

# 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.

## 1999 NISSAN Patrol SWB OEM Service and Repair Workshop Manual

[Go to manual page](#)

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

YES>>

[GO TO 13.](#)

NO>>

[GO TO 14.](#)

### 13. PERFORM SELF-DIAGNOSIS (3)

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 With CONSULT

1. Stop the vehicle.
2. Power switch OFF (Auto ACC function ON).
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. Perform self-diagnosis for “ABS”.

Is DTC “C1065-09” detected?

YES>>

[GO TO 14.](#)

NO>>

INSPECTION END

### 14. CHECK TERMINAL

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1. Disconnect 12V battery negative terminal.
2. Disconnect ABS actuator and electric unit (control unit) harness connector.
3. Check the ABS actuator and electric unit (control unit) terminals for damage or loose connection with harness connector.
4. Disconnect rear left wheel sensor harness connector.
5. Check the rear left wheel sensor terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES>>

[GO TO 17.](#)

NO>>

Repair / replace harness, connector, or terminal. [GO TO 15.](#)

## 15. CHECK DATA MONITOR (3)

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 With CONSULT

1. Connect ABS actuator and electric unit (control unit) harness connector.
2. Connect rear left wheel sensor harness connector.
3. Connect 12V battery negative terminal.
4. Erase self-diagnosis result for “ABS”.
5. Power switch OFF (Auto ACC function ON).
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. Set the vehicle to READY.
8. Select “ABS” and “Data monitor”, check “Front left wheel speed”, “Front right wheel speed“, “Rear left wheel speed“, and “Rear right wheel speed“.



**NOTE:**  
**Set the “Data monitor” recording speed to “10 msec”.**

9. 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 rear left wheel sensor and the maximum/minimum wheel speed detected by the other rear left wheel sensor, is the difference within 5%, respectively?

YES>>

[GO TO 16.](#)

NO>>

[GO TO 17.](#)

## 16. PERFORM SELF-DIAGNOSIS (4)

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 With CONSULT

1. Stop the vehicle.
2. Power switch OFF (Auto ACC function ON).
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. Perform self-diagnosis for “ABS”.

Is DTC “C1065-09” detected?

YES>>

[GO TO 17.](#)

NO>>

INSPECTION END

## 17. CHECK WHEEL SENSOR HARNESS

1. Disconnect 12V battery negative terminal.
2. Disconnect ABS actuator and electric unit (control unit) harness connector.
3. Disconnect rear left wheel sensor harness connector.
4. Check the continuity between ABS actuator and electric unit (control unit) harness connector and rear left wheel sensor harness connector.

ABS actuator and electric unit (control unit)		—	Continuity
Connector	Terminal		
B2	39, 23	Ground	Not existed

Is the inspection result normal?

YES>>

[GO TO 18.](#)

NO>>

Repair / replace harness or connector. [GO TO 18.](#)

## 18. CHECK DATA MONITOR (4)

 With CONSULT

1. Connect ABS actuator and electric unit (control unit) harness connector.
2. Connect rear left wheel sensor harness connector.
3. Connect 12V battery negative terminal.
4. Erase self-diagnosis result for “ABS”.
5. Power switch OFF (Auto ACC function ON).
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. Set the vehicle to **READY**.

8. Select “ABS” and “Data monitor”, check “Front left wheel speed”, “Front right wheel speed”, “Rear left wheel speed”, and “Rear right wheel speed”.

**NOTE:**

Set the “Data monitor” recording speed to “10 msec”.

9. 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 rear left wheel sensor and the maximum/minimum wheel speed detected by the other rear left wheel sensor, is the difference within 5%, respectively?

YES>>

[GO TO 19.](#)

NO>>

[GO TO 20.](#)

## 19. PERFORM SELF-DIAGNOSIS (5)

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 With CONSULT

1. Stop the vehicle.
2. Power switch OFF (Auto ACC function ON).
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. Perform self-diagnosis for “ABS”.

Is DTC “C1065-09” detected?

YES>>

[GO TO 20.](#)

NO>>

INSPECTION END

## 20. REPLACE WHEEL SENSOR (2)

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 With CONSULT

1. Replace the rear left wheel sensor. Refer to [REAR WHEEL SENSOR : Removal & Installation](#).
2. Erase self-diagnosis result for “ABS”.
3. Power switch OFF (Auto ACC function ON).

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. Set the vehicle to READY.

6. Select “ABS” and “Data monitor”, check “Front left wheel speed”, “Front right wheel speed“, “Rear left wheel speed“, and “Rear right wheel speed“.



**NOTE:**  
**Set the “Data monitor” recording speed to “10 msec”.**

7. 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 rear left wheel sensor and the maximum/minimum wheel speed detected by the other rear 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 (Auto ACC function ON).
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. Perform self-diagnosis for “ABS”.

Is DTC “C1065-09” detected?

YES>>

[GO TO 22.](#)

NO>>

## 22. REPLACE SENSOR ROTOR

 With CONSULT

1. Replace the rear left sensor rotor. Refer to [REAR SENSOR ROTOR : Removal & Installation](#).
2. Erase self-diagnosis result for “ABS”.
3. Power switch OFF (Auto ACC function ON).
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. Set the vehicle to READY.
6. 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.**

7. Stop the vehicle.
8. Power switch OFF (Auto ACC function ON).
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 “ABS”.

Is DTC “C1065-09” detected?

YES>>

Replace the ABS actuator and electric unit (control unit). Refer to [ABS ACTUATOR AND ELECTRIC UNIT \(CONTROL UNIT\) : Removal & Installation](#).

NO>>

INSPECTION END

## DTC DETECTION LOGIC

DTC No.		CONSULT screen terms	DTC detection condition	
C1065	11	Rear left wheel sensor	Diagnosis condition	<ul style="list-style-type: none"> <li>Power switch is ON.</li> <li>When rear left wheel sensor power supply voltage is normal.</li> </ul>
			Signal (terminal)	<ul style="list-style-type: none"> <li>Rear left wheel sensor signal</li> <li>Rear left wheel sensor power supply</li> </ul>
			Threshold	When a short circuit is detected in rear left wheel sensor circuit.
			Diagnosis delay time	1 second or less

## POSSIBLE CAUSE



### NOTE:

Confirm if DTC is PAST or CRNT. If DTC is CRNT, proceed with Diagnosis Procedure. If DTC is PAST, clear DTC. Do not replace the ABS actuator and electric unit (control unit) for a PAST DTC.

PAST DTC	CRNT DTC
<ul style="list-style-type: none"> <li>Harness or connector</li> <li>ABS actuator and electric unit (control unit) power supply system</li> <li>Fuse</li> <li>Fusible link</li> <li>12V battery</li> </ul>	<ul style="list-style-type: none"> <li>Vehicle was not driven after previous repair</li> <li>Harness or connector</li> <li>Rear left wheel sensor</li> <li>ABS actuator and electric unit (control unit)</li> <li>ABS actuator and electric unit (control unit) power supply system</li> <li>Fuse</li> <li>Fusible link</li> <li>12V battery</li> </ul>

## FAIL-SAFE

The following functions are suspended.

- VDC function
- TCS function
- ABS function
- EBD function
- hill start assist function



- Brake limited slip differential (BLSD) function
- Brake assist function
- Brake force distribution function
- Cooperative regenerative brake function
- Electric parking brake function

Sample

## 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 before conducting the next test.

>>

[GO TO 2](#)

## 2. CHECK DTC DETECTION

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 With CONSULT

1. Power switch OFF (Auto ACC is ON).
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. Power switch ON without depressing the brake pedal.

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

4. Perform self-diagnosis for “ABS”.

Is DTC “C1065-11” detected?

YES-1>>

“CRNT” is displayed: Refer to [DTC Diagnosis Procedure](#).

YES-2>>

“PAST” is displayed: INSPECTION END (Erase the memory of self-diagnosis results.)

NO-1>>

To check malfunction symptom before repair: Refer to [Intermittent Incident](#).

NO-2>>

Confirmation after repair: INSPECTION END