

////// *Tech Tip* ////

## **Insufficient Airflow from Dash**

Many different things can affect the volume of air that flows through the air distribution system. The condition of the blower motor, blower wheel, and the air distribution system itself determine the volume of air that flows out the vents.

Air is drawn in from the outside of the vehicle through the use of a blower motor and wheel assembly and is then forced across the evaporator (on A/C equipped vehicles) into a large open area called a plenum. Airflow is then directed from the plenum to the areas requested by the opening or closing the designated air mode doors.

The blower motor and wheel assembly has to operate properly in order to pull and push the correct volume of air through the air distribution system and vent outlets.

- If the blower motor has a problem, it will present itself as an increase in the amperage required to turn the motor.
- Refer to the OEM information for the correct amperage specification.
- If the blower wheel is turning the wrong direction or has become loose on the blower shaft, the volume of moving air will be dramatically reduced.

A number of conditions can develop which diminish airflow in the plenum and air distribution passages. These conditions result in a restriction in airflow from the vents.

- Duct & Door seals on older vehicles can cause leaks behind the dash.
- Trash drawn into or placed into the air distribution assembly passages.
- Material such as leaves, or animal hair, on the blower motor side of the evaporator.
- Large rodents (squirrels, rats) have been known to build nests in the evaporator case.
- Investigate for some environmental condition, such as to where they park the vehicle, that would cause anything to be drawn into the system

Materials being placed or collected in the system, most often occur when the vehicle has been parked for an extended period of time or is located in a rural area. Also Remember that many of today's vehicles utilize filter assemblies that have specific replacement intervals, which if overlooked can result in limited airflow.

On vehicles without a filter cartridge the removal of the blower motor is the first step in the inspection and repair process. Refer to the OEM information for removal and installation procedures. If the restriction can not be repaired with the removal of the blower motor, then the removal of the evaporator may be necessary.

Care should be given when locating the restriction. If a rodent has built a nest in the evaporator case, the rodent may not be happy with your attempt to remove the nest. Thick gloves should be worn when trying to remove debris from the evaporator case.