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< BASIC INSPECTION >	-
BASIC INSPECTION	
DIAGNOSIS AND REPAIR WORK FLOW	
Work Flow	4
DETAILED FLOW	
1. OBTAIN INFORMATION ABOUT SYMPTOM	
Interview the customer to obtain the malfunction information (conditions and environment when the malfunc- tion occurred) as much as possible when the customer brings the vehicle in.	-
>> GO TO 2.	
2. REPRODUCE THE MALFUNCTION INFORMATION	
Check the malfunction on the vehicle that the customer describes. Inspect the relation of the symptoms and the condition when the symptoms occur.	-
>> GO TO 3.	
${f 3.}$ IDENTIFY THE MALFUNCTIONING SYSTEM WITH "SYMPTOM DIAGNOSIS"	
Use "Symptom diagnosis" from the symptom inspection result in step 2. Then identify where to start perform- ing the diagnosis based on possible causes and symptoms.	•
>> GO TO 4.	
4.IDENTIFY MALFUNCTIONING PARTS WITH "DTC/CIRCUIT DIAGNOSIS"	_
Perform the diagnosis with "DTC/CIRCUIT DIAGNOSIS" of the applicable system.	
>> GO TO 5.	
5. REPAIR OR REPLACE THE MALFUNCTIONING PARTS	
Repair or replace the specified malfunctioning parts.	-
>> GO TO 6.	
6.FINAL CHECK	
Is the malfunctioning part repaired or replaced? (Check that malfunctions are not reproduced when obtaining the malfunction information from the customer referring to the symptom inspection result in step 2.) YES or NO	,
YES >> Trouble diagnosis is completed. NO >> GO TO 2.	

# < SYSTEM DESCRIPTION > SYSTEM DESCRIPTION

# POWER SEAT

### System Description

INFOID:000000010992485

BCM can operate regardless of the ignition switch position, because battery power is supplied at all times to power seat switch.

#### SLIDING OPERATION

While operating the sliding switch located in power seat switch, sliding motor operates and makes possible the seat front and back position adjustment.

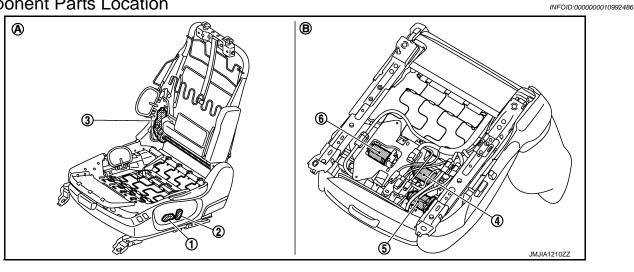
#### **RECLINING OPERATION**

While operating the reclining switch located in power seat switch, reclining motor operates and makes possible the seat back forward and backward position adjustment.

#### LIFTING OPERATION

While operating the lifting switch located in power seat switch, lifting motor operates and makes possible the seat cushion up and down position adjustment.

### Component Parts Location



- Sliding switch and lifting switch 1.
- Lifting motor (rear) 4.
- 2. Reclining switch

В.

- View with seat cushion pad and seat Α. back pad are removed.
- 5. Sliding motor
  - View with back side of seat cushion.

3.

6.

Reclining motor

Lifting motor (front)

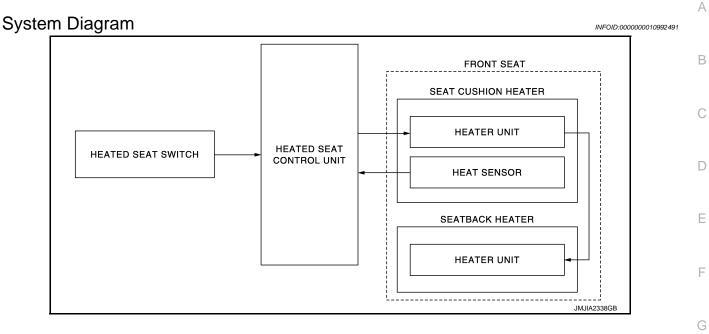
INFOID:000000010992487

Item	Function
BCM	Supplies at all times the power received from battery to power seat switch.
Power seat switch	Built-in reclining switch, sliding switch and lifting switch, controls the power supplied to each motor.
Reclining motor	With the power supplied to power seat switch, operates the forward and backward movement of seatback.
Sliding motor	With the power supplied to power seat switch, operates the forward and backward slide of seat.
Lifting motor (front/rear)	With the power supplied to power seat switch, operates the up and down movement of seat cush- ion.

# **Component Description**

# HEATED SEAT

### < SYSTEM DESCRIPTION > HEATED SEAT



# System Description

INFOID:0000000010992492

- Heated seat is activated by heated seat switch while ignition switch is ON, and has the function to warm seat cushion and seatback.
- Heated seat equips the 6-stage temperature adjustment function that adjusts temperature by operating heated seat switch to the optimal position.
- Heated seat equips a thermostat in heater unit to prevent heater unit overheating.

#### **OPERATION DESCRIPTION**

- When operating heated seat switch to any position between 1 and 6 while ignition switch is ON, indicator illuminates, heated seat control unit supplies power supply to heater unit, and warms seat cushion and seatback.
- Heat sensor that is built in seat cushion heater detects seat cushion heater temperature and outputs to heated seat control unit.
- Heated seat control unit monitors the heated seat switch position and heater sensor temperature, and interrupts power supply to heater unit when the heat sensor temperature reaches preset temperature.
- Heated seat control unit adjusts temperature to preset temperature by supplying or interrupting power supply to heater unit.

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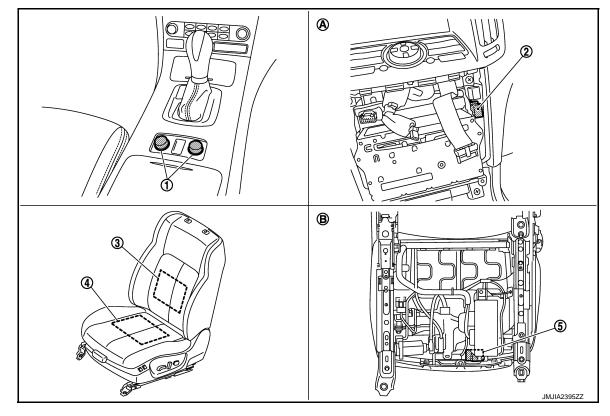
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# HEATED SEAT

### < SYSTEM DESCRIPTION >

# **Component Parts Location**

#### INFOID:000000010992493



- 1. Heated seat switch
- 2. Heated seat relay
- 3. Seatback heater

- 4. Seat cushion heater
- A. Behind cluster lid C
- 5. Heated seat control unitB. Backside of seat cushion

# **Component Description**

INFOID:000000010992494

Item	Function
Heated seat switch	<ul> <li>Adjusts heated seat temperature and deactivates heated seat</li> <li>Equips indicator that indicates the operating condition</li> </ul>
Seat cushion heater	<ul> <li>Warms seat cushion</li> <li>Contains heater sensor that outputs seat cushion temperature to heated seat control unit</li> </ul>
Seatback heater	Warms seatback
Heated seat control unit	Controls heated seat temperature and is independently placed in each seat cushion (driver seat and passenger seat)

	POWER SUP	PLY AND	) GROL	JND C	CIRCUIT	
< DTC/CIRCUIT DIAG						
DTC/CIRCU	IT DIAGNO	SIS				
POWER SUPPL	Y AND GROU	ND CIR	CUIT			
HEATED SEAT C	CONTROL UNIT	-				
HEATED SEAT C	ONTROL UNIT :	Diagnosi	s Proce	edure		INFOID:000000010992495
<b>1.</b> CHECK FUSE						
Check that the followin	g fuses is not fusing.					
	Signal name				Fuse No.	
В	attery power supply				35 (15A)	
3. Turn ignition switcl	h OFF. I seat control unit cor		ness coni	nector a	and ground.	
	(+)					
	Heated seat control unit	t			()	Voltage (V) (Approx.)
	nector	Termi	inal			()
Driver side	B466	67			Ground	Battery voltage
Passenger side	B440	14	•			
YES >> GO TO 4. NO >> GO TO 3. 3.CHECK POWER SI 1. Turn ignition switch 2. Disconnect heated 3. Check continuity b nector.	h OFF. I seat relay.	control unit h	arness co	onnecto	r and heated s	eat relay terminal con-
Hea	ted seat control unit			Heated s	eat relay	Questionity
Connect	or 7	Ferminal	Connee	ctor	Terminal	Continuity
Driver side	B466	67	M70	)	3	Existed
Passenger side	B440	14	arness of	onnocto	r and ground	
4. Check continuity b	etween heated seat				n anu ground.	
	Heated seat control unit	1				Continuity
Con Driver side	nector B466	Terminal 67			Ground	

Is the inspection result normal?

YES

B466

B440

>> Repair or replace harness between heated seat relay and fuse holder.
>> Repair or replace harness between heated seat control unit and heated seat relay. NO

4. CHECK POWER SUPPLY 2

Check voltage between heated seat control unit harness connector and ground.

Driver side

Passenger side

67

14

Not existed

# POWER SUPPLY AND GROUND CIRCUIT

### < DTC/CIRCUIT DIAGNOSIS >

	(+)						Voltage (V)
Heated seat control unit			(–) Condition		(–) Condition		
Conn	ector	Terminal				(Approx.)	
Driver side	B466	69			ON	Battery voltage	
Driver side	D400	09	Ground	Heated seat switch	OFF	0	
Decenación	B440	16	Ground		ON	Battery voltage	
Passenger side	D440	10			OFF	0	

Is the inspection result normal?

YES >> GO TO 7.

NO >> GO TO 5.

**5.**CHECK POWER SUPPLY CIRCUIT 2

1. Turn ignition switch OFF.

2. Disconnect heated seat switch connector.

3. Check continuity between heated seat control unit harness connector and heated seat switch harness connector.

l	Heated seat control unit			Heated seat switch		
Coni	nector	Terminal	Connector Terminal		Continuity	
Driver side	B466	69	M141	1	Existed	
Passenger side	B440	16	M142	I	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated seat control unit				Continuity	
Connector		Terminal	Ground	Continuity	
Driver side	B466	69	Giouna	Not existed	
Passenger side	B440	16		NOL EXISTED	

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**6.**CHECK HEATED SEAT SWITCH

Check heated seat switch.

• Driver side: Refer to <u>SE-12, "DRIVER SIDE : Component Inspection"</u>.

Passenger side: Refer to <u>SE-13, "PASSENGER SIDE : Component Inspection"</u>.

#### Is the inspection result normal?

YES >> GO TO 8.

NO >> Replace heated seat switch. Refer to <u>SE-80, "Removal and Installation"</u>.

7. CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between heated seat control unit harness connector and ground.

Heated seat control unit				Continuity
Connector		Terminal	Ground	Continuity
Driver side	B466	48	Giouria	Existed
Passenger side	B440	2		Existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair or replace harness.

**8.**CHECK INTERMITTENT INCIDENT

DTC/CIRCUIT DIA	_	30771		D GROL	י סאר		
Check intermittent inc Refer to <u>GI-41, "Inter</u>	cident.						
>> INSPEC	FION END						
IEATED SEAT S	SWITCH : Dia	agnosis	Proce	edure			INFOID:000000010992496
.CHECK FUSE							
Check that the follow	ing fuses is not f	using.					
Termina	I No		Signa	Il name		F	Fuse No.
5			-	ower supply			3 (10A)
the inspection resu	It normal?		.g				
CHECK POWER S Turn ignition swit Disconnect heate Turn ignition swit	the blown fuse a SUPPLY ch OFF. ed seat switch co ch ON.	nnector.					
Check voltage be		eat switcr	n narnes	s connecto	or and g	grouna.	
	(+)	witch				( )	Voltage (V)
C	Heated seat s	witch	Teri	minal		(-)	(Approx.)
Driver side	M141						
Passenger side	M142			5		Ground	Battery voltage
the inspection resurves YES >> INSPECTION NO >> GO TO 3 .CHECK POWER S Turn ignition swit	TION END SUPPLY CIRCUI ch OFF.						
			tch harn	ess conne		d fuse block (J/	B) harness connector.
Conne	ctor	Term	inal	Conne	ctor	Terminal	Continuity
Driver side	M141	5		M1	_	2A	Existed
Passenger side	M142						
Check continuity	between heated	seat swi	tch harn	ess conne	ctor an	d ground.	
	Heated seat s	witch					Continuity
	onnector		Teri	minal		Ground	
Driver side	M141			5			Not existed
Passenger side	M142						
the inspection resurverse in the inspection resurverse for the second se	replace harness	S.					

1. Turn ignition switch ON.

# POWER SUPPLY AND GROUND CIRCUIT

#### < DTC/CIRCUIT DIAGNOSIS >

### 2. Check voltage between fuse block (J/B) connector (fuse block side) and ground.

	+) ock (J/B)	(-) Vol (A	
Connector	Terminal		
M1	2A	Ground	Battery voltage

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace fuse block (J/B).

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>

>> INSPECTION END

	TC/CIRCUIT DIAC					
	RIVER SIDE	OWNON				
-		Accription				
	RIVER SIDE : D					INFOID:000000010992497
-	usts heated seat te	•				
R	RIVER SIDE : C	Component	Function C	Check		INFOID:000000010992498
.(	CHECK FUNCTION	N				
		at warms to pro	eset temperatu	re when operatin	ng heated seat switch	to the optimal posi-
n tł	ne inspection result	normal?				
Έ	ES >> Heated se	at switch funct				
	_			osis Procedure".		
	RIVER SIDE : D	•				INFOID:000000010992499
.(	CHECK HEATED S	EAT CONTRO	DL UNIT INPU	Γ SIGNAL		
	Turn ignition switc Disconnect heated					
	Turn ignition switc		unit connector.			
				4.1	· · ·	
	Check voltage bet	ween heated s	seat control uni	t harness connec	ctor and ground.	
		ween heated s	seat control uni	t harness connec	ctor and ground.	
	Check voltage bet		(-)		ctor and ground.	Voltage (V) (Approx.)
	Check voltage bet				Condition	(Approx.)
	Check voltage bet (+) Heated seat c	ontrol unit			Condition	(Approx.)
	Check voltage bet (+) Heated seat c	ontrol unit			OFF 1 (Min. temperature)	(Approx.) 0 12.24
	Check voltage bet (+) Heated seat c Connector	ontrol unit Terminal	()		Condition OFF 1 (Min. temperature) 2	(Approx.) 0 12.24 12.33
	Check voltage bet (+) Heated seat c	ontrol unit		С	OFF 1 (Min. temperature)	(Approx.) 0 12.24 12.33 12.49
	Check voltage bet (+) Heated seat c Connector	ontrol unit Terminal	()	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4	(Approx.) 0 12.24 12.33 12.49 12.63
	Check voltage bet (+) Heated seat c Connector	ontrol unit Terminal	()	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49
tř	Check voltage bet (+) Heated seat c Connector	ontrol unit Terminal 68	()	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4	(Approx.) 0 12.24 12.33 12.49 12.63 12.76
Έ	Check voltage bet (+) Heated seat c Connector B466 be inspection result S >> Heated seat	ontrol unit Terminal 68 <u>anormal?</u>	(–) Ground	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49 12.63 12.76
Έ ΙC	Check voltage bet (+) Heated seat c Connector B466 be inspection result S >> Heated sec D >> GO TO 2.	ontrol unit Terminal 68 <u>c normal?</u> eat switch circu	(-) Ground it is OK.	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49 12.63 12.76
E IC	Check voltage bet (+) Heated seat c Connector B466 be inspection result S >> Heated seat	ontrol unit Terminal 68 <u>c normal?</u> eat switch circu	(-) Ground it is OK.	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49 12.63 12.76
Έ ΙC	Check voltage bet (+) Heated seat c Connector B466 B466 De inspection result S >> Heated set D >> GO TO 2. CHECK HEATED S Turn ignition switc	ontrol unit Terminal 68 at switch circu EAT SWITCH h OFF.	(-) Ground it is OK. CIRCUIT	C Heated seat	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49 12.63 12.76
Έ ΙC	Check voltage bet (+) Heated seat c Connector B466 B466 De inspection result S >> Heated set D >> GO TO 2. CHECK HEATED S Turn ignition switc Disconnect heated	ontrol unit Terminal 68 at switch circu EAT SWITCH h OFF. d seat switch c	(-) Ground hit is OK. CIRCUIT	C Heated seat switch position	Condition OFF 1 (Min. temperature) 2 3 4 5 6 (Max. temperature)	(Approx.) 0 12.24 12.33 12.49 12.63 12.76 12.90
Έ ΙC	Check voltage bet (+) Heated seat c Connector B466 B466 De inspection result S >> Heated set D >> GO TO 2. CHECK HEATED S Turn ignition switc Disconnect heated	ontrol unit Terminal 68 at switch circu EAT SWITCH h OFF. d seat switch c	(-) Ground hit is OK. CIRCUIT	C Heated seat switch position	Condition OFF 1 (Min. temperature) 2 3 4 5	(Approx.) 0 12.24 12.33 12.49 12.63 12.76 12.90
Έ ΙC	Check voltage bet (+) Heated seat c Connector B466 B466 De inspection result S >> Heated sea D >> GO TO 2. CHECK HEATED S Turn ignition switc Disconnect heated Check continuity connector.	ontrol unit Terminal 68 58 58 50 50 50 50 50 50 50 50 50 50 50 50 50	(-) Ground hit is OK. CIRCUIT	Heated seat switch position	Condition          OFF         1 (Min. temperature)         2         3         4         5         6 (Max. temperature)	(Approx.) 0 12.24 12.33 12.49 12.63 12.76 12.90
/E	Check voltage bet (+) Heated seat c Connector B466 B466 De inspection result S >> Heated sea D >> GO TO 2. CHECK HEATED S Turn ignition switc Disconnect heated Check continuity connector.	ontrol unit Terminal 68 at switch circu EAT SWITCH h OFF. d seat switch c	(-) Ground it is OK. CIRCUIT connector. ed seat switch	C Heated seat switch position	Condition          OFF         1 (Min. temperature)         2         3         4         5         6 (Max. temperature)	(Approx.) 0 12.24 12.33 12.49 12.63 12.76 12.90

Heated se	eat switch		Continuity	
Connector	Terminal	Ground	Continuity	
M141	2		Not existed	

Is the inspection result normal?

< DTC/CIRCUIT DIAGNOSIS >

YES >> GO TO 3.

NO >> Repair or replace harness.

**3.**CHECK HEATED SEAT SWITCH

Check heated seat switch.

Refer to <u>SE-12, "DRIVER SIDE : Component Inspection"</u>.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace heated seat switch. Refer to <u>SE-80, "Removal and Installation"</u>.

**4.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

#### >> INSPECTION END

### **DRIVER SIDE : Component Inspection**

INFOID:000000010992500

**1.**CHECK HEATED SEAT SWITCH

1. Turn ignition switch OFF.

2. Disconnect heated seat switch connector.

3. Check resistance between heated seat switch terminals.

Heated	seat switch		Condition		Resistance
Connector	Terr	minal			(KΩ) (Approx.)
		1		ON	0
		1		OFF	∞
		2	Heated seat switch position	1 (Min. temperature)	2.400
M141	5			2	1.800
IVI 14 I	5			3	1.200
				4	0.910
				5	0.620
				6 (Max. temperature)	0.348

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace heated seat switch. Refer to <u>SE-80, "Removal and Installation"</u>. PASSENGER SIDE

PASSENGER SIDE : Description

Adjusts heated seat temperature and deactivates heated seat.

PASSENGER SIDE : Component Function Check

### **1.**CHECK FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

YES >> Heated seat switch function is OK.

NO >> Refer to <u>SE-12, "PASSENGER SIDE : Diagnosis Procedure"</u>.

PASSENGER SIDE : Diagnosis Procedure

**1.**CHECK HEATED SEAT CONTROL UNIT INPUT SIGNAL

Revision: 2014 June

2014 Q40

INFOID:000000010992503

INFOID:0000000010992501

INFOID:0000000010992502

#### < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

- 2. Disconnect heated seat control unit connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between heated seat control unit harness connector and ground.

(+	-)					
Heated seat	control unit	(—)	Cor	ndition	Voltage (V) (Approx.)	
Connector	Terminal				(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
				OFF	0	
				1 (Min. temperature)	12.24	
				2	12.33	
B440	15	Ground	Heated seat switch position	3	12.49	
			poolion	4	12.63	
				5	12.76	
				6 (Max. temperature)	12.90	

Is the inspection result normal?

YES >> Heated seat switch circuit is OK.

NO >> GO TO 2.

# 2. CHECK HEATED SEAT SWITCH CIRCUIT

1. Turn ignition switch OFF.

- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat switch harness connector and heated seat control unit harness connector.

-	Continuity	Heated seat control unit				eat switch	Heated s
_	Continuity	Terminal	Connector	Terminal	Connector		
SI	Existed	15	B440	2	M142		

4. Check continuity between heated seat switch harness connector and ground.

Heated sea	at switch		Continuity	k
Connector	Terminal	Ground	Continuity	
M142	2		Not existed	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

3. CHECK HEATED SEAT SWITCH

Check heated seat switch.
Refer to SE-13, "PASSENGER SIDE : Compo

O.CHECK HEATED SEAT SWITCH	
Check heated seat switch. Refer to <u>SE-13, "PASSENGER SIDE : Component Inspection"</u> .	
Is the inspection result normal?	
<ul> <li>YES &gt;&gt; GO TO 4.</li> <li>NO &gt;&gt; Replace heated seat switch. Refer to <u>SE-80, "Removal and Installation"</u>.</li> </ul>	
4.CHECK INTERMITTENT INCIDENT	
Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> .	
>> INSPECTION END	
PASSENGER SIDE : Component Inspection	INFOID:0000000010992504
1.CHECK HEATED SEAT SWITCH	

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### < DTC/CIRCUIT DIAGNOSIS >

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat switch connector.
- 3. Check resistance between heated seat switch terminals.

Heated	d seat switch		Condition		Resistance (KΩ) (Approx.)
Connector	Terr	minal			
	1		ON	0	
		I	Heated seat switch position	OFF	∞
	F			1 (Min. temperature)	2.400
M440				2	1.800
M142	5	0		3	1.200
		2		4	0.910
				5	0.620
				6 (Max. temperature)	0.348

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace heated seat switch. Refer to <u>SE-80, "Removal and Installation"</u>.

# HEATED SEAT RELAY

< DTC/CIRCUIT DIAG				
HEATED SEAT F	RELAY			
Description				INFOID:000000010992505
Power is supplied to the	heated seat using ic	nition power supply	/ control.	
Component Functi				INFOID:000000010992506
1.CHECK FUNCTION				## 012.0000000.0002000
	warma to proport top	anaratura whan an	victing booted cost	switch to the optimal pasi
tion.	warms to preset ten	iperature when ope	erating neated seat	switch to the optimal posi-
Is the inspection result r	normal?			
	t relay function is Ok			
	-15, "Diagnosis Proc	<u>equre</u>		
Diagnosis Procedu	Ire			INFOID:000000010992507
<b>1</b> .CHECK HEATED SE	AT RELAY POWER	SUPPLY		
1. Turn ignition switch				
<ol> <li>Disconnect heated</li> <li>Turn ignition switch</li> </ol>				
0	een heated seat rela	y terminal connecto	or and ground.	
	(+)			
He	ated seat relay		()	Voltage (V)
Connector	Termina	al	( )	(Approx.)
M70	2		Ground	Battery voltage
Is the inspection result r	ormal?			
YES >> GO TO 3. NO >> GO TO 2.				
2.CHECK HEATED SE				
1. Turn ignition switch				
<ol><li>Disconnect fuse blo</li></ol>	ck (J/B) connector.			
<ol><li>Check continuity be</li></ol>	tween heated seat re	elay terminal conne	ctor and fuse block	(J/B) harness connector.
Heated s	eat relay	Fuse	block (J/B)	
Connector	Terminal	Connector	Terminal	Continuity
M70	2	M1	2A	Existed
4. Check continuity be	tween heated seat re	elay terminal conne	ctor and ground.	
He	ated seat relay			<b>0</b>
Connector	Termina	al	Ground	Continuity
M70	2			Not existed
Is the inspection result r	normal?			
YES >> GO TO 5. NO >> Repair or re	place barness			
NO >> Repair or re 3.CHECK HEATED SE	•			

1. Turn ignition switch OFF.

2. Check continuity between heated seat relay terminal connector and ground.

# HEATED SEAT RELAY

### < DTC/CIRCUIT DIAGNOSIS >

	Heated sea	t relay			Continuity
Connector		Terminal	Grou	nd	Continuity
M70		1			Existed
s the inspection res YES >> GO TO NO >> Repair o 4.CHECK HEATED	4. or replace h	arness.			
Check heated seat r Refer to <u>SE-16, "Co</u> <u>s the inspection res</u> YES >> Heated NO >> Replace <b>5.</b> CHECK INTERM Check intermittent ir Refer to <u>GI-41, "Inte</u>	mponent In ult normal? seat relay i heated se IITTENT IN ncident.	s OK. at relay. CIDENT			
>> INSPEC Component Ins 1.CHECK HEATEE 1. Turn ignition sw 2. Disconnect hea 3. Check continuit	DECTION DEAT RE itch OFF. ted seat rel	LAY			INF01D:0000000109928
heated seat relay Terminal		Condition	Continuity	3	
3 5 12 V direct current supply between termi- nals 1 and 2. No current supply		Existed Not existed		5	
s the inspection res			. tor existed		
YES >> INSPEC NO >> Replace	TION END	)		2 2	2 X 1 SEF497Y

			HEAT SEN	130K		
DTC/CIRCL	JIT DIAGNO	)SIS >				
EAT SEN	NSOR					
RIVER S	IDE					
RIVER SI	DE : Des	cription				INFOID:000000010992509
etects seat c	ushion heat	er temperature	and outputs to he	eated se	eat control unit.	
RIVER SI	DE : Com	ponent Fun	ction Check			INFOID:000000010992510
CHECK FU		•				
		arms to preset	temperature whe	en opera	ting heated seat sw	vitch to the optimal posi-
n.					ang heated seat of	
the inspection						
		unction is OK. 7, "DRIVER SIE	DE : Diagnosis Pr	rocedure	э"	
		nosis Proce	-			INFOID:000000010992511
	_					IN 012.000000010332311
CHECK HE	AT SENSO	R INPUT SIGN	AL			
	on switch O		control unit harne	ses conr	nector and ground.	
CHECK VOI	lage betwee	in nealeu seal (		555 COIII	lector and ground.	
	(+)	Voltage (V)				
	at control unit	(-)	Condition		(Approx.)	
Connector	Terminal					0
					OFF 1 (Min. temperature)	0 10.87 - 11.02
					2	10.93 - 11.02
B466	71	Ground	Heated seat switch	position	3	11.04 – 11.17
				•	4	11.13 – 11.26
				5	11.22 – 11.34	
					6 (Max. temperature)	11.31 – 11.43
the inspection ES >> he O >> Go CHECK HE	on result noi eat sensor is O TO 2. AT SENSO	<u>mal?</u> OK. R CIRCUIT	shown as per the	above I	ist depending on he	ater unit temperature.
Disconnec	ntinuity betw	at control unit c			on heater connector connector and seat	: cushion heater harness
ŀ	Heated seat co	ntrol unit	S	Seat cushi	ion heater	Continuity
Conne		Terminal	Connecto	or	Terminal	
B46	-	71	B467		71	Existed
Check cor	ntinuity betw	een heated sea	at control unit har	mess co	nnector and ground	l.
	Heated s	eat control unit				Continuity
Cor	nnector	Terr	minal	C	Ground	Continuity

B466 Is the inspection result normal? 71

Not existed

#### < DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
- NO >> Repair or replace harness.

**3.**CHECK HEAT SENSOR POWER SUPPLY

- 1. Turn ignition switch ON.
- 2. Heated seat switch ON.

3. Check voltage between seat cushion heater harness connector and ground.

(+) Seat cushion heater		()	Voltage (V) (Approx.)	
Connector	Terminal		( =====)	
B467	69	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

**4.**CHECK HEAT SENSOR POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect heated seat switch connector.
- 3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

Heated seat control unit		Seat cush	Continuity		
Connector	Terminal	Connector	Terminal	Continuity	
B466	69	B467	69	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated sea	t control unit		Continuity
Connector	Connector Terminal		Continuity
B466	69		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**5.**CHECK HEAT SENSOR

Check heat sensor. Refer to <u>SE-18. "DRIVER SIDE : Component Inspection"</u>.

#### Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u>.

**6.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>

#### >> INSPECTION END

### **DRIVER SIDE : Component Inspection**

### **1.**CHECK HEAT SENSOR

1. Turn ignition switch OFF.

- 2. Disconnect seat cushion heater connector.
- 3. Check resistance between seat cushion heater terminals.

INFOID:000000010992512

### < DTC/CIRCUIT DIAGNOSIS >

Se	Seat cushion heater			Resistance
Connector	Tern	ninal	Condition	(KΩ) (Approx.)
B467	69	71	When heat sensor temperature is 25°C (77°F)	9.9 – 10.1
<b>NOTE:</b> Resistance v	alue changes	according to	temperature.	
Is the inspection		_		
	PECTION ENE ace seat cush		efer to <u>SE-66, "Exploded View"</u> .	
PASSENGĖF				
PASSENGER	SIDE : De	escription		INFOID:000000010992513
Detects seat cush	nion heater te	mperature and	d outputs to heated seat control unit.	
PASSENGER	SIDE : Co	omponent I	Function Check	INFOID:000000010992514
1.CHECK FUNC	CTION			
	d seat warms	to preset ten	nperature when operating heated seat swit	tch to the optimal posi-
tion. Is the inspection I	result normal	)		
•	sensor functi	_		
NO >> Refe	r to <u>SE-19, "P</u>	ASSENGER	SIDE : Diagnosis Procedure"	
PASSENGER	SIDE : Di	agnosis Pr	ocedure	INFOID:000000010992515
1. СНЕСК НЕАТ	SENSOR IN	PUT SIGNAL		
<ol> <li>Turn ignition</li> <li>Check voltag</li> </ol>		ated seat con	trol unit harness connector and ground.	
(+)				

(+	+)				
Heated seat control unit		(-)	Conditio	on	Voltage (V) (Approx.)
Connector	Terminal				
				OFF	0
				1 (Min. temperature)	10.87 – 11.02
				2	10.93 - 11.07
B440	18	Ground	Heated seat switch position	3	11.04 – 11.17
			4	11.13 – 11.26	
				5	11.22 – 11.34
			6 (Max. temperature)	11.31 – 11.43	

#### NOTE:

Voltage is repeated within the value shown as per the above list depending on heater unit temperature. <u>Is the inspection result normal?</u>

YES >> heat sensor function is OK.

NO >> GO TO 2.

2. CHECK HEAT SENSOR CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect heated seat control unit connector and seat cushion heater connector.

3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

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### < DTC/CIRCUIT DIAGNOSIS >

Heated sea	Heated seat control unit		Seat cushion heater		
Connector	Terminal	Connector	Terminal	Continuity	
B440	18	B441	18	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated sea	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B440	18		Not existed

#### Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness.

# $\mathbf{3}.$ CHECK HEAT SENSOR POWER SUPPLY

1. Turn ignition switch ON.

2. Heated seat switch ON.

3. Check voltage between seat cushion heater harness connector and ground.

(+) Seat cushion heater		(-)	Voltage (V) (Approx.)	
Connector	Terminal			
B441	16	Ground	Battery voltage	

Is the inspection result normal?

YES >> GO TO 5.

NO >> GO TO 4.

4.CHECK HEAT SENSOR POWER SUPPLY CIRCUIT

#### 1. Turn ignition switch OFF.

2. Disconnect heated seat switch connector.

3. Check continuity between heated seat control unit harness connector and seat cushion heater harness connector.

Heated sea	Heated seat control unit		Seat cushion heater		
Connector	Terminal	Connector	Terminal	Continuity	
B440	16	B441	16	Existed	

4. Check continuity between heated seat control unit harness connector and ground.

Heated sea	t control unit		Continuity
Connector	Terminal	Ground	Continuity
B440	16		Not existed

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair or replace harness.

**5.**CHECK HEAT SENSOR

Check heat sensor. Refer to SE-21, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 6.

NO >> Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u>.

**6.**CHECK INTERMITTENT INCIDENT

Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>

>> INSI	PECTION EN	ID			A
PASSENGE	R SIDE : C	component	Inspection	INFOID:000000010992510	5
1.снеск неа	T SENSOR				В
2. Disconnect		heater conne n seat cushio	ctor. n heater terminals.		С
S Connector	eat cushion hea Tei	iter rminal	Condition	Resistance (KΩ) (Approx.)	D
B441	16	18	When heat sensor temperature is 25°C (77°F)	9.9 – 10.1	_
<u>Is the inspection</u> YES >> INSI	result norma	<u>11?</u> 1D	o temperature. Refer to <u>SE-66, "Exploded View"</u> .		F
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					SE

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< DTC/CIRCUIT DIAGNOSIS >

# SEAT CUSHION HEATER DRIVER SIDE

**DRIVER SIDE** : Description

Warms the seat cushion.

# DRIVER SIDE : Component Function Check

### **1.**CHECK FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

- YES >> Seat cushion heater function is OK.
- NO >> Refer to <u>SE-22, "DRIVER SIDE : Diagnosis Procedure"</u>.
- DRIVER SIDE : Diagnosis Procedure

INFOID:000000010992519

INFOID:000000010992517

INFOID:000000010992518

# **1.**CHECK SEAT CUSHION HEATER INPUT SIGNAL

#### 1. Turn ignition switch OFF.

- 2. Disconnect seat cushion heater connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat cushion heater harness connector and ground.

	(+) Seat cushion heater (-)		Condition		Voltage (V) (Approx.)	
Connector	Terminal				( , , , , , , , , , , , , , , , , , , ,	
B467	70	Ground	Heated cost	Operated	0 – Battery voltage	
B407	70	70 Ground Heated seat		Other than above	0	

#### NOTE:

Voltage is repeated within the value shown as per the above list depending on heater unit temperature. <u>Is the inspection result normal?</u>

YES >> GO TO 3.

NO >> GO TO 2.

2. CHECK SEAT CUSHION HEATER CIRCUIT

1. Turn ignition switch OFF.

2. Disconnect heated seat control unit connector.

3. Check continuity between seat cushion heater harness connector and heated seat control unit harness connector.

Seat cush	nion heater	Heated seat control unit		Continuity	
Connector	Terminal	Connector Terminal		Continuity	
B467	70	B466	70	Existed	

4. Check continuity between seat cushion heater harness connector and ground.

Seat cush	nion heater		Continuity
Connector	Terminal	Ground	Continuity
B467	70		Not existed

Is the inspection result normal?

YES >> Replace heated seat control unit. Refer to <u>SE-78. "Removal and Installation"</u>.

NO >> Repair or replace harness.

**3.**CHECK SEAT CUSHION HEATER

# SEAT CUSHION HEATER

< DTC/CIRCUI	T DIAGNOS	IS >		
Check seat cush Refer to <u>SE-23</u> ,		DE : Componer	nt Inspection".	
Is the inspection		al?		
	lace seat cu		efer to <u>SE-66, "Exploded View"</u> .	
4.CHECK SEA	T CUSHION	HEATER GRO	UND CIRCUIT	
Check continuity	/ between se	eat cushion heat	er harness connector and ground.	
	Seat cush	nion heater		Continuity
Conn	ector	Termin	al Ground	Continuity
B40	-	48		Existed
Is the inspection YES >> GO	TO 5.			
NO >> Rep 5.CHECK INTE	air or replac			
Check intermitte				
Refer to GI-41,		Incident"		
>> INS	PECTION E	ND		
DRIVER SID	_		ction	INFOID:000000010992520
1.CHECK SEA	•	•		IN 012.0000000 10392.320
1. Turn ignition				
2. Disconnect	seat cushior	heater connec	tor and seatback heater connector. heater terminals.	
	Seat cushion he	ater		Resistance
Connector	Te	erminal	Condition	(Ω) (Approx.)
B467	48	70	When heat sensor temperature is 20°C (68°F)	2.6 - 3.0
NOTE: Resistance	value chang	es according to	temperature.	
Is the inspection				
	PECTION E		efer to <u>SE-66, "Exploded View"</u>	
PASSENGE		Shion heater. It	eler to <u>BL-OO, Exploded view</u>	
PASSENGEI	R SIDE : [	Description		INFOID:000000010992521
Warms the seat				
		Component	Function Check	
1.CHECK FUN		Somponent	Tunction Check	INFOID:000000010992522
		ns to preset ter	nperature when operating heated seat	switch to the optimal posi-
tion.				
Is the inspection YES >> Sea		al? ater function is	ОК	
			SIDE : Diagnosis Procedure".	
PASSENGEI	R SIDE : [	Diagnosis Pr	rocedure	INFOID:000000010992523
1.CHECK FRO	NT SEAT C	JSHION HEATE	ER INPUT SIGNAL	
			• • • •	

# SEAT CUSHION HEATER

#### < DTC/CIRCUIT DIAGNOSIS >

1. Turn ignition switch OFF.

- 2. Disconnect seat cushion heater connector.
- 3. Turn ignition switch ON.
- 4. Check voltage between seat cushion heater harness connector and ground.

	+) nion heater	(-)	Condition		Voltage (V) (Approx.)
Connector	Terminal	*			
B441	17	Ground	Heated seat	Operated	0 – Battery voltage
D441	17	17 Ground		Other than above	0

NOTE:

Voltage is repeated within the value shown as per the above list depending on heater unit temperature. Is the inspection result normal?

YES >> GO TO 3. NO >> GO TO 2.

**2.**CHECK SEAT CUSHION HEATER CIRCUIT

Turn ignition switch OFF. 1.

2. Disconnect heated seat control unit connector.

Check continuity between seat cushion heater harness connector and heated seat control unit harness connector.

Seat cush	Seat cushion heater		t control unit	Continuity	
Connector	Terminal	Connector	Terminal	Continuity	
B441	17	B440	17	Existed	

4. Check continuity between seat cushion heater harness connector and ground.

Seat cush	ion heater		Continuity
Connector	Terminal	Ground	Continuity
B441	17		Not existed

Is the inspection result normal?

YES >> Replace heated seat control unit. Refer to SE-78, "Removal and Installation".

NO >> Repair or replace harness.

3.CHECK SEAT CUSHION HEATER

Check seat cushion heater.

Refer to SE-25, "PASSENGER SIDE : Component Inspection".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Replace seat cushion heater. Refer to SE-66, "Exploded View".

4.CHECK SEAT CUSHION HEATER GROUND CIRCUIT

1. Turn ignition switch OFF.

2. Check continuity between seat cushion heater harness connector and ground.

Seat cush	nion heater		Continuity
Connector	Terminal	Ground	Continuity
B441	2		Existed

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace harness.

5. CHECK INTERMITTENT INCIDENT

Check intermittent incident.

# SEAT CUSHION HEATER

< DTC/CIRCUIT DIAGNOSIS >

Refer to GI-41, "Intermittent Incident"

#### >> INSPECTION END

### PASSENGER SIDE : Component Inspection

INFOID:000000010992524 B

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# **1.**CHECK SEAT CUSHION HEATER

1. Turn ignition switch OFF.

2. Disconnect seat cushion heater connector and seatback heater connector.

3. Check resistance between seat cushion heater terminals.

Connector Terminal Condition (Ω)	L
Connector Terminal (Appr	
B441         2         17         When heat sensor temperature is 20°C (68°F)         2.6 –	E

#### NOTE:

Resistance value changes according to temperature.

### Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u>.

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< DTC/CIRCUIT DIAGNOSIS >

# SEATBACK HEATER DRIVER SIDE

**DRIVER SIDE : Description** 

Warms the seat cushion.

# DRIVER SIDE : Component Function Check

### **1.**CHECK FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

Is the inspection result normal?

- YES >> Seatback heater function is OK.
- NO >> Refer to SE-26, "DRIVER SIDE : Diagnosis Procedure".

### **DRIVER SIDE : Diagnosis Procedure**

### **1.**CHECK SEATBACK HEATER

#### 1. Turn ignition switch OFF.

- 2. Disconnect seatback heater connector.
- 3. Check resistance between seatback heater terminals.

Seatback heater				Resistance
Connector	Terr	minal	Condition	(Ω) (Approx.)
B425	1	2	When heat sensor temperature is 20°C (68°F)	4.0 - 4.7

#### NOTE:

Resistance value changes according to temperature.

#### Is the inspection result normal?

YES >> Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u>.

NO >> Replace seatback heater. Refer to <u>SE-66, "Exploded View"</u>.

### PASSENGER SIDE

### PASSENGER SIDE : Description

Warms the seat cushion.

# PASSENGER SIDE : Component Function Check

# **1.**CHECK FUNCTION

Check that heated seat warms to preset temperature when operating heated seat switch to the optimal position.

#### Is the inspection result normal?

YES >> Seatback heater function is OK.

NO >> Refer to <u>SE-26, "PASSENGER SIDE : Diagnosis Procedure"</u>.

### PASSENGER SIDE : Diagnosis Procedure

### **1.**CHECK SEATBACK HEATER

1. Turn ignition switch OFF.

- 2. Disconnect seatback heater connector.
- 3. Check resistance between seatback heater terminals.

INFOID:000000010992525

INFOID:000000010992526

INFOID:000000010992527

INFOID:000000010992528

INFOID:000000010992529

# SEATBACK HEATER

### < DTC/CIRCUIT DIAGNOSIS >

ctor Terminal (Approx.)	Seatback heater				Resistance
: ance value changes according to temperature. <u>ection result normal?</u> > Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u> .	Connector Terminal		inal	Condition	(Ω) (Approx.)
ance value changes according to temperature. <u>ection result normal?</u> > Replace seat cushion heater. Refer to <u>SE-66, "Exploded View"</u> .	B445	1	2	When heat sensor temperature is 20°C (68°F)	4.0 - 4.7
	inspection r >> Repla	esult normal?	on heater. I	Refer to <u>SE-66, "Exploded View"</u> .	

#### HEATED SEAT SWITCH INDICATOR DRIVER SIDE **DRIVER SIDE : Description** INFOID:000000010992531 Illuminates the indicator that indicates the operating status of heated seat. **DRIVER SIDE : Component Function Check** INFOID:000000010992532 1. CHECK FUNCTION Check that the related indicator lamp illuminates when heated seat switch is set to ON. Is the inspection result normal? YES >> Heated seat switch indicator function is OK. >> Refer to SE-28, "DRIVER SIDE : Diagnosis Procedure". NO DRIVER SIDE : Diagnosis Procedure INFOID:000000010992533 1. CHECK HEATED SEAT SWITCH INDICATOR GROUND CIRCUIT Turn ignition switch OFF 1. 2. Disconnect heated seat switch connector. Check continuity between heated seat switch harness connector and ground. 3. Heated seat switch Continuity Connector Terminal Ground M141 6 Existed Is the inspection result normal? YES >> Replace heated seat switch. Refer to SE-80, "Removal and Installation". NO >> Repair or replace harness. PASSENGER SIDE **PASSENGER SIDE** : Description INFOID:0000000010992534 Illuminates the indicator that indicates the operating status of heated seat. PASSENGER SIDE : Component Function Check INFOID:000000010992535 1. CHECK FUNCTION Check that the related indicator lamp illuminates when heated seat switch is set to ON. Is the inspection result normal? YES >> Heated seat switch indicator function is OK. >> Refer to SE-28, "PASSENGER SIDE : Diagnosis Procedure". NO PASSENGER SIDE : Diagnosis Procedure INFOID:000000010992536 1.CHECK HEATED SEAT SWITCH INDICATOR GROUND CIRCUIT 1. Turn ignition switch OFF Disconnect heated seat switch connector. 2. Check continuity between heated seat switch harness connector and ground. 3. Heated seat switch Continuity Connector Terminal Ground M142 6 Existed

Is the inspection result normal?

>> Replace heated seat switch. Refer to SE-80, "Removal and Installation". YES

NO >> Repair or replace harness.

# **HEATED SEAT SWITCH INDICATOR**

< DTC/CIRCUIT DIAGNOSIS >

**SE-28** 

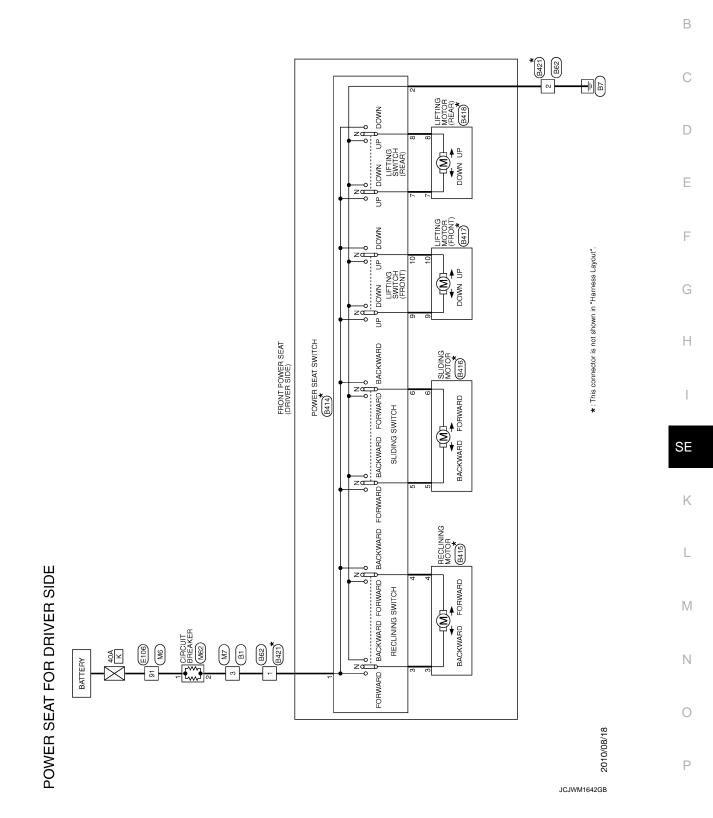
# **POWER SEAT**

# POWER SEAT

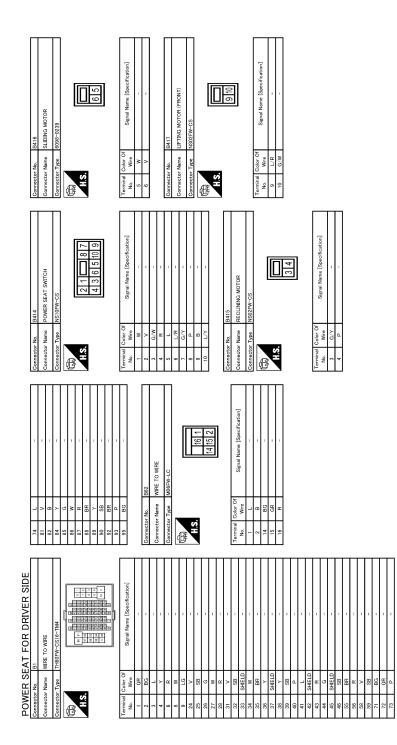
Wiring Diagram - POWER SEAT SYSTEM (DRIVER SIDE) -

INFOID:000000010992537

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# **POWER SEAT**



JRJWC6745GB

44         B           45         8           46         6           47         1           48         7           49         1           43         1           43         1           43         1           43         1           44         1           45         1           46         1           47         1           48         1           61         1           63         1           64         1           61         1           62         1           63         1           64         1           65         1           66         1           67         1           68         1           68         1           68         1           68         1           68         1           68         1	
84         L           85         W           86         V           89         V           91         W           93         GR           94         L           95         L           96         L           97         L           98         L	Connector No.         M6           Connector Name         M6           Connector Name         M75           M75
Connector Name Wite TO WIRE Connector Type March Wite TO WIRE Connector Type March Wite TO WIRE March Wite March Wite Wite March Wite Wite Wite Wite Wite Wite Wite Wite	Terminal Na.         Color Of Man         Color Of Man         Signal Nume [Sacoffication]           Na.         95         0         -         -           1         05         0         -         -         -           2         0         0         -         -         -         -           3         0         0         -         -         -         -         -           1         1         V         -         -         -         -         -         -           11         V         V         -<
POWER SEAT FOR DRIVER SIDE connector Name Connector Name Connector Type NS22PW-C5 Connector Type	Terminal     Color     Supral Mane [Specification]       No.     V     V       No.     V     V       No.     No.     No.       No.     No.     Signal Mane [Specification]       No.     No.     Signal Mane [Specification]       No.     No.     Signal Mane [Specification]

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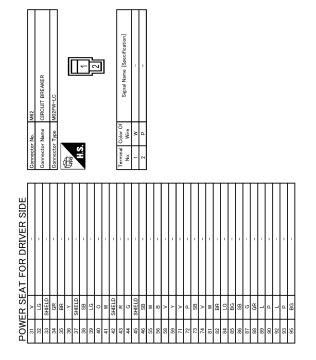
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# **POWER SEAT**

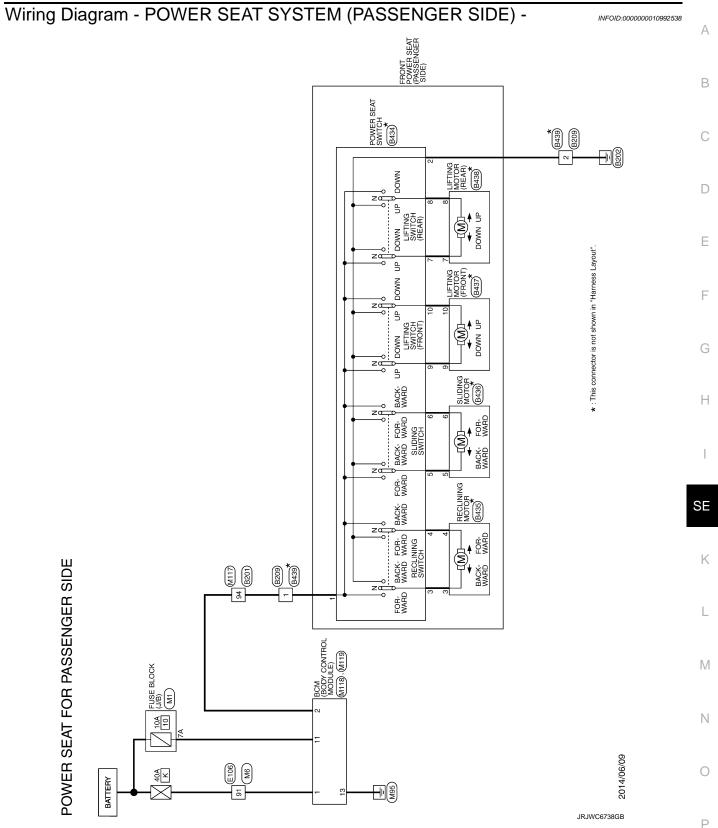
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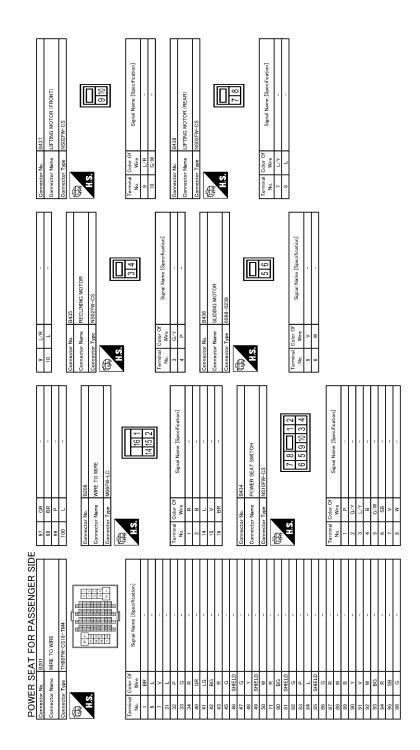
JRJWC6747GB

# **POWER SEAT**





# **POWER SEAT**



JRJWC6748GB

MI17 MRE TO WORE	
None         None </td <td></td>	
49 67 67 81 82 83 83 83 83 83 83 93 93 93 93 93 93 93 93 93 93 93 93 93	Commence         Commence           Commence         Commence<
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al Color Nine Biology (Color Name Nine Biology (Color View (Color Name)) Nine Biology (Color Name) Nine Biology (Color Name)	4       4       5       5       5       3       3       5       6       5       5       7       0
31         1           32         1           33         1           34         1           35         58           37         ×           38         8           39         ×           42         1           43         1           44         1           45         1           46         1           47         1           48         1           49         1           41         1           42         1           43         1           44         1           45         1           46         1           47         1           48         1           49         1           41         1           42         1           43         1           44         1           45         1           46         1           47         1           48         1           49         1           1         1      1 <th>Image: constraint of the second se</th>	Image: constraint of the second se
	Connector Name         E106           Connector Name         MRE TO WIRE           Connector Name         Main           Connector Name         Main           Connector Name         Main           Particular         Color           No         We           No         We           No         No           P         Color

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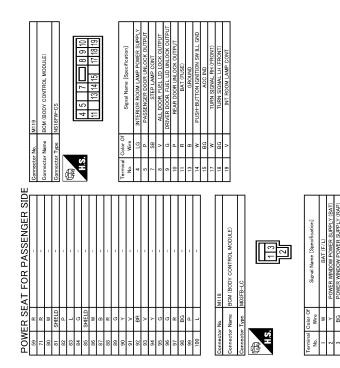
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# POWER SEAT

< DTC/CIRCUIT DIAGNOSIS >



JRJWC6750GB

### < ECU DIAGNOSIS INFORMATION >

# ECU DIAGNOSIS INFORMATION HEATED SEAT CONTROL UNIT DRIVER SIDE

# DRIVER SIDE : Reference Value

### **TERMINAL LAYOUT**

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INFOID:000000010992540





JMJIA2446ZZ

### PHYSICAL VALUES

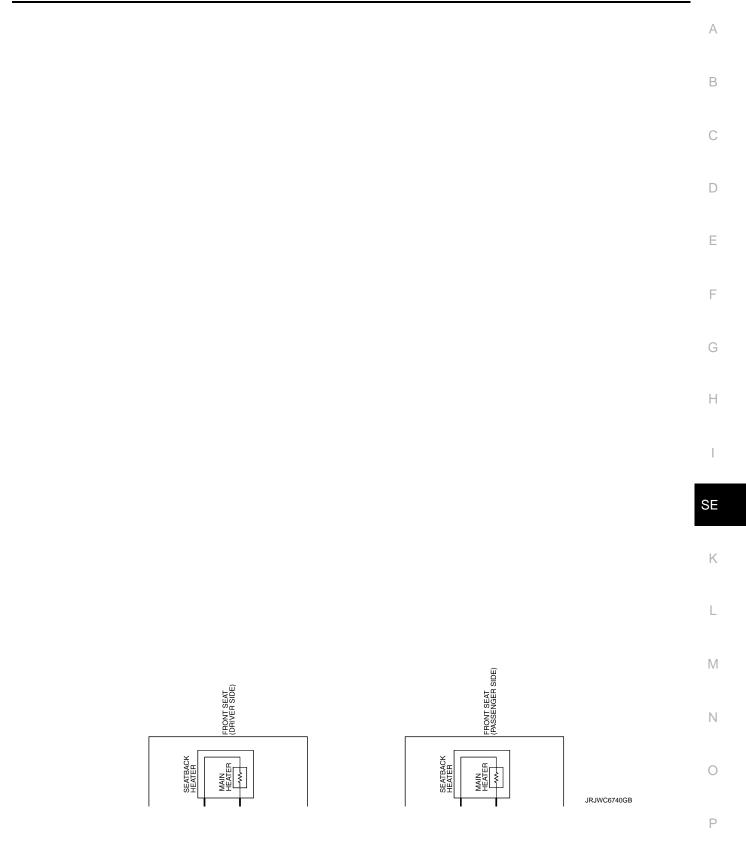
Terminal No. (Wire color)		Description		Condition		Voltage (V)	_
(+)	()	Signal name	Input/ Output	Condition		(Approx.)	
48 (B)	Ground	Ground	_	Ignition switch O	N	0	-
67	Ground	IGN power supply	Input	Ignition switch	OFF or ACC	0	-
(G)	Ground		mput	Ignition Switch	ON	Battery voltage	-
			Input	Heated seat switch	OFF	0	9
					1 (Min. temperature)	12.24	- []
	Ground	Heated seat switch signal			2	12.33	-
68 (GR)					3	12.49	-
					4	12.63	-
					5	12.76	-
					6 (Max. temperature)	12.90	-
69	Heated seat operation sig-	la acat		Operate	Battery voltage	-	
(Y)	Ground	nal	Input	Heated seat	Other than above	0	-
70	Ground	Heater unit power supply	Output	Heated seat	Operate	0 – Battery voltage <sup>*</sup>	_
(R/L)	Cround	Theater unit power supply	Output	Ticaled Seat	Other than above	0	-
					OFF	0	-
	Ground	Ground Heat sensor signal Input	Input	Heated seat switch	1 (Min. temperature)	10.87 – 11.02 <sup>*</sup>	-
71 (R/B)					2	10.93 – 11.07*	-
					3	11.04 — 11.17 <sup>*</sup>	-
					4	11.13 – 11.26 <sup>*</sup>	-
				5	11.22 — 11.34 <sup>*</sup>	-	
					6 (Max. temperature)	11.31 – 11.43 <sup>*</sup>	-

\*: Voltage varies within this range depending on heater unit temperature.

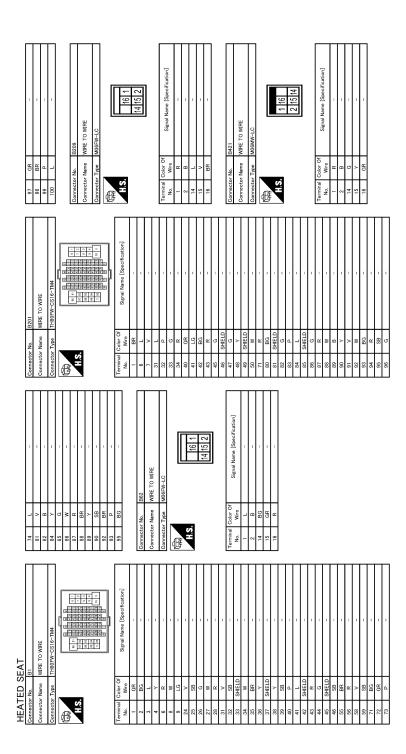
#### < ECU DIAGNOSIS INFORMATION > DRIVER SIDE : Wiring Diagram - HEATED SEAT SYSTEM -INFOID:000000010992542 B445 B425 ~ 5 **B**444 **B**424 SUB-HEATER SUB-HEATER SEAT CUSHION HEATER (B441) SEAT CUSHION HEATER (B467) FRONT SEAT (PASSENGER SIDE) HEATER SUB-HEATER MAIN FRONT SEAT (DRIVER SIDE) SUB-HEATER B62 N B421 5 16 8 HEATED SEAT CONTROL UNIT (B466) HEATED SEAT CONTROL UNIT (B440) <sup>2</sup> <sup>1</sup> <sup>1</sup> <sup>1</sup> 48 69 16 68 15 \*: This connector is not shown in "Harness Layout". **B**421 **B**439 6 12 ····· 4 16 15 14 B62 B209 B (B201) - N 9 --6 (LW) (111) HEATED SEAT SWITCH (DRIVER SIDE) (M141) HEATED SEAT SWITCH (PASSENGER SIDE) (M142) Ş ľ FUSE BLOCK (J/B) (M1) HEATED SEAT MT0 IGNITION SWITCH ON or START 33 10A HEATED SEAT 00 <u>, e e</u> 2014/06/09 E100 8 15A 35 BATTERY JRJWC6739GB

Revision: 2014 June

### < ECU DIAGNOSIS INFORMATION >

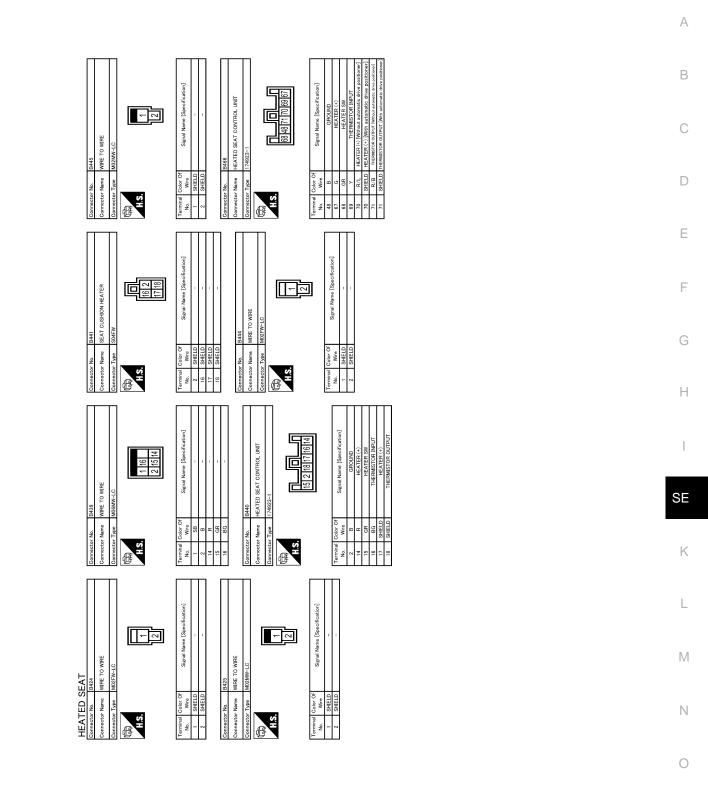


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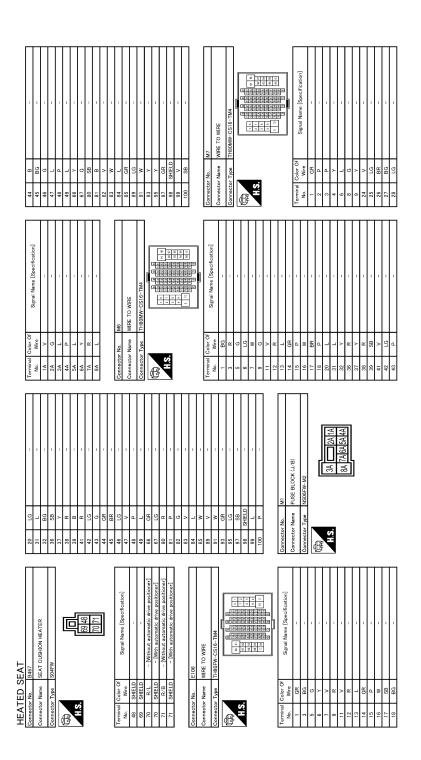
JRJWC6751GB

	HEATED SEAT CONTROL	
< ECU DIAGNOSIS INFORMA	TION >	



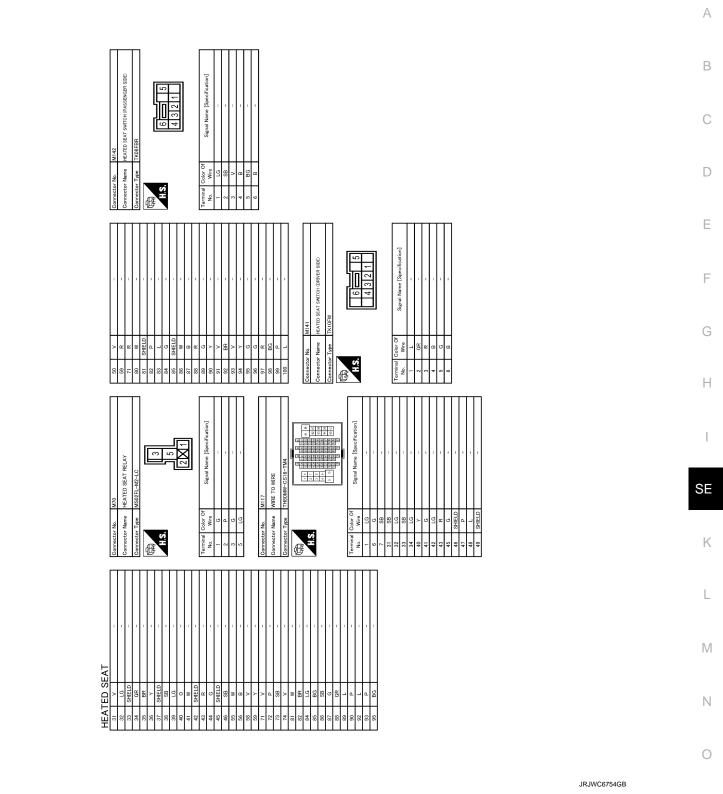
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### < ECU DIAGNOSIS INFORMATION >



# PASSENGER SIDE

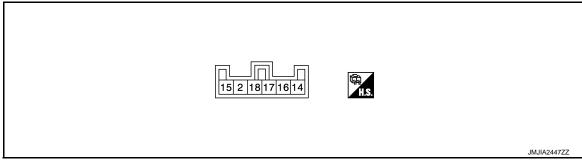
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### < ECU DIAGNOSIS INFORMATION >

# PASSENGER SIDE : Reference Value

INFOID:000000010992543

### TERMINAL LAYOUT

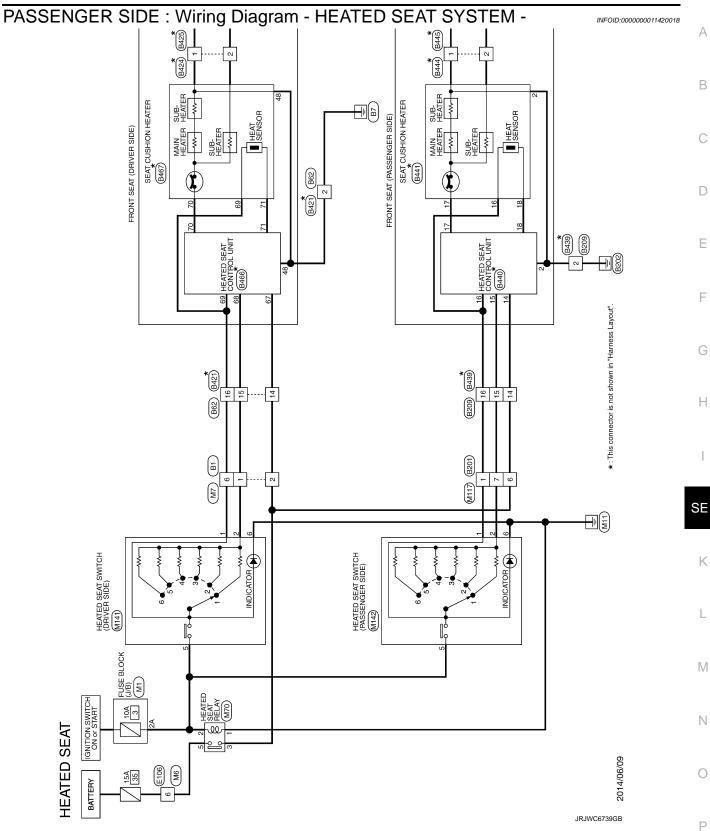


### PHYSICAL VALUES

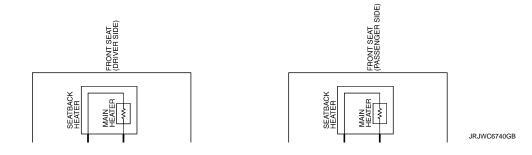
Terminal No. (Wire color)		Description		Condition		Voltage (V)	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
2 (B)	Ground	Ground	_	Ignition switch ON		0	
14	Ground	IGN power supply	Input	Ignition switch	OFF or ACC	0	
(R)	Ground	IGN power supply	input		ON	Battery voltage	
					OFF	0	
					1 (Min. temperature)	12.24	
		Heated seat switch signal			2	12.33	
15 (GR)	Ground		Input	Heated seat switch	3	12.49	
				ownon	4	12.63	
					5	12.76	
					6 (Max. temperature)	12.90	
16	0	Heated seat operation sig-	-			Operate	Battery voltage
(BG)	Ground	nal	Input	Heated seat	Other than above	0	
17			<b>0</b> / /		Operate	0 – Battery voltage*	
(SHIELD)	Ground	Heater unit power supply	Output	Heated seat	Other than above	0	
	Ground	iround Heat sensor signal	Input	Heated seat switch	OFF	0	
					1 (Min. temperature)	10.87 – 11.02*	
					2	10.93 - 11.07*	
18 (SHIELD)					3	11.04 – 11.17*	
					4	11.13 – 11.26*	
					5	11.22 – 11.34*	
					6 (Max. temperature)	11.31 – 11.43*	

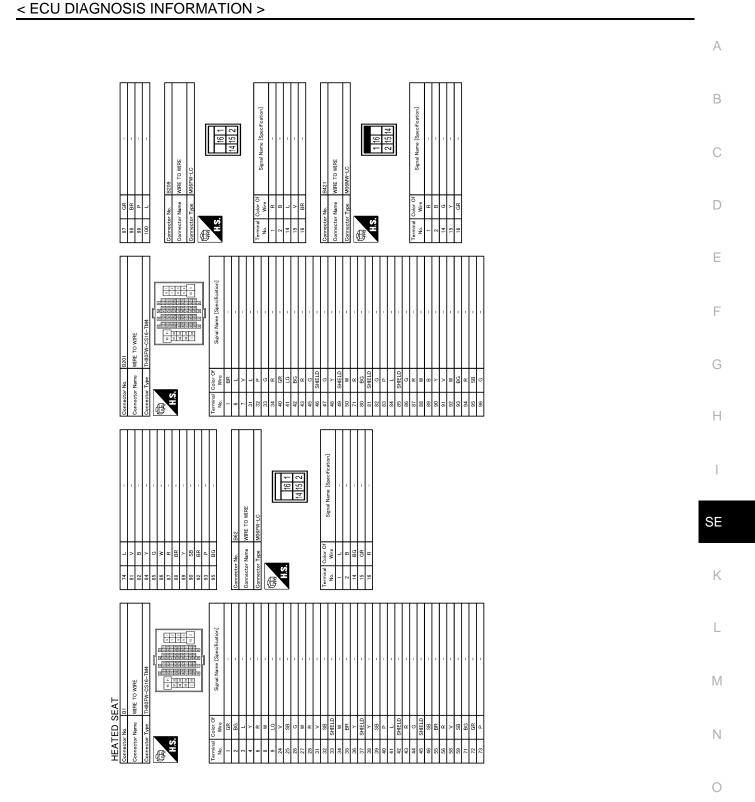
\*: Voltage varies within this range depending on heater unit temperature.

### < ECU DIAGNOSIS INFORMATION >



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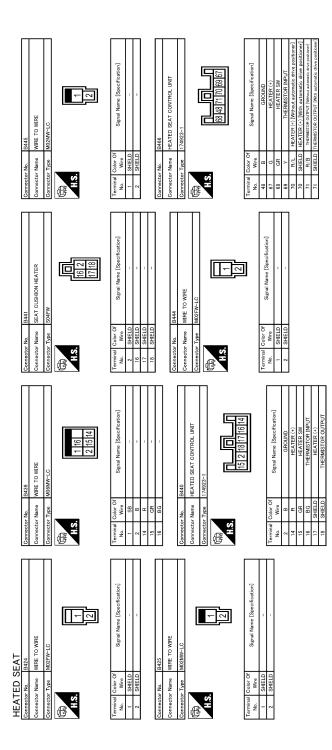




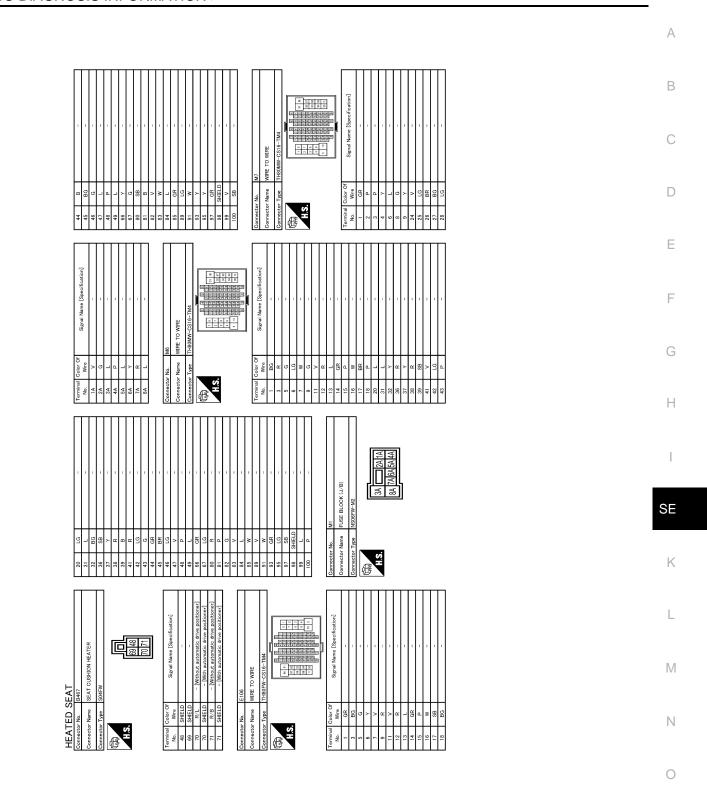
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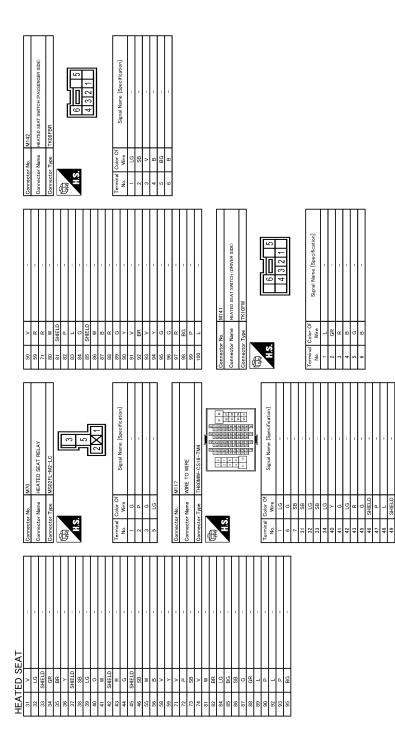
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### < ECU DIAGNOSIS INFORMATION >



JRJWC6754GB

# HEATED SEAT DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >	
SYMPTOM DIAGNOSIS	
HEATED SEAT DOES NOT OPERATE	A
BOTH SIDES	В
BOTH SIDES : Diagnosis Procedure	
1.CHECK HEATED SEAT SWITCH POWER SUPPLY	С
Check heated seat switch power supply. Refer to <u>SE-9</u> , "HEATED SEAT SWITCH : Diagnosis Procedure". Is the inspection result normal?	D
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. <b>2.</b> CHECK HEATED SEAT RELAY	E
Check heated seat relay. Refer to <u>SE-15. "Component Function Check"</u> . Is the inspection result normal?	F
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts. <b>3.</b> CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	G
Check heated seat switch power supply and ground circuit.	
Refer to <u>SE-7, "HEATED SEAT CONTROL UNIT : Diagnosis Procedure"</u> . Is the inspection result normal?	Η
YES >> GO TO 4. NO >> Repair or replace the malfunctioning parts.	I
4.CONFIRM THE OPERATION	
Confirm the operation again.	SE
Is the inspection result normal? YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. DRIVER SIDE	K
DRIVER SIDE : Diagnosis Procedure	010992547
1.CHECK HEATED SEAT SWITCH POWER SUPPLY	L
Check heated seat switch power supply. Refer to <u>SE-9</u> , "HEATED SEAT SWITCH : Diagnosis Procedure".	M
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	Ν
2.CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT	
Check heated seat switch power supply and ground circuit. Refer to <u>SE-7, "HEATED SEAT CONTROL UNIT : Diagnosis Procedure"</u> .	0
Is the inspection result normal?	
YES >> GO TO 3. NO >> Repair or replace the malfunctioning parts.	P
NO >> Repair or replace the malfunctioning parts. 3.CHECK HEATED SEAT SWITCH	
Check heated seat switch.	
Refer to <u>SE-11, "DRIVER SIDE : Component Function Check"</u> .	

Is the inspection result normal?

# HEATED SEAT DOES NOT OPERATE

< SYMPTOM DIAGNOSIS >

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning parts.

**4.**CHECK SEAT CUSHION HEATER

Check seat cushion heater.

Refer to SE-22, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

**5.**CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41. "Intermittent Incident".

NO >> GO TO 1.

PASSENGER SIDE

PASSENGER SIDE : Diagnosis Procedure

INFOID:0000000010992548

**1.**CHECK HEATED SEAT SWITCH POWER SUPPLY

Check heated seat switch power supply. Refer to <u>SE-9, "HEATED SEAT SWITCH : Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2.CHECK HEATED SEAT CONTROL UNIT POWER SUPPLY AND GROUND CIRCUIT

Check heated seat switch power supply and ground circuit. Refer to <u>SE-7, "HEATED SEAT CONTROL</u> UNIT : Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

**3.**CHECK HEATED SEAT SWITCH

Check heated seat switch.

Refer to SE-12, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

**4.**CHECK SEAT CUSHION HEATER

Check seat cushion heater.

Refer to SE-23, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 5.

NO >> Repair or replace the malfunctioning parts.

**5.**CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to GI-41, "Intermittent Incident".

NO >> GO TO 1.

SEATBACK HEATER ONLY DOES NOT OPERATE	
< SYMPTOM DIAGNOSIS >	
SEATBACK HEATER ONLY DOES NOT OPERATE DRIVER SIDE	А
DRIVER SIDE : Diagnosis Procedure	В
1.CHECK SEATBACK HEATER	
Check seatback heater. Refer to <u>SE-26, "DRIVER SIDE : Component Function Check"</u> .	С
<u>Is the inspection result normal?</u> YES >> GO TO 2.	D
NO >> Repair or replace the malfunctioning parts. 2.CONFIRM THE OPERATION	
Confirm the operation again. Is the inspection result normal?	Е
YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. PASSENGER SIDE	F
PASSENGER SIDE : Diagnosis Procedure	G
1.CHECK SEATBACK HEATER	
Check seatback heater. Refer to <u>SE-26, "PASSENGER SIDE : Component Function Check"</u> .	Н
Is the inspection result normal?	
YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	I
2.CONFIRM THE OPERATION	SE
Confirm the operation again.	-OL
<u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1.	K

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< SYMPTOM DIAGNOSIS >

# CANNOT ADJUST HEATED SEAT TEMPERATURE DRIVER SIDE

DRIVER SIDE : Diagnosis Procedure
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**1.**CHECK HEATED SEAT SWITCH

Check heated seat switch. Refer to <u>SE-11, "DRIVER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK HEAT SENSOR

Check heat sensor.

Refer to SE-17, "DRIVER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

**3.**CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> Replace heated seat control unit. Refer to <u>SE-78, "Removal and Installation"</u>.

PASSENGER SIDE

# PASSENGER SIDE : Diagnosis Procedure

**1.**CHECK HEATED SEAT SWITCH

Check heated seat switch.

Refer to SE-12, "PASSENGER SIDE : Component Function Check".

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK HEAT SENSOR

Check heat sensor.

Refer to <u>SE-19, "PASSENGER SIDE : Component Function Check"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.

NO >> Replace heated seat control unit. Refer to <u>SE-78, "Removal and Installation"</u>.

# HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON

HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON	
< SYMPTOM DIAGNOSIS > HEATED SEAT SWITCH INDICATOR DOES NOT TURN ON DRIVER SIDE	A
DRIVER SIDE : Diagnosis Procedure	
1. CHECK HEATED SEAT SWITCH INDICATOR	В
Check heated seat switch indicator. Refer to <u>SE-28, "DRIVER SIDE : Component Function Check"</u> . <u>Is the inspection result normal?</u> YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts. <b>2.</b> CONFIRM THE OPERATION	C D
Confirm the operation again. <u>Is the inspection result normal?</u> YES >> Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u> . NO >> GO TO 1. PASSENGER SIDE	F
PASSENGER SIDE : Diagnosis Procedure	92554 G
1.CHECK HEATED SEAT SWITCH INDICATOR Check heated seat switch indicator. Refer to <u>SE-28, "PASSENGER SIDE : Component Function Check"</u> .	— н
Is the inspection result normal? YES >> GO TO 2. NO >> Repair or replace the malfunctioning parts.	I
2.CONFIRM THE OPERATION Confirm the operation again.	— SE
Is the inspection result normal?	
<ul> <li>YES &gt;&gt; Check intermittent incident. Refer to <u>GI-41, "Intermittent Incident"</u>.</li> <li>NO &gt;&gt; GO TO 1.</li> </ul>	K
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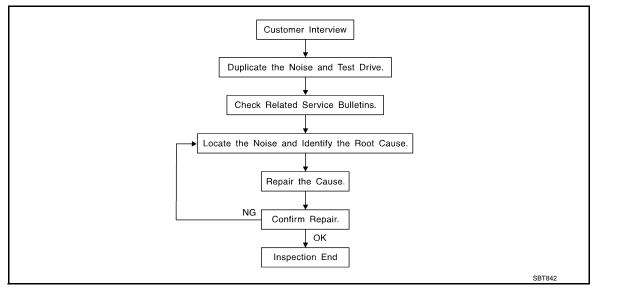
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### < SYMPTOM DIAGNOSIS >

# SQUEAK AND RATTLE TROUBLE DIAGNOSES

### Work Flow



### CUSTOMER INTERVIEW

Interview the customer if possible, to determine the conditions that exist when the noise occurs. Use the Diagnostic Worksheet during the interview to document the facts and conditions when the noise occurs and any of customer's comments; refer to <u>SE-60</u>, "Diagnostic Worksheet". This information is necessary to duplicate the conditions that exist when the noise occurs.

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

### DUPLICATE THE NOISE AND TEST DRIVE

If possible, drive the vehicle with the customer until the noise is duplicated. Note any additional information on the Diagnostic Worksheet regarding the conditions or location of the noise. This information can be used to duplicate the same conditions when the repair is reconfirmed.

### SE-56

### < SYMPTOM DIAGNOSIS >

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 models, drive position on A/T models).
- 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 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 is are suspected to be the cause of the noise.
   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 is are suspected to be the cause of 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 by hand by touching the component(s) that is are suspected to be the cause of the noise.
- Placing a piece of paper between components that are suspected to be the cause of the noise.
- Looking for loose components and contact marks.

Refer to <u>SE-58. "Inspection Procedure"</u>.

### 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-50397) is available through the authorized Nissan Parts Department.

### **CAUTION:**

# Never use excessive force as many components are constructed of plastic and may be damaged. NOTE:

Μ Always check with the Parts Department for the latest parts information. The following materials are contained in the Nissan Squeak and Rattle Kit (J-50397). are listed on the inside cover of the kit, and can each be ordered separately as needed. URETHANE PADS [1.5 mm (0.059 in) thick] Ν Insulates connectors, harness, etc. 76268-9E005: 100  $\times$  135 mm (3.94  $\times$  5.31 in)/76884-71L01: 60  $\times$  85 mm (2.36  $\times$  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,  $50 \times 50$  mm (1.97  $\times$  1.97 in)/73982-50Y00: 10 mm (0.39 in) thick, 50  $\times$  50 mm (1.97  $\times$  1.97 in) Ρ INSULATOR (Light foam block) 80845-71L00: 30 mm (1.18 in) thick,  $30 \times 50$  mm (1.18  $\times$  1.97in) FELT CLOTHTAPE Used to insulate where movement does not occur. Ideal for instrument panel applications. 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

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### < SYMPTOM DIAGNOSIS >

Insulates where slight movement is present. Ideal for instrument panel applications. SILICONE GREASE Used in place of UHMW tape that is be visible or does not fit. Will only last a few months. SILICONE SPRAY Used when grease cannot be applied. DUCT TAPE Used to eliminate movement.

### CONFIRM THE REPAIR

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

### Inspection Procedure

INFOID:000000010992556

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

### INSTRUMENT PANEL

Most incidents are caused by contact and movement between:

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

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

### CAUTION:

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

### CENTER CONSOLE

Components to pay attention to include:

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

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

### DOORS

Pay attention to the following:

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

Tapping or moving the components or pressing on them while driving to duplicate the conditions can isolate many of these incidents. The areas can usually be insulated with felt cloth tape or insulator foam blocks from the Nissan Squeak and Rattle Kit (J-50397) to repair the noise.

### TRUNK

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

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

### < SYMPTOM DIAGNOSIS > Most of these incidents can be repaired by adjusting set

< SYMPTOM DIAGNOSIS >
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
<ol> <li>Sunvisor shaft shaking in the holder</li> </ol>
<ol> <li>Front or rear windshield touching headlining and squeaking</li> </ol>
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 seats in and the load placed on the seat when the noise occurs. 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 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.
JNDERHOOD
Some interior noise may be caused by components under the hood or on the engine wall. The noise is then
ransmitted into the passenger compartment.
Causes of transmitted underhood noise include:
<ol> <li>Any component mounted to the engine wall</li> </ol>
<ol><li>Components that pass through the engine wall</li></ol>
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.

< SYMPTOM DIAGNOSIS >

**Diagnostic Worksheet** 



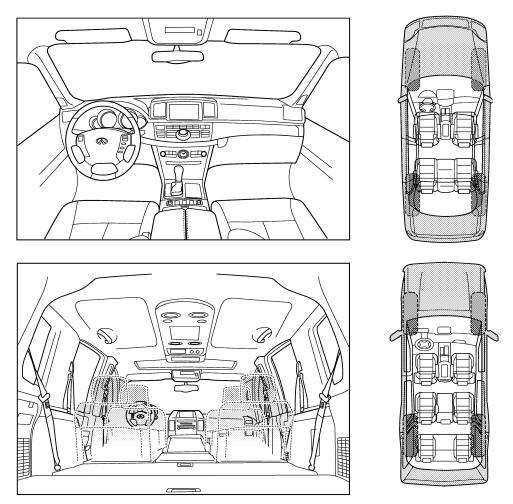
SQUEAK & RATTLE DIAGNOSTIC WORKSHEET

#### Dear Infiniti Customer:

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

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

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



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

### < SYMPTOM DIAGNOSIS >

	oise occurs:
II. WHEN DOES IT OCCUR? (please ch	neck the boxes that apply)
anytime	after sitting out in the rain
1st time in the morning	when it is raining or wet
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	$\Box$ 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 passangers or sarge	
with passengers or cargo	
other:	
	inutes
other:	
other: miles or m     after driving miles or m  TO BE COMPLETED BY DEALERSHIP	
other: miles or m after driving miles or m TO BE COMPLETED BY DEALERSHIF Test Drive Notes:	P PERSONNEL
other: miles or m     after driving miles or m  TO BE COMPLETED BY DEALERSHIP	P PERSONNEL
<pre> dother: miles or m after driving miles or m TO BE COMPLETED BY DEALERSHIF Test Drive Notes:  Vehicle test driven with customer </pre>	P PERSONNEL YES NO Initials of person performing
other: miles or m <b>TO BE COMPLETED BY DEALERSHIF Test Drive Notes:</b> Vehicle test driven with customer - Noise verified on test drive	P PERSONNEL YES NO Initials of person performing
other: miles or m <b>TO BE COMPLETED BY DEALERSHIF Test Drive Notes:</b> Vehicle test driven with customer Noise verified on test drive Noise source located and repaired Follow up test drive performed to confin	YES NO Initials of person performing   Initials of person performing Initials of person performing   Initials of person performing Initials of person performing
other: miles or m <b>TO BE COMPLETED BY DEALERSHIF Test Drive Notes:</b> Vehicle test driven with customer - Noise verified on test drive - Noise source located and repaired	YES NO Initials of person performing   Image:

# < PRECAUTION > PRECAUTION PRECAUTIONS

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

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

### WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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

### WARNING:

Always observe the following items for preventing accidental activation.

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

### Precautions for Removing Battery Terminal

 When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.
 NOTE:

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

• For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. **NOTE:** 

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.
 NOTE:

The removal of 12V battery may cause a DTC detection error.

Precautions For Xenon Headlamp Service

nn U Ay It-BATTERY BATTERY

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### WARNING:

Comply with the following warnings to prevent any serious accident.

# PRECAUTIONS

< PRECAUTION >

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector. (Turning it ON outside the lamp case may cause fire or visual impairments.)

# • Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

### **CAUTION:**

- Comply with the following cautions to prevent any error and malfunction.
- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

### Service Notice

- When removing or installing various parts, place a cloth or padding onto the vehicle body to prevent scratches.
- Handle trim, molding, instruments, grille, etc. carefully during removing or installing. Be careful not to oil or damage them.
- Apply sealing compound where necessary when installing parts.
- When applying sealing compound, be careful that the sealing compound does not protrude from parts.
- When replacing any metal parts (for example body outer panel, members, etc.), be sure to take rust prevention measures.

### **Precaution for Work**

- When removing or disassembling each component, be careful not to damage or deform it. If a component may be subject to interference, be sure to protect it with a shop cloth.
- When removing (disengaging) components with a screwdriver or similar tool, be sure to wrap the component with a shop cloth or vinyl tape to protect it.
- Protect the removed parts with a shop cloth and keep them.
- Replace a deformed or damaged clip.
- If a part is specified as a non-reusable part, always replace it with new one.
- Be sure to tighten bolts and nuts securely to the specified torque.
- After re-installation is completed, be sure to check that each part works normally.
- Follow the steps below to clean components.
- Water soluble foul: Dip a soft cloth into lukewarm water, and wring the water out of the cloth to wipe the fouled area.
  - Then rub with a soft and dry cloth.
- Oily foul: Dip a soft cloth into lukewarm water with mild detergent (concentration: within 2 to 3%), and wipe M the fouled area.

Then dip a cloth into fresh water, and wring the water out of the cloth to wipe the detergent off. Then rub with a soft and dry cloth.

- Never use organic solvent such as thinner, benzene, alcohol, and gasoline.
- For genuine leather seats, use a genuine leather seat cleaner.

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# < PREPARATION >

# PREPARATION PREPARATION

# Special Service Tool

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

	Tool number ent-Moore No.) Tool name	Description
(J-39570) Chassis ear	SILA0993E	Locates the noise
(J-50397) NISSAN Squeak and Rattle Kit	SIIA0994E	Repairs the cause of noise
Commercial Service To	ool	INFOID:000000010992562
	Tool name	Description
Engine ear		Locates the noise

SIIA0995E

# < PREPARATION > CLIP LIST

Clip List

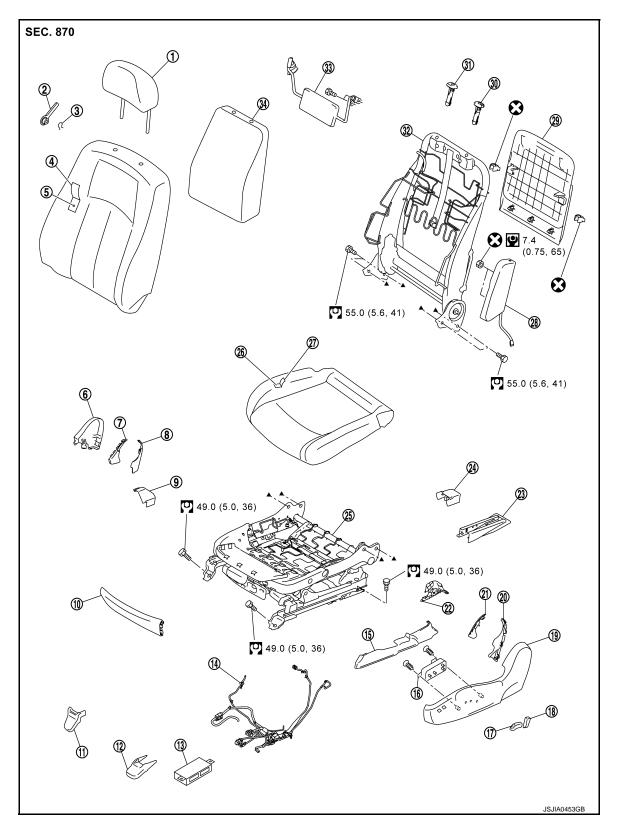
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Shapes	Removal & Installation	Shapes	Removal & Installation	
<b>°</b> 7 7	Removal: Remove by bending up with flat-bladed screwdrivers or clip remover.	Clip A Clip B	Removal: Finisher Clip A Flat-bladed screwdriver Clip B	
<b>T T</b> T & T	Removal: Remove with a clip remover.	Clip A Clip B (Grommet)	Removal: Flat-bladed screwdriver Body panel Clip A Clip B (Grommet)	
9 9	Removal: Push center pin to catching position. (Do not remove center pin by hitting it.) Push		Removal: Holder portion of clip must be spread out to remove rod.	
	Removal: Remove by bending up with flat-bladed screwdrivers or clip remover.		Removal: 1. Screw out with a Phillips screwdriver. 2. Remove female portion with flat-bladed screwdriver.	
	Removal:		Removal: Installation:	
Ĩ			Rotate 45° to remove.	
			Removal:	
	Removal:		Removal:	

# < REMOVAL AND INSTALLATION > REMOVAL AND INSTALLATION FRONT SEAT

Exploded View

DRIVER'S SEAT



### < REMOVAL AND INSTALLATION >

1.	Headrest	2.	Lumbar support lever knob	3.	Snap ring	А	
4.	Seatback trim	5.	Seatback pad	6.	Seat cushion inner finisher	, ,	
7.	Reclining device inner cover (front)	8.	Reclining device inner cover (rear)	9.	Seat slide inner finisher		
10.	Seat cushion front finisher	11.	Front inner slide cover	12.	Front outer slide cover	В	
13.	Seat control unit	14.	Seat harness	15.	Seat slide outer finisher (outside)		
16.	Seat control switch	17.	Seat slide and lifter switch knob	18.	Seat reclining switch knob		
19.	Seat cushion outer finisher	20.	Reclining device outer cover (rear)	21.	Reclining device outer cover (front)	С	
22.	Seat slide outer finisher (inside)	23.	Rear outer slide cover	24.	Rear inner slide cover		
25.	Seat cushion frame	26.	Seat cushion pad	27.	Seat cushion trim		
28.	Side air bag module	29.	Seatback board	30.	Headrest holder (locked)	D	
31.	Headrest holder (free)	32.	Seatback frame	33.	Lumbar support unit		
34.	Seatback silencer						
$\bigotimes$	Always replace after every disassembly.						
0	: N·m (kg-m, ft-lb)						
Ŷ	: N·m (kg-m, in-lb)					F	
▲ : Indicates that the part is connected at points with same symbol in actual vehicle.							
PASSENGER'S SEAT						G	

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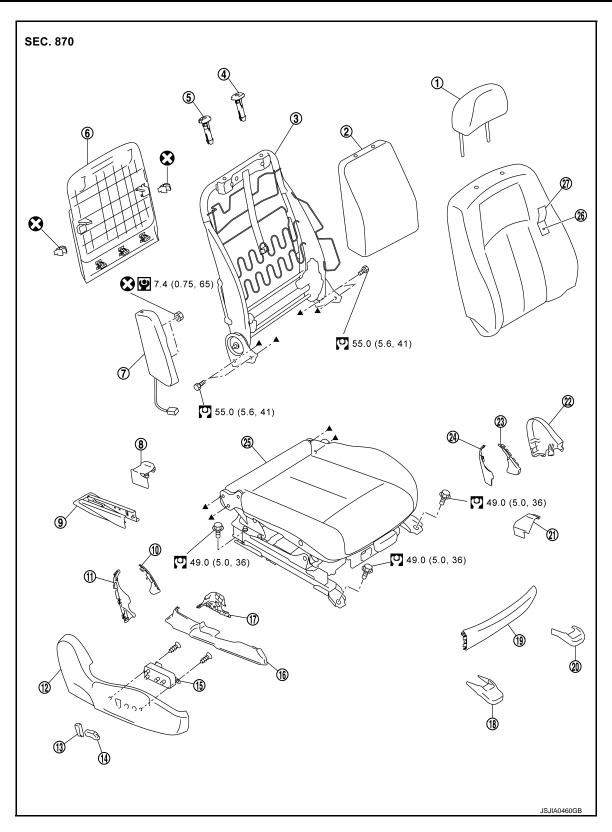
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### < REMOVAL AND INSTALLATION >



- 1. Headrest
- 4. Headrest holder (locked)
- 7. Side air bag module
- 10. Reclining device outer cover (front)
- 13. Seat reclining switch knob
- 16. Seat slide outer finisher (outside)
- 2. Seatback silencer
- 5. Headrest holder (free)
- 8. Rear inner slide cover
- 11. Reclining device outer cover (rear)
- 14. Seat slide and lifter switch knob
- 17. Seat slide outer finisher (inside)
- 3. Seatback frame
- 6. Seatback board
- 9. Rear outer slide cover
- 12. Seat cushion outer finisher
- 15. Seat control switch
- 18. Front outer slide cover

**SE-68** 

### < REMOVAL AND INSTALLATION >

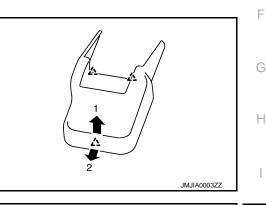
19. Seat cushion front finisher 20. Front inner slide cover 21. Seat slide inner finisher А 22. Seat cushion inner finisher 23. Reclining device inner cover (front) 24. Reclining device inner cover (rear) 25. Seat cushion assembly 26. Seatback pad 27. Seatback trim : Always replace after every disassembly.  $(\mathbf{x})$ В : N·m (kg-m, ft-lb) Image: N·m (kg-m, in-lb) ▲ : Indicates that the part is connected at points with same symbol in actual vehicle. Removal and Installation INFOID:0000000010992565

# REMOVAL

### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the headrest.
- 2. Remove the front slide cover.
- a. Front outer slide cover
  - Slide the seat to the rearmost position.
  - Pull up the front edge of the front slide cover to release the pawls.
  - Slide the front slide cover forward to release the pawls.

2 : Pawl

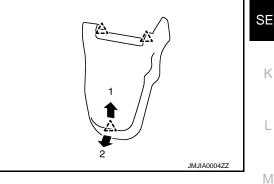


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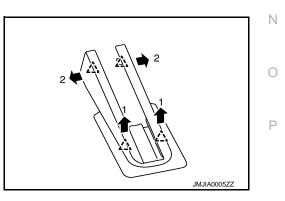
- b. Front inner slide cover
  - Slide the seat to the rearmost position.
  - Pull up the front edge of the front slide cover to release the pawls.
  - Slide the front slide cover forward to release the pawls.

<u>کے</u> : Pawl



- 3. Remove the mounting bolts on the front side of the front seat.
- 4. Remove the rear slide cover.
- a. Rear outer slide cover
  - Slide the seat to the foremost position.
  - Pull up the rear edge of the rear outer slide cover to release the pawls.
  - Open the front end of the rear outer slide cover to release the pawls.

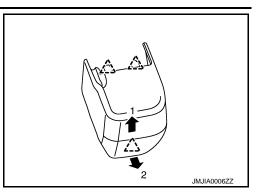
2 : Pawl



# < REMOVAL AND INSTALLATION >

- b. Rear inner slide cover
  - Slide the seat to the foremost position.
  - Pull up the rear edge of the rear inner slide cover to release the pawls.
  - Slide the rear inner slide cover rearward to release the pawls.

```
: Pawl
```



- 5. Remove the mounting bolts on the rear side of the front seat.
- 6. Set seatback in a standing position.
- 7. Disconnect harness connector under the seat and remove harness securing clips.

Before removal, turn ignition switch OFF, disconnect battery negative terminal and then wait for at least 3 minutes.

8. Remove seat from the vehicle. CAUTION:

When removing and installing, use shop cloths to protect parts from damage.

### INSTALLATION

Install in the reverse order of removal.

### CAUTION:

- Before installation, turn ignition switch OFF, disconnect battery negative terminal and then wait for at least 3 minutes.
- Clamp the harness in position.

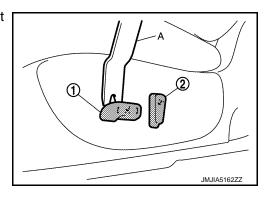
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Disassembly and Assembly

# SEATBACK

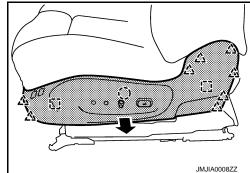
### Disassembly

- 1. Remove the seat cushion outer finisher.
  - Remove the seat slide and lifter switch knob (1) and seat reclining switch knob (2). Using a remover tool (A).



• Remove the metal clips, clips and pawls, and then pull out seat cushion outer finisher.

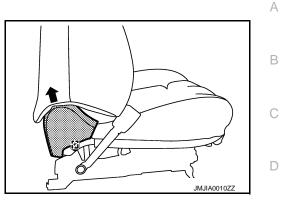




### < REMOVAL AND INSTALLATION >

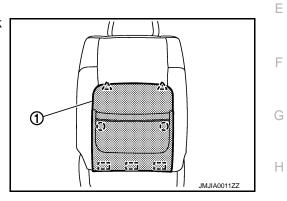
- Disconnect the seat control switch harness connectors.
- Remove the reclining device outer cover (front, rear).
- 2. Remove the seat cushion inner finisher.
  - Remove the reclining device inner covers (front, rear) by releasing the metal clip and pull it up together with the cover.
  - Remove the relining device inner covers (front, rear) from the seat cushion inner finisher by releasing the pawls.



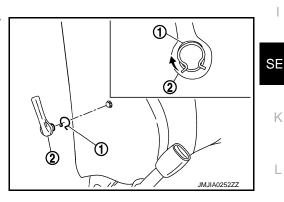


- 3. Remove the back board.
  - Remove the metal clips and clips, and then pull out seatback board (1).
  - Pull down the seatback board to release the upper pawls.

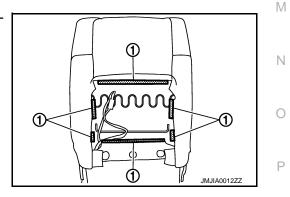




Remove the lumbar support lever knob.
 Pull snap ring (1) upward, and remove lumbar support lever knob (2) from seatback frame with hook and pick tool.

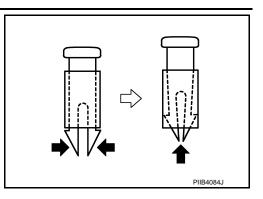


- 5. Remove the seatback pad and trim.
  - Remove the seatback retainer (1) on the back side of the seatback.



### < REMOVAL AND INSTALLATION >

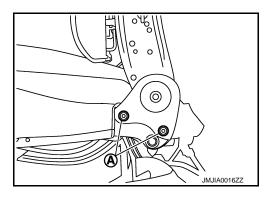
 Remove the headrest holder.
 CAUTION: Before installing headrest holder check its orientation. (front/rear and right/left)



- Remove the side air bag module.
- Disconnect the seatback heater unit harness connector.
- Disconnect the reclining motor harness connector and remove the harness clamp.
- Remove the seatback pad and seatback trim from the seatback frame.
- Remove the hog rings, and separate the trim and pad. CAUTION:

### Before performing separating operation, check the installation position of hog rings.

- 6. Remove the seatback silencer.
- 7. Remove the bolts, and then remove lumbar support unit.
- 8. Remove the seatback frame. Remove the seatback frame mounting bolts (A).



Assembly

Assemble in the reverse order of disassembly.

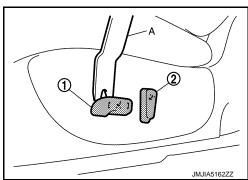
#### **CAUTION:**

Install the hog rings of seatback trim in position, and then securely connect the trim or trim cord with the pad side wire.

### SEAT CUSHION

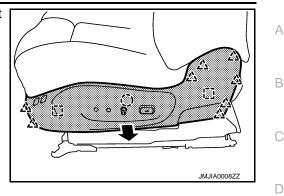
# Disassembly CAUTION:

- Never disassemble front passenger seat cushion assembly.
- Always replace as an assembly.
- For front passenger seat service parts, refer to the service part catalogue.
- 1. Remove the seat cushion outer finisher.
  - Remove the seat slide and lifter switch knob (1) and seat reclining switch knob (2). Using a remover tool (A).



### < REMOVAL AND INSTALLATION >

- · Remove the metal clips, clips and pawls, and then pull out seat cushion outer finisher.
  - ( ) : Clip
  - : Metal clip
  - 八 :Pawl

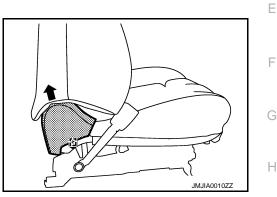


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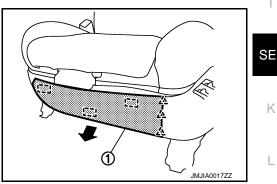
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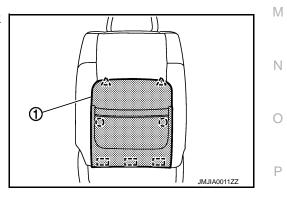
- Disconnect the seat control switch harness connectors.
- Remove the reclining device outer cover (front, rear).
- 2. Remove the seat cushion inner finisher.
  - Remove the reclining device inner covers (front, rear) by releasing the metal clip and pull it up together with the cover.
  - Remove the relining device inner covers (front, rear) from the seat cushion inner finisher by releasing the pawls.
    - : Metal clip



- 3. Remove the seat cushion front finisher. Remove the metal clips, and then pull out seat cushion front finisher (1).
  - : Metal clip
  - 八 :Pawl



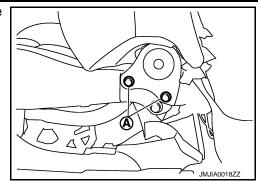
- 4. Remove the seatback board.
  - Remove the metal clips and clips, and then pull out seatback board (1).
  - Pull down the seatback board to release the upper pawls.
    - : Clip : Metal clip 六 : Pawl



- 5. Remove the seatback assembly.
  - Disconnect the reclining motor harness connector and remove the harness clamp.
  - Remove the seat cushion retainer, and then side air bag harness clamp and seatback heater unit harness connector.

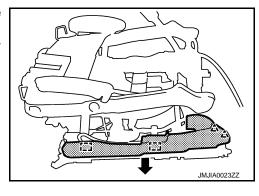
### < REMOVAL AND INSTALLATION >

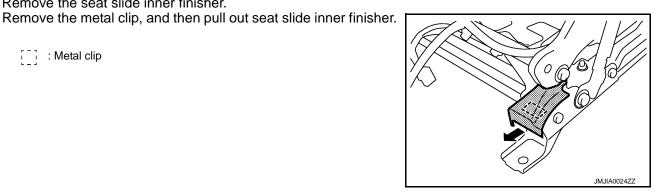
• Remove the seatback mounting bolts (A), and then remove the seatback assembly.



- 6. Remove the seat cushion pad and trim.
  - Remove the retainer.
  - Disconnect the seat cushion heater unit harness connector.
  - Remove the hog rings, and separate the trim and pad.
- 7. Remove the seat slide outer finisher.
  - · Remove the metal clips and pawls, and then pull out seat slide outer finisher (outside).
  - · Remove the metal clip, and then pull out seat slide outer finisher (inside).
    - : Metal clip ; - ;

: Metal clip





Assembly

8.

Assemble in the reverse order of disassembly.

Remove the seat slide inner finisher.

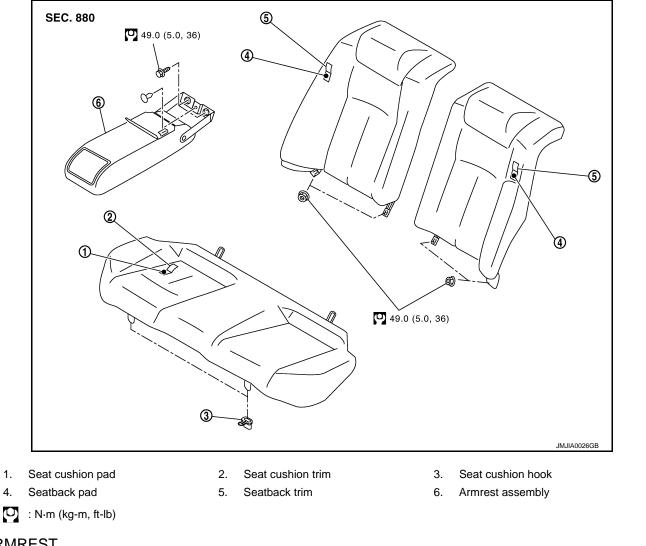
### **CAUTION:**

Install the hog rings of seat cushion trim in position, and then securely connect the trim or trim cord with the pad side wire.

# REAR SEAT

Exploded View

REAR SEAT



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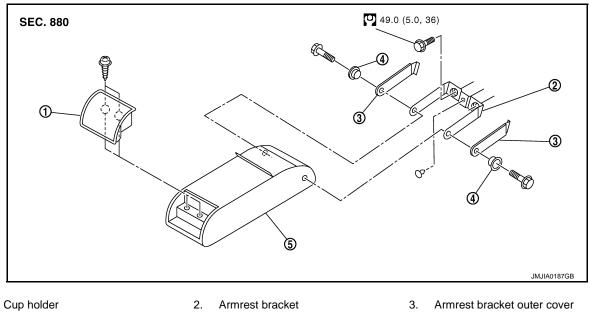
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# **REAR SEAT**

### < REMOVAL AND INSTALLATION >



Armrest trim and pad

4. bushing

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: N·m (kg-m, ft-lb)

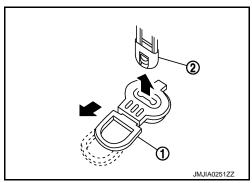
### Removal and Installation

# REMOVAL

### When removing and installing, use shop cloths to protect parts from damage.

5.

- 1. Remove the seat cushion.
  - Pull the lock lever (1) at the front bottom of the seat cushion forward (1 for each side), and pull the seat cushion upward to release the wire (2) from the seat cushion hook. Then pull the seat cushion forward to remove.
  - Remove the seat cushion from the vehicle.



### 2. Remove the seatback.

- Remove the nuts under seatback.
- Lift up seatback from underneath, and then remove seatback from seatback hook that is fixed to the vehicle.
- Remove the seatback from the vehicle.
- 3. Remove the armrest assembly.
  - Remove the fastener.
  - Remove the armrest mounting bolts.
  - Remove the clip.
  - Remove the armrest assembly from the vehicle.

### INSTALLATION

Install in the reverse order of removal. **CAUTION:** 

### When removing and installing, use shop cloths to protect parts from damage.

### **SE-76**

# < REMOVAL AND INSTALLATION >

# Disassembly and Assembly

### SEATBACK

SEALDACK	
Disassembly Remove the hog rings, and separate the trim and pad.	В
Assembly Assemble in the reverse order of disassembly.	С
SEAT CUSHION	
Disassembly Remove the hog rings, and separate the trim and pad.	D
Assembly Assemble in the reverse order of disassembly. ARMREST	Е
Disassembly	_
1. Remove the screws, and then remove the cup holder.	F
2. Remove the bolts, and then remove the armrest bracket.	
3. Remove the armrest bracket outer cover from armrest bracket.	G
Assembly Assemble in the reverse order of disassembly.	

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### < REMOVAL AND INSTALLATION >

# HEATED SEAT CONTROL UNIT

# **Exploded View**

Refer to SE-66, "Exploded View".

Removal and Installation

# REMOVAL

When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the front seat.
- 2. Disconnect heated seat control unit connector.
- Remove the heated seat control unit from the heated seat control unit stay. Refer to <u>SE-66</u>, "Exploded <u>View</u>".

INSTALLATION Install in the reverse order of removal. CAUTION: Always clamp the harness to the right place. INFOID:000000010992570

# < REMOVAL AND INSTALLATION >

# POWER SEAT SWITCH

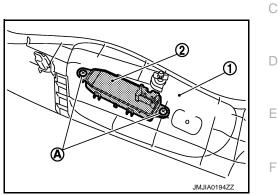
### **Removal and Installation**

### REMOVAL

### **CAUTION:**

### When removing and installing, use shop cloths to protect parts from damage.

- 1. Remove the seat cushion outer finisher (1). Refer to SE-69. "Removal and Installation".
- 2. Remove the screws (A).
- 3. Remove the power seat switch (2) from the seat cushion outer finisher (1).



#### INSTALLATION Install in the reverse order of removal.

**CAUTION:** 

• Be sure to clamp the harness to the right place.

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# < REMOVAL AND INSTALLATION >

# HEATED SEAT SWITCH

# **Exploded View**

Refer to IP-22, "Exploded View".

Removal and Installation

# REMOVAL

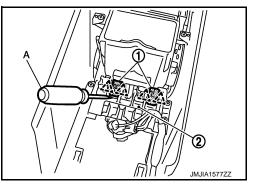
### When removing and installing, use shop cloths to protect from damage.

- 1. Remove the console body assembly. Refer to IP-23. "Removal and Installation".
- 2. Remove heated seat switch (1) from switch bracket (2) with remover tool (A).

کے : Pawl

### NOTE:

The same procedure is performed for passenger side.



### INSTALLATION

Install in the reverse order of removal.

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