

D

Е

F

G

Н

ΙP

J

L

M

# **CONTENTS**

PRECAUTIONS 2	Cluster Lid A	11
Precautions for Supplemental Restraint System	REMOVAL	11
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	INSTALLATION	12
SIONER" 2	Combination Meter	12
PREPARATION 3	REMOVAL	12
Special Service Tools	INSTALLATION	12
Commercial Service Tools 3		12
SQUEAK AND RATTLE TROUBLE DIAGNOSIS 4	REMOVAL	12
Work Flow 4	INSTALLATION	12
CUSTOMER INTERVIEW 4	Steering Column Cover	12
DUPLICATE THE NOISE AND TEST DRIVE 5	REMOVAL	12
CHECK RELATED SERVICE BULLETINS 5	INSTALLATION	12
LOCATE THE NOISE AND IDENTIFY THE	Cluster Lid C	13
ROOT CAUSE 5	REMOVAL	13
REPAIR THE CAUSE5	INSTALLATION	13
CONFIRM THE REPAIR 6	Cluster Lid D	13
Generic Squeak and Rattle Troubleshooting 6	REMOVAL	13
INSTRUMENT PANEL 6	INSTALLATION	13
CENTER CONSOLE6	Center Stack Trim Panel	13
DOORS 6	REMOVAL	13
TRUNK 7	INSTALLATION	14
SUNROOF/HEADLINING7	Glove Box	14
OVERHEAD CONSOLE (FRONT AND REAR) 7	REMOVAL	14
SEATS 7		14
UNDERHOOD 7	CENTER CONSOLE ASSEMBLY	15
Diagnostic Worksheet8	Components	15
INSTRUMENT PANEL ASSEMBLY 10	Removal	16
Instrument Panel 10	Disassembly	16
COMPONENTS 10	Assembly	18
REMOVAL11	Installation	
INSTALLATION11		

# **PRECAUTIONS**

PRECAUTIONS PFP:00001

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

EIS007KP

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

#### **WARNING:**

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

# **PREPARATION**

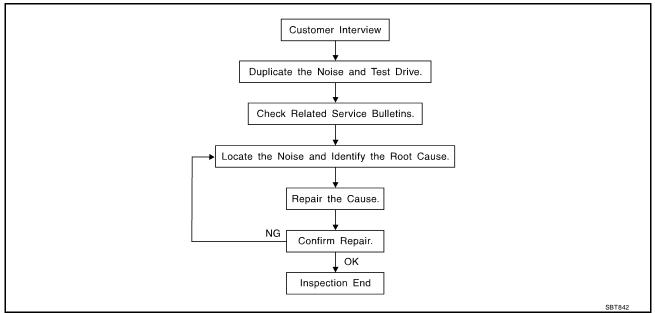
**PREPARATION** PFP:00002 Α **Special Service Tools** EIS007KQ The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here. В Tool number (Kent-Moore No.) Description Tool name Locating the noise C (J-39570) Chassis ear  $\mathsf{D}$ Е Repairing the cause of noise (J-43980) NISSAN Squeak and Rattle kit Н **Commercial Service Tools** (Kent-Moore No.) Description Tool name (J-39565) Locating the noise Engine ear M SIIA0995E Power Tool Loosening bolts and nuts

PBIC0191E

# SQUEAK AND RATTLE TROUBLE DIAGNOSIS

PFP:00000

Work Flow



#### **CUSTOMER INTERVIEW**

Interview the customer, if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any customer's comments; refer to <a href="IP-8">IP-8</a>, "Diagnostic Worksheet"</a>. This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, be sure to diagnose and repair the noise that the customer is concerned about. This can be accomplished by 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/brought on by road conditions/hard surfaces = higher pitch noise/softer surfaces = lower pitch noises/edge to surface = chirping.
- Creak (Like walking on an old wooden floor)
   Creak characteristics include firm contact/slow movement/twisting with a rotational movement/pitch dependent on materials/often brought on by activity.
- Rattle (Like shaking a baby rattle)
   Rattle characteristics include the fast repeated contact/vibration or similar movement/loose parts/missing clip or fastener/incorrect clearance.
- Knock (Like a knock on a door)
   Knock characteristics include hollow sounding/sometimes repeating/often brought on by driver action.
- Tick (Like a clock second hand)
   Tick characteristics include gentle contacting of light materials/loose components/can be caused by driver action or road conditions.
- Thump (Heavy, muffled knock noise)
   Thump characteristics include softer knock/dead sound often brought on by activity.
- Buzz (Like a bumblebee)
   Buzz characteristics include high frequency rattle/firm contact.
- Often the degree of acceptable noise level will vary depending upon 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 is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when you confirm the repair.

If the noise can be duplicated easily during the test drive, to help identify the source of the noise, try to duplicate the noise with the vehicle stopped by doing one or all of the following:

- 1. Close a door.
- 2. Tap or push/pull around the area where the noise appears to be coming from.
- 3. Rev the engine.
- 4. Use a floor jack to recreate vehicle "twist".
- 5. At idle, apply engine load (electrical load, half-clutch on M/T model, drive position on A/T model).
- 6. Raise the vehicle on a hoist and hit a tire with a rubber hammer.
- Drive the vehicle and attempt to duplicate the conditions the customer states exist when the noise occurs.
- If it is difficult to duplicate the noise, drive the vehicle slowly on an undulating or rough road to stress the vehicle body.

#### CHECK RELATED SERVICE BULLETINS

After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related to that concern or symptom.

If a TSB relates to the symptom, follow the procedure to repair the noise.

### 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: J-39565, and mechanics stethoscope).
- 2. Narrow down the noise to a more specific area and identify the cause of the noise by:
  - Removing the components in the area that you suspect the noise is coming from.
     Do not use too much force when removing clips and fasteners, otherwise clips and fasteners can be broken or lost during the repair, resulting in the creation of new noise.
  - Tapping or pushing/pulling the component that you suspect is causing the noise.
     Do not tap or push/pull the component with excessive force, otherwise the noise will be eliminated only temporarily.
  - Feeling for a vibration with your hand by touching the component(s) that you suspect is (are) causing the noise.
  - Placing a piece of paper between components that you suspect are causing the noise.
  - Looking for loose components and contact marks.

Refer to IP-6, "Generic Squeak and Rattle Troubleshooting" .

#### 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 retightening the 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 Department.

#### **CAUTION:**

Do not use excessive force as many components are constructed of plastic and may be damaged. 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 x 135 mm (3.94 x 5.31 in)/76884-71L01: 60 x 85 mm (2.36 x 3.35 in)/76884-71L02: 15 x 25 mm (0.59 x 0.98 in)

INSULATOR (Foam blocks)

Insulates components from contact. Can be used to fill space behind a panel.

ΙΡ

Е

F

L

M

73982-9E000: 45 mm (1.77 in) thick, 50 x 50 mm (1.97 x 1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50 x 50 mm (1.97 x 1.97 in)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30 x 50 mm (1.18 x 1.97 in)

**FELT CLOTH TAPE** 

Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000: 15 x 25 mm (0.59 x 0.98 in) pad/68239-13E00: 5 mm (0.20 in) wide tape roll

The following materials, not found in the kit, can also be used to repair squeaks and rattles.

**UHMW (TEFLON) TAPE** 

Insulates where slight movement is present. Ideal for instrument panel applications.

SILICONE GREASE

Used in place of UHMW tape that will be visible or not fit.

Note: 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 originally occurred. Refer to the notes on the Diagnostic Worksheet.

# **Generic Squeak and Rattle Troubleshooting**

EIS007KT

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

#### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

- 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 silicone 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 the center console.

#### **DOORS**

Pay attention to the:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. 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 bumpers out of adjustment
- Trunk lid striker out of adjustment
- The trunk lid torsion bars knocking together
- A loose license plate or bracket

Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) causing 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 knocking noise
- Sun visor shaft shaking in the holder
- 3. Front or rear windshield touching headliner and squeaking

Again, pressing on the components to stop the noise while duplicating the conditions can isolate most of these incidents. Repairs usually consist of insulating with felt cloth tape.

# OVERHEAD CONSOLE (FRONT AND REAR)

Overhead console noises are often caused by the console panel clips not being engaged correctly. Most of these incidents are repaired by pushing up on the console at the clip locations until the clips engage. In addition look for:

- 1. Loose harness or harness connectors.
- 2. Front console map/reading lamp lens loose.
- 3. Loose screws at console attachment points.

**SEATS** 

When isolating seat noise it's important to note the position the seat is in and the load placed on the seat when the noise is present. These conditions should 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 conditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.

#### **UNDERHOOD**

Some interior noise may be caused by components under the hood or on the 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
- Engine wall mounts and connectors
- 4. Loose radiator mounting pins
- Hood bumpers out of adjustment
- Hood striker out of adjustment

Revision: March 2006

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.

IP-7

2007 Quest

# **Diagnostic Worksheet**

ISOOZKII

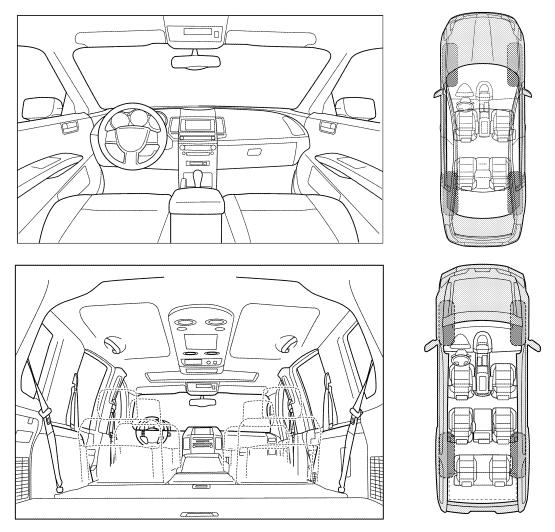
#### Dear Customer:

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

# **SQUEAK & RATTLE DIAGNOSTIC WORKSHEET**

### 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.

- 1 -

SQUEAK & RATTLE DIAGNOSTIC WORKSHEET - page 2							
Briefly describe the location where the noise o	ccurs	:					
II. WHEN DOES IT OCCUR? (please check to	the bo	xes that app	ly)				
☐ Anytime ☐ 1st time in the morning ☐ Only when it is cold outside	□ w	ter sitting ou hen it is raini y or dusty co	ng or wet				
Only when it is hot outside	☐ Ot	her:					
III. WHEN DRIVING:	IV. W	HAT TYPE (	F NOISE	<u>.</u>			
<ul><li>☐ Through driveways</li><li>☐ Over rough roads</li><li>☐ Over speed bumps</li></ul>	Squeak (like tennis shoes on a clean floor) Creak (like walking on an old wooden floor) Rattle (like shaking a baby rattle) Knock (like a knock at the door) Tick (like a clock second hand) Thump (heavy muffled knock noise)						
☐ Only about mph ☐ On acceleration ☐ ☐ Coming to a stop							
☐ On turns: left, right or either (circle) ☐ With passengers or cargo ☐ Other:		ızz (like a bu	mble bee)				
After driving miles or minutes	,						
TO DE COMDIETED DY DEALEDQUID DED	SONN	EL					
TO BE COMPLETED BY DEALERSHIP PER: Test Drive Notes:							
		YES	NO	Initials of person			
Test Drive Notes:			NO	Initials of person performing			
Test Drive Notes:  Vehicle test driven with customer			NO	performing			
Vehicle test driven with customer - Noise verified on test drive			NO	performing			
Test Drive Notes:  Vehicle test driven with customer	pair		NO O	performing			
Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired		YES		performing			

This form must be attached to Work Order

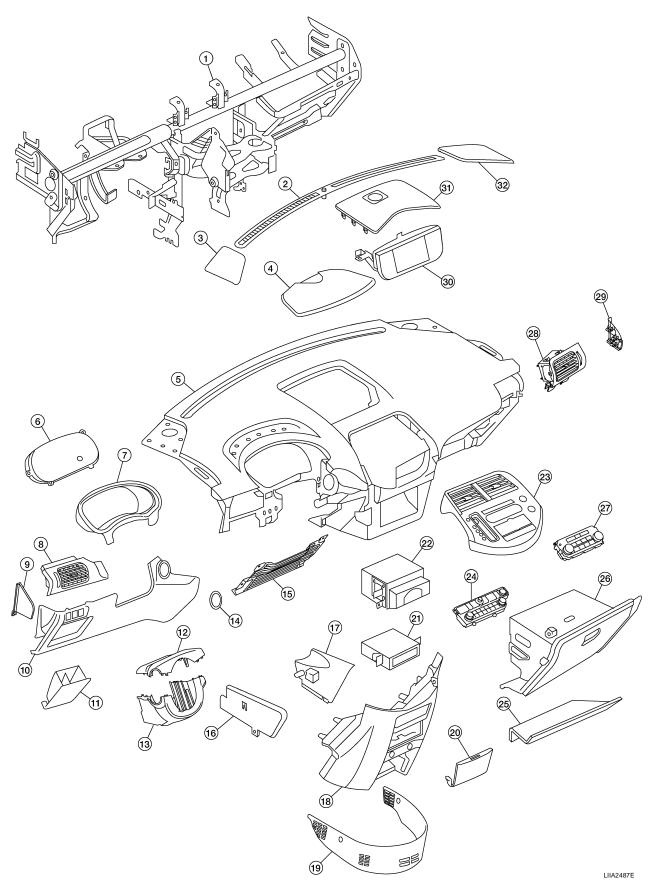
LAIA0071E

# **INSTRUMENT PANEL ASSEMBLY**

PFP:68200

Instrument Panel COMPONENTS

EIS007KV



1.	Steering member assembly	2.	Defrost grille	3.	Speaker cover LH
4.	Meter cover	5.	Instrument panel	6.	Combination meter
7.	Cluster lid A	8.	LH vent grille	9.	Instrument panel side finisher LH
10.	Instrument lower panel LH	11.	Storage bin	12.	Steering column upper cover
13.	Steering column lower cover	14.	Ignition switch bezel	15.	Knee protector
16.	Instrument panel side cover LH	17.	Instrument panel side cover RH	18.	Center stack trim panel
19.	Center lower trim	20.	DVD door	21.	DVD deck
22.	Audio unit	23.	Cluster lid C	24.	AV switch
25.	Assistant under cover panel	26.	Glove box assembly	27.	Front air control
28.	RH vent grille	29.	Instrument panel side finisher RH	30.	Display unit
31.	Cluster lid D	32.	Speaker cover RH		

## **REMOVAL**

- 1. Disconnect the battery negative and positive terminals.
- 2. Remove cluster lid C. Refer to IP-13, "Cluster Lid C".
- 3. Remove steering column. Refer to PS-9, "STEERING COLUMN".
- 4. Remove combination meter. Refer to IP-12, "Combination Meter" .
- 5. Remove display unit. Refer to AV-168, "DISPLAY UNIT".
- 6. Disconnect center speaker.
- 7. Disconnect GPS antenna.
- 8. Remove defrost grille.
- 9. Remove front pillar finishers LH and RH.
- 10. Remove front speakers. Refer to AV-88, "FRONT TWEETER" .
- 11. Remove instrument panel assembly.

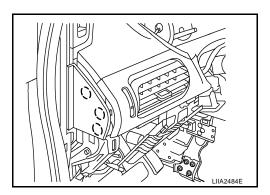
### **INSTALLATION**

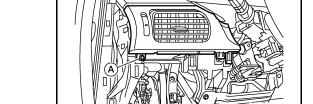
Installation is in the reverse order of removal.

Cluster Lid A REMOVAL

Remove instrument panel side finisher.

2. Remove screw (1) and LH vent grille.





- 3. Remove upper and lower steering column covers.
- 4. Pull to release clips and remove cluster lid A.

Revision: March 2006 IP-11 2007 Quest

ΙP

Н

В

D

Е

K

L

M

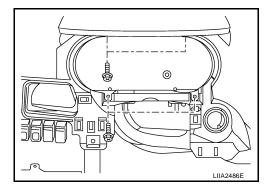
## **INSTALLATION**

Installation is in the reverse order of removal.

# Combination Meter REMOVAL

EIS00907

- 1. Disconnect battery negative terminal.
- 2. Remove cluster lid A. Refer to IP-11, "Cluster Lid A".
- 3. Remove the combination meter, using power tool.
- 4. Disconnect combination meter electrical connectors.



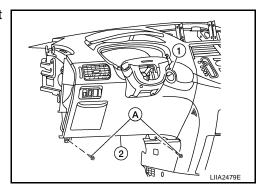
# **INSTALLATION**

Installation is in the reverse order of removal.

# Instrument Lower Panel LH REMOVAL

EIS00905

- 1. Disconnect battery negative terminal.
- 2. Remove the ignition switch bezel (1), screws (A), and instrument lower panel LH (2).



3. Disconnect harness connectors.

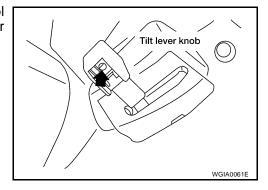
#### **INSTALLATION**

Installation is in the reverse order of removal.

# **Steering Column Cover** REMOVAL

EIS0097Q

 Remove tilt lever knob from tilt lever by inserting a suitable tool into slot of tilt knob, then depress tab and withdraw tilt lever knob.



Remove the screws and the steering column upper and lower covers.

#### INSTALLATION

Installation is in the reverse order of removal.

# Cluster Lid C REMOVAL

#### EIS00904

EIS0090E

Α

D

Е

# **CAUTION:**

# To prevent damage, place shop cloths onto surrounding parts.

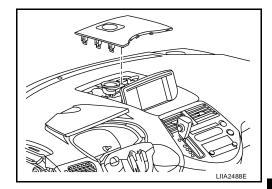
- 1. Disconnect battery negative and positive terminals.
- 2. Remove center stack trim panel. Refer to IP-13, "Center Stack Trim Panel".
- 3. Remove selector knob. Refer to AT-230, "SELECTOR KNOB".
- 4. Pull up to release cluster lid C clips.
- 5. Disconnect harness connectors and remove cluster lid C.

#### **INSTALLATION**

Installation is in the reverse order of removal.

**Cluster Lid D** REMOVAL

1. Pull up to release clips and remove cluster lid D.



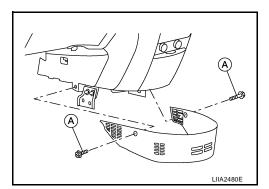
## **INSTALLATION**

Installation is in the reverse order of removal.

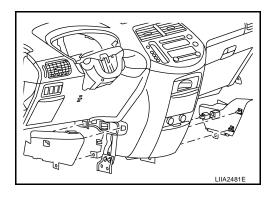
# **Center Stack Trim Panel REMOVAL**

EIS00906

- 1. Remove instrument lower panel LH. Refer to IP-12, "Instrument Lower Panel LH" .
- 2. Remove glove box. Refer to IP-14, "Glove Box".
- 3. Remove the screws (A) and center lower trim (1).



4. Remove center stack lower trim RH and LH.



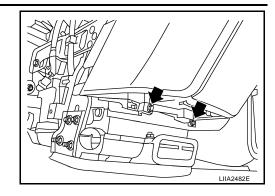
ΙP

K

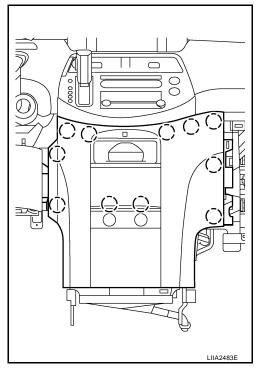
L

M

5. Remove lower screws using power tool.



- 6. Pull to release clips and remove center stack trim panel.
- 7. Disconnect both power point electrical connectors.



# **INSTALLATION**

Installation is in the reverse order of removal.

Glove Box REMOVAL

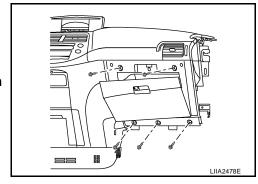
## **CAUTION:**

To prevent damage, place shop cloths onto surrounding parts.

- 1. Place the door weatherstrip by the glove box aside.
- 2. Remove glove box screws using power tool.
- 3. Carefully remove the clips by prying loose.
- 4. Disconnect glove box lamp harness.

### **CAUTION:**

To prevent damage, do not let the glove box hang from glove box lamp harness.



#### **INSTALLATION**

Installation is in the reverse order of removal.

#### PFP:96910

# **Components**

EIS00908

В

C

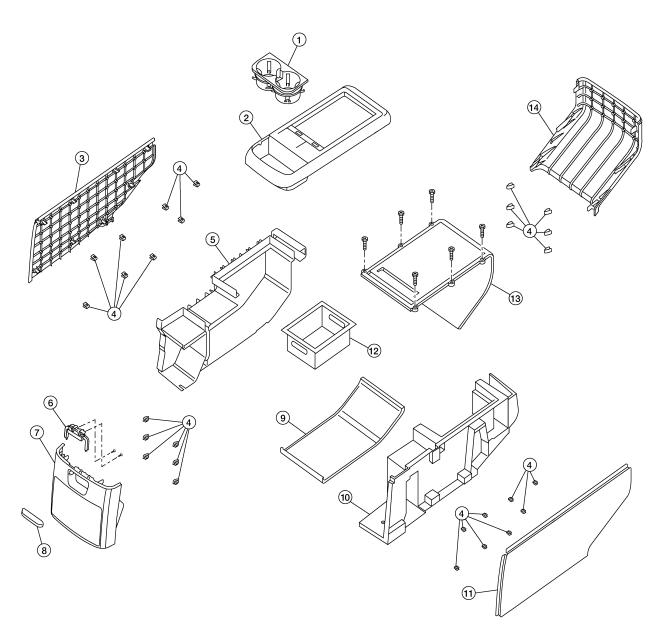
D

Е

Н

M

- RH console side trim panel
- 6. Front bin latch assembly
- 9. Console mat
- 12. Storage bin insert

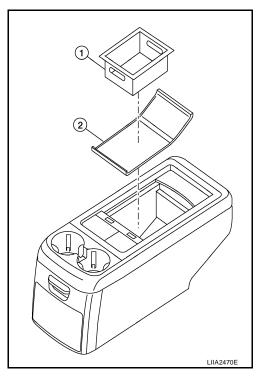


Cup holder

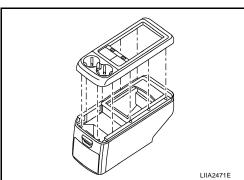
- 4. Clip
- 7. Front bin assembly
- 10. LH case
- 13. Storage bin door assembly
- 2. Top cover assembly
- 5. RH case
- 8. Front bin latch handle
- 11. LH console side trim panel
- 14. Rear console trim cover

Removal

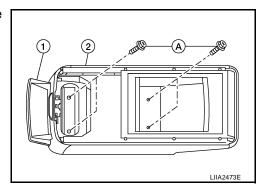
1. Remove storage bin insert (1) and console mat (2).



2. Remove top cover assembly.



3. Open the front bin (1), remove the bolts (A), and center console (2).



Disassembly

Remove center console. Refer to <u>IP-16, "Removal"</u>.

Remove front bin assembly. В LIIA2472E D 3. Remove rear console trim cover. G LIIA2474E 4. Remove RH and LH console side trim panels. LIIA2475E 5. Remove storage bin door assembly. M LIIA2476E 6. Remove screws and split RH from LH case.

LIIA2477E

Assembly

Assembly is in the reverse order of disassembly

Installation

Installation is in the reverse order of removal.