

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.

2010 NISSAN Sentra OEM Service and Repair Workshop Manual

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1. PERFORM DTC CONFIRMATION PROCEDURE

 With CONSULT

1. Power switch ON.
2. Perform "Self Diagnostic Result" of "EV/HEV" using CONSULT.

Is DTC U1327-54 detected as the current malfunction?

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

Sample

1. PERFORM MAC KEY WRITING

 With CONSULT

1. Perform "MAC key writing". Refer to [Work Procedure](#).
2. Perform "Self Diagnostic Result" of "EV/HEV" using CONSULT.

Is DTC U1327-54 detected as the current malfunction?

YES>>

[GO TO 2.](#)

NO>>

INSPECTION END

2. PERFORM MAC KEY WRITING (SECOND TIME)

 With CONSULT

1. Restart the CONSULT.
2. Perform "MAC key writing". Refer to [Work Procedure](#).
3. Perform "Self Diagnostic Result" of "EV/HEV" using CONSULT.

Is DTC U1327-54 detected as the current malfunction?

YES>>

[GO TO 3.](#)

NO>>

INSPECTION END

3. PERFORM MAC KEY WRITING (THIRD TIME)

 With CONSULT

1. Restart the CONSULT.
2. Perform "MAC key writing". Refer to [Work Procedure](#).
3. Perform "Self Diagnostic Result" of "EV/HEV" using CONSULT.

Is DTC U1327-54 detected as the current malfunction?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detecting condition | |
|-------|----|----------------------|-------------------------|---|
| P0685 | 12 | ECM power relay | Diagnosis condition | Power switch ON |
| | | | Signal | EV power relay drive signal |
| | | | Threshold | A short to power supply in EV power relay drive circuit is detected |
| | | | Detection time | More than 1 second |

POSSIBLE CAUSE

- Harness and connector (EV power relay circuit is shorted to power supply)
- EV power relay
- VCM

FAIL-SAFE

Not applicable

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. 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 EV POWER RELAY CIRCUIT

Check EV power relay circuit. Refer to [Diagnosis Procedure](#).

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 P0685-12 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detecting condition | |
|-------|----|----------------------|-------------------------|---|
| P0685 | 14 | ECM power relay | Diagnosis condition | Power switch ON |
| | | | Signal | EV power relay drive signal |
| | | | Threshold | An opening or short to ground in EV power relay drive circuit is detected |
| | | | Detection time | More than 1 second |

POSSIBLE CAUSE

- Harness and connector (EV power relay circuit is open or shorted to ground)
- EV power relay
- VCM

FAIL-SAFE

Not applicable

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. 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 EV POWER RELAY CIRCUIT

Check EV power relay circuit. Refer to [Diagnosis Procedure](#).

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 P0685-14 detected again?

YES>>

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

NO>>

INSPECTION END

DTC DETECTION LOGIC

| DTC | | CONSULT screen terms | DTC detecting condition | |
|-------|----|----------------------|-------------------------|---|
| P15A6 | 13 | Charging system | Diagnosis condition | During normal charge |
| | | | Signal | EVSE connecting signal |
| | | | Threshold | The charging cable is detected to not be engaged during normal charge |
| | | | Detection time | More than 3 seconds |

POSSIBLE CAUSE

- Harness and connector (EVSE connecting signal circuit)
- Normal charge port

FAIL-SAFE

- Quick charge is prohibited
- Normal charge is prohibited