

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.

2024 Nissan Titan XD Service and Repair Manual

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NOTE:

“Compressor discharge temperature limit” is indicated on CONSULT display, however this models for means PTC heater internal IGBT circuit abnormal.

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms	DTC detection condition	
		Diagnosis condition	Signal (terminal)
B24E4-96	Compressor discharge temperature limit	Diagnosis condition	Vehicle is READY
		Signal (terminal)	—
		Threshold	When PTC heater IGBT circuit 4 short is detected
		Diagnosis delay time	2 seconds or more

POSSIBLE CAUSE

PTC heater

FAIL-SAFE

—

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

With CONSULT

1. Power switch OFF.
2. Set the vehicle to READY.
3. Operate the air conditioning system.
4. Set the temperature to full hot.
5. Select “Self Diagnostic Result” mode of “HVAC” using CONSULT.

Is DTC detected?

YES>>

Refer to [Diagnosis Procedure](#).

NO-1>>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2>>

Confirmation after repair: INSPECTION END

1. REPLACE PTC HEATER

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

>>

INSPECTION END

Sample

WARNING:

Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.

WARNING:

- Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.
- The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.
- Be sure to wear insulating protective equipment consisting of glove, shoes, face shield and glasses before beginning work on the high voltage system.
- Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep others from touching the high voltage parts, these parts must be covered with an insulating sheet except when using them.
- Refer to [Precautions for High Voltage](#).

CAUTION:

Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.

DIAGNOSIS PROCEDURE

1. PRECONDITIONING

WARNING:

Follow the instructions below before starting the procedure.

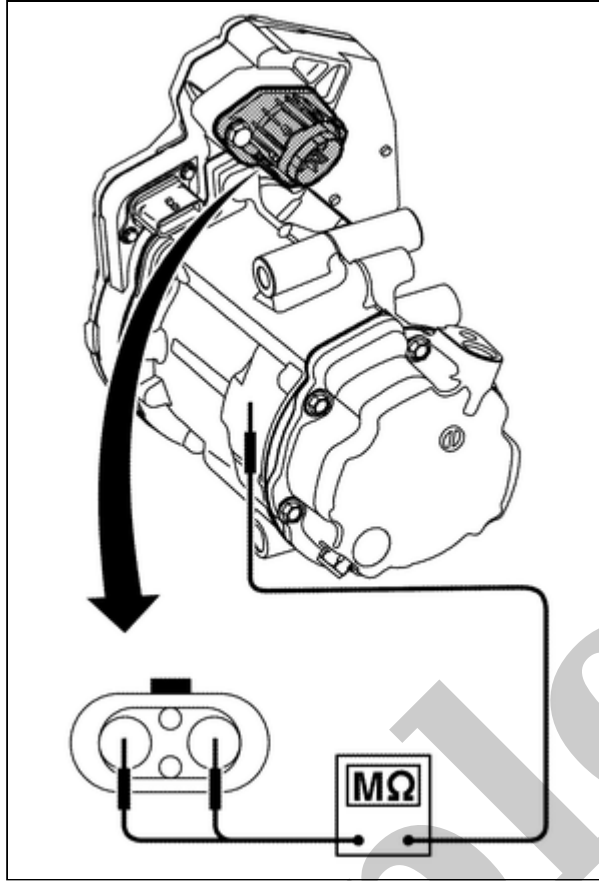
1. Disconnect high voltage circuit. Refer to [HOW TO DISCONNECT HIGH VOLTAGE : Precautions](#).
2. Check voltage in high voltage circuit. Refer to [CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT : Precautions](#).

>>

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2. CHECK ELECTRIC COMPRESSOR INSULATION RESISTANCE

1. Disconnect high voltage harness connector from electric compressor.
2. Check the insulation resistance of the electric compressor with an insulation resistance tester.



SIEMD-7206797-01-000369514

CAUTION:

- Unlike the ordinary tester, the insulation resistance tester applies 500V when measuring. If used incorrectly, there is the danger of electric shock. If used in the vehicle 12V system, there is the danger of damage to electronic devices. Read the insulation resistance tester instruction manual carefully and be sure to work safely.
- Use 500V range of insulation resistance tester to measure insulation resistance. Wait for 30 seconds until the value becomes stable.

+	-	Resistance
Electric compressor Terminal		
7	Aluminum part on side of electric compressor	3 MΩ or more
8		

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

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

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms	DTC detection condition	
B24B4-02	Air conditioning control	Diagnosis condition	Power switch ON
		Signal (terminal)	LIN (A/C control) signal
		Threshold	Receive internal circuit error message via A/C control to LIN communication
		Diagnosis delay time	30 seconds or more

POSSIBLE CAUSE

A/C control (internal circuit malfunction)

FAIL-SAFE

DTC CONFIRMATION PROCEDURE

1. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Power switch ON.
2. Select "Self Diagnostic Result" mode of "HVAC" using CONSULT.

Is DTC detected?

YES>>

Refer to [Diagnosis Procedure](#).


NO-1 >>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2 >>

Confirmation after repair: INSPECTION END

1. PERFORM SELF DIAGNOSTIC RESULT

 With CONSULT

1. Power switch ON.
2. Select “Self Diagnostic Result” mode of “HVAC” with CONSULT.
3. Touch “ERASE”.
4. Power switch OFF.
5. Power switch ON.
6. Perform “DTC CONFIRMATION PROCEDURE”. Refer to [DTC Description](#).

Is DTC detected again?

YES>>

Replace A/C control. Refer to [Removal & Installation](#).

NO>>

INSPECTION END

Sample

DTC DETECTION LOGIC

DTC No.	CONSULT screen terms	DTC detection condition	
B24D4-08	LIN communication 2	Diagnosis condition	Power switch ON
		Signal (Terminal)	LIN (A/C control) signal
		Threshold	Receive internal circuit error message via A/C control to LIN communication
		Diagnosis delay time	30 seconds or more

POSSIBLE CAUSE

- Fuse
- Harness and connector (A/C control circuit is open or shorted)
- A/C control
- A/C auto amp.

FAIL-SAFE

If a LIN communication error exists between the A/C auto amp. and A/C control for 30 seconds or longer, air conditioning is controlled under the following conditions:

Set temperature	: Setting before communication error occurs
Air outlet	: AUTO
Blower fan speed	: AUTO
Air inlet	: FRE (Fresh air intake)
Electric compressor	: ON

DTC CONFIRMATION PROCEDURE

1. PERFORM SELF-DIAGNOSIS

 With CONSULT

1. Power switch ON.
2. Select “Self Diagnostic Result” mode of “HVAC” using CONSULT.

Is DTC detected?

YES>>

Refer to [Diagnosis Procedure](#).

NO-1>>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2>>

Confirmation after repair: INSPECTION END

Sample

1. CHECK FUSE

1. Power switch OFF.
2. Check that the following fuse is not blown (open).

Unit	Location	Fuse No.	Capacity
A/C control	Fuse and fusible link block	#81	10A


NOTE:

For details of fuse, connector and terminal arrangement. Refer to [Wiring Diagram](#).

Is the fuse blown (open)?

YES>>

Replace the blown (open) fuse after repairing the affected circuit if a fuse is blown (open).

NO>>

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2. CHECK A/C CONTROL POWER SUPPLY

1. Disconnect A/C control connector.
2. Power switch ON.
3. Check voltage between A/C control harness connector and ground.

A/C control		-	Voltage
Connector	Terminal		
M69	1	Ground	Battery voltage

Is the inspection result normal?

YES>>

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NO>>

Repair the A/C control power supply circuit.

3. CHECK A/C CONTROL GROUND CIRCUIT FOR OPEN

1. Power switch OFF.
2. Check continuity between A/C control harness connector and ground.

A/C control		—	Continuity
Connector	Terminal		
M69	6	Ground	Existed