I BODY

SECTION IP A INSTRUMENT PANEL C

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PRECAUTIONS

PRECAUTIONS

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

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

WARNING:

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

PREPARATION

PREPARATION

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Special Service Tools

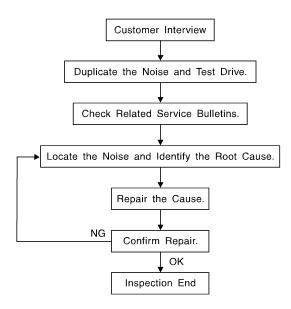
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А

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description	
(J-39570) Chassis ear	Locating the noise	
	्प् SBT839	
 (J-43980) NISSAN Squeak and Rattle kit	Repairing the cause of	f noise
ommercial Service Tools	SBT840	
(Kent-Moore No.)		EIS0056L
Tool name	Description	
(J-39565) Engine ear	Locating the noise	
	SILA0995E	uts
Power Tool	SIIA0995E Loosening bolts and n	013

SQUEAK AND RATTLE TROUBLE DIAGNOSES Work Flow



SBT842

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 <u>IP-8</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

- The customer may not be able to provide a detailed description or the location of the noise. Attempt to obtain all the facts and conditions that exist when the noise occurs (or does not occur).
- If there is more than one noise in the vehicle, 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 bumble bee)
 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.

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DUPLICATE THE NOISE AND TEST DRIVE

А 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. Е CHECK RELATED SERVICE BULLETINS After verifying the customer concern or symptom, check ASIST for Technical Service Bulletins (TSBs) related F 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 mechanic's stethoscope). 2. Narrow down the noise to a more specific area and identify the cause of the noise by: Н 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. IP 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. Κ looking for loose components and contact marks. Refer to IP-6, "Generic Squeak and Rattle Troubleshooting". REPAIR THE CAUSE L 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. Μ 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: 100×135 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)

INSULATOR (Light foam block)

80845-71L00: 30 mm (1.18 in) thick, 30×50 mm (1.18×1.97 in) FELT CLOTH TAPE Used to insulate where movement does not occur. Ideal for instrument panel applications. 68370-4B000: 15×25 mm (0.59×0.98 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 instead 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

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

INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

These incidents can usually be located by tapping or moving the components to duplicate the noise or by pressing on the components while driving to stop the noise. Most of these incidents can be repaired by applying felt cloth tape or 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
- 3. Wiring harnesses tapping
- 4. Door striker out of alignment causing a popping noise on starts and stops

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. 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.

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TRUNK

IRUNK	
Trunk noises are often caused by a loose jack or loose items put into the trunk by the owner. In addition look for:	А
1. Trunk lid bumpers out of adjustment	
2. Trunk lid striker out of adjustment	В
3. The trunk lid torsion bars knocking together	
4. A loose license plate or bracket	С
Most of these incidents can be repaired by adjusting, securing or insulating the item(s) or component(s) caus- ing the noise.	C
SUNROOF/HEADLINING	D
Noises in the sunroof/headlining area can often be traced to one of the following:	D
1. Sunroof lid, rail, linkage or seals making a rattle or light knocking noise	
2. Sun visor shaft shaking in the holder	Е
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.	F
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:	G
1. Loose harness or harness connectors.	
2. Front console map/reading lamp lens loose.	Н
3. Loose screws at console attachment points.	
SEATS	IP
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.	J
Cause of seat noise include:	
1. Headrest rods and holder	
2. A squeak between the seat pad cushion and frame	Κ
3. The rear seatback lock and bracket	
These noises can be isolated by moving or pressing on the suspected components while duplicating the con- ditions under which the noise occurs. Most of these incidents can be repaired by repositioning the component or applying urethane tape to the contact area.	L
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:	Μ
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.

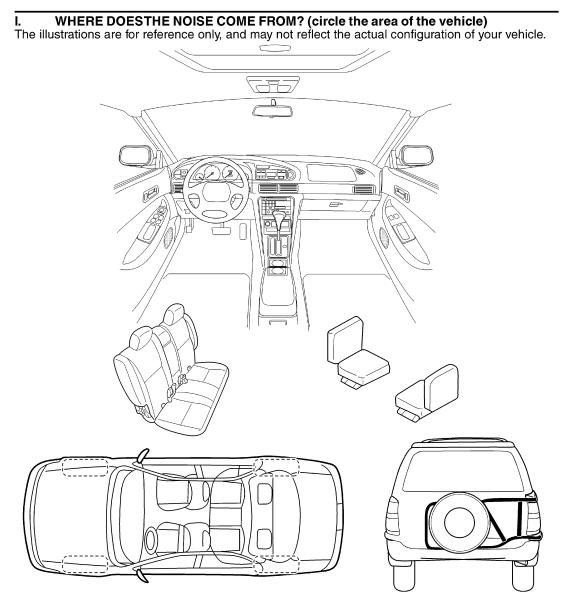
Diagnostic Worksheet



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.



Continue to the back 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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Briefly describe the location where	the noise occurs:
I. WHEN DOES IT OCCUR? (ch	neck the boxes that apply)
⊐ anytime	\Box after sitting out in the sun
□ 1 st time in the morning	when it is raining or wet
only when it is cold outside only when it is hot outside	dry or dusty conditions
III. WHEN DRIVING:	IV. WHAT TYPE OF NOISE?
through driveways over rough roads	 squeak (like tennis shoes on a clean floor) creak (like walking on an old wooden floor)
over speed bumps	□ rattle (like shaking a baby rattle)
only at about mph	knock (like a knock on a door) 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)
lacksquare with passengers or cargo	
🗅 other:	-
after driving miles or mir	nutes
TO BE COMPLETED BY DEALERS Test Drive Notes:	HIP PERSONNEL
	Initials of person YES NO performing
Vehicle test driven with customer	
- Noise verified on test drive	
- Noise source located and repaired	
- Follow up test drive performed to co	onfirm repair 🛛 🔍

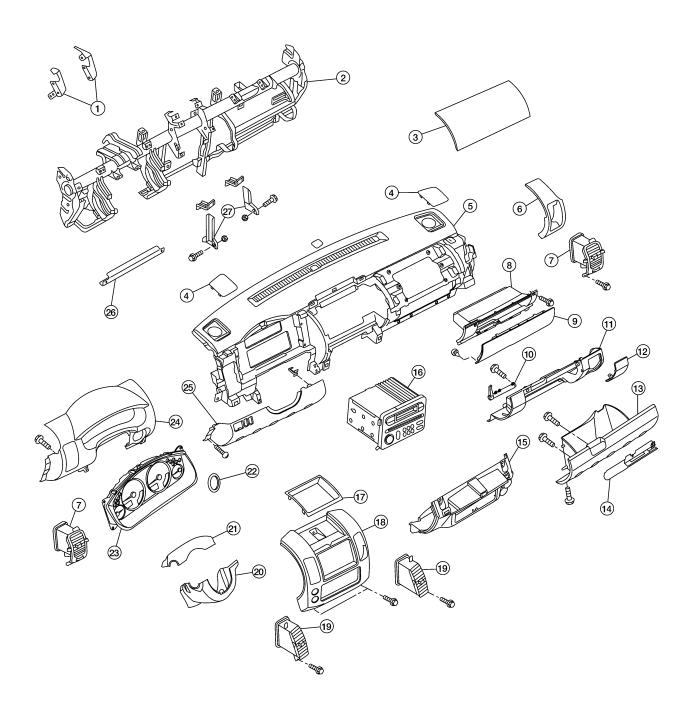
VIN:	Customer Name:	_
W.O. #:	Date:	SBT844

This form must be attached to Work Order

INSTRUMENT PANEL ASSEMBLY

Removal and Installation INSTRUMENT PANEL Removal

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- 1. Display unit bracket RH/LH
- 4. Speaker grille RH/LH
- 7. Side ventilator assembly RH/LH
- 2. Steering member assembly
- 5. Instrument panel and pad assembly 6.
- 8. Upper glove box bin
- Passenger air bag module cover
- Instrument side finisher
- Upper glove box door

3.

9.

Revision: November 2005

IP-10

2005 Frontier

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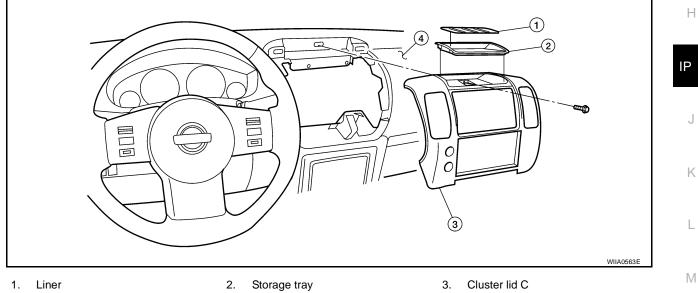
	10.	Lower glove box damper assembly	11.	Lower instrument panel RH	12.	Fuse block cover	
	13.	Lower glove box assembly	14.	Lower glove box latch assembly	15.	Cluster lid D	
	16.	Audio unit	17.	Storage tray	18.	Cluster lid C	
	19.	Center ventilator assembly RH/LH	20.	Steering column cover lower	21.	Steering column cover upper	
	22.	Steering lock escutcheon	23.	Combination meter	24.	Cluster lid A	
	25.	Lower instrument panel LH	26.	Knee protector brace	27.	Instrument stay RH/LH	
1.	Re	emove the center console. Ref	er to	IP-15. "CENTER CONSOLE"			
2.		emove the steering column. Re					
3.		emove the combination meter.				<u>R"</u> .	
4.	Re	elease then disconnect the opt	ical s	sensor harness.			
5.	Re	emove the LH and RH windshi	eld g	arnish.			
6.	Re	emove instrument panel.	-				
 Disconnect harnesses to instrument panel speakers LH and RH and remove speakers. 				emove speakers.			
		Disconnect all remaining harn				•	
		•				SSENGER AIR BAG MODULE".	
	•	and passed and passed get an bag	,	<u> </u>			

Installation

Installation is in the reverse order of removal.

CLUSTER LID C

Removal



- Instrument panel 4.
- 1. Remove cluster lid D. Refer to IP-12, "CLUSTER LID D".
- 2. Remove storage tray and storage tray liner, then remove cluster lid C screw.
- 3. Pull cluster lid C rearward to release clips.
- Disconnect electrical connectors and remove cluster lid C. 4.

Installation

Installation is in the reverse order of removal.

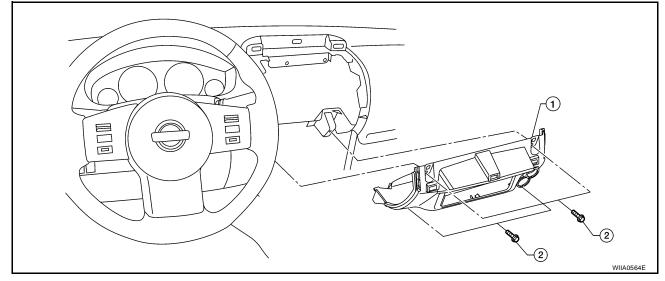
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CLUSTER LID D Removal



- 1. Cluster lid D
- 2. Screws
- 1. Remove center console. Refer to IP-15, "CENTER CONSOLE" .
- 2. Remove lower instrument panel LH. Refer to IP-12, "LOWER INSTRUMENT PANEL LH".
- 3. Remove glove box lower. Refer to IP-14, "LOWER INSTRUMENT PANEL RH AND GLOVE BOX" .
- 4. Disconnect the electrical connectors and remove cluster lid D.

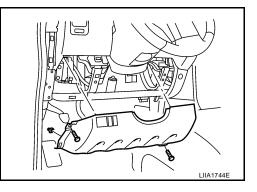
Installation

Installation is in the reverse order of removal.

LOWER INSTRUMENT PANEL LH

Removal

- 1. Remove lower dash side finisher. Refer to EI-36, "Removal" .
- 2. Remove front pillar finisher. Refer to EI-37, "Removal" .
- 3. Remove screws using power tool, and remove lower instrument panel LH.
- 4. Pull rearward to release clips, disconnect connectors, and remove lower instrument panel LH.



Installation

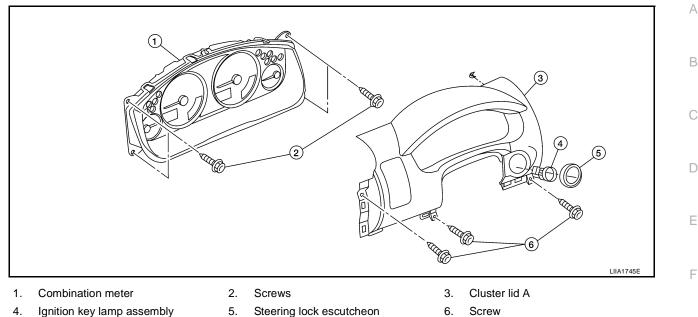
Installation is in the reverse order of removal.

COMBINATION METER

Removal

- 1. Disconnect the negative battery cable.
- 2. Remove the lower instrument panel LH. Refer to IP-12, "LOWER INSTRUMENT PANEL LH" .
- 3. Remove cluster lid A.
- 4. Remove screws using power tool and remove the combination meter assembly.

• Disconnect electrical connectors.

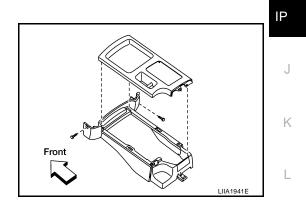


Installation

Installation is in the reverse order of removal.

A/T FINISHER

- 1. Remove cup holder finisher.
- 2. Remove A/T finisher bezel.
- 3. Pull up to release clips and remove the A/T finisher.



Н

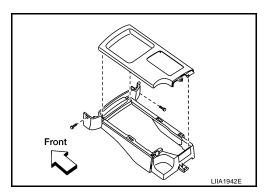
Μ

Installation

Installation is in the reverse order of removal.

M/T FINISHER

- 1. Remove cup holder finisher.
- 2. Remove M/T finisher bezel.
- 3. Pull up to release clips and remove the M/T finisher.

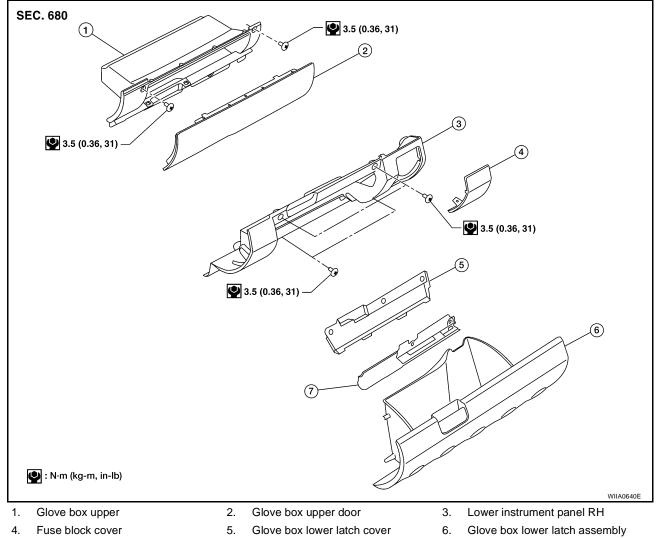


Installation

Installation is in the reverse order of removal.

LOWER INSTRUMENT PANEL RH AND GLOVE BOX

Removal - lower glove box



- 7. Glove box lower
- 1. Remove lower glove box lower screws.
- 2. Remove lower dash side finisher. Refer to EI-36, "Removal" .
- 3. Remove lower front pillar finisher. Refer to EI-37, "Removal" .
- 4. Remove lower glove box side screw.
- 5. Using power tool, remove screws and glove box lower latch cover.
- 6. Remove lower glove box upper screws, then remove lower instrument panel RH and glove box (lower) as an assembly.

Installation - lower glove box

Installation is in the reverse order of removal.

NOTE:

Upper glove box assembly must be installed prior to lower glove box assembly.

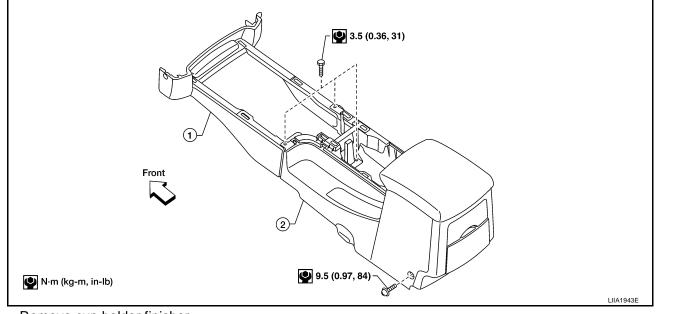
Removal - upper glove box

- 1. Remove lower glove box assembly. Refer to <u>IP-14, "LOWER INSTRUMENT PANEL RH AND GLOVE</u> <u>BOX"</u>.
- 2. Remove screws and upper glove box assembly.

Installation - upper glove box

Installation is in the reverse order of removal.

CENTER CONSOLE



- 1. Remove cup holder finisher.
- 2. Remove A/T or M/T finisher. Refer to IP-13, "A/T FINISHER" .
- 3. Remove center console screws.
- 4. Disconnect electrical connectors and remove center console.

Installation

Installation is in the reverse order of removal.

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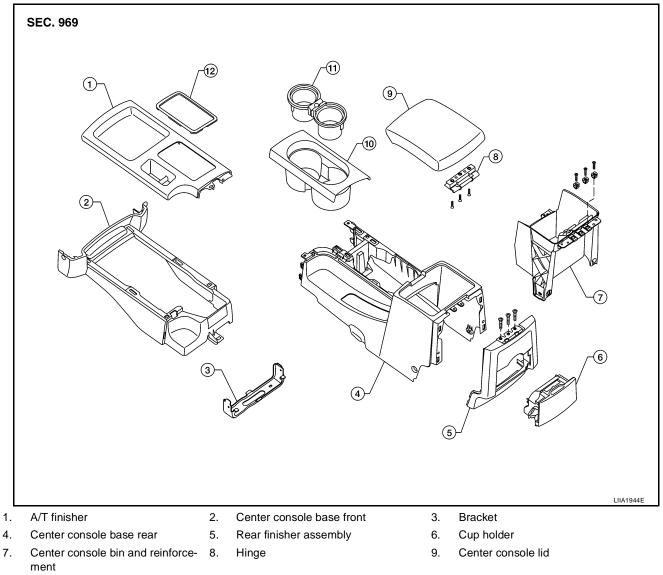
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Disassembly and Assembly CENTER CONSOLE



12. A/T finisher bezel

Disassembly

10. Cup holder finisher

1. Remove the center console. Refer to IP-15, "CENTER CONSOLE".

11. Cup holder insert

- 2. Remove front cup holder insert and assembly.
- 3. Remove latch from console lid.
- 4. Remove hinge from console lid. Remove console lid.
- 5. Remove console bin and reinforcement assembly.
- 6. Remove rear finisher assembly.
- 7. Remove rear cup holder assembly.
- 8. Remove ash tray (if equipped).
- 9. Remove console bracket.
- 10. Remove wire harness bracket.

Assembly

Assembly is in the reverse order of disassembly.