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1989 NISSAN Skyline GT-R (R32) OEM Service and Repair Workshop Manual

Go to manual page

INSPECTION END

16. CHECK TERMINAL

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. Check the electrically-driven intelligent brake unit terminals for damage or loose connection with harness connector.
6. Disconnect front right wheel sensor harness connector.
7. Check the front right wheel sensor terminals for damage or loose connection with harness connector.

Is the inspection result normal?

YES>>

GO TO 19.

NO>>

Repair / replace harness, connector, or terminal. GO TO 17.

17. CHECK DATA MONITOR (3)

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

YES>>

GO TO 18.

NO>>

GO TO 19.

18. PERFORM SELF-DIAGNOSIS (5)

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 “B14E1–09” 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 right wheel sensor harness connector.
6. Check the continuity between electrically-driven intelligent brake unit harness connector and front right wheel sensor harness connector.

Electrically-driven intelligent brake unit		—	**Continuity**
Connector	**Terminal**		
B64	12, 11	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 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. 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 right wheel sensor and the maximum/minimum wheel speed detected by the other front right 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 “B14E1–09” detected?

YES>>

GO TO 22.

NO>>

INSPECTION END

22. REPLACE WHEEL SENSOR (2)

With CONSULT

1. Replace the front right 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.

6. Set the vehicle to READY.
7. Erase self-diagnosis result for “BRAKE”.
8. 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”.

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

YES>>

GO TO 23.

NO>>

GO TO 24.

23. PERFORM SELF-DIAGNOSIS (7)

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 “B14E1–09” detected?

YES>>

GO TO 24.

NO>>

INSPECTION END

24. REPLACE SENSOR ROTOR

With CONSULT

1. Replace the front right 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 “B14E1–09” detected?

YES>>

Replace the electrically-driven intelligent brake unit. Refer to Removal and Installation.

NO>>

INSPECTION END

SIEMD-7200375

DTC DETECTION LOGIC

DTC No.		CONSULT screen terms			DTC detection condition
B14E1	11	Wheel sensor	1	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front right wheel sensor signal
				Threshold	When an open circuit is detected in front right wheel sensor circuit (signal line).
				Diagnosis delay time	1 second or less
			2	Diagnosis condition	Power switch is ON.
				Signal (terminal)	Front right wheel sensor signal
				Threshold	When short circuit to ground side is detected in front right wheel sensor circuit (signal line).
				Diagnosis delay time	1 second or less

POSSIBLE CAUSE

- Harness or connector
- Front right wheel sensor

FAIL-SAFE

The following functions are suspended.

- Cooperative regenerative brake function
- e-Step function