position of the actuator door. The FCIM powers the actuator motors to move the doors to the desired positions. The desired door positions are calculated by the FCIM based on the set temperature, in-vehicle temperature, ambient air temperature and sunload.

When an airflow mode, desired driver or passenger temperature, fresh air, or recirculation mode is selected, the FCIM moves the actuator motor in the desired direction.

The FCIM sends a PWM signal to the blower motor speed control to regulate the blower speed as necessary. The blower motor speed control provides variable ground feed for the blower motor based on the input from the FCIM. A delay function provides a gradual increase or decrease in blower motor speed under all conditions.

DESCRIPTION AND OPERATION > CLIMATE CONTROL SYSTEM - VEHICLES WITH: DUAL AUTOMATIC TEMPERATURE CONTROL (DATC) - SYSTEM OPERATION AND COMPONENT DESCRIPTION > AUTO

When AUTO is selected:

- the HVAC system operates in a manner to achieve and maintain the temperature set by the operator.
- the driver and passenger side temperature doors are automatically controlled by the FCIM based on the temperature setting.
- the A/C compressor is automatically controlled by the PCM from information sent by the FCIM, based on the temperature setting. The A/C compressor does not operate if the outside temperature is below approximately 32.0 °F (°C).
- the blower motor speed is automatically controlled through the blower motor speed control that receives a PWM signal from the FCIM based on the temperature setting, but can be manually overridden.
- the FCIM controls the air inlet door to recirculate, partially recirculate or open to the fresh air position depending on the in-car temperature and humidity sensor inputs.

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DESCRIPTION AND OPERATION > CLIMATE CONTROL SYSTEM - VEHICLES WITH: DUAL AUTOMATIC TEMPERATURE CONTROL (DATC) - SYSTEM OPERATION AND COMPONENT DESCRIPTION > OFF

When OFF is selected:

- the air inlet door closes, preventing outside air and allowing only recirculated air.
- the blower motor is off.

DESCRIPTION AND OPERATION > CLIMATE CONTROL SYSTEM - VEHICLES WITH: DUAL AUTOMATIC TEMPERATURE CONTROL (DATC) - SYSTEM OPERATION AND