

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.

2011 NISSAN Sentra SE-R 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. Set the vehicle to READY and wait at least 30 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 DC/DC CONVERTER SELF-DIAGNOSIS

 With CONSULT

Check "Self-diagnosis result" in "DC/DC converter".

Is DTC detected?

YES>>

Perform diagnosis for detected DTC. Refer to [DTC Index](#).

NO>>

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2. CHECK 12V BATTERY POWER SUPPLY CIRCUIT

Check 12V battery power supply circuit. Refer to [Diagnosis Procedure](#).

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 P2504-21 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
P2504	22	Charging system voltage	Diagnosis condition	READY
			Signal	12V battery power supply signal (Terminal number 158)
			Threshold	12V battery power supply signal is detected to be more than 16V
			Detection time	More than 20 seconds

POSSIBLE CAUSE

- DC/DC converter
- Harness and connector (12V battery power supply circuit)
- VCM

FAIL-SAFE

Not applicable

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[GO TO 2](#) .

2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Set the vehicle to READY and wait at least 30 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 DC/DC CONVERTER SELF-DIAGNOSIS

 With CONSULT

Check "Self-diagnosis result" in "DC/DC converter".

Is DTC detected?

YES>>

Perform diagnosis for detected DTC. Refer to [DTC Index](#).

NO>>

[GO TO 2.](#)

2. CHECK 12V BATTERY POWER SUPPLY CIRCUIT

Check 12V battery power supply circuit. Refer to [Diagnosis Procedure](#).

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 P2504-22 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
U215B	82	CAN communication error (IPDM E/R)	Diagnosis condition	Power switch ON
			Signal	<ul style="list-style-type: none">CAN communication signalDrivetrain CAN communication 2 circuit signal
			Threshold	CAN signal is stuck
			Detection time	2 seconds

POSSIBLE CAUSE

- CAN communication circuit
- Drivetrain CAN communication 2 circuit

FAIL-SAFE

Not applicable

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

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[GO TO 2](#) .

2. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Power switch ON and wait at least 20 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 CAN COMMUNICATION CIRCUIT

Perform trouble diagnosis for CAN communication circuit. Refer to [Trouble Diagnosis Flow Chart](#).

Is the inspection result normal?

YES>>

INSPECTION END

NO>>

Repair or replace error-detected parts.

Sample

DTC DETECTION LOGIC

DTC		CONSULT screen terms	DTC detecting condition	
U215B	86	CAN communication error (IPDM E/R)	Diagnosis condition	Power switch ON
			Signal	<ul style="list-style-type: none">CAN communication signalDrivetrain CAN communication 2 circuit signal
			Threshold	CAN signal is transformed
			Detection time	2 seconds

POSSIBLE CAUSE

- CAN communication circuit
- Drivetrain CAN communication 2 circuit

FAIL-SAFE

Not applicable