

# Your Ultimate Source for OEM Repair Manuals

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**1990 NISSAN Bluebird Traveller OEM Service and Repair Workshop Manual** 

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WNOTE: 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 <u>ELECTRICALLY-DRIVEN INTELLIGENT BRAKE UNIT : Removal</u> <u>& Installation</u>.

NO>>

#### <u>GO TO 12</u>.

## **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.

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

12. Perform self-diagnosis for "BRAKE".

YES>>

Replace the electrically-driven intelligent brake unit. Refer to <u>Removal and Installation</u>.

NO>>

INSPECTION END

## **DTC Description**

## **DTC DETECTION LOGIC**

DTC No.		CONSULT screen terms	DTC detection condition		
B14E1	38	Wheel sensor	1	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front right wheel sensor signal
				Threshold	When a malfunction is detected in information of front right wheel sensor.
				Diagnosis delay time	1 second or less
			2	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front right wheel sensor signal
				Threshold	When a malfunction is detected in rotation speed of front right wheel sensor.
				Diagnosis delay time	1 second or less
			3	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front right wheel sensor signal
				Threshold	When a noise is detected in front right wheel sensor.
				Diagnosis delay time	1 second or less
				Diagnosis condition	Power switch is ON.
			4	Signal (terminal)	Front right wheel sensor signal
				Threshold	When a no signal detected in front right wheel sensor.
				Diagnosis delay time	1 second or less
				Diagnosis condition	Power switch is ON.
			5	Signal (terminal)	Front right wheel sensor signal
				Threshold	When a malfunction is detected in signal of front right wheel sensor.
				Diagnosis delay time	1 second or less

## **POSSIBLE CAUSE**

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

## FAIL-SAFE

The following functions are suspended.

• Cooperative regenerative brake function

• e-Step function

## **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.

#### >>

#### <u>GO TO 2</u>.

### 2. CHECK DTC DETECTION

#### (E) 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 "B14E1-38" detected?

Refer to DTC Diagnosis Procedure.

NO-1>>

To check malfunction symptom before repair: Refer to <u>Intermittent Incident</u>.

NO-2>>

Confirmation after repair: INSPECTION END

#### CAUTION:

Never check between wheel sensor harness connector terminals.

## **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>>

<u>GO TO 2</u>.

NO>>

Repair or replace error-detected parts.

## 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 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 "B14E1–38" detected?

YES>>

<u>GO TO 3</u>.

NO>>

INSPECTION END

#### 3. CHECK WHEEL HUB ASSEMBLY

Check that there is no excessive looseness in front right wheel hub assembly. Refer to <u>FRONT WHEEL HUB AND KNUCKLE :</u> <u>Periodic Maintenance Operation</u>.

Is the inspection result normal?

YES>>

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<u>GO TO 4</u>.
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NO>>

Repair or replace the front right wheel hub assembly. Refer to <u>FRONT WHEEL HUB AND KNUCKLE : Removal & Installation</u>. <u>GO TO 4</u>.

## 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>>

#### <u>GO TO 5</u>.

NO>>

#### **5. CHECK TIRE**

1. Power switch OFF.

2. Check the front right tire air pressure, wear and size. Refer to **<u>TIRE AIR PRESSURE</u>** : Service Data.

Is the inspection result normal?

YES>>

<u>GO TO 8</u>.

NO>>

Adjust air pressure or replace front right tire. <u>GO TO 6</u>.

## 6. CHECK DATA MONITOR (1)

#### 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.

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CAUTION:
Never set the vehicle to READY.
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- 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".

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

## WNOTE:

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 right wheel sensor and the maximum/minimum wheel speed detected by the other front right wheel sensor, is the difference within 5%, respectively?