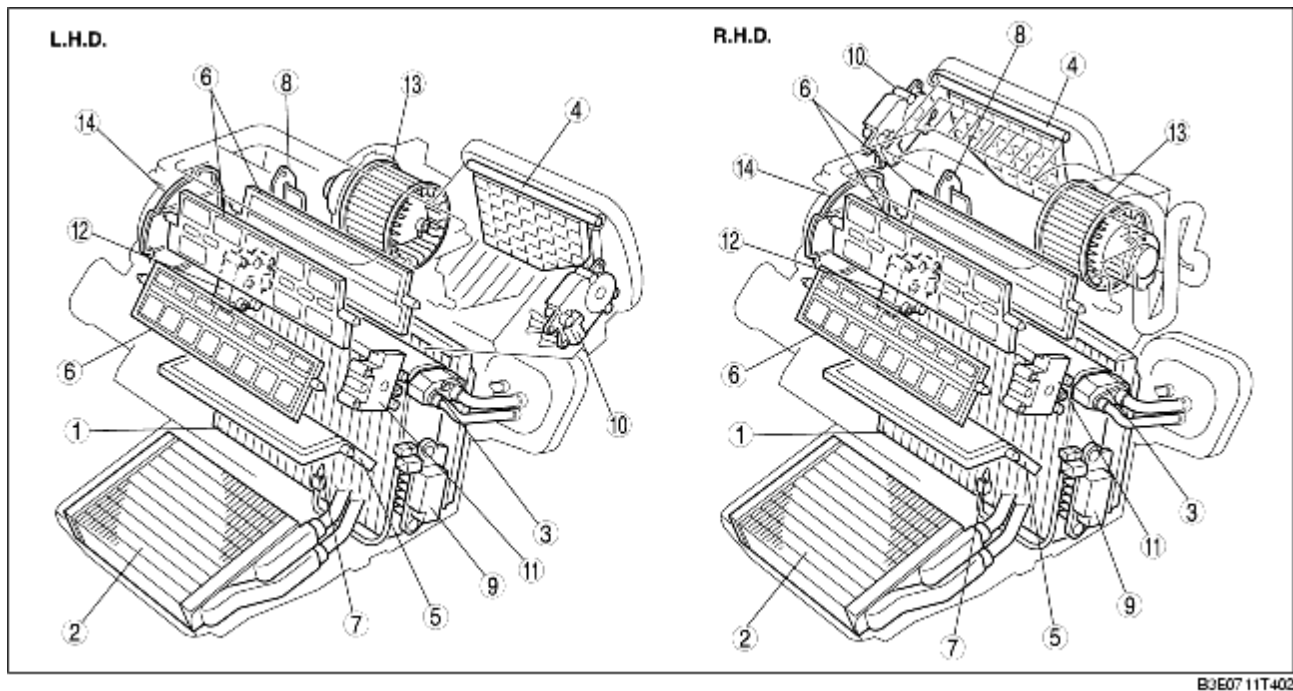


A/C UNIT CONSTRUCTION/OPERATION

B3E071161130T01

- The A/C unit which integrates the blower, cooling and heater units has been adopted.

Construction

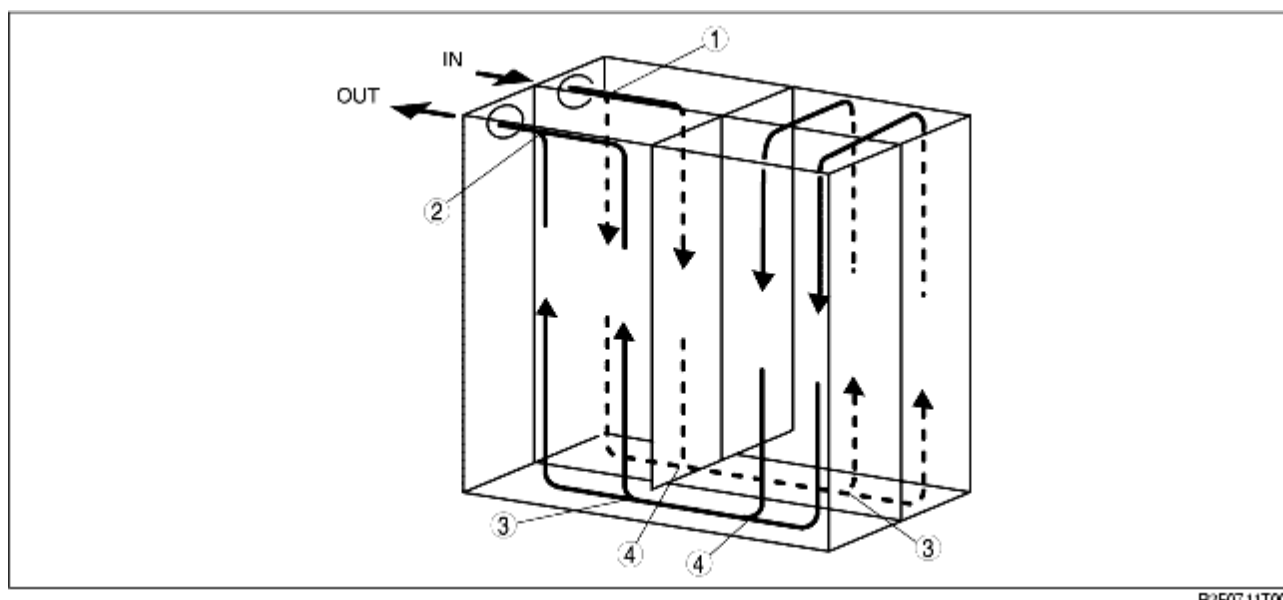


B3E07 11T402

1	Evaporator
2	Heater core
3	Expansion valve
4	Air intake door
5	Air mix door
6	Airflow mode door
7	Evaporator temperature sensor
8	Resistor (manual air conditioner)
9	Power MOS FET (full-auto air conditioner)
10	Air intake actuator
11	Air mix actuator (full-auto air conditioner)
12	Airflow mode actuator (full-auto air conditioner)
13	Blower motor
14	Airflow mode main link

Evaporator

- The double-tank drawn cup is the same as the previous model except that a new refrigerant flow pattern has been adopted. Due to this, size and weight reduction is achieved while maintaining performance.

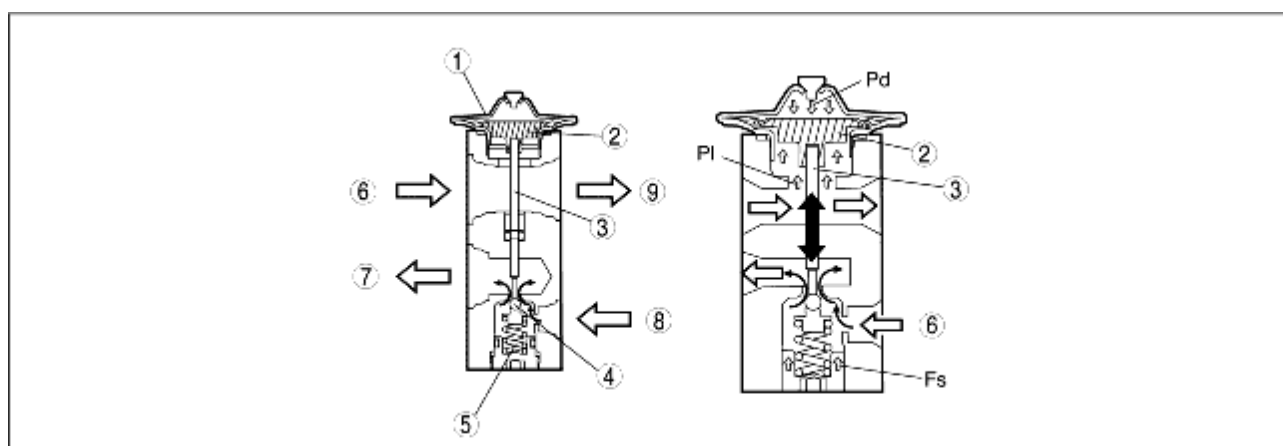


B3E07 11T005

1	Separation part
2	Rejoining point

Expansion valve

- The expansion valve causes a sudden decrease in the pressure of the liquid refrigerant. This atomizes the refrigerant, making it easier for the evaporator to vaporize it. The expansion valve also regulates the flow volume of the refrigerant sent to the evaporator.
- The amount of refrigerant delivered to the evaporator is adjusted by the opening angle of the ball valve in the expansion valve.
- Opening angle is adjusted by a balance of the R-134a pressure (P_d) in the diaphragm, and a composite force of evaporator discharge pressure (P_i) against the lower part of the diaphragm and spring force (F_s) pushing up the ball valve. When P_i increases, the temperature of the temperature sensor near the diaphragm rises and the P_d heated by the R-134a in the diaphragm increases. When the P_d increases more than $P_i + F_s$, the diaphragm is pushed down, and the shaft attached to end of the temperature sensor rod pushes down the ball valve, increasing the amount of liquid refrigerant flow. When the evaporator discharge refrigerant temperature decreases, $P_i + F_s$ increases more than P_d , the ball valve is pushed up, and the amount of liquid refrigerant flow decreases.



A6E95 16T003

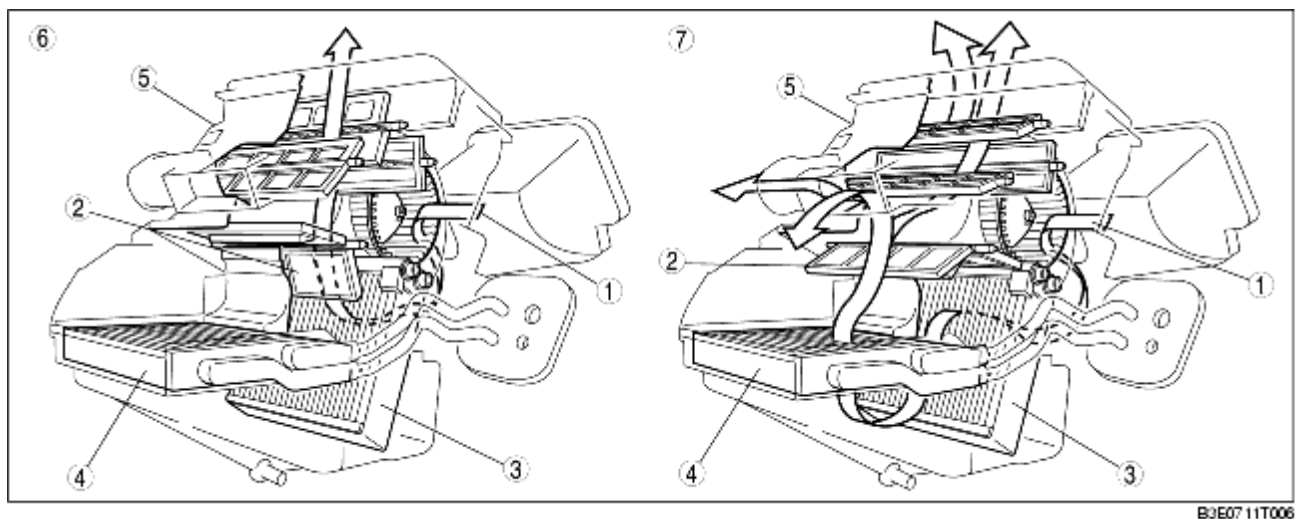
1	Diaphragm
2	Temperature sensor
3	Shaft
4	Ball valve
5	Spring
6	From evaporator
7	To evaporator
8	From condenser
9	To condenser

Operation

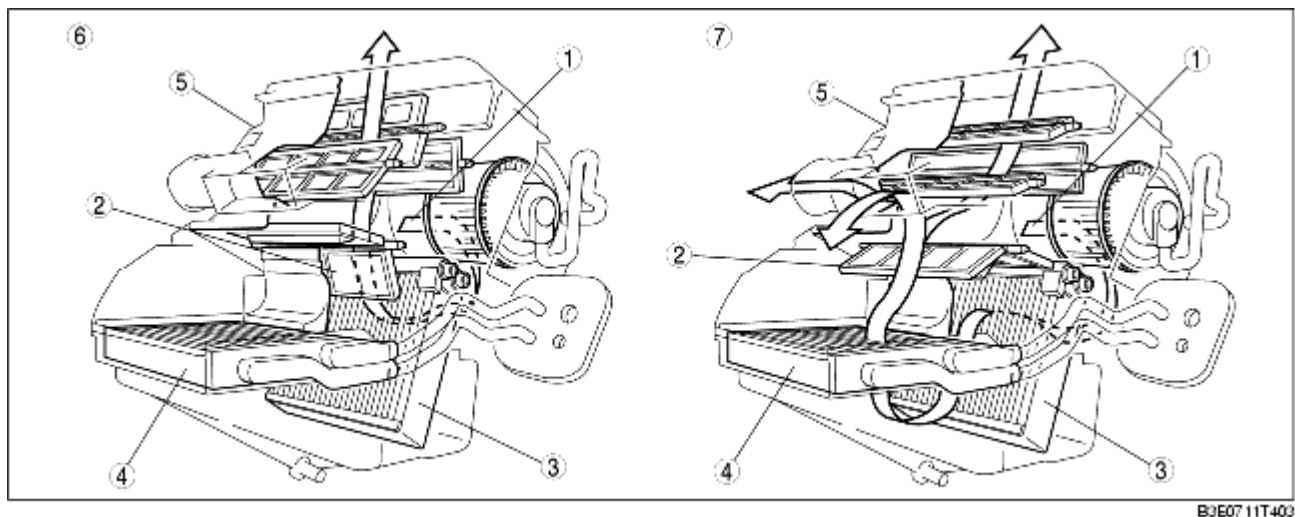
Air Mix Door Operation

- The air mix door, installed in the A/C unit, controls HOT or COLD position, depending on the position of the temperature control dial. As a result, airflow distribution changes, and the airflow temperature is controlled.

L.H.D.



R.H.D.

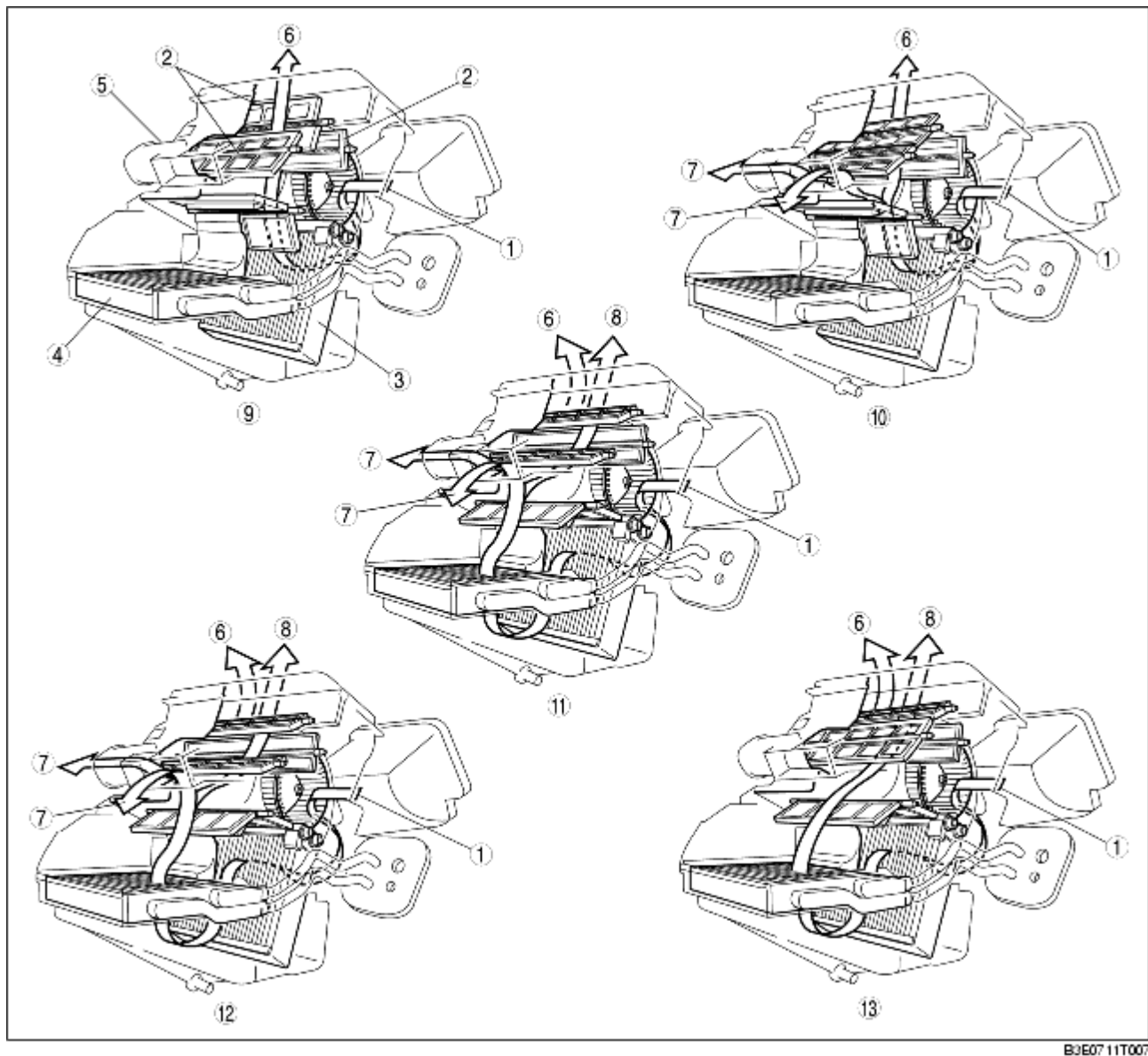


1	Airflow
2	Air mix door
3	Evaporator
4	Heater core
5	A/C unit
6	COLD
7	HOT

Airflow Mode Door Operation

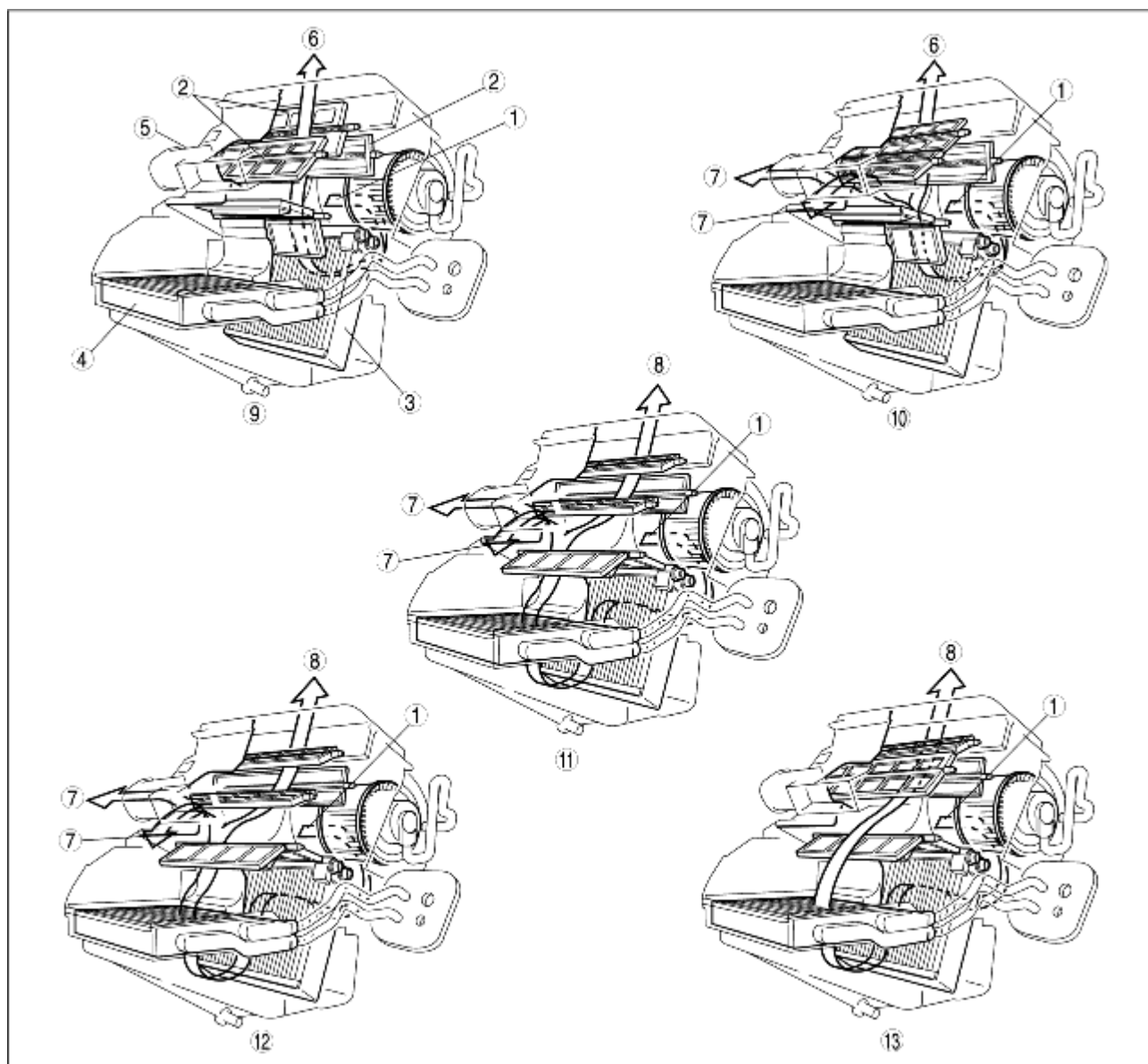
- The airflow mode doors move to VENT, BI-LEVEL, HEAT, HEAT/DEF, or DEFROSTER position, depending on the position of the airflow mode selector dial. As a result, airflow mode changes.

L.H.D.



B3E07 11T007

R.H.D.



B3E07 11T404

1	Airflow
2	Airflow mode door
3	Evaporator
4	Heater core
5	A/C unit
6	To center and side vent
7	To front and rear heat
8	To defroster and side demister
9	VENT
10	BI-LEVEL
11	HEAT
12	HEAT/DEF
13	DEFROSTER