

Auxiliary Blower Motor Inoperative

Test Description

The numbers below refer to the step numbers on the diagnostic table.

8. This step verifies that the auxiliary HVAC control module is commanding the auxiliary blower motor to operate at HI speed to reflect the requested speed of the front auxiliary HVAC control assembly. The scan tool should display a value greater than 50 percent.
11. This step tests for an internal fault of the RSA control module, or the auxiliary HVAC control module. If the Rear HVAC Fan Speed parameter changes as the fan switch speed changes then replace the auxiliary HVAC control module. If the Rear HVAC Fan Speed parameter does not change replace the RSA control module.
12. This step verifies that the front auxiliary HVAC control assembly receives a 5 V reference and ground from the auxiliary HVAC control module. If all 3 parameters are at 0 when the auxiliary fan HIGH speed is requested then proceed to step 13.
15. This step verifies that the auxiliary HVAC control module is commanding the auxiliary blower motor to operate at HI speed to reflect the requested speed of the front auxiliary HVAC control assembly. If the Blower Switch Pos. parameter is 15 and the auxiliary blower motor is not on HIGH then replace the auxiliary HVAC control module.

Step	Action	Value (s)	Yes	No
<p><i>Schematic Reference:</i> HVAC Schematics</p> <p><i>Connector End View Reference:</i> HVAC Connector End Views</p> <p>DEFINITION: The auxiliary blower motor is inoperative in all speed positions.</p>				
1	Did you perform the HVAC Diagnostic System Check?	--	Go to Step 2	Go to Diagnostic System Check - HVAC Systems - Automatic in Wiring Systems
	<p>Important: The auxiliary blower motor switch on the RSA control module will only function if the front auxiliary blower motor switch on the front HVAC control assembly is in the AUX position.</p> <ol style="list-style-type: none"> 1. Turn ON the ignition, with the engine OFF. 2. Place the front auxiliary blower motor switch on the front HVAC control assembly in each speed position. 			

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2	<ol style="list-style-type: none"> 3. Place the front auxiliary blower motor switch on the front HVAC control assembly in the AUX position. 4. Place the auxiliary blower motor switch on the RSA control module in each speed position. 5. Place the auxiliary blower motor switch on the front HVAC control assembly in the maximum speed position. <p>Does the auxiliary blower motor operate properly from both the front auxiliary HVAC control assembly and the RSA control module?</p>	--	<p>Go to Testing for Intermittent Conditions and Poor Connections in Wiring Systems</p>	Go to Step 3
3	Does the auxiliary blower motor operate in any of the speed positions?	--	Go to Auxiliary Blower Motor Malfunction	Go to Step 4
4	Does the auxiliary blower motor operate from only the front auxiliary HVAC control assembly?	--	Go to Step 11	Go to Step 5
5	Does the auxiliary blower motor operate from only the RSA control module?	--	Go to Step 12	Go to Step 6
6	<ol style="list-style-type: none"> 1. Disconnect the auxiliary blower motor control processor. 2. Connect a test lamp between the battery positive voltage circuit and the ground circuit of the auxiliary blower motor control processor. <p>Does the test lamp illuminate?</p>	--	Go to Step 8	Go to Step 7
7	<p>Connect a test lamp between the battery positive voltage circuit of the auxiliary blower motor control processor and a good ground.</p> <p>Does the test lamp illuminate?</p>	--	Go to Step 25	Go to Step 26
8	<ol style="list-style-type: none"> 1. Connect the auxiliary blower motor control processor. 2. With a scan tool, observe the Blower Motor PWM Speed data parameter in the Rear Aux. Climate Module Scan Tool Data List. <p>Does the scan tool indicate that the Blower Motor PWM Speed data parameter is greater than the specified value?</p>	50 %	Go to Step 9	Go to Step 21

9	<ol style="list-style-type: none"> 1. Disconnect the harness connector of the auxiliary HVAC control module. 2. Measure the voltage on the auxiliary blower motor speed control circuit. <p>Does the voltage measure within the specified range?</p>	4.5-5.5 V	Go to Step 10	Go to Step 17
10	<ol style="list-style-type: none"> 1. Disconnect the auxiliary blower motor. 2. Connect a test lamp between the auxiliary blower motor supply voltage circuit and the auxiliary blower motor ground circuit. <p>Does the test lamp illuminate?</p>	--	Go to Step 23	Go to Step 29
11	<ol style="list-style-type: none"> 1. Cycle the blower switch on the RSA control module through each of the following speed positions: <ul style="list-style-type: none"> • Auto • Low • Med • High 2. Observe the Rear HVAC Fan Speed parameter in the Rear HVAC Scan Tool Data List <p>Does the Rear HVAC Fan Speed parameter change with each command?</p>	--	Go to Step 21	Go to Step 20
12	<p>With a scan tool, observe the following parameters in the Rear Aux. Climate Module Scan Tool Data List:</p> <ul style="list-style-type: none"> • Air Temp. Switch Pos. • Blower Switch Pos. • Mode Switch Pos. <p>Does the scan tool indicate that each parameter is 0?</p>	--	Go to Step 13	Go to Step 15
13	<ol style="list-style-type: none"> 1. Disconnect the harness connector of the front auxiliary HVAC control assembly. 2. Measure the voltage of the 5 volt reference circuit to the low reference circuit of the front auxiliary HVAC control assembly. <p>Does the voltage measure at least 5 V?</p>	--	Go to Step 24	Go to Step 14

14	<p>Measure the voltage of the 5 volt reference circuit of the front auxiliary HVAC control assembly to a good ground.</p> <p>Does the voltage measure at least 5 V?</p>	--	Go to Step 19	Go to Step 18
15	<p>1. Place the auxiliary blower motor switch on the front auxiliary HVAC control assembly in the maximum speed position.</p> <p>2. With a scan tool, observe the Blower Switch Pos. parameter.</p> <p>Does the scan tool indicate that Blower Switch Pos. parameter is 15?</p>	--	Go to Step 21	Go to Step 16
16	<p>Test the auxiliary front blower motor switch signal circuit between the front auxiliary HVAC control assembly and the auxiliary HVAC control module for a short to ground, short to voltage, or an open.</p> <p>Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 32	Go to Step 24
17	<p>Test the auxiliary blower motor speed control circuit between the auxiliary blower motor control processor and the auxiliary HVAC control module for a short to ground, short to voltage, or an open.</p> <p>Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 32	Go to Step 22
18	<p>Test the 5 volt reference circuit of the front auxiliary HVAC control assembly for a short to ground, short to voltage or an open. Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 32	Go to Step 21
19	<p>Test for an open or high resistance in the low reference circuit of the front auxiliary HVAC control assembly. Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you correct the condition?</p>	--	Go to Step 32	Go to Step 21
	Inspect for poor connections at the			

20	harness connector of the RSA control module. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 32	Go to Step 28
21	Inspect for poor connections at the harness connector of the auxiliary HVAC control module. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 32	Go to Step 31
22	Inspect for poor connections at the harness connector of the auxiliary blower motor control processor. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 32	Go to Step 29
23	Inspect for poor connections at the harness connector of the auxiliary blower motor. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 32	Go to Step 30
24	Inspect for poor connections at the harness connector of the front auxiliary HVAC control assembly. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems. Did you find and correct the condition?	--	Go to Step 32	Go to Step 27
25	Repair an open or high resistance in the ground circuit of the auxiliary blower motor control processor. Refer to Wiring Repairs in Wiring Systems. Did you correct the condition?	--	Go to Step 32	--
26	Repair an open or short to ground in the battery positive voltage circuit of the auxiliary blower motor control processor. Refer to Wiring Repairs in Wiring Systems. Did you correct the condition?	--	Go to Step 32	--

27	Replace the front auxiliary HVAC control assembly. Refer to Auxiliary Heater and Air Conditioning Control Replacement - Front in Heating, Ventilation and Air Conditioning. Did you complete the replacement?	--	Go to Step 32	--
28	Replace the RSA control module. Refer to Rear Seat Audio Control Replacement in Entertainment. Did you complete the replacement?	--	Go to Step 32	--
29	Replace the auxiliary blower motor control processor. Refer to Auxiliary Blower Motor Processor Replacement . Did you complete the replacement?	--	Go to Step 32	--
30	Replace the auxiliary blower motor. Refer to Auxiliary Blower Motor Replacement in Heating, Ventilation and Air Conditioning. Did you complete the replacement?	--	Go to Step 32	--
31	Replace the auxiliary HVAC control module. Refer to Auxiliary Heater and Air Conditioning Control Module Replacement in Heating, Ventilation and Air Conditioning. Did you complete the replacement?	--	Go to Step 32	--
32	Operate the system in order to verify the repair. Did you correct the condition?	--	System OK	Go to Step 2