4SEASONS

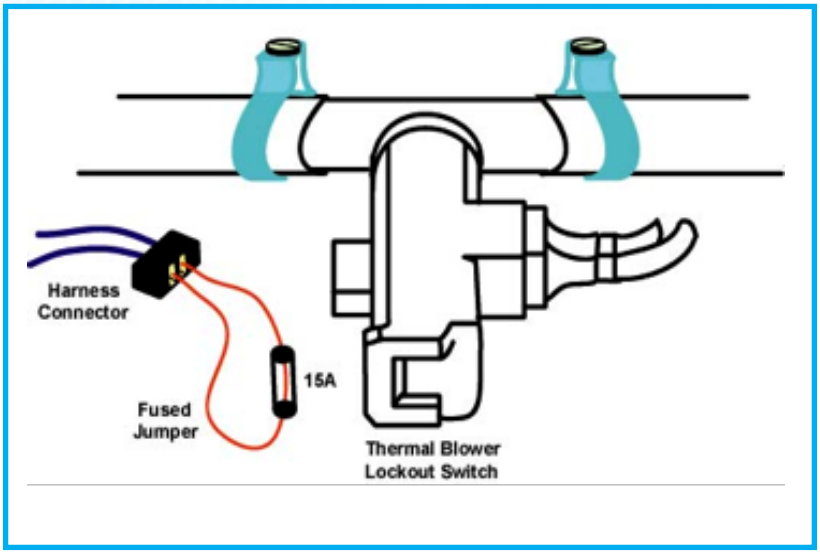
TECH TIPS

330 Tech Tip

NO BLOWER IN FLOOR MODE

A customer arrives with a 1983 to 1995 Full Size Ford, Lincoln, or Mercury automobile with automatic temperature control. If the complaint is no blower operation when the floor mode is selected, the vehicle may have a problem with the thermal blower lockout switch also referred to as the CELO (cold engine lock out switch).

The thermal blower lock out switch is located in the heater core intake hose. The two wire switch has a thermal element with a small set of contacts, the contacts are open when the coolant is below 120°F and closed when the coolant is above 120°F. The thermal blower lock out switch also contains a vacuum switch, which applies vacuum to the outside/re-circulate valve when the system is in the floor position. When the engine coolant is below 120 degrees and the selector is set to floor position, the thermal blower lock out prevents blower from turning on and closes off the outside air during engine warm-up. When the coolant temperature is above 120 degrees, and the selector is set to the floor position, the thermal blower lock out switch allows the blower to operate and opens the outside air door.



In order to diagnose this problem, test the thermal blower lockout switch with the engine at normal operating temperature (above 120°F). Unplug the wire harness connector from the thermal blower lockout switch. Using a 15-amp fused wire, jumper the harness terminals to test the switch. If the blower comes on, the thermal blower lock out switch is faulty. If the blower doesn't come on, look for an open between the control head selector and thermal blower lock out switch.

In some cases the blower may continually run even when the engine temperature is below 120 degrees. Unplug the thermal blower lock out switch and if the blower motor turns off, the thermal blower lock out switch is faulty. If the motor continues to run, look for a short to power between the control head selector and thermal blower lock out switch.