

Air Recirculation Malfunction

Step	Action	Values	Yes	No
<p><i>Schematic Reference:</i> HVAC Schematics</p> <p><i>Connector End View Reference:</i> HVAC Connector End Views</p> <p>DEFINITION: Air recirculation is inoperative or is always ON.</p>				
1	Did you perform the HVAC Diagnostic System Check?	--	Go to Step 2	Go to Diagnostic System Check - HVAC Systems - Manual
2	<ol style="list-style-type: none"> Turn ON the ignition, with the engine OFF. With a scan tool observe the Recirculate Switch parameter. Activate the recirculation switch. <p>Does the scan tool indicate that the Recirculate Switch parameter changes state?</p>	--	Go to Step 3	Go to Step 10
3	<ol style="list-style-type: none"> Place the blower motor switch in the maximum speed position. Place the mode switch in the bi-level position. Place the recirculation switch in the ON position. Observe the recirculation door. Place the recirculation switch in the OFF position. <p>Does the recirculation door move from the recirculation position to the outside air position?</p>	--	Go to Testing for Intermittent Conditions and Poor Connections in Wiring Systems	Go to Step 4
4	<ol style="list-style-type: none"> Turn OFF the ignition. Disconnect the HVAC control module. Turn On the ignition, with the engine OFF. Observe the recirculation door. Connect a 3 amp fused jumper wire between the recirculation door control circuit of the HVAC control module and a good ground. <p>Does recirculation door move?</p>	--	Go to Step 10	Go to Step 5
	<ol style="list-style-type: none"> Turn OFF the ignition. 			

5	<p>2. Disconnect the recirculation actuator.</p> <p>3. Turn On the ignition, with the engine OFF.</p> <p>4. Probe the ignition 3 voltage circuit of the recirculation actuator with a test lamp that is connected to a good ground.</p> <p>Does the test lamp illuminate?</p>	--	Go to Step 6	Go to Step 11
6	<p>Test the ground circuit of the recirculation actuator for an open or high resistance. Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 14	Go to Step 7
7	<p>Test the recirculation door control circuit of the recirculation actuator for an open, a high resistance, a short to ground, or a short to voltage. Refer to Circuit Testing and Wiring Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 14	Go to Step 8
8	<p>Inspect the recirculation door and the recirculation actuator for the following conditions:</p> <ul style="list-style-type: none"> • A misaligned recirculation actuator Refer to Recirculation Actuator Replacement . • Broken or binding linkages • A broken or binding recirculation door • An obstruction that prevents the recirculation door from operating within its full range of motion • Missing seals to the recirculation door • Misaligned seals to the recirculation door <p>Did you find and correct the condition?</p>	--	Go to Step 14	Go to Step 9
9	<p>Inspect for poor connections at the harness connector of the recirculation actuator. Refer to Testing for Intermittent Conditions and Poor Connections and Connector Repairs in Wiring Systems.</p> <p>Did you find and correct the condition?</p>	--	Go to Step 14	Go to Step 12

10	Inspect for poor connections at the harness connector of the 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 14	Go to Step 13
11	Repair the ignition 3 voltage circuit of the recirculation actuator. Refer to Wiring Repairs in Wiring Systems. Did you complete the repair?	--	Go to Step 14	--
12	Replace the recirculation actuator. Refer to Recirculation Actuator Replacement . Did you complete the replacement?	--	Go to Step 14	--
13	Replace the HVAC control module. Refer to HVAC Control Module Replacement . Did you complete the replacement?	--	Go to Step 14	--
14	Operate the system in order to verify the repair. Did you correct the condition?	--	System OK	Go to Step 3