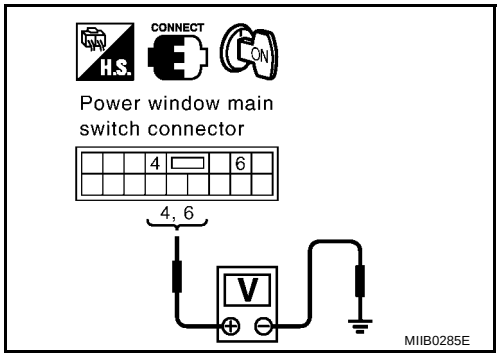
Front Power Window Regulator (Driver Side) Check (RHD models)

EIS004QO

1. CHECK POWER WINDOW MAIN SWITCH OUTPUT 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.)
	(+)	(-)		
D7	4 (L)	Ground	Driver side DOWN	Battery voltage
	6 (Y)		Driver side UP	



OK or NG

OK >> GO TO 2.
NG >> Replace power window main switch.

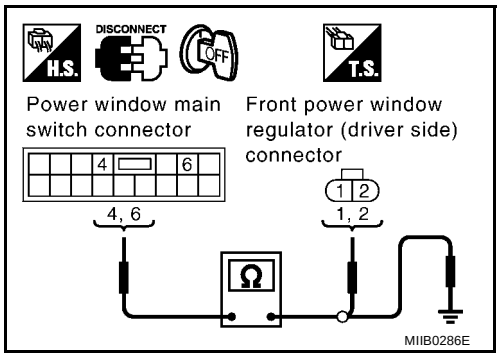
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and front power window regulator (driver side) connector.
3. Check continuity between power window main switch connector D7 terminal 4, 6 and front power window regulator (driver side) connector D5 terminal 1, 2.

4 (L) – 1 (L) : Continuity should exist.
6 (Y) – 2 (Y) : Continuity should exist.

4. Check continuity between power window main switch connector D7 terminal 4, 6 and ground.

4 (L) – Ground : Continuity should not exist.
6 (Y) – Ground : Continuity should not exist.



OK or NG

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

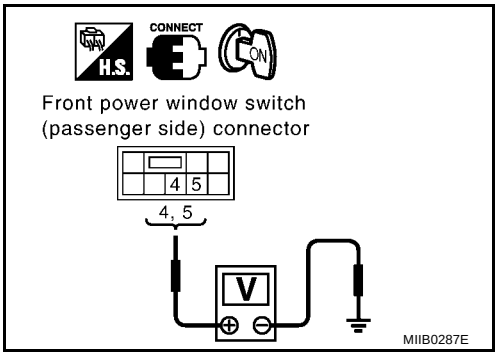
Front Power Window Regulator (Passenger Side) Check

EIS004QP

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE) OUTPUT SIGNAL

1. Turn ignition switch ON.
2. Power window main switch operate, check voltage between front power window switch (passenger side) connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D37	4 (L)	Ground	Passenger side DOWN	Battery voltage
	5 (Y)		Passenger side UP	



OK or NG

OK >> GO TO 2.
NG >> Further inspection is necessary, Refer to symptom chart.

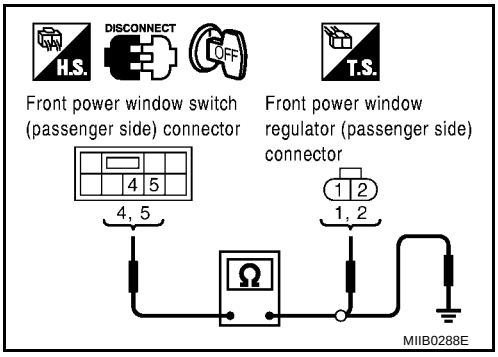
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) and front power window regulator (passenger side) connector.
3. Check continuity between front power window switch (passenger side) connector D37 terminal 4, 5 and front power window regulator (passenger side) connector D35 terminal 1, 2.

4 (L) – 2 (L) : Continuity should exist.
5 (Y) – 1 (Y) : Continuity should exist.

4. Check continuity between front power window switch (passenger side) connector D37 terminal 4, 5 and ground.

4 (L) – Ground : Continuity should not exist.
5 (Y) – Ground : Continuity should not exist.



OK or NG

OK >> Replace front power window regulator (passenger side).
NG >> Repair or replace harness.

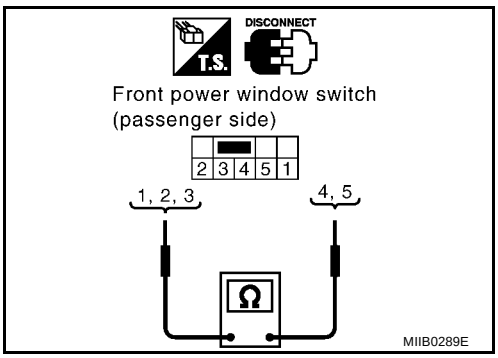
Front Power Window Switch (Passenger Side) Check

EIS004QQ

1. CHECK FRONT POWER WINDOW SWITCH (PASSENGER SIDE)

1. Turn ignition switch OFF.
2. Disconnect front power window switch (passenger side) operate, check continuity between front power window switch (passenger side) terminals.

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



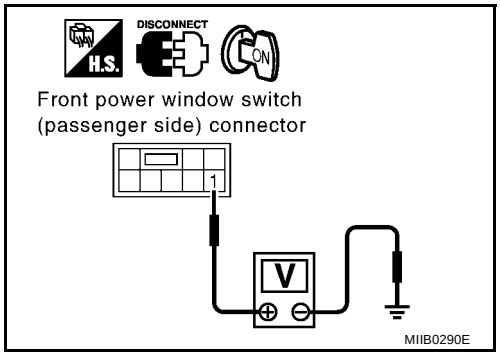
OK or NG

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

2. CHECK POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window switch (passenger side) connector D37 terminal 1 and ground.

1 (R) – Ground : Battery voltage



OK or NG

OK >> Further inspection is necessary, Refer to symptom chart.
NG >> GO TO 3.

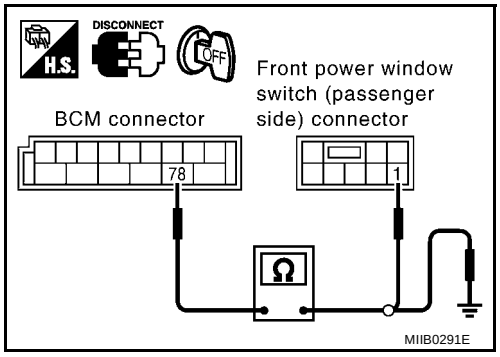
3. CHECK HARNESS CONTINUITY

1. Disconnect BCM connector.
2. Check continuity between BCM connector M50 terminal 78 and front power window switch (passenger side) connector D37 terminal 1.

78 (R) – 1 (R) : Continuity should exist.

3. Check continuity between BCM connector M50 terminal 78 and ground.

78 (R) – Ground : Continuity should not exist.



OK or NG

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

Front Power Window Switch (Passenger Side) Circuit Check (LHD models) EIS004QR

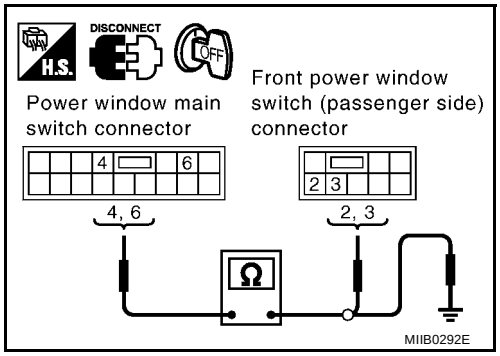
1. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and front power window switch (passenger side) connector.
3. Check continuity between power window main switch connector D7 terminal 4, 6 and front power window switch (passenger side) connector D37 terminal 2, 3.

4 (G) – 3 (G) : Continuity should exist.
6 (PU) – 2 (PU) : Continuity should exist.

4. Check continuity between power window main switch connector D7 terminal 4, 6 and ground.

4 (G) – Ground : Continuity should not exist.
6 (PU) – Ground : Continuity should not exist.



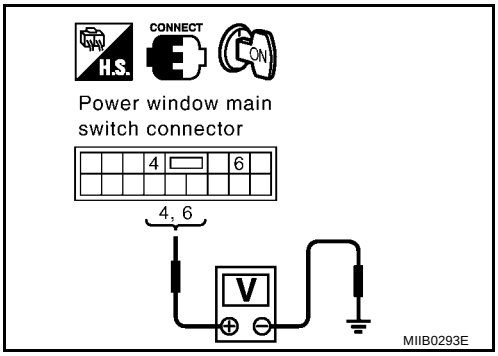
OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness.

2. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Power window main switch operate, check voltage between power window main switch connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	4 (G)	Ground	Passenger side DOWN	Battery voltage
	6 (PU)		Passenger side UP	



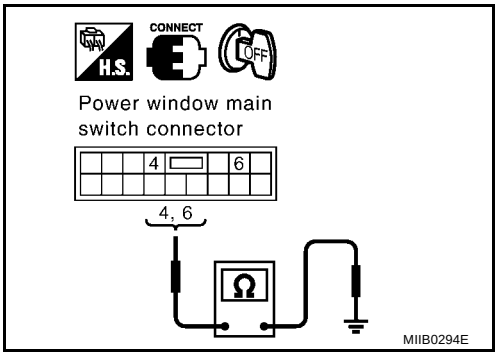
OK or NG

OK >> GO TO 3.
NG >> Replace power window main switch.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between power window main switch connector D7 terminal 4, 6 and ground.

4 (G) – Ground : Continuity should exist.
6 (PU) – Ground : Continuity should exist.



OK or NG

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

Front Power Window Switch (Passenger Side) Circuit Check (RHD models)

EIS004QS

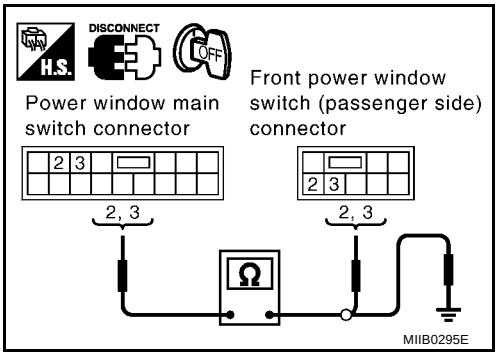
1. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect power window main switch and front power window switch (passenger side) connector.
3. Check continuity between power window main switch connector D7 terminal 2, 3 and front power window switch (passenger side) connector D37 terminal 2, 3.

2 (PU) – 2 (PU) : Continuity should exist.
3 (G) – 3 (G) : Continuity should exist.

4. Check continuity between power window main switch connector D7 terminal 2, 3 and ground.

2 (PU) – Ground : Continuity should not exist.
3 (G) – Ground : Continuity should not exist.



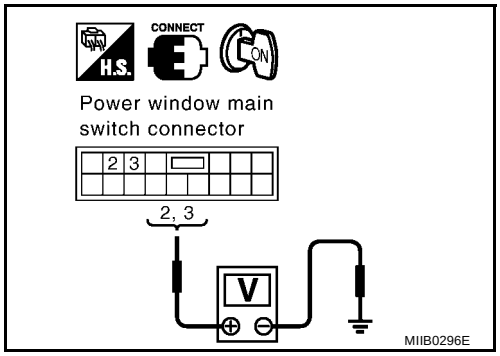
OK or NG

OK >> GO TO 2.
NG >> Repair or replace harness.

2. CHECK POWER WINDOW MAIN SWITCH OUTPUT SIGNAL

1. Connect power window main switch connector.
2. Turn ignition switch ON.
3. Power window main switch operate, check voltage between power window main switch connector and ground.

Connector	Terminals (Wire color)		Condition	Voltage (V) (Approx.)
	(+)	(-)		
D7	2 (PU)	Ground	Passenger side UP	Battery voltage
	3 (G)		Passenger side DOWN	



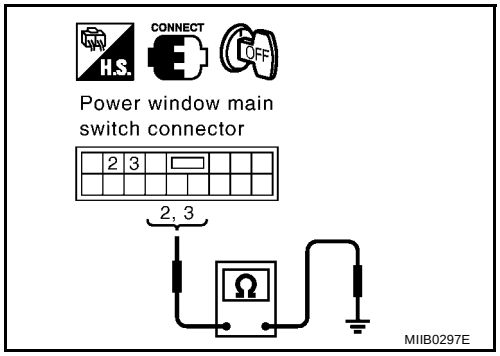
OK or NG

OK >> GO TO 3.
NG >> Replace power window main switch.

3. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Check continuity between power window main switch connector D7 terminal 2, 3 and ground.

2 (PU) – Ground : Continuity should exist.
3 (G) – Ground : Continuity should exist.



OK or NG

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

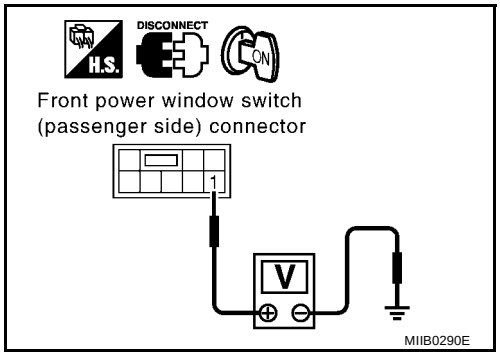
Front Power Window Switch (Passenger Side) Power Supply Check

EIS004QT

1. CHECK POWER SUPPLY

1. Turn ignition switch ON.
2. Check voltage between front power window switch (passenger side) connector D37 terminal 1 and ground.

1 (R) – Ground : Battery voltage



OK or NG

OK >> Front power window switch (passenger side) power supply is OK.
NG >> GO TO 2.

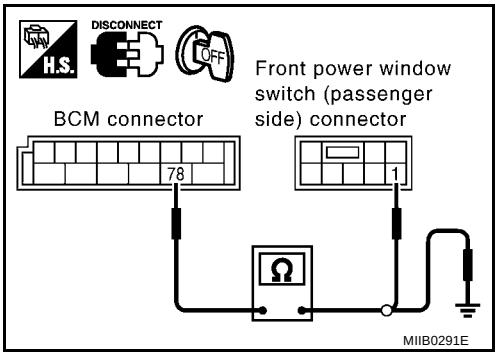
2. CHECK HARNESS CONTINUITY

1. Turn ignition switch OFF.
2. Disconnect BCM and front power window switch connector.
3. Check continuity between BCM connector M50 terminal 78 and front power window switch (passenger side) connector D37 terminal 1.

78 (R) – 1 (R) : Continuity should exist.

4. Check continuity between BCM connector M50 terminal 78 and ground.

78 (R) – Ground : Continuity should not exist.



OK or NG

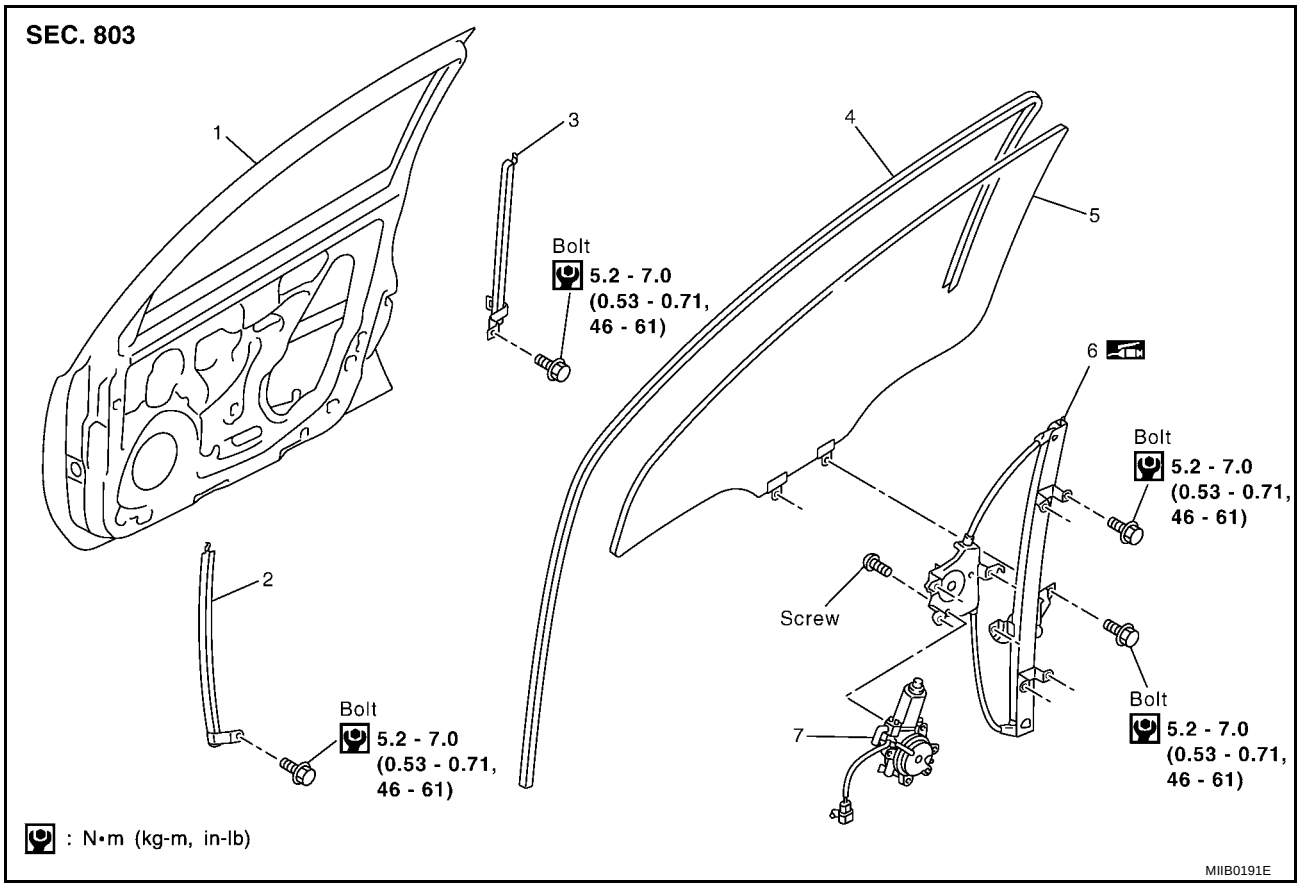
OK >> Check the condition of the harness and the connector.
NG >> Repair or replace harness.

FRONT DOOR GLASS AND REGULATOR

PFP:80300

Removal and Installation

EIS004L8

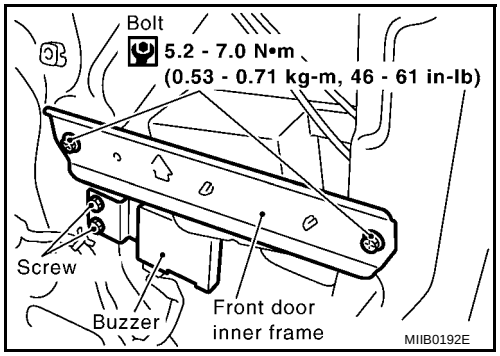


1. Door panel
2. Lower sash (front)
3. Lower sash (rear)
4. Door glass run
5. Door glass
6. Regulator
7. Power window motor

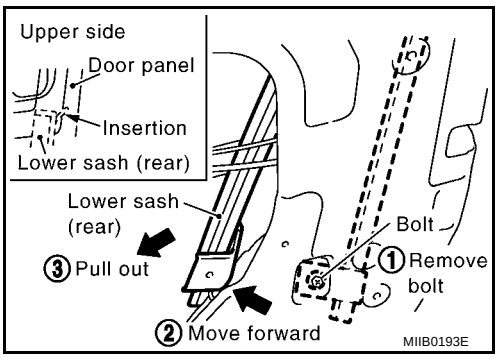
REMOVAL

1. Remove front door finisher. Refer to EI-17, "DOOR FINISHER" in EI section.
2. Fully close door glass.
3. Disconnect front speaker harness connector, and then remove sealing screen.

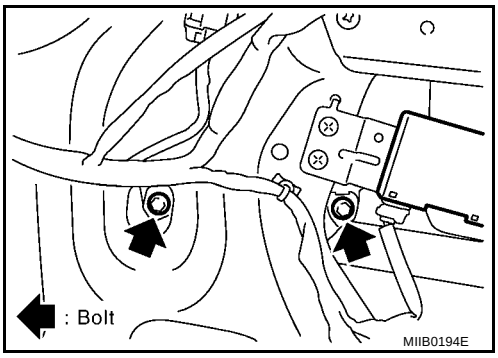
   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
4. Remove front door inner frame. 5-door vehicles only
5. Remove buzzer. (Vehicle with intelligent key system only)



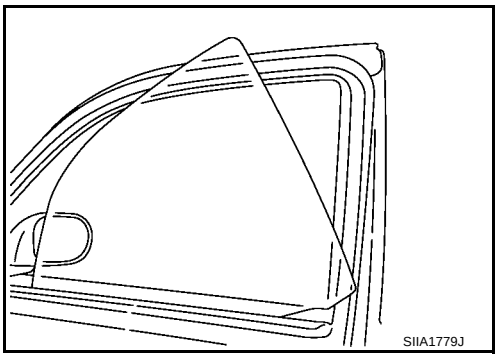
6. Remove lower sash (rear) bolts, move bottom toward front of door panel, pull out top inserted part from door panel, and the remove lower sash (rear).



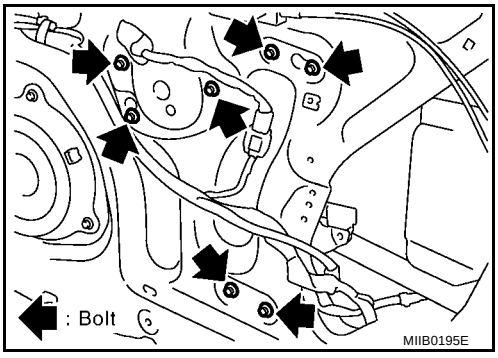
7. While supporting door glass, operate power window switch to raise/lower door glass until glass bolts can be seen.
8. Remove door glass bolts.



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



10. Remove the power window motor harness connector and bolts, and the remove regulator assembly from door panel.



11. Remove lower sash (front) bolts, move bottom toward back of door panel, pull out top insertion part from door panel, and remove lower sash (front).
12. Remove corner cover. Refer to EI-17, "Removal and Installation" in GW section.
13. Pull out and remove door glass run from door panel.

INSTALLATION

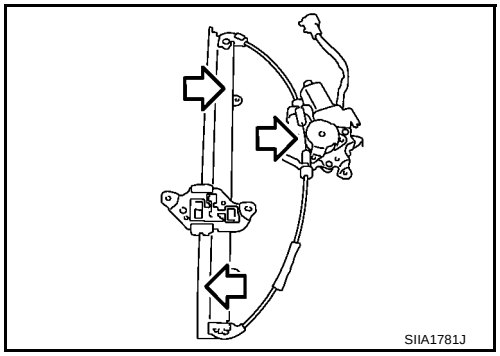
Install in the reverse order of removal.

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.



SETTING AFTER INSTALLATION (DRIVER'S SIDE ONLY)

Setting Limit Switch

After performing the following work, reset the limit switch (with motor).

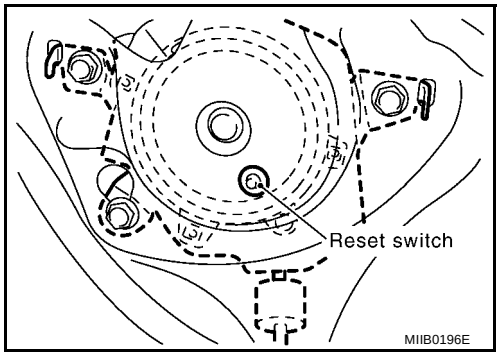
- Removal and Installation of regulator assembly
- Removal and Installation of motor from regulator assembly
- Operation of regulator assembly as an independent unit
- Removal and Installation of glass
- Removal and Installation of door glass run

Reset Operation

After installing each component, follow the steps below:

1. Raise glass to the bottom position.
2. Press and hold the reset switch to lower the window to the bottom dead end.
3. Release the reset switch. After checking the return of the reset switch, raise the window to the top dead end again.

   CAUTION:
   Do not raise the window automatically to the top dead end.



FITTING INSPECTION

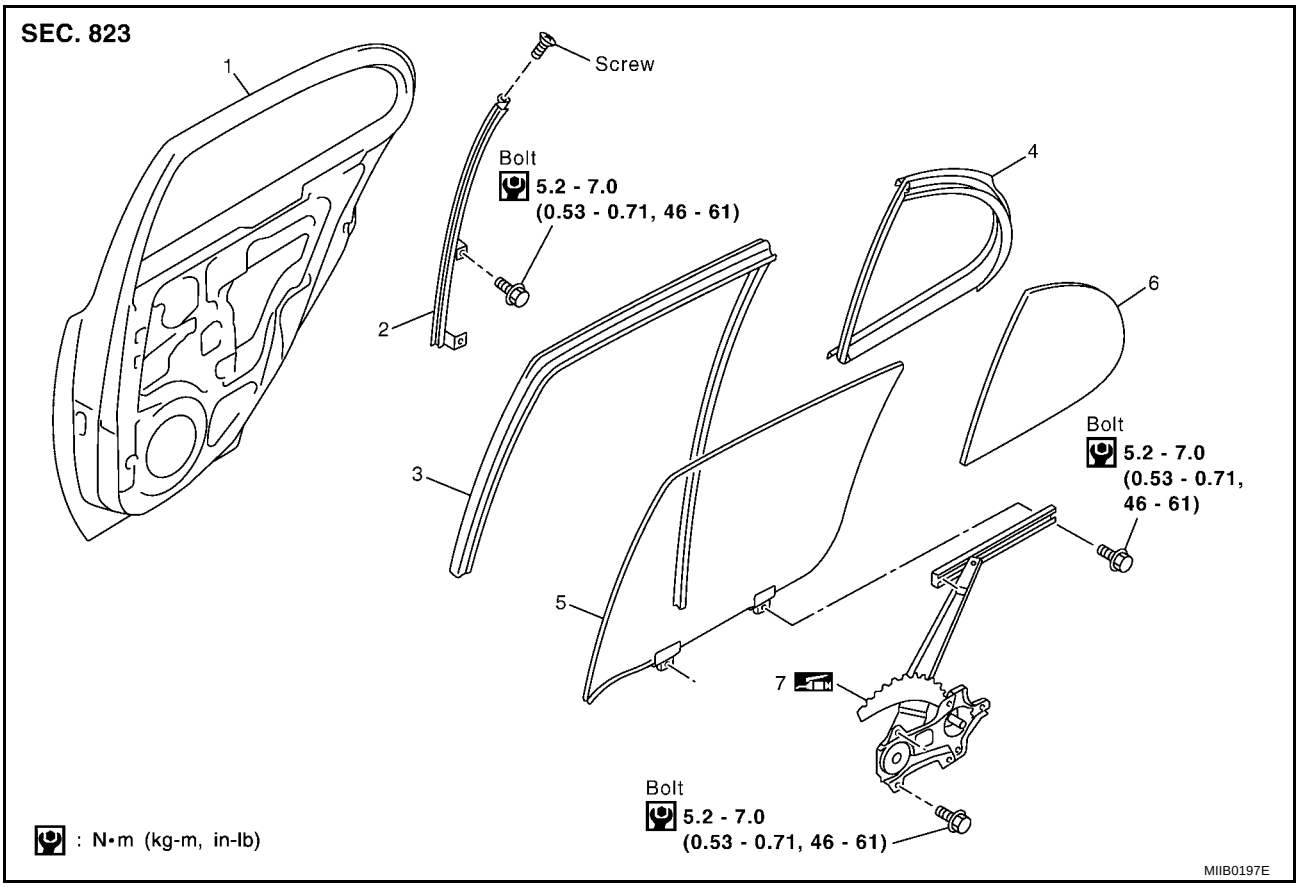
- Make sure glass is securely fit into door glass run.
- Lower glass slightly (approximately 10 to 20 mm), and confirm clearance to the sash is parallel. If clearance between glass and sash is not parallel, loosen bolts for regulator assembly, glass, and carrier plate, and then correct glass position.

REAR DOOR GLASS AND REGULATOR

PFP:82300

Removal and Installation

EIS004L9

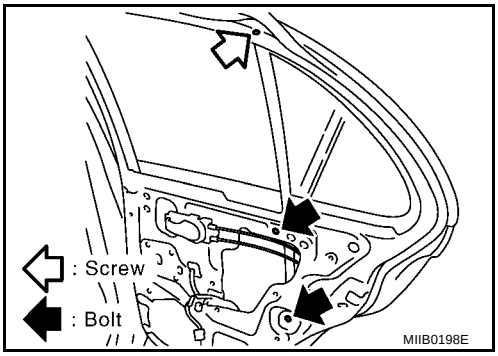


1. Door panel
2. Partition sash
3. Door glass run
4. Partition weather strip
5. Door glass
6. Partition glass
7. Regulator

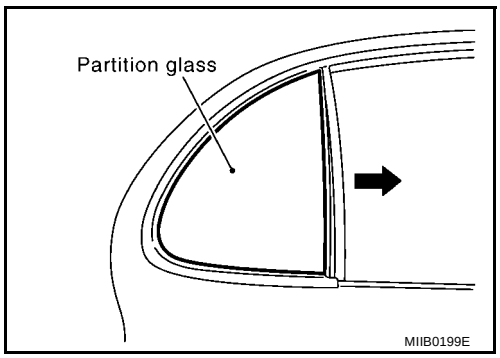
REMOVAL

1. Remove rear door finisher. Refer to EI-17, "DOOR FINISHER" in EI section.
2. Remove rear speaker harness connector.
3. Remove sealing screen.

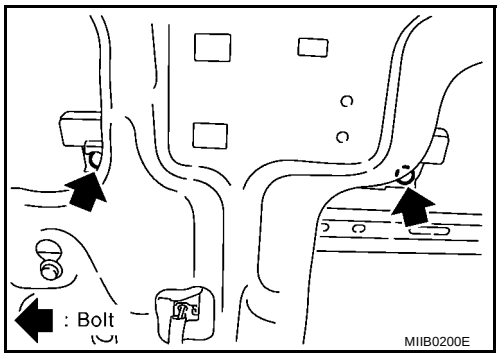
   NOTE:
   If sealing screen is reused, cut butyl tape in a way that leaves it on sealing screen.
4. After removing partition sash bolts screws, pull partition sash straight down, tilt the top forward, and pull up.



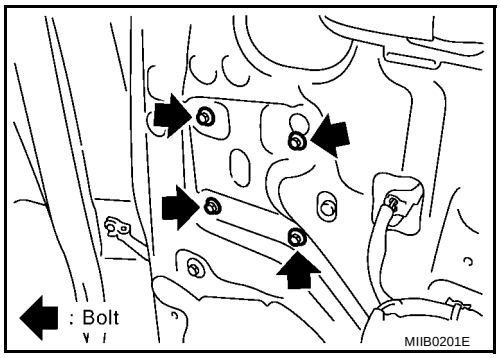
5. Pull out partition glass in the direction shown by the arrows in the figure.



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. Pull door glass up to remove it.



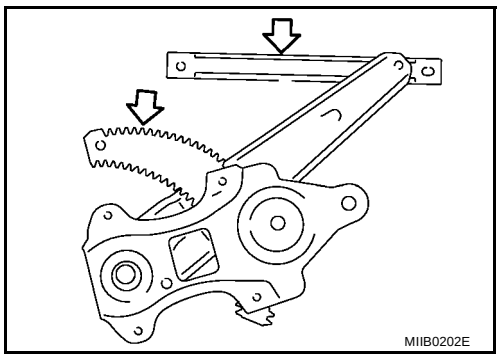
9. Remove regulator assembly bolts to remove assembly out of door panel.



10. Pull out and remove door glass run from door panel.

INSPECTION 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.



INSTALLATION

Install in the reverse order of removal.

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.

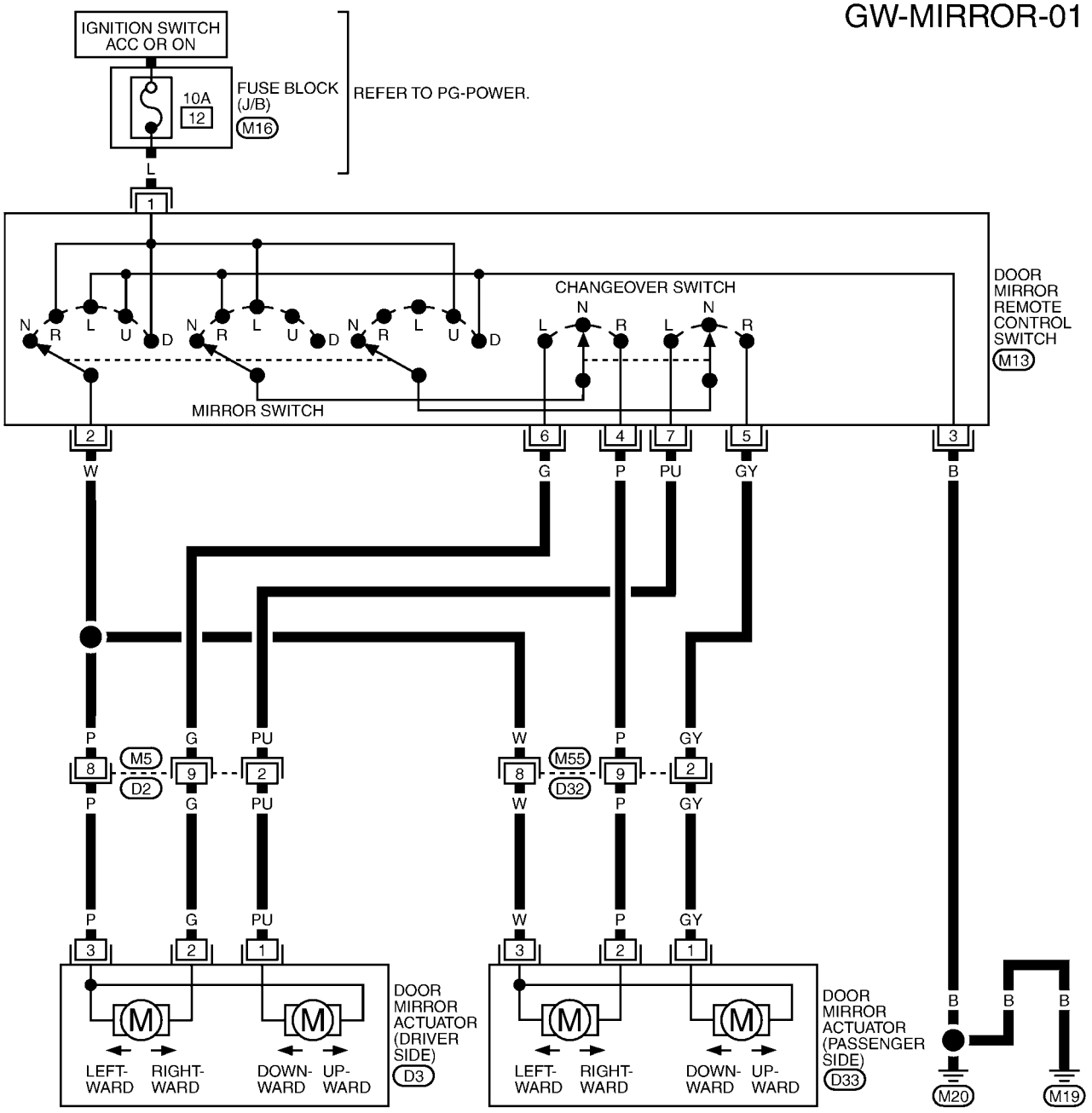
DOOR MIRROR

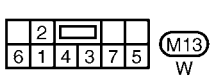
PFP:96301

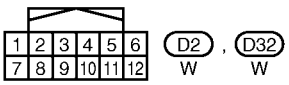
Wiring Diagram — MIRROR — LHD Models

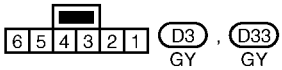
EIS004LB

GW-MIRROR-01









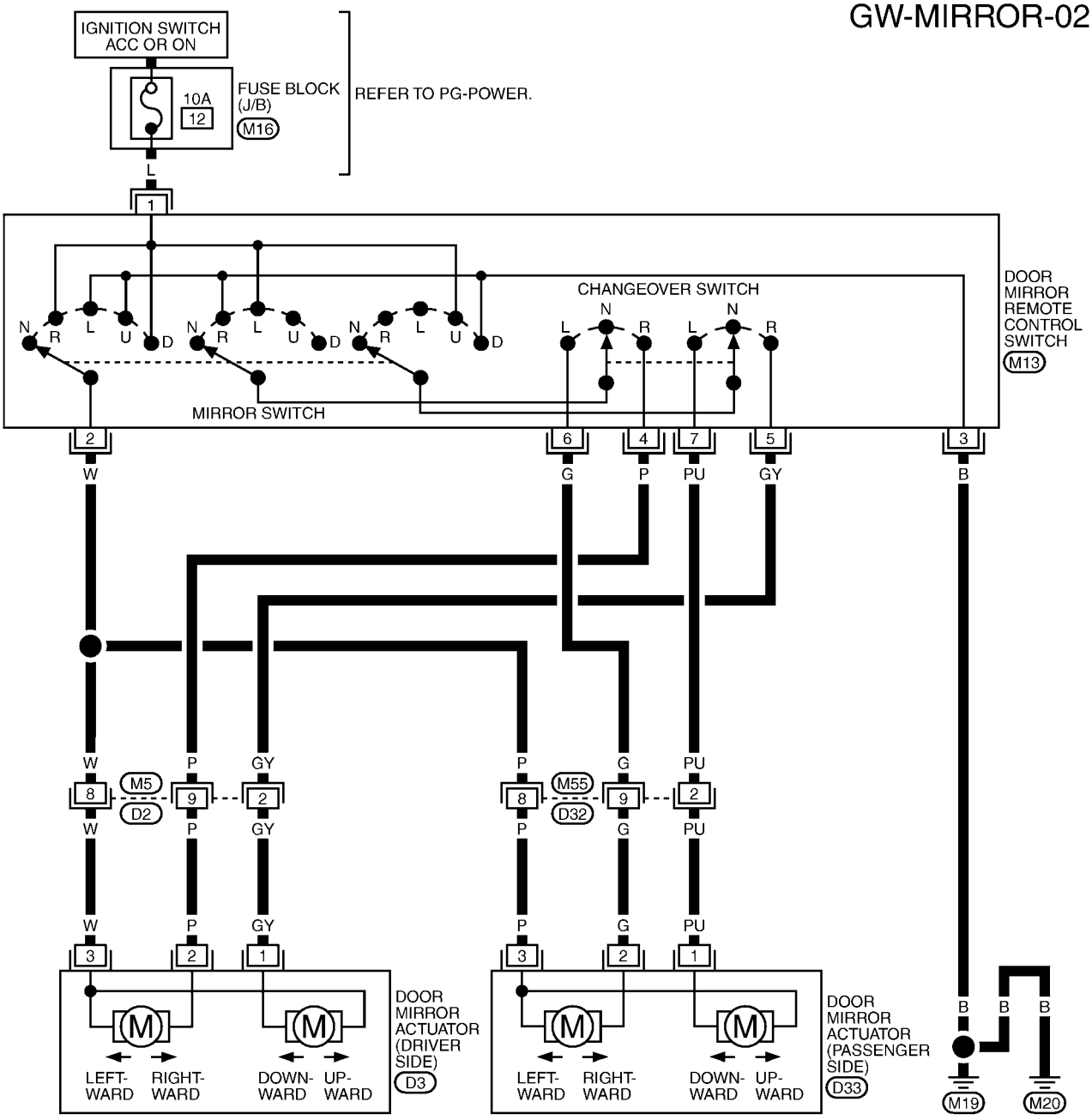
REFER TO THE FOLLOWING.
M16 -FUSE BLOCK-JUNCTION BOX (J/B)

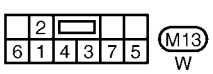
MKWA0850E

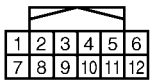
Wiring Diagram — MIRROR — RHD Models

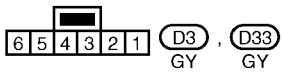
EIS004QV

GW-MIRROR-02







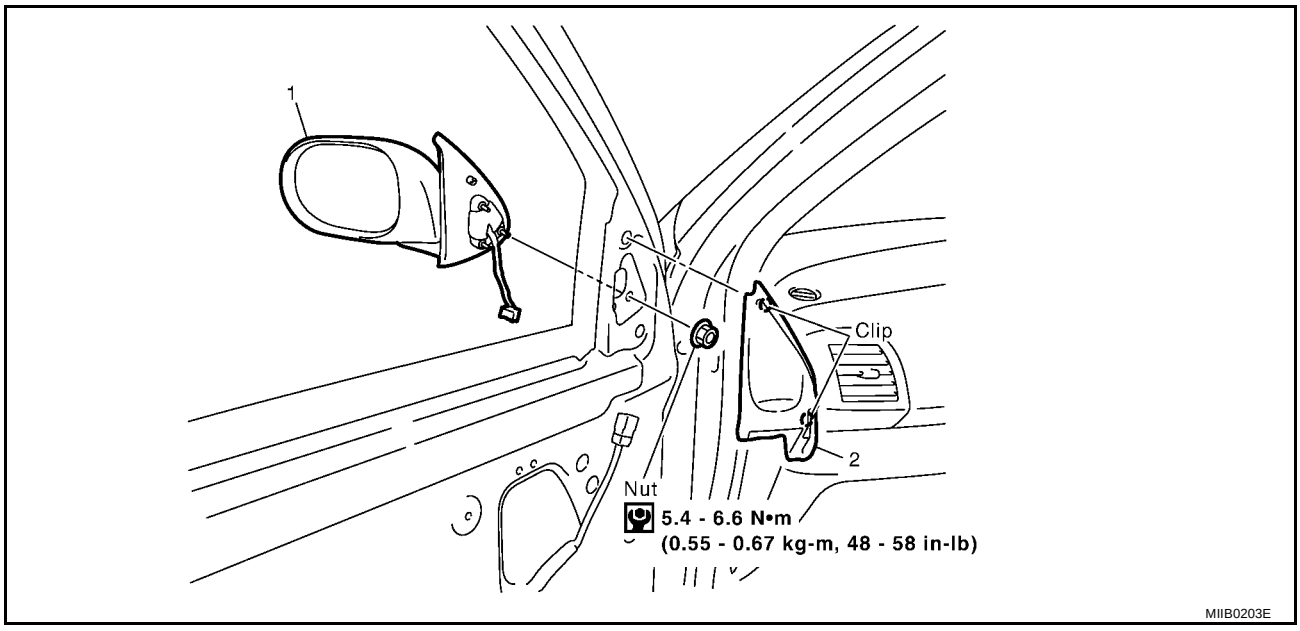


REFER TO THE FOLLOWING.
M16 -FUSE BLOCK-JUNCTION BOX (J/B)

MKWA0851E

Removal and Installation

EIS004LC



1. Door mirror
2. Corner cover

REMOVAL

CAUTION:

Be careful not to damage mirror body.

1. Remove front door finisher. Refer to EI-17, "DOOR FINISHER" in EI section.
2. Remove corner cover.
3. Disconnect door mirror harness connector. (Electric door mirrors only)
4. Remove door mirror nuts and door mirror assembly.

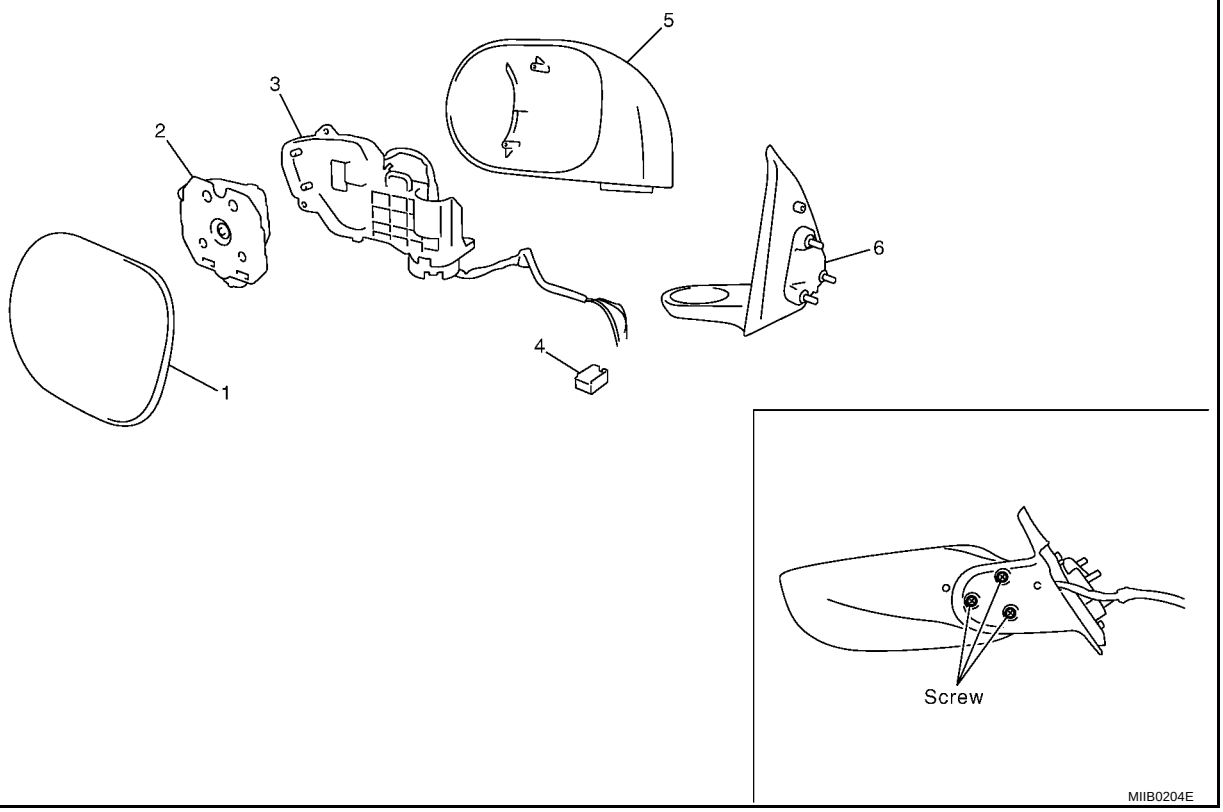
INSTALLATION

Install in the reverse order of removal.

Disassembly and Assembly

EIS004LD

SEC. 963



1. Mirror body (integrated with holder)
2. Power unit
3. Electric electric unit
4. Connector (electric)
5. Housing
6. Base

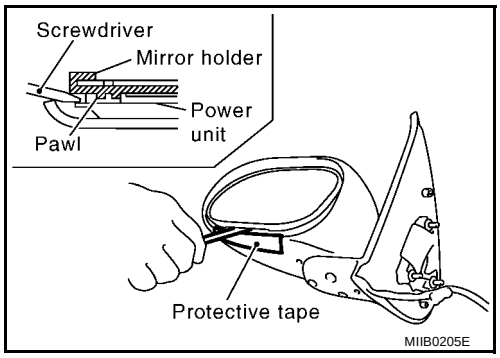
DISASSEMBLY

1. Remove all terminals from the harness connector.

   CAUTION:
   Before pulling out terminal, note connector terminal layout.

2. Turn mirror glass surface upward.
3. Apply protective tape to the housing.
4. As shown in the figure, insert a thin, screwdriver in the concave gap between mirror glass (mirror holder) and power unit to push up tabs (2 locations) on mirror holder to disengage lower part of mirror holder, and remove mirror body.

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

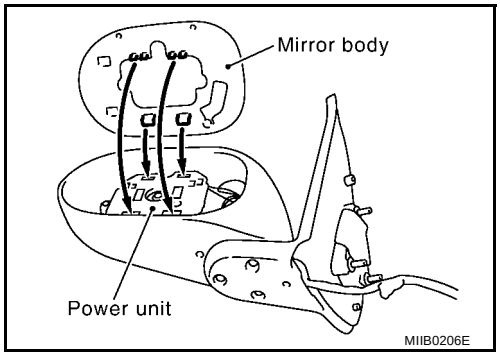


5. Remove base.
6. Remove electric unit.
7. Remove power unit, and disconnect connector.
8. Separate the power unit from the Electric retracting unit.

ASSEMBLY

1. Install power unit to the electric unit.
2. Connect connector to power unit.
3. Install electric unit and base to the housing.
4. Place power unit and mirror body in a horizontal position.
5. 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.

   CAUTION:
   After finishing work, visually confirm that lower tabs (2) at the bottom of mirror face are securely engaged.



6. Insert harness terminal into connector.

   CAUTION:
   Make sure to insert harness terminal into the correct connector. Do not confuse the locations.

INSIDE MIRROR

PFP:96321

Removal and Installation

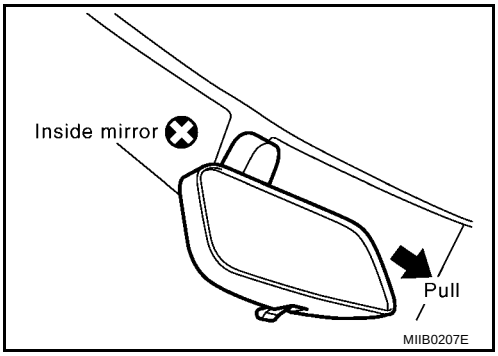
EIS004LE

REMOVAL

Pull the inside mirror forward to remove it.

CAUTION:

Do not twist the stay to remove it as this could damage the stay.



INSTALLATION

Rotate the stay 90°C to install it.