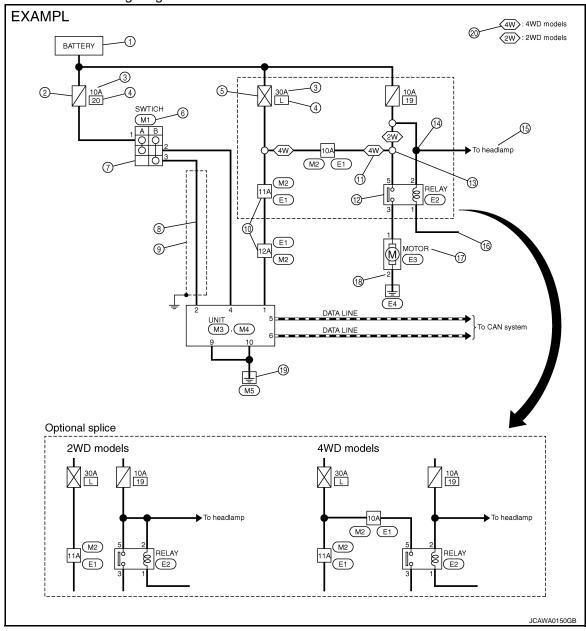
Sample/Wiring Diagram -Example-

INFOID:0000000010076490

Each section includes wiring diagrams.



Description		
Number	Item	Description
1	Power supply	This means the power supply of fusible link or fuse.
2	Fuse	"/" means the fuse.
3	Current rating of fusible link/fuse	This means the current rating of the fusible link or fuse.
4	Number of fusible link/ fuse	This means the number of fusible link or fuse location.
5	Fusible link	"X" means the fusible link.
6	Connector number	 Alphabetic characters show to which harness the connector is placed. Numeric characters show the identification number of connectors.
7	Switch	This shows that continuity exists between terminals 1 and 2 when the switch is in the A position. Continuity exists between terminals 1 and 3 when the switch is in the B position.
8	Circuit (Wiring)	This means the wiring.

P1554 BATTERY CURRENT SENSOR

< DTC/CIRCUIT DIAGNOSIS >

[MR18DE]

P1554 BATTERY CURRENT SENSOR

Description INFOID:000000009947471

The power generation voltage variable control enables fuel consumption to be decreased by reducing the engine load which is caused by the power generation of the generator. The battery current sensor is installed to the battery cable at the negative terminal. The sensor measures the charging/discharging current of the battery. Based on the sensor signal, ECM judges whether or not the power generation voltage variable control is performed. When performing the power generation voltage variable control, ECM calculates the target power generation voltage based on the sensor signal. And ECM sends the calculated value as the power generation command value to IPDM E/R. For the details of the power generation voltage variable control, refer to PCS-68. "System Description".

CAUTION:

Never connect the electrical component or the ground wire directly to the battery terminal. The connection causes the malfunction of the power generation voltage variable control, and then the battery discharge may occur.

DTC Logic

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
P1554	Battery current sensor performance	The output voltage of the battery current sensor is lower than the specified value while the battery voltage is high enough.	Harness or connectors (Battery current sensor circuit is open or shorted.) [Crankshaft position sensor (POS) circuit is shorted.] (Power steering pressure sensor circuit is shorted.) (Accelerator pedal position sensor circuit is shorted.) (Refrigerant pressure sensor circuit is shorted.) Battery current sensor Crankshaft position sensor (POS) Power steering pressure sensor Accelerator pedal position sensor Refrigerant pressure sensor

DTC CONFIRMATION PROCEDURE

1. PERFORM COMPONENT FUNCTION CHECK

Perform component function check. Refer to EC-347, "Component Function Check".

NOTE:

Use component function check to check the overall function of the battery current sensor circuit. During this check, a 1st trip DTC might not be confirmed.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Go to EC-348, "Diagnosis Procedure".

Component Function Check

1.PRECONDITIONING

TESTING CONDITION:

- Before performing the following procedure, confirm that battery voltage is more than 12.8 V at idle.
- Before performing the following procedure, confirm that all load switches and A/C switch are turned OFF.

>> GO TO 2.

Revision: 2013 October EC-347 2014 CUBE

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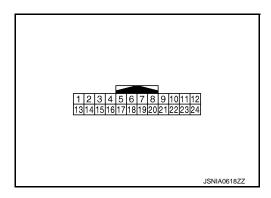
INFOID:00000000009947473

INFOID:0000000009949569

IPOD ADAPTER

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

	minal color)	Description			Condition	Reference value	
+	_	Signal name	Input/ Output	Condition		(Approx.)	
1 (R)	13 (W)	iPod sound signal LH	Output	Ignition switch ON	When iPod mode is selected.	(V) 1 0 -1 *** 2ms SKIB3609E	
2 (B)	14 (G)	iPod sound signal RH	Output	Ignition switch ON	When iPod mode is selected.	(V) 1 0 -1 + 2ms SKIB3609E	
3 (L/Y)	Ground	ACC power supply	Input	Ignition switch ACC	_	Battery voltage	
4 (LG)		AV communication signal (L)	Input/ Output	_	_	_	
5 (L)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage	
6 (GR)	_	USB D+ signal	_	_	_	_	
7 (LG)	_	USB D– signal	_	_	_	_	
8 (LG)	Ground	iPod battery charge 12 V	Output	Ignition switch ON	Connected to iPod [®]	12.0 V	

REAR WINDOW DEFOGGER SWITCH

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS

REAR WINDOW DEFOGGER SWITCH WITH AUTO A/C

WITH AUTO A/C: Component Function Check

INFOID:0000000009945433

1. CHECK FUNCTION

- 1. Check ("REAR DEF SW") in BCM REAR DEFOGGER "DATA MONITOR" mode by using CONSULT.
- 2. Operate rear window defogger switch and check the status on CONSULT screen.

Monitor Item	Con	status	
REAR DEF SW	rear window defogger switch	Pressed	On
KLAK DLI OW		Released	Off

Is the inspection result normal?

YES >> Rear window defogger switch function is OK.

NO >> Refer to DEF-20, "WITH AUTO A/C : Diagnosis Procedure".

WITH AUTO A/C: Diagnosis Procedure

INFOID:0000000009945434

1.CHECK AUTO A/C

Check the operating condition of auto A/C

Does auto A/C operate normally?

YES >> GO TO 2.

NO >> Perform auto A/C diagnosis. Refer to HAC-114, "Diagnosis Chart By Symptom".

2.CHECK BCM OUTPUT SIGNAL

- Turn ignition switch OFF.
- Disconnect A/C auto amp. connector.
- 3. Check signal between A/C auto amp. harness connector and ground using oscilloscope.

	(+) uto amp.	(-)	Voltage (V) (Approx.)	
Connector Terminal			(Αρρίολ.)	
M51	33	Ground	(V) 15 10 5 0 10 ms JPMIA0012GB	

Is the inspection result normal?

YES >> GO TO 4.

NO >> GO TO 3.

3. CHECK REAR WINDOW DEFOGGER SWITCH CIRCUIT

- Disconnect BCM connector.
- 2. Check continuity between BCM harness connector and A/C auto amp. harness connector.

BCN	И	A/C au	Continuity	
Connector Terminal		Connector	Terminal	Continuity
M68	15	M51	33	Existed

^{3.} Check continuity between BCM harness connector and ground.

BCM (BODY CONTROL MODULE)

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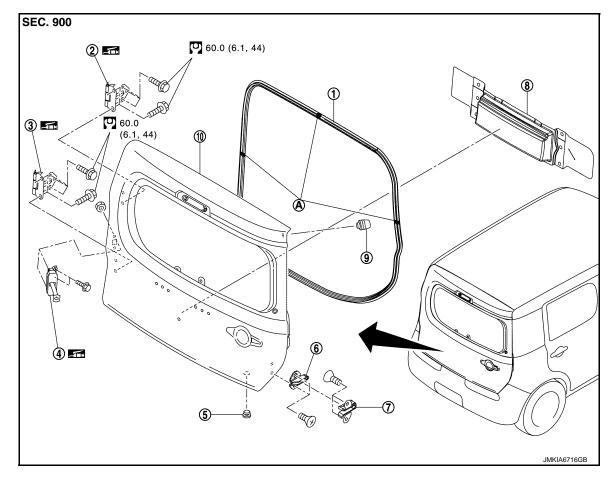
59 Y	B C D
	E
E13	F
Corrector Name Corrector Name Corrector Type Terminal Color Of No. Wire No	н
Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) Signal Name (Specification) Nore Nore	J
	L
BCM (BODY CONTROL MODULE) Corrector No. D112	М
BCM (BOL Corrector Name Corrector Name Corrector Name No. Wire No.	N
	0
	JRMWE7821GB

Revision: 2013 October DLK-137 2014 CUBE

BACK DOOR STRIKER: Exploded View

INFOID:0000000009950805

INFOID:0000000009950806



- 1. Back door weather-strip
- 4. Door check link
- Dovetail female
- 10. Back door panel

- 2. Back door hinge (upper)
- 5. Grommet
- Sealing screen
- A : Center mark

- 3. Back door hinge (lower)
- Dovetail male
- 9. Bumper rubber

Refer to GI-4, "Components" for symbols in the figure.

BACK DOOR STRIKER: Removal and Installation

REMOVAL

Remove mounting bolts, and then remove back door striker.

INSTALLATION

Install in the reverse order of removal.

CAUTION:

- Check back door open/close operation after installation.
- When removing and installing back door striker, be sure to perform the fitting adjustment. Refer to <u>DLK-356, "BACK DOOR ASSEMBLY: Adjustment"</u>.

BACK DOOR HINGE

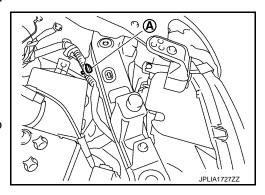
FRONT COMBINATION LAMP

< REMOVAL AND INSTALLATION >

CAUTION:

Disconnect the battery negative terminal or the fuse.

- Remove front bumper fascia. Refer to <u>EXT-11</u>, "<u>Exploded View</u>".
- 2. Remove the harness clips (A)*.
 - *: When replace a left.
- Remove the air duct clip*.
 - *: When replace a left.
- Remove the headlamp mounting bolts.
- 5. Pull out the headlamp assembly forward the vehicle.
- Disconnect the connector before removing the headlamp assembly.



INSTALLATION

Install in the reverse order of removal.

NOTE:

After installation, perform aiming adjustment. Refer to EXL-186, "Description".

Replacement

CAUTION:

- Disconnect the battery negative terminal or the fuse.
- After installing the bulb, install the resin cap and the bulb socket securely for watertightness.
- Never touch the glass of bulb directly by hand. Keep grease and other oily matters away from it.
- · Never touch bulb by hand while it is lit or right after being turned off.
- Never leave bulb out of lamp reflector for a long time because dust, moisture smoke, etc. may affect the performance of lamp. When replacing bulb, be sure to replace it with new one.

HEADLAMP BULB

- Disconnect the headlamp bulb connector.
- Remove the back cover.
- Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.

PARKING(FRONT SIDE MARKER) LAMP BULB

- Remove the fender protector. Refer to <u>EXT-21</u>, "<u>FENDER PROTECTOR</u>: <u>Exploded View</u>". Keep a service area.
- Rotate the bulb socket counterclockwise and unlock it.
- Remove the bulb from the bulb socket.

FRONT TURN SIGNAL LAMP BULB

- Rotate the bulb socket counterclockwise and unlock it.
- 2. Remove the bulb from the bulb socket.

Disassembly and Assembly

INFOID:0000000009945212

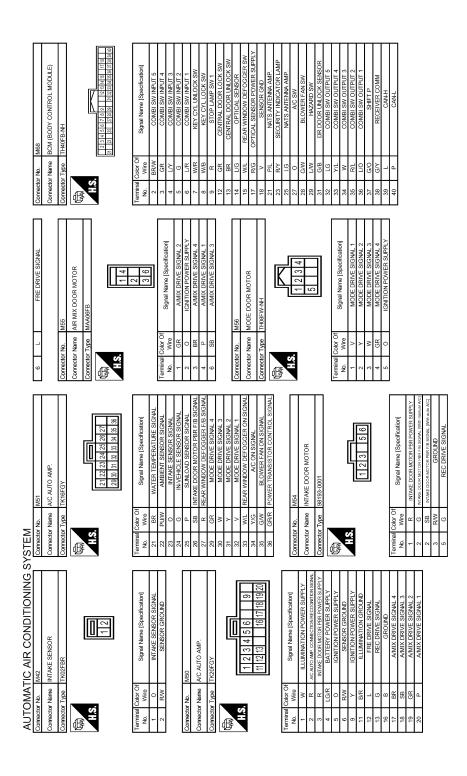
DISASSEMBLY

- 1. Remove the back cover.
- 2. Remove the retaining spring lock. And remove the bulb from the headlamp housing assembly.
- Rotate the parking(front side marker) lamp bulb socket counterclockwise and unlock it.
- Remove the bulb from the parking(front side marker) lamp bulb socket.
- 5. Rotate the front turn signal lamp bulb socket counterclockwise and unlock it.
- Remove the bulb from the front turn signal lamp bulb socket.

ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:



JRIWC1713GB

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(Wire	color)	Signal name	Input/ Output		Condition	(Approx.)
7 (W/R)	Ground	Door key cylinder switch UNLOCK	Input	Door key cylinder switch	NEUTRAL position	(V) 15 10 5 0 JPMIA0587GB 8.0 - 8.5 V
					UNLOCK position	0 V
8		Door key cylinder		Door key cylin-	NEUTRAL position	12 V
(W/B)	Ground	switch LOCK	Input	der switch	LOCK position	0 V
9	Ground	Stop Jamp quitab 1	Innut	Stop lamp	OFF (Brake pedal is not depressed)	0 V
(R)	Ground	Stop lamp switch 1	Input	switch	ON (Brake pedal is depressed)	Battery voltage
12 (GR)	Ground	Door lock and unlock switch LOCK	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 10 10 ms JPMIA0012GB 1.0 - 1.5 V
					LOCK position	0 V
13 (BR)	Ground	Door lock and unlock switch UNLOCK	Input	Door lock and unlock switch	NEUTRAL position	(V) 15 10 5 0 10 ms JPMIA0012GB
					UNLOCK position	1.0 - 1.5 V 0 V
14				Ignition switch	When bright outside of the vehicle	Close to 5 V
(L/G)	Ground	Optical sensor	Input	ON	When dark outside of the vehicle	Close to 0 V
15 (W/L)	Ground	Rear window defog- ger switch	Input	Rear window defogger switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB 1.0 - 1.5 V
					Pressed	0 V
17	Ground	Optical sensor pow-	Output	Ignition switch	OFF, ACC	0 V
(R/G)		er supply	- 1		ON	5 V

DLC BRANCH LINE CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

[CAN SYSTEM (TYPE 1)]

DLC BRANCH LINE CIRCUIT

Diagnosis Procedure

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1. CHECK CONNECTOR

- 1. Turn the ignition switch OFF.
- 2. Disconnect the battery cable from the negative terminal.
- 3. Check the terminals and connectors of the data link connector for damage, bend and loose connection (connector side and harness side).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the terminal and connector.

2.CHECK HARNESS FOR OPEN CIRCUIT

Check the resistance between the data link connector terminals.

	Resistance (Ω)				
Connector No.	Connector No. Terminal No.				
M4	6	14	Approx. 54 – 66		

Is the measurement value within the specification?

YES (Present error)>>Check CAN system type decision again.

YES (Past error)>>Error was detected in the data link connector branch line circuit.

NO >> Repair the data link connector branch line.

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IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM) [IPDM E/R (WITHOUT I-KÉY)]

< ECU DIAGNOSIS INFORMATION >

Termin		Description		Condition		Value
(Wire	<u>– </u>	Signal name	Input/ Output		Condition	(Approx.)
6 (SB)	Ground	Ignition switch START	Output	Any position	on other ignition switch	0 V
(05)				Ignition sw	vitch START	Battery voltage
7		0 11 (1 0		Cooling fan OFF		0 V
7 (Y)	Ground	Cooling fan relay-2 power supply	Output	Cooling fa	n LO operated	9.0 V
()		117		Cooling fa	n HI operated	Battery voltage
8 (V)	Ground	Battery power supply	Input	Ignition sw	vitch OFF	Battery voltage
9 (B/W)	Ground	Ground		Ignition sw	vitch ON	0 V
				Cooling fa	n OFF	0 V
10 (L)	Ground	Cooling fan motor ground	Output	Cooling fa	n LO operated	5.0 V
(L)		ground		Cooling fa	n HI operated	0 V
13	13 (W) Ground	d Rear window defogger	Outout	Ignition	Rear window defogger switch OFF	0 V
(W)			Output	switch ON	Rear window defogger switch ON	Battery voltage
18	Cround	Ignition quitob	Output	Ignition switch OFF		0 V
(Y)	Ground	Ignition switch	Output	Ignition sw	vitch ON	Battery voltage
19 (B/W)	Ground	Ground		Ignition sw	vitch ON	0 V
21 (W)	Ground	Front fog lamp (RH)	Output	Output Lighting switch 2ND	Front fog lamp switch OFF	0 V
(۷۷)					Front fog lamp switch ON	Battery voltage
22 (V)	Ground	Front fog lamp (LH)	Output	Lighting switch	Front fog lamp switch OFF	0 V
(v)				2ND	Front fog lamp switch ON	Battery voltage
24	_			Ignition	Engine stopped	0 V
(G)	Ground	Oil pressure switch	Input	switch ON	Engine running	Battery voltage
				Ignition	Front wiper stop position	0 V
25 (Y)	Ground	Front wiper auto stop	Input	switch ON	Any position other than front wiper stop position	Battery voltage
26 (P)	Ground	CAN-L	Input/ Output		_	_
27 (L)	Ground	CAN-H	Input/ Output		_	_
31 (W)	Ground	Fuel pump relay control	Output		mately 1 second after turn- gnition switch ON running	0 - 1.5 V
(vv)					ately 1 second or more after e ignition switch ON	Battery voltage

PCS-53 Revision: 2013 October 2014 CUBE

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
+ (Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)
70 (Y)	Ground	Battery power sup- ply	Input	Ignition switch OFF		Battery voltage
72	Ground	A/C indicator	Output	A/C indicator	OFF	12 V
(SB)	Oround	A/O Indicator	Odiput	A/C Indicator	ON	0 V
75	Ground	Driver door request	Input	Driver door re-	ON (Pressed)	0 V
(SB)	0.00	switch		quest switch	OFF (Not pressed)	12 V
76	Ground	Push-button ignition	Input	Push-button ig- nition switch	Pressed	0 V
(L/O)	Ground	switch (push switch)	Input	(push switch)	Not pressed	12 V
78	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 500 ms JMKIA5954GE
(LG)	Glound	(+)	Culput	switch is operat- ed with ignition switch ON	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 JMKIA5955GE
79	Ground	Driver door antenna	Output	When the driver door request	When Intelligent Key is not in the antenna detection area (The distance between Intelligent Key and antenna: Approx. 2 m)	(V) 15 10 5 0 JMKIA5954GE
(V)	Ground (-)	(-) Output	switch is operat- ed with ignition switch ON	When Intelligent Key is in the antenna detection area (The distance between Intelligent Key and antenna: 80 cm or less)	(V) 15 10 5 0 500 ms	

B2192 ID DISCORD, IMMU-ECM

< DTC/CIRCUIT DIAGNOSIS >

[WITHOUT INTELLIGENT KEY SYSTEM]

B2192 ID DISCORD, IMMU-ECM

Description INFOID:0000000009950274

BCM performs the ID verification with ECM that allows the engine to start. BCM starts the communication with ECM if ignition switch is turned ON starts the engine if the ID is OK. ECM prevents the engine from starting if the ID is not registered.

DTC Logic INFOID:0000000009950275

DTC DETECTION LOGIC

NOTE:

- If DTC B2192 is displayed with DTC U1000, first perform the trouble diagnosis for DTC U1000. Refer to BCS-40, "DTC Logic".
- If DTC B2192 is displayed with DTC U1010, first perform the trouble diagnosis for DTC U1010. Refer to BCS-41, "DTC Logic".

DTC No.	Trouble diagnosis name	DTC detecting condition	Possible cause
B2192	ID DISCORD BCM-ECM	The ID verification results between BCM and ECM are NG.	• BCM • ECM

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

- Turn ignition switch ON.
- Check "Self diagnosis result" with CONSULT.

Is DTC detected?

YES >> Refer to <u>SEC-201</u>, "<u>Diagnosis Procedure</u>".

NO >> INSPECTION END

Diagnosis Procedure

1.PERFORM INITIALIZATION

Perform initialization of BCM and registration of all ignition keys using CONSULT.

Can the system be initialized and can the engine be started with registered ignition key?

YFS >> INSPECTION END

NO >> GO TO 2.

2.REPLACE BCM

- Replace BCM. Refer to BCS-88, "Removal and Installation".
- Perform initialization of BCM and registration of all ignition keys using CONSULT.

Can the system be initialized and can the engine be started with registered ignition key?

YES >> INSPECTION END

NO >> GO TO 3.

3.REPLACE ECM

Replace ECM. Refer to SEC-178, "ECM: Special Repair Requirement".

Can the system be initialized and can the engine be started with registered ignition key?

SEC-201

YES >> INSPECTION END

NO >> GO TO 4.

4.CHECK INTERMITTENT INCIDENT

Refer to GI-40, "Intermittent Incident".

>> INSPECTION END

SEC

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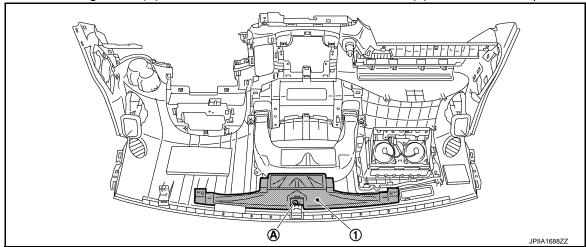
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DUCT AND GRILLE

< REMOVAL AND INSTALLATION >

2. Remove mounting screw (A), and then remove front defroster nozzle (1) from instrument panel assembly.



INSTALLATION

Installation is basically the reverse order of removal.

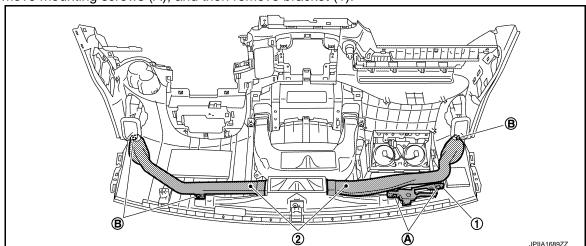
SIDE DEFROSTER NOZZLE

SIDE DEFROSTER NOZZLE: Removal and Installation

INFOID:0000000009946839

REMOVAL

- 1. Remove instrument panel assembly. Refer to IP-13, "Exploded View".
- 2. Remove mounting screws (A), and then remove bracket (1).



3. Remove mounting screws (B), and then remove side defroster nozzle (2) from instrument panel assembly.

INSTALLATION

Installation is basically the reverse order of removal.

REAR FOOT DUCT 1

REAR FOOT DUCT 1: Removal and Installation

INFOID:0000000009946840

REMOVAL

- Remove instrument lower cover. Refer to <u>IP-13, "Exploded View"</u>.
- Remove rear foot duct 1 from the vehicle.

INSTALLATION

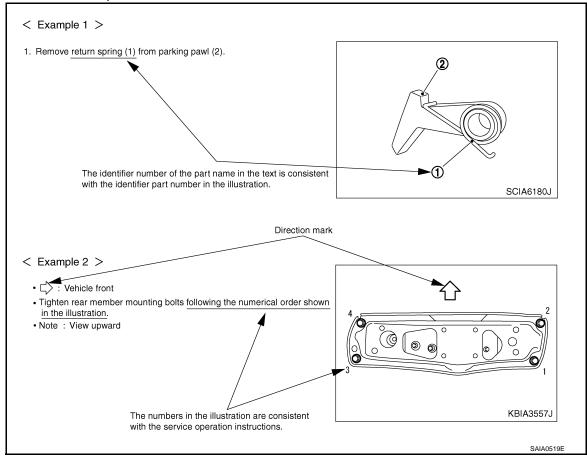
Installation is basically the reverse order of removal.

REAR FOOT DUCT 2

Relation between Illustrations and Descriptions

INFOID:0000000009947026

The following sample explains the relationship between the part description in an illustration, the part name in the text and the service procedures.



Components

THE LARGE ILLUSTRATIONS are exploded views (see the following) and contain tightening torques, lubrication points, section number of the PARTS CATALOG (e.g. SEC. 440) and other information necessary to perform repairs.

The illustrations should be used in reference to service matters only. When ordering parts, refer to the appropriate **PARTS CATALOG**.

Components shown in an illustration may be identified by a circled number. When this style of illustration is used, the text description of the components will follow the illustration.