

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.

1992 NISSAN Patrol SWB OEM Service and Repair Workshop Manual

[Go to manual page](#)

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms	DTC detection condition	
C18EC	12	Stroke sensor	Diagnosis condition	When power switch is ON.
			Signal (terminal)	—
			Threshold	When a malfunction is detected in stroke sensor internal circuit.
			Diagnosis delay time	1 second or less

POSSIBLE CAUSE

Electrically-driven intelligent brake unit

FAIL-SAFE

The following functions are suspended.

- Cooperative regenerative brake function
- e-Step function
- Boost function [Boost operation by the ABS actuator and electric unit (control unit) is activated]

1. PRECONDITIONING


If “Confirmation Procedure” has been previously conducted, always power switch OFF, get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

>>

[GO TO 2.](#)

2. CHECK DTC DETECTION

 With CONSULT

1. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

2. Power switch OFF and disconnect CONSULT from data link connector.
3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

4. Power switch ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

5. Erase self-diagnosis result for “BRAKE”.
6. Power switch OFF and disconnect CONSULT from data link connector.
7. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

8. Power switch ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

9. Perform self-diagnosis for “BRAKE”.

Is DTC “C18EC-12” 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

Sample

1. CHECK 12V BATTERY

1. Power switch OFF and disconnect CONSULT from data link connector.
2. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

3. Check the 12V battery terminal connections.
4. Check the 12V battery.

Is the inspection result normal?

YES>>

[GO TO 2.](#)

NO>>

Repair or replace error-detected parts. [GO TO 2.](#)

2. PERFORM SELF-DIAGNOSIS (1)

 With CONSULT

1. Connect 12V battery cable to negative terminal.
2. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

3. Power switch OFF and disconnect CONSULT from data link connector.
4. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

5. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

6. Erase self-diagnosis result for "BRAKE".
7. Power switch OFF and disconnect CONSULT from data link connector.

8. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

9. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

10. Perform self-diagnosis for "BRAKE".

Is DTC "C18EC-12" detected?

YES>>

[GO TO 3.](#)

NO>>

INSPECTION END

3. CHECK CONNECTOR TERMINALS

1. Power switch OFF and disconnect CONSULT from data link connector.
2. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

3. Disconnect 12V battery cable from negative terminal.
4. Disconnect electrically-driven intelligent brake unit harness connector, then check for malfunctions of terminals and connections.
5. Disconnect stroke sensor harness connector, then check for malfunctions of terminals and connections.

Is the inspection result normal?

YES>>

[GO TO 5.](#)

NO>>

Repair / replace harness, connector, or terminal. [GO TO 4.](#)

4. PERFORM SELF-DIAGNOSIS (2)

 With CONSULT

1. Connect electrically-driven intelligent brake unit harness connector.
2. Connect stroke sensor harness connector.
3. Connect 12V battery cable to negative terminal.

4. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

5. Power switch OFF and disconnect CONSULT from data link connector.

6. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

7. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

8. Erase self-diagnosis result for "BRAKE".

9. Power switch OFF and disconnect CONSULT from data link connector.

10. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

11. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

12. Perform self-diagnosis for "BRAKE".

Is DTC "C18EC-12" detected?

YES>>

[GO TO 5.](#)

NO>>

INSPECTION END

5. CHECK ELECTRICALLY-DRIVEN INTELLIGENT BRAKE UNIT POWER SUPPLY AND GROUND CIRCUIT

1. Connect stroke sensor harness connector.

2. Power switch OFF and disconnect CONSULT from data link connector.

3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:

Never operate the vehicle.

4. Disconnect 12V battery cable from negative terminal.
5. Disconnect electrically-driven intelligent brake unit harness connector.
6. Check the electrically-driven intelligent brake unit power supply and ground circuit. Refer to [Diagnosis Procedure](#).

Is the inspection result normal?

YES>>

[GO TO 6.](#)

NO>>

Repair / replace harness, connector, terminal, fuse, or fusible link. [GO TO 6.](#)

6. PERFORM SELF-DIAGNOSIS (3)

 With CONSULT

1. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

2. Power switch OFF and disconnect CONSULT from data link connector.
3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

4. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

5. Erase self-diagnosis result for "BRAKE".
6. Power switch OFF and disconnect CONSULT from data link connector.
7. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

8. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

9. Perform self-diagnosis for "BRAKE".

Is DTC "C18EC-12" detected?

YES>>

[GO TO 7.](#)

NO>>

INSPECTION END

7. CHECK BRAKE PEDAL HEIGHT

Check each brake pedal height. Refer to [BRAKE PEDAL : Periodic Maintenance Operation](#).

Is the inspection result normal?

YES>>

[GO TO 9.](#)

NO>>

Adjust each height. Refer to [BRAKE PEDAL : Periodic Maintenance Operation](#). [GO TO 8.](#)

8. PERFORM SELF-DIAGNOSIS (4)

 With CONSULT

1. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

2. Power switch OFF and disconnect CONSULT from data link connector.

3. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

4. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

5. Erase self-diagnosis result for "BRAKE".

6. Power switch OFF and disconnect CONSULT from data link connector.

7. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

8. Power switch OFF to ON without depressing the brake pedal.

CAUTION:
Never set the vehicle to READY.

9. Perform self-diagnosis for "BRAKE".

Is DTC "C18EC-12" detected?

YES>>

[GO TO 9.](#)

NO>>

INSPECTION END

9. CHECK STROKE SENSOR CIRCUIT

1. Power switch OFF and disconnect CONSULT from data link connector.
2. Get out of the vehicle, close all doors (other than hood assembly), check that the combination meter is OFF, and wait for 1 minute or more without opening these doors.

CAUTION:
Never operate the vehicle.

3. Disconnect 12V battery cable from negative terminal.
4. Disconnect stroke sensor harness connector.
5. Disconnect electrically-driven intelligent brake unit harness connector.
6. Check the continuity between stroke sensor harness connector and electrically-driven intelligent brake unit.

Stroke sensor		Electrically-driven intelligent brake unit		Continuity
Connector	Terminal	Connector	Terminal	
B39	3	B63*1	23	Existed
	3		B64*2	2
	3	22		Not existed
	3	8		Not existed
	2	23		Not existed
	2	2		Existed
	2	22		Not existed
	2	8		Not existed
	1	23		Not existed
	1	2		Not existed
	1	22		Existed
	1	8		Not existed
	4	23		Not existed