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2012 NISSAN Pathfinder OEM Service and Repair Workshop Manual

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1. CHECK QUICK CHARGE RELAY 1 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			
2	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 1 CIRCUIT-2

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

+			
Li-ion battery		_	Continuation
Connector	Terminal		
E9 :	2	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 P0D0A-11 detected again?

YES>>

Replace VCM. Refer to <u>VCM</u>: Removal & Installation.

NO>>



DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
		Diagnosis condition	Power switch ON	
P0D0A	12	Battery charge system positive	Signal	Quick charge relay 1 drive signal
PODOA	12	contactor A	Threshold	A short to power supply in quick charge relay 1 drive circuit is detected
		Detection time	More than 4 seconds	

POSSIBLE CAUSE

- Harness and connector (Quick charge relay 1 drive circuit is shorted to power supply)
- Quick charge relay 1

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.



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

- (E) 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 1 CIRCUIT

Check quick charge relay 1 circuit. Refer to <u>Diagnosis Procedure</u>(66kWh LI-ION BATTERY), <u>Diagnosis Procedure</u>(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 P0D0A-12 detected again?

YES>>

Replace VCM. Refer to <u>VCM</u>: Removal & Installation.

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition		
		Diagnosis condition	Power switch ON		
DODO A	P0D0A 13 Battery charge system positive contactor A	Signal	Quick charge relay 1 drive signal		
PODOA		Threshold	An opening in quick charge relay 1 drive circuit is detected		
			Detection time	More than 4 seconds	

POSSIBLE CAUSE

- Harness and connector (Quick charge relay 1 drive circuit is shorted to power supply)
- Quick charge relay 1

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.



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

- (I) 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 1 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.

+	-			
VCM		Li-ion battery		Continuation
Connector Terminal		Connector	Terminal	
E47	91	E9	2	Existing

Is the inspection result normal?

YES>>

GO TO 2.

NO>>

Repair or replace error-detected parts.

2. CHECK QUICK CHARGE RELAY 1 CIRCUIT-2

Check quick charge relay 1 circuit. Refer to <u>Diagnosis Procedure</u>(66kWh LI-ION BATTERY), <u>Diagnosis Procedure</u>(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 P0D0A-13 detected again?

YES>>

Replace VCM. Refer to VCM: Removal & Installation.

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC	3	CONSULT screen terms	DTC detecting condition		
	P0D11 11 Battery charge system negative contactor A	Diagnosis condition	Power switch ON		
D0D11		Signal	Quick charge relay 2 drive signal		
PUDII		Threshold	A short to ground 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 ground)
- Quick charge relay 2

FAIL-SAFE

Normal charge is prohibited

