

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 Patrol OEM Service and Repair Workshop Manual

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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. 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

1. CHECK QUICK CHARGE RELAY 2 CIRCUIT-1

1. Power switch OFF.
2. Disconnect Li-ion battery harness connector.
3. Check for continuation between Li-ion battery connector and ground.

+		
Li-ion battery	-	Continuation
Terminal		
8	Ground	Non-existing

Is the inspection result normal?

YES>>

[GO TO 2](#) .

NO>>

Check Li-ion battery internal harness for short to ground.

2. CHECK QUICK CHARGE RELAY 2 CIRCUIT-2

1. Remove VCM harness connector.
2. Check for continuation between Li-ion battery harness connector and ground.

+		
Li-ion battery	-	Continuation
Connector		
E9	8	Ground Non-existing

Is the inspection result normal?

YES>>

[GO TO 3](#).

NO>>

Repair or replace error-detected parts.

3. PERFORM CONFIRMATION PROCEDURE AGAIN

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

Is DTC P0D11-11 detected again?

YES>>

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

NO>>

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P0D11	12	Battery charge system negative contactor A	Diagnosis condition	Power switch ON
			Signal	Quick charge relay 2 drive signal
			Threshold	A short to power supply in quick charge relay 2 drive circuit is detected
			Detection time	More than 4 seconds

POSSIBLE CAUSE

- Harness and connector (Quick charge relay 2 drive circuit is shorted to power supply)
- Quick charge relay 2

FAIL-SAFE

Normal charge is prohibited

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

1. CHECK QUICK CHARGE RELAY 2 CIRCUIT

Check quick charge relay 2 circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

[GO TO 2](#) .

NO>>

Repair or replace error-detected parts.

2. PERFORM CONFIRMATION PROCEDURE AGAIN

1. Erase DTC.

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

Is DTC P0D11-12 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P0D11	13	Battery charge system negative contactor A	Diagnosis condition	Power switch ON
			Signal	Quick charge relay 2 drive signal
			Threshold	An opening in quick charge relay 2 drive circuit is detected
			Detection time	More than 4 seconds

POSSIBLE CAUSE

- Harness and connector (Quick charge relay 2 drive circuit is open)
- Quick charge relay 2

FAIL-SAFE

Normal charge is prohibited

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

1. CHECK QUICK CHARGE RELAY 2 CIRCUIT-1

1. Power switch OFF.
2. Disconnect VCM harness connector and Li-ion battery harness connector.
3. Check for continuation between VCM harness connector and Li-ion battery harness connector.

+		-		Continuation
VCM		Li-ion battery		
Connector	Terminal	Connector	Terminal	Existing
E47	92	E9	8	

Is the inspection result normal?

YES>>

[GO TO 2](#) .

NO>>

Repair or replace error-detected parts.

2. CHECK QUICK CHARGE RELAY 2 CIRCUIT-2

Check quick charge relay 2 circuit. Refer to [Diagnosis Procedure](#)(66kWh LI-ION BATTERY), [Diagnosis Procedure](#)(91kWh LI-ION BATTERY).

Is the inspection result normal?

YES>>

[GO TO 3](#).

NO>>

Repair or replace error-detected parts.

3. PERFORM CONFIRMATION PROCEDURE AGAIN

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

Is DTC P0D11-13 detected again?

YES>>

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

NO>>

INSPECTION END