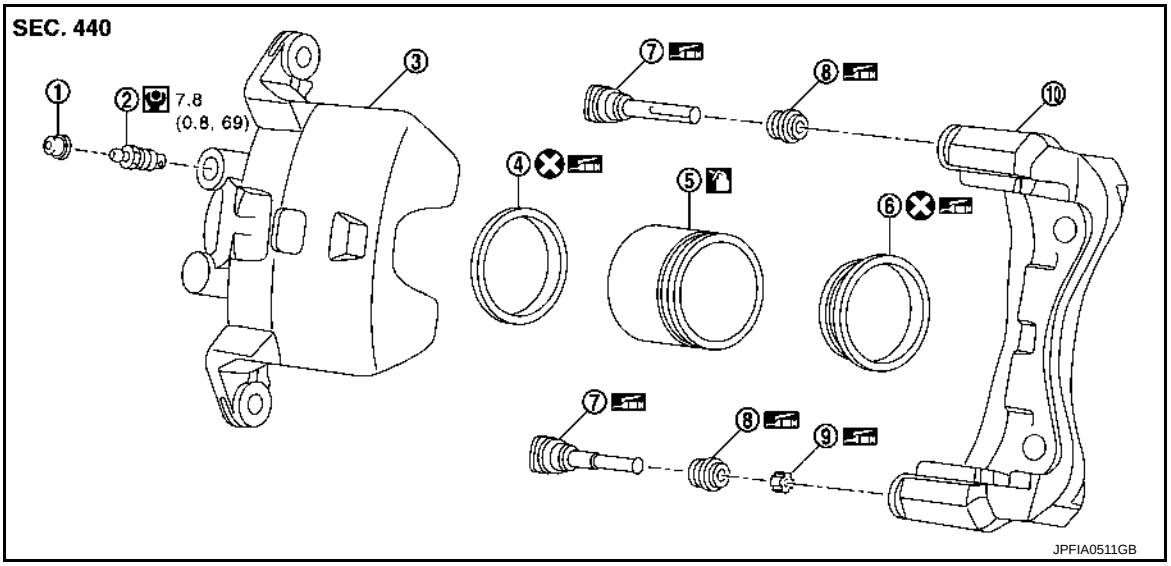
Edition: October 2013
Publication No. SM14E00F15U0

NISSAN
JUKE
MODEL F15 SERIES

QUICK REFERENCE INDEX



1. Cap
2. Bleeder valve
3. Cylinder body
4. Piston seal
5. Piston
6. Piston boot
7. Sliding pin
8. Sliding pin boot
9. Bushing
10. Torque member

: Apply rubber grease.

: Apply brake fluid.

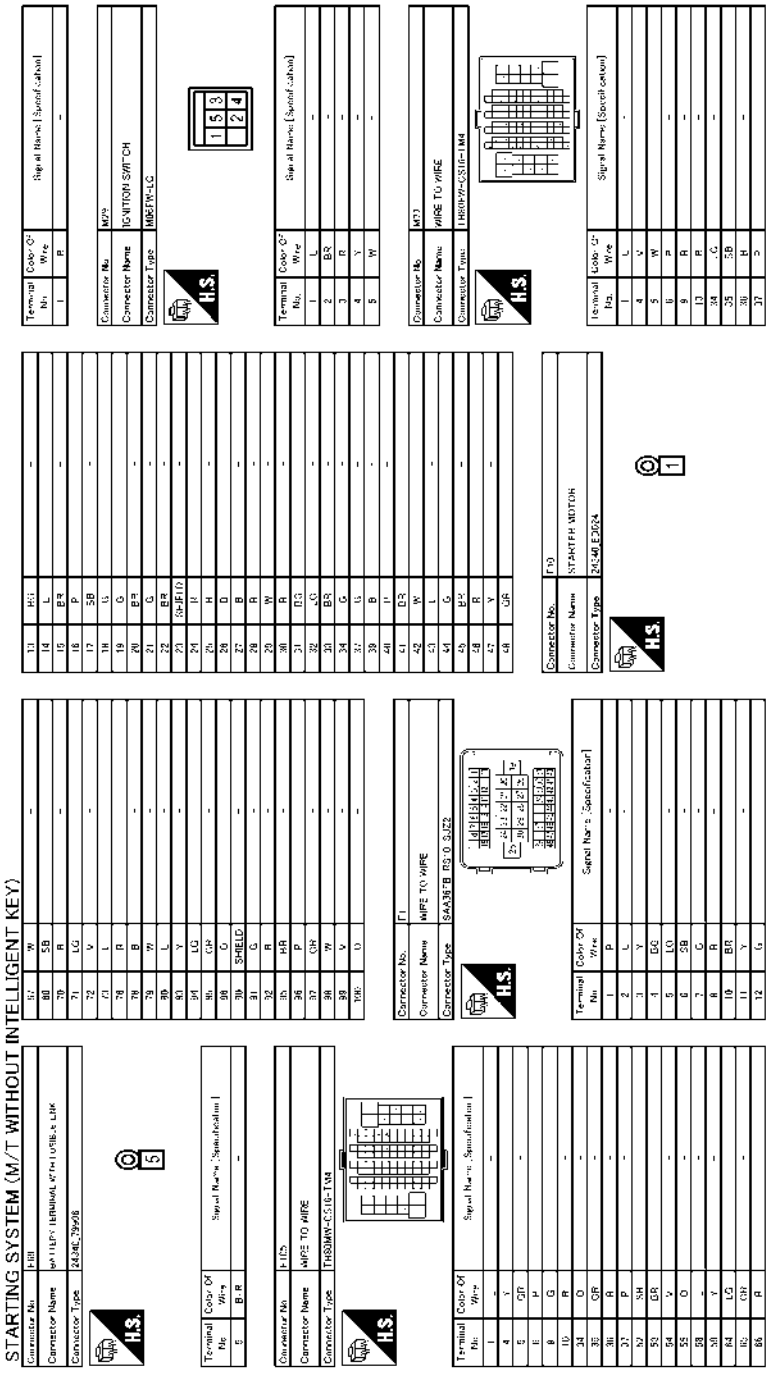
: N·m (kg-m, in-lb)

:Always replace after every disassembly.

SYMBOLS

SYMBOL	DESCRIPTION		SYMBOL	DESCRIPTION
	Tightening torque The tightening torque specifications of bolts and nuts may be presented as either a range or a standard tightening torque.	: N•m (kg-m, ft-lb)		Always replace after every disassembly.
		: N•m (kg-m, in-lb)	(P)	Apply petroleum jelly.
	Should be lubricated with grease. Unless otherwise indicated, use recommended multi-purpose grease.		(M)	Apply molybdenum added petroleum jelly.
	Should be lubricated with oil.		ATF	Apply ATF.
	Sealing point		★	Select with proper thickness.
(L)	Sealing point with locking sealant.		☆	Adjustment is required.
	Checking point			

SAIA0749E



JRBWC5399GB

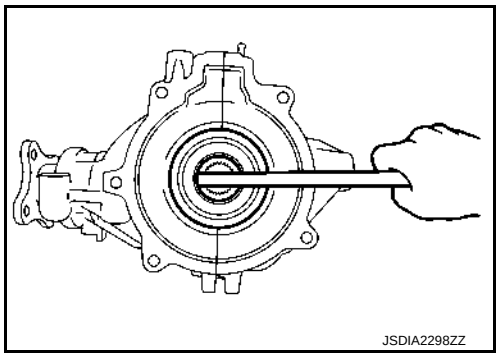
: Apply anti-corrosive oil.

: Apply Genuine Silicone RTV or equivalent. Refer to GI-24, "Recommended Chemical Products and Sealants".

Disassembly

INFOID:0000000009751206

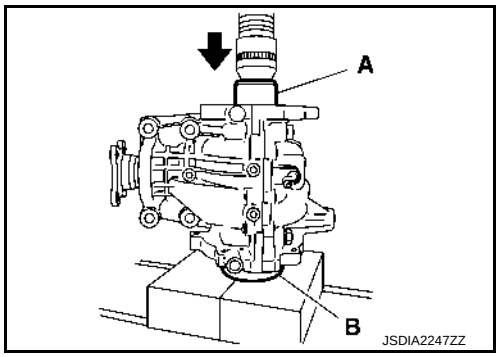
1. Remove carrier brackets.
2. Remove electric controlled couplings. Refer to DLN-153, "Disassembly".
3. Remove breather tube and breathers.
   CAUTION:
   Remove breather tube and breathers only when necessary.
4. Remove side oil seal with the suitable oil seal remover.
   CAUTION:
   Never damage gear carrier and rear cover.
5. Remove rear cover mounting bolts.


JSDIA2298ZZ

6. Set the drifts (A and B) to the right and left side bearing adjusting shims individually. Press center stem assembly with side bearing to remove gear carrier assembly and rear cover assembly.

   A : Drift [SST: KV38109820 (—)]
   B : Drift [SST: KV38109810 (—)]

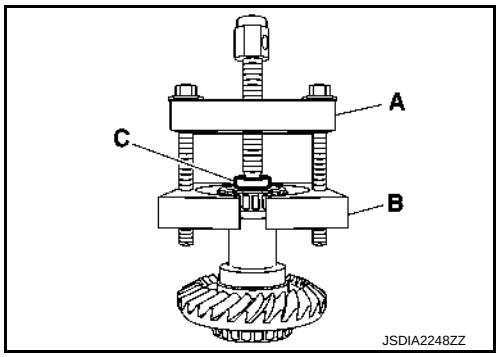
   CAUTION:
   The pressure shall be as low as possible to remove gear carrier assembly and rear cover assembly. The maximum pressure shall be 10 kN (1 ton, 1.0 Imp ton).
   NOTE:
   Center stem assembly, side bearings, and adjusting shims are compressed and integrated in gear carrier and rear cover.



JSDIA2247ZZ

7. Remove drain plug and filler plug, if necessary.
8. Remove side bearing adjusting shims and outer races of side bearing .
   CAUTION:
   Mark the side bearing adjusting shims so that the original mounting positions (right/left) can be identified later.
9. Remove inner race of side bearing (right), using the puller (A), the replacer (B) and the drift (C).

   A : Puller (Commercial service tool)
   B : Replacer (Commercial service tool)
   C : Drift [SST: ST33052000 (—)]



JSDIA2248ZZ

BRAKE PEDAL VIBRATION OR OPERATION SOUND OCCURS

Description

INFOID:0000000009752980

- Brake pedal vibrates and motor sound from ABS actuator and electric unit (control unit) occurs, when the engine starts.
- Brake pedal vibrates during braking.

CAUTION:

Vibration may be felt during brake pedal is lightly depressed (just placing a foot on it) in the following conditions. This is normal.

- **When shifting gears**
- **When driving on slippery road**
- **During cornering at high speed**
- **When passing over bumps or grooves [Approx. 50 mm (1.97 in) or more]**
- **When pulling away just after starting engine [at approx. 10 km/h (6.2 MPH) or higher]**

Diagnosis Procedure

INFOID:0000000009752981

1.SYMPTOM CHECK 1

Check that there are pedal vibrations when the engine is started.

Do vibrations occur?

YES >> GO TO 2.
NO >> Check brake pedal. Refer to BR-19, "Inspection and Adjustment".

2.SYMPTOM CHECK 2

Check that motor noise from ABS actuator and electric unit (control unit) occurs when the engine starts.

Does the operation sound occur?

YES >> GO TO 3.
NO >> Perform self-diagnosis for “ABS” with CONSULT.

3.SYMPTOM CHECK 3

Check symptoms when electrical component (headlamps, etc.) switches are operated.

Does the symptom occur?

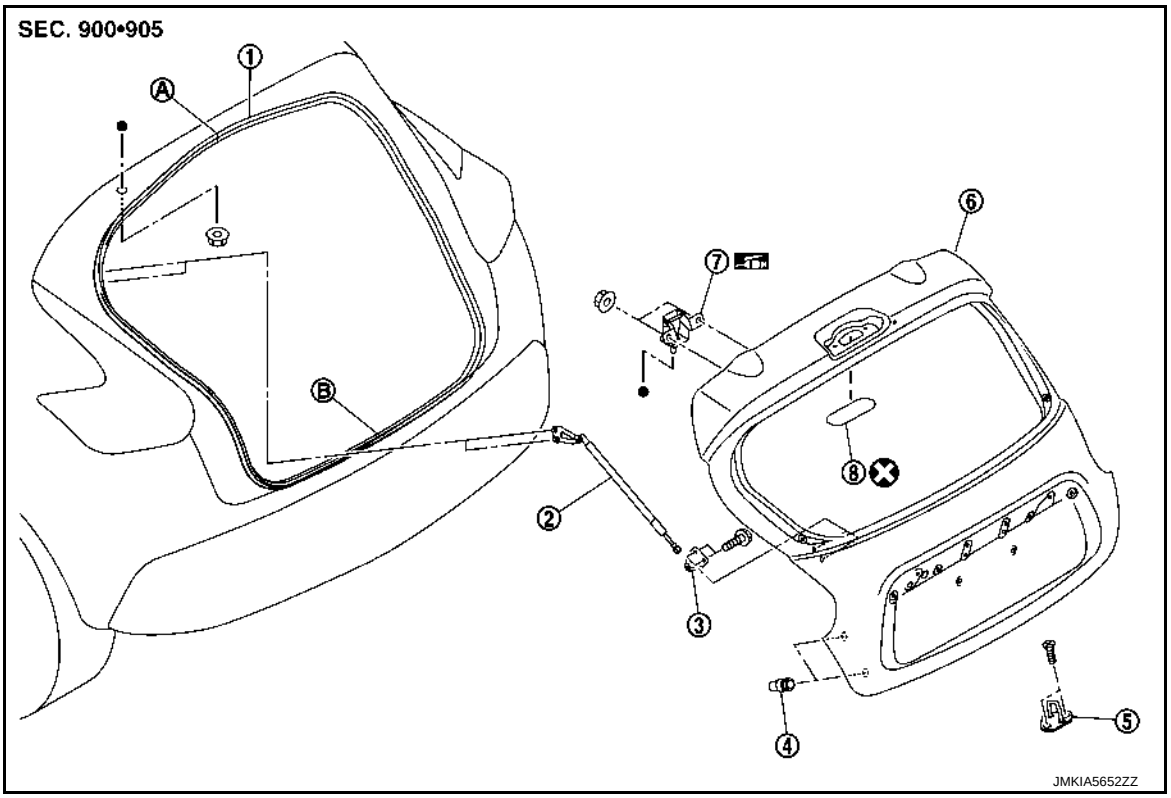
YES >> Check that radio (including wiring), antenna and antenna lead-in wires are not located near ABS actuator and electric unit (control unit). Move them if they are located near ABS actuator and electric unit (control unit).
NO >> Normal

BACK DOOR

Exploded View

INFOID:0000000009754066

REMOVAL



1. Back door weather-strip
2. Back door stay
3. Back door stay lower bracket
4. Bumper rubber
5. Back door striker
6. Back door panel
7. Back door hinge
8. Hole cover

A : Center mark

B : Seam

: Do not reuse

: Body grease

BACK DOOR ASSEMBLY

BACK DOOR ASSEMBLY : Removal and Installation

INFOID:0000000009754067

CAUTION:

- **Operate with two workers, because of its heavy weight.**
- **Use protective tape or shop cloth to protect from damage during removal and installation.**

REMOVAL

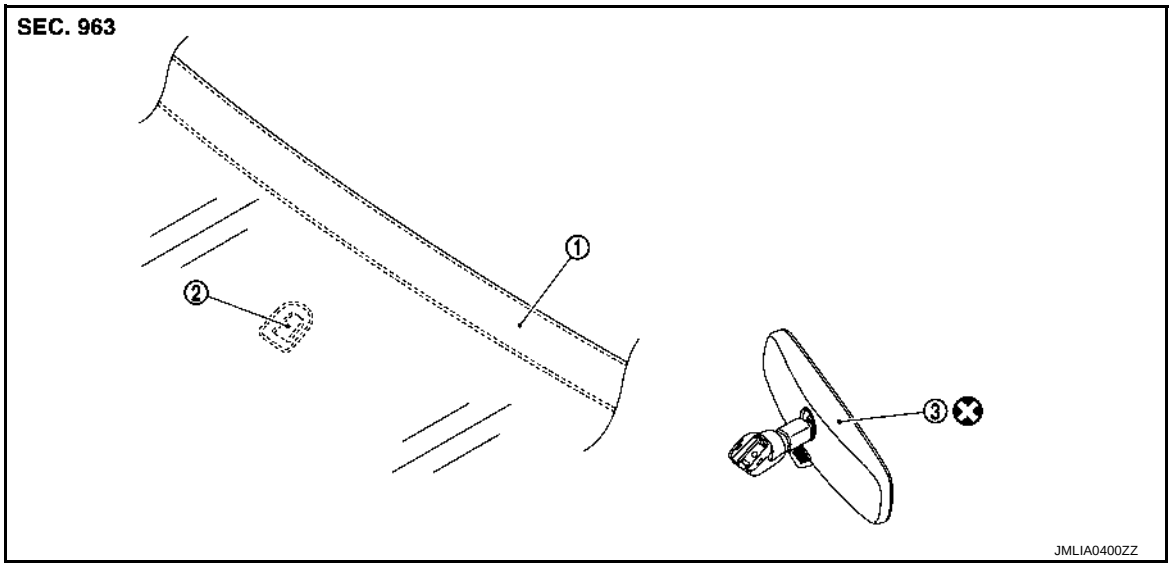
1. Remove luggage side upper finisher (LH and RH). Refer to INT-36, "LUGGAGE SIDE UPPER FINISHER : Removal and Installation".

REMOVAL AND INSTALLATION

INSIDE MIRROR

Exploded View

INFOID:0000000009752171



1. Windshield glass
2. Mirror base
3. Inside mirror assembly

: Always replace after every disassembly.

Removal and Installation

INFOID:0000000009752172

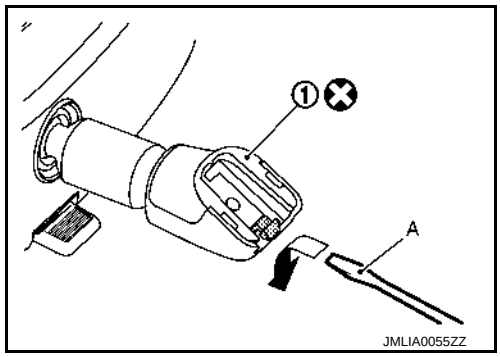
CAUTION:
Never reuse the inside mirror assembly disassembled from mirror base.

REMOVAL

Slide the inside mirror assembly upward to remove.

NOTE:

Insert flat-bladed screwdriver (A) under the inside mirror (1).
Slide the inside mirror to the upper side while pushing the pawl downward.



: Always replace after every disassembly.

CAUTION:
Never use excessive force to remove the inside mirror because it is inserted tightly into the mirror base.

INSTALLATION

Install in the reverse order of removal.

IGNITION POWER SUPPLY

14	SH	–
15	–	
24	R	–
25	G	
40	LG	–
41	Y	
43	GR	
44	V	–
45	W	–
46	BG	–
50	P	–
51	B	
52	H	–

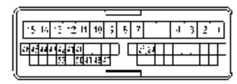
Connector No.	D6
Connector Name	DOOR MIRROR (PASSENGER SIDE)
Connector Type	TH08MW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	V	–
2	B	
3	GR	–
7	BG	
8	W	–

Connector No.	D27
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-CS15

H.S.



Terminal No.	Color Of Wire	Signal Name [Specification]
1	P	–
2	W	–
3	SB	–
4	V	–
7	G	
8	BG	–
9	LG	–
10	BR	–
11	W	–
12	SB	–
13	H	–
14	L	
15	P	
24	G	–
25	R	
40	V	–
41	P	
42	L	–
43	GR	
44	W	–
45	Y	
46	BG	
47	G	–
48	L	–
49	R	–
50	LG	–
52	BR	–

Connector No.	D29
Connector Name	DOOR MIRROR (DRIVER SIDE)
Connector Type	TH08MW-NH

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	W	–
2	B	–
3	GR	–
7	BG	–
8	Y	

Connector No.	D103
Connector Name	CONDENSER
Connector Type	PC1FB-A

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
1	R	

Connector No.	D126
Connector Name	WIRE TO WIRE
Connector Type	M02FB-LC

H.S.

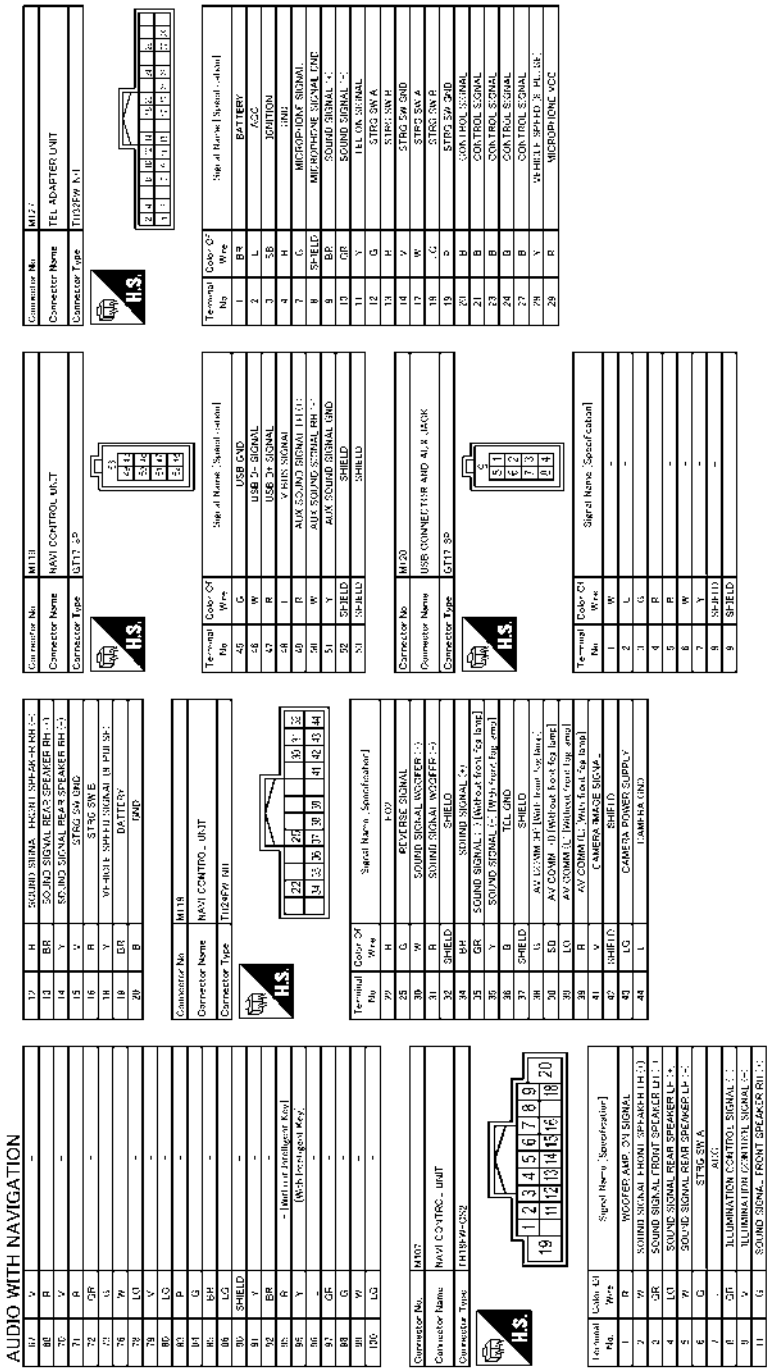
Terminal No.	Color Of Wire	Signal Name [Specification]
1	B	–
2	R	–

Connector No.	F1
Connector Name	BATTERY TERMINAL WITH FUSIBLE LINK
Connector Type	L02FGY-MC

H.S.

Terminal No.	Color Of Wire	Signal Name [Specification]
3	G	
4	W	–

JRMWE7948GB



JRNWD0708GB

Perform the high pressure fuel pump component inspection. Refer to EC-217, "Component Inspection (High Pressure Fuel Pump)".

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the fuel pump. EM-48, "Removal and Installation".

2.CHECK FUEL LEAKAGE

1. Start the engine.
2. Visually check that the fuel pump, fuel rail, and fuel piping have no fuel leakage.

Is the inspection result normal?

YES >> Check that the fuel system has no breakage, bend, and crush. Refer to FL-4, "Inspection".
NO >> Repair or Replace the error-detected parts.

Component Inspection (High Pressure Fuel Pump)

INFOID:0000000011461513

1.CHECK HIGH PRESSURE FUEL PUMP-1

1. Turn ignition switch OFF.
2. Disconnect high pressure fuel pump harness connector.
3. Check the resistance between high pressure fuel pump terminals.

+	–	Condition		Resistance (Approx.)
High pressure fuel pump Terminal				
1	2	Temperature °C (°F)	20 – 30 (68 - 86)	0.46 - 0.56 Ω

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace high pressure fuel pump. Refer to EM-48, "Removal and Installation".

2.CHECK HIGH PRESSURE FUEL PUMP-2

WITH CONSULT

1. Reconnect high pressure fuel pump harness connector.
2. Start the engine.
3. Check “FUEL PRES SEN V” in “DATA MONITOR” mode of “ECM” using CONSULT.

Monitor item	Condition	Voltage (Approx.)
FUEL PRES SEN V	Engine speed: idle	1,140 – 1,460 mV
	Engine speed: Revving engine from idle to 4,000 rpm quickly	1,140 – 3,060 mV

WITHOUT CONSULT

1. Reconnect high pressure fuel pump harness connector.
2. Start the engine.
3. Check FRP sensor signal voltage.

ECM			Condition	Value (Approx.)
Connector	+	–		
	Terminal			
F25	18	44	Engine speed: idle	1,140 – 1,460 mV
			Engine speed: Revving engine from idle to 4,000 rpm quickly	1,140 – 3,060 mV

YES >> INSPECTION END
NO >> Replace high pressure fuel pump. Refer to EM-48, "Removal and Installation".

P044C, P044D EGR VOLUME CONTROL VALVE POSITION SENSOR

DTC Logic

INFOID:0000000011672588

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name (Trouble diagnosis content)	DTC detecting condition	Possible cause
P044C	EGR SENSOR C (EGR sensor C circuit low)	ECM detects the following status continuously for 5 seconds or more: A voltage signal transmitted from the EGR volume control valve position sensor is 0.32 V or less.	• Harness or connectors (EGR volume control valve position sensor circuit is open or shorted.) • EGR volume control valve
P044D	EGR SENSOR C (EGR sensor C circuit high)	ECM detects the following status continuously for 5 seconds or more: A voltage signal transmitted from the EGR volume control valve position sensor is 4.67 V or more.	

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If DTC Confirmation Procedure has been previously conducted, always perform the following procedure before conducting the next test.

1. Turn ignition switch OFF and wait at least 10 seconds.
2. Turn ignition switch ON.
3. Turn ignition switch OFF and wait at least 10 seconds.

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON and wait at least 5 seconds.
2. Check 1st trip DTC.

Is 1st trip DTC detected?

YES >> Proceed to EC-990, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011672589

1.CHECK EGR VOLUME CONTROL VALVE POSITION SENSOR POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect EGR volume control valve harness connector.
3. Turn ignition switch ON.
4. Check voltage between EGR volume control valve harness connector and ground.

+		–	Voltage (Approx.)
EGR volume control valve			
Connector	Terminal		
F74	3	Ground	5 V

Is the inspection result normal?

YES >> GO TO 2.
NO >> GO TO 5.

2.CHECK EGR VOLUME CONTROL VALVE POSITION SENSOR GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect ECM harness connector.

Engine speed : 1,200 rpm or more
Vehicle speed : 40 km/h (25 MPH) or more

4. Stop the vehicle.
5. Check the first trip DTC.

Is “P0717” detected?

YES >> Go to TM-472, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000011682807

1.CHECK INPUT SPEED SENSOR POWER CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect input speed sensor connector.
3. Turn ignition switch ON.
4. Check voltage between input speed sensor harness connector terminal and ground.

+		–	Voltage
Input speed sensor			
Connector	Terminal		
F77	3	Ground	10 – 16 V

Is the inspection result normal?

YES >> GO TO 2.
NO >> GO TO 6.

2.CHECK INPUT SPEED SENSOR GROUND CIRCUIT

Check continuity between input speed sensor harness connector terminal and ground.

Input speed sensor		—	Continuity
Connector	Terminal		
F77	1	Ground	Existed

Is the inspection result normal?

YES >> GO TO 3.
NO >> Repair or replace malfunctioning parts.

3.CHECK CIRCUIT BETWEEN INPUT SPEED SENSOR AND TCM (PART 1)

1. Turn ignition switch OFF.
2. Disconnect TCM connector.
3. Check continuity between input speed sensor harness connector terminal and TCM harness connector terminal.

Input speed sensor		TCM		Continuity
Connector	Terminal	Connector	Terminal	
F77	2	F83	24	Existed

Is the inspection result normal?

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

4.CHECK CIRCUIT BETWEEN INPUT SPEED SENSOR AND TCM (PART 2)

Check continuity between input speed sensor harness connector terminal and ground.

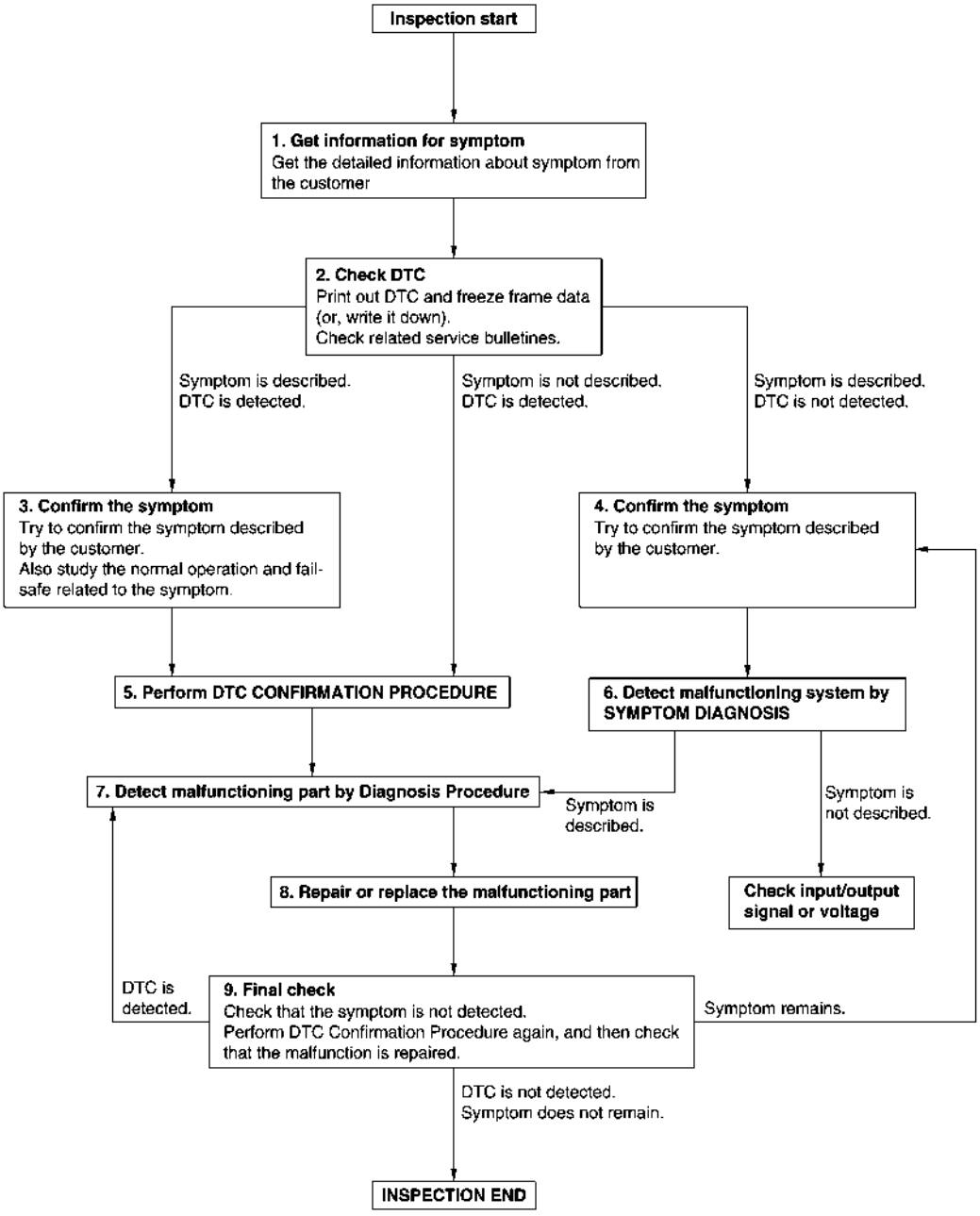
BASIC INSPECTION

DIAGNOSIS AND REPAIR WORK FLOW

Work Flow

INFOID:0000000011463194

OVERALL SEQUENCE



JMKIA8652GB

DETAILED FLOW

DTC/CIRCUIT DIAGNOSIS

HEADLAMP (HI) CIRCUIT

Component Function Check

INFOID:0000000011732004

1.CHECK HEADLAMP (HI) OPERATION

With CONSULT
1. Turn ignition switch ON.
2. Select “EXTERNAL LAMPS” in “Active Test” mode of “IPDM E/R” using CONSULT.
3. With operating the test items, check that the headlamp (HI) blinks.

Hi : Headlamp (HI) blinks (ON/OFF is repeated 1 second each.)
Off : Headlamp (HI) OFF

Without CONSULT
1. Start IPDM E/R auto active test. Refer to PCS-11, "Diagnosis Description".
2. Check that the headlamp (HI) blinks.

Is the inspection result normal?

YES >> Headlamp (HI) circuit is normal.
NO >> Refer to EXL-49, "Diagnosis Procedure".

Diagnosis Procedure

INFOID:0000000011732005

1.CHECK HEADLAMP (HI) FUSE

1. Turn ignition switch OFF.
2. Check that the following fuses are not fusing.

Unit	Location	Fuse No.	Capacity
Headlamp HI (RH)	IPDM E/R	#51	10 A
Headlamp HI (LH)		#52	

Is the inspection result normal?

YES >> GO TO 2.
NO >> Replace the blown fuse after repairing the affected circuit if a fuse is blown.

2.CHECK HEADLAMP (HI) POWER SUPPLY

With CONSULT
1. Turn ignition switch ON.
2. Select “EXTERNAL LAMPS” in “Active Test” mode of “IPDM E/R” using CONSULT.
3. With operating the test items, check voltage between IPDM E/R harness connector and ground.

+			-	Test item		Voltage
IPDM E/R						
Connector		Terminal				
RH	E15	49	Ground	EXTERNAL LAMPS	Hi	9 – 16 V (Repeated 1 second)
					Off	0 – 1 V
LH		50			Hi	9 – 16 V (Repeated 1 second)
					Off	0 – 1 V

Is the inspection result normal?

YES >> GO TO 3.

P0112, P0113 IAT SENSOR 1

DTC Logic

INFOID:0000000012198360

DTC DETECTION LOGIC

DTC No.	Trouble diagnosis name (Trouble diagnosis content)	DTC detecting condition	Possible cause
P0112	IAT SEN/CIRCUIT- B1 (Intake air temperature sensor 1 circuit low input)	An excessively low voltage from the intake air temperature sensor 1 is sent to ECM.	• Harness or connectors (Intake air temperature sensor 1 circuit is open or shorted.) • Intake air temperature sensor 1
P0113	IAT SEN/CIRCUIT- B1 (Intake air temperature sensor 1 circuit high input)	An excessively high voltage from the intake air temperature sensor 1 is sent to ECM.	

DTC CONFIRMATION PROCEDURE

1.PRECONDITIONING

If DTC Confirmation Procedure has been previously conducted, always perform the following procedure before conducting the next test.

1. Turn ignition switch OFF and wait at least 10 seconds.
2. Turn ignition switch ON.
3. Turn ignition switch OFF and wait at least 10 seconds.

>> GO TO 2.

2.PERFORM DTC CONFIRMATION PROCEDURE

1. Turn ignition switch ON and wait at least 5 seconds.
2. Check 1st trip DTC.

Is 1st trip DTC detected?

YES >> Proceed to EC-856, "Diagnosis Procedure".
NO >> INSPECTION END

Diagnosis Procedure

INFOID:0000000012198361

1.CHECK INTAKE AIR TEMPERATURE SENSOR 1 POWER SUPPLY

1. Turn ignition switch OFF.
2. Disconnect mass air flow sensor (with intake air temperature sensor 1) harness connector.
3. Turn ignition switch ON.
4. Check the voltage between mass air flow sensor harness connector and ground.

+		−	Voltage (Approx.)
MAF sensor			
Connector	Terminal		
F8	4	Ground	5 V

Is the inspection result normal?

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

2.CHECK INTAKE AIR TEMPERATURE SENSOR 1 POWER SUPPLY CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect ECM harness connector.
3. Check the continuity between mass air flow sensor harness connector and ECM harness connector.