

# 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.

## 1988 NISSAN Patrol SWB OEM Service and Repair Workshop Manual

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**Never operate the vehicle.**

10. Power switch ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

11. Perform self-diagnosis for “BRAKE”.

Is DTC “B14E0-09” detected?

YES>>

[GO TO 19.](#)

NO>>

INSPECTION END

## 19. CHECK WHEEL SENSOR HARNESS

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 negative terminal.
4. Disconnect electrically-driven intelligent brake unit harness connector.
5. Disconnect front left wheel sensor harness connector.
6. Check the continuity between electrically-driven intelligent brake unit harness connector and front left wheel sensor harness connector.

Electrically-driven intelligent brake unit		—	Continuity
Connector	Terminal		
B64	4, 21	Ground	Not existed

Is the inspection result normal?

YES>>

[GO TO 20.](#)

NO>>

Repair / replace harness or connector. [GO TO 20.](#)

## 20. CHECK DATA MONITOR (4)

 With CONSULT

1. Connect ABS actuator and electric unit (control unit) harness connector.
2. Connect front left wheel sensor harness connector.
3. Connect 12V battery 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 ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

8. Set the vehicle to READY.

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

10. Select "BRAKE" and "Data monitor", check "Front LH wheel speed", "Front RH wheel speed", "Rear LH wheel speed", and "Rear RH wheel speed".



**NOTE:**

**Set the "Data monitor" recording speed to "10 msec".**

11. Read a value (wheel speed) of all wheel sensor.



**NOTE:**

**Vehicle must be driven after repair or replacement to erase the previous DTCs.**

Note the difference at 50 km/h (31 MPH) between the wheel speed detected by front left wheel sensor and the maximum/minimum wheel speed detected by the other front left wheel sensor, is the difference within 5%, respectively?

YES>>

[GO TO 21.](#)

NO>>

[GO TO 22.](#)

## 21. PERFORM SELF-DIAGNOSIS (6)

 With CONSULT

1. Stop the vehicle.

2. Power switch OFF.

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

**CAUTION:**

**Never set the vehicle to READY.**

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

5. 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.**

6. Power switch ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

7. Erase self-diagnosis result for “BRAKE”.
8. Power switch OFF and disconnect CONSULT from data link connector.
9. 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.**

10. Power switch ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

11. Perform self-diagnosis for “BRAKE”.

Is DTC “B14E0-09” detected?

YES>>

[GO TO 22.](#)

NO>>

INSPECTION END

## 22. REPLACE WHEEL SENSOR (2)

 With CONSULT

1. Replace the front left wheel sensor. Refer to [Removal and Installation](#).
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 ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

- Set the vehicle to READY.
- Erase self-diagnosis result for "BRAKE".
- Select "BRAKE" and "Data monitor", check "Front LH wheel speed", "Front RH wheel speed", "Rear LH wheel speed", and "Rear RH wheel speed".

**NOTE:**

**Set the "Data monitor" recording speed to "10 msec".**

- Read a value (wheel speed) of all wheel sensor.

**NOTE:**

**Vehicle must be driven after repair or replacement to erase the previous DTCs.**

Note the difference at 50 km/h (31 MPH) between the wheel speed detected by front left wheel sensor and the maximum/minimum wheel speed detected by the other front left wheel sensor, is the difference within 5%, respectively?

YES>>

[GO TO 23.](#)

NO>>

[GO TO 24.](#)

## 23. PERFORM SELF-DIAGNOSIS (7)

 With CONSULT

- Stop the vehicle.
- Power switch OFF.
- Power switch OFF to ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

- Power switch OFF and disconnect CONSULT from data link connector.
- 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.**

- Power switch ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

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

9. 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.**

10. Power switch ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

11. Perform self-diagnosis for “BRAKE”.

Is DTC “B14E0-09” detected?

YES>>

[GO TO 24.](#)

NO>>

INSPECTION END

## 24. REPLACE SENSOR ROTOR

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 With CONSULT

1. Replace the front left sensor rotor. Refer to [FRONT SENSOR ROTOR : Removal & Installation](#).
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 ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

6. Erase self-diagnosis result for “BRAKE”.
7. Set the vehicle to READY.
8. Drive the vehicle at approximately 50 km/h (31 MPH) or more for approximately 2 minutes.



**NOTE:**  
**Vehicle must be driven after repair or replacement to erase the previous DTCs.**

9. Stop the vehicle.
10. Power switch OFF and disconnect CONSULT from data link connector.

11. 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.**

12. Power switch ON without depressing the brake pedal.

**CAUTION:**  
**Never set the vehicle to READY.**

13. Perform self-diagnosis for “BRAKE”.

Is DTC “B14E0-09” detected?

YES>>

Replace the electrically-driven intelligent brake unit. Refer to [Removal and Installation](#).

NO>>

INSPECTION END

Sample

## DTC DETECTION LOGIC

DTC No.		CONSULT screen terms	DTC detection condition		
B14E0	11	Wheel sensor	1	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front left wheel sensor signal
				Threshold	When an open circuit is detected in front left wheel sensor circuit (signal line).
				Diagnosis delay time	1 second or less
			2	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front left wheel sensor signal
				Threshold	When short circuit to ground side is detected in front left wheel sensor circuit (signal line).
				Diagnosis delay time	1 second or less

## POSSIBLE CAUSE

- Harness or connector
- Front left wheel sensor

## FAIL-SAFE

The following functions are suspended.

- Cooperative regenerative brake function
- e-Step function



## 1. PRECONDITIONING

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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

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 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 "B14E0-11" 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