Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2012 NISSAN Juke OEM Service and Repair Workshop Manual

Go to manual page

1. PRECONDITIONING

1. Press the power switch for at least 2 seconds to turn the high voltage system OFF and then check that the charging status indicator is not illuminated.

NOTE:
When the high voltage system is turned ON, the charging status indicator blinks green with a frequency of 1 second.

2. After the high voltage system is turned OFF, open the driver's side door, get out of the vehicle, close the driver's side door and wait for at least 5 minutes.

CAUTION:
- **Since the auto ACC function causes the accessory power to be turned ON, do not perform any vehicle operation including locking the doors or opening and closing of the doors during the standby state.**

  If an operation is performed, wait an additional 5 minutes from that time.

- **Check that 12V battery voltage is 11 V or more.**

>>

GO TO 2 .

2. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Power switch ON and wait at least 10 seconds.
2. Check self-diagnostic result in “EV/HEV”.

Is DTC detected?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

DTC Diagnosis Procedure

SIEMD-7197217

CAUTION:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

WARNING:

- **When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.**
- **When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.**
- **When performing high voltage system operation, be sure to wear insulating protective equipment.**
- **During tasks involving high voltage systems, clarify a person in charge of the tasks and do not let others touch the vehicle. When the vehicle is not being serviced, use protective items such as an electric-proof cover sheet for covering the high voltage components so as to keep someone from accidentally touching the vehicle.**
- **Refer to HIGH VOLTAGE PRECAUTIONS : Precautions.**

CAUTION:

- **Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.**
- **When you turned the power switch ON with the service plug removed, be sure to erase all the DTCs after trouble diagnosis.**

1. PRECONDITIONING

WARNING:

Follow the instructions below before starting the procedure.

1. **Disconnect high voltage circuit. Refer to HOW TO DISCONNECT HIGH VOLTAGE : Precautions.**
2. **Check voltage in high voltage circuit. Refer to CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT : Precautions.**

>>

GO TO 2

2. CHECK HIGH VOLTAGE JUNCTION BOX INTERLOCK DETECTION CIRCUIT

1. Disconnect high voltage junction box harness connector.
2. Check for continuation between the high voltage junction box terminals.

High voltage junction box				Continuation
+		-		
Connector	Terminal	Connector	Terminal	
E1	8	E1	9	Existing

Is the inspection result normal?

YES>>

GO TO 4

NO>>

GO TO 3

3. CHECK HIGH VOLTAGE JUNCTION BOX HIGH VOLTAGE CONNECTOR INSTALLATION CONDITION

Check high voltage junction box high voltage connector's H1 and H11 installation conditions visually and tactually.

CAUTION:
When reconnecting the high voltage harness connectors, insert them slowly and directly.

Is the inspection result normal?

YES>>

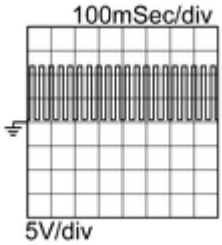
Replace high voltage junction box. Refer to HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly.

NO>>

Repair or replace error-detected parts.

4. CHECK CONNECTIO DETECTION CIRCUIT 1 POWER SUPPLY

1. Power switch ON with the service plug removed.
2. Use an oscilloscope to read the voltage signal between the high voltage junction box and ground.

+		-	Voltage signal
High voltage junction box			
Connector	Terminal		
E1	4	Ground	 SIEMD-7197217-01-SCIA2101ZZ

Is the inspection result normal?

YES>>

GO TO 6

NO>>

GO TO 5

5. CHECK CONNECTION DETECTION CIRCUIT 1 POWER SUPPLY CIRCUIT

1. Power switch OFF.
2. Disconnect VCM connector.

3. Check for continuation between high voltage junction box harness connector and VCM harness connector.

+		-		
High voltage junction box		VCM		Continuation
Connector	Terminal	Connector	Terminal	
E1	4	E48	132	Existing

Is the inspection result normal?

YES>>

GO TO 6

NO>>

Repair or replace error-detected parts.

6. CHECK CONNECTION DETECTION CIRCUIT 1 SIGNAL CIRCUIT

1. Power switch OFF.
2. Disconnect VCM connector.
3. Check for continuation between high voltage junction box harness connector and VCM harness connector.

+		-		
High voltage junction box		VCM		Continuation
Connector	Terminal	Connector	Terminal	
E1	5	E48	119	Existing

Is the inspection result normal?

YES>>

GO TO 7

NO>>

Repair or replace error-detected parts.

7. CHECK VCM POWER SUPPLY

Check VCM power supply circuit. Refer to Diagnosis Procedure.

Is the inspection result normal?

YES>>

Replace VCM. Refer to VCM : Removal & Installation.

NO>>

Repair or replace error-detected parts.

SIEMD-7197218

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P161F	96	High voltage connector interlock	Diagnosis condition	Always
			Signal	Connection detection circuit 2 signal
			Threshold	The high voltage junction box cover is open or the inverter (front) high voltage harness connector is detected to not be engaged.
			Detection time	–

POSSIBLE CAUSE

- Harness and connector (Connection detection circuit 2 circuit)
- High voltage junction box
- High voltage harness (Inverter (front) circuit)

FAIL-SAFE

High-voltage system is normally stopped (When vehicle is stopped)

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2. After the high voltage system is turned OFF, open the driver's side door, get out of the vehicle, close the driver's side door and wait for at least 5 minutes.

CAUTION:
- **Since the auto ACC function causes the accessory power to be turned ON, do not perform any vehicle operation including locking the doors or opening and closing of the doors during the standby state.**

  If an operation is performed, wait an additional 5 minutes from that time.

- **Check that 12V battery voltage is 11 V or more.**

>>

GO TO 2 .

2. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Power switch ON and wait at least 10 seconds.
2. Check self-diagnostic result in “EV/HEV”.

Is DTC detected?

YES>>

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to Intermittent Incident.

NO-2>>

Confirmation after repair: INSPECTION END

DTC Diagnosis Procedure

SIEMD-7197220

CAUTION:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

WARNING:

- **When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.**
- **When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.**
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- **Refer to HIGH VOLTAGE PRECAUTIONS : Precautions.**

CAUTION:

- **Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.**
- **When you turned the power switch ON with the service plug removed, be sure to erase all the DTCs after trouble diagnosis.**

1. PRECONDITIONING

WARNING:

Follow the instructions below before starting the procedure.

1. **Disconnect high voltage circuit. Refer to HOW TO DISCONNECT HIGH VOLTAGE : Precautions.**
2. **Check voltage in high voltage circuit. Refer to CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT : Precautions.**

>>

GO TO 2

2. CHECK HIGH VOLTAGE JUNCTION BOX INTERLOCK DETECTION CIRCUIT

1. Disconnect high voltage junction box harness connector.
2. Check for continuation between the high voltage junction box terminals.

High voltage junction box				Continuation
+		-		
Connector	Terminal	Connector	Terminal	
E1	4	E1	5	Existing

Is the inspection result normal?

YES>>

GO TO 4

NO>>

GO TO 3

3. CHECK HIGH VOLTAGE JUNCTION BOX BUS BAR COVER INSTALLATION CONDITION

1. Remove the bus bar cover with the service plug removed.
2. Check the high voltage junction box bus bar cover installation condition and for bending of the bus bar cover terminals visually and tactually.

Is the inspection result normal?

YES>>

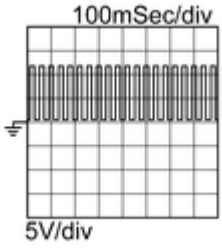
Replace high voltage junction box. Refer to HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly.

NO>>

Repair or replace error-detected parts.

4. CHECK CONNECTIO DETECTION CIRCUIT 2 POWER SUPPLY

1. Power switch ON with the service plug removed.
2. Use an oscilloscope to read the voltage signal between the high voltage junction box and ground.

+		-	Voltage signal
High voltage junction box			
Connector	Terminal		
E1	8	Ground	 SIEMD-7197220-01-SCIA2101ZZ

Is the inspection result normal?

YES>>

GO TO 6

NO>>

GO TO 5

5. CHECK CONNECTION DETECTION CIRCUIT 2 POWER SUPPLY CIRCUIT

1. Power switch OFF.
2. Disconnect VCM connector.
3. Check for continuation between high voltage junction box harness connector and VCM harness connector.

+		-		
High voltage junction box		VCM		Continuation
Connector	Terminal	Connector	Terminal	
E1	8	E48	100	Existing

Is the inspection result normal?

YES>>

GO TO 6

NO>>

Repair or replace error-detected parts.

6. CHECK CONNECTION DETECTION CIRCUIT 2 SIGNAL CIRCUIT

1. Power switch OFF.
2. Disconnect VCM connector.
3. Check for continuation between high voltage junction box harness connector and VCM harness connector.

+		-		
High voltage junction box		VCM		Continuation
Connector	Terminal	Connector	Terminal	
E1	9	E48	139	Existing

Is the inspection result normal?

YES>>

GO TO 7

NO>>

Replace harness and connectors.

7. CHECK VCM POWER SUPPLY

Check VCM power supply circuit. Refer to Diagnosis Procedure.

Is the inspection result normal?

YES>>

Replace VCM. Refer to VCM : Removal & Installation.

NO>>

Repair or replace error-detected parts.