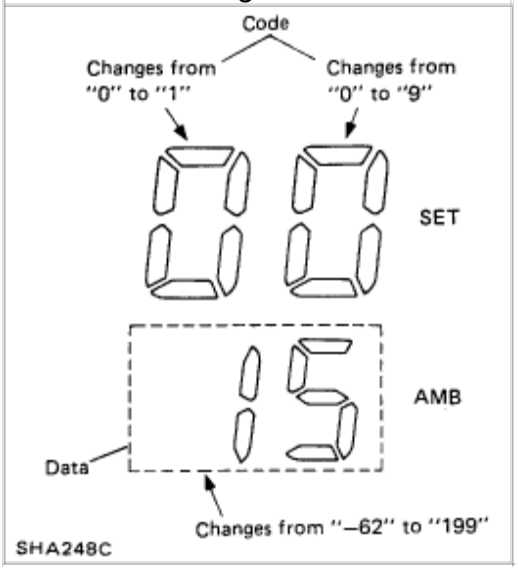
1990 Nissan-Datsun 300ZX V6-2960cc DOHC (VG30DE)

Step 1 - Monitor Diagnosis

Notes

Self-Diagnosis Step 1 - Monitor Diagnosis



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PURPOSE

This step checks all the temperature sensing circuits.

OPERATION

Each time the HI switch is pressed, the code number in the SET section advances one number and corresponding data with the code number appears in the AMB section. Each time the LO switch is pressed, the code number reduces by one number and corresponding data with the code number appears in the AMB section.

If the temperature shown on the display varies greatly from the actual temperature, check the sensor circuit first and then inspect the sensor itself.

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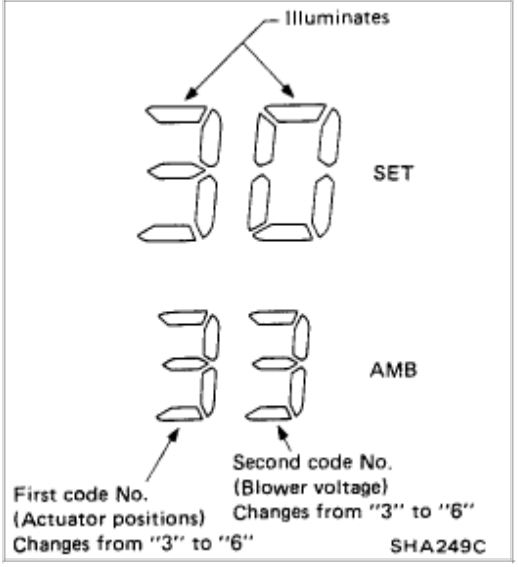
Step 2 - Actuator Tests

Notes

Self-Diagnosis Step 2 - Actuator Test



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PURPOSE

This step checks all the actuators and the blower motor voltage.

OPERATION

When the HI switch is pressed one time, the first code advances. This code returns to "3" after it reaches "6". Similarly, when the LO switch is pressed one time, the second code advances one number.

After the code number "6" appears, it returns to "3".

Self-Diagnosis Step 2, Con't

First code No. / Actuator	3	4	5	6
Mode door	DEF	HEAT	B/L	VENT
Intake door	FRE	FRE	50% FRE	REC
Air mix door	Full Hot	Full Hot	30°C (86°F)	Full Cold
Compressor	OFF	OFF	ON	ON

Second code No. / Blower motor	3	4	5	6
Voltage	4V	6V	9V	12V

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EXPECTED TEST RESULTS

During Step 2 testing, the auto amplifier will force an output to the affected actuators in response to the code number shown on the display. Checks can be made against the chart for actuator response and blower motor voltage.

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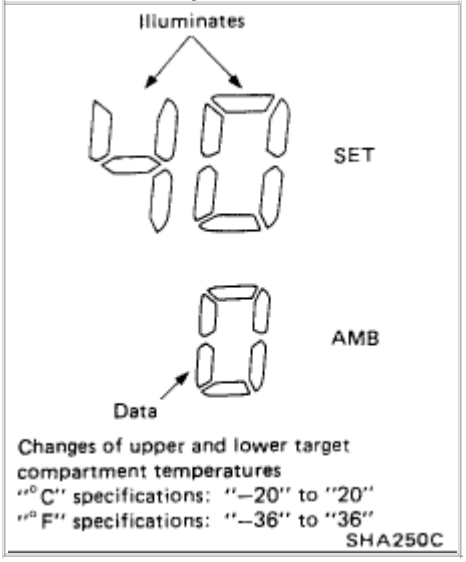
Step 3 - Auxiliary Mechanism (Temp Trimmer)

Notes

Self-Diagnosis Step 3 - Auxiliary Mechanism



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PURPOSE

This step verifies operation of the temperature trimmer. The job of the trimmer is to compensate for differences between the displayed temperature on the LED panel and the actual interior temperature felt by the driver. The trimmer has a range of +/- 6 deg. F (+/- 3 deg. C)

OPERATION

Each time the Hi switch is pressed, the number in the AMB section advances. This number will increase to 36 deg. F or 20 deg. C. Each time the LO switch is pressed, the number decreases. This number decreases to -36 deg. F or -20 deg. C. The Fahrenheit range will change at 3 degree intervals and the Centigrade range will change at 1 degree intervals.

Self-Diagnosis Step 3 - Test Specifications

°C specifications	Data	−20	− − − −	−1	0	1	− − − −	20
	Difference between upper and lower target temperatures	−2.0°C	− − − −	−1°C	0°C	0.1°C	− − − −	2.0°C
°F specifications	Data	−36	− − − −	−2	0	2°C	− − − −	36
	Difference between upper and lower target temperatures	−3.6°F	− − − −	−0.2°F	0°F	0.2°F	− − − −	3.6°F

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TEST EXPECTATIONS

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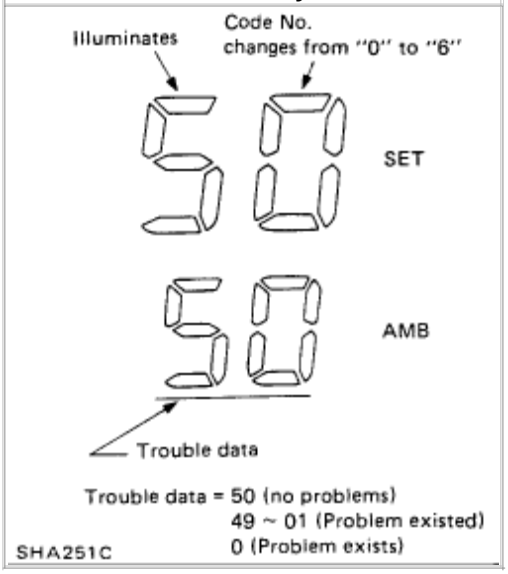
Step 4 - Readout of Stored Trouble Codes

Notes

Self-Diagnosis Step 4 - Readout Of Trouble Codes Stored In Memory



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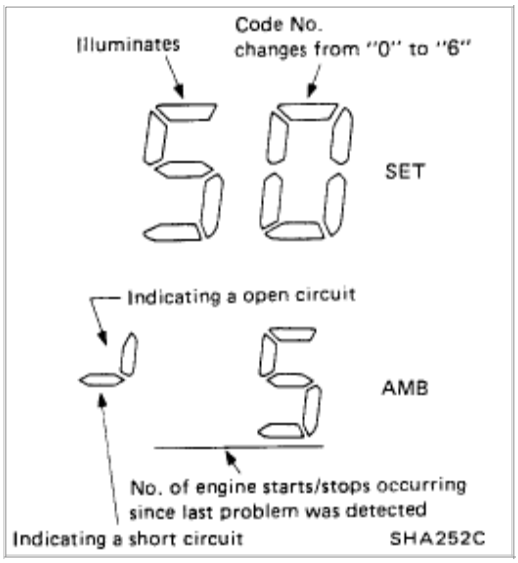
Self-Diagnosis Step 4 - Con't



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PURPOSE

The stored codes section of self-diagnosis can help a technician fix a problem. The system can store up to seven trouble codes (one code for each sensor in the system).

OPERATION

Each time the HI switch is pressed, the code number advances by one number. After it reaches "6", it will return to "0". Each time the LO switch is pressed, the code number reduces by one. After it reaches "0", it will return to "6".

If a sensor becomes inoperative, the code for that sensor and the number of engine starts/stops occuring since the last time the problem was detected will be displayed in the AMB section. Also displayed will be a vertical bar which represents an open circuit or a horizontal bar which represents a short circuit.

ATC System Trouble Code Explanation

Code No.	Sensor	Open circuit	Short circuit
50	Ambient sensor	Less than −70°C (−94°F)	Greater than 141°C (286°F)
51	Room upper sensor	Less than −38°C (−36°F)	Greater than 141°C (286°F)
52	Room lower sensor	Less than −38°C (−36°F)	Greater than 141°C (286°F)
53	DEF duct sensor	Less than −38°C (−36°F)	Greater than 141°C (286°F)
54	VENT duct sensor	Less than −38°C (−36°F)	Greater than 141°C (286°F)
55	Floor duct sensor	Less than −38°C (−36°F)	Greater than 141°C (286°F)
56	Sun load sensor	Open circuit can not be detected by self-diagnosis.	Greater than 1.784 kW (1,534 kcal/h, 6,087 BTU/h)/m^2 [19.19 kW (16,506 kcal/h, 65,502 BTU/h)/sq ft]

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TROUBLE CODE TABLE