

# Your Ultimate Source for OEM Repair Manuals

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## 2012 NISSAN NP300 Pickup King Cab OEM Service and Repair Workshop Manual

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## 9. CHECK FRONT TRACTION MOTOR INSULATION RESISTANCE

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Check front traction motor insulation resistance. Refer to [Component Inspection](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 10.](#)

NO>>

Replace front traction motor. Refer to [FRONT TRACTION MOTOR : Removal & Installation](#).

## 10. CHECK INVERTER (FRONT) INSULATION RESISTANCE

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Check inverter (front) insulation resistance. Refer to [Component Inspection](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 11.](#)

NO>>

Replace inverter (front). Refer to [INVERTER \(FRONT\) : Removal & Installation](#).

## 11. CHECK REAR TRACTION MOTOR INSULATION RESISTANCE

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Check rear traction motor insulation resistance. Refer to [Component Inspection](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 12.](#)

NO>>

Replace rear traction motor. Refer to [Removal and Installation](#).

## 12. CHECK INVERTER (REAR) INSULATION RESISTANCE

---

Check inverter (rear) insulation resistance. Refer to [Component Inspection](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace inverter (rear). Refer to [Removal and Installation](#).

## 13. PRECONDITIONING

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**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](#).

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## 14. CHECK ON-BOARD CHARGER INSULATION RESISTANCE

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Check on-board charger insulation resistance. Refer to [Diagnosis Procedure](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Replace on-board charger. Refer to [ON-BOARD CHARGER : Disassembly & Assembly](#).

## 15. PRECONDITIONING

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**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](#).

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[GO TO 16.](#)

## 16. CHECK HIGH VOLTAGE JUNCTION BOX INSULATION RESISTANCE

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Check high voltage junction box insulation resistance. Refer to [Diagnosis Procedure](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 17.](#)

NO>>

Replace high voltage junction box. Refer to [HIGH VOLTAGE JUNCTION BOX : Disassembly & Assembly](#).

## 17. CHECK DC/DC CONVERTER INSULATION RESISTANCE

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Check DC/DC converter insulation resistance. Refer to [Diagnosis Procedure](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 18.](#)

NO>>

Replace DC/DC converter. Refer to [DC/DC CONVERTER : Disassembly & Assembly](#).

## 18. CHECK ON-BOARD CHARGER INSULATION RESISTANCE

---

Check on-board charger insulation resistance. Refer to [Diagnosis Procedure](#).

**CAUTION:**

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.

- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 19.](#)

NO>>

Replace on-board charger. Refer to [ON-BOARD CHARGER : Disassembly & Assembly](#).

## 19. CHECK ELECTRIC COMPRESSOR INSULATION RESISTANCE

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Check electric compressor insulation resistance. Refer to [Insulation Resistance Check](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 21.](#)

NO>>

[GO TO 20.](#)

## 20. CHECK A/C REFRIGERANT GAS

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Interview the customer and check maintenance records to confirm if there is a possibility that an A/C refrigerant gas other than EV specific refrigerant gas has been mixed in with the A/C refrigerant gas.



### NOTE:

**If an A/C refrigerant gas other than EV specific refrigerant gas is used, there is a possibility that the insulation resistance might decrease.**

Is there any abnormality with the refrigerant gas?

YES>>

Replace electric compressor. Refer to [Removal & Installation](#).

NO>>

Change A/C refrigerant gas and electric compressor oil.

## 21. CHECK PTC HEATER (FOR A/C SYSTEM) INSULATION RESISTANCE

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Check PTC heater (for A/C system) insulation resistance. Refer to [Insulation Resistance Check](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.

- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 22.](#)

NO>>

Replace PTC heater. Refer to [Removal & Installation](#).

## 22. CHECK FRONT TRACTION MOTOR INSULATION RESISTANCE

---

Check front traction motor insulation resistance. Refer to [Component Inspection](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 23.](#)

NO>>

Replace front traction motor. Refer to [FRONT TRACTION MOTOR : Removal & Installation](#).

## 23. CHECK INVERTER (FRONT) INSULATION RESISTANCE

---

Check inverter (front) insulation resistance. Refer to [Component Inspection](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 24.](#)

NO>>

Replace inverter (front). Refer to [INVERTER \(FRONT\) : Removal & Installation](#).

## 24. CHECK REAR TRACTION MOTOR INSULATION RESISTANCE

---

Check rear traction motor insulation resistance. Refer to [Component Inspection](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.

- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 25.](#)

NO>>

Replace rear traction motor. Refer to [Removal and Installation](#).

## 25. CHECK INVERTER (REAR) INSULATION RESISTANCE

---

Check inverter (rear) insulation resistance. Refer to [Component Inspection](#)

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 26.](#)

NO>>

Replace inverter (rear). Refer to [Removal and Installation](#).

## 26. CHECK LI-ION BATTERY INSULATION RESISTANCE

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Check Li-ion battery insulation resistance. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 27.](#)

NO>>

Replace Li-ion battery. Refer to [Removal & Installation](#)(66kWh LI-ION BATTERY), [Removal & Installation](#)(91kWh LI-ION BATTERY).

## 27. CHECK HIGH VOLTAGE HARNESS INSULATION RESISTANCE

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Check high voltage harness insulation resistance. Refer to [Component Inspection](#).

### CAUTION:

- Since the tester is polarized, check the polarity of the tester that is used and connect it in the forward direction of the circuit.
- If the inspection result has no continuity, check that the parts are properly installed.

Is the inspection result normal?

YES>>

[GO TO 28.](#)

NO>>

Repair or replace error-detected parts.

## 28. REPLACE VCM

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 With CONSULT

1. Replace VCM. Refer to [VCM : Removal & Installation.](#)
2. Reconnect removed parts.
3. Perform DTC confirmation procedure again. Refer to [Confirmation Procedure.](#)

Is DTC P0AA6-23 detected again?

YES>>

Replace Li-ion battery controller. Refer to [Removal & Installation\(66kWh LI-ION BATTERY\)](#), [Removal & Installation\(91kWh LI-ION BATTERY\)](#).

NO>>

INSPECTION END



**DTC DETECTION LOGIC**

| DTC   |    | CONSULT screen terms                | DTC detecting condition |   |
|-------|----|-------------------------------------|-------------------------|---|
| P2121 | 00 | Accelerator pedal position sensor D | Diagnosis condition     | Power switch ON   |
|       |    |                                     | Signal                  | —   |
|       |    |                                     | Threshold               | The output voltage value of accelerator pedal position sensor 1 is larger than the normal operating range |
|       |    |                                     | Detection time          | More than 1 second  |

**POSSIBLE CAUSE**

- Accelerator pedal position sensor
- Accelerator pedal

**FAIL-SAFE**

Not applicable

## 1. PRECONDITIONING

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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.**

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## 2. PERFORM DTC CONFIRMATION PROCEDURE

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 With CONSULT

1. Power switch ON.
2. Depress the brake pedal and hold it for at least 1 second.
3. Release the brake pedal and hold it for at least 1 second.
4. 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