

AIRFLOW TEMPERATURE CONTROL [FULL-AUTO AIR CONDITIONER]

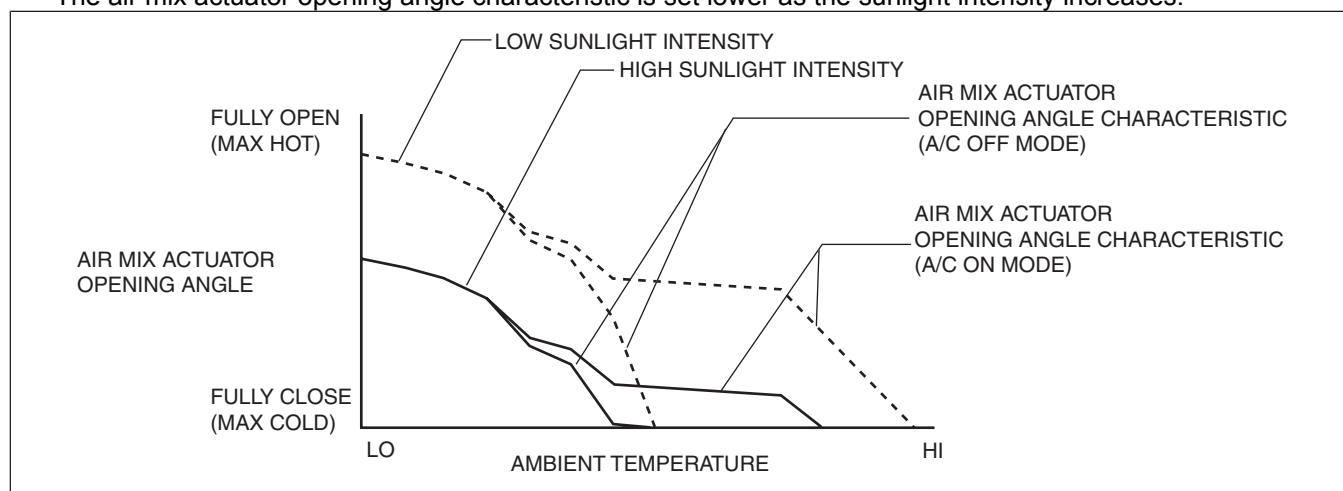
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Purpose

- The airflow temperature control changes the airflow temperature according to the vehicle conditions.

Function

- The air mix actuator is driven and the air mix door position is changed according to the set temperature and the vehicle environment.
- The climate control unit calculates the air mix actuator opening angle characteristic based on the set temperature, solar radiation amount, and airflow mode.
- The air mix actuator opening angle characteristic is set lower as the sunlight intensity increases.



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- The airflow temperature is automatically controlled continuously.
- The airflow temperature control performs the following corrections:
 - MAX HOT and MAX COLD correction
 - Engine coolant temperature correction

MAX HOT and MAX COLD correction

- Under the MAX HOT and MAX COLD correction, the air mix actuator opening angle is fixed at fully open when the temperature is set to **29.0/84**, and fixed at fully closed when the temperature is set to **15/60**. (European (L.H.D. U.K.) specs.).
- Under the MAX HOT and MAX COLD correction, the air mix actuator opening angle is fixed at fully open when the temperature is set to **32.0/90**, and fixed at fully closed when the temperature is set to **18/64**. (except European (L.H.D. U.K.) specs.).

Engine coolant temperature correction

- The engine coolant temperature correction prevents cold air from coming out of the air vents after the engine is started in winter.
- When the engine coolant temperature is lower than the specified value, the air mix actuator opening angle is corrected to the HOT side.
- The engine coolant temperature correction is not performed when the ambient temperature is **15 °C {59 °F}** or more.

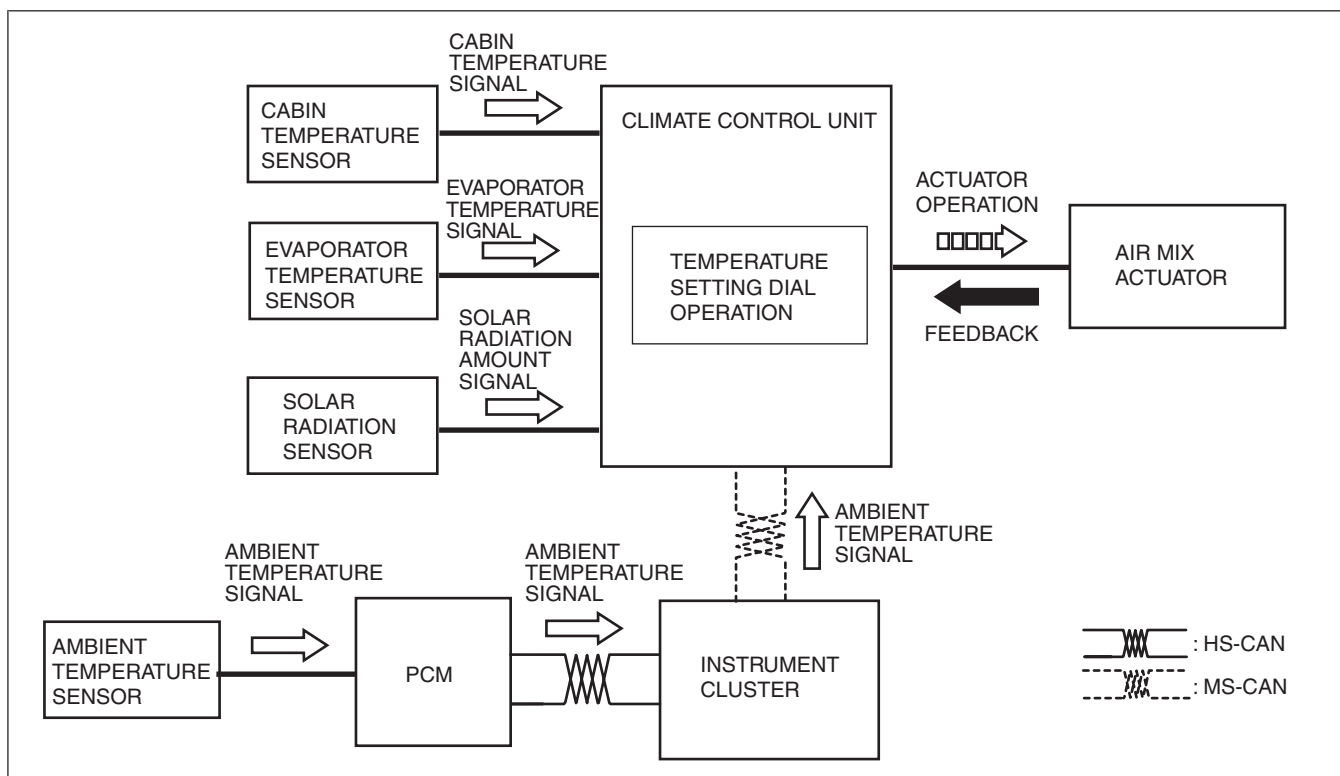
Construction

- The airflow temperature control consists of the parts indicated in the following table:

Input device	Control part	Output device
<ul style="list-style-type: none">Temperature setting dial (climate control unit)Cabin temperature sensorSolar radiation sensorAmbient temperature sensorEvaporator temperature sensor	<ul style="list-style-type: none">Climate control unitPCMInstrument cluster	<ul style="list-style-type: none">Air mix actuatorAir mix door

Operation

- The climate control unit determines the airflow temperature based on the temperature control dial operation and signals from each sensor which changes according to the vehicle environment.
- The climate control unit drives the air mix actuator according to the results of the airflow temperature determination and corrections.



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