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CONTENTS

PRECAUTIONS4	INSTALLATION	
Precautions for Supplemental Restraint System	Hood Lock Control Inspection	
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	RADIATOR CORE SUPPORT	
SIONER" 4	Removal and Installation	
Precautions for Battery Service 4	REMOVAL	
Precautions for Work 4	INSTALLATION	
Wiring Diagrams and Trouble Diagnosis 4	POWER DOOR LOCK SYSTEM	
PREPARATION 5	Component Parts and Harness Connector Location.	
Special Service Tools5	System Description	
Commercial Service Tools 5	POWER WINDOW SERIAL LINK	
SQUEAK AND RATTLE TROUBLE DIAGNOSIS 6	OUTLINE	
Work Flow 6	CAN Communication System Description	
CUSTOMER INTERVIEW6	CAN Communication Unit	
DUPLICATE THE NOISE AND TEST DRIVE 7	Schematic	
CHECK RELATED SERVICE BULLETINS 7	Wiring Diagram —D/LOCK—	
LOCATE THE NOISE AND IDENTIFY THE	FIG. 1	
ROOT CAUSE7	FIG. 2	
REPAIR THE CAUSE7	FIG. 3	
CONFIRM THE REPAIR8	FIG. 4	
Generic Squeak and Rattle Troubleshooting 8	Terminals and Reference Value for BCM	. 28
INSTRUMENT PANEL8	Terminal and Reference Value for Power Window	
CENTER CONSOLE8	Main Switch and Sub-switch	. 28
DOORS 8	Terminal and Reference Value for Combination	
TRUNK 9	Meter	
SUNROOF/HEADLINING9	Work Flow	
SEATS 9	CONSULT-II Function	
UNDERHOOD9	CONSULT-IIBASICOPERATIONPROCEDURE	
Diagnostic Worksheet		. 30
HOOD12	WORK SUPPORT	
Fitting Adjustment	DATA MONITOR	
LONGITUDINAL AND LATERAL CLEARANCE	ACTIVE TEST	
ADJUSTMENT12	Trouble Diagnoses Symptom Chart	
FRONT END HEIGHT ADJUSTMENT12	Check BCM Power Supply and Ground Circuit	
SURFACE HEIGHT ADJUSTMENT13	Check Door Switch (With Navigation System)	
Removal and Installation of Hood Assembly 14	Check Door Switch (Without Navigation System)	
REMOVAL14	Check Key Switch	
INSTALLATION14	Check Door Lock and Unlock Switch	
Removal and Installation of Hood Lock Control 15	Check Driver Side Door Lock Actuator	
REMOVAL 15	Check Passenger Side Door Lock Actuator	. 43

Check Door Key Cylinder Switch	44	INSTALLATION	84
Check Fuel Lid Lock Actuator		Disassembly and Assembly	
REMOTE KEYLESS ENTRY SYSTEM		DOOR KEY CYLINDER ASSEMBLY	
Component Parts and Harness Connector Location		TRUNK LID	
System Description		Fitting Adjustment	
INPUTS		LONGITUDINAL AND LATERAL CLEARANCE	
OPERATION PROCEDURE		ADJUSTMENT	86
CAN Communication System Description		SURFACE HEIGHT ADJUSTMENT	
CAN Communication Unit		Removal and Installation of Trunk Lid Assembly .	
Schematic		REMOVAL	
Wiring Diagram — KEYLES—		INSTALLATION	87
FIG. 1		Removal and Installation Trunk Lid Stay	
FIG. 2	52	REMOVAL	
FIG. 3	53	INSTALLATION	88
FIG. 4	54	Removal and Installation of Trunk Lid Lock	88
Terminals and Reference Value for BCM	55	REMOVAL	88
Terminals and Reference Value for IPDM E/R	56	INSTALLATION	88
Terminals and Reference Value for Combination		Removal and Installation Trunk Lid Striker	88
Meter	56	REMOVAL	88
CONSULT-II Function	57	INSTALLATION	88
CONSULT-II INSPECTION PROCEDURE FOR		Removal and Installation of Trunk lid Emergency	
"MULTI REMOTE ENT"	57	Opener Cable	
CONSULT-II INSPECTION PROCEDURE FOR		REMOVAL	89
"IPDM E/R"	60	INSTALLATION	
Work Flow		Removal and Installation of Trunk Lid Weatherstrip.	
Trouble Diagnosis Chart by Symptom		REMOVAL	
Check Keyfob Battery and Function		INSTALLATION	
Check ACC Power Supply		TRUNK LID OPENER	
Check Door Switch (With Navigation System)		Wiring Diagram -TLID	
Check Door Switch (Without Navigation System).		Terminals and Reference Value for BCM	
Check Key Switch		VEHICLESECURITY (THEFTWARNING) SYSTEM	
IPDM E/R Operation Check		Component Parts and Harness Connector Location	
Remote Keyless Receiver Check		System Description	
Check Trunk Lid Function		DESCRIPTION	
Check Hazard Function		POWER SUPPLY	95
Check Horn Function		INITIAL CONDITION TO ACTIVATE THE SYS-	
Check Headlamp Function		TEM	
Check Map Lamp and Ignition Keyhole Illumination		VEHICLE SECURITY SYSTEM ALARM OPER-	
Function		ATION	
ID Code Entry Procedure		VEHICLE SECURITY SYSTEM DEACTIVATION	
KEYFOB ID SETUP WITH CONSULT-II		PANIC ALARM OPERATION	
KEYFOB ID SETUP WITHOUT CONSULT-II		CAN Communication System Description	
Keyfob Battery Replacement		CAN Communication UnitSchematic	
DOOR		Wiring Diagram —VEHSEC—	
Fitting Adjustment		FIG. 1	
DOOR STRIKER ADJUSTMENT		FIG. 2	
Removal and Installation		FIG. 3	
REMOVAL		FIG. 4	
INSTALLATION		FIG. 5	
Door Weatherstrip		Terminals and Reference Value for BCM	
REMOVAL		Terminals and Reference Value for IPDM E/R	
INSTALLATION		Terminal and Reference Value for Combination	
DOOR LOCK		Meter	103
Component Structure		CONSULT-II Function	
Removal and Installation		CONSULT-IIBASICOPERATION PROCEDURE	
REMOVAL			104
		CONSULT-II APPLICATION ITEM	-
		Trouble Diagnosis	

WORK FLOW 106	Diagnostic Procedure 6	135
Preliminary Check 107	How to Replace NATS Antenna Amp	
Symptom Chart	INTEGRATED HOMELINK TRANSMITTER	137
Diagnostic Procedure 1 109	Wiring Diagram —TRNSCV—	137
1 – 1 DOOR SWITCH CHECK/WITH NAVIGA-	Trouble Diagnoses	
TION SYSTEM109	DIAGNOSTIC PROCEDURE	
1 – 2 DOOR SWITCH CHECK/WITHOUT NAV-	BODY REPAIR	
IGATION SYSTEM111	Body Exterior Paint Color	
1 – 3 HOOD SWITCH CHECK113	Body Component Parts	
1 – 4 TRUNK ROOM LAMP SWITCH CHECK115	UNDERBODY COMPONENT PARTS	
Diagnostic Procedure 2116	BODY COMPONENT PARTS	
SECURITY INDICATOR LAMP CHECK116	Corrosion Protection	
Diagnostic Procedure 3116	DESCRIPTION	
DOOR KEY CYLINDER SWITCH CHECK116	ANTI-CORROSIVE WAX	
Diagnostic Procedure 4117	UNDERCOATING	
VEHICLE SECURITY HORN ALARM CHECK 117	STONE GUARD COAT	
Diagnostic Procedure 5	Body Sealing	
VEHICLE SECURITY HEADLAMP ALARM	DESCRIPTION	
CHECK	Body Construction	
Diagnostic Procedure 6	BODY CONSTRUCTION	
DOOR LOCK AND UNLOCK SWITCH CHECK. 118	Body Alignment	
VIS (INFINITI VEHICLE IMMOBILIZER SYSTEM-	BODY CENTER MARKS	
NATS)119	PANEL PARTS MATCHING MARKS	
Component Parts and Harness Connector Location 119	DESCRIPTION	
System Description	ENGINE COMPARTMENTUNDERBODY	
ECM Re-communicating Function	PASSENGER COMPARTMENT	
Wiring Diagram — NATS —	REAR BODY	
Terminals and Reference Value for BCM	Handling Precautions For Plastics	
CONSULT-II	HANDLING PRECAUTIONS FOR PLASTICS	
CONSULT-II INSPECTION PROCEDURE 123	LOCATION OF PLASTIC PARTS	
CONSULT-II DIAGNOSTIC TEST MODE FUNC-	Precautions In Repairing High Strength Steel	
TION	HIGH STRENGTH STEEL (HSS) USED IN N	
HOW TO READ SELF-DIAGNOSTIC RESULTS 125	SAN VEHICLES	
IVIS (NATS) SELF-DIAGNOSTIC RESULTS	Replacement Operations	
ITEM CHART125	DESCRIPTION	
Work Flow	HOODLEDGE	
Trouble Diagnoses	FRONT SIDE MEMBER	
SYMPTOM MATRIX CHART 1127	FRONT SIDE MEMBER (PARTIAL REPLAC	
SYMPTOM MATRIX CHART 2128	MENT)	
DIAGNOSTIC SYSTEM DIAGRAM128	FRONT PILLAR	178
Diagnostic Procedure 1 129	OUTER SILL	
Diagnostic Procedure 2 130	REAR FENDER	
Diagnostic Procedure 3 130	LOCK PILLAR REINFORCEMENT	
Diagnostic Procedure 4 132	REAR PANEL	186
Diagnostic Procedure 5 133	REAR FLOOR REAR	
	REAR SIDE MEMBER EXTENSION	190

PRECAUTIONS

PRECAUTIONS PFP:00001

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

VS0027V

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 Man-

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.

Precautions for Battery Service

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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.

Precautions for Work

AIS0027X

- After removing and installing the opening/closing parts, be sure to carry out fitting adjustments to check their operation.
- Check the lubrication level, damage, and wear of each part. If necessary, grease or replace it.

Wiring Diagrams and Trouble Diagnosis

AIS0027Y

When you read wiring diagrams, refer to the following:

- GI-15, "How to Read Wiring Diagrams"
- PG-4, "POWER SUPPLY ROUTING CIRCUIT"

When you perform trouble diagnosis, refer to the following:

- GI-11, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"
- GI-27, "How to Perform Efficient Diagnosis for an Electrical Incident" Check for any Service bulletins before servicing the vehicle.

PREPARATION

PREPARATION PFP:00002 Α **Special Service Tools** AIS0015V 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 (J-39570) D Locating the noise Chassis ear SIIA0993E Е (J-43980) NISSAN Squeak and Repairing the cause of noise Rattle Kit G SIIA0994E **Commercial Service Tools** AIS0015W Н

Tool name	Description
Engine ear	Locating the noise

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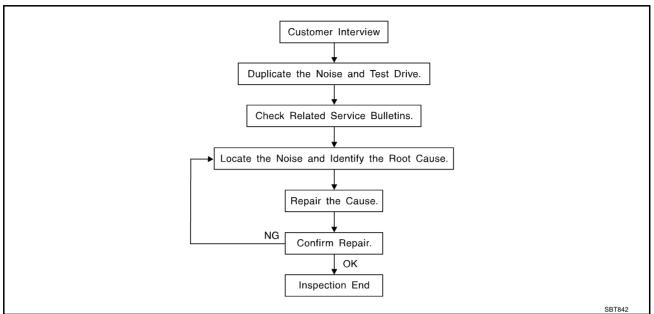
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Work Flow



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 <u>BL-10</u>, "<u>Diagnostic Worksheet</u>". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

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

- Narrow down the noise to a general area. To help pinpoint the source of the noise, use a listening tool (Chassis Ear: J39570, Engine Ear: and mechanics stethoscope).
- 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 fastener 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 BL-8, "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 (J43980) 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 (J43980). Each item can be ordered separately as needed.

URETHANE PADS [1.5 mm (0.059 in) thick]

Insulates connectors, harness, etc.

76268-9E005: $100 \times 135 \text{ mm}$ (3.94 × 5.31 in)/76884-71L01: $60 \times 85 \text{ mm}$ (2.36 × 3.35 in)/76884-71L02: 15 \times 25 mm(0.59 \times 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 \times 1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, $50 \times 50 \text{ mm } (1.97 \times 1.97 \text{ in})$

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INSULATOR (Light foam block)

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

FELT CLOTHTAPE

Used to insulate where movement does not occur. Ideal for instrument panel applications.

68370-4B000: 15×25 mm (0.59 \times 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 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

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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 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:

- 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
- 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 (J43980) 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

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
- 2. Sunvisor 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.

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:

- 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:

- Any component mounted to the engine wall
- 2. Components that pass through the engine wall
- Engine wall mounts and connectors
- Loose radiator mounting pins
- 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.

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Diagnostic Worksheet

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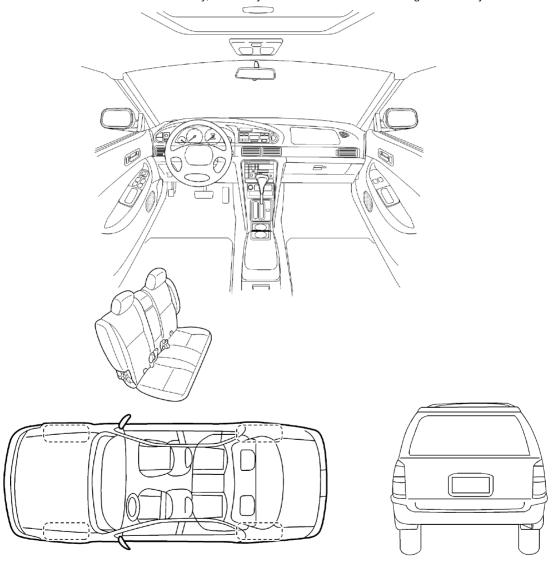
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

Dear Infiniti Customer:

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

. 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 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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Thank you very much for your reading. Please click here and go back to our website. Then, you can download the complete manual instantly. No waiting.