

## **VACUUM SYSTEM TROUBLESHOOTING**

All air discharge to the various louvers and vents is controlled by a series of vacuum operated shutter doors inside the airduct and base unit assemblies. Problems achieving the desired air discharge can be caused by such things as vacuum lines that are kinked, blocked, disconnected, or cut; by shutter doors that are binding, stuck, or have poor seals; or by shutter door linkage that is binding or disconnected. Before disassembling any part of the air distribution system, insure that there is an adequate vacuum supply for the system and that all obvious vacuum lines are serviceable and properly connected. The following are some common problems and possible causes/solutions:

### **All Air Flow Comes From Defrost Louvers Regardless of Mode Selected.**

**NOTE:** This is a default mode that insures airflow to the windshield for visibility purposes should the vacuum source be lost. Determine why vacuum is not reaching the mode selector switch:

- The large black vacuum supply hose has become disconnected from the Vacuum Reservoir or source.
- The small black vacuum signal hose has become disconnected from the vacuum reservoir or the mode switch.
- Check for cut or damaged vacuum hoses that would allow the reservoir to lose vacuum.
- Check vacuum source and supply hoses for blockage.
- Check vacuum pump (or engine) for proper operation and availability of vacuum.

### **Air Flow Is Suddenly And Momentarily Diverted To Defrost Louvers While Driving**

- Check for leaks in the vacuum reservoir, vacuum hose from source to vacuum reservoir, vacuum hose from vacuum reservoir to the mode switch.
- Check vacuum source to insure adequate supply.
- Check vacuum pump (if applicable) for proper operation.

### **Air Flow Comes From Face Louvers Regardless Of Mode Selected**

- Check to see if Face Door is binding.
- Check to see if door/vacuum motor linkage is binding.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.

### **Fresh Air/Recirc Air Door Does Not Operate. Air Flow Modes Operate Correctly.**

- Check blue vacuum hose to Fresh Air/Recirc Door for kinks, cuts, or pinching.
- Check to see if Fresh Air/Recirc Door is binding.

- Check to see if door/vacuum motor linkage is binding or disconnected.
- Check to see if vacuum motor is binding or faulty.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.

**Unable To Change Air Flow To Defrost Mode. Floor And Face Modes Operate Correctly.**

- Check to see if Defrost Door is binding.
- Check to see if door/vacuum motor linkage is binding.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.
- Check red and green vacuum hoses for cuts, kinks, and pinching.

**Unable To Change Air Flow To Floor Mode. Defrost and Face Modes Operate Correctly.**

- Check to see if Defrost/Floor Door is binding.
- Check to see if door/vacuum motor linkage is binding or disconnected.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.
- Check red and green vacuum hoses for kinks and pinching.
- Check to see if vacuum motor is binding or faulty.

**Unable To Change Air Flow To Face Mode. Defrost and Floor Modes Operate Correctly.**

- Check to see if Face Door is binding.
- Check to see if door/vacuum motor linkage is binding or disconnected.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.
- Check yellow and white vacuum hoses for kinks and pinching.
- Check to see if vacuum motor is binding or faulty.
- Check to see if yellow and white vacuum hoses are reversed at the bi-level vacuum motor.

**Unable To Change Air Flow To Bi-Level Mode. Other Modes Operate Correctly.**

- Check to see if yellow and white vacuum hoses are reversed at the bi-level vacuum motor.
- Check to see if Face Door is binding.
- Check to see if door/vacuum motor linkage is binding or disconnected.

- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.
- Check yellow and white vacuum hoses for kinks and pinching.
- Check to see if vacuum motor is binding or faulty.

**Unable To Obtain Mix (Floor/Defrost) Mode. Other Modes Operate Correctly.**

- Check to see if red and green hoses are reversed at the bi-level vacuum motor.
- Check to see if Floor or Defrost/Floor doors are binding.
- Check to see if door/vacuum motor linkage is binding or disconnected.
- Check to see if the mode switch is operating properly.
- Check vacuum harness connector at mode switch to insure proper position of vacuum hoses.
- Check red and green vacuum hoses for kinks and pinching.
- Check to see if vacuum motor is binding or faulty.

**Little Or No Air Flow From Louvers And Vent Openings During Normal Operation**

- Check for air leaks between system components and insure all components are well sealed.
- Check for full voltage at blower motor when in High Speed.
- Check for obstructed or plugged air inlet (fresh or recirculated).
- Check for disconnected, smashed, or kinked duct hoses.
- Check for evaporator icing if A/C system is operating.