

# Your Ultimate Source for OEM Repair Manuals

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## 1989 NISSAN Bluebird Traveller OEM Service and Repair Workshop Manual

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**DTC DETECTION LOGIC**

| DTC No. |                      | CONSULT screen terms   | DTC detection condition |                      |  |
|---------|----------------------|--|-------------------------|----------------------|--|
| B14E0   | 38                   | Wheel sensor   | 1                       | Diagnosis condition  | Power switch is ON.  |
|         |                      |  |                         | Signal (terminal)    | Front left wheel sensor signal   |
|         |                      |  |                         | Threshold            | When a malfunction is detected in information of front left wheel sensor.    |
|         |                      |  |                         | Diagnosis delay time | 1 second or less   |
|         |                      |  | 2                       | Diagnosis condition  | Power switch is ON.  |
|         |                      |  |                         | Signal (terminal)    | Front left wheel sensor signal   |
|         |                      |  |                         | Threshold            | When a malfunction is detected in rotation speed of front left wheel sensor. |
|         |                      |  |                         | Diagnosis delay time | 1 second or less   |
|         |                      |  | 3                       | Diagnosis condition  | Power switch is ON.  |
|         |                      |  |                         | Signal (terminal)    | Front left wheel sensor signal   |
|         |                      |  |                         | Threshold            | When a noise is detected in front left wheel sensor.                         |
|         |                      |  |                         | Diagnosis delay time | 1 second or less   |
|         |                      |  | 4                       | Diagnosis condition  | Power switch is ON.  |
|         |                      |  |                         | Signal (terminal)    | Front left wheel sensor signal   |
|         |                      |  |                         | Threshold            | When a no signal detected in front left wheel sensor.                        |
|         |                      |  |                         | Diagnosis delay time | 1 second or less   |
| 5       | Diagnosis condition  | Power switch is ON.  |                         |                      |  |
|         | Signal (terminal)    | Front left wheel sensor signal                                       |                         |                      |  |
|         | Threshold            | When a malfunction is detected in signal of front left wheel sensor. |                         |                      |  |
|         | Diagnosis delay time | 1 second or less   |                         |                      |  |

**POSSIBLE CAUSE**

- Front left wheel sensor
- Electrically-driven intelligent brake unit

**FAIL-SAFE**

The following functions are suspended.

- Cooperative regenerative brake function

- e-Step 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.

**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 “B14E0-38” 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.

## 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.

**CAUTION:**

**Never operate the vehicle.**

9. Power switch ON without depressing the brake pedal.

**CAUTION:**

**Never set the vehicle to READY.**

10. Perform self-diagnosis for "BRAKE".

Is DTC "B14E0-38" detected?

YES>>

[GO TO 3.](#)

NO>>

INSPECTION END

### 3. CHECK WHEEL HUB ASSEMBLY

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Check that there is no excessive looseness in front left wheel hub assembly. Refer to [FRONT WHEEL HUB AND KNUCKLE : Periodic Maintenance Operation](#).

Is the inspection result normal?

YES>>

[GO TO 4.](#)

NO>>

Repair or replace the front left wheel hub assembly. Refer to [FRONT WHEEL HUB AND KNUCKLE : Removal & Installation](#). [GO TO 4.](#)

### 4. CHECK ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT) POWER SUPPLY AND GROUND 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 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 5.](#)

NO>>

Repair / replace harness, connector, terminal, fuse, or fusible link. [GO TO 5.](#)

## 5. CHECK TIRE

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1. Power switch OFF.
2. Check the front left tire air pressure, wear and size. Refer to [TIRE AIR PRESSURE : Service Data](#).

Is the inspection result normal?

YES>>

[GO TO 8.](#)

NO>>

Adjust air pressure or replace front left tire. [GO TO 6.](#)

## 6. CHECK DATA MONITOR (1)

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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. Set the vehicle to **READY**.
6. Erase self-diagnosis result for “BRAKE”.
7. 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”.

8. 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 7.](#)

NO>>

[GO TO 8.](#)

## 7. PERFORM SELF-DIAGNOSIS (2)

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 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 “B14E0-38” detected?

YES>>

[GO TO 8.](#)

NO>>

INSPECTION END

## 8. CHECK WHEEL SENSOR AND SENSOR ROTOR

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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 front left wheel sensor harness connector.
5. Remove dust and foreign matter adhered to the front left wheel sensor and front left sensor rotor with a vacuum dust collector through the front left wheel sensor mounting hole.

**CAUTION:**  
**Install front left wheel sensor with no backlash and float, and tighten the mounting bolt to the specified torque.**  
Refer to [FRONT WHEEL SENSOR : Exploded View](#).

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[GO TO 9.](#)

## 9. CHECK WHEEL SENSOR

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Check the front left wheel sensor for damage.

Is the inspection result normal?

YES>>

[GO TO 13.](#)

NO>>

[GO TO 10.](#)

## 10. CHECK WHEEL SENSOR OUTPUT SIGNAL

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1. Disconnect 12V battery negative terminal.
2. Disconnect electrically-driven intelligent brake unit harness connector.
3. Disconnect front left wheel sensor harness connector.
4. Connect ABS active wheel sensor tester (SST: J-45741-A) to front left 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?