

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.

2010 NISSAN XTerra OEM Service and Repair Workshop Manual

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1. CHECK CHARGING CONNECTOR LOCK ACTUATOR CIRCUIT

Check charging connector lock actuator. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Repair or replace error-detected parts.

2. PERFORM DTC CONFIRMATION PROCEDURE AGAIN

 With CONSULT

1. Turn power switch ON.
2. Erase DTC.
3. Turn power switch OFF.
4. Perform DTC confirmation procedure again. Refer to [Confirmation Procedure](#).

Is DTC detected again?

YES>>

Replace VCM. Refer to [VCM : Removal & Installation](#).

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P168A	11	Pre charge relay	Diagnosis condition	Immediately after the vehicle is set to READY (During pre-charge relay ON command)
			Signal	Pre-charge relay drive signal
			Threshold	A short to ground in the pre-charge relay drive circuit is detected
			Detection time	—

POSSIBLE CAUSE

- Harness and connector (The pre-charge relay circuit is shorted to ground)
- Pre-charge relay

FAIL-SAFE

Traction motor output is limited

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.**

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[GO TO 2](#) .

2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY and wait at least 5 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

1. CHECK PRE-CHARGE RELAY GROUND CIRCUIT

Check pre-charge relay ground circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES>>

[GO TO 2](#)

NO>>

Repair or replace error-detected parts, [GO TO 3](#).

2. CHECK PRE-CHARGE RELAY CIRCUIT

Check pre-charge relay circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts, [GO TO 3](#).

3. PERFORM CONFIRMATION PROCEDURE AGAIN

1. Erase DTC.

2. Perform DTC confirmation procedure again. Refer to [Confirmation Procedure](#).

Is DTC P168A-11 detected again?

YES>>

Replace VCM. Refer to [VCM : Removal & Installation](#).

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P168A	12	Pre charge relay	Diagnosis condition	Power switch ON (During pre-charge relay OFF command)
			Signal	Pre-charge relay drive signal
			Threshold	A short to power supply in the pre-charge relay drive circuit is detected
			Detection time	—

POSSIBLE CAUSE

- Harness and connector (The pre-charge relay circuit is shorted to power supply)
- Pre-charge relay

FAIL-SAFE

Not applicable

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.**

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[GO TO 2](#) .

2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY 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

1. CHECK PRE-CHARGE RELAY GROUND CIRCUIT

Check pre-charge relay ground circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES>>

[GO TO 2](#)

NO>>

Repair or replace error-detected parts, [GO TO 3](#).

2. CHECK PRE-CHARGE RELAY CIRCUIT

Check pre-charge relay circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts, [GO TO 3](#).

3. PERFORM CONFIRMATION PROCEDURE AGAIN

1. Erase DTC.

2. Perform DTC confirmation procedure again. Refer to [Confirmation Procedure](#).

Is DTC P168A-12 detected again?

YES>>

Replace VCM. Refer to [VCM : Removal & Installation](#).

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P168A	13	Pre charge relay	Diagnosis condition	Immediately after the vehicle is set to READY (During pre-charge relay ON command)
			Signal	Pre-charge relay drive signal
			Threshold	An opening in the pre-charge relay drive circuit is detected
			Detection time	—

POSSIBLE CAUSE

- Harness and connector (The pre-charge relay circuit is open)
- Pre-charge relay

FAIL-SAFE

Not applicable

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.**

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2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY 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