# SECTION MIR MIRRORS o

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# SYSTEM DESCRIPTION DOOR MIRROR SYSTEM

# Description

INFOID:000000008291123

In regards to the Automatic drive position with door mirror system, it refer to <u>ADP-19</u>, "<u>MANUAL FUNCTION</u>: <u>System Description</u>".

## **Component Description**

Component	Function
Door mirror remote control switch	It supplies power to mirror motor through mirror switch and changeover switch.
Door mirror	It makes mirror face operate from side to side and up and down with the mirror control switch operation.

## **INSIDE MIRROR SYSTEM**

#### < SYSTEM DESCRIPTION >

# **INSIDE MIRROR SYSTEM**

# System Description

The sensor built in inside mirror detects the headlight of the vehicle behind and automatically changes the light ransmission to decrease the brightness.

# **Component Description**

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Component	Function	
Auto anti-dazzling inside mirror	It automatically changes the light transmittance according to the brightness of the light from the headlight of the vehicle behind.	

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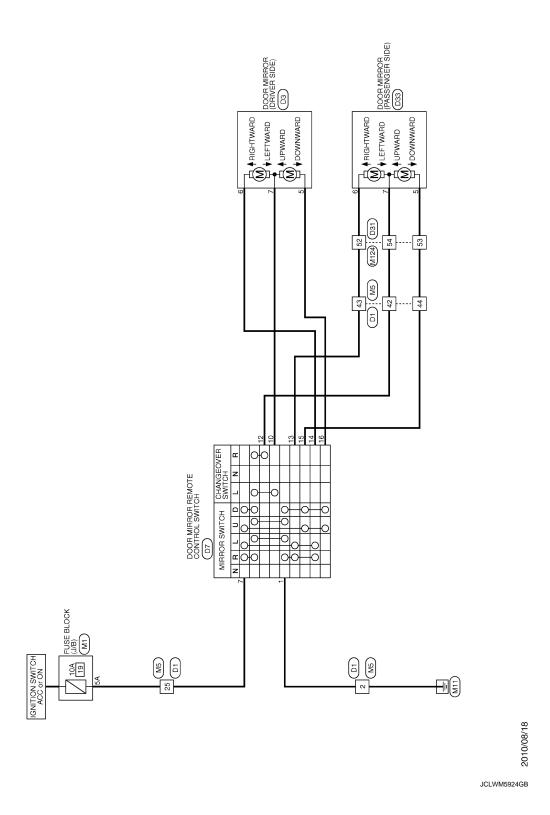
< DTC/CIRCUIT DIAGNOSIS >

# DTC/CIRCUIT DIAGNOSIS DOOR MIRROR

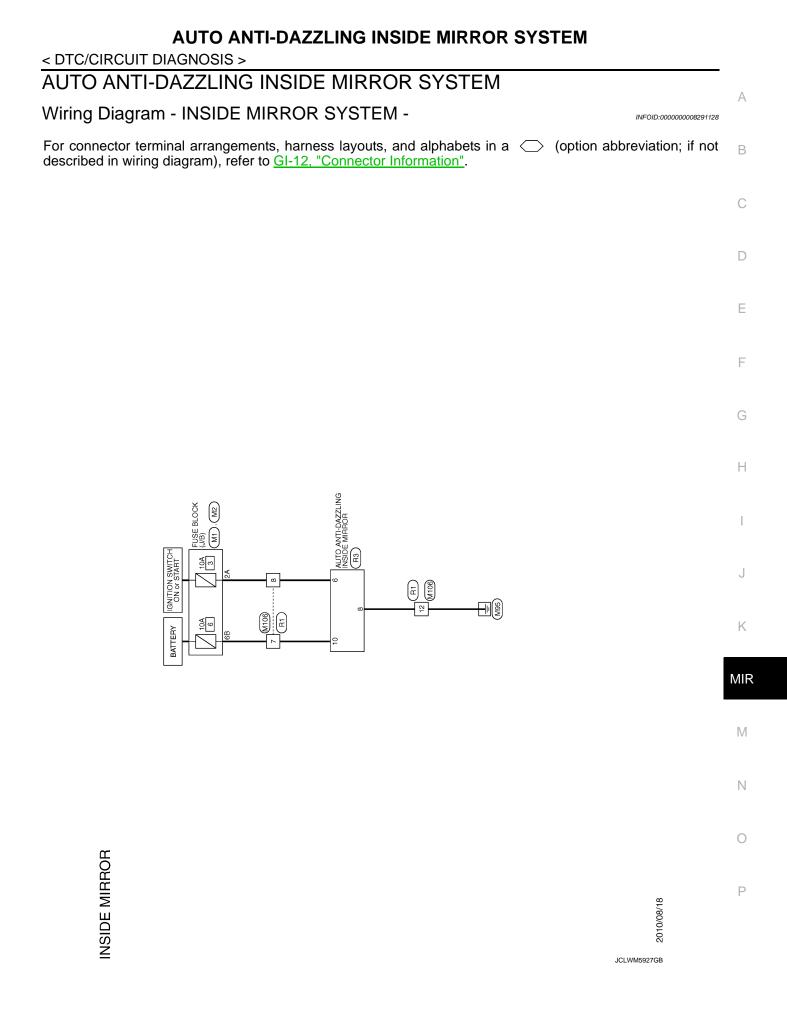
Wiring Diagram - DOOR MIRROR SYSTEM -

INFOID:000000008291127

For connector terminal arrangements, harness layouts, and alphabets in a  $\bigcirc$  (option abbreviation; if not described in wiring diagram), refer to <u>GI-12, "Connector Information"</u>.



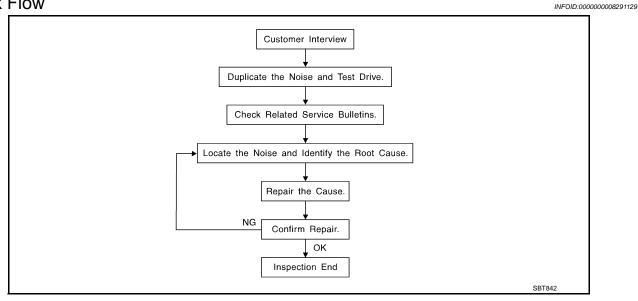
DOOR MIRROR (WITHOUT AUTOMATIC DRIVE POSITIONER)



#### < SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS SQUEAK AND RATTLE TROUBLE DIAGNOSES

Work Flow



# CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <u>MIR-10</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, perform a diagnosis and repair the noise that the customer is concerned about. This can be accomplished by performing a cruise test on the vehicle with the customer.
- After identifying the type of noise, isolate the noise in terms of its characteristics. The noise characteristics are provided so the customer, service adviser and technician are all speaking the same language when defining the noise.
- Squeak (Like tennis shoes on a clean floor)
   Squeak characteristics include the light contact/fast movement/brought on by road conditions/hard surfaces
   = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle) Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door) Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand) Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise) Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending up on the person. A noise that a technician may judge as acceptable may be very irritating to the customer.
- Weather conditions, especially humidity and temperature, may have a great effect on noise level.

DUPLICATE THE NOISE AND TEST DRIVE

#### < SYMPTOM DIAGNOSIS >

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed. If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:	А
<ol> <li>Close a door.</li> <li>Tap or push/pull around the area where the noise appears to be coming from.</li> </ol>	В
<ol> <li>Rev the engine.</li> <li>Use a floor jack to recreate vehicle "twist".</li> <li>At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).</li> <li>Raise the vehicle on a hoist and hit a tire with a rubber hammer.</li> </ol>	С
<ul> <li>Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.</li> <li>If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.</li> </ul>	D
CHECK RELATED SERVICE BULLETINS After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.	E
If a TSB relates to the symptom, follow the procedure to repair the noise.	F
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	
<ol> <li>Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis ear: J-39570, Engine ear and mechanics stethoscope).</li> </ol>	G
<ul><li>2. Narrow down the noise to a more specific area and identify the cause of the noise by:</li><li>Removing the components in the area that is are suspected to be the cause of the noise.</li></ul>	
Do not use too much force when removing clips and fasteners, otherwise clips and fastener can be broken or lost during the repair, resulting in the creation of new noise.	Н
<ul> <li>Tapping or pushing/pulling the component that is are suspected to be the cause of the noise.</li> <li>Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.</li> </ul>	
<ul> <li>Feeling for a vibration by hand by touching the component(s) that is are suspected to be the cause of the noise.</li> </ul>	
<ul> <li>Placing a piece of paper between components that are suspected to be the cause of the noise.</li> <li>Looking for loose components and contact marks. Refer to <u>MIR-8, "Inspection Procedure"</u>.</li> </ul>	J
REPAIR THE CAUSE	Κ
<ul> <li>If the cause is a loose component, tighten the component securely.</li> </ul>	
- Insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or ure- thane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through the authorized Nissan Parts	MIR
Department. CAUTION:	M
Never use excessive force as many components are constructed of plastic and may be damaged.	
<b>NOTE:</b> Always check with the Parts Department for the latest parts information. The following materials are contained in the Nissan Squeak and Rattle Kit (J-43980). Each item can be	Ν
ordered separately as needed. URETHANE PADS [1.5 mm (0.059 in) thick]	0
Insulates connectors, harness, etc. 76268-9E005: $100 \times 135$ mm (3.94 × 5.31 in)/76884-71L01: $60 \times 85$ mm (2.36 × 3.35 in)/76884-71L02:15 × 25 mm (0.59 × 0.98 in)	
INSULATOR (Foam blocks) Insulates components from contact. Can be used to fill space behind a panel.	Ρ
73982-9E000: 45 mm (1.77 in) thick, 50 $\times$ 50 mm (1.97 $\times$ 1.97 in)/73982- 50Y00: 10 mm (0.39 in) thick, 50 $\times$ 50 mm (1.97 $\times$ 1.97 in)	
INSULATOR (Light foam block) 80845-71L00: 30 mm (1.18 in) thick, 30 $\times$ 50 mm (1.18 $\times$ 1.97in) FELT CLOTHTAPE	
Used to insulate where movement does not occur. Ideal for instrument panel applications.	

# MIR-7

#### < SYMPTOM DIAGNOSIS >

68370-4B000:  $15 \times 25 \text{ mm} (0.59 \times 0.98 \text{ in}) \text{ pad/68239-13E00: } 5 \text{ mm} (0.20 \text{ in}) \text{ wide tape roll}$ The following materials, not found in the kit, can also be used to repair squeaks and rattles. UHMW (TEFLON) TAPE Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Used in place of UHMW tape that is be visible or does not fit. Will only last a few months. SILICONE SPRAY Used when grease cannot be applied. DUCT TAPE Used to eliminate movement.

#### CONFIRM THE REPAIR

Confirm that the cause of a noise is repaired by test driving the vehicle. Operate the vehicle under the same conditions as when the noise originally occurred. Refer to the notes on the Diagnostic Worksheet.

#### Inspection Procedure

INFOID:000000008291130

Refer to Table of Contents for specific component removal and installation information.

#### **INSTRUMENT PANEL**

Most incidents are caused by contact and movement between:

- 1. The cluster lid A and instrument panel
- 2. Acrylic lens and combination meter housing
- 3. Instrument panel to front pillar garnish
- 4. Instrument panel to windshield
- 5. Instrument panel mounting pins
- 6. Wiring harnesses behind the combination meter
- 7. A/C defroster duct and duct joint

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or silicon spray (in hard to reach areas). Urethane pads can be used to insulate wiring harness.

#### CAUTION:

Never use silicone spray to isolate a squeak or rattle. If the area is saturated with silicone, the recheck of repair becomes impossible.

#### CENTER CONSOLE

Components to pay attention to include:

- 1. Shifter assembly cover to finisher
- 2. A/C control unit and cluster lid C
- 3. Wiring harnesses behind audio and A/C control unit

The instrument panel repair and isolation procedures also apply to the center console.

#### DOORS

Pay attention to the following:

- 1. Finisher and inner panel making a slapping noise
- 2. Inside handle escutcheon to door finisher
- 3. Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-43980) to repair the noise.

#### TRUNK

Trunk noises are often caused by a loose jack or loose items put into the trunk by the customer. In addition look for the following:

- 1. Trunk lid dumpers out of adjustment
- 2. Trunk lid striker out of adjustment

#### < SYMPTOM DIAGNOSIS >

3.	The trunk lid torsion bars knocking together	
4.	A loose license plate or bracket	А
	st of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) caus- the noise.	
SU	NROOF/HEADLINING	В
Noi	ses in the sunroof/headlining area can often be traced to one of the following:	
1.	Sunroof lid, rail, linkage or seals making a rattle or light knocking noise	С
2.	Sunvisor shaft shaking in the holder	U
3.	Front or rear windshield touching headlining and squeaking	
	ain, pressing on the components to stop the noise while duplicating the conditions can isolate most of these dents. Repairs usually consist of insulating with felt cloth tape.	D
SE	ATS	
the	en isolating seat noise it's important to note the position the seats in and the load placed on the seat when noise occurs. These conditions should be duplicated when verifying and isolating the cause of the noise. Use of seat noise include:	E
1.	Headrest rods and holder	F
2.	A squeak between the seat pad cushion and frame	
3.	The rear seatback lock and bracket	
ditio	ese noises can be isolated by moving or pressing on the suspected components while duplicating the con- ons under which the noise occurs. Most of these incidents can be repaired by repositioning the component applying urethane tape to the contact area.	G
UN	DERHOOD	Н
trar	me interior noise may be caused by components under the hood or on the engine wall. The noise is then is mitted into the passenger compartment.	
	uses of transmitted underhood noise include:	I
1.	Any component mounted to the engine wall	
2.	Components that pass through the engine wall	J
3.	Engine wall mounts and connectors	0
4.	Loose radiator mounting pins	
5.	Hood bumpers out of adjustment	Κ
6. Th	Hood striker out of adjustment	
ine	ese noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best	

These noises can be difficult to isolate since they cannot be reached from the interior of the vehicle. The best method is to secure, move or insulate one component at a time and test drive the vehicle. Also, engine RPM or load can be changed to isolate the noise. Repairs can usually be made by moving, adjusting, securing, or insulating the component causing the noise.

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< SYMPTOM DIAGNOSIS >

**Diagnostic Worksheet** 



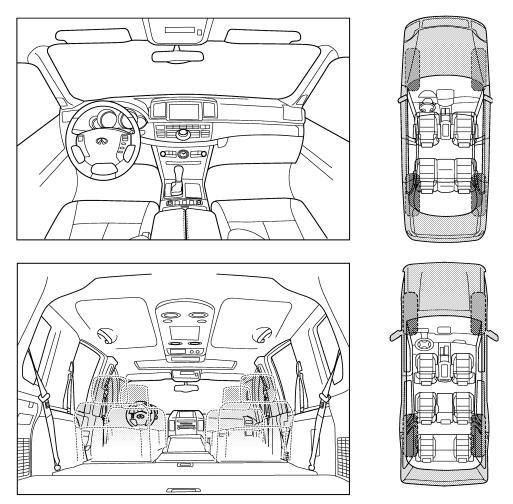
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### Dear Infiniti Customer:

We are concerned about your satisfaction with your Infiniti vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Infiniti right the first time, please take a moment to note the area of the vehicle where the squeak or rattle occurs and under what conditions. You may be asked to take a test drive with a service consultant or technician to ensure we confirm the noise you are hearing.

#### I. WHERE DOES THE NOISE COME FROM? (circle the area of the vehicle)

The illustrations are for reference only, and may not reflect the actual configuration of your vehicle.



Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

Revision: 2012 August

#### < SYMPTOM DIAGNOSIS >

Briefly describe the location where the n	
II. WHEN DOES IT OCCUR? (please cl	heck the boxes that apply)
anytime	after sitting out in the rain
☐ 1st time in the morning	when it is raining or wet
<ul> <li>only when it is cold outside</li> <li>only when it is hot outside</li> </ul>	<ul> <li>dry or dusty conditions</li> <li>other:</li> </ul>
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE
through driveways	squeak (like tennis shoes on a clean floor)
over rough roads	☐ creak (like walking on an old wooden floor)
over speed bumps	☐ rattle (like shaking a baby rattle)
only about mph	knock (like a knock at the door)
☐ on acceleration ☐ coming to a stop	<ul> <li>tick (like a clock second hand)</li> <li>thump (heavy, muffled knock noise)</li> </ul>
on turns: left, right or either (circle)	<ul> <li>buzz (like a bumble bee)</li> </ul>
<ul> <li>with passengers or cargo</li> <li>other:</li> </ul>	
<ul> <li>with passengers or cargo</li> <li>other:</li> <li>after driving miles or m</li> </ul>	- ninutes
with passengers or cargo	- ninutes
<ul> <li>with passengers or cargo</li> <li>other:</li> <li>after driving miles or m</li> <li>TO BE COMPLETED BY DEALERSHIP</li> </ul>	P PERSONNEL
with passengers or cargo other: after driving miles or m <b>TO BE COMPLETED BY DEALERSHIL To BE COMPLETED BY DEALERSHIL</b>	P PERSONNEL
<ul> <li>with passengers or cargo</li> <li>other:</li></ul>	P PERSONNEL  YES NO Initials of person performing
with passengers or cargo other: after driving miles or m <b>TO BE COMPLETED BY DEALERSHIL To BE COMPLETED BY DEALERSHIL</b>	P PERSONNEL  YES NO Initials of person performing
with passengers or cargo other: after driving miles or m <b>TO BE COMPLETED BY DEALERSHIN To BE COMPLETED BY DEALERSHIN To set Drive Notes:</b> Vehicle test driven with customer Noise verified on test drive Noise source located and repaired	P PERSONNEL  YES NO Initials of person performing

#### < PRECAUTION >

# PRECAUTION PRECAUTIONS

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

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

#### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

#### WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

PREPARATION > PREPARATION PREPARATION	N	
Commercial Service	e Tools	INFOID:00000008291133
	Tool name	Description
Remover tool	JAC JAC JAC	Removes the clips, pawls and metal clips
	JMKIA3U5UZZ	

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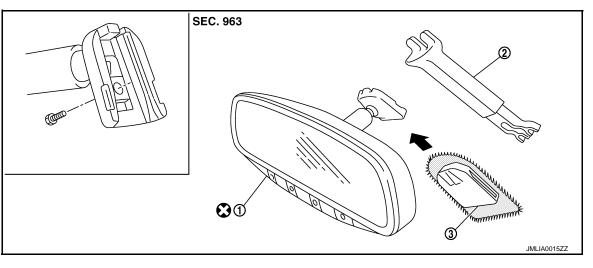
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# < REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION INSIDE MIRROR

# Exploded View

INFOID:000000008291134



1. Inside mirror

- 2. Inside mirror finisher (if equipped) 3. Mirror base
- Always replace after every disassembly.

# Removal and Installation

#### REMOVAL

- 1. Remove inside mirror finisher.
- 2. Remove nut of mirror base.
- 3. Slide the mirror upward to remove.
- 4. Disconnect the connector.

#### INSTALLATION

Install in the reverse order of removal.

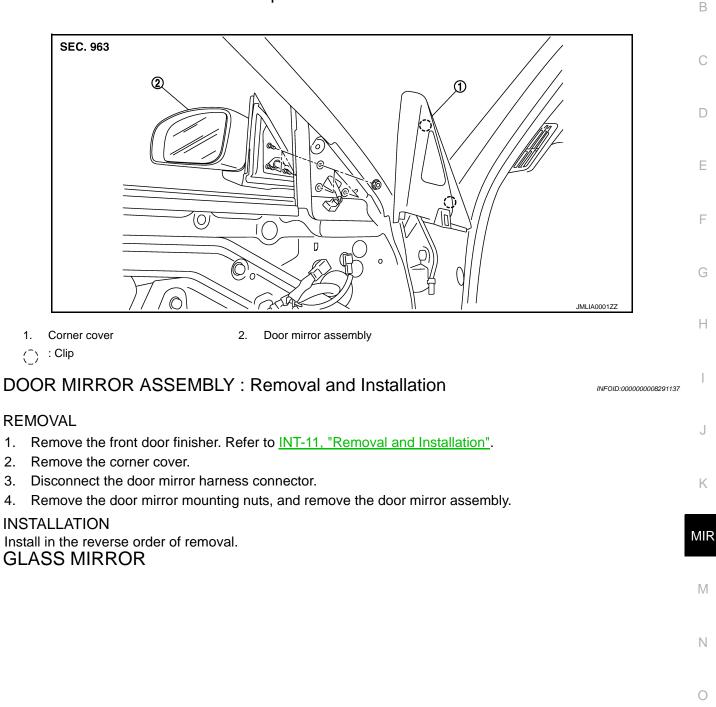
< REMOVAL AND INSTALLATION >

# OUTSIDE MIRROR DOOR MIRROR ASSEMBLY

DOOR MIRROR ASSEMBLY : Exploded View

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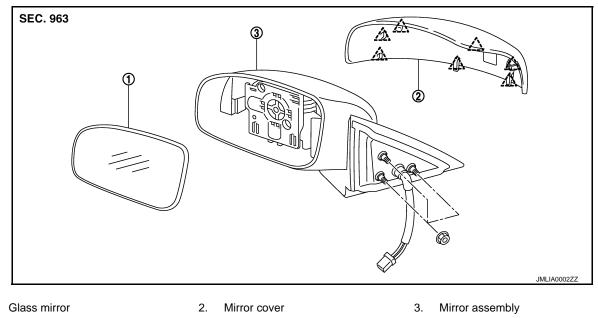


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# **OUTSIDE MIRROR**

#### < REMOVAL AND INSTALLATION >

#### **GLASS MIRROR : Exploded View**



,^ : Pawl

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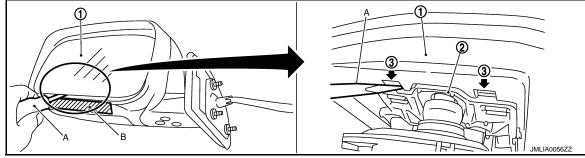
# GLASS MIRROR : Disassembly and Assembly

INFOID:000000008291139

#### DISASSEMBLY

- 1. Remove the pawls and disassemble the base cover.
- 2. Place the glass mirror upward.
- 3. Put a strip of protective tape (B) on housing assembly.
- As shown in the figure, insert a small flat-bladed screwdriver (A) into the recess between glass mirror (1) and actuator (2). Push up both pawls (3) simultaneously to remove glass mirror lower half side.
   NOTE:

Insert flat-bladed screwdriver into recesses, and push up while rotating (twisting) to make work easier.



- 5. Remove two terminals of mirror heater attachment.
- Lightly lift up lower side of glass mirror, and detach both pawls of upper side as if pulling it out. Disassemble glass mirror from actuator.

#### NOTE:

Be certain not to allow grease on sealing agent in center of mirror or back side of glass mirror.

#### ASSEMBLY

Assemble in the reverse order of disassemble.

#### **CAUTION:**

After installation, visually check that pawls are securely engaged. DOOR MIRROR COVER

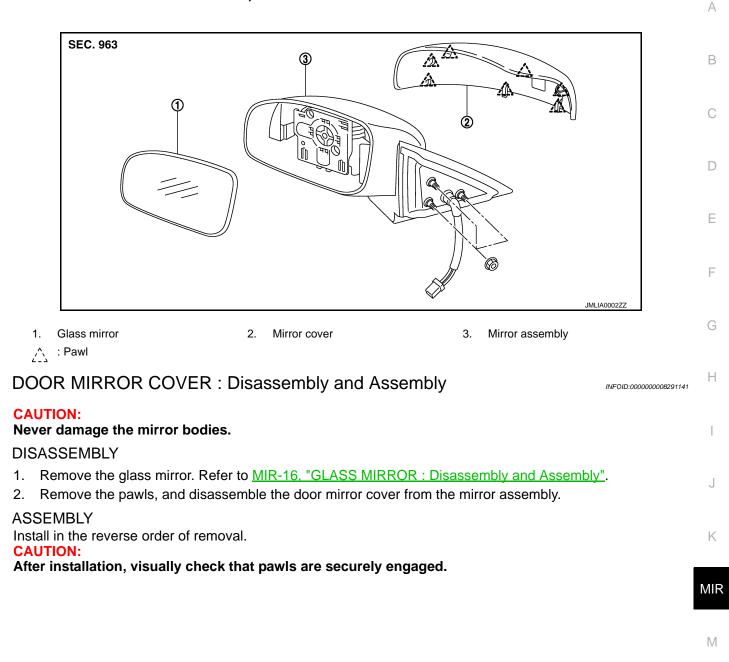
Revision: 2012 August

# **OUTSIDE MIRROR**

#### < REMOVAL AND INSTALLATION >

# DOOR MIRROR COVER : Exploded View

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Revision: 2012 August

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# DOOR MIRROR REMOTE CONTROL SWITCH

#### < REMOVAL AND INSTALLATION >

# DOOR MIRROR REMOTE CONTROL SWITCH

## Exploded View

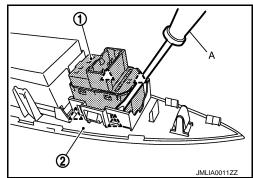
Refer to INT-11, "Exploded View".

## Removal and Installation

#### REMOVAL

- 1. Remove the power window main switch finisher (2). Refer to INT-11. "Removal and Installation".
- 2. Remove door mirror remote control switch (1) from power window main switch finisher (2) using remover tool (A).

A : Pawl



INSTALLATION Install in the reverse order of removal. INFOID:000000008291142