

| | |
|----------------|--------------------------|
| Models | All Models |
| Section | Heater & Air Conditioner |
| Classification | HA87-023 |
| Bulletin No. | TS87-190 |
| Date | December 21, 1987 |

HEATER-A/C BLOWER FAN SYSTEM TEST PROCEDURES

APPLIED MODELS: All Nissan models equipped with heater only or heater and manual air conditioning.

SERVICE INFORMATION

In some vehicles, the blower fan for the heater/AC system may become inoperative or it may not operate in all blower speeds. The following test procedures may be used to diagnose and repair malfunctions in blower fan operation.

SERVICE PROCEDURE

| BLOWER FAN CONDITION | PERFORM TESTS |
|---|---------------|
| DOES NOT OPERATE ONLY OPERATES AT HIGHEST SPEED (#4 POSITION) | 1 and 2 |
| DOES NOT OPERATE IN ONE OF THE LOWER SPEED POSITIONS (1, 2 or 3) | 1 and 3 |

TEST PROCEDURE # 1:

- Place the fan switch in the "OFF" position. Turn the ignition switch to the "ACC" position. Check the available voltage to the fan motor fuse(s).
 - If the available voltage is 1.5 volts or more below battery voltage, check the power supply circuit to the fuse box for any source of high resistance.

Index • 004936

2. Turn the ignition key to the "OFF" position. Check the fuse(s) and fuse holder for continuity and for any sign of corrosion. Clean or repair as necessary.
3. Place the fan switch in the "OFF" position. Check for continuity between the fuse box and body ground.
 - If there is continuity, check for a short in the blower fan circuit.
4. Place the fan switch in the highest (# 4) position. Check for continuity between the fuse box and body ground.
 - If there is no continuity, check for an open in the blower fan circuit.

TEST PROCEDURE # 2:

1. Place the ignition switch in the "OFF" position.
2. Visually inspect the thermal limiter (fuse) on the fan resistor assembly. If the fuse has burned open or has been overheated, replace the fan resistor assembly.
3. Remove the fan motor assembly from the intake air box and check for foreign material or water corrosion.
4. Check to make sure there is clearance between the fan cage and the motor mounting plate.
5. If the instrument connector was disconnected to remove the blower motor assembly, re-connect it.
6. Perform the following test:
 - A. Place the fan switch in the "OFF" position.
 - B. Turn the ignition key to the "ACC" position.
 - C. Position the fan motor so that the fan operation can be safely observed.
 - D. While observing the fan, turn the fan switch to the low speed (# 1) position for 10 seconds, then move it back to the "OFF" position.
 - If the blower fan does not operate during the 10 second test period, replace the fan motor.
 - If the individual fan blades can be visually identified during the 10 second test period, the fan is operating too slowly. Replace the fan motor.

TEST PROCEDURE # 3:

1. Place the ignition switch in the "OFF" position.
 2. Place the fan switch in the "OFF" position.
 3. For safety to your volt-ohmmeter, perform this test with the vehicle battery ground disconnected. Touch the positive (+) probe of an ohmmeter to the voltage supply wire at the blower fan resistor.
 4. Connect the negative (-) probe to body ground.
 5. Place the fan switch into the speed position in which the malfunction occurs.
- If there is no continuity (open circuit to ground), check the circuit from the resistor to fan switch ground.

