

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.

2014 NISSAN Leaf OEM Service and Repair Workshop Manual

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1. PERFORM DTC CONFIRMATION PROCEDURE AGAIN

 With CONSULT

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

Is DTC P1AB7-44 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P1ABA	16	Low voltage value	Diagnosis condition	READY, AUTO ACC or power switch ON
			Signal	—
			Threshold	DC/DC converter output voltage is less than approximately 6.5 V
			Detection time	1 second

POSSIBLE CAUSE

- DC/DC converter
- 12 V battery

FAIL-SAFE

DC/DC converter output is stopped

1. PRECONDITIONING

- Press the power switch OFF with the driver's side door open, get out of the vehicle, close the driver's side door and wait for at least 4 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 while waiting.

- Check that 12 V battery voltage is 11 V or more.

>>

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2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Erase “self-diagnostic result” in “DC/DC CONVERTER” using CONSULT.
2. Set the vehicle to READY.
3. Check “self-diagnostic result” in “DC/DC CONVERTER” using CONSULT.

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 12V BATTERY

Check 12V battery. Refer to [Work Flow](#).

Is the inspection result normal?

YES>>

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NO>>

Replace 12V battery. Refer to [12V BATTERY : Removal & Installation](#).

2. CHECK DC/DC CONVERTER CAN COMMUNICATION LINE

Check DC/DC converter CAN communication line installation condition visually and tactually.

Is the inspection result normal?

YES>>

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NO>>

Repair or replace error-detected parts.

3. PERFORM SELF-DIAGNOSIS OF VCM

 With CONSULT

1. Power switch ON.
2. Check “self-diagnostic result” result in “EV/HEV” using CONSULT.

Is DTC detected?

YES>>

Perform the trouble diagnosis for the detected DTC.

NO>>

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4. CHECK DC/DC CONVERTER OUTPUT VOLTAGE

Check voltage between 12V battery plus terminal and ground.

+	—	Voltage
12V battery		
12V battery plus terminal	Ground	Approximately 13 - 15.5 V

Is the inspection result normal?

YES>>

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

NO>>

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5. CHECK DC/DC CONVERTER 12V BATTERY VOLTAGE

1. Power switch OFF.
2. Disconnect DC/DC converter harness connector.
3. Check voltage between DC/DC converter harness connector and ground.

+		—	Voltage
DC/DC converter			
Connector	Terminal		
H4	7	Ground	12V battery voltage

Is the inspection result normal?

YES>>

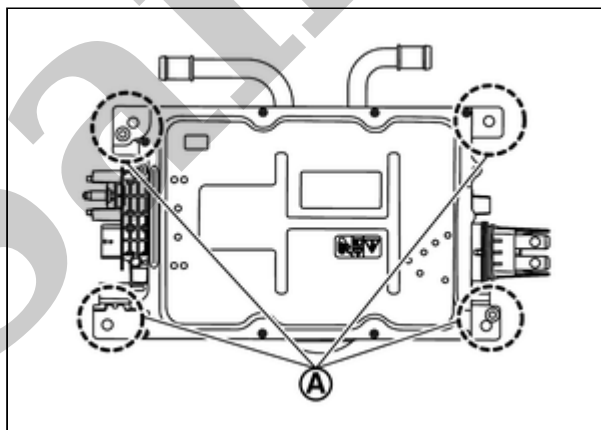
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NO>>

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6. CHECK DC/DC CONVERTER GROUND CIRCUIT

Check for continuation between the metal parts of the DC/DC converter **A** and ground.



SIEMD-7200229-01-000369205

Is there continuation?

YES>>

Perform trouble cause simulation test. Refer to [Intermittent Incident](#).

NO>>

Repair or replace error-detected parts.

7. CHECK FUSIBLE LINK

Check that the fusible link below is not blown.

Fusible link number	Capacity
A	450 A

Is the fusible link blown?

YES>>

Replace the fusible link after repairing the applicable circuit.

NO>>

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8. CHECK 12V BATTERY CIRCUIT

1. Disconnect battery terminal integrated fusible link harness connector.
2. Disconnect DC/DC converter harness connector.
3. Check for continuation between battery terminal integrated fusible link and DC/DC converter.

Battery terminal integrated fusible link		DC/DC converter		Continuity
Connector	Terminal	Connector	Terminal	
H3	9	H4	7	Existing

4. Also check harness for short to ground.

Is the inspection result normal?

YES>>

Check 12V battery power supply circuit.

NO>>

Repair or replace error-detected parts.

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P1ABA	17	Low voltage value	Diagnosis condition	READY, AUTO ACC or power switch ON
			Signal	—
			Threshold	When it is detected that more than 15.7 V is applied to the low voltage side of the DC/DC converter
			Detection time	1 second

POSSIBLE CAUSE

- 12 V battery
- Other electrical components

FAIL-SAFE

DC/DC converter output is stopped

1. PRECONDITIONING

- Press the power switch OFF with the driver's side door open, get out of the vehicle, close the driver's side door and wait for at least 4 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 while waiting.

- Check that 12 V battery voltage is 11 V or more.

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2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Erase “self-diagnostic result” in “DC/DC CONVERTER” using CONSULT.
2. Set the vehicle to READY and wait at least 1 second.
3. Check “self-diagnostic result” in “DC/DC CONVERTER” using CONSULT.

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 12V BATTERY

Check 12V battery. Refer to [Work Flow](#).

Is the inspection result normal?

YES>>

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NO>>

Replace 12V battery. Refer to [12V BATTERY : Removal & Installation](#).

2. PERFORM FULL SELF-DIAGNOSIS

 With CONSULT

1. Power switch ON.

2. Check if a power supply circuit DTC is detected at another control unit using CONSULT.

Is DTC detected?

YES>>

Check the detected DTC.

NO>>

Check 12V battery power supply circuit.