

VACUUM TROUBLESHOOTING GUIDE FOR EVANS TEMPCON HEATER-A/C SYSTEMS

PROBLEM	POSSIBLE CAUSES	REMEDY
1 Air flow comes from defrost louvers regardless of mode selected.	<ul style="list-style-type: none"> * Vacuum supply line to control panel has fallen off of vacuum reservoir. * Manifold vacuum supply Hose has fallen off at vacuum reservoir or at manifold port. * Severe leakage in Vacuum supply circuit. * Faulty control panel or vacuum harness. * Pinched vacuum lines. 	<ul style="list-style-type: none"> * Ensure that black line of vacuum harness is pushed fully onto the corresponding port of the vacuum reservoir. * Ensure that both ends of the supply hose are firmly attached to their corresponding ports. * Examine vacuum supply hose from manifold to vacuum ball and black supply lead of vacuum harness from vacuum ball to control panel for cuts or pinching. Repair/replace as required. * Having checked above causes and finding no problem: Check for vacuum at the white, red, green and blue vacuum leads of the harness while changing through all operational modes. If no vacuum is detected, replace control panel and/or harness. * Inspect red, green and white vacuum lines for pinching or kinking. Repair/replace as required.

NOTE: FOLLOW DIAGNOSIS PROCEDURE IN "REMEDY" COLUMN IN THE ORDER LISTED

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2 Air flow is suddenly and momentarily diverted to defrost louvers while driving.	* Leak in vacuum reservoir, vacuum hose from manifold or vacuum reservoir check valve. Inadequate vacuum supply.	* Measure vacuum at the small port on the reservoir with the engine running at idle. Turn the engine off and take note of the time for vacuum loss to 10in. Of hg. If this time is shorter than 5 seconds, inspect hose and reservoir for leaks. Repair/replace as required.
3 Air flow comes from face louvers regardless of mode selected.	* Face door of air box is binding.	* Inspect door for adequate clearance with top and bottom of air box, or any loose foam seals. Repair/replace as required.
	* Door/vacuum motor linkage has come apart.	* Re-assemble linkage. Check for proper operation.
	* Door/vacuum motor linkage is binding.	* Inspect linkage for bind points. If necessary, increase clearances with a small file. Check for proper operation.
	* Faulty control panel.	* With engine running, select Floor, Mix or Defrost mode on the control panel. Remove the green and white vacuum leads from the vacuum motor. If face door closes and vacuum is present at the green and white leads, replace control panel.

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4 Fresh Air/Recirc. Air door does not operate. Air flow modes operate correctly.	* Recirc. & Fresh air door(s) binding.	* Inspect door(s) for interference points with evaporator case, or loose foam seals. Repair/replace as required.
	* Pinched vacuum line.	* Inspect blue vacuum line(s) for pinching or kinking. Repair/replace as required.
	* Door/vacuum motor linkage has come apart.	* Re-assemble linkage. Check for proper operation.
	* Door/vacuum motor linkage is binding.	* Inspect linkage for bind points. If necessary, increase clearances with a small file. Check for proper operation.
	* Faulty control panel.	* With engine running, position the temperature slide lever to the recirc position. If vacuum is not present at the blue lead, replace the control panel.
	* Faulty vacuum motor.	* With engine running, position the temperature slide lever to the recirc position. If vacuum is present at the blue lead, replace vacuum motor.

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<u>PROBLEM</u>	<u>POSSIBLE CAUSES</u>	<u>REMEDY</u>
5 Inability to change air flow to defrost mode. Floor and face mode operate correctly.	* Defrost door of air box is binding.	* Inspect door for adequate clearance with top and bottom of air box or any loose foam seals. Repair/replace as required.
	* Door/vacuum motor linkage is binding.	* Inspect linkage for bind points. If necessary, increase clearance with a small file. Check for proper operation.
	* Faulty control panel.	* With engine running, select Defrost mode on the control panel. Remove the red vacuum lead from vacuum motor. If door closes on the floor collars of the air box and there is vacuum present at the red lead, replace control panel
6 Inability to change air flow to Floor mode. Defrost and Face mode operate correctly.	* Defrost/Floor door binding.	* Inspect door for adequate clearance with top and bottom of air box, or, for any loose foam seals. Repair/replace as required.
	* Pinched vacuum line(s).	* Inspect red vacuum lead for pinching or kinking. Repair/replace as required.
	* Door/vacuum motor linkage has come apart.	* Re-assemble linkage. Check for proper operation.

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6 Continued...	* Door/vacuum motor linkage is binding.	* Inspect linkage for bind points. If necessary, increase clearances with a small file. Check for proper operation.
	* Faulty control panel.	* With engine running, select Floor mode. If vacuum is not present at the red lead, replace control panel.
	* Faulty vacuum motor.	* With the engine running, select Floor mode. If vacuum is present at the red lead, replace vacuum motor.
7 Inability to obtain air flow from face louvers. Defrost and floor mode operate correctly.	* Face door is binding.	* Inspect door for adequate clearance with top and bottom of air box, or for any loose foam seals. Repair/replace as required.
	* Pinched vacuum line(s).	* Inspect green and white vacuum lines for pinching or kinking. Repair/replace as required.
	* Door/Vacuum motor linkage has come apart.	* Re-assemble linkage. Check for proper operation.
	* Door/vacuum motor linkage is binding.	* Inspect linkage for bind points. If necessary, increase clearance with a small file. Check for proper operation.

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PROBLEM	POSSIBLE CAUSES	REMEDY
7 Continued...	<ul style="list-style-type: none"> * Faulty control panel. * Faulty vacuum motor. * Green and white vacuum leads reversed on Bi-Level vacuum motor. 	<ul style="list-style-type: none"> * With engine running, depress Face mode button. If vacuum is not present at green or white vacuum lines, replace control panel. * With the engine running, depress the Face mode button. If vacuum is present at the yellow and white lines, replace vacuum motor. * Switch leads.
8 Inability to obtain Bi-Level air flow. Other modes operate correctly.	<ul style="list-style-type: none"> * Refer to "Possible Causes" list for Problem #7. 	<ul style="list-style-type: none"> * Refer to "Remedy" list for Problem #7. High probability of reversed green and white vacuum leads on Bi-Level motor.

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