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# PRECAUTIONS

# Revision: 2009 October

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# PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" INFOID:000000005874472

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. D Information necessary to service the system safely is included in the "SUPPLEMENTAL RESTRAINT SYS-TEM" and "SEAT BELTS" 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 "SUPPLEMENTAL RESTRAINT SYSTEM".
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

### WARNING:

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the RF ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

# Precaution for Battery Service

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

# Precaution

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- Disconnect both battery cables in advance.
  - Never tamper with or force air bag lid open, as this may adversely affect air bag performance.
  - Be careful not to scratch pad and other parts.
  - Ν 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.

# PRECAUTIONS

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

# PREPARATION

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# PREPARATION

# **Special Service Tool**

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Tool number (Kent-Moore No.) Tool name		Description	
(J39570) Chassis ear	SIIA0993E	Locating the noise	
(J43980) NISSAN Squeak and Rat- tle Kit	SIIA0994E	Repairing the cause of noise	
nmercial Service Tool		INFOID:0000	000004657181

Tool name		Description	
Engine ear	SIIA0995E	Locating the noise	J

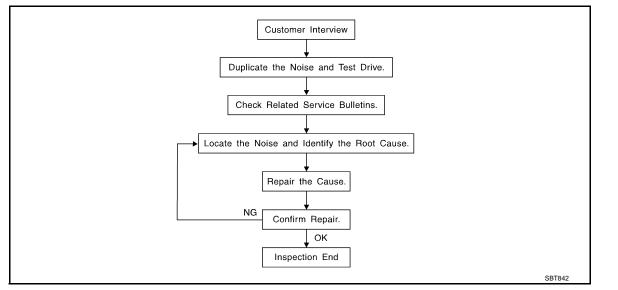
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### < SERVICE INFORMATION >

# SQUEAK AND RATTLE TROUBLE DIAGNOSIS

### Work Flow



### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions thatexist when the noise occurs. Use the Diagnostic Worksheet during the interviewto document the facts and conditions when the noise occurs and any customer's comments; refer to <u>RF-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 descriptionor the location of the noise. Attempt to obtain all the facts and conditionsthat exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnoseand repair the noise that the customer is concerned about. This can be accomplishedby test driving 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/broughton by road conditions/hard surfaces=higher pitch noise/softer surfaces=lowerpitch noises/edge to surface=chirping
- Creak—(Like walking on an old wooden floor) Creak characteristics include firm contact/slow movement/twisting with 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 orsimilar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock —(Like a knock on a door) Knock characteristics include hollow sounding/sometimes repeating/oftenbrought on by driver action.
- Tick—(Like a clock second hand) Tick characteristics include gentle contacting of light materials/loosecomponents/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 bumble bee) Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary dependingupon the person. A noise that you 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

If possible, drive the vehicle with the customer until the noise isduplicated. 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 you confirm the repair.

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If the noise can be duplicated easily during the test drive, to helpidentify the source of the noise, try to dupli- cate the noise with the vehiclestopped by doing one or all of the following: 1) Close a door.	А
<ul><li>2) Tap or push/pull around the area where the noise appears tobe coming from.</li><li>3) Rev the engine.</li></ul>	В
<ul> <li>4) Use a floor jack to recreate vehicle "twist".</li> <li>5) At idle, apply engine load (electrical load, half-clutch on M/T models, drive position on A/T models).</li> <li>6) Raise the vehicle on a hoist and hit a tire with a rubber hammer.</li> </ul>	D
<ul> <li>Drive the vehicle and attempt to duplicate the conditions thecustomer states exist when the noise occurs.</li> <li>If it is difficult to duplicate the noise, drive the vehicle slowlyon an undulating or rough road to stress the vehicle body.</li> </ul>	С
CHECK RELATED SERVICE BULLETINS After verifying the customer concern or symptom, check ASIST for TechnicalService Bulletins (TSBs) related to that concern or symptom. If a TSB relates to the symptom, follow the procedure to repair thenoise.	D
LOCATE THE NOISE AND IDENTIFY THE ROOT CAUSE	
1. 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).	F
2. Narrow down the noise to a more specific area and identify the causeof the noise by:	
<ul> <li>removing the components in the area that you suspect the noiseis coming from.</li> <li>Do not use too much force when removing clips and fasteners, otherwiseclips and fastener can be broken or lost during the repair, resulting in thecreation of new noise.</li> </ul>	G
<ul> <li>tapping or pushing/pulling the component that you suspect is causingthe noise.</li> <li>Do not tap or push/pull the component with excessive force, otherwisethe noise will be eliminated only temporarily.</li> </ul>	Н
• feeling for a vibration with your hand by touching the component(s)that you suspect is (are) causing the noise.	
<ul> <li>placing a piece of paper between components that you suspect arecausing the noise.</li> </ul>	RF
<ul> <li>looking for loose components and contact marks.</li> <li>Refer to <u>RF-8</u>, "<u>Generic Squeak and Rattle Troubleshooting</u>".</li> </ul>	
Refer to <u>RF-5</u> , <u>Generic Equear and Ratie Housieshooting</u> .	1
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REPAIR THE CAUSE • If the cause is a loose component, tighten the component securely. • If the cause is insufficient clearance between components: • separate components by repositioning or loosening and retighteningthe component, if possible. • insulate components with a suitable insulator such as urethane pads, foam blocks, felt cloth tape or urethane tape. A Nissan Squeak and Rattle Kit (J-43980) is available through your authorized Nissan Parts Depart- ment. <b>CAUTION:</b> <b>Do not use excessive force as many components are constructed of plasticand may be damaged.</b> <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 ordered separately as needed. URETHANE PADS [1.5 mm (0.059 in) thick] Insulates connectors, harness, etc. 76268-9E005: 100 × 135 mm (3.94 × 5.31 in)/76884-71L01: 60 × 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. 73982-9E000: 45 mm (1.77 in) thick, $50 × 50$ mm ( $1.97 × 1.97$ in)/73982- 50Y00: 10 mm (0.39 in) thick, $50 × 50$ mm ( $1.97 × 1.97$ in)/73982- 50Y00: 10 mm (0.138 in) thick, $50 × 50$ mm ( $1.18 × 1.97$ in) FELT CLOTHTAPE	K L M N

#### < SERVICE INFORMATION >

Insulates where slight movement is present. Ideal for instrument panelapplications. SILICONE GREASE Used in place of UHMW tape that will be visible or not fit. Will only last a few months. SILICONE SPRAY Use when grease cannot be applied. DUCT TAPE Use 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 originallyoccurred. Refer to the notes on the Diagnostic Worksheet.

### Generic Squeak and Rattle Troubleshooting

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Refer to Table of Contents for specific component removal and installationinformation.

### 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:**

Do not use silicone spray to isolate a squeak or rattle. If you saturate the area with silicone, you will not be able to recheck the repair.

#### 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 thecenter console.

#### DOORS

Pay attention to the:

- 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 startsand stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. You can usually insulate the areas 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 owner. In addition look for:

- 1. Trunk lid dumpers out of adjustment
- 2. Trunk lid striker out of adjustment
- 3. The trunk lid torsion bars knocking together
- 4. A loose license plate or bracket

## < SERVICE INFORMATION >

Most of these incidents can be repaired by adjusting, securing or insulatingthe item(s) or component(s) caus-
ing the noise.
SUNROOF/HEADLINING
Noises 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 knockingnoise
2. Sunvisor shaft shaking in the holder
3. Front or rear windshield touching headlining and squeaking
Again, pressing on the components to stop the noise while duplicatingthe conditions can isolate most of these incidents. Repairs usually consistof insulating with felt cloth tape.
SEATS
When isolating seat noise it's important to note the position the seatis in and the load placed on the seat when the noise is present. These conditionsshould be duplicated when verifying and isolating the cause of the noise.
Cause of seat noise include:
1. Headrest rods and holder
2. A squeak between the seat pad cushion and frame
3. The rear seatback lock and bracket
These noises can be isolated by moving or pressing on the suspected components while duplicating the condi- tions under which the noise occurs. Most of these incidents can be repaired by repositioning the component orapplying urethane tape to the contact area.
UNDERHOOD
Some interior noise may be caused by components under the hood or onthe engine wall. The noise is then transmitted into the passenger compartment. Causes of transmitted underhood noise include:
1. Any component mounted to the engine wall
2. Components that pass through the engine wall
3. Engine wall mounts and connectors
4. Loose radiator mounting pins
5. Hood bumpers out of adjustment
6. Hood striker out of adjustment
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.

< SERVICE INFORMATION >

Diagnostic Worksheet



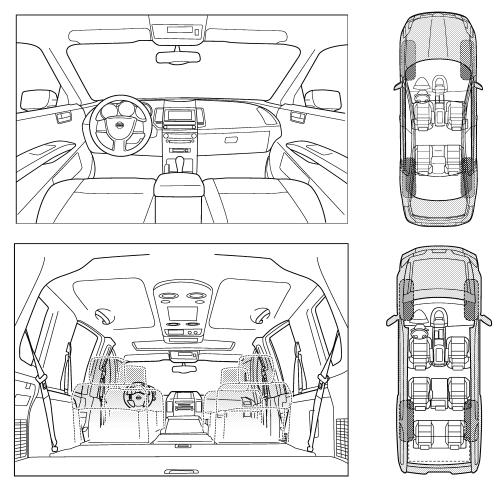
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Nissan Customer:

We are concerned about your satisfaction with your Nissan vehicle. Repairing a squeak or rattle sometimes can be very difficult. To help us fix your Nissan 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 advisor 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.



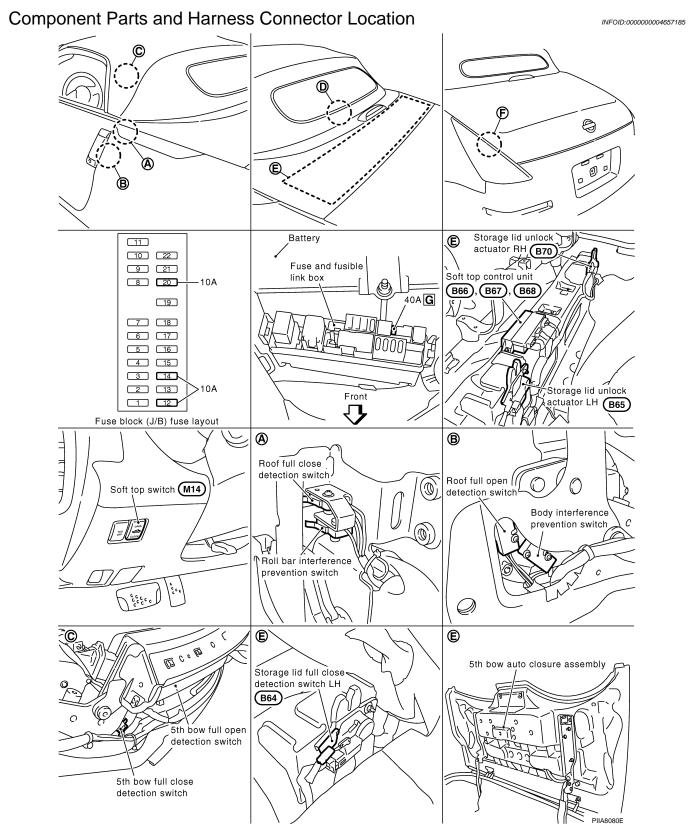
Continue to page 2 of the worksheet and briefly describe the location of the noise or rattle. In addition, please indicate the conditions which are present when the noise occurs.

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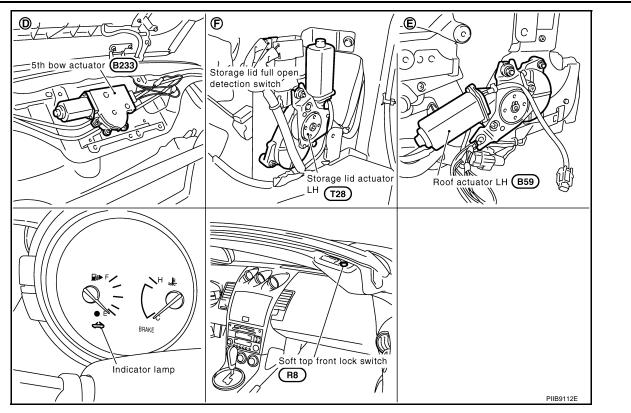
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### < SERVICE INFORMATION >

	noise occurs:	
II. WHEN DOES IT OCCUR? (please c	heck the boxes that apply)	
anytime	after sitting out in the rain	
☐ 1st time in the morning	when it is raining or wet	
$\Box$ only when it is cold outside	dry or dusty conditions	
only when it is hot outside	other:	
II. 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	tick (like a clock second hand)	
coming to a stop	thump (heavy, muffled knock noise)	
on turns: left, right or either (circle)	buzz (like a bumble bee)	
with passengers or cargo		
] other:	_	
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## < SERVICE INFORMATION >



Following Parts Are Built Into 5th Bow Auto Closure Assembly.

- 5th bow half-latch switch built in 5th bow lock assembly in storage lid.
- 5th bow full-latch switch built in 5th bow lock assembly in storage lid.
- 5th bow ending switch built in 5th bow lock assembly in storage lid.
- 5th bow unlock actuator.
- 5th bow closure motor.

#### NOTE:

Always replace following switches as a 5th bow lock assembly.

- 5th bow half-latch switch
- 5th bow full-latch switch
- 5th bow ending switch.

5th bow full open detection switch and 5th bow full close detection switch are built into 5th bow switch assembly located at plate rail RR. Replace above switches as a plate rail RR.

# System Description

An electronic soft top open/close system has been adopted that allows the soft top to be opened or closed  $_{\rm M}$  using the soft top switch.

The following parts operate, linked with the operation of the soft top.

When the soft top begins to operate, the passenger seat tilts forward. When operation is completed, it returns to its original position.

(It does not move when the seat cancel switch is ON.)

• When the soft top begins to operate, both power windows activate to the fully-open position. (They do not activate to the fully-closed position after operation is completed.) Moreover, power window cannot be operated while soft top is operating.

When the soft top switch is released, soft top operation stops.

### CONDITIONS FOR OPERATION

Operation is avairable when all of the conditions below are satisfied.

- Ignition switch is ON.
- The brake pedal is ON.
- Vehicle speed is 4 km/h (2 MPH) or less.
- Battery voltage is approximately 10 V or more.
- CAUTION:

Run the engine when operating or inspecting the soft top to prevent battery dies.

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#### CONDITIONS FOR STOPPING OPERATION

Operation of the soft top stops when the conditions below are satisfied while the soft top is operating.

- Any of the above operation conditions is no longer satisfied.
- The passenger side power seat is operated. (It does not move when seat cancel switch is ON.)

#### **OUTLINE OF OPERATION**

Refer to the illustrations for the positions of the soft top, and the conditions of switch and actuator operation.

OPERATION: FULL CLOSE  $\rightarrow$  FULL OPEN

Refer to <u>RF-19, "Operation Chart"</u>.

CONDITION: FULL CLOSE

Item	Condition
5th bow half-latch switch	: OFF
5th bow full-latch switch	: OFF
5th bow ending switch	: OFF
5th bow full open detection switch	: OFF
5th bow full close detection switch	: OFF
Storage lid full open detection switch	: OFF
Storage lid full close detection switch LH	: OFF
Storage lid full close detection switch RH	: OFF
Roof full open detection switch	: OFF
Roof full close detection switch	: OFF
Body interference prevention switch	: OFF
Roll bar interference prevention switch	: OFF

#### CONDITION: OP 1

When the soft top switch is pushed to OPEN, the indicator lamp illuminates, windows activate to the fullyopen position and the passenger seat tilts forward by approximately 6 degrees by power window down request signal. When passenger seat tilts forward by approximately 6 degrees, seat back position signal is turned ON.

Item	Condition
Soft top switch	: OPEN (Until the operation ends)
Indicator lamp	: ON
Power window down request signal	: ON
Seat back position signal	$: OFF \to ON$

• CONDITION: OP 2

The 5th bow unlock actuator operates, releasing the 5th bow lock.

Item	Condition
5th bow unlock actuator	: ON

#### CONDITION: OP 3

The 5th bow actuator moves the 5th bow up.

Item	Condition
5th bow half-latch switch	$: OFF \to ON$
5th bow actuator	: UP
5th bow unlock actuator	$: ON \rightarrow OFF$

• CONDITION: OP 4

### < SERVICE INFORMATION >

### The 5th bow is rising.

Item	Condition
5th bow actuator	: UP
5th bow full close detection switch	$: OFF \to ON$
5th bow closure motor	$: OPEN \to STOP$
5th bow full-latch switch	$: OFF \to ON$
5th bow ending switch	$: OFF \to ON$

### • CONDITION: OP 5

D The 5th bow stops in the fully-open position. The storage lid unlock actuator operates, releasing the storage lid lock.

Item	Condition
5th bow full open detection switch	$: OFF \to ON$
5th bow actuator	: UP $\rightarrow$ STOP
Storage lid unlock actuator (LH and RH)	: OFF→ON
Storage lid full close detection switch (RH)	$: OFF \to ON$

#### • CONDITION: OP 6

The storage lid actuator operates, raising the storage lid.

Item	Condition
Storage lid full close detection switch (LH)	$: OFF \to ON$
Storage lid actuator (LH and RH)	: OPEN
Storage lid unlock actuator (LH and RH)	$: ON \rightarrow OFF$

#### • CONDITION: OP 7

The storage lid stops in the fully-open position. The 5th bow actuator moves the 5th bow down.

Item	Condition
Storage lid full open detection switch	$: OFF \to ON$
Storage lid actuator (LH and RH)	$: OPEN \to STOP$
5th bow actuator	: DOWN
5th bow full open detection switch	$: ON \rightarrow OFF$

CONDITION: OP 8

The 5th bow actuator stops in the fully-closed position. The roof actuator operates (OPEN operation), open-Μ ing the roof.

Item	Condition
5th bow full close detection switch	$: ON \rightarrow OFF$
5th bow actuator	: DOWN $\rightarrow$ STOP
Roof actuator (LH and RH)	: OPEN
Roof full close detection switch	$: OFF \to ON$

CONDITION: OP 9

While the roof is opening, the 5th bow actuator moves the 5th bow up.

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Item	Condition
Roof actuator (LH and RH)	: OPEN
5th bow actuator	: UP
5th bow full close detection switch	$: OFF \to ON$
Roll bar interference prevention switch	$: OFF \rightarrow ON$

#### • CONDITION: OP 10

While the roof is opening, the 5th bow stops in the fully-open position.

Item	Condition
Roof actuator (LH and RH)	: OPEN
5th bow full open detection switch	$: OFF \to ON$
5th bow actuator	: UP $\rightarrow$ STOP
Body interference prevention switch	$: OFF \to ON$

#### CONDITION: OP 11

The roof is stored and stops motion. The storage lid actuator operates (DOWN operation) to lower the storage lid.

The passenger seat also returns to its original position.

Item	Condition
Roof full open detection switch	$: OFF \to ON$
Roof actuator (LH and RH)	$: OPEN \rightarrow STOP$
Storage lid actuator (LH and RH)	: CLOSE
Storage lid full open detection switch	$: ON \rightarrow OFF$
Storage lid full close detection switch (LH)	$: ON \rightarrow OFF$
Power window request signal	: OFF

#### CONDITION: OP 12

At the fully-closed position, the storage lid inverts and stops. The passenger seat tilts back. Opening operation is completed, and the indicator lamp turns OFF.

Item	Condition
Storage lid full close detection switch (RH)	: $ON \rightarrow OFF$
Storage lid actuator (LH and RH)	$: CLOSE \rightarrow OPEN \rightarrow STOP$
Indicator lamp	$: ON \rightarrow OFF$

#### OPERATION: FULL OPEN $\rightarrow$ FULL CLOSE Refer to <u>RF-19. "Operation Chart"</u>. • CONDITION: FULL OPEN

Item	Condition
5th bow half-latch switch	: ON
5th bow full-latch switch	: ON
5th bow ending switch	: ON
5th bow full open detection switch	: ON
5th bow full close detection switch	: ON
Storage lid full open detection switch	: OFF
Storage lid full close detection switch LH	: OFF
Storage lid full close detection switch RH	: OFF
Roof full open detection switch	: ON

### < SERVICE INFORMATION >

Item	Condition
Roof full close detection switch	: ON
Body interference prevention switch	: ON
Roll bar interference prevention switch	: ON

#### CONDITION: CL 1

When the soft top switch is pressed to the CLOSE side, the indicator lamp illuminates, storage lid unlock actuator also operates, releasing the storage lid lock.

Item	Condition
Soft top switch	: OLOSE (Until the operation ends)
Indicator lamp	: ON
Storage lid unlock actuator	: ON
Storage lid full close detection switch (RH)	$: OFF \to ON$

#### • CONDITION: CL 2

Windows activate to the fully-open position and the passenger seat tilts forward by approximately 6 degrees by power window down request signal. Storage lid actuator operates to raise the storage lid. When passenger seat tilts forward by approximately 6 degrees, seat back position signal is turned ON.

Item	Condition
Storage lid full close detection switch (LH)	$: OFF \to ON$
Storage lid actuator (LH and RH)	: UP
Power window down request signal	: ON
Storage lid unlock actuator	$: ON \rightarrow OFF$
Seat back position signal	$: OFF \to ON$

#### • CONDITION: CL 3

The storage lid stops at the fully-open position. The roof actuator operates (CLOSE operation) to close the roof.

Item	Condition
Storage lid full open detection switch	$: OFF \to ON$
Storage lid actuator (LH and RH)	: $OPEN \rightarrow STOP$
Roof actuator (LH and RH)	: CLOSE
Roof full open detection switch	$: ON \rightarrow OFF$
Body interference prevention switch	$: ON \rightarrow OFF$

#### • CONDITION: CL 4

While the roof is closing, the 5th bow actuator operates (DOWN operation) to lower the 5th bow.

Item	Condition
Roof actuator (LH and RH)	: CLOSE
5th bow actuator	: DOWN
5th bow full open detection switch	: $ON \rightarrow OFF$

#### • CONDITOIN: CL 5

The roof is closing, and 5th bow is lowering.

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### < SERVICE INFORMATION >

Item	Condition
Roof actuator (LH and RH)	: CLOSE
5th bow full close detection switch	$: ON \rightarrow OFF$
5th bow actuator	: DOWN $\rightarrow$ STOP
Roll bar interference prevention switch	$: ON \rightarrow OFF$

• CONDITION: CL 6

The roof stops at the fully-closed position. The 5th bow actuator inverts, raising the 5th bow.

Item	Condition
Roof full close detection switch	$: ON \rightarrow OFF$
Roof actuator (LH and RH)	$: CLOSE \to STOP$
5th bow actuator	: UP
5th bow full close detection switch	$: OFF \to ON$

#### • CONDITON: CL 7

The 5th bow stops in the fully-open position. The storage lid actuator operates (DOWN operation) lower the storage lid.

Item	Condition
5th bow full open detection switch	$: OFF \rightarrow ON$
5th bow actuator	$: UP \rightarrow STOP$
Storage lid actuator (LH and RH)	: CLOSE
Storage lid full open detection switch	$: ON \rightarrow OFF$
Storage lid full close detection switch (LH)	$: ON \rightarrow OFF$

#### • CONDITION: CL 8

The storage lid inverts and stops at the fully-closed position. The 5th bow actuator operates (DOWN operation) to lower the 5th bow.

Item	Condition
Storage lid full close detection switch (RH)	$: ON \rightarrow OFF$
Storage lid actuator	$: CLOSE \rightarrow OPEN \rightarrow STOP$
5th bow actuator	: DOWN
5th bow full open detection switch	$: ON \rightarrow OFF$

• CONDITION: CL 9

The 5th bow is lowering.

Item	Condition
5th bow actuator	: DOWN
5th bow full close detection switch	: $ON \rightarrow OFF$

• CONDITION: CL 10

5th bow auto closure operates. The passenger seat tilts back. Closing operation is completed, soft top front lock is locked, and the indicator lamp turns OFF. The passenger seat also returns to its original position.

# < SERVICE INFORMATION >

Item	Condition
5th bow actuator	: DOWN $\rightarrow$ STOP
5th bow half-latch switch	$: ON \rightarrow OFF$
5th bow full-latch switch	$: ON \rightarrow OFF$
5th bow ending switch	$: ON \rightarrow OFF$
5th bow closure motor	$: CLOSE \rightarrow STOP$
Power window request signal	: OFF
Indicator lamp	$: ON \rightarrow OFF$

# **Operation Chart**

 $\text{CLOSE} \to \text{OPEN}$ 

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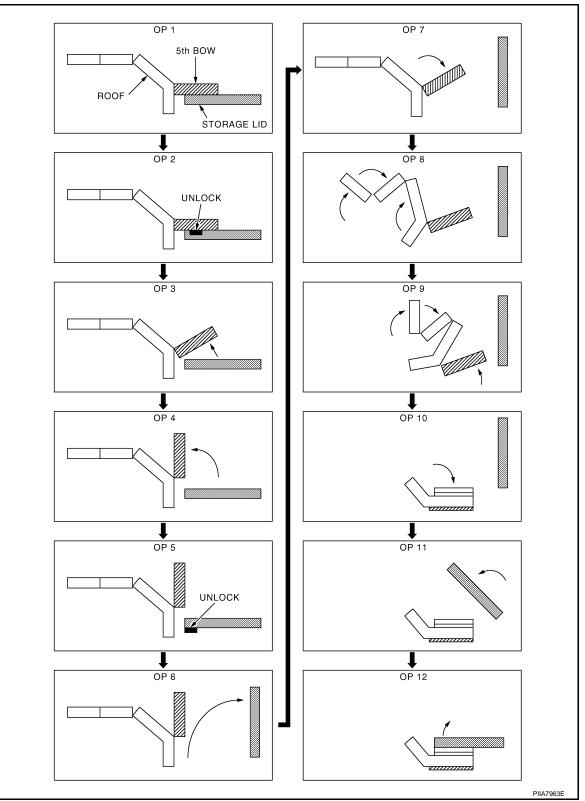
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## State Chart



# < SERVICE INFORMATION > Each Switch and Actuator Signal Chart

	ITEM	Soft top switch	5th bow closure motor	5th bow half-latch switch	5th bow full-latch switch	5th bow ending switch	5th bow unlock actuator	5th bow actuator	5th bow full open detection switch	5th bow full close detection	SWILLI	Storage lid unlock actuator	Storade lid actuator		Storage lid full open detection switch	Storage lid full close	detection switch (RH)	Storage lid full close		HOOI ACTUATOR	Roof full open detection switch	Body interference prevention	Boll har interference	prevention switch	Roof full close detection	switch	Power window request signal	Indicator lamp	
	STATE	CLOSE	OPEN	OFF	OFF OFF	OFF	OFF	d M M M M	OFF	N H	5	OFF	OPEN	CLOSE	OFF	NO	OFF	ON	OPEN	CLOSE	OFF OFF	NON		OFF	NO	OFF	al OFF	NO	
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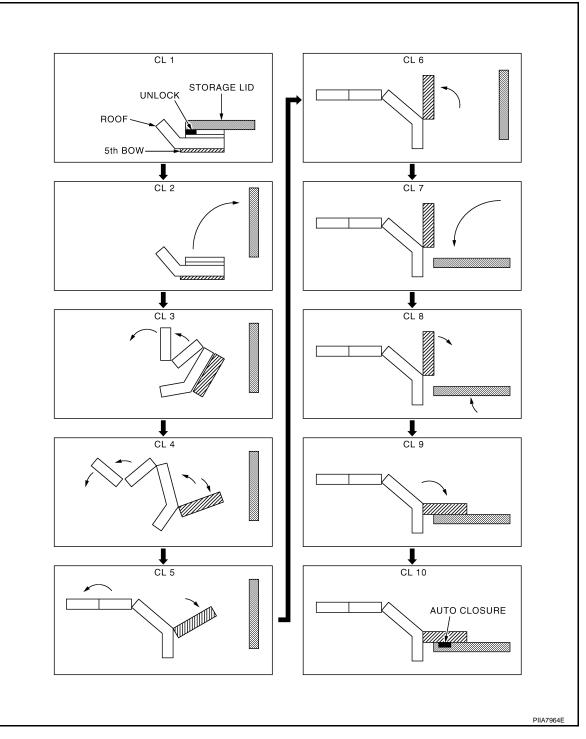
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### State Chart



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CL 5							]																			
CL 4							] 	·····																		
CL 3	++									 	······					······	}									
CL 2												L														
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itch	e motor	ch switch	h switch	j switch	actuator	lator	detectic	detectic			stuator	l open vitch			ch (LH)	ttor	letection		preventi	erence	witch	letection	inest sin		tmp	
ITEM Soft top switch	5th bow closure motor	5th bow half-latch switch	5th bow full-latch switch	5th bow ending switch	5th bow unlock actuator	5th bow actuator	full open	ull close	switch		Storage lid actuator	Storage lid full open detection switch	Storage lid full close	Storage lid full close	detection switch (LH)	Roof actuator	Roof full open detection	switch	rterence switch	Roll bar interference	prevention switch	Roof full close detection			Indicator lamp	
S S	5th bo	5th bow	5th bow	5th bo	5th bow	5th	5th bow full open detection	5th bow full close detection		storage lid unlock actuator	Stora	Stora dete	Stora	Stora	detect	Rc	Roof fu		Body interference prevention switch	Roll b	prev	Roof fu	Switcil Power window request signal		Inc	
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Each Switch and Actuator Signal Chart

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Blinks : The soft top cannot be operated, do not response or front lock is unlocked at the fully closed position

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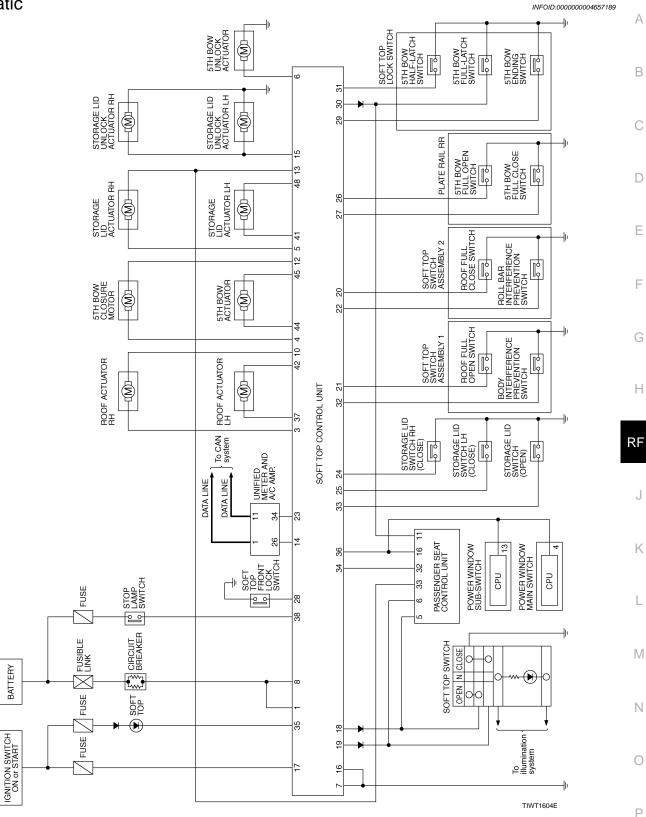
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### < SERVICE INFORMATION >

		The operation stops	when the soft top is,	
	State of roof	full open or full close	in position on the way	Operation
	Operational condition	Turning off	Lighting	Lighting
	When battery voltage decreases remarkably	Turning off	Lighting	Lighting
Out of operational	Brake pedal is not depressed	Turning off	Lighting	Lighting
condition	Vehicle speed is 5 km/h (3 MPH) or more	Turning off	Lighting	Lighting
	Ignition switch: OFF	Turning off	Turning off*	Turning off*
	any switch of the system	Turning off	Lighting	Blinking
Malfunction of	soft top control unit	Blinking	Blinking	Blinking
	vehicle speed signal	Blinking	Blinking	Blinking

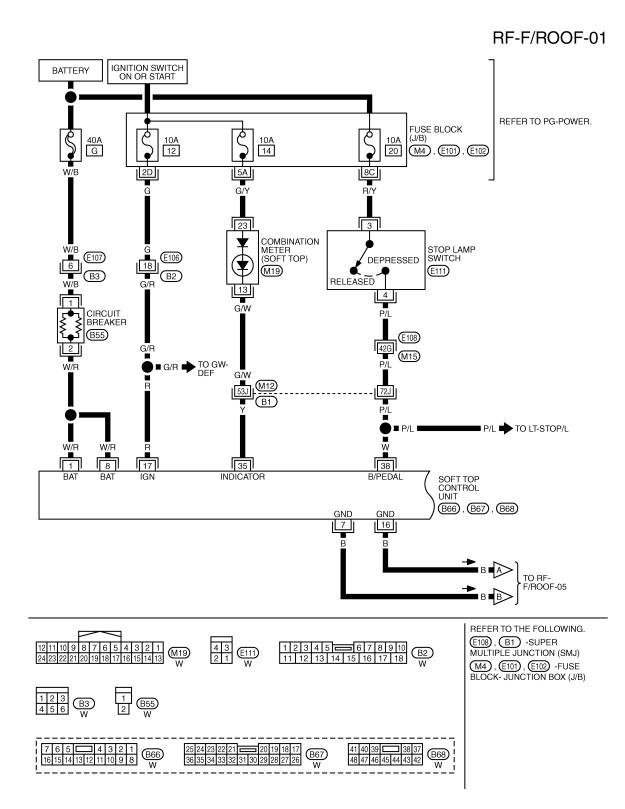
\*: The soft top operates for approximately 30 seconds after turn ignition switch OFF.

Schematic



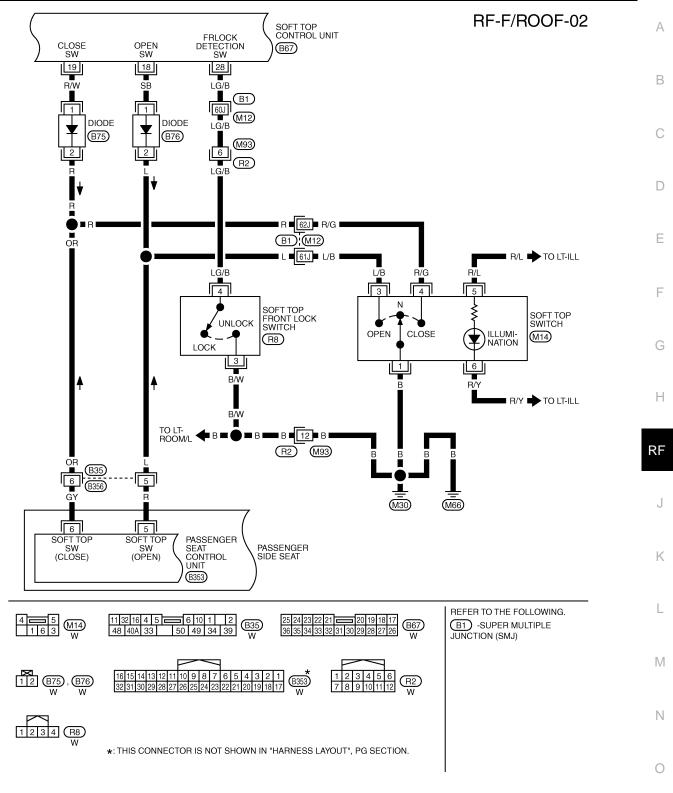
# Wiring Diagram - F/ROOF -

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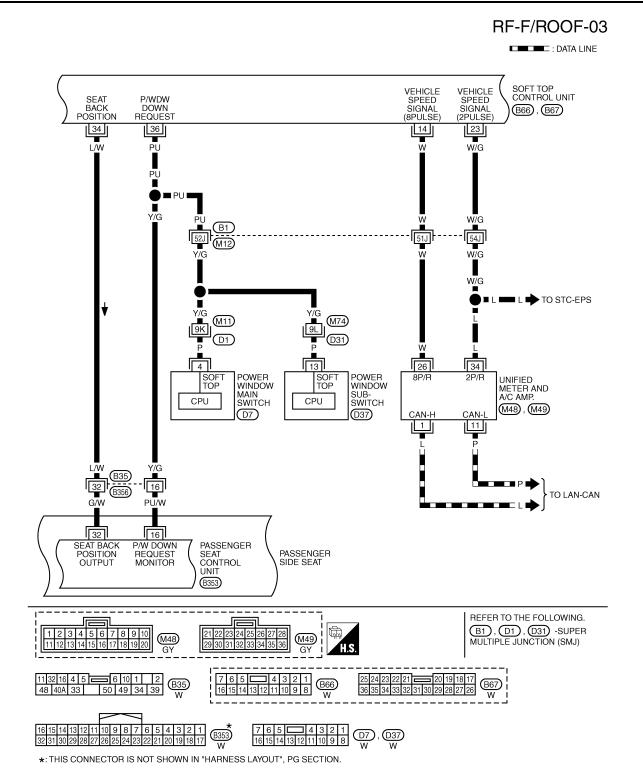


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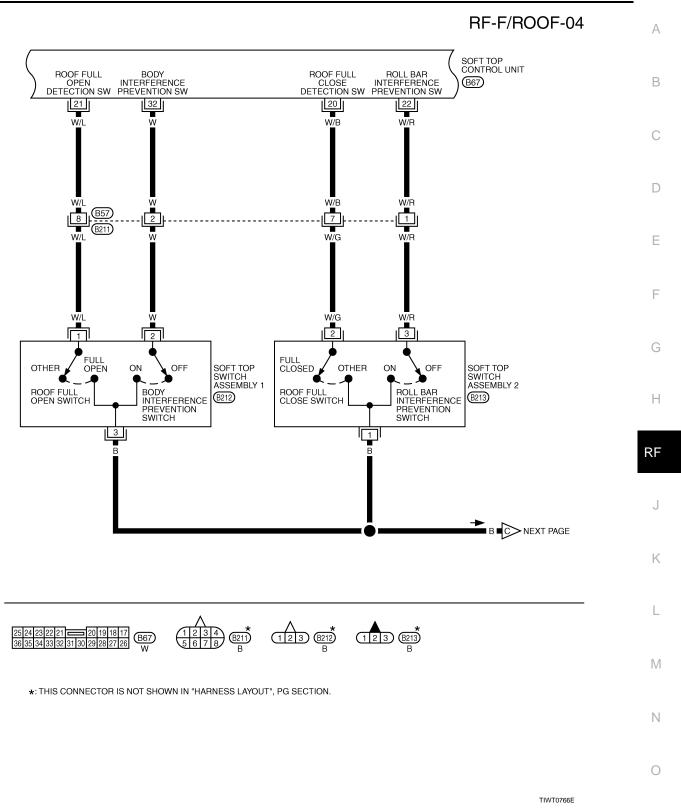
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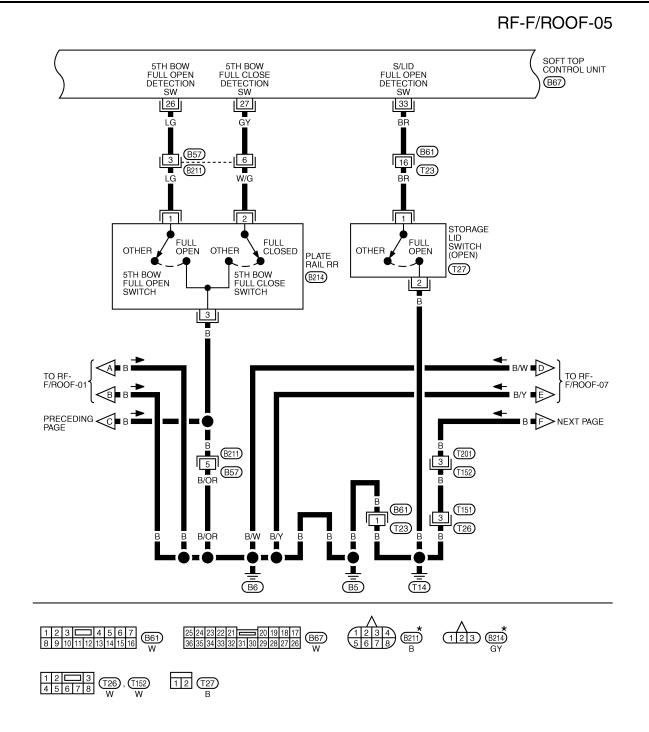


TIWT1607E



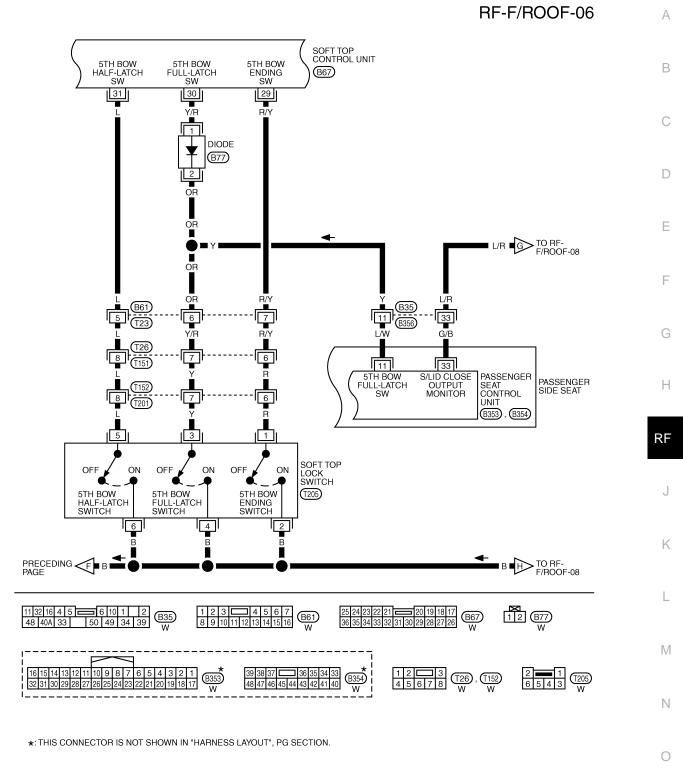
### < SERVICE INFORMATION >



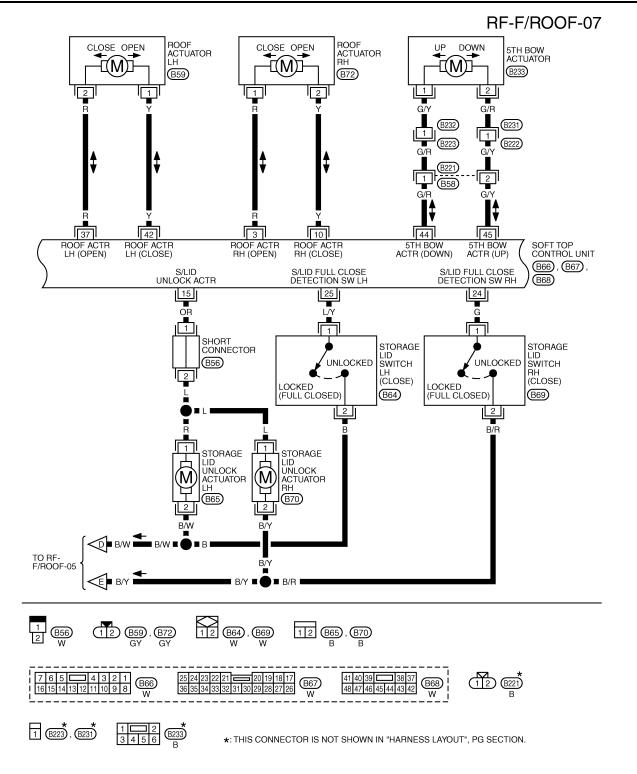


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

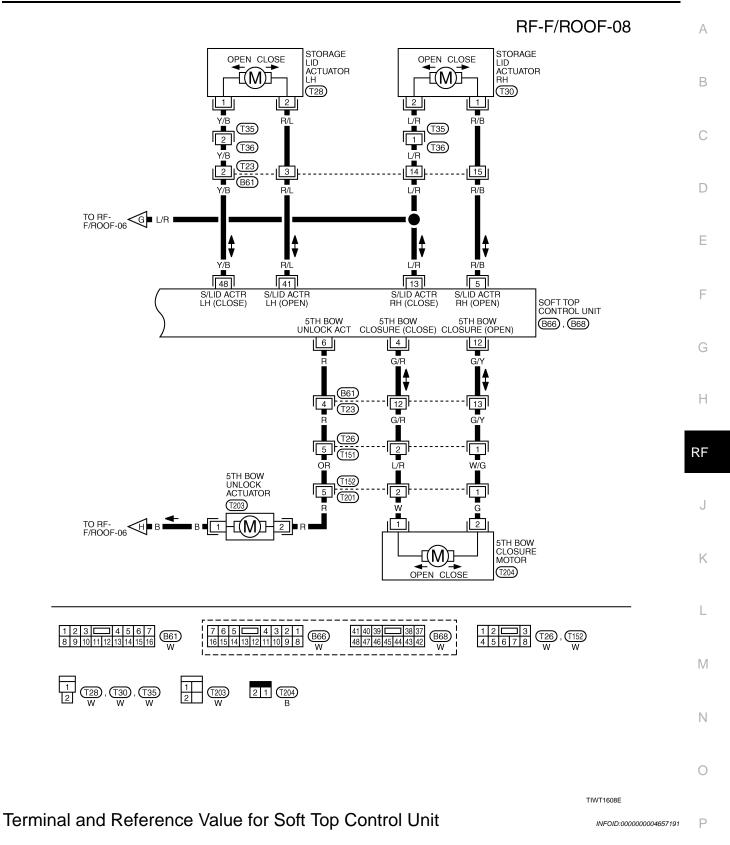
TIWT2283E



TIWT1791E



TIWT2284E



### $\mathsf{CLOSE} \to \mathsf{OPEN} \; \mathsf{OPERATION}$

The operation chart for roof position. Refer to RF-19, "Operation Chart".

### < SERVICE INFORMATION >

Termi-	Wire	Description		Condition	Value (V)				
nal No.	color	Signal name	Input/ Output	(Roof position: OP)	(Approx.)				
1	W/R	Battery power supply	Input	_	Battery voltage				
3	R	Roof actuator RH	Output	$OP8 \rightarrow OP11$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$				
3	ĸ	(OPEN) signal	Output	Other than above	0				
4	G/R	5th bow closure motor (CLOSE) signal	Output	—	0				
				$OP6 \rightarrow OP7$	$0 \rightarrow Battery voltage \rightarrow 0$				
5	R/B	Storage lid actuator RH (OPEN) signal	Output	OP12	$0 \rightarrow \text{Dattery voltage} \rightarrow 0$				
			-	Other than above	0				
	6		<b>0</b> / /	$OP2 \rightarrow OP3$	$0 \rightarrow Battery \ voltage \rightarrow 0$				
6	R	5th bow unlock actuator signal	Output	Other than above	0				
7	В	Ground		_	0				
8	W/R	Battery power supply	Input	_	Battery voltage				
10	Y	Roof actuator RH (CLOSE) signal	Output	_	0				
10	<u> </u>	5th bow closure motor	<b>0</b> / /	OP4	$0 \rightarrow \text{Battery voltage} \rightarrow 0$				
12	G/Y	(OPEN) signal	Output	Other than above	0				
10	Storage lid actuator RH			$OP11 \rightarrow OP12$	$0 \rightarrow Battery \ voltage \rightarrow 0$				
13	L/R	(CLOSE) signal	Output	Other than above	0				
14	W	Speed signal (8 pulse)	Input/ Output	Speed meter operate [When vehicle speed is Approx. 40km/h (25 MPH)]	(V) 15 10 5 0 • • • 20ms PKIA1935E				
15	OR	Storage lid unlock actuator LH and	Output	$OP5 \rightarrow OP6$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$				
15	UK	RH signal	Output	Other than above	0				
16	В	Ground	_	—	0				
17	R	Ignition switch (ON or START)	Input	Ignition switch (ON or START position)	Battery voltage				
18	SB	Soft top switch (OPEN) signal	Input	Soft top switch open operate	0				
				Other than above	5				
19	R/W	Soft top switch (CLOSE) signal	Input	Soft top switch close operate	0				
		(OLOGE) Signal		Other than above	5				
20	W/B	Roof full close detection switch sig- nal	Input	OP8	$5 \rightarrow 0$				
21	W/L	Roof full open detection switch sig- nal	Input	OP11	$5 \rightarrow 0$				
22	W/R	Roll bar interference prevention switch signal	Input	OP9	$5 \rightarrow 0$				

## < SERVICE INFORMATION >

<b>T</b> a	14/5-1-	Description		0	114 :		
Termi- nal No.	Wire - color	Signal name	Input/ Output		ndition osition: OP)	Value (V) (Approx.)	
23	W/G	Speed signal (2 pulse)	Input/ Output	[When vel	eter operate hicle speed is ‹m/h (25 MPH)]	(V) 15 0 5 0 5 0 5 0 5 0 8 10 10 10 10 10 10 10 10 10 10 10 10 10	
24	G	Storage lid full close detection switch (RH) signal	Input	OP5	$\rightarrow$ OP12	$5 \rightarrow 0 \rightarrow 5$	
25	L/Y	Storage lid full close detection switch (LH) signal	Input	OP6	$\rightarrow$ OP11	$5 \rightarrow 0 \rightarrow 5$	
26	LG	5th bow full open detection switch signal	Input		→ OP7 0P10	$5 \to 0 \to 5$ $5 \to 0$	
27	GY	5th bow full close detection	Input	OP4	$\rightarrow$ OP8	$5 \rightarrow 0 \rightarrow 5$	
		switch signal		(	OP9 : Lock	$5 \rightarrow 0$ 5	
28	LG/B	Soft top front lock detection switch signal	Input	Front lock	: Unlock	0	
29	R/Y	5th bow ending switch signal	Input	(	DP4	$5 \rightarrow 0$	
30	Y/R	5th bow full-latch switch signal	Input	(	OP4	$5 \rightarrow 0$	
31	L	5th bow half-latch switch signal	Input	OP3		$5 \rightarrow 0$	
32	W	Body interference prevention switch signal	Input	OP10		$5 \rightarrow 0$	
33	BR	Storage lid full open detection switch signal	Input	$OP7 \rightarrow OP11$		$5 \rightarrow 0 \rightarrow 5$	
34	L/W	Seat back position signal	Input		ssenger seat s forward	0	
				Other t	han above	5	
35	Y	Indicator Jamp signal	loput	OP1	$\rightarrow$ OP12	0	
30	T	Indicator lamp signal	Input	Other t	han above	Battery voltage	
36	PU	Power window down signal	Output	OP1	→OP11	0	
50	FU	Fower window down signal	Output	Other t	han above	5	
37	R	Roof actuator LH	Output	OP8	$\rightarrow$ OP11	$0 \rightarrow Battery voltage \rightarrow 0$	
51		(OPEN) signal	Output	Other t	han above	0	
38	w	Brake pedal signal	Input	Brake pedal	: Depressed	Battery voltage	
00		Brane pedar olghar	mput	Braile peda	: Released	0	
41	R/L	Storage lid actuator LH	Output		$\rightarrow$ OP7	$0 \rightarrow Battery voltage \rightarrow 0$	
		(OPEN) signal	Calput	OP12 Other than above		0	
42	Y	Roof actuator LH (CLOSE) signal	Output	_		0	
44	G/R	5th bow actuator	Output	OP7	$\rightarrow OP8$	$0 \rightarrow Battery \ voltage \rightarrow 0$	
<b>+</b>	0/1	(DOWN) signal		Other than above		0	
45	G/V	5th bow actuator	Output		$\rightarrow$ OP5 $\rightarrow$ OP10	$0 \rightarrow Battery voltage \rightarrow 0$	
45 G/Y		(UP) signal	Julpul			0	

### < SERVICE INFORMATION >

Termi-	Wire	Description		Condition	Value (V)			
	color	Signal name	Input/ Output	(Roof position: OP)	(Approx.)			
48	Y/B	Storage lid actuator LH	Output	$OP11 \rightarrow OP12$	$0 \rightarrow Battery \ voltage \rightarrow 0$			
40	1/0	(CLOSE) signal	Culput	Other than above	0			

### $\mathsf{OPEN} \to \mathsf{CLOSE} \; \mathsf{OPERATION}$

The operation chart for roof position. Refer to <u>RF-19, "Operation Chart"</u>.

Termi-	Wire	Description		Condition	Value (V)			
nal No.	color	Signal name	Input/ Output	(Roof position: CL)	(Approx.)			
1	W/R	Battery power supply	Input	—	Battery voltage			
3	R	Roof actuator RH (OPEN) signal	Output	—	0			
4	G/R	5th bow closure motor	Output	CL10	$0 \rightarrow \text{Battery voltage} \rightarrow 0$			
4	G/R	(CLOSE) signal	Output	Other than above	0			
				$\text{CL2} \rightarrow \text{CL3}$				
5	R/B	Storage lid actuator RH (OPEN) signal	Output	CL8	$0 \rightarrow \text{Battery voltage} \rightarrow 0$			
		(01 <u>1</u> 1) olginal		Other than above	0			
6	R	5th bow unlock actuator signal	Output	—	0			
7	В	Ground	—	_	0			
8	W/R	Battery power supply	Input	_	Battery voltage			
10	V	Roof actuator RH	0	$\text{CL3} \rightarrow \text{CL6}$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$			
10	Y	(CLOSE) signal	Output	Other than above	0			
12	G/Y	5th bow closure motor (OPEN) signal	Output	_	0			
40		Storage lid actuator RH	Output	$CL7 \rightarrow CL8$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$			
13	13 L/R (CLOSE) signal		Output	Other than above	0			
14	W	Speed signal (8 pulse)	Input/ Output	Speed meter operate [When vehicle speed is Approx. 40 km/h (25 MPH)]	(V) 15 10 5 0 • • • 20ms PKIA1935E			
15	OB	Storage lid unlock actuator LH	Output	$\text{CL1} \rightarrow \text{CL2}$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$			
15	OR	and RH signal	Output	Other than above	0			
16	В	Ground	—	—	0			
17	R	Ignition switch (ON or START)	Input	Ignition switch (ON or START position)	Battery voltage			
18	SB	Soft top switch (OPEN) signal	Input	Soft top switch open operate	0			
				Other than above	5			
19	R/W	Soft top switch	Input	Soft top switch close operate	0			
13	17/77	(CLOSE) signal	mput	Other than above	5			
20	W/B	Roof full close detection switch signal	Input	CL6	$0 \rightarrow 5$			

# < SERVICE INFORMATION >

Termi-	Wire	Description		Cor	ndition	Value (V)
nal No.	color	Signal name	Input/ Output		osition: CL)	(Approx.)
21	W/L	Roof full open detection switch signal	Input	C	CL3	$0 \rightarrow 5$
22	W/R	Roll bar interference prevention switch signal	Input	C	CL5	$0 \rightarrow 5$
23	W/G	Speed signal (2 pulse)	Input/ Output	[When veh	eter operate nicle speed is xm/h (25 MPH)]	(V) 15 0 50 50 50 50 50 50 50 50 50 50 50 50
24	G	Storage lid full close detection switch (RH) signal	Input	CL1	$\rightarrow$ CL8	$5 \rightarrow 0 \rightarrow 5$
25	L/Y	Storage lid full close detection switch (LH) signal	Input	CL2	$\rightarrow$ CL7	$5 \rightarrow 0 \rightarrow 5$
				C	CL4	$0 \rightarrow 5$
26	LG	5th bow full open detection switch signal	Input	C	CL7	$5 \rightarrow 0$
		enter orgitur		C	CL8	$0 \rightarrow 5$
07	01	5th bow full close	Innut	CL5	$\rightarrow$ CL6	$0 \rightarrow 5 \rightarrow 0$
27	GY	detection switch signal	Input	CL9		$0 \rightarrow 5$
28	LG/B	Soft top front lock detection switch signal	Input	Front lock	: Lock : Unlock	5
29	R/Y	5th bow ending switch signal	Input	С	L10	$0 \rightarrow 5$
30	Y/R	5th bow full-latch switch signal	Input		L10	$0 \rightarrow 5$
31	L	5th bow half-latch switch signal	Input		$\rightarrow$ CL10	$0 \rightarrow 5$
32	W	Body interference prevention switch signal	Input		CL3	$0 \rightarrow 5$
33	BR	Storage lid full open detection switch signal	Input	CL3	$\rightarrow$ CL7	$5 \rightarrow 0 \rightarrow 5$
34	L/W	Seat back position signal	Input		ssenger seat s forward	0
				Other th	nan above	5
35	Y	Indicator lamp signal	Input	CL1 -	$\rightarrow$ CL10	0
55	1	וויטוטמנטו ומוויף אופוומו	input	Other th	nan above	Battery voltage
36	PU	Power window down signal	Output	CL1 -	$\rightarrow$ CL10	0
50	10		Output	Other th	nan above	5
37	R	Roof actuator LH (OPEN) signal	Output			0
38	W	Brake pedal signal	Input	Brake pedal	: Depressed	Battery voltage
50	vv		input		: Released	0
41	R/L	Storage lid actuator LH (OPEN) signal	Output	$CL2 \rightarrow CL3$ $CL8$		$0 \rightarrow Battery voltage \rightarrow 0$
				Other th	nan above	0
42	Y	Roof actuator LH (CLOSE) signal	Output	CL3	$\rightarrow$ CL6	$0 \rightarrow Battery voltage \rightarrow 0$

# < SERVICE INFORMATION >

Termi-	Wire	Description		Condition	Value (V)	
nal No.	color	Signal name	Input/ (Roof position: CL) Output		(Approx.)	
44	G/R	5th bow actuator	Output	$CL4 \rightarrow CL5$	$0 \rightarrow Battery voltage \rightarrow 0$	
-++	0/1	(DOWN) signal	Calput	$CL8 \rightarrow CL10$	$0 \rightarrow \text{Dattery Voltage} \rightarrow 0$	
45	G/Y	5th bow actuator (UP) signal	Output	$CL6 \rightarrow CL7$	$0 \rightarrow Battery voltage \rightarrow 0$	
48	V/B	Storage lid actuator LH	Output	$CL7 \rightarrow CL8$	$0 \rightarrow Battery \ voltage \rightarrow 0$	
40	Y/B (CLOSE) signal Output -	(CLOSE) signal	Other than above	0		

Work Flow

INFOID:000000004657192

- 1. Check the symptom and customer's requests.
- 2. Understand the outline of system. Refer to <u>RF-13. "System Description"</u>.
- 3. According to the trouble diagnosis chart, repair or replace the cause of the malfunction. Refer to <u>RF-38</u>, <u>"Trouble Diagnosis Chart by Symptom"</u>.
- 4. Does soft top system operate normally? If Yes, GO TO 5. If No, GO TO 3.
- 5. INSPECTION END.

# Trouble Diagnosis Chart by Symptom

INFOID:000000004657193

# $(\mathsf{CLOSE} \to \mathsf{OPEN})$

The operation chart for roof position. Refer to <u>RF-19, "Operation Chart"</u>.

Symptom	Diagnostic procedure and repair order	Roof position	Refer to page
	1. Check soft top control unit power supply	OP1	<u>RF-40</u>
	2. Check soft top switch (Open)	OP1	<u>RF-41</u>
	3. Check operation permission condition	OP1	<u>RF-73</u>
	4. Check each switch condition (Open operate)	Full close	<u>RF-75</u>
Roof does not operate	5. Check seat back position signal	OP1	<u>RF-77</u>
	6. Check 5th bow unlock actuator (Open operate)	OP2	<u>RF-44</u>
	7. Check 5th bow half-latch switch (Open operate)	OP2	<u>RF-44</u>
	8. Check 5th bow actuator (Open operate)	OP3	<u>RF-45</u>
	1. Check 5th bow full close detection switch (Open operate)	OP4	<u>RF-46</u>
	2. Check 5th bow full open detection switch (Open operate)	OP5	<u>RF-47</u>
5th bow operation stops at full open position	3. Check storage lid unlock actuator (Open operate)	OP5	<u>RF-48</u>
	4. Check storage lid full close detection switch (LH and RH) (Open operate)	OP5.6	<u>RF-49</u>
	5. Check storage lid actuator (Open operate)	OP6	<u>RF-50</u>
Storage lid operation stops at full open position	Check storage lid full open detection switch (Open operate)	OP7	<u>RF-51</u>
Roof does not operate	Check roof actuator (Open operate)	OP8	<u>RF-53</u>
Roof stops on the way	Check roll bar interference prevention switch (Open operate)	OP8	<u>RF-53</u>
Storage lid operation stops at full open position after the roof	1. Check body interference prevention switch (Open operate)	OP10	<u>RF-55</u>
s stored.	2. Check roof full open detection switch	OP10	<u>RF-56</u>

# < SERVICE INFORMATION >

Symptom	Diagnostic procedure and repair order	Roof position	Refer to page	-
Passenger side seat back does	1. Check passenger side seat cancel switch	OP1	<u>SE-49</u>	1
not operate.	2. Check passenger side seat operate signal 1	OP1	<u>RF-76</u>	-
Passenger side seat bock does not return to former state	Check passenger side seat operate signal 2	OP10	<u>RF-77</u>	
Power window down does not operate.	Check power window harness	OP1	<u>RF-76</u>	-
Both power window down and passenger seat are not operated.	Check power window down request signal	OP1	<u>RF-76</u>	-
Indicator lamp does not light. (soft top operates properly)	Check indicator lamp circuit	_	<u>RF-79</u>	-
Indicator lamp blinks when IGN SW: OFF $\rightarrow$ ON is done.	Replace soft top control unit	_	<u>RF-80</u>	_
Indicator lamp blinks when be- ginning to run.	Check speed signal	_	<u>RF-78</u>	-

# $(OPEN \rightarrow CLOSE)$

The operation chart for roof position. Refer to RF-19, "Operation Chart".

Symptom	Diagnostic procedure and repair order	Roof position	Refer to page	G
	1. Check soft top control unit power supply	CL1	<u>RF-40</u>	_
	2. Check soft top switch (Close)	CL1	<u>RF-42</u>	H
	3. Check operation permission condition	CL1	<u>RF-73</u>	_
	4. Check each switch condition (Close operate)	Full open	<u>RF-75</u>	_
Roof does not operate	5. Check seat back position signal	CL1	<u>RF-77</u>	RF
	6. Check storage lid unlock actuator (Close operate)	CL1	<u>RF-57</u>	_
	7. Check storage lid full close detection switch (LH and RH) (Close operate)	CL1.2	<u>RF-58</u>	J
	8. Check storage lid actuator (Close operate)	CL2	<u>RF-59</u>	– K
Storage lid operation stops at	1. Check roof actuator (Close operate)	CL2	<u>RF-62</u>	- N
full open position	2. Check body interference prevention switch (Close operate)	CL3	<u>RF-61</u>	_
	1. Check storage lid full open detection switch (Close operate)	CL3	<u>RF-60</u>	
Roof stops on the way	2. Check roof full close detection switch (Close operate)	CL5	<u>RF-63</u>	M
	3. Check 5th bow actuator (Close operate)	CL5	<u>RF-65</u>	_
Operation stops after 5th bow operates down	Check 5th bow full close detection switch (Close operate)	CL5	<u>RF-65</u>	N
Operation stops after 5th bow operates up	Check 5th bow full open detection switch (Close operate)	CL6	<u>RF-66</u>	0
	1. Check 5th bow half-latch switch	CL10	<u>RF-67</u>	_ 0
Auto closure of 5th bow does	2. Check 5th bow full-latch switch	CL10	<u>RF-69</u>	_
not operate.	3. Check 5th bow ending switch	CL10	<u>RF-70</u>	P
	4. Check 5th bow closure motor	CL10	<u>RF-71</u>	
Passenger side seat back does	1. Check passenger side seat cancel switch	CL1	<u>SE-49</u>	_
not operate.	2. Check passenger side seat operate signal 1	CL1	<u>RF-76</u>	
Passenger side seat back does not return to former state	Check passenger side seat operate signal 3	CL10	<u>RF-77</u>	_

# < SERVICE INFORMATION >

Symptom	Diagnostic procedure and repair order	Roof position	Refer to page
Power window down does not operate.	Check power window harness	CL1	<u>RF-76</u>
Both power window down and passenger seat are not operated.	Check power window down request signal	CL1	<u>RF-76</u>
Indicator lamp does not light. (soft top operates properly)	Check indicator lamp circuit	_	<u>RF-79</u>
Indicator lamp blinks when IGN SW: OFF $\rightarrow$ ON is done.	Replace soft top control unit	_	<u>RF-80</u>
Indicator lamp blinks when be- ginning to run.	Check speed signal	_	<u>RF-78</u>
Indicator lamp blinks when soft top front lock is unlock at the ful- ly closed position.	Check soft top front lock switch	Full close	<u>RF-73</u>

# Check Soft Top Control Unit Power Supply (OP, CL)

INFOID:000000004657194

# **1.**CHECK FUSE

- Check 10A fuse [No.12, located in the fuse block (J/B)]
- Check 40A fusible link (letter **G** located in the fuse and fusible link box.) **NOTE:**

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

# <u>OK or NG</u>

OK >> GO TO 2.

NG >> If fuse blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4.

# 2. CHECK POWER SUPPLY CIRCUIT

- 1. Start engine.
- 2. Check voltage between soft top control unit connector B66, 67 terminal 1, 8, 17 and ground.

1 (W/R) - Ground	: Battery voltage
8 (W/R) - Ground	: Battery voltage
17 (R) - Ground	: Battery voltage

# <u>OK or NG</u>

- OK >> GO TO 3.
- NG >> Check soft top control unit power supply circuit for open or short.

# n

# 3. CHECK GROUND CIRCUIT

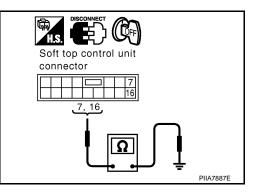
- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit connector.
- Check continuity between soft top control unit connector B66 terminal 7, 16 and ground.

7 (B) - Ground

: Continuity should exist.

# 16 (B) - Ground : Continuity should exist.

- <u>OK or NG</u>
- OK >> Power supply and ground circuit are OK.
- NG >> Check soft top control unit ground circuit for open or short.



# < SERVICE INFORMATION >

# Check Soft Top Switch (OPEN)

А

В

D

Ε

F

# 1.CHECK SOFT TOP OPEN SWITCH SIGNAL

- 1. Start engine.
- 2. Check soft top control unit connector and ground.

Connector	Terminal (Wire color)		Soft top switch	Voltage (V) (Ap-	
Connector	(+)	(-)	Condition	prox.)	
B67	18 (SB) Gr	Ground	OPEN	0	
007	10 (00)	Gibunu	Other than above	5	

## <u>OK or NG</u>

OK >> Soft top switch (OPEN) is OK.

NG >> GO TO 2.

# 2. CHECK SOFT TOP SWITCH GROUND CIRCUIT

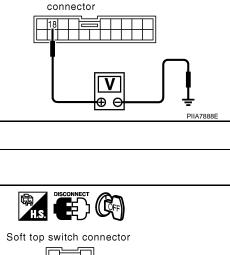
- 1. Turn ignition switch OFF.
- 2. Disconnect soft top switch connector.
- 3. Check continuity between soft top switch connector M14 terminal 1 and ground.

## 1 (B) - Ground : Continuity should exist.

## OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



Soft top control unit

# RF

J

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Н

# **3.**CHECK SOFT TOP SWITCH

Soft top switch operate, check continuity between soft top switch connector M14 terminal 1 and 3.

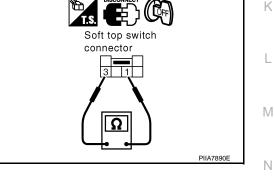
SOFT TOP

Connector	Terminal		Soft top switch Condition	Continuity
M14	1 3	3	OPEN	Yes
10114		Other than above	No	

# <u>OK or NG</u>

OK >> GO TO 4.

NG >> Replace soft top switch.



# **4.**CHECK SOFT TOP SWITCH CIRCUIT

- 1. Check continuity between soft top control unit connector B67 terminal 18 and soft top switch connector M14 terminal 3.
- Р

# < SERVICE INFORMATION >

Connector	Terminal (Wire color) (+)	Connector	Terminal (Wire color) (-)	Continuity
B67	18 (SB)	M14	3 (L/B)	No
M14	3 (L/B)	B67	18 (SB)	Yes

2. Check continuity between soft top control unit connector B67 terminal 18 and ground.

## 18 (SB) - Ground

# I : Continuity should not exist.

## OK or NG

OK >> GO TO 5.

NG >> Repair or replace harness.

# 5. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 18 and ground.

## 18 (SB) - Ground : Approx. 5V

## OK or NG

- OK >> Check condition of harness and connector.
- NG >> Replace soft top control unit.

# Check Soft Top Switch (CLOSE)

# 1. CHECK SOFT TOP CLOSE SWITCH SIGNAL

- 1. Start engine.
- 2. Check soft top control unit connector and ground.

Connector	Terminal (Wire color)		Soft top	Voltage (V)	
Connector	(+)	(-)	switch Condition	(Approx.)	
B67	19 (R/W)	Ground	CLOSE	0	
507	13 (10/00)	Ciouna	Other than above	5	

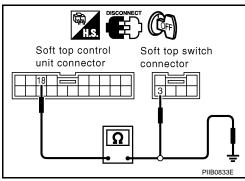
# <u>OK or NG</u>

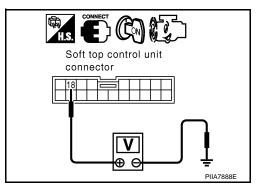
OK >> Soft top switch (CLOSE) is OK.

NG >> GO TO 2.

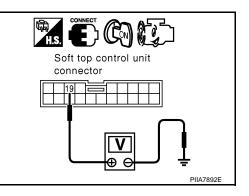
# **2.**CHECK SOFT TOP SWITCH GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top switch connector.





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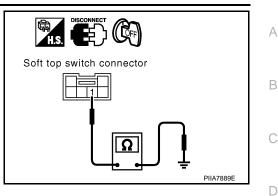
# < SERVICE INFORMATION >

3. Check continuity between soft top switch connector M14 terminal 1 and ground.

## 1 (B) - Ground : Continuity should exist.

## OK or NG

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



# 3. CHECK SOFT TOP SWITCH

Soft top switch operate, check continuity between soft top switch connector M14 terminal 1 and 4.

Connector	Terminal		Soft top switch Condition	Continuity
M14	1 4	1	CLOSE	Yes
10114		Other than above	No	

## <u>OK or NG</u>

OK >> GO TO 4.

NG >> Replace soft top switch.

# CHECK SOFT TOP SWITCH CIRCUIT

 Check continuity between soft top control unit connector B67 terminal 19 and soft top switch connector M14 terminal 4.

Connector	Terminal (Wire color) (+)	Connector	Terminal (Wire color) (-)	Continuity
B67	19 (R/W)	M14	4 (R/G)	No
M14	4 (R/G)	B67	19 (R/W)	Yes

2. Check continuity between soft top control unit connector B67 terminal 19 and ground.

# 19 (R/W) - Ground : Continuity should not exist.

## OK or NG

- OK >> GO TO 5.
- NG >> Repair or replace harness.

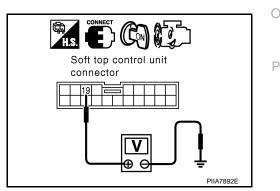
 ${f 5.}$ CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

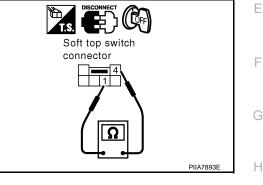
- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 19 and ground.

# 19 (R/W) - Ground : Approx. 5V

## <u>OK or NG</u>

- OK >> Check condition of harness and connector.
- NG >> Replace soft top control unit.





(( [[6]

connector

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Soft top switch

Soft top control

unit connector



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# < SERVICE INFORMATION >

# Check 5th Bow Unlock Actuator (Open Operate)

# 1.CHECK 5TH BOW UNLOCK ACTUATOR SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between soft top control unit connector and ground.

Con-	Terminal (	Wire color)	Roof Condition	Voltage (V)	
nector (+	(+)	(-)		(Approx.)	
B66	6 (R)	Ground	$OP1 \rightarrow OP2$	$0 \rightarrow Battery voltage$	

# OK or NG

OK >> GO TO 2.

NG >> Replace soft top control unit.

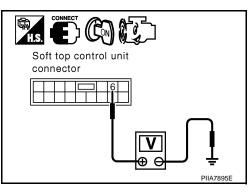
# **2.**CHECK 5TH BOW UNLOCK ACTUATOR GROUND CIRCUIT

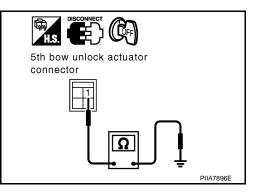
- 1. Turn ignition switch OFF.
- 2. Disconnect 5th bow unlock actuator connector.
- 3. Check continuity between 5th bow unlock actuator connector T203 terminal 1 and ground.

#### 1 (B) - Ground : Continuity should exist.

## OK or NG

- OK >> Replace 5th bow unlock actuator.
- NG >> Repair or replace harness.





#### INFOID:000000004657198

# 1.CHECK 5TH BOW HALF-LATCH SWITCH SIGNAL CHECK

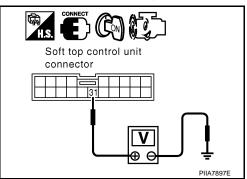
Check 5th Bow Half-Latch Switch (Open Operate)

- 1. Start engine.
- Operate soft top switch OPEN, check voltage between soft top control unit connector and ground. 2.

(+) (-) (Approx.)	Connector	Terminal (Wire color)		Roof condition	Voltage (V)
		(+)	(-)		(Approx.)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	B67	31 (L)	Ground	$OP2 \rightarrow OP3$	$5 \rightarrow 0$

# OK or NG

- OK >> Soft top lock switch (5th bow half-latch switch) is OK. NG
  - >> GO TO 2.



# 2.CHECK 5TH BOW HALF-LATCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and soft top lock switch (at 5th bow lock assembly in storage lid) connec-2. tor.

## < SERVICE INFORMATION >

3. Check continuity between soft top control unit connector B67 terminal 31 and soft top lock switch connector T205 terminal 5.

# 31 (L) - 5 (L) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 31 and ground.

## 31 (L) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

 ${
m 3.}$  CHECK 5TH BOW HALF-LATCH SWITCH GROUND CIRCUIT

Check continuity between soft top lock switch connector T205 terminal 6 and ground.

## 6 (B) - Ground : Continuity should exist.

## <u>OK or NG</u>

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



- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 31 and ground.

## 31 (L) - Ground : Approx. 5V

# OK or NG

- OK >> Replace Soft top lock switch (5th bow lock assembly in storage lid).
- NG >> Replace soft top control unit.

# Check 5th Bow Actuator (Open Operate)

# 1.CHECK 5TH BOW ACTUATOR INPUT SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between 5th bow actuator connector and ground.

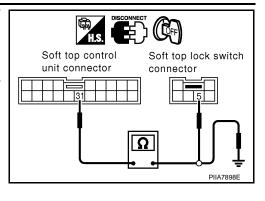
Con-	Terminal (	Wire color)	Roof condition	Voltage (V)	(Approx.)
nector	nector (+) (-)			(Αρριολ.)	
B233	2 (G/R)	Ground	$OP2 \rightarrow OP3$	$0 \rightarrow Battery$	y voltage

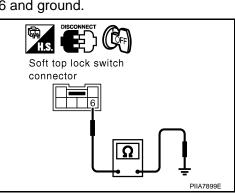
# <u>OK or NG</u>

OK >> Replace 5th bow actuator.

NG >> GO TO 2.

2. CHECK 5TH BOW ACTUATOR CIRCUIT





# Soft top control unit connector

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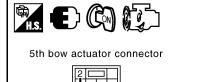
Н

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# < SERVICE INFORMATION >

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and 5th bow actuator connector.
- 3. Check continuity between soft top control unit connector B68 terminal 44, 45 and 5ht bow actuator connector B233 terminal 1, 2.

44 (G/R) - 1 (G/Y) 45 (G/Y) - 2 (G/R) : Continuity should exist.

R) : Continuity should exist.

4. Check continuity between soft top control unit connector B68 terminal 44, 45 and ground.

44 (G/R) - Ground 45 (G/Y) - Ground

# : Continuity should not exist. : Continuity should not exist.

OK or NG

OK >> Replace soft top control unit.

NG >> Repair or replace harness.

# Check 5th Bow Full Close Detection Switch (Open Operate)

# **1.**CHECK 5TH BOW FULL CLOSE DETECTION SWITCH SIGNAL

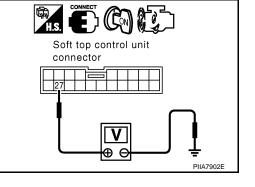
- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between soft top control unit connector and ground.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V)
Connector	(+)	(-)		(Approx.)
B67	27 (GY)	Ground	$OP3 \rightarrow OP4$	$5 \rightarrow 0$

# OK or NG

OK >> Plate rail RR (5th bow full close switch) is OK.

NG >> GO TO 2.



INFOID:000000004657200

# 2.check 5th bow full close detection switch circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and 5th bow switch assembly (at plate rail RR) connector.
- Check continuity between soft top control unit connector B67 terminal 27 and 5th bow switch assembly connector B214 terminal 2.

# 27 (GY) - 2 (W/G) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 27 and ground.

## 27 (GY) - Ground

: Continuity should not exist.

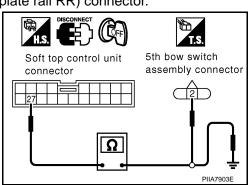
# OK or NG

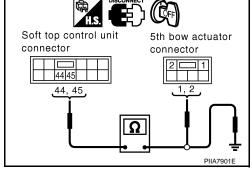
OK >> GO TO 3.

NG >> Repair or replace harness.

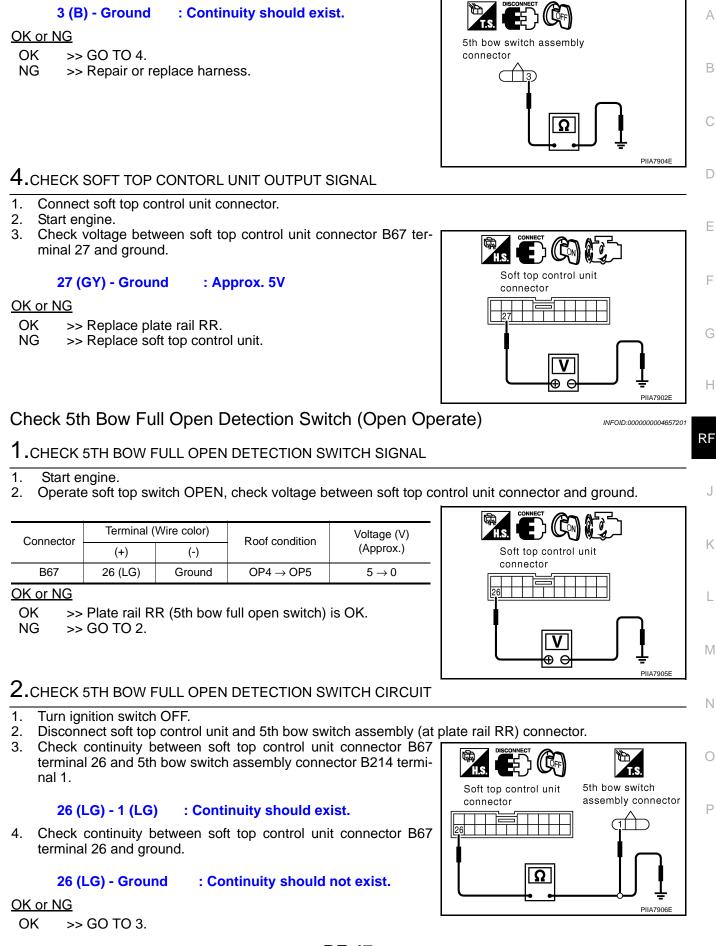
3.check 5th bow full close detection switch ground circuit

Check continuity between 5th bow switch assembly connector B214 terminal 3 and ground.





Revision: 2009 October



## < SERVICE INFORMATION >

#### NG >> Repair or replace harness.

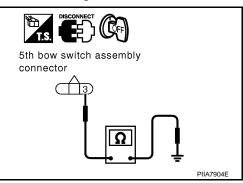
**3.**CHECK 5TH BOW FULL OPEN DETECTION SWITCH GROUND CIRCUIT

Check continuity between 5th bow switch assembly connector B214 terminal 3 and ground.

#### : Continuity should exist. 3 (B) - Ground

## OK or NG

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



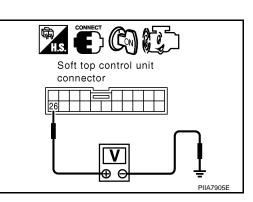
# 4. CHECK SOFT TOP CONTORL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 26 and ground.

#### 26 (LG) - Ground : Approx. 5V

## OK or NG

- OK >> Replace plate rail RR.
- NG >> Replace soft top control unit.



# Check Storage Lid Unlock Actuator (Open Operate)

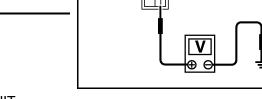
# 1. CHECK STORAGE LID UNLOCK ACTUATOR SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between storage lid unlock actuator (LH or RH) connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)
Connector	(+)	(-)		(Approx.)
B65 (LH)	1 (R)	Ground	$OP5 \rightarrow OP6$	$0 \rightarrow Battery voltage \rightarrow 0$
B70 (RH)	1 (L)	Giouna	$0F3 \rightarrow 0F0$	$0 \rightarrow \text{Ballery vollage} \rightarrow 0$
OK or NG				

# Storage lid unlock actuator connector PIIA7907E

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



# 2. CHECK STORAGE LID UNLOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and storage lid unlock actuator connector.

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# < SERVICE INFORMATION >

 Check continuity between soft top control unit connector B66 terminal 15 and storage lid unlock actuator connector B65 (LH), B70 (RH) terminal 1.

# B65 (LH) 15 (OR) - 1 (R) : Continuity should exist.

B70 (RH) 15 (OR) - 1 (L) : Continuity should exist.

4. Check continuity between soft top control unit connector B66 terminal 15 and ground.

# 15 (OR) - Ground : Continuity should not exist.

## <u>OK or NG</u>

- OK >> Replace soft top control unit.
- NG >> Repair or replace harness.

# ${f 3.}$ CHECK STORAGE LID UNLOCK ACTUATOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect storage lid unlock actuator connector.
- Check continuity between storage lid unlock actuator connector B65 (LH), B70 (RH) terminal 2 and ground.

B65 (LH) 2 (B/W) - Ground : Continuity should exist.

# B70 (RH) 2 (B/Y) - Ground : Continuity should exist.

## <u>OK or NG</u>

- OK >> Replace malfunction storage lid unlock actuator (LH or RH).
- NG >> Repair or replace harness.

Check Storage Lid Full Close Detection Switch (Open Operate)

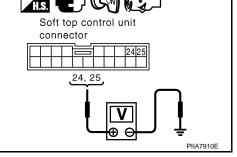
# **1.**CHECK STORAGE LID FULL CLOSE DETECTION SWITCH SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between soft top control unit connector and ground.

Connector		Terminal (	Wire color)	Roof condition	Voltage (V)	
Com	IECIOI	(+)	(-)		(Approx.)	
B67	RH	24 (G)	Ground	OP5	$5 \rightarrow 0$	
B07	LH	25 (L/Y)	Crodina	OP6	$J \rightarrow 0$	

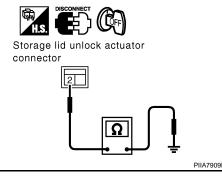
# OK or NG

OK >> Storage lid switch (LH & RH) (CLOSE) is OK. NG >> GO TO 2.



# 2.CHECK STORAGE LID FULL CLOSE DETECTION SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and storage lid switch (close) connector.
- 3. Check the following.



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# < SERVICE INFORMATION >

- Continuity between soft top control unit connector B67 terminal 25 and storage lid switch LH (close) connector B64 terminal 1.

# 25 (L/Y) - 1 (L/Y) : Continuity should exist.

Continuity between soft top control unit connector B67 terminal 25 and ground.

```
25 (L/Y) - Ground : Continuity should not exist.
```

- 4. Check the following.
- Continuity between soft top control unit connector B67 terminal 24 and storage lid switch RH (close) connector B69 terminal 1.

# 24 (G) - 1 (G) : Continuity should exist.

- Continuity between soft top control unit connector B67 terminal 24 and ground.

# 24 (G) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

 ${f 3.}$  CHECK STORAGE LID FULL CLOSE DETECTION SWITCH GROUND CIRCUIT

Check continuity between storage lid switch (close) connector B64 (LH), B69 (RH) terminal 2 and ground.

B64 (LH) 2 (B) - Ground : Continuity should exist.

# B69 (RH) 2 (B/R) - Ground : Continuity should exist.

# OK or NG

- OK >> GO TO 4. NG >> Repair or replace harness.
- NG >> Repair of replace namess.

# **4.**CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 24 (RH), 25 (LH) and ground.

24 (G) - Ground : Approx. 5V 25 (L/Y) - Ground : Approx. 5V

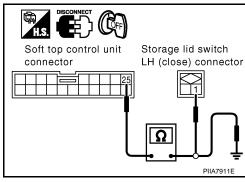
# OK or NG

- OK >> Replace malfunction storage lid switch (LH or RH) (CLOSE).
- NG >> Replace soft top control unit.

# Check Storage Lid Actuator (Open Operate)

# 1. CHECK STORAGE LID ACTUATOR (OPEN) SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between storage lid actuator connector and ground.



Storage lid switch

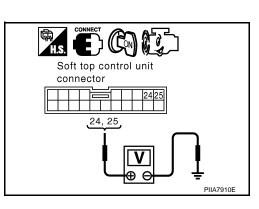
O

RH (close) connector

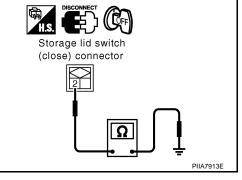
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Soft top control unit

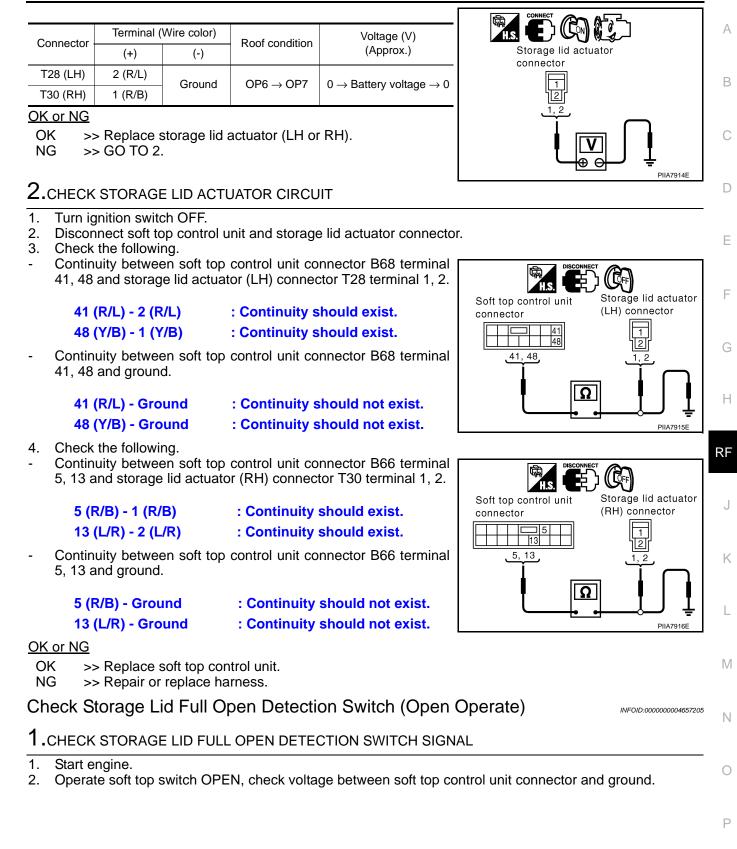
connector



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# < SERVICE INFORMATION >



# < SERVICE INFORMATION >

Connector	Terminal (	Wire color)	Roof condition	Voltage (V)	
Connector	(+)	(-)		(Approx.)	
B67	33 (BR)	Ground	$OP6 \rightarrow OP7$	$5 \rightarrow 0$	

## OK or NG

- OK >> Storage lid switch (OPEN) is OK.
- NG >> GO TO 2.

# Soft top control unit connector

Soft top control unit

connector

Storage lid switch (open) connector

PIIA7918E

# 2. CHECK SOTORAGE LID FULL OPEN DETECTION SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and storage lid switch (open) connector.
- Check continuity between soft top control unit connector B67 terminal 33 and storage lid switch (open) connector T27 terminal 1.

# 33 (BR) - 1 (BR) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 33 and ground.

# 33 (BR) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

 $\mathbf{3}.$  CHECK STORAGE LID FULL OPEN DETECTION SWITCH GROUND CIRCUIT

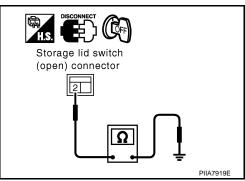
Check continuity between storage lid switch (open) connector T27 terminal 2 and ground.

# 2 (B) - Ground : Continuity should exist.

## OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



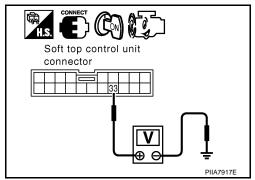
# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 33 and ground.

# 33 (BR) - Ground : Approx. 5V

# <u>OK or NG</u>

- OK >> Replace storage lid switch (open).
- NG >> Replace soft top control unit.



# < SERVICE INFORMATION >

# Check Roof Actuator (Open Operate)

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1.CHECK ROOF ACTUATOR (OPEN) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect roof actuator connector.
- 3. Start engine.
- Operate soft top switch (OPEN), check voltage between roof actuator connector and ground. 4.

Connector	Terminal (Wire color)		Roof condition	Voltage (V) (Approx.)
Connector	(+) (-)			
B59 (LH)	2 (R)	Ground	$OP8 \rightarrow OP11$	$0 \rightarrow Battery voltage \rightarrow 0$
B72 (RH)	1 (R)	Ground	OF6 → OF II	$0 \rightarrow \text{Ballery vollage} \rightarrow 0$

## OK or NG

- OK >> Replace roof actuator (LH or RH).
- NG >> GO TO 2.

# 2.check roof actuator circuit

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit connector.
- 3. Check the following.
- Continuity between soft top control unit connector B68 terminal 37, 42 and roof actuator (LH) connector B59 terminal 1, 2.
  - 37 (R) 2 (R) : Continuity should exist. 42 (Y) - 1 (Y) : Continuity should exist.
- Continuity between soft top control unit connector B68 terminal 37, 42 and ground.
  - 37 (R) Ground : Continuity should not exist. 42 (Y) - Ground : Continuity should not exist.
- Check the following. 4.
- Continuity between soft top control unit connector B66 terminal 3, 10 and roof actuator (RH) connector B72 terminal 1, 2.

3 (R) - 1 (R)	: Continuity should exist.
10 (Y) - 2 (Y)	: Continuity should exist.

- Continuity between soft top control unit connector B66 terminal 3, 10 and ground.
  - 3 (R) Ground 10 (Y) - Ground
- : Continuity should not exist.

: Continuity should not exist.

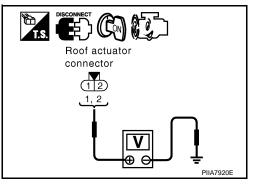
# OK or NG

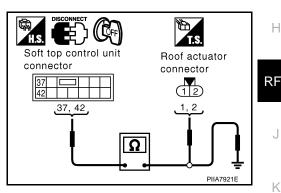
- OK >> Replace soft top control unit.
- NG >> Repair or replace harness.

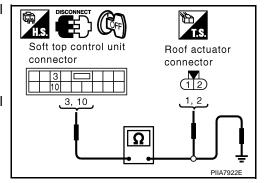
# Check Roll Bar Interference Prevention Switch (Open Operate)

# 1. CHECK ROLL BAR INTERFERENCE PREVENTION SWITCH SIGNAL

- 1. Start engine.
- Operate soft top switch OPEN, check voltage between soft top control unit connector and ground. 2.







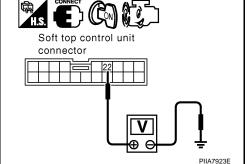
INFOID:000000004657207

# < SERVICE INFORMATION >

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
Connector	(+)	(-)		(Approx.)	
B67	22 (W/R)	Ground	$OP8 \rightarrow OP9$	$5 \rightarrow 0$	

## OK or NG

- OK >> Soft top switch assembly 2 is OK.
- NG >> GO TO 2.



Soft top switch

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assembly 2 connector

PIIA7924E

Soft top control unit

connector

# 2. CHECK ROLL BAR INTERFERENCE PREVENTION SWITCH CIRCUIT

- Turn ignition switch OFF. 1.
- Disconnect soft top control unit and soft top switch assembly 2 (roll bar interference prevention switch) 2. connector.
- 3. Check continuity between soft top control unit connector B67 terminal 22 and soft top switch assembly 2 connector B213 terminal 3.

## 22 (W/R) - 3 (W/R)

## : Continuity should exist.

Check continuity between soft top control unit connector B67 4. terminal 22 and ground.

## 22 (W/R) - Ground

: Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

 ${
m 3.}$  CHECK ROLL BAR INTERFERENCE PREVENTION SWITCH GROUND CIRCUIT

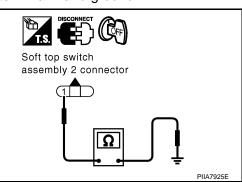
Check continuity between soft top switch assembly 2 connector B213 terminal 1 and ground.

#### 1 (B) - Ground : Continuity should exist.

# OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.



# **4.**CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

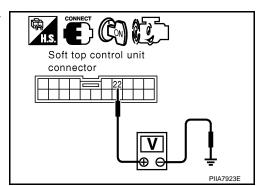
- 1. Connect soft top control unit connector.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 22 and ground.

## 22 (W/R) - Ground

# : Approx. 5V

# OK or NG

- OK >> Replace soft top switch assembly 2.
- NG >> Replace soft top control unit.



# < SERVICE INFORMATION >

# Check Body Interference Prevention Switch (Open Operate)

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1. CHECK BODY INTERFERENCE PREVENTION SWITCH

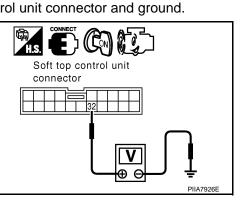
- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between soft top control unit connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)
Connector	(+)	(-)		(Approx.)
B67	32 (W)	Ground	OP10	$5 \rightarrow 0$

## <u>OK or NG</u>

OK >> Soft top switch assembly 1 is OK.

NG >> GO TO 2.



Soft top control unit

connector

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Soft top switch

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assembly 1

connector

# 2. CHECK BODY INTERFERENCE PREVENTION SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and soft top switch assembly 1 (body interference prevention switch) connector.
- Check continuity between soft top control unit connector B67 terminal 32 and soft top switch assembly 1 connector B212 terminal 2.

# 32 (W) - 2 (W) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 32 and ground.

# 32 (W) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

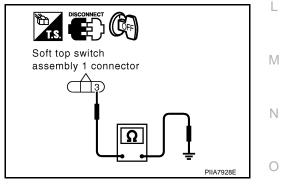
 ${
m 3.}$  CHECK BODY INTERFERENCE PREVENTION SWITCH GROUND CIRCUIT

Check continuity between soft top switch assembly 1 connector B212 terminal 3 and ground.

# **3 (B) - Ground** : Continuity should exist.

## <u>OK or NG</u>

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



Ω

**4.**CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.

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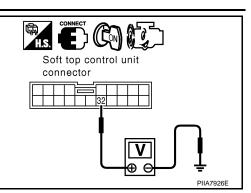
# < SERVICE INFORMATION >

 Check voltage between soft top control unit connector B67 terminal 32 and ground.

## 32 (W) - Ground : Approx. 5V

## OK or NG

- OK >> Replace soft top switch assembly 1.
- NG >> Replace soft top control unit.



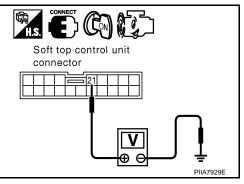
# Check Roof Full Open Detection Switch (Open Operate)



# 1. CHECK ROOF FULL OPEN DETECTION SWITCH SIGNAL

- 1. Start engine.
- 2. Operate soft top switch OPEN, check voltage between soft top control unit connector and ground.

#### Terminal (Wire color) Voltage (V) Connector Roof condition (Approx.) (+) (-) $5 \rightarrow 0$ 21 (W/L) $OP10 \rightarrow OP11$ B67 Ground OK or NG OK >> Soft top switch assembly 1 (roof full open detection switch) is OK. NG >> GO TO 2.



# 2. CHECK ROOF OPEN DETECTION SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and soft top switch assembly 1 connector.
- Check continuity between soft top control unit connector B67 terminal 21 and soft top switch assembly 1 connector B212 terminal 1.

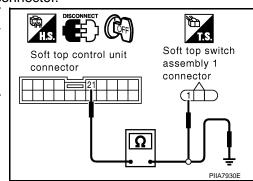
# 21 (W/L) - 1 (W/L) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 21 and ground.

# 21 (W/L) - Ground : Continuity should not exist.

# OK or NG

- OK >> GO TO 3.
- NG >> Repair or replace harness.
- ${\it 3.}$  CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL
- 1. Connect soft top control unit connector.
- 2. Start engine.



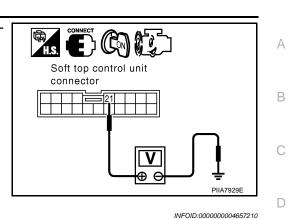
# < SERVICE INFORMATION >

3. Check voltage between soft top control unit connector B67 terminal 21 and ground.

#### 21 (W/L) - Ground : Approx. 5V

## OK or NG

- OK >> Replace soft top switch assembly 1.
  - >> Replace soft top control unit.

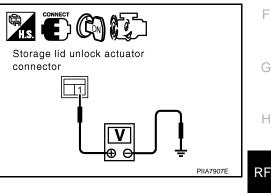


Check Storage Lid Unlock Actuator (Close Operate)

# 1. CHECK STORAGE LID UNLOCK ACTUATOR SIGNAL

- 1. Start engine.
- Operate soft top switch CLOSE, check voltage between storage lid unlock actuator connector and ground. 2.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V)	
Connector	(+) (-)		Roor condition	(Approx.)	
B65 (LH)	1 (R)	Ground	$CL1 \rightarrow CL2$	$0 \rightarrow Battery voltage \rightarrow 0$	
B70 (RH)			$CLT \rightarrow CLZ$	$0 \rightarrow \text{Dattery Voltage} \rightarrow 0$	
OK or NG					
OK >> GO TO 3.					
NG >	> GO TO 2	2.			



# 2. CHECK STORAGE LID UNLOCK ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and storage lid unlock actuator connector.
- 3. Check continuity between soft top control unit connector B66 terminal 15 and storage lid unlock actuator connector B65 (LH), B70 (RH) terminal 1.

**B65 (LH)** 15 (OR) - 1 (R) : Continuity should exist.

**B70 (RH)** 15 (OR) - 1 (L) : Continuity should exist.

4. Check continuity between soft top control unit connector B66 terminal 15 and ground.

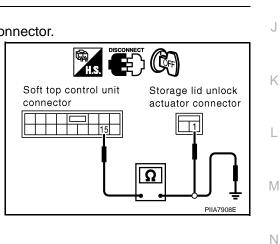
#### 15 (OR) - Ground : Continuity should not exist.

## OK or NG

- OK >> Replace soft top control unit.
- NG >> Repair or replace harness.

# ${ m 3.}$ CHECK STORAGE LID UNLOCK ACTUATOR GROUND CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect storage lid unlock actuator connector. 2.



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# < SERVICE INFORMATION >

3. Check continuity between storage lid unlock actuator connector B65 (LH), B70 (RH) terminal 2 and ground.

> B65 (LH) 2 (B) - Ground : Continuity should exist.

#### : Continuity should exist. B70 (RH) 2 (B/Y) - Ground

# OK or NG

- >> Replace malfunction storage lid unlock actuator (LH or OK RH).
- NG >> Repair or replace harness.
- Check Storage Lid Full Close Detection Switch (Close Operate)
- 1. CHECK STORAGE LID FULL CLOSE DETECTION SWITCH SIGNAL
- 1. Start engine.
- Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground. 2.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V) (Ap- prox.)
Connector	(+)	(-)		
B67	24 (G) for switch RH	Ground	CL1	$5 \rightarrow 0$
	25 (L/Y) for switch LH	Giouna	$CL1 \rightarrow CL2$	5 → 0

# OK or NG

OK >> Storage lid switch (LH & RH) (CLOSE) is OK.

NG >> GO TO 2.

# 2.check storage Lid full close detection switch circuit

#### 1. Turn ignition switch OFF.

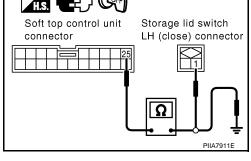
- 2. Disconnect soft top control unit and storage lid switch (close) connector.
- 3. Check the following.
- Continuity between soft top control unit connector B67 terminal 25 and storage lid switch LH (close) connector B64 terminal 1.

#### 25 (L/Y) - 1 (L/Y) : Continuity should exist.

Continuity between soft top control unit connector B67 terminal 25 and ground.

# 25 (L/Y) - Ground

: Continuity should not exist.



- 4. Check the following.
- Continuity between soft top control unit connector B67 terminal 24 and storage lid switch RH (close) connector B69 terminal 1.

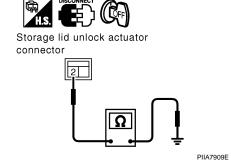
#### : Continuity should exist. 24 (G) - 1 (G)

Continuity between soft top control unit connector B67 terminal 24 and ground.

#### 24 (G) - Ground : Continuity should not exist.

# OK or NG

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



Soft top control unit

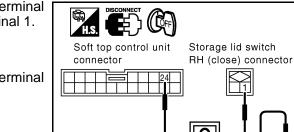
24, 25

connector

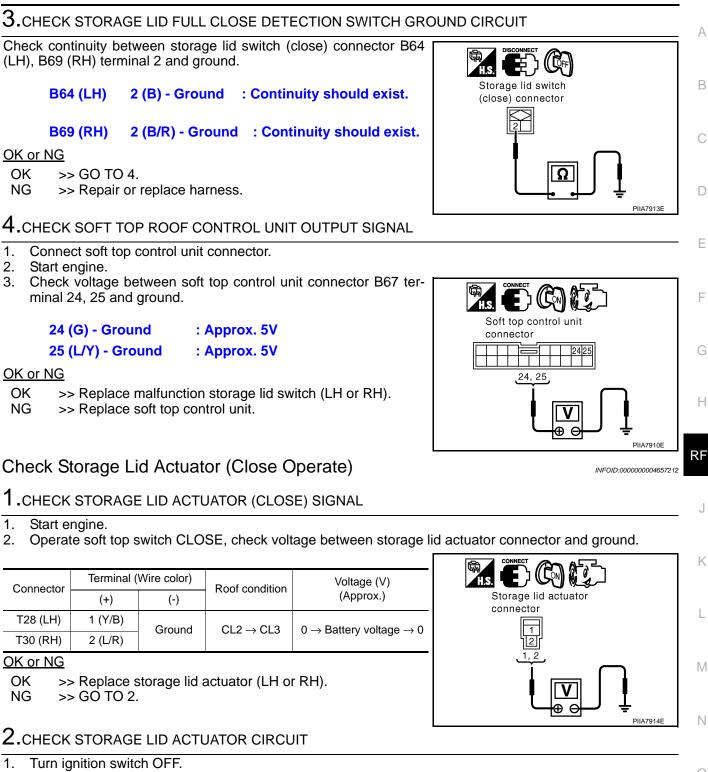
INFOID:000000004657211

PIIA7910E

PIIA7912



## < SERVICE INFORMATION >



- 2. Disconnect soft top control unit and storage lid actuator connector.
- 3. Check the following.

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# < SERVICE INFORMATION >

- Continuity between soft top control unit connector B68 terminal 41, 48 and storage lid actuator (LH) connector T28 terminal 1, 2.
  - 41 (R/L) 2 (R/L) 48 (Y/B) - 1 (Y/B)

## : Continuity should exist. : Continuity should exist.

Continuity between soft top control unit connector B68 terminal 41, 48 and ground.

> 41 (R/L) - Ground 48 (Y/B) - Ground

: Continuity should not exist.

: Continuity should not exist.

#### 4. Check the following.

- Continuity between soft top control unit connector B66 terminal 5, 13 and storage lid actuator (RH) connector T30 terminal 1, 2.
  - 5 (R/B) 1 (R/B) 13 (L/R) - 2 (L/R)

: Continuity should exist. : Continuity should exist.

- Continuity between soft top control unit connector B66 terminal 5, 13 and ground.
  - 5 (R/B) Ground
- : Continuity should not exist.

13 (L/R) - Ground : Continuity should not exist.

# OK or NG

OK >> Replace soft top control unit.

NG >> Repair or replace harness.

Check Storage Lid Full Open Detection Switch (Close Operate)

INFOID:000000004657213

# 1. CHECK STORAGE LID FULL OPEN DETECTION SWITCH SIGNAL

#### 1. Start engine.

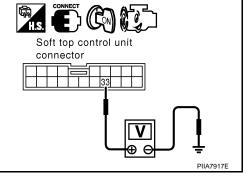
Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground. 2.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
	(+)	(-)		(Approx.)	
B67	33 (BR)	Ground	$\text{CL2} \rightarrow \text{CL3}$	$5 \rightarrow 0$	

OK or NG

OK >> Storage lid switch (OPEN) (storage lid full open detection switch) is OK.

>> GO TO 2. NG



# 2.CHECK SOTORAGE LID FULL OPEN DETECTION SWITCH CIRCUIT

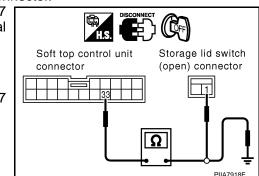
- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and storage lid switch (open) connector.
- 3. Check continuity between soft top control unit connector B67 terminal 33 and storage lid switch (open) connector T27 terminal 1.

#### 33 (BR) - 1 (BR) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 33 and ground.

# 33 (BR) - Ground : Continuity should not exist.

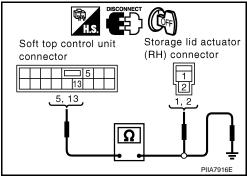
OK or NG



Revision: 2009 October

2008 & 2009 350Z

Storage lid actuator Soft top control unit (LH) connector connector 41 48 41, 48 2 Ω PIIA7915E



< SERVICE INFORMATION >

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

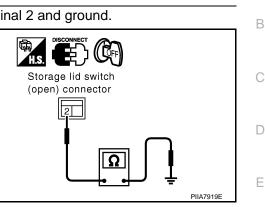
3.CHECK STORAGE LID FULL OPEN DETECTION SWITCH GROUND CIRCUIT

Check continuity between storage lid switch (open) connector T27 terminal 2 and ground.

#### : Continuity should exist. 2 (B) - Ground

## OK or NG

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



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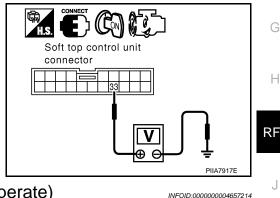
# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 33 and ground.

#### 33 (BR) - Ground : Approx. 5V

# OK or NG

- OK >> Replace storage lid switch (open).
- NG >> Replace soft top control unit.



# Check Body Interference Prevention Switch (Close Operate)

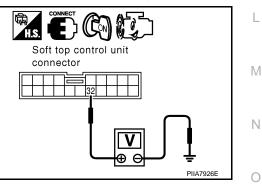
# **1.**CHECK BODY INTERFERENCE PREVENTION SWITCH

- 1. Start engine.
- Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground. 2.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V) (Approx.)	
	(+)	(-)			
B67	32 (W)	Ground	CL3	$0 \rightarrow 5$	

# OK or NG

OK >> Soft top switch assembly 1 (body interference prevention switch) is OK. NG >> GO TO 2.



# 2.check body interference prevention switch circuit

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and soft top switch assembly 1 (body interference prevention switch) con-Ρ 2. nector.

## < SERVICE INFORMATION >

 Check continuity between soft top control unit connector B67 terminal 32 and soft top switch assembly 1 connector B212 terminal 2.

## 32 (W) - 2 (W) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 32 and ground.

32 (W) - Ground : Continuity should not exist.

## OK or NG

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

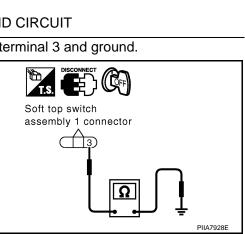
# ${ m 3.}$ CHECK BODY INTERFERENCE PREVENTION SWITCH GROUND CIRCUIT

Check continuity between soft top switch assembly 1 connector B212 terminal 3 and ground.

## **3 (B) - Ground** : Continuity should exist.

## OK or NG

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



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Soft top control unit

connector

Soft top switch

PIIA7927E

assembly 1

connector

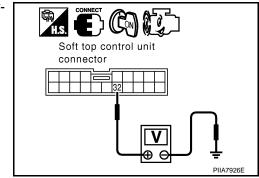
# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 32 and ground.

## 32 (W) - Ground : Approx. 5V

## <u>OK or NG</u>

- OK >> Replace soft top switch assembly 1.
- NG >> Replace soft top control unit.



INFOID:000000004657215

# Check Roof Actuator (Close Operate)

1.CHECK ROOF ACTUATOR (CLOSE) SIGNAL

- 1. Turn ignition switch OFF.
- 2. Disconnect roof actuator connector.
- 3. Start engine.
- 4. Operate soft top switch (CLOSE), check voltage between roof actuator connector and ground.

# < SERVICE INFORMATION >

Connector		Wire color)	Roof condition	Voltage (V)	
	(+)	(-)		(Approx.)	Roof actuator connector
B59 (LH)	1 (Y)	Ground	$CL3 \rightarrow CL6$	$0 \rightarrow Battery voltage \rightarrow 0$	
B72 (RH)	2 (Y)				1,2
			or (LH or RH).		
NG >>	GO TO 2.				
	ROOF AC		CIRCUIT		
	nition switc nect soft to		init connector.		
	the followin		control unit or	nnactor DCQ terminal	
				onnector B68 terminal 59 terminal 1, 2.	Soft top control unit
	R) - 2 (R)		tinuity should		connector connector
	Y) - 1 (Y)		tinuity should		
	ity betwee and ground		control unit co	onnector B68 terminal	<u>37, 42</u> <u>1, 2</u>
57,420	and ground				
•	R) - Groun		ontinuity sho		
42 (	Y) - Groun	d : C	ontinuity sho	uld not exist.	PIIA7921E
Check	the followir	na			
Continu	ity betwee	en soft top		onnector B66 terminal	
3, 10 ai	nd roof act	uator (RH)	connector B7	2 terminal 1, 2.	
3 (R	) - 1 (R)	: Con	tinuity should	d exist.	Soft top control unit Roof actuator connector connector
10 (	Y) - 2 (Y)	: Con	tinuity should	d exist.	
		en soft top	control unit co	onnector B66 terminal	<u>3, 10</u> <u>1, 2</u>
3, 10 ai	nd ground.				
3 (R	) - Ground	I : C	ontinuity sho	uld not exist.	
10 (	Y) - Groun	d : Co	ontinuity sho	uld not exist.	PIIA7922E
<u>K or NG</u>					
	Replace s Repair or				
	oof Full (	Close De	etection Sw	itch	INFOID:0000000046572
heck Ro					
	ROOF FUI	LL CLOSE	DETECTION	SWITCH SIGNAL	
		LL CLOSE	DETECTION	SWITCH SIGNAL	

# SEDVICE INFORMATION -

< SERVIC	E INFOR	MATION >	,		
Connector	Terminal (	Wire color)	- Roof condition	Voltage (V)	H.S.
	(+)	(-)		(Approx.)	Soft con
B67	20 (W/B)	Ground	$\text{CL5}\rightarrow\text{CL6}$	$0 \rightarrow 5$	
	> Soft_top switch) is > GO TO 2	s OK.	sembly 2 (roof full cl	ose detection	
2.CHECK	K ROOF FL	JLL CLOS	E DETECTION SWITC	H CIRCUIT	
<ol> <li>Discor</li> <li>Check termin minal</li> <li>20</li> <li>Check termin</li> <li>20</li> <li>Check termin</li> </ol>	c continuity al 20 and 2 (W/B) - 2 ( c continuity al 20 and ( (W/B) - Gr	op control between soft top sw (W/G) between ground.	unit and soft top switch soft top control unit of ritch assembly 2 conne <b>: Continuity should e</b> soft top control unit of <b>: Continuity should</b>	exist.	Soft top connect
	> GO TO 3 > Repair o	3. r replace h	arness.		
-	•	•	E DETECTION SWITC	H GROUND CI	RCUIT
Check con	tinuity betw	ween soft t	op switch assembly 2 c	connector B213	terminal
OK or NG OK >	<b>B) - Groun</b> > GO TO 4 > Repair o		: Continuity should arness.	exist.	<b>Soft to</b>

# ft top control unit nnector ⊕⊖ PIIA7931E

- ose detection switch) connector. DISCONNECT ďð, **唐**扫 7 T.S. Soft top switch p control unit assembly 2 ctor connector Ω PIIA7932E
- 1 and ground. op switch nbly 2 connector Ω PIIA7925E

# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

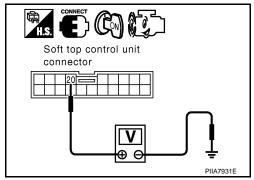
- Connect soft top control unit connector. 1.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 20 and ground.

# 20 (W/B) - Ground

: Approx. 5V

# OK or NG

- OK >> Replace soft top switch assembly 2.
- NG >> Replace soft top control unit.



# < SERVICE INFORMATION >

# Check 5th Bow Actuator (Close Operate)

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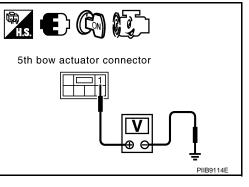
# **1.**CHECK 5TH BOW ACTUATOR INPUT SIGNAL

- 1. Start engine.
- 2. Operate soft top switch CLOSE, check voltage between 5th bow actuator connector and ground.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V)
Connector	(+)	(-)		(Approx.)
B233	1 (G/Y)	Ground	$CL4 \rightarrow CL5$	$0 \rightarrow Battery voltage \rightarrow 0$

## <u>OK or NG</u>

- OK >> Replace 5th bow actuator.
- NG >> GO TO 2.



Soft top control unit

44 45

44, 45

connector

**O**FF

Ω

connector

5th bow actuator

PIIA7901E

INFOID:000000004657218

# 2. CHECK 5TH BOW ACTUATOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and 5th bow actuator connector.
- Check continuity between soft top control unit connector B68 terminal 44, 45 and 5ht bow actuator connector B233 terminal 1, 2.
  - 44 (G/R) 1 (G/Y)
  - 45 (G/Y) 2 (G/R)

# : Continuity should exist. : Continuity should exist.

- 4. Check continuity between soft top control unit connector B68 terminal 44, 45 and ground.
  - 44 (G/R) Ground: Continuity should not exist.45 (G/Y) Ground: Continuity should not exist.

# OK or NG

- OK >> Replace soft top control unit.
- NG >> Repair or replace harness.

# Check 5th Bow Full Close Detection Switch (Close Operate)

# 1. CHECK 5TH BOW FULL CLOSE DETECTION SWITCH SIGNAL

## 1. Start engine.

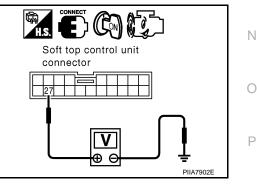
2. Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
	(+)	(-)		(Approx.)	
B67	27 (GY)	Ground	$\text{CL5}\rightarrow\text{CL6}$	$0 \rightarrow 5 \rightarrow 0$	

# <u>OK or NG</u>

OK >> Plate rail RR (5th bow full close switch) is OK.

NG >> GO TO 2.



# $2. {\sf CHECK} \, {\scriptstyle 5{\sf TH}} \, {\sf BOW} \, {\sf FULL} \, {\sf CLOSE} \, {\sf DETECTION} \, {\sf SWITCH} \, {\sf CIRCUIT}$

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and 5th bow switch assembly (at plate rail RR) connector.

## < SERVICE INFORMATION >

 Check continuity between soft top control unit connector B67 terminal 27 and 5th bow switch assembly connector B214 terminal 2.

## 27 (GY) - 2 (W/G) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 27 and ground.

27 (GY) - Ground

# : Continuity should not exist.

## OK or NG

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

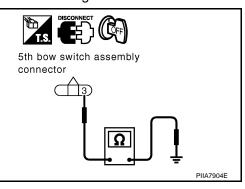
# ${f 3.}$ CHECK 5TH BOW FULL CLOSE DETECTION SWITCH GROUND CIRCUIT

Check continuity between 5th bow switch assembly connector B214 terminal 3 and ground.

## 3 (B) - Ground : Continuity should exist.

# OK or NG

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



Ω

5th bow switch

assembly connector

PIIA7903E

Soft top control unit

connector

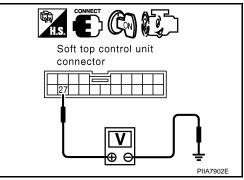
# 4. CHECK SOFT TOP CONTORL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 27 and ground.

# 27 (GY) - Ground : Approx. 5V

## <u>OK or NG</u>

- OK >> Replace plate rail RR.
- NG >> Replace soft top control unit.



# Check 5th Bow Full Open Detection Switch (Close Operate)

INFOID:000000004657219

# 1. CHECK 5TH BOW FULL OPEN DETECTION SWITCH SIGNAL

1. Start engine.

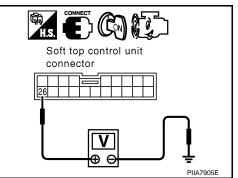
2. Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
	(+)	(-)		(Approx.)	
B67	26 (LG)	Ground	$\text{CL6}\rightarrow\text{CL7}$	$5 \rightarrow 0$	

## <u>OK or NG</u>

OK >> Plate rail RR (5th bow full open switch) is OK.

NG >> GO TO 2.



# < SERVICE INFORMATION >

# $\overline{2.}$ CHECK 5TH BOW FULL OPEN DETECTION SWITCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and 5th bow switch assembly connector. 2.
- 3. Check continuity between soft top control unit connector B67 terminal 26 and 5th bow switch assembly connector B214 terminal 1.

#### 26 (LG) - 1 (LG) : Continuity should exist.

Check continuity between soft top control unit connector B67 4 terminal 26 and ground.

## 26 (LG) - Ground

# : Continuity should not exist.

## OK or NG

OK >> GO TO 3.

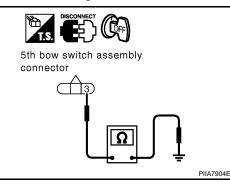
- NG >> Repair or replace harness.
- ${
  m 3.}$  CHECK 5TH BOW FULL OPEN DETECTION SWITCH GROUND CIRCUIT

Check continuity between 5th bow switch assembly connector B214 terminal 3 and ground.

## 3 (B) - Ground

## : Continuity should exist.

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



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connector

Soft top control unit

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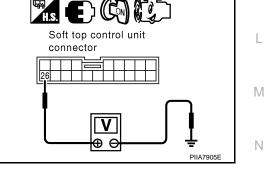
# **4.**CHECK SOFT TOP CONTORL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 ter-3. minal 26 and ground.
  - 26 (LG) Ground

: Approx. 5V

## OK or NG

- OK >> Replace plate rail RR.
- NG >> Replace soft top control unit.



Check 5th Bow Half-Latch Switch (Close Operate)

1.CHECK 5TH BOW HALF-LATCH SWITCH SIGNAL CHECK

- 1. Start engine.
- Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground. 2.

Revision: 2009 October

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5th bow switch

assembly connector

PIIA7906E

# < SERVICE INFORMATION >

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
	(+)	(-)	Roof condition	(Approx.)	
B67	31 (L)	Ground	$CL9 \rightarrow CL10$	$0 \rightarrow 5$	
OK or NG					

OK >> Soft top lock switch (5th bow half-latch switch) is OK.

>> GO TO 2. NG

# 2.CHECK 5TH BOW HALF-LATCH CIRCUIT

- Turn ignition switch OFF. 1.
- Disconnect soft top control unit and soft top lock switch (at 5th bow lock assembly in storage lid) connec-2. tor.
- Check continuity between soft top control unit connector B67 3. terminal 31 and soft top lock switch connector T205 terminal 5.

#### 31 (L) - 5 (L) : Continuity should exist.

Check continuity between soft top control unit connector B67 4. terminal 31 and ground.

#### 31 (L) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

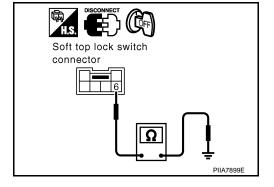
# 3.CHECK 5TH BOW HALF-LATCH SWITCH GROUND CIRCUIT

Check continuity between soft top lock switch connector T205 terminal 6 and ground.

#### : Continuity should exist. 6 (B) - Ground

## OK or NG

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



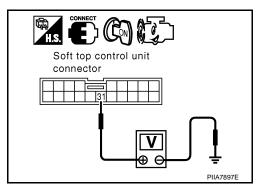
# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

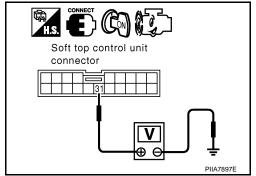
- Connect soft top control unit connector. 1.
- Start engine. 2.
- 3. Check voltage between soft top control unit connector B67 terminal 31 and ground.

#### 31 (L) - Ground : Approx. 5V

# OK or NG

- OK >> Replace 5th bow lock assembly in storage lid.
- NG >> Replace soft top control unit.





Soft top control

unit connector

connector

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Soft top lock switch

PIIA7898E

# < SERVICE INFORMATION >

# Check 5th Bow Full-Latch Switch

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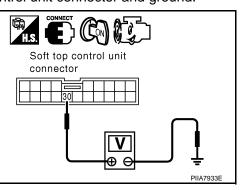
# 1.CHECK 5TH BOW FULL-LATCH SWITCH SIGNAL

- 1. Start engine.
- 2. Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)
	(+)	(-)		(Approx.)
B67	30 (Y/R)	Ground	CL10	$0 \rightarrow 5$

## <u>OK or NG</u>

OK >> Soft top lock switch (5th bow full-latch switch) is OK. NG >> GO TO 2.



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Soft top lock switch

PIIA7934E

connector

Soft top control

unit connector

# 2. CHECK 5TH BOW FULL-LATCH CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and soft top lock switch (at 5th bow lock assembly in storage lid) connector.
- 3. Check continuity between soft top control unit connector B67 terminal 30 and soft top lock switch connector T205 terminal 3.

## 30 (Y/R) - 3 (Y) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 30 and ground.

# 30 (Y/R) - Ground : Continuity should not exist.

## OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

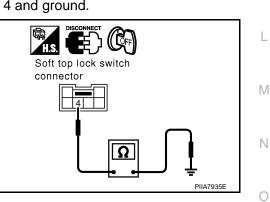
 $\mathbf{3.}$  CHECK 5TH BOW HALF-LATCH SWITCH GROUND CIRCUIT

Check continuity between soft top lock switch connector T205 terminal 4 and ground.

4 (B) - Ground : Continuity should exist.

## <u>OK or NG</u>

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



# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.

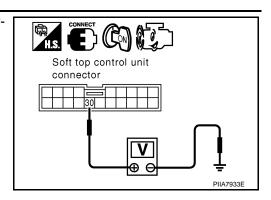
# < SERVICE INFORMATION >

3. Check voltage between soft top control unit connector B67 terminal 30 and ground.

#### 30 (Y/R) - Ground : Approx. 5V

## OK or NG

- OK >> Replace 5th bow assembly in storage lid.
- NG >> Replace soft top control unit.



INFOID:000000004657222

# Check 5th Bow Ending Switch

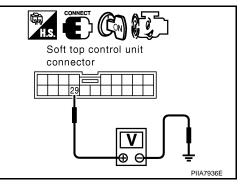
# 1.CHECK 5TH BOW ENDING SWITCH SIGNAL

- Start engine. 1.
- Operate soft top switch CLOSE, check voltage between soft top control unit connector and ground. 2.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V) (Approx.)	
Connector	(+)	(-)	Root condition		
B67	29 (R/Y)	Ground	CL10	$0 \rightarrow 5$	
OK or NG					

OK >> Soft top lock switch (5th bow ending switch) is OK.

>> GO TO 2. NG



# 2.CHECK 5TH BOW ENDING CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and soft top lock switch (at 5th bow lock assembly in storage lid) connector
- 3. Check continuity between soft top control unit connector B67 terminal 29 and soft top lock switch connector T205 terminal 1.

#### 29 (R/Y) - 1 (R) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 29 and ground.

## 29 (R/Y) - Ground

: Continuity should not exist.

## OK or NG

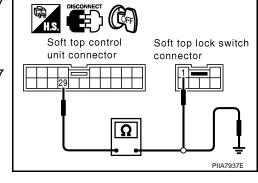
- OK >> GO TO 3.
- NG >> Repair or replace harness.
- ${
  m 3.}$  CHECK 5TH BOW ENDING SWITCH GROUND CIRCUIT

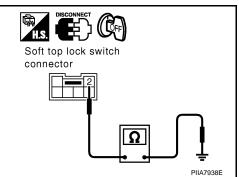
Check continuity between soft top lock switch connector T205 terminal 2 and ground.

#### : Continuity should exist. 2 (B) - Ground

# OK or NG

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





# < SERVICE INFORMATION >

# **4.**CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

- 1. Connect soft top control unit connector.
- 2. Start engine.
- Check voltage between soft top control unit connector B67 terminal 29 and ground.

# 29 (R/Y) - Ground : Approx. 5V

# OK or NG

- OK >> Replace soft top lock switch (5th bow lock assembly in storage lid).
- NG >> Replace soft top control unit.

# Check 5th Bow Closure Motor

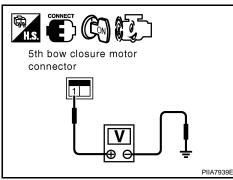
# 1.5TH BOW CLOSURE MOTOR INPUT SIGNAL

- 1. Start engine.
- 2. Operate soft top switch CLOSE, check voltage between 5th bow closure motor connector and ground.

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
	(+)	(-)		(Approx.)	
T204	1 (W)	Ground	$CL9 \rightarrow CL10$	$0 \rightarrow \text{Battery voltage} \rightarrow 0$	

# OK or NG

- OK >> Replace 5th bow closure motor.
- NG >> GO TO 2.



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connector

Soft top control unit

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# 2. CHECK 5TH BOW CLOSURE MOTOR CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and 5th bow closure motor connector.
- 3. Check continuity between soft top control unit connector B66 terminal 4, 12 and 5th bow closure motor connector T204 terminal 1, 2.
  - 4 (G/R) 1 (W) 12 (G/Y) - 2 (G)

: Continuity should exist.

: Continuity should exist.

- 4. Check continuity between soft top control unit connector B66 terminal 4, 12 and ground.
  - 4 (G/R) Ground 12 (G/Y) - Ground

# : Continuity should not exist.: Continuity should not exist.

# <u>OK or NG</u>

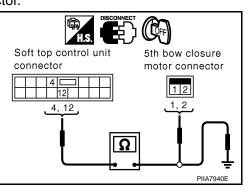
OK >> Replace soft top control unit.

NG >> Repair or replace harness.

Check Soft Top Front Lock Switch

# 1.SOFT TOP FRONT LOCK SWITCH SIGNAL

- 1. Start engine.
- 2. Check voltage between soft top control unit connector and ground.



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# < SERVICE INFORMATION >

Connector	Terminal (Wire color)		Condition		Voltage (V)
Connector	(+)	(-)	Condition		(Approx.)
B67	28 (LG/B)	Ground	Front lock	Lock	5
				Unlock	0

# OK or NG

OK >> Soft top front lock switch is OK.

NG >> GO TO 2.

# 2. CHECK 5TH BOW ENDING CIRCUIT

## 1. Turn ignition switch OFF.

2. Disconnect soft top control unit and soft top front lock switch connector.

 Check continuity between soft top control unit connector B67 terminal 28 and soft top front lock switch connector R8 terminal 4.

# 28 (LG/B) - 4 (LG/B) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 28 and ground.

# 28 (LG/B) - Ground : Continuity should not exist.

# OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.

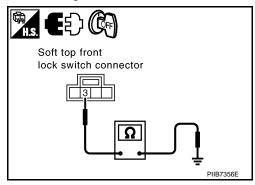
 ${f 3.}$  CHECK SOFT TOP FRONT LOCK SWITCH GROUND CIRCUIT

Check continuity between soft top front lock switch connector R8 terminal 3 and ground.

# 3 (B/W) - Ground : Continuity should exist.

## OK or NG

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



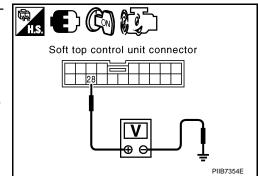
# 4. CHECK SOFT TOP CONTROL UNIT OUTPUT SIGNAL

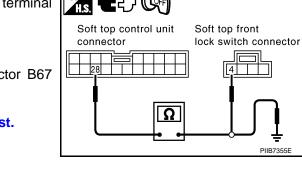
- 1. Connect soft top control unit connector.
- 2. Start engine.
- 3. Check voltage between soft top control unit connector B67 terminal 28 and ground.

# 28 (LG/B) - Ground : Approx. 5V

# <u>OK or NG</u>

- OK >> Replace soft top front lock switch (front lock striker RH).
- NG >> Replace soft top control unit.





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Soft top control unit connector

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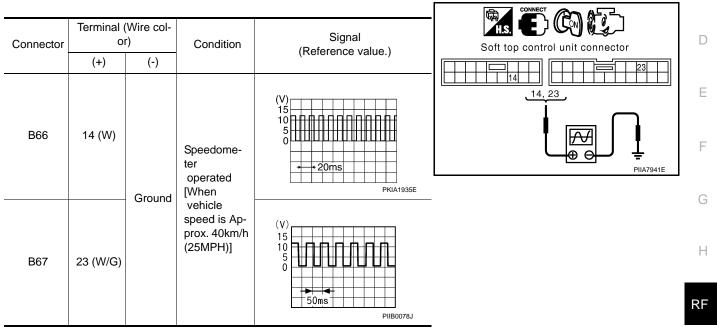
#### < SERVICE INFORMATION >

## **Check Operation Permission Condition**

First perform the "SELF-DIAG RESULT" in "BCM" with CONSULT-III, then perform the each trouble diagnosis of malfunction system indicated "SELF-DIAG RESULT" of "BCM". Refer to <u>BCS-13. "CONSULT-III Function</u> (<u>BCM)</u>".

1.CHECK VEHICLE SPEED SIGNAL

- 1. Start engine.
- 2. Check the signal between soft top control unit connector and ground with oscilloscope.



OK or NG

OK >> GO TO 3.

NG >> GO TO 2.

## 2.CHECK VEHICLE SPEED SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and unified meter and A/C amp connector.
- 3. Check the following.
- Continuity between soft top control unit connector B66 terminal 14 and unified meter and A/C amp connector M49 terminal 26.

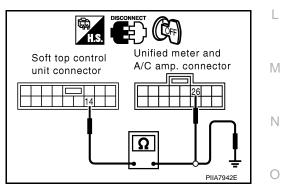
14 (W) - 26 (W)

: Continuity should exist.

- Continuity between soft top control unit connector B66 terminal 14 and ground.

14 (W) - Ground

: Continuity should not exist.



4. Check the following.

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#### < SERVICE INFORMATION >

Continuity between soft top control unit connector B67 terminal 23 and unified meter and A/C amp connector M49 terminal 34.

#### 23 (W/G) - 34 (L) : Continuity should exist.

Continuity between soft top control unit connector B67 terminal 23 and ground.

#### 23 (W/G) - Ground

: Continuity should not exist.

#### OK or NG

- OK >> Check unified meter and A/C amp. Refer to DI-42, "System Description".
- NG >> Repair or replace harness.

## **3.**CHECK FUSE

 Check 10A fuse [No.20, located in fuse block (J/B)]. NOTE: Refer to RF-12, "Component Parts and Harness Connector Location".

#### OK or NG

- OK >> GO TO 4.
- NG >> If fuse blown out, be sure to eliminate cause of malfunction before installing new fuse. Refer to PG-4.

#### **4.**CHECK BRAKE PEDAL SIGNAL

Check voltage between soft top control unit connector and ground.

Connector	Terminal (Wire color)		Brake pedal condi-	Voltage (V)
Connector	(+)	(-)	tion	(Approx.)
B68	38 (W)	Ground	Depressed	Battery voltage
	30 (W)	Oround	Released	0

#### OK or NG

OK >> Stop lamp switch is OK.

>> GO TO 5. NG

## 5. CHECK BRAKE PEDAL SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and stop lamp switch connector.
- Continuity between soft top control unit connector B68 terminal 3. 38 and stop lamp switch connector E111 terminal 4.

#### 38 (W) - 4 (P/L)

#### : Continuity should exist.

Continuity between soft top control unit connector B68 terminal 38 and ground.

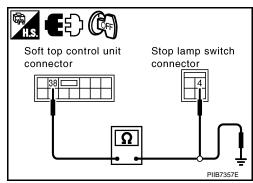
#### 38 (W) - Ground

#### : Continuity should not exist.

#### OK or NG

- OK >> GO TO 6.
- NG >> Repair or replace harness.
- **6.**CHECK STOP LAMP SWITCH

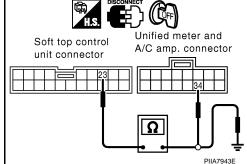
Continuity between stop lamp switch connector E111 terminal 3 and 4.



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connector

Soft top control unit



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### < SERVICE INFORMATION >

Connector	Terminal		Brake pedal condition	Continuity
E111	3	4	Depressed	Yes
	5	4	Released No	No
OK or NG				

#### OK >> Check condition of harness and connector.

NG >> Replace stop lamp switch.

## Check Each Switch Condition (Open Operate)

# 1. CHECK EACH SWITCH SIGNAL

- 1. Start engine.
- 2. Check voltage between soft top control unit connector and ground.

Connector		Wire color)	Roof condition	Voltage (V)	
Connector	(+)	(-)	- Roor condition	(Approx.)	Soft top control unit connector
	20 (W/B)				20 21 22 24 25
-	21 (W/L)				26 <u>27</u> 32 <u>33</u> 20, 21, 22, 24, 25,
-	22 (W/R)				26, 27, 32, 33
B67	24 (G)		Full closed	5	
	25 (L/Y)	Ground			
-	26 (LG)				
-	27 (GY)				
-	32 (W)				
-	33 (BR)				

#### <u>OK or NG</u>

OK >> Each switch condition is OK.

NG >> Check malfunction switch.

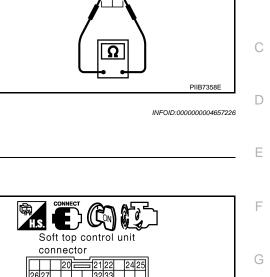
## Check Each Switch Condition (Close Operate)

## 1.CHECK EACH SWITCH SIGNAL

1. Start engine.

2. Check voltage between soft top control unit connector and ground.

Connector	Terminal (	Wire color)	Roof condition	Voltage (V)
	(+)	(-)		(Approx.)
	20 (W/B)	-		0
	21 (W/L)			
B67	22 (W/R)		Full opened	
	24 (G)	- Ground		5
	25 (L/Y)			
	26 (LG)			
	27 (GY)			0
	31 (L)			
	32 (W)			
	33 (P)	]		5



Stop lamp switch



Soft top control unit

20, 21, 22, 24, 25, 26, 27, 31, 32, 33

31 32 33

24 25

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connector

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#### OK or NG

- OK >> Each switch condition is OK.
- NG >> Check malfunction switch.

## Check Power Window Down Request Signal

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## 1.CHECK POWER WINDOW REQUEST SIGNAL

#### 1. Start engine.

Soft top switch operate, check voltage between soft top control unit connector and ground. 2.

Con-	Terminal (	Wire color)			Poof condition	
nector	(+)	(-)		(Approx.)		
B67 36 (PU)	U) Ground	$OP1 \rightarrow OP11$ (open operation)	$5 \rightarrow 0 \rightarrow 5$			
507	30 (1 0)	Oround	$CL1 \rightarrow CL10$ (close operation)	$3 \rightarrow 0 \rightarrow 3$		

#### OK or NG

- OK >> Check the condition of harness and connector.
- NG >> Replace soft top control unit.

## Check Power Window Harness

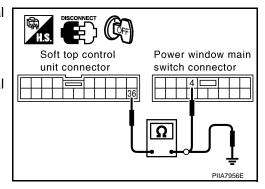
## 1. CHECK POWER WINDOW CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit, power window main switch and power window sub-switch connector.
- Check the following.
- Continuity between soft top control unit connector B67 terminal 36 and power window main switch connector D7 terminal 4.

#### 36 (PU) - 4 (P) : Continuity should exist.

Continuity between soft top control unit connector B67 terminal 36 and ground.

> 36 (PU) - Ground : Continuity should not exist.



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Soft top control unit connector

- Check the following. 4
- Continuity between soft top control unit connector B67 terminal 36 and power window sub-switch connector D37 terminal 13.

#### 36 (PU) - 13 (P)

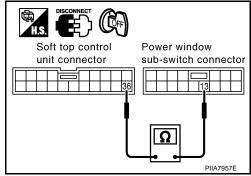
: Continuity should exist.

#### OK or NG

OK >> Replace malfunction power window switch.

Check Passenger Side Seat Operate Signal 1

NG >> Repair or replace harness.



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# 1.CHECK PASSENGER SIDE SEAT CIRCUIT

- 1. Turn ignition switch OFF.
- Disconnect soft top control unit and passenger side seat control unit connector. 2.

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#### < SERVICE INFORMATION >

 Check continuity between soft top control unit connector B67 terminal 36 and passenger seat control unit connector B353 terminal 16.

#### 36 (PU) - 16 (PU/W) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 36 and ground.

#### 36 (PU) - Ground

#### : Continuity should not exist.

#### OK or NG

- OK >> Replace passenger seat control unit.
- NG >> Repair or replace harness.

#### Check Passenger Side Seat Operate Signal 2

## 1.CHECK PASSENGER SIDE SEAT CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit, storage lid actuator RH and passenger seat control unit connector.
- Check continuity between soft top control unit connector B66 terminal 13 and passenger seat control unit connector B354 terminal 33.

#### 13 (L/R) - 33 (G/B) : Continuity should exist.

 Check continuity between soft top control unit connector B66 terminal 13 and ground.

#### 13 (L/R) - Ground



#### <u>OK or NG</u>

- OK >> Replace passenger seat control unit.
- NG >> Repair or replace harness.

Check Passenger Side Seat Operate Signal 3

- 1.CHECK PASSENGER SIDE SEAT CIRCUIT
- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit, passenger seat control unit and soft top lock switch connector.
- Check continuity between passenger seat control unit connector B353 terminal 11and soft top control unit connector B67 terminal 30.

#### 11 (L/W) - 30 (Y/R)

#### : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 30 and ground.

#### 11 (L/W) - Ground

#### : Continuity should not exist.

#### OK or NG

- OK >> Replace passenger seat control unit.
- NG >> Repair or replace harness.

Check Seat Back Position Signal

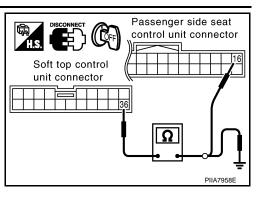
#### **1.**CHECK SEAT BACK POSITION SIGNAL

1. Start engine.

Revision: 2009 October

- 2. The thing whose seat cancel switch is OFF is confirmed.
- 3. Soft top switch operate, check voltage between soft top control unit connector and ground.

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2008 & 2009 350Z

Soft top control

unit connector

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Passenger side seat

control unit connector

Connector	Terminal (Wire color)		Seat condition	Voltage (V)	
Connector	(+)	(-)	Sear condition	(Approx.)	
B67	34 (L/W)	Ground	When passenger seat inclines forward	5	
			Other than above	0	
<u>OK or NG</u>					

OK >> Replace soft top control unit.

NG >> GO TO 2.

## 2. CHECK SEAT BACK POSITION SIGNAL CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and passenger seat control unit connector.
- Check continuity between soft top control unit connector B67 terminal 34 and passenger seat control unit connector B353 terminal 32.

#### 34 (L/W) - 32 (G/W)

: Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 34 and ground.

#### 34 (L/W) - Ground

: Continuity should not exist.

#### OK or NG

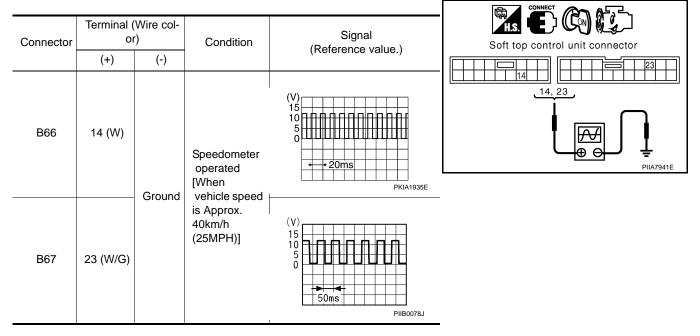
- OK >> Check passenger side seat. Refer to <u>SE-35. "Trouble</u> <u>Diagnosis Symptom Chart"</u>.
- NG >> Repair or replace harness.

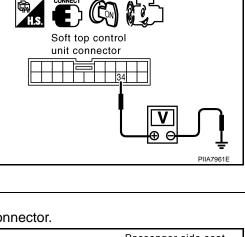
## **Check Speed Signal Circuit**

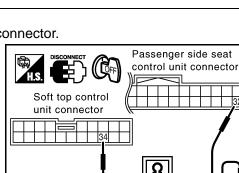
First perform the "SELF-DIAG RESULT" in "BCM" with CONSULT-III, then perform the each trouble diagnosis of malfunction system indicated "SELF-DIAG RESULT" of "BCM". Refer to <u>BCS-13</u>, "CONSULT-III Function (<u>BCM</u>)".

**1.**CHECK VEHICLE SPEED SIGNAL

- 1. Start engine.
- 2. Check the signal between soft top control unit connector and ground with oscilloscope.

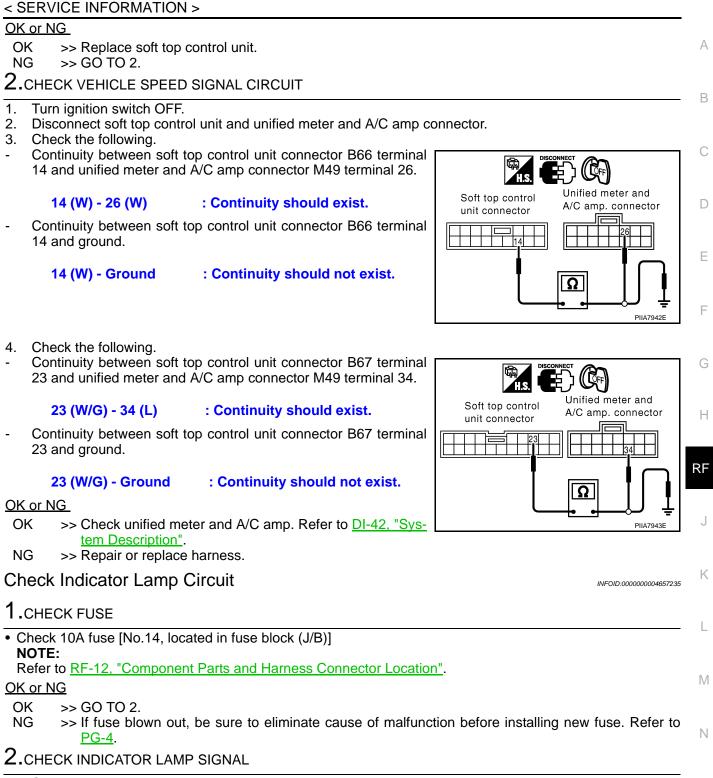






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1. Start engine.

2. Soft top switch operate, check voltage between soft top control unit connector and ground.

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## < SERVICE INFORMATION >

Connector	Terminal (Wire color)		Roof condition	Voltage (V)	
Connector	(+)	(-)		(Approx.)	
B67	35 (Y)	Ground	Full open or full close	Battery voltage	
007	55(1)	Ground	Other than above	0	

#### <u>OK or NG</u>

OK >> Check the condition of the harness and the connector.

- NG 1 >> If battery voltage: Replace soft top control unit.
- NG 2 >> If 0V: GO TO 3.

## **3.**CHECK INDICATOR LAMP CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect soft top control unit and combination meter connector.
- 3. Check continuity between soft top control unit connector B67 terminal 35 and combination meter connector M19 terminal 13.

#### 35 (Y) – 13 (G/W) : Continuity should exist.

4. Check continuity between soft top control unit connector B67 terminal 35 and ground.

: Continuity should not exist.

#### 35 (Y) – Ground

#### OK or NG

OK >> GO TO 4.

NG >> Repair or replace harness.

#### **4.**CHECK INDICATOR LAMP POWER SUPPLY

- 1. Turn ignition switch ON.
- Check voltage between combination meter connector M19 terminal 23 and ground.

#### 23 (G/Y) – Ground : Battery voltage

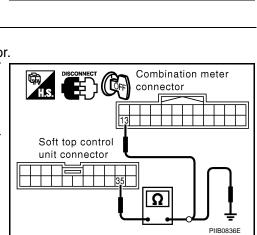
#### <u>OK or NG</u>

- OK >> Check the Condition of the Harness and the Connector.
  - If OK: Replace combination meter.
  - If NG: Repair or replace harness.
- NG >> Repair or replace harness.

## Removal and Installation of Soft Top Control Unit

#### REMOVAL

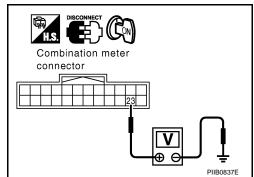
- 1. Push the soft top switch on the close side to clear the soft top storage room, and release the buttom before strage lid starts closing.
- 2. Remove trim parts and turn the front side of storage room finisher. <u>RF-118</u>, "<u>Removal and Installation of Storage Room Finisher</u>"



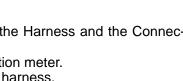
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Soft top control unit

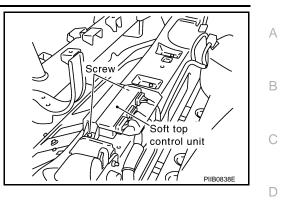


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#### < SERVICE INFORMATION >

3. Disconnect soft top control unit connector, remove the screw and soft top control unit.



INSTALLATION Installation in the reverse order of removal.



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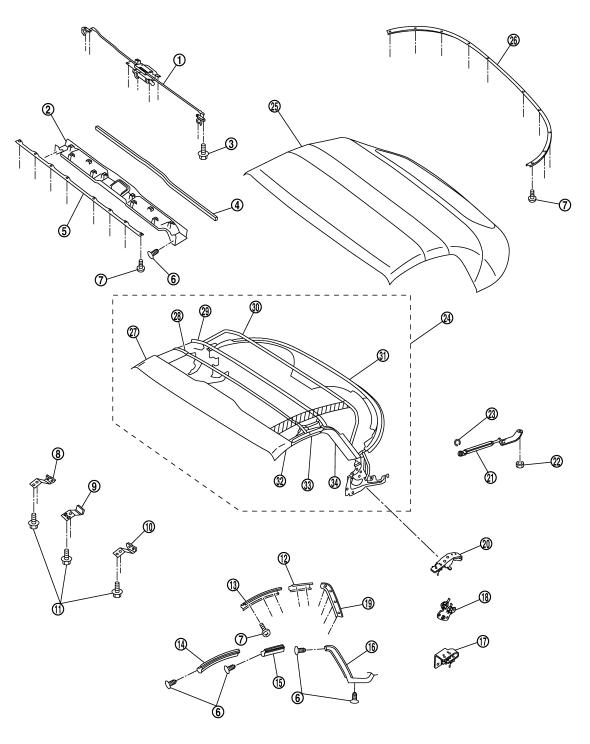
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Revision: 2009 October

## **Component Parts Drawing**

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SEC. 737



- 1. Front lock
- 4. Welt
- 7. Screw
- 10. Front lock striker, LH
- 2. Front lock finisher
- 5. Front center retainer
- 8. Front lock striker, RH
- 11. Bolt

- PIIB1399E
- 3. TORX bolt (T30)
- 6. Clip
- 9. Front lock striker, center
- 12. B link retainer

#### < SERVICE INFORMATION >

16. C link and 5th bow weather strip

13. A link retainer

19. C link retainer

25. Soft top cover 28. 2nd bow

- 14. A link weather strip
- 17. Soft top switch bracket 1
- 20. Plate rail RR bracket
- 23. Holder
- 26. 5th bow retainer
- 29. 3rd bow
- 32. A link

## Removal and Installation of Soft Top Assembly

#### **CAUTION:**

22. Nut

31. 5th bow

34. C link

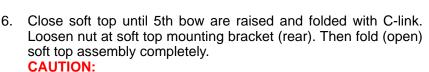
#### Install fender cover to protect rear fender.

#### REMOVAL

- 1. Fully open storage lid with soft top retracting.
- Remove seat belt sholder bolt. Refer to SB-6, "Removal and Installation of Seat Belt (Roadster)".
- 3. Remove rear side finisher. Refer to EI-31, "Removal and Installation (for Roadster Models)".
- 4. Remove back panel finisher. Refer to EI-36, "Removal and Installation (for Roadster Models)".
- 5. Loosen bolts at soft top mounting bracket (front). CAUTION:

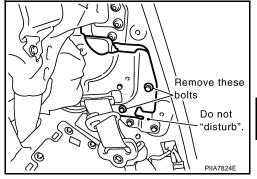
Do not remove soft top mounting bracket (front) (body side).

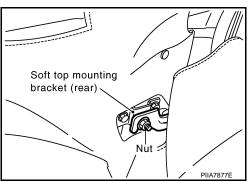
### **Nut: 28.0 N·m (2.9 kg-m, 21 ft-lb)**



Do not remove soft top mounting bracket (rear) (body side).

Bolt: 28.0 N·m (2.9 kg-m, 21 ft-lb)

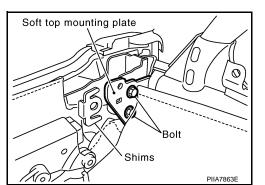




- Remove back panel bracket.
- Remove bolts, at the soft top mounting plate and shims. 8. CAUTION:

Do not replace left and right shims with each one with different thickness.

Bolt: 28.0 N·m (2.9 kg-m, 21 ft-lb)



15. B link weather-strip

24. Soft top frame

27. 1st bow

30. 4th bow

33. B link

18. Soft top switch bracket 2

21. 5th bow operating strut rod

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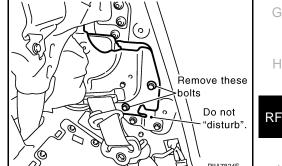
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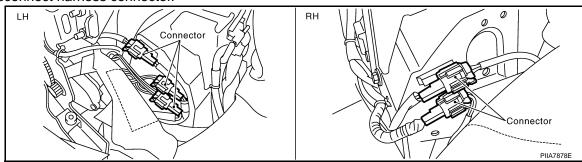
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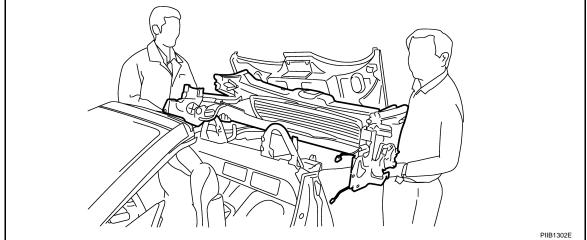


#### < SERVICE INFORMATION >

9. Disconnect harness connector.



10. Lift up soft top assembly from left and right, and then remove soft top assembly.



#### CAUTION:



#### INSTALLATION

Install in the reverse order of removal except the order of tightening bolts and nuts. (See note below.) **NOTE:** 

Before tighten soft top fixing bolts and nuts, make sure that soft top is sat on each pins from soft top mounting brackets without any gaps.

To sit soft top correctly, follow this order.

- 1. Push soft top assembly down when nuts at soft top mounting bracket (rear) is tighten.
- 2. Close soft top until the angle of A-link becomes vertical against ground, then tighten bolts at soft top mounting bracket (front).
- 3. Tighten bolts at soft top mounting plate with shims, then attach back panel bracket with bolts.

Removal and Installation of Soft Top Cover

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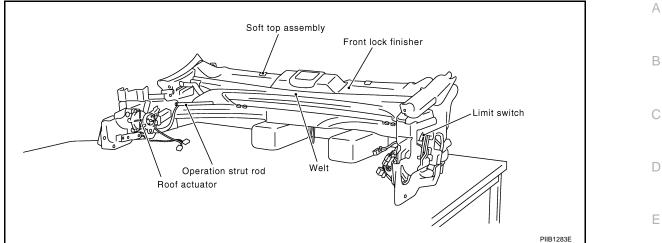
#### REMOVAL

**CAUTION:** 

- Do not reuse used double-faced adhesive tape, nonwoven fabric, EPT seal, pad, etc.
- Be careful not to damage soft top assembly during removal. Do not place it upside-down so as to prevent cover from compression scars.
- 1. Remove soft top assembly from the vehicle. Refer to <u>RF-83, "Removal and Installation of Soft Top Assembly"</u>.

#### < SERVICE INFORMATION >

#### 2. Set up the soft top assembly on the table.



- 3. Remove roof actuator (RH/LH). Refer to RF-101, "Removal and Installation of Roof Actuator".
- 4. Remove holder of 5th bow operation strut rods, and then remove 5th bow operation strut rods. **CAUTION:** 
  - When 5th bow operating strut rods are removed, 5th bow drops suddenly. Perform operation while holding 5th bow.

Operation strut rod Holder PIIB1285E F

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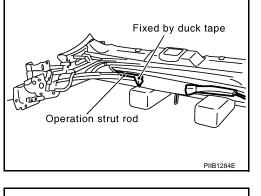
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• Temporarily fix 5th bow operating strut rods on 5th bow finisher after removal.



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5. Open soft top assembly.

#### < SERVICE INFORMATION >

6. Protect the limit switch contact around the rotation axis of the 5th bow on the left side of soft top with tape.

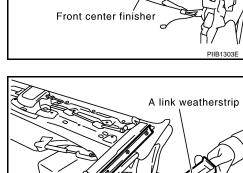
7. Remove welt on the rear end of front lock finisher.

8. Remove left/right clips on the front end of front lock finisher.

9. Pull up front lock lever, and then disengage clips to remove front lock finisher.

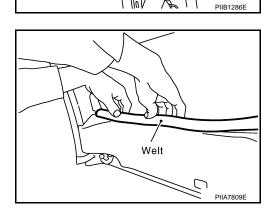
10. Remove clip, and then A link weather strip.

PIIB1289E



A link retainer

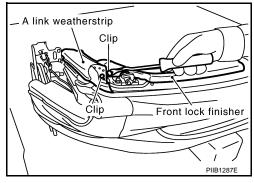
**RF-86** 

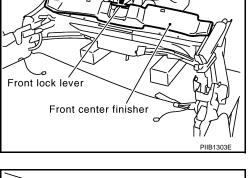


Protector

5th bow

Limit switch





**RF-87** 

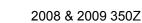
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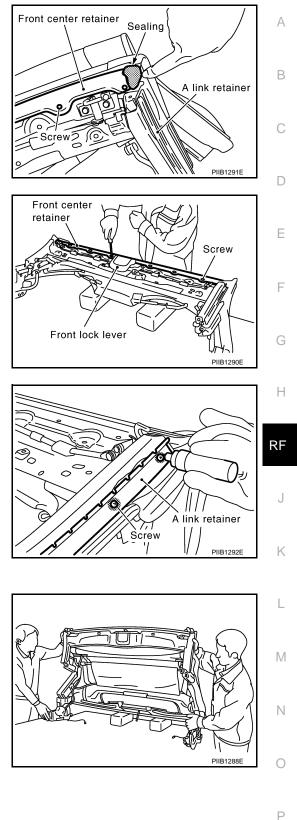
11. Peel a link sealing out.

12. Remove screws, and then remove front center retainer.

13. Put matching marks to installation position of A link retainer.

- 14. Remove screws, and then remove A link retainer.
- 15. Open soft top about 90 degrees.





#### < SERVICE INFORMATION >

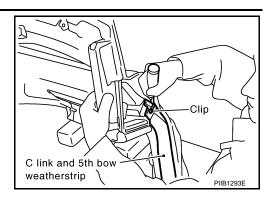
16. Remove clips on the top of C link and 5th bow weather strip.

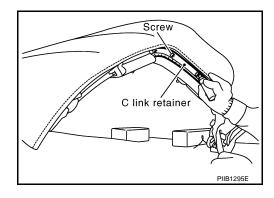
- 17. Fully open soft top.
- 18. Put matching marks to installation position on C link retainer.
- 19. Remove screws, and then remove C link retainer.

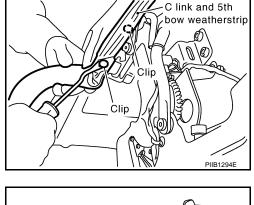
20. Remove clips on the bottom edge of C link and 5th bow weatherstrip.

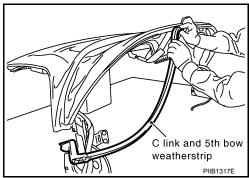
21. Remove C link and 5th bow weather strip from 5th bow.





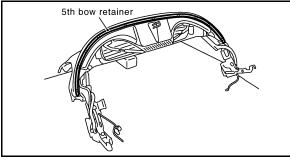


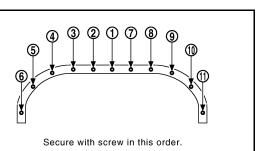




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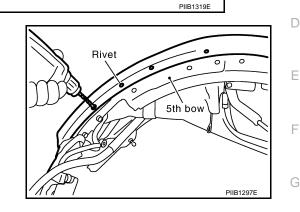
22. Remove screws, and then remove 5th bow retainer.





23. Shave rivets head of soft top cover 5th bow by using a drill.
 [Drill bit diameter: 5.5 mm (0.22 in)]
 CAUTION:

Do not attempt to remove rivets completely.



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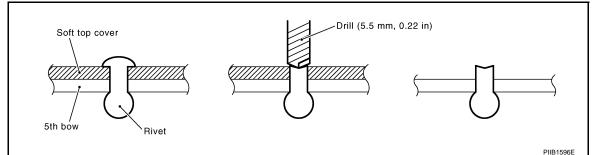
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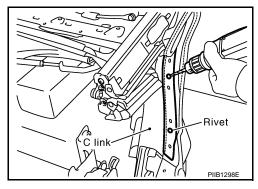
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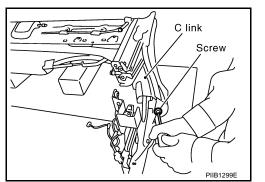


24. Close soft top, and then Shave rivets head and of C link by using a drill.

[Drill bit diameter: 5.5 mm (0.22 in)] CAUTION: Do not attempt to remove rivets completely.

25. Cut EPT seal and remove screws on the bottom of C link. **NOTE:** Check the position when cutting EPT seal.





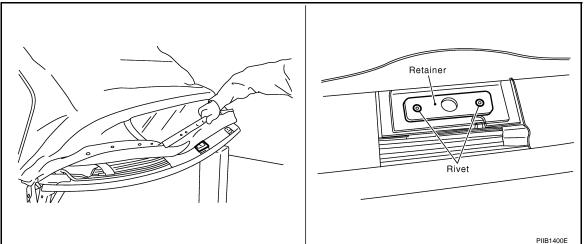
26. Pull up soft top cover from 5th bow finisher.

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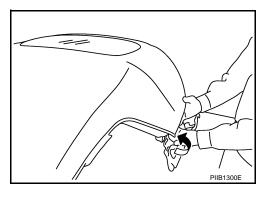
27. Shave rivets head of 5th bow finisher upper surface, and then remove rivets head and remove retainer. [Drill bit diameter: 5.5 mm (0.22 in)]

#### CAUTION:

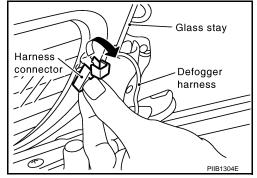
- Do not attempt to remove rivets completely.
- Be careful not to damage soft top when using a drill.

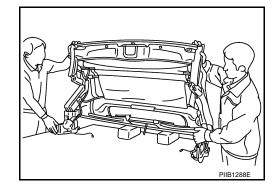


28. Pull up cover from the bottom of C link.



29. Open harness connector cover, and then disconnect defogger harness connector from terminal.





30. Open soft top about 90 degrees.

BВ

Soft top cover

Spring

Soft top cover

1st

wire rear bracket

#### < SERVICE INFORMATION >

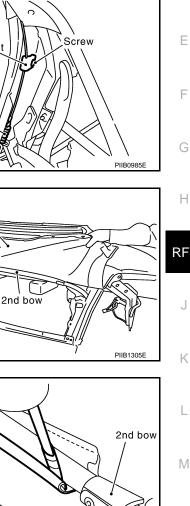
31. Remove soft top wire from A link.

- 32. Remove soft top cover wire rear bracket from C link.
- 33. Remove spring from C link.

34. Pull out soft top cover frontward from 1st bow.

35. Pull up 2nd bow retainer by using a screwdriver, and then remove soft top cover from 2nd bow.

36. Pull up 3rd bow retainer by using a screwdriver, and then remove soft top cover from 3rd bow.



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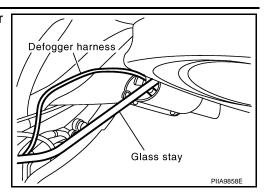
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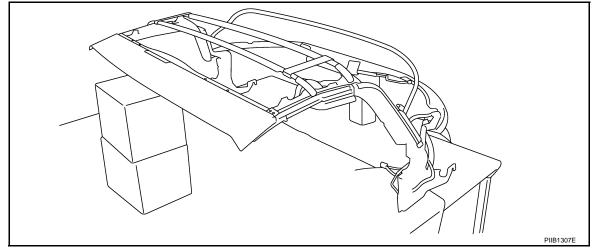
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#### < SERVICE INFORMATION >

37. Pull out glass stay and defogger harness from sleeve on rear window glass side.



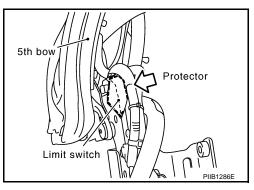
38. Pull out soft top cover from 4th bow and remove soft top cover completely from frame.



## INSTALLATION

#### **CAUTION:**

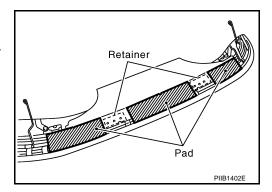
Make sure that the limit switch contact around the rotation axis of the 5th bow on the left side of soft top is protected with tape.



#### Preparation Work

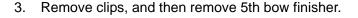
1. Remove 5th bow finisher pads.

**NOTE:** Put matching marks so as to check the position when installing.



#### < SERVICE INFORMATION >

2. Remove screws, and then remove 5th bow side finisher (RH/ LH).



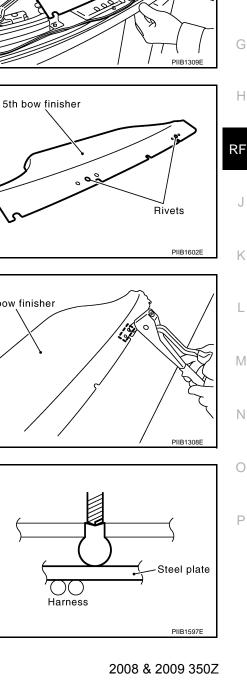
4. Remove rivets head of 5th bow finisher retainer. **CAUTION:** Do not attempt to remove rivets completely.

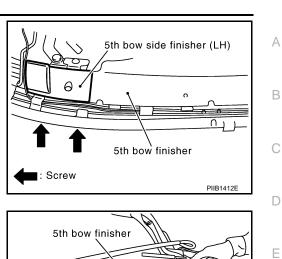
- 5. Replace retainers under 5th bow finisher with a new part. NOTE:
  - Put new retainers under 5th bow finisher with rivet.
  - Apply nonwoven fabric to retainer lower edge.

6. Remove remains of soft top cover mounting rivet from 5th bow and C link. NOTE:

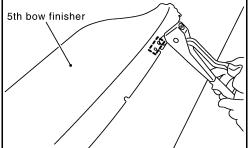
Put a steel plate between a rivet and harnesses on 5th bow for harness protection, when removing the remaining rivets by drill.

**RF-93** 





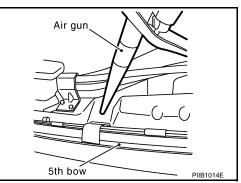
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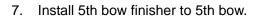
#### **CAUTION:**

Take out the remains of rivets completely from 5th bow, other wise the remains cause noise. NOTE:

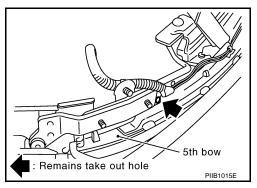
• Blow remains of rivet toward both ends of 5th bow with compressed air if they are in 5th bow.

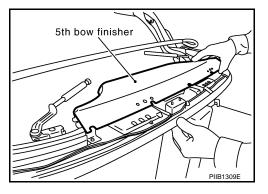


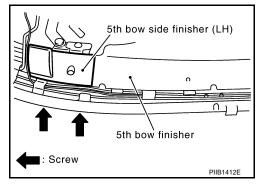
• Remove the remains drawn to both ends by the air blow from the gap.



8. Install 5th bow side finisher (RH/LH) to 5th bow.

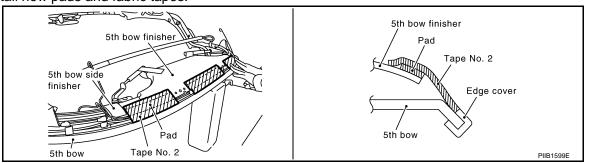






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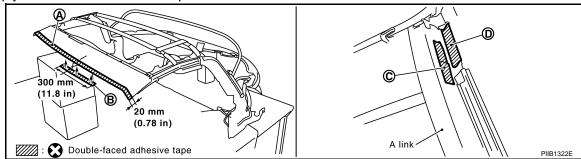
#### 9. Install new pads and fabric tapes.



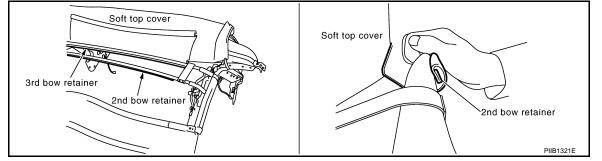
10. Secure 5th bow finisher harness with new nonwoven fabric if necessary.

#### Installation

1. Apply double faced adhesive tape for frame.



- A: Upper side of 1st bow
- B: Under side of 1st bow
- C: Outer side of A link (between grommets)
- D: Outer and under side of 1st bow edge
- 2. Put soft top cover on frame.
- 3. Put glass stays and defogger harnesses into sleeves on both side of rear window.
  - NOTE:
  - Out side bag is for glass stay.
  - Inside bag is for harness.
- 4. Hook soft top cover inner fabric edge to 3rd bow retainer and press retainer to hold securely.



5. Hook soft top cover inner fabric edge to 2nd bow retainer and press retainer to hold securely.

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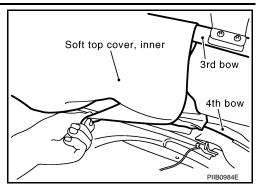
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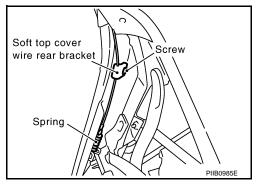
Insert soft top cover wire to A link.

7.

6. Wrap soft top cover around 4th bow and fix soft top cover by velcro fastener.

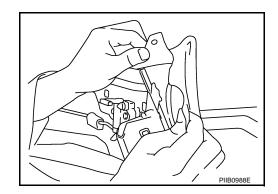


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8. Tighten soft top cover wire rear bracket to C link with screw. (Face tension wire outside.)

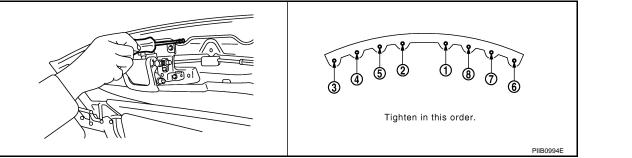
- 9. Hook soft top cover wire spring on C link and bend the hook of wire spring to prevent unhooking the hook.
- 10. Put soft top cover on 1st bow.



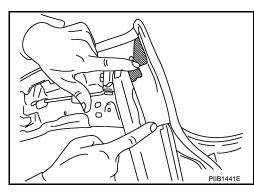
11. Align soft top cover hole and grommet hole at the 1st bow.

#### < SERVICE INFORMATION >

12. Tighten screws on 1st bow with front center retainer.



13. Apply EPT seal to A link installation position. CAUTION: Install EPT seal to the original position.



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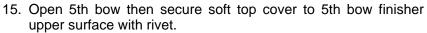
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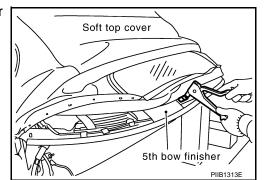
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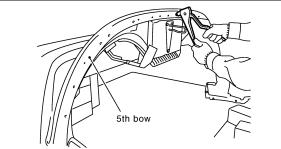
- 14. Put soft top cover on C link lower. **NOTE:** 
  - Make sure that vinyl tube is on C link bottom end bracket.
  - Be careful not to pull soft top cover with too much tension.

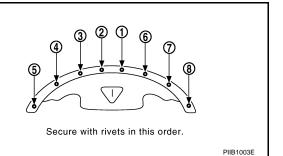




Vinyl tube

- 16. Close 5th bow then wrap soft top cover around 5th bow.
- 17. Secure soft top cover to 5th bow with rivet.





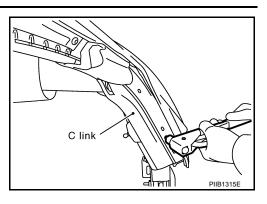
C link

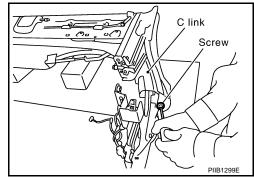
18. Secure soft top cover to C link with rivet.

19. Align screw hole on soft top cover and the bottom of C link, and then tighten with screw.

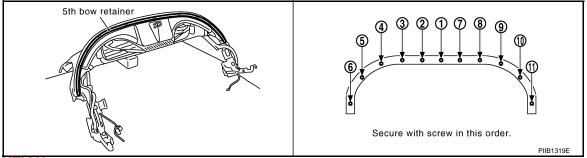
NOTE:

- During tighten up the screw, insert a thin metal rod such as a nail [diameter: 4mm (0.16in)] to a clip hole near the screw to align holes of soft top cloth and its backing plastic plate, and C link frame.
- Tighten screw while holding soft top at certain angle for easy screw installation.





20. Close 5th bow then install 5th bow retainer with screws.



#### CAUTION:

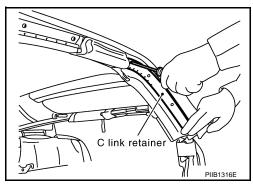
# Apply it to the original position. NOTE:

During tighten up the screw, insert a thin metal rod such as a nail [diameter: 4mm (0.16in)] to a clip hole near the each end of 5th bow retainer to align holes of the retainer, soft top cloth and its backing plastic plate, and 5th bow.

21. Install C link retainer with screws.

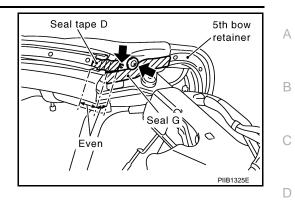
#### NOTE:

Align matching marks on the retainer to screw heads, when installing the retainer.



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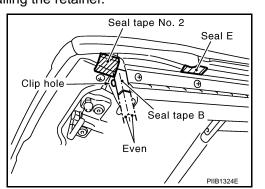
22. Apply seal to C link lower installation position. **CAUTION:** Make sure not to cover clip hole and screw head.



23. Install A link retainer with screws. NOTE:

Align matching marks on the retainer to screw heads, when installing the retainer.

24. Apply seal E to A link installation position.



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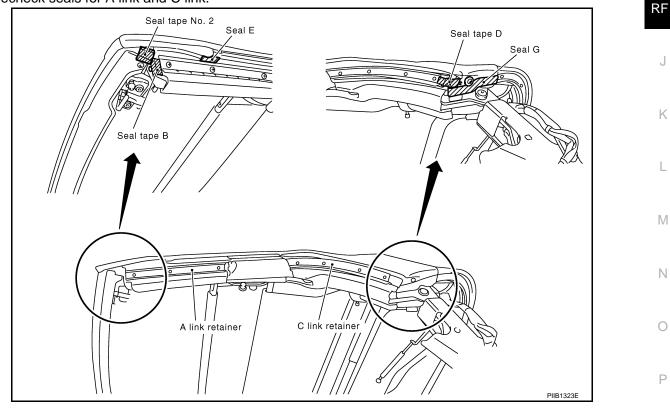
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25. Recheck seals for A link and C link.



#### < SERVICE INFORMATION >

28. Install A link weather strip.

26. Install C link and 5th bow weather strip to 5th bow and C link.

27. Remove protection tape on the limit switch.

- 29. Install front lock finisher and welt after closing soft top.
- 30. Connect defogger harnesses at rear window.
- 31. Install 5th bow operating strut rods (RH/LH).
- 32. Install roof actuator (RH/LH). Refer to RF-101, "Removal and Installation of Roof Actuator".
- 33. Install soft top assembly to vehicle. Refer to RF-83, "Removal and Installation of Soft Top Assembly".
- 34. Check soft top open/close operation.
- 35. Check door glass contact. Refer to GW-47, "Inspection after Installation".
- 36. Check for water leakage. Refer to RF-110, "Repairing Method for Water Leakage Around Doors".

#### NOTE:

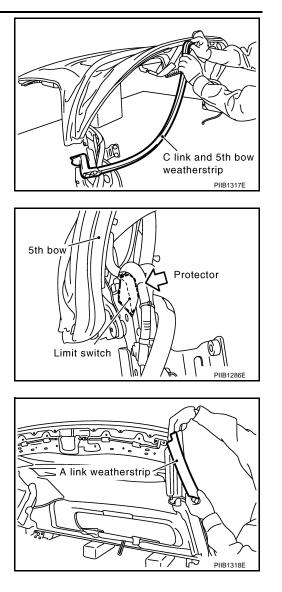
REMOVAL

1.

If there are wrinkles on the soft top cover, use a hair dryer to warm up the wrinkled area. Apply warm air from the hair dryer keeping the distance by 150 - 200 mm (5.9 - 7.8 in) and move the dryer to gently warm up soft top cover, for about 5 - 10 minutes until the wrinkle seems to be gone. Not to heat up soft top cover to much.

#### Removal and Installation of Switches

- Uninstall soft top assembly from the vehicle. Remove roof actuator (RH/LH) from the soft top.
- 2. Remove harness tie wrap band at the left side of the soft top.



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#### < SERVICE INFORMATION >

3. Remove limit switches with plate rail RR bracket by removing bolt.

 Remove limit switches with soft top switch bracket1 by removing bolt.

5. Remove limit switches with soft top switch bracket 2 by removing bolt.



Install in the reverse order of removal.

#### NOTE:

Wire harnesses correctly to avoid following situation.

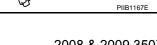
- Pinching harnesses by frame.
- Tangling harnesses by frame and links.
- Pulling harnesses between fixing point by harness clips.

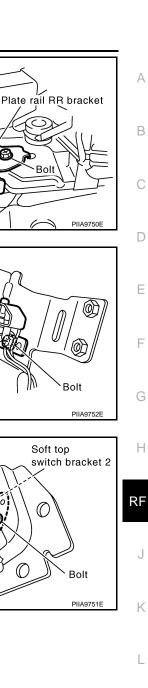
## Removal and Installation of Roof Actuator

#### REMOVAL

- 1. Remove soft top assembly. Refer to <u>RF-83, "Removal and Installation of Soft Top Assembly"</u>.
- 2. Remove nuts and then remove roof actuator (RH/LH). NOTE:

If removal is difficult, rotate motor axis to remove them.





Soft top switch bracket 1 <

Soft top frame

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Roof actuator

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3. Disconnect soft top actuator harness connector.

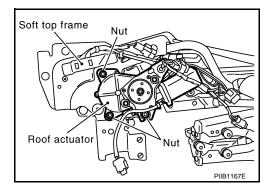
#### INSTALLATION

Install in the reverse order of removal.

Removal and Installation of 5th Bow Drive Unit

#### REMOVAL

- 1. Uninstall soft top assembly from the vehicle.
- Remove roof actuator (RH/LH) from the soft top.
   NOTE: If removal is difficult, rotate motor axis to remove them.



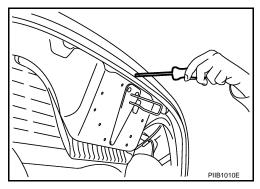
- 5th bow operating rod drive unit Holder
- 3. Disconnect 5th bow operating rod (RH/LH) at the frame side by pulling out the holder.

**NOTE:** This step will make the 5th bow up and down motion easier.

- 4. Make sure that the limit switch contact around the rotation axis of the 5th bow on the left side of soft top is protected with tape.
- 5. Open the soft top manually, and put a stand under the 1st bow. Then fix the soft top not to move during this procedure. **NOTE:**

Put a waste cloth between the front lock and the stand not to make any scratches to the soft top.

- 6. Remove the C link and 5th bow weather strip.
- 7. Remove the soft top cover retainer (5th bow retainer) from 5th bow by taking out screws.



8. Drilling rivets attaching the soft top cover to 5th bow, then pull up the soft top cover bottom edge. **NOTE:** 

Use 4 mm (0.16 in) diameter drill bit to remove the rivet head. When drilling rivets, be careful not to damage the soft top cover.

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#### < SERVICE INFORMATION >

11. Remove pads from 5th bow finisher.

 Drilling rivets with retainers attaching with tags from the soft top cover, 5th bow finisher and the 5th bow.
 NOTE:

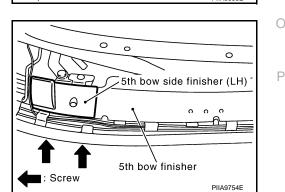
Use 4 mm (0.16 in) diameter drill bit to remove the rivet head. The soft top cover is separated from 5th bow.

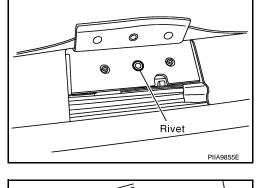
10. Drilling rivets under retainers by using 4 mm (0.16 in) diameter drill bit.

- 12. Roll the soft top cover bottom edge up, and disconnect defogger harness connector from the rear window glass.
- 13. Pull out glass stays from sleeves on each side of the rear window glass.

14. Remove 5th bow side finisher (RH/LH) by removing screws.

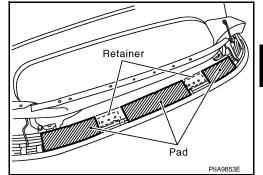
**RF-103** 

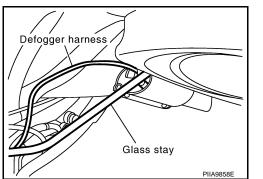




Retainer

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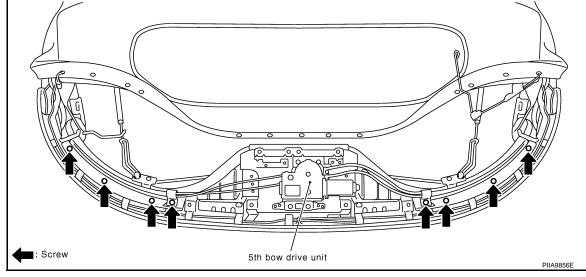
15. Remove 5th bow finisher by pulling the finisher up.

16. Remove glass stays from 5th bow by removing screws from the bottom of the 5th bow.

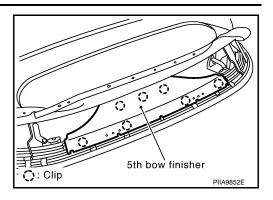
NOTE:

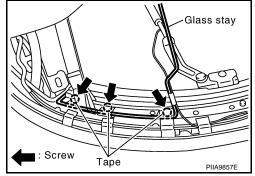
- When removing glass stays, support 5th bow to avoid a bend of glass stay. This bend may happen by the weight of the 5th bow and the tensile force of the tether from the soft top cover.
- Be careful not to damage the 5th bow nor to be hurt by the falling 5th bow, because the 5th bow is heavy and moves freely after removing glass stays.
- 17. Disconnect 5th bow drive unit harness connector.

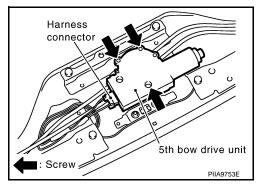
- 18. Remove 5th bow drive unit and rails together from 5th bow by removing screws. **NOTE:** 
  - After removing drive unit and rails, not to pull rails. Otherwise, the wire in the rail may be damaged.
  - The screws are not reusable.



#### INSTALLATION



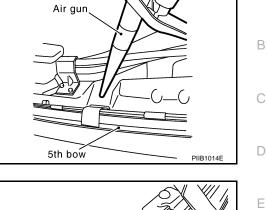


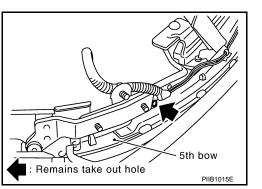


#### **Preparation Work**

1. Blow remains of rivet toward both ends of 5th bow with compressed air if they are entering into 5th bow.

2. Remove the remains drawn to both ends by the air blow from the gap.





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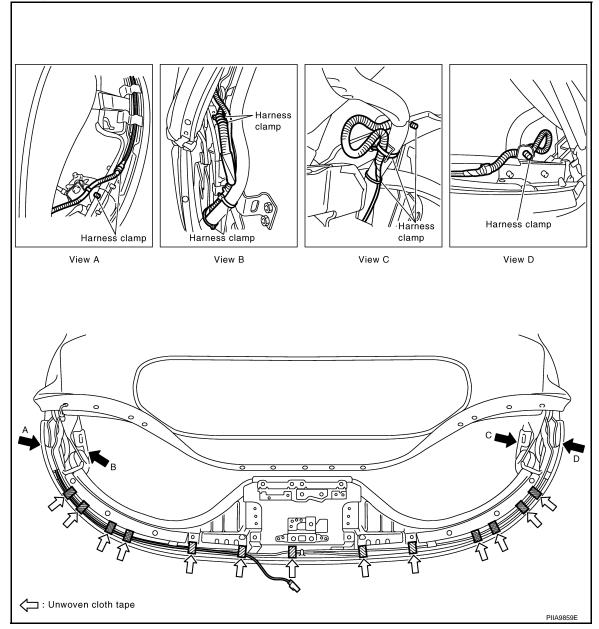
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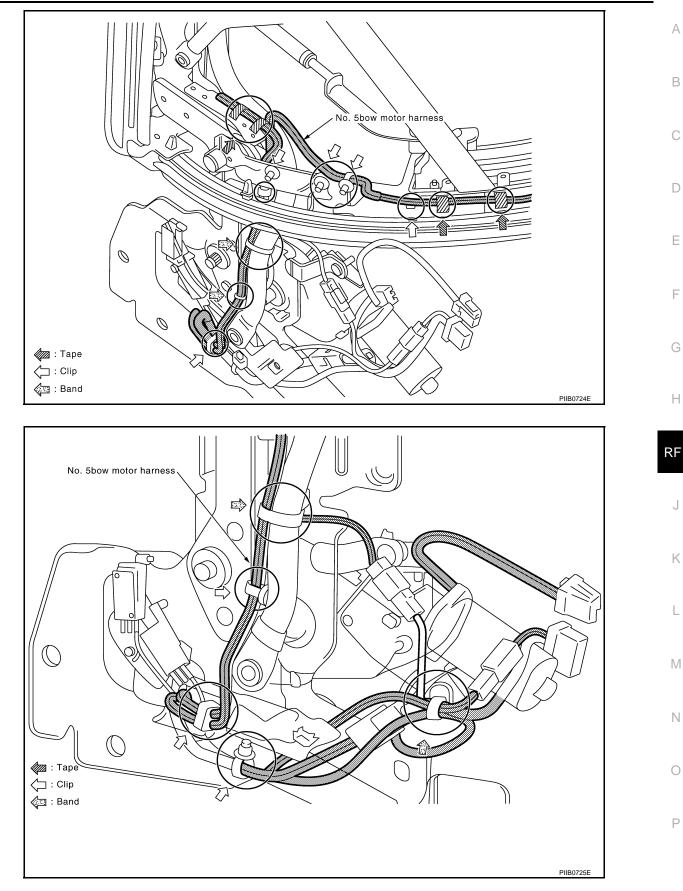
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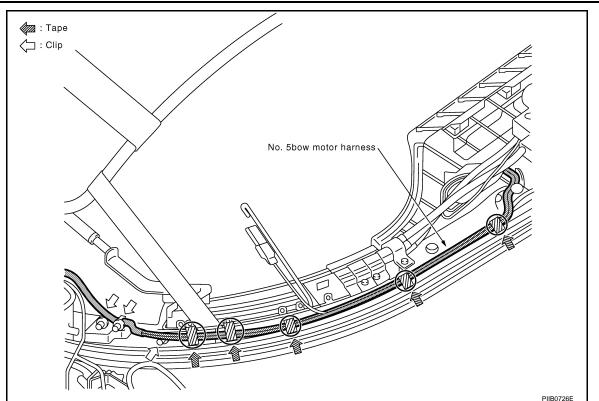
#### < SERVICE INFORMATION >

3. For fixing harness to 5th bow and Soft top frame, see next figure.



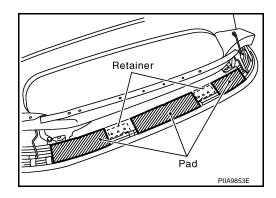
#### < SERVICE INFORMATION >





- 4. Replace rivet retainer on back of 5th bow finisher with a new one.
- 5. Secure 5th bow finisher with rivet, and then apply nonwoven fabric.
- 6. Install 5th bow finisher and 5th bow finisher (RH/LH).
- 7. Apply pad on 5th bow finisher. NOTE:

Apply pad to the original position.



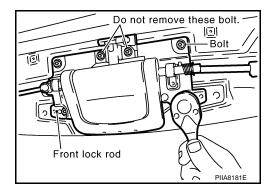
Installation Install in the reverse order of removal.

Removal and Installation of Front Lock

#### REMOVAL

- 1. Remove welt and front finisher.
- 2. Remove bolts, and then remove front lock rod. CAUTION:

Do not remove front lock hook, center bolts.



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### < SERVICE INFORMATION >

 Remove bolts, and then remove front lock striker, LH, center, and RH.
 NOTE: Paint matching marks for front lock assembly to check location for installation.

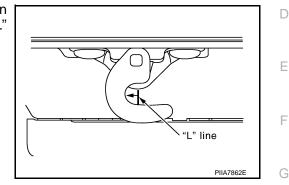
#### **INSTALLATION**

Install in the reverse order of removal.

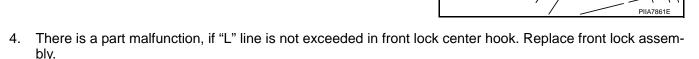
Always adjust before installation. Refer to "INSPECTION AND ADJUSTMENT".

### INSPECTION AND ADJUSTMENT

- 1. Apply super-check spray on a contact surface of 3 hooks which may touch with rods on the body. Fully close soft top, and then engage front lock.
- Open soft top, and then make sure that the part, from which iron material is visible by peeling off super-check mark, exceeds "L" line.



3. Adjust hook contact length by adjusting front lock rod length using front lock rod adjust bolt if "L" line is not exceeded in front lock hook, RH and LH.



- Make sure that the super check mark exceeds the "L" line, and then measure the fully closed operating force while contacting push-pull gauge to the handle. Make sure that the operating force is 68.6 N (7 kg, 15.4 lb) or less, and then install it.
   NOTE:
  - Replace front lock assembly if the operating force is over the specified value.
  - Make sure that operating force when replacing front weather strip, center weather strip, and rear weather strip is 107.8 N (11 kg, 24.2 lb) or less.

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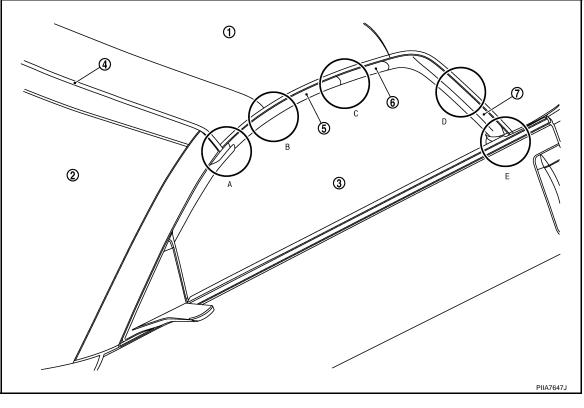
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Front rock rod adjusting bolt

## < SERVICE INFORMATION >

# Repairing Method for Water Leakage Around Doors

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- 1. Soft top assembly
- 2. Windshield glass
- 3. Door glass
- 5. A link weather strip
- B link weather strip

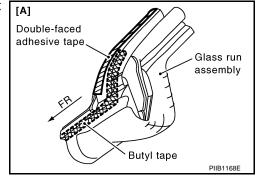
- 4. Glass run assembly
- 7 C link and 5th bow weather strip

### WATER LEAKAGE FROM A

Water may be entering passenger room through back of front pillar. Cause: Butyl tape on back of glass run assembly may be separating from roof panel.

#### Repair Procedure 1

Apply butyl tape on back of glass run assembly again, and correct installing position.

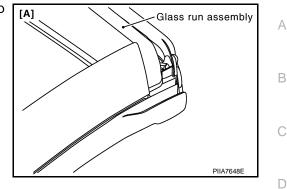


Water may be entering through connection between front pillar and front edge of soft top. Cause: There may be a gap between glass run assembly and weather strip of soft top.

**Repair Procedure 2** 

#### < SERVICE INFORMATION >

Replace glass run assembly with a new one to eliminate the gap between glass run assembly and weather strip.



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### WATER LEAKAGE FROM B

Water may be entering through door glass upper inside edge.

Cause: There may be poor contact between A link weather strip of soft top and door glass.

**Repair Procedure 3** 

- Adjust door glass position frontward/backward or upward/downward against soft top assembly.
- Adjust door glass tilt contact by rotating adjusting bolt on regulator lower edge.

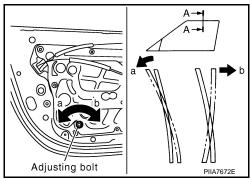
#### **CAUTION:**

lower edge.

Soft top assembly position may be incorrect when glass upper position is low even if door glass adjustment is performed. Perform soft top assembly adjustment, if necessary. Refer to <u>GW-46</u>.

46. A link weatherstrip

A link retainer

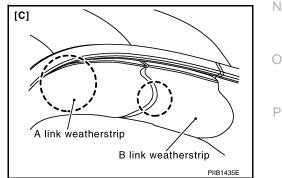


### WATER LEAKAGE FROM C

Water may be entering through a joint between soft top weather strips. Cause: There may be a step or a gap at the weather strips joint.

#### Repair Procedure 4

- Replace weather strip with a new one.
- If the step or the gap is not eliminated after replacing weather strip, then perform the following procedure.



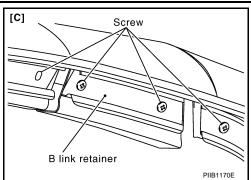
Repair Procedure 5

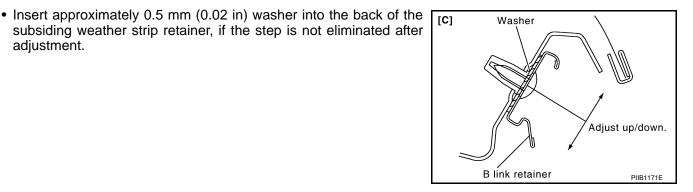


## < SERVICE INFORMATION >

- Loosen retainer screws.
- Make fine upward/downward position adjustments to the B link retainer.

(Move the B link retainer of a protruded weather strip downward for the adjustment.)





#### WATER LEAKAGE FROM D

Water may be entering through inside door glass rear.

Cause: There may be poor contact between Clink and 5th bow weather strip of soft top and door glass.

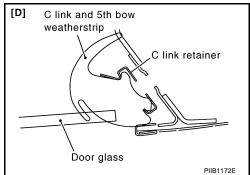
**Repair Procedure 6** 

adjustment.

- · Adjust door glass position frontward/backward or upward/downward against soft top.
- Adjust door glass tilt contact by rotating adjusting bolt on regulator lower edge.

### CAUTION:

Soft top assembly position may be incorrect in the case of glass upper position is low even if door glass adjustment is performed. Perform soft top assembly adjustment if necessary. Refer to GW-46.



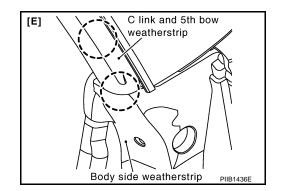
### WATER LEAKAGE FROM E

Water may be entering passenger room through weather strip joint.

Cause: There may be a step or a gap between C link and 5th bow weather strip side and body side of weatherstrip.

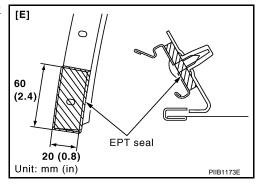
### **Repair Procedure 7**

- Remove C link weather strip.
- Remove C link retainer.



### < SERVICE INFORMATION >

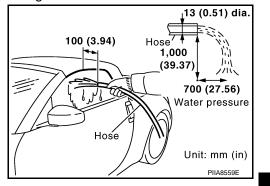
• Apply approximately 5 mm (0.2 in) thick EPT seal to retainer back surface.



### WATER LEAKAGE TEST

Visually check for water leakage after repairing.

- 2 workers are required. One worker checks inside the vehicle, and the other one washes with water. 1.
- 2. Use 13 mm (0.51 in) diameter hose. Adjust water pressure by following method.
- Hold the hose horizontally, and release water at 1000 mm (39.37 in) height from ground. Adjust the distance, between the ground point just below the hose and the water dropping point, to reach 700 mm (27.56 in). (See the figure.)
- Keeping the distance between the hose and the testing area by 3. 100 mm (3.94 in), apply water along the area 3 times. During applying water, move the hose by 100 mm (3.94 in)/sec speed.



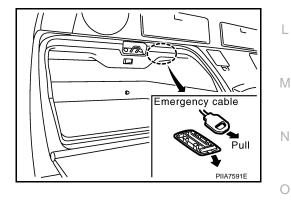
4. Visually check for water leakage.

# Correspondence in Emergency

If the soft top cannot be operated electrically in the event of a discharged battery or any other system malfunction, the soft top needs to be closed manually or opened manually according to the following procedures.

MANUAL OPERATION (SOFT TOP FULLY OPEN  $\Rightarrow$  FULLY CLOSE)

- 1. Open The Trunk Lid
- Open the lid behind the passenger's seat (rear floor box).
- Remove cap of the emergency cable.
- Pull the emergency cable upper surface in the box.
- Open trunk lid.



2. Open The Storage Lid

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### < SERVICE INFORMATION >

- Remove floorboard inside of the trunk.
- Disconnect the storage lid motor harness connector upperward, which is located at the right hand side of the trunk.
- Pull down the storage lid lock release cable (right and left sides in the trunk).
- Confirm a clicking sound of lock release.
- Pull up the storage lid from the right and left sides of vehicle (two people are required).

#### CAUTION:

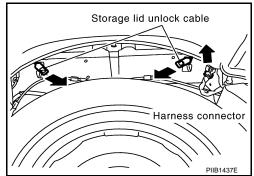
The storage lid is extremely heavy. Pulling it up should be done by two people. Use Hex-wrench to rotate the axis of the gear, when the lid does not move.

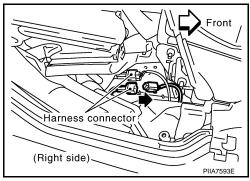
### 3. Close The Soft Top

• Disconnect roof actuator harness connector right and left sides. CAUTION:

2nd disconnect top of roof actuator harness connector right and first disconnect top of roof actuator harness connectors left sides.

- Pull up the soft top right and left sides of the vehicle slowly by hand (two people are required).
- Lock soft top front lock.





4. Close The Storage Lid

Push down soft top to body panel.

- 5. Lower The Soft Top 5th Bow
- Remove both operating rod of soft top 5th bow. CAUTION:
- Remove a holder of operating rod end.

Simultaneously hold soft top 5th bow by hand when removing the holder.

• Push in 5th bow to storage lid (do half lock).

### **CAUTION:**

After closing the soft top manually according to the above procedures, have the soft top operation system checked and/or repaired by a NISSAN dealer as soon as possible.

Avoid leaving the vehicle outside for long periods or driving at high speed. As the rear of the soft top is not locked completely, this may allow wind and rain get into the vehicle.

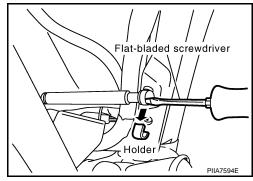
# MANUAL OPERATION (SOFT TOP FULLY CLOSE $\Rightarrow$ FULLY OPEN)

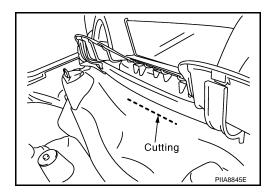
1. Remove The Luggage Floor Trim

Remove the rear floor box and luggage floor finisher upper. Refer to <u>EI-36</u>, "Removal and Installation (for <u>Roadster Models</u>)".

2. Cutting Storage Room Finisher

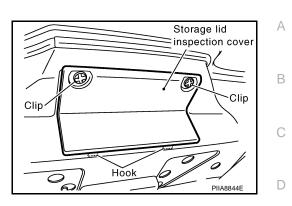
Cut storage room finisher from seat side.



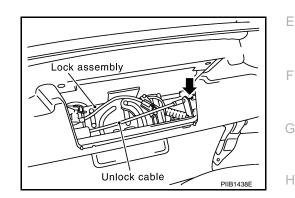


# < SERVICE INFORMATION >

- 3. Unlock The Storage Lid
- Remove clip of inspection cover.



- Remove the storage lid inspection cover.
- Pull the unlock wire then unlock the soft top 5th bow.



- 4. Open The Soft Top 5th Bow
- Remove both shock absorber of soft top 5th bow.
- Open the soft top 5th bow (approximate 90 degrees)
- 5. Open The Trunk Lid
- Pull the emergency cable.
- Open the trunk lid.
- 6. Open The Storage Lid
- Remove floorboard inside of the trunk.
- Disconnect the storage lid motor harness connector downward which is in the right hand side of the trunk.
- Pull down the storage lid lock release cable (right and left side of the trunk).
- Confirm a clicking sound of lock release.
- Pull up the storage lid from the right and left sides of vehicle (two people are required).
   CAUTION:

The storage lid is extremely heavy. Pulling it up should be done by two people. Use Hex-wrench to rotate the axis of the gear, when storage lid does not move.

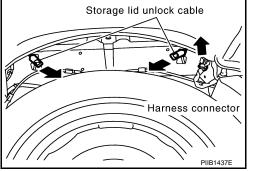
- Disconnect roof actuator harness connector right and left side (disconnect top of roof actuator harness connector right and left side).
- 7. Open The Soft Top
- Lower the soft top 5th bow.
- Unlock the front lock.
- Open the soft top right and left side of the vehicle slowly by hand (two person job).

8. Close The Storage Lid

# NOTE:

If necessary.

9. Close The Trunk Lid **NOTE:** If necessary.



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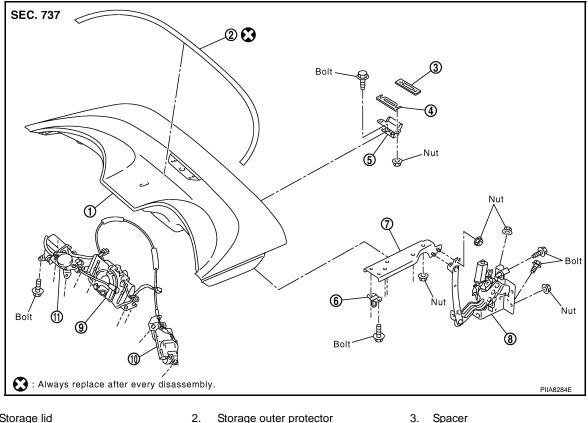
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# < SERVICE INFORMATION > STORAGE LID

# Removal and Installation of Storage Lid Assembly

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- Storage lid 1.
- 4. Shim
- Storage lid upper bracket 7.
- 10. 5th bow unlock actuator
- 2. Storage outer protector
- 5. Storage lid hinge
- 8. Storage lid lower bracket
- 11. 5th bow closure motor

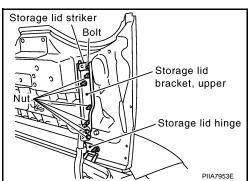
- REMOVAL
- 1. Disconnect storage lid actuator connector.
- Remove bolts, and then remove storage lid striker. 2. NOTE:
  - 2 or more workers are required.
  - · Paint matching marks to check location for installation.
- 3. Remove nuts which is connecting the storage lid upper bracket and the storage lid lower bracket. NOTE:

Paint matching marks to check location for installation.

Remove nuts of storage lid hinge, and then remove storage lid, 4. spacers and shims.

## INSTALLATION

- Install in the reverse order of removal. 1.
- 2. Install storage lid, and then adjust fitting of lid.

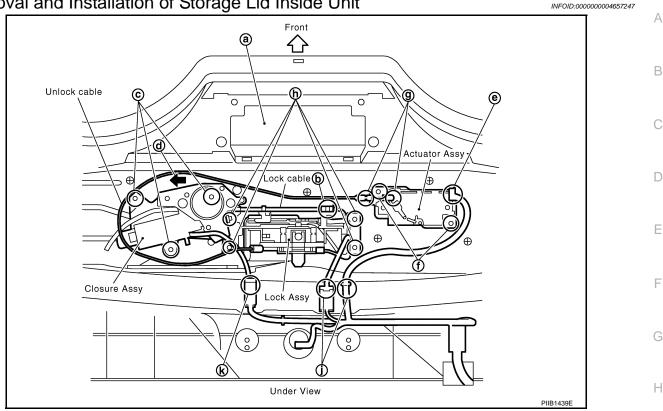


6. Storage lid striker

9. 5th bow lock

## < SERVICE INFORMATION >

# Removal and Installation of Storage Lid Inside Unit



# REMOVAL

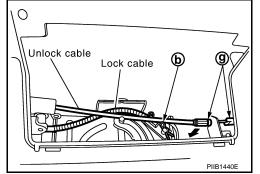
#### NOTE:

After installing Storage lid on the vehicle, an adjustment of Storage lid position is required in both closed and opened condition.

Put the removed storage lid on the floor or a work bench covered by waste clothes to prevent any scratches.

- 1. Remove storage lid inspection cover on the front side of Storage lid. (a in the figure)
- Disconnect a wire from a lock assembly by pulling out a connection pin. (b in the figure) 2. NOTE:

The pin should be taken off by a small pliers not to fell into Storage lid. If the pin fell into Storage lid, then it is very difficult to take the pin out from the lid. And if the pin is left inside the lid, it may make an uncomfortable noise.



- Remove closure mounting bolt from back of storage lid. (c in the figure) 3.
- Move closure toward outside of vehicle (because it interferes with unlock). (d in the figure) 4.
- 5. Disconnect unlock actuator connector. (e in the figure)
- Disconnect actuator side of unlock cable. (g in the figure) 6.
- Remove unlock actuator mounting bolt from back of storage lid, and then remove unlock actuator from 7. inspection cover. (f in the figure)
- Remove lock mounting bolt from back of storage lid, and then move entire lock toward rear of storage lid. 8. (h in the figure)
- 9. Disconnect lock harness connector, and then remove lock from inspection cover. (j in the figure) NOTE:

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## < SERVICE INFORMATION >

Turn lock catcher counterclockwise, and then face it to storage lid inspection hole side to remove because it interferes with storage lid when removing.

- 10. Disconnect closure harness connector, and then remove closure from inspection cover. (k in the figure)
- 11. Disconnect unlock actuator, lock, and closure harness connectors from inspection cover. (Push in harness connector clip tabs from back of storage lid using a screwdriver so as to remove.)

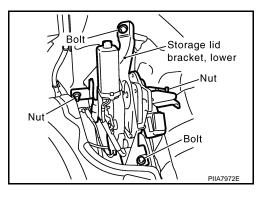
### INSTALLATION

Install in the reverse order of removal.

# Removal and Installation of Storage Lid Actuator

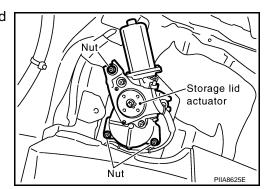
REMOVAL

- 1. Remove trank room trim.
- 2. Remove nuts and bolts, and then remove storage lid lower bracket.



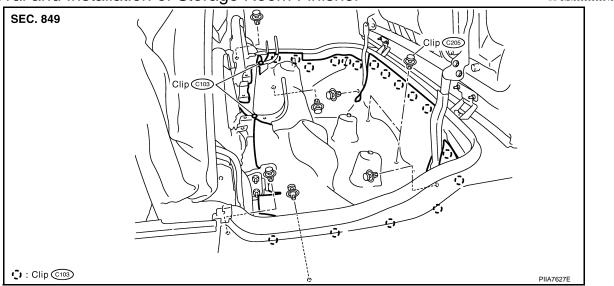
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- 3. Disconnect storage lid actuator harness connector.
- 4. Remove nuts and remove storage lid actuator from storage lid bracket, lower.



INSTALLATION Install in the reverse order of removal.

# Removal and Installation of Storage Room Finisher



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### < SERVICE INFORMATION >

### REMOVAL

- Remove rear side finisher. Refer to EI-31, "Removal and Installation (for Roadster Models)". 1.
- 2. Remove bolts, and then soft top mounting bracket (front).
- Remove bolts, and then soft top mounting bracket (rear). 3.
- 4. Lift up soft top mounting bracket using a lever, and then remove storage room finisher clips.
- 5. Remove storage room finisher clips, and then remove rear side of storage room finisher.
- Lift up back panel finisher clips using remover tools, and then remove front side of storage room finisher. 6.

#### INSTALLATION

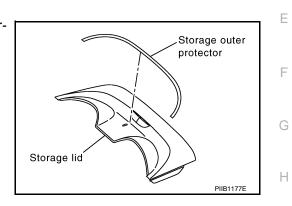
Install in the reverse order of removal.

## Removal and Installation of Storage Outer Protector

Note the following, and install in the reverse order of removal.

Heat the bonded area using a hair dryer, and then remove stor-1. age outer protector. NOTE:

Do not reuse storage outer protector after removing.



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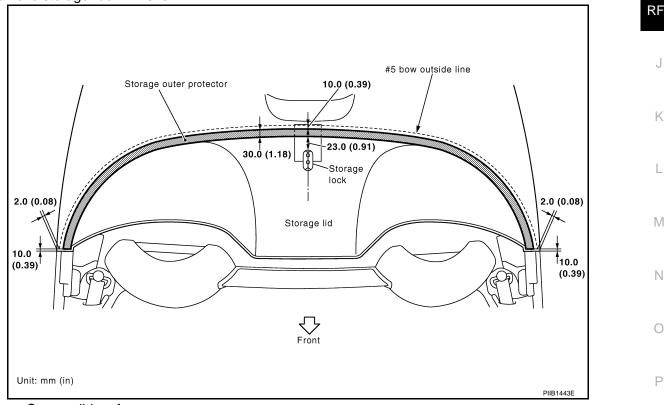
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#### 2. Remove storage room finisher.



- 3. Clean Storage lid surface.
- 4. Close Soft top, and draw a line on a storage lid just behind the 5th bow out side edge by a water base marker pen.
- 5. Apply IPA solution (isopropyl alcohol : water = 1 : 1) on the lid, and set the storage outer protector position from one side. And do the same procedure to another side.
- Apply left side storage lid outer aligning with left storage lid scribed line. 6.

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### < SERVICE INFORMATION >

7. Apply right side storage lid outer aligning with right storage lid scribed line.

#### NOTE:

Not to put air or dust under the tape.

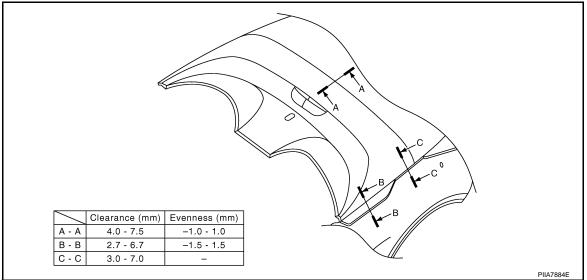
After applying the tape on the lid, peal off the protection film on the storage outer protector.

 Secure left, right, and front end of storage room finisher with remaining part when removing using doublefaced adhesive tape.

# Adjustment of Storage Lid

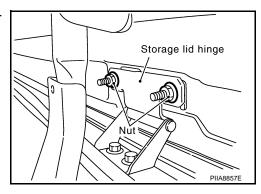
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# ADJUSTMENT IN FULLY CLOSED POSITION



#### A-A Clearance Adjustment

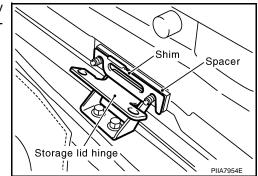
Loosen nuts of storage lid hinge. Adjust storage lid until the clearance is within the specification.



### B-B Clearance Adjustment

Loosen nut of storage lid striker lock, and adjust it until the clearance is within the specification.

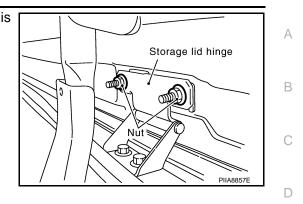
C-C Clearance Adjustment, A-A Evenness Adjustment Loosen nuts of storage lid hinge. Adjust storage lid height by exchanging or adding shim until the evenness is within the specification.



**B-B Evenness Adjustment** 

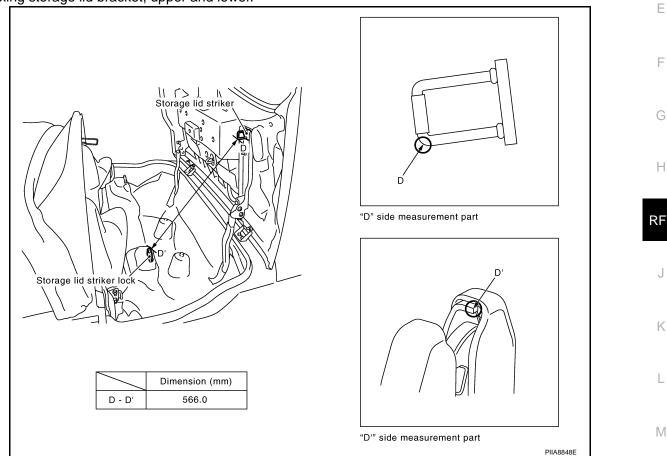
### < SERVICE INFORMATION >

Loosen nuts of storage lid hinge. Adjust the lid until the evenness is within the specification.



## ADJUSTMENT IN FULLY OPENED POSITION

Adjust linkage position of storage lid striker and storage lid striker lock to specified dimension, by loosening nuts fixing storage lid bracket, upper and lower.



Removal and Installation of Storage Lid Striker Lock & Storage Lid Emergency Opener

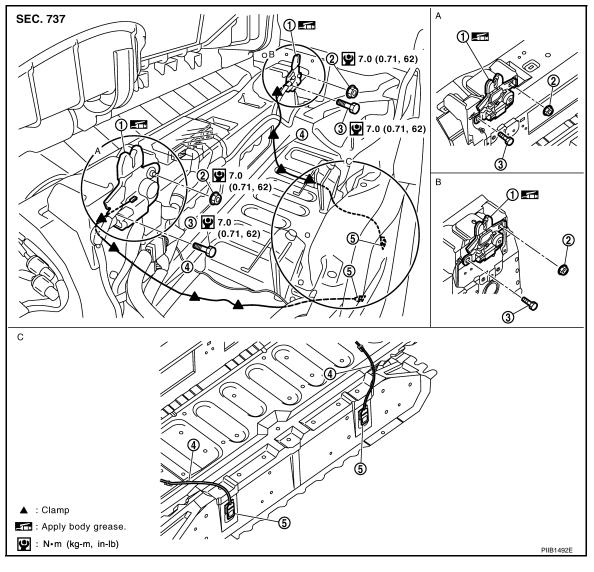
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# < SERVICE INFORMATION >

# Cable

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 1. Storage lid striker lock assembly
 2. Nut
 3. Bolt

4. Storage lid emergency opener cable 5. Storage lid emergency opener hook

### REMOVAL

- 1. Remove storage room finisher. Refer to <u>RF-118. "Removal and Installation of Storage Room Finisher"</u>.
- 2. Remove trunk front finisher. Refer to EI-44.
- 3. Disconnect each clamp of storage lid emergency opener cable.
- 4. Disconnect each harness connector of storage lid lock assembly.
- 5. Remove storage lid lock mounting bolts, and then remove storage lid lock assembly.

#### INSTALLATION

Install in the reverse order of removal.