

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 GT-R (R35) - Facelift OEM Service and Repair Workshop Manual

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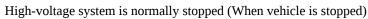
DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition		
P15C5	78	High voltage connector interlock	Diagnosis condition	Power switch ON	
			Signal	CAN communication (Electric compressor connector connecting signal)	
			Threshold	Electric compressor connector is not connected	
			Detection time	_	

POSSIBLE CAUSE

Electric compressor harness connector

FAIL-SAFE





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

CAUTION:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

WARNING:

- When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.
- When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.
- When performing high voltage system operation, be sure to wear insulating protective equipment.
- During tasks involving high voltage systems, clarify a person in charge of the tasks and do not let others touch the vehicle. When the vehicle is not being serviced, use protective items such as an electric-proof cover sheet for covering the high voltage components so as to keep someone from accidentally touching the vehicle.
- Refer to HIGH VOLTAGE PRECAUTIONS: Precautions.

CAUTION:

- Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.
- When you turned the power switch ON with the service plug removed, be sure to erase all the DTCs after trouble diagnosis.

1. CHECK CAN COMMUNICATION CIRCUIT

Perform trouble diagnosis for CAN communication circuit. Refer to Trouble Diagnosis Flow Chart.

Is the inspection result normal?

YES>>

GO TO 2

NO>>

Repair or replace error-detected parts.

2. CHECK DTC IN VCM

Check "Self-diagnosis result" in VCM.

Is DTC detected?

YES>>

Perform diagnosis for detected DTC. Refer to <u>DTC Index</u>.

NO>>

GO TO 3

3. CHECK DTC IN A/C AUTO AMP

<u>Is DTC detected?</u>
YES>>
Perform diagnosis for detected DTC. Refer to <u>DTC Index</u> .
NO>>
<u>GO TO 4</u>
4. PRECONDITIONING
WARNING: Follow the instructions below before starting the procedure.
1. Disconnect high voltage circuit. Refer to <u>HOW TO DISCONNECT HIGH VOLTAGE</u> : <u>Precautions</u> .
2. Check voltage in high voltage circuit. Refer to CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT: Precautions .
>>
<u>GO TO 5</u>
5. CHECK HIGH VOLTAGE HARNESS CONNECTOR INSTALLATION CONDITION
Check electric compressor high voltage harness connector installation condition visually and tactually.
CAUTION: When reconnecting the high voltage harness connector, insert it slowly and directly.
Is the inspection result normal? YES>> GO TO 6
NO>>
Repair or replace error-detected parts.
6. CHECK HIGH VOLTAGE HARNESS CONNECTOR
1. Disconnect electric compressor high voltage harness connector.
2. Check electric compressor high voltage harness connector and electric compressor connector visually for damages.
Is the inspection result normal?
YES>>
INSPECTION END
NO>>
Repair or replace error-detected parts.

Check "Self-diagnosis result" in A/C auto amp.

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition		
P15D3	78	High voltage connector interlock	Diagnosis condition	Always	
			Signal	CAN signal (PTC heater high voltage connector non-interlock detection signal)	
			Threshold	The PTC heater high voltage connector is detected to not be engaged	
			Detection time	_	

POSSIBLE CAUSE

- Harness and connector (PTC heater high voltage connector circuit)
- Electric compressor
- VCM
- A/C auto amp.

FAIL-SAFE

A/C control is stopped (When vehicle is stopped)

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

CAUTION:

Hybrid vehicles and electric vehicles equipped with high voltage batteries may cause an electric shock or a short circuit if handled in an inappropriate way. When you inspect and service a vehicle, follow the work procedure and perform the correct tasks.

WARNING:

- When you inspect and service the high voltage wiring harnesses and components, make sure to remove the service plug in order to shut off the high voltage circuit.
- When you have removed the service plug, be sure to carry it in your pocket, or store it in the tool box in order to keep someone from accidentally connecting it during work.
- When performing high voltage system operation, be sure to wear insulating protective equipment.
- During tasks involving high voltage systems, clarify a person in charge of the tasks and do not let others touch the vehicle. When the vehicle is not being serviced, use protective items such as an electric-proof cover sheet for covering the high voltage components so as to keep someone from accidentally touching the vehicle.
- Refer to HIGH VOLTAGE PRECAUTIONS: Precautions.

CAUTION:

- Setting the vehicle to the READY state with the service plug removed may cause malfunctioning. Avoid setting the vehicle to the READY state unless otherwise specified in the service manual.
- When you turned the power switch ON with the service plug removed, be sure to erase all the DTCs after trouble diagnosis.

1. CHECK CAN COMMUNICATION CIRCUIT

Perform trouble diagnosis for CAN communication circuit. Refer to Trouble Diagnosis Flow Chart.

Is the inspection result normal?

YES>>

GO TO 2

NO>>

Repair or replace error-detected parts.

2. CHECK VCM SELF-DIAGNOSIS

Check "Self-diagnosis result" in "EV/HEV".

Is DTC detected?

YES>>

Perform diagnosis for detected DTC. Refer to <u>DTC Index</u>.

NO>>

GO TO 3

3. CHECK A/C AUTO AMP. SELF-DIAGNOSIS

<u>Is DTC detected other than P15D3–78?</u>
YES>>
Perform diagnosis for detected DTC. Refer to <u>DTC Index</u> .
NO>>
<u>GO TO 4</u>
4. PRECONDITIONING
WARNING: Follow the instructions below before starting the procedure.
1. Disconnect high voltage circuit. Refer to <u>HOW TO DISCONNECT HIGH VOLTAGE</u> : <u>Precautions</u> .
2. Check voltage in high voltage circuit. Refer to CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT: Precautions.
>>
<u>GO TO 5</u>
5. CHECK HIGH VOLTAGE HARNESS CONNECTOR INSTALLATION CONDITION Check PTC heater high voltage harness connector installation condition visually and tactually. CAUTION:
When reconnecting the high voltage harness connector, insert it slowly and directly.
Is the inspection result normal? YES>> GO TO 6 NO>> Repair or replace error-detected parts.
6. CHECK HIGH VOLTAGE HARNESS CONNECTOR
Disconnect PTC heater high voltage harness connector.
2. Check PTC heater high voltage harness connector and PTC heater connector visually for damages.
Is the inspection result normal?
YES>>
INSPECTION END
NO>>
Repair or replace error-detected parts.

Check "Self-diagnosis result" in "HVAC".

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition		
P161E	96	High voltage connector interlock	Diagnosis condition	Always	
			Signal	Connection detection circuit 1 signal	
			Threshold	The high voltage harness of the high voltage junction box that is connected to the PTC heater or electric compressor is detected to not be engaged.	
			Detection time	_	

POSSIBLE CAUSE

- Harness and connector (Connection detection circuit 1 circuit)
- High voltage junction box
- High voltage harness (PTC heater circuit or electric compressor circuit)

FAIL-SAFE

High-voltage system is normally stopped (When vehicle is stopped)