

AIR MIX ACTUATOR [FULL-AUTO AIR CONDITIONER]

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Purpose

- The air mix actuator moves the air mix door in the A/C unit to adjust the temperature of the air blown from the air vent.

Function

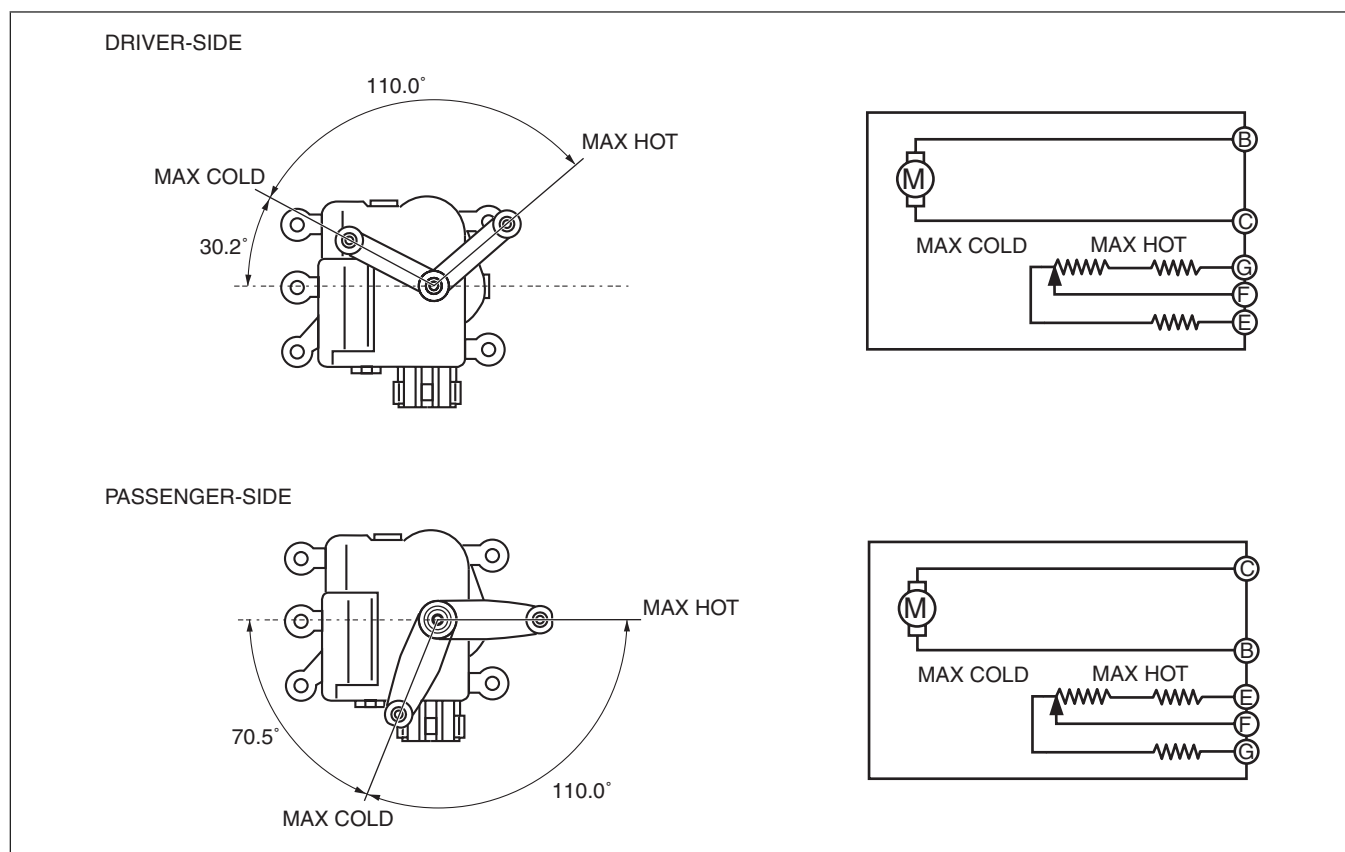
Door open/close function

- The air mix actuator drives the motor based on the signals from the climate control unit and moves the air mix door in the HOT or COLD direction.

Door position detection function

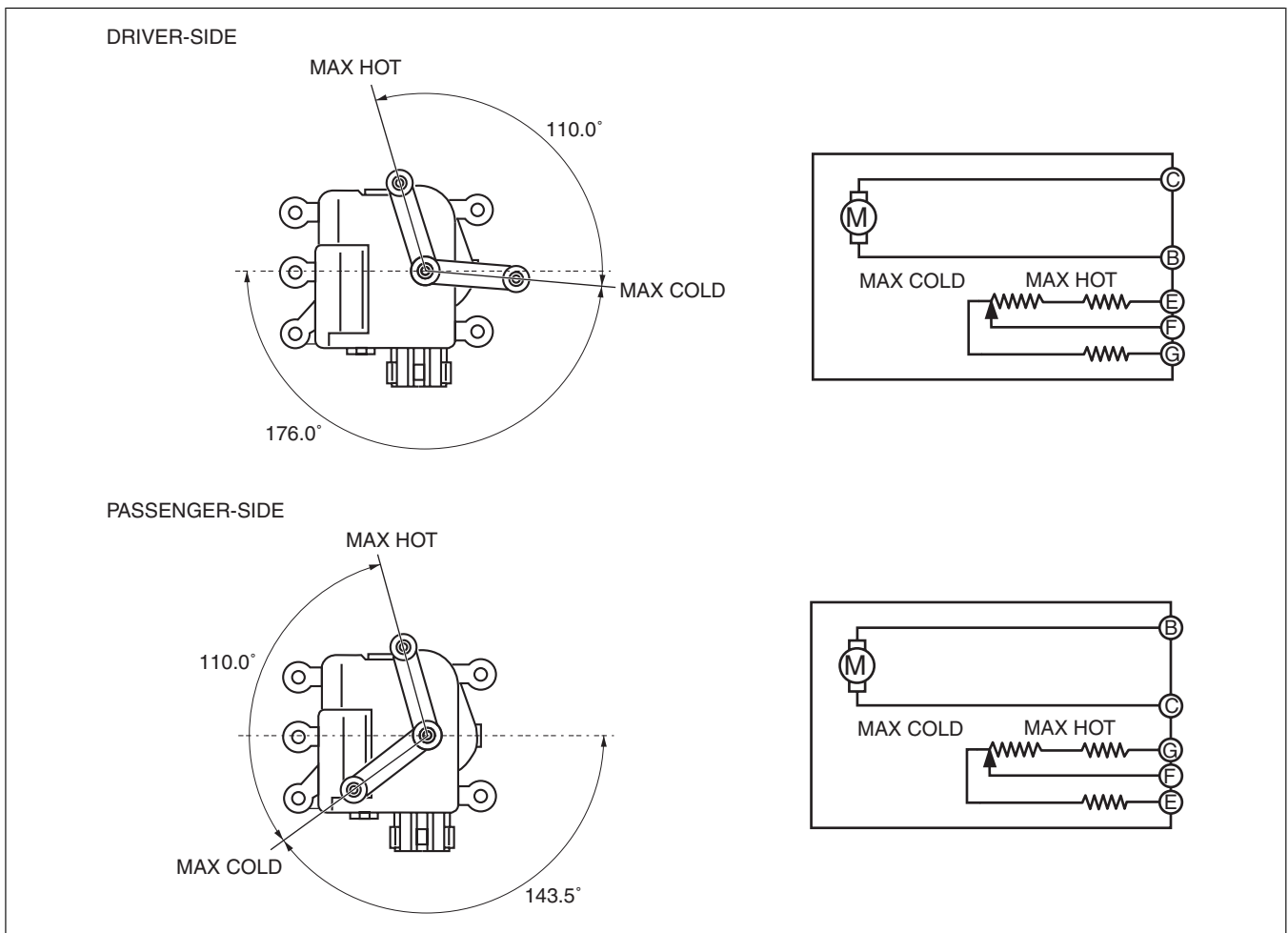
- The air mix actuator detects the change in the air mix door position using the potentiometer in conjunction with the motor drive, and gives feedback to the climate control unit based on electric signals.

L.H.D.



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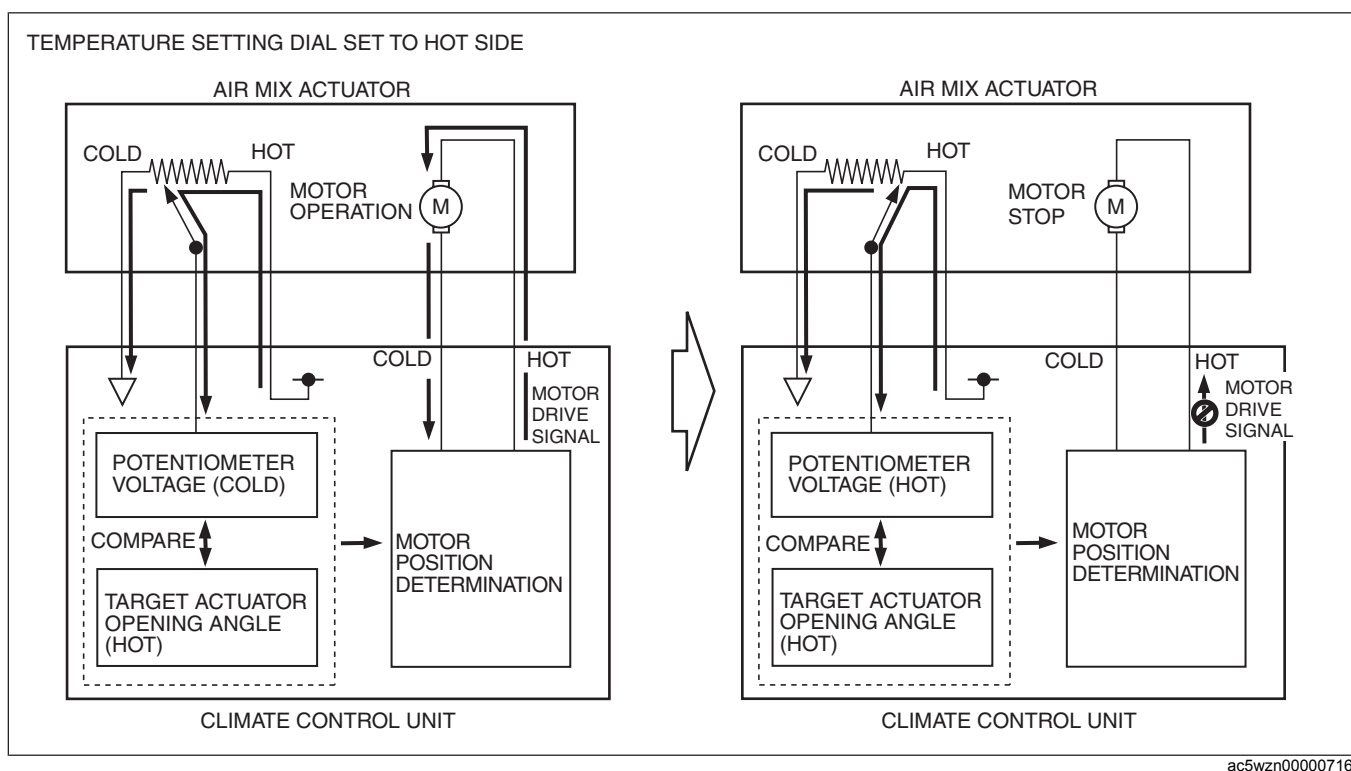
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Construction

- A potentiometer-type air mix actuator has been adopted.
- The air mix actuator is installed to both the driver and front passenger sides in the A/C unit.

Operation

1. The climate control unit calculates the target air mix actuator opening angle (target actuator opening angle) according to the airflow temperature control.
2. The climate control unit detects the current air mix actuator opening angle based on the voltage detected by the potentiometer in the air mix actuator.
3. The climate control unit compares the target actuator opening angle with the voltage from the potentiometer.
4. When the voltage detected by the potentiometer differs from the target actuator opening angle, the climate control unit outputs a motor drive signal to the air mix actuator.
5. When the voltage detected by the potentiometer is equal to the target actuator opening angle, the climate control unit stops the motor drive signal to the air mix actuator.



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Fail-safe

- Function not equipped.