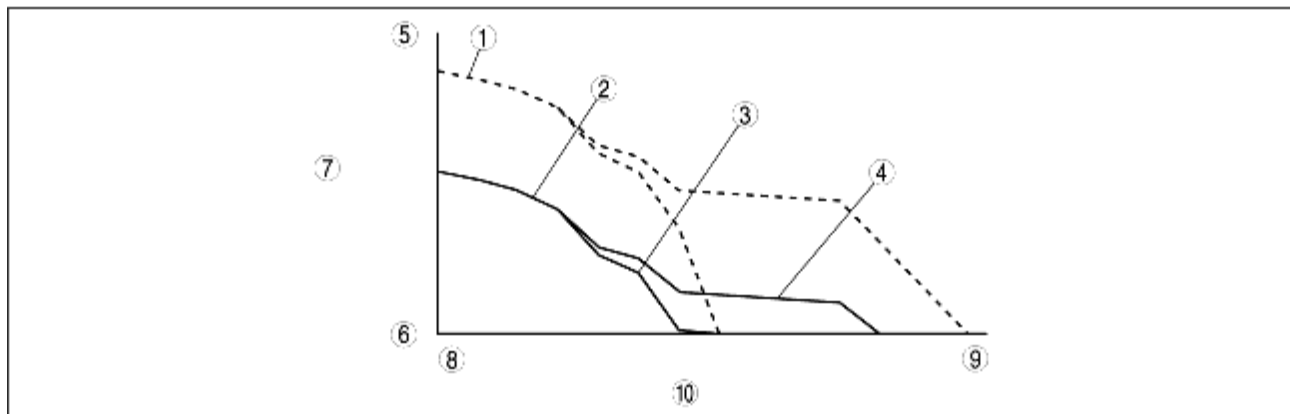


AIRFLOW TEMPERATURE CONTROL OPERATION

B3E074061190T05

Airflow Temperature Automatic Control

- The climate control unit calculates the air mix actuator opening angle characteristic for the given ambient temperature based on the set temperature, sunlight intensity, and airflow mode. The air mix actuator opening angle characteristic decreases as the sunlight intensity increases.
- The opening angle characteristic of the air mix actuator and the current ambient temperature are compared and the basic opening angle for the air mix actuator is determined according to the A/C compressor control status. The opening angle must maintain the target temperature (calculated control value T1) in the cabin against changes in external factors such as sunlight intensity and ambient temperature.
- If there is a difference between the target temperature (calculated control value T1) and current cabin temperature, the basic opening angle of the air mix actuator is corrected so that the cabin temperature rapidly reaches the target temperature.
- Calculated control value T1 is the target temperature in the cabin as set by the climate control unit based on differences among the set temperature, temperatures input from the sensors, and sunlight intensity. Calculated control value T1 is calculated according to the changes in the set temperature and temperatures input from the sensors.



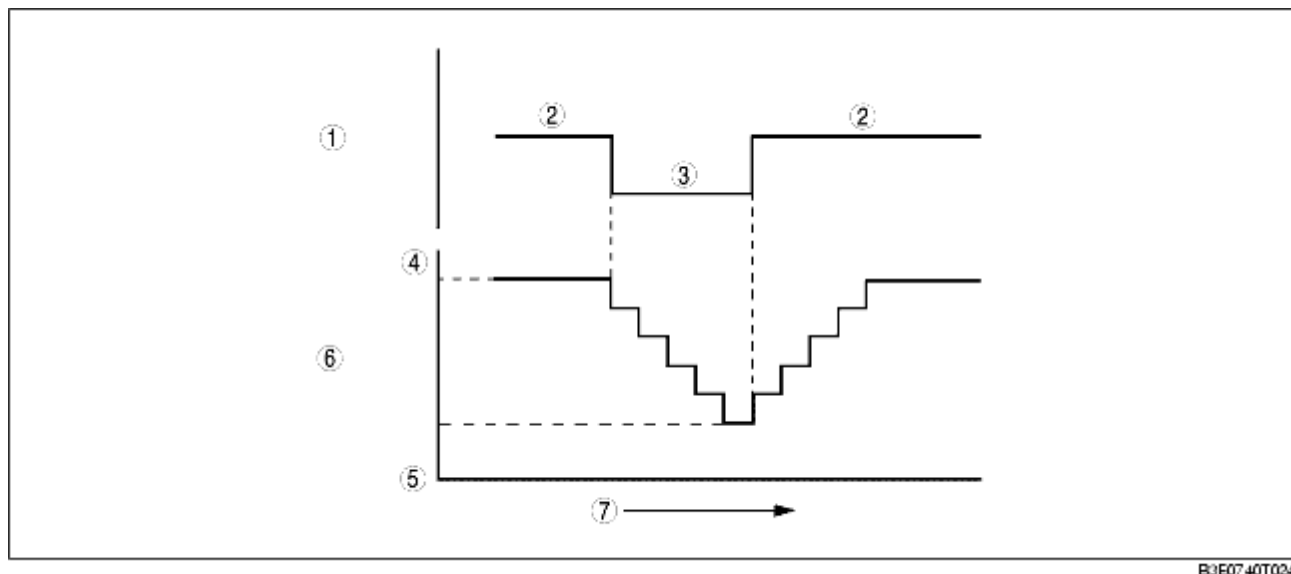
B3E07 40T023

1	Low sunlight intensity
2	High sunlight intensity
3	Air mix actuator opening angle characteristic (A/C off mode)
4	Air mix actuator opening angle characteristic (A/C on mode)
5	Fully open (MAX HOT)
6	Fully closed (MAX COLD)
7	Air mix actuator opening angle
8	Low
9	High
10	Ambient temperature

Correction

Air intake correction

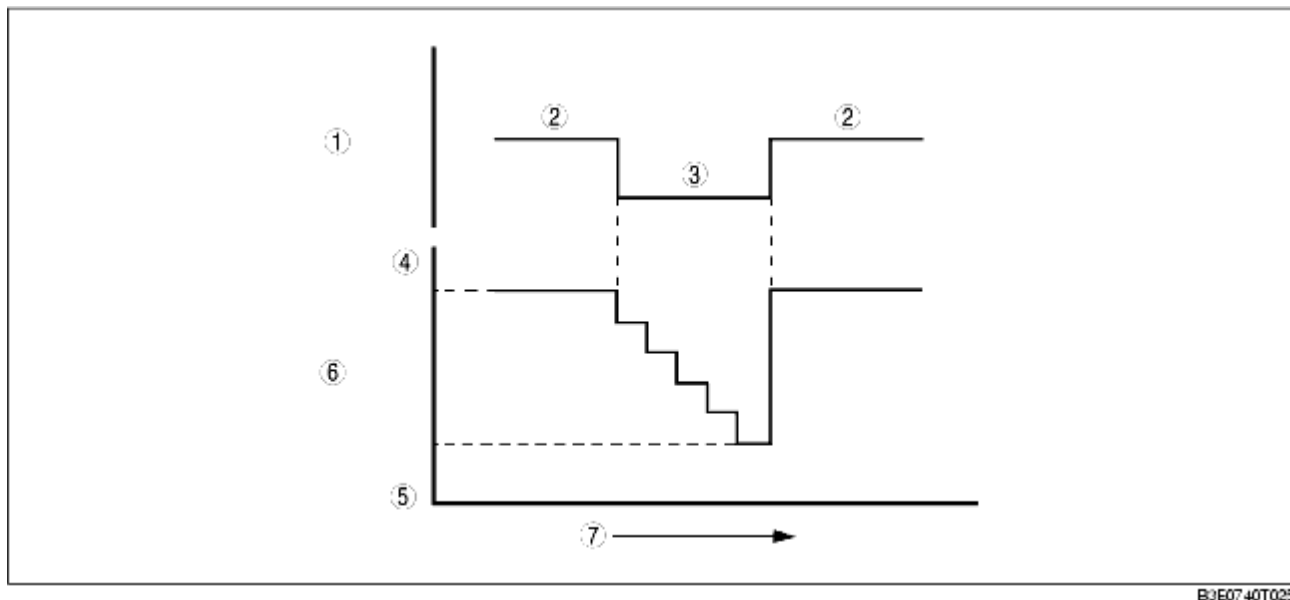
- When the air intake mode is switched from FRESH to REC when the A/C is off, a correction is added to the air mix actuator opening angle to prevent a rise in airflow temperature. In addition, this correction delays the air mix actuator operation to prevent a sudden drop in airflow temperature.



1	Air intake door
2	Fresh
3	Recirculate
4	HOT
5	COLD
6	Air mix actuator opening angle correction amount
7	Time

A/C correction

- When the A/C compressor control is switched from A/C ON mode to OFF mode, the opening angle of the air mix actuator is switched from the A/C ON mode opening angle to the A/C OFF mode opening angle to prevent a rise in airflow temperature. In addition, this correction delays the air mix actuator operation to prevent a sudden drop in airflow temperature. However, the operation is not delayed when the evaporator temperature is **15 °C {59 °F} or more**.



B3E07 40T025

1	A/C compressor control
2	A/C on mode
3	A/C off mode
4	HOT
5	COLD
6	Air mix actuator opening angle correction amount
7	Time

MAX HOT and MAX COLD correction

- When the temperature is set to **29.0**, the air mix actuator opening angle is fixed at fully open and when set to **15.0**, it is fixed at fully closed.

Engine coolant temperature correction

- After the engine is started in winter, the air mix actuator opening angle is corrected so that it is adjusted to the HOT side to prevent discomfort caused by cold air blown from the vent. However, the engine coolant temperature correction is not performed when the ambient temperature is **10 °C {50 °F} or more**.