

# 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.

## 1990 NISSAN Patrol LWB OEM Service and Repair Workshop Manual

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**CAUTION:**

**Never operate the vehicle.**

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

Is the inspection result normal?

YES>>

[GO TO 8.](#)

NO>>

Repair / replace harness, connector, terminal, fuse, or fusible link. [GO TO 8.](#)

## 8. PERFORM SELF-DIAGNOSIS (3)

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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 “B14E1-64” detected?

YES>>

[GO TO 9.](#)

NO>>

INSPECTION END

## 9. CHECK WHEEL SENSOR HARNESS

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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 right wheel sensor harness connector.
6. Check the continuity between electrically-driven intelligent brake unit harness connector and front right wheel sensor harness connector.
  - o Measurement connector and terminal for power supply circuit

Electrically-driven intelligent brake unit		Front right wheel sensor		Continuity
Connector	Terminal	Connector	Terminal	
B64	12	E110	1	Existed

- o Measurement connector and terminal for signal circuit

Electrically-driven intelligent brake unit		Front right wheel sensor		Continuity
Connector	Terminal	Connector	Terminal	
B64	11	E110	2	Existed

Is the inspection result normal?

YES>>

[GO TO 12.](#)

NO>>

Repair / replace harness or connector. [GO TO 10.](#)

## 10. PERFORM SELF-DIAGNOSIS (4)

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 With CONSULT

1. Connect electrically-driven intelligent brake unit harness connector.
2. Connect front right 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. 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 ON without depressing the brake pedal.

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

12. Perform self-diagnosis for "BRAKE".

Is DTC "B14E1-64" detected?

YES>>

[GO TO 11.](#)

NO>>

INSPECTION END

## 11. CHECK WHEEL SENSOR OUTPUT SIGNAL

1. Disconnect 12V battery negative terminal.

2. Disconnect electrically-driven intelligent brake unit harness connector.

3. Disconnect front right wheel sensor harness connector.

4. Connect ABS active wheel sensor tester (SST: J-45741-A) to front right wheel sensor using appropriate adapter.

5. Turn the ABS active wheel sensor tester power switch ON.



**NOTE:**

**The green POWER indicator should illuminate. If the POWER indicator does not illuminate, replace the battery in the ABS active wheel sensor tester before proceeding.**

6. Spin the wheel of the vehicle by hand and observe the red SENSOR indicator on the ABS active wheel sensor tester. The red SENSOR indicator should flash ON and OFF to indicate an output signal.



**NOTE:**

If the red SENSOR indicator illuminates but does not flash, reverse the polarity of the tester leads and retest.

Does the ABS active wheel sensor tester detect a signal?

YES>>

Replace the electrically-driven intelligent brake unit. Refer to [ELECTRICALLY-DRIVEN INTELLIGENT BRAKE UNIT : Removal & Installation](#).

NO>>

[GO TO 12.](#)

## 12. REPLACE WHEEL SENSOR

1. Replace the front right wheel sensor. Refer to [Removal and Installation](#).
2. Connect electrically-driven intelligent brake unit 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. 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 ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

12. Perform self-diagnosis for "BRAKE".

Is DTC "B14E1-64" detected?

YES>>

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

NO>>

INSPECTION END

Sample

## DTC DETECTION LOGIC

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DTC No.		CONSULT screen terms	DTC detection condition	
B14E2	02	Wheel sensor	Diagnosis condition	Power switch is ON.
			Signal (terminal)	Rear left wheel sensor signal
			Threshold	When a malfunction is detected in rear left wheel sensor.
			Diagnosis delay time	1 second or less

## POSSIBLE CAUSE

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Rear left wheel sensor

## FAIL-SAFE

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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 “B14E2-02” 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

**CAUTION:**

Never check between wheel sensor harness connector terminals.

## 1. CHECK 12V BATTERY

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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)

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 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 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.