

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.

2013 NISSAN Micra OEM Service and Repair Workshop Manual

Go to manual page

1. REPLACEMENT OF THE INVERTER (REAR)

Replace the inverter (rear). Refer to Removal and Installation.

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END



DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detection condition | |
|-------|----|--|-------------------------|---|
| P0AF2 | 4B | Drive Motor Inverter Temperature Sensor B | Diagnosis condition | At inverter (rear) start or READY state |
| | | | Signal | _ |
| | | | Threshold | Any of the following was detected. The temperature in the inverter (rear) exceeded the prescribed value. Overheat detected by hardware. |
| | | | Diagnosis delay time | Within 1 second |

POSSIBLE CAUSE

- Coolant system for inverter (rear)
- Inverter (rear)

FAIL-SAFE

The driving torque of the rear traction motor is limited to 0 Nm. Or, control of the rear traction motor stops.

1. PREPARATION BEFORE OPERATION

If another "Confirmation Procedure" was performed immediately before this task, always power switch OFF exit the vehicle and close all doors (including the back door), and wait for at least 60 seconds until the combination meter turns off before starting the next test.

CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the auto ACC function.

>>

GO TO 2.

2. PERFORM THE DTC CONFIRMATION PROCEDURE



- 1. Set the vehicle to READY and wait for at least 10 seconds.
- 2. Drive the vehicle for at least 20 minutes to warm it up.
- 3. Fully depress the accelerator pedal and accelerate the vehicle from 0 km/h (0 MPH) to 10 km/h (6 MPH). Repeat this for 10 times without interruption to the maximum extent possible.
- 4. Stop the vehicle.
- 5. Check the DTC.

Is "POAF2-4B" 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

1. CHECK FOR DTC RELATED TO THE HIGH VOLTAGE COOLING SYSTEM

| (F) | With | CONSULT |
|-----|--------|---------|
| W | AAIIII | CONSOLI |

- 1. Power switch ON and wait at least 10 seconds.
- 2. Check "Self Diagnostic Result" of "EV/HEV".

Is a DTC related to the hgih voltage cooling system detected?

YES>>

Check the detected DTC item. Refer to DTC Index.

NO>>

GO TO 2.

2. INSPECTION OF COOLANT

Inspect the coolant volume and leakage of coolant. Refer to **COOLANT**: Inspection.

Is the inspection result normal?

YES>>

GO TO 3.

NO>>

Repair or replace the malfunctioning parts.

3. INSPECTION OF THE COOLANT HOSE

Check for clogging or twisting of the hose in the coolant system for the inverter (rear).

Is the inspection result normal?

YES>>

GO TO 4.

NO>>

Repair or replace the malfunctioning parts.

4. PERFORM THE DTC CONFIRMATION PROCEDURE

Perform the DTC CONFIRMATION PROCEDURE. Refer to Confirmation Procedure.

YES>>

Replace the inverter (rear). Refer to Removal and Installation.

NO>>

INSPECTION END

DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detection condition | |
|-------|----|--|-------------------------|--|
| P0DA9 | 00 | Hybrid/EV Battery Voltage/Drive Motor B Inverter Voltage Correlation | Diagnosis condition | READY state |
| | | | Signal | _ |
| | | | Threshold | The high voltage monitor value inside the inverter (rear) and the LBC recognized voltage that is received via CAN were compared and the prescribed value was exceeded. |
| | | | Diagnosis delay time | Within 10 seconds |

POSSIBLE CAUSE

- Inverter (rear)
- Li-ion battery

FAIL-SAFE

Control of the rear traction motor stops.

1. PREPARATION BEFORE OPERATION

If another "Confirmation Procedure" was performed immediately before this task, always power switch OFF exit the vehicle and close all doors (including the back door), and wait for at least 60 seconds until the combination meter turns off before starting the next test.

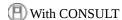
CAUTION:

While waiting, never operate the vehicle such as locking, opening, and closing doors. Violation of this caution results in the activation of ACC power supply according to the auto ACC function.

>>

GO TO 2.

2. PERFORM THE DTC CONFIRMATION PROCEDURE



- 1. Set the vehicle to READY and wait for at least 10 seconds.
- 2. Check the DTC.

Is "P0DA9-00" 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

WARNING:

Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.

WARNING:

- Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.
- The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.
- Be sure to wear insulating protective equipment before beginning work on the high voltage system.
- Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep
 others from touching the high voltage parts, these parts must be covered with an insulating sheet except when
 using them.
- Refer to HIGH VOLTAGE PRECAUTIONS: Precautions.

CAUTION:

Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.

1. CHECK FOR DTC RELATED TO THE HIGH VOLTAGE SYSTEM

- (I) With CONSULT
 - 1. Power switch ON and wait at least 10 seconds.
 - 2. Check the DTCs related to the high voltage system.

Is a DTC related to the high voltage system other than the inverter (rear) detected?

YES>>

Check the detected DTC.

NO>>

GO TO 2.

2. PRECONDITIONING

WARNING:

Follow the instructions below before starting the procedure.

- 1. Disconnect high voltage circuit. Refer to <u>HOW TO DISCONNECT HIGH VOLTAGE</u>: <u>Precautions</u>.
- 2. Check voltage in high voltage circuit. Refer to CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT: Precautions.

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GO TO 3.

3. INSPECTION OF THE HIGH VOLTAGE HARNESS

Inspect the high voltage harness between the Li-ion battery and the inverter (rear).

<u>Is the inspection result normal?</u>

YES>>

Replace the inverter (rear). Refer to Removal and Installation.

NO>>

Repair or replace the malfunctioning parts.



Click link to Wiring Diagram.

