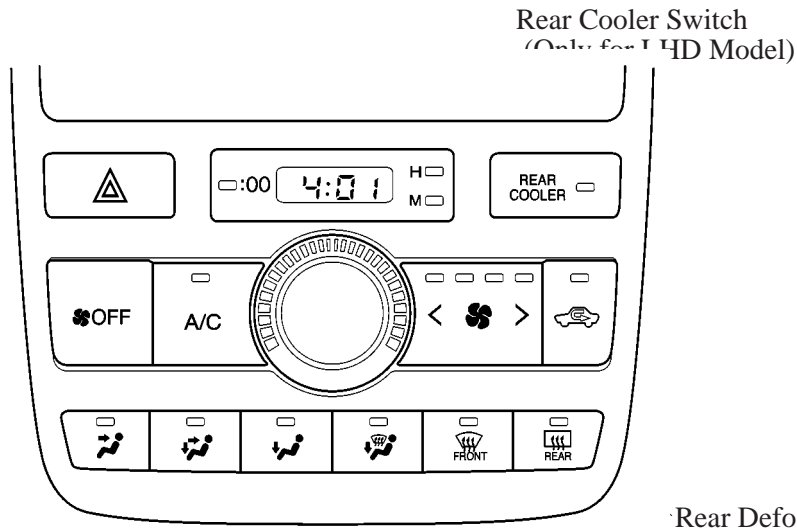


■ CONSTRUCTION AND OPERATION

1. Front Heater Control Panel

The push button type heater control panel is used.

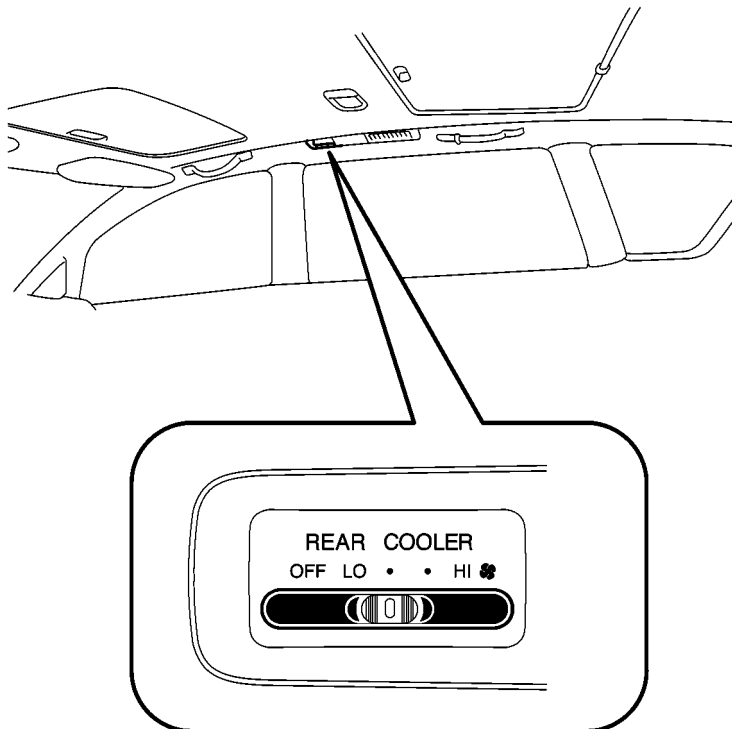
A rear defogger switch with timer (approx. 15 minutes) and a rear cooler switch have been provided on this control panel for ease of operation.



206BE14

2. Rear Cooler Blower Switch

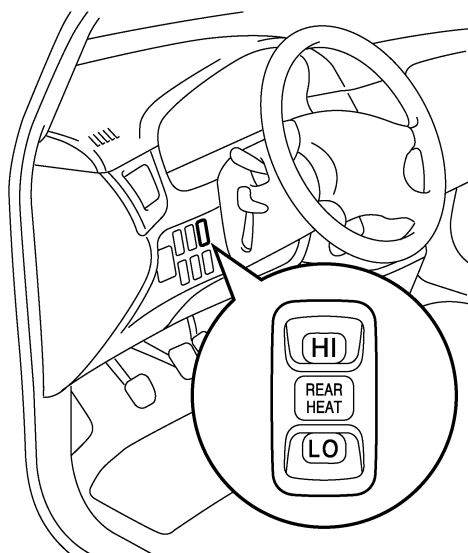
The rear cooler blower switch has been provided at the blower outlet for the second seat. This switch has 4 blower speeds.



206BE15

3. Rear Heater Switch

The rear heater switch has been provided on the instrument panel. This switch has 2 blower speeds: LO and HI.



LHD Model

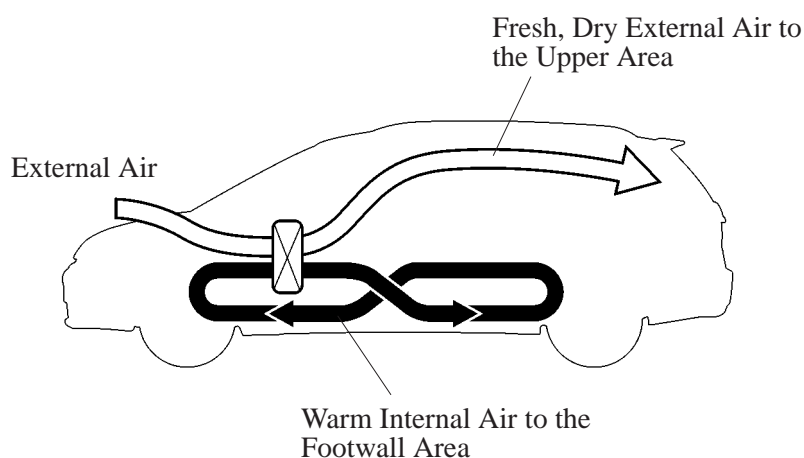
206BE16

4. Front Air Conditioner and Heater Unit

General

- A semi-center location air conditioner and heater unit, in which the multi tank type evaporator and straight flow heater core are placed in the vehicle's longitudinal direction, has been adopted. As a result, air conditioner and heater unit has been made more compact and lightweight than that of the previous model.
- A 2-way flow type air conditioner and heater unit that excels in heating and demisting performance has been provided on the 1CD-FTV engine model for Europe, and on the 1AZ-FE engine LHD model for Europe with cold area specification.

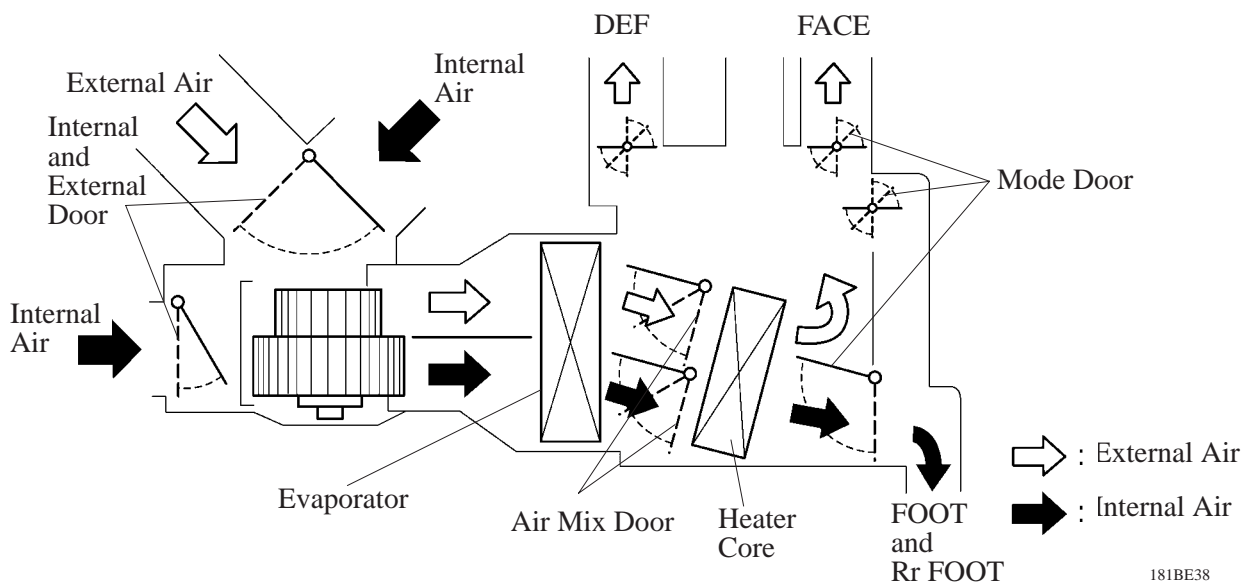
This unit, which introduces external air and internal air simultaneously, discharges warm internal air to the footwell area, and the fresh, dry external air to the upper area. Thus, it realizes both excellent heating performance and demisting performance.



206BE17

2-Way Flow Unit

- A partition plate divides the inside of the air conditioner unit into two parts, the external air passage, and the internal air passage. Thus, by controlling the external and internal air door separately, the external air and internal air are introduced into the cabin in the following three modes: bi-level fresh-air mode, recirculation mode, and bi-level fresh-air/recirculation (2-way flow) mode. In the bi-level fresh-air/recirculation mode, the partition door is closed to prevent the external air and the internal air from intermixing.



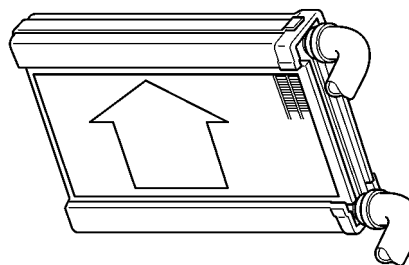
- When all the conditions listed below are met, the external air door, internal air door, and partition door which are controlled by the air conditioner amplifire, are switched to the bi-level fresh-air/recirculation mode.

- Flesh-air mode in the selected state
- Temperature control switch in the MAX HOT state
- Mode select switch in either FOOT or FOOT/DEF state

HEATER CORE

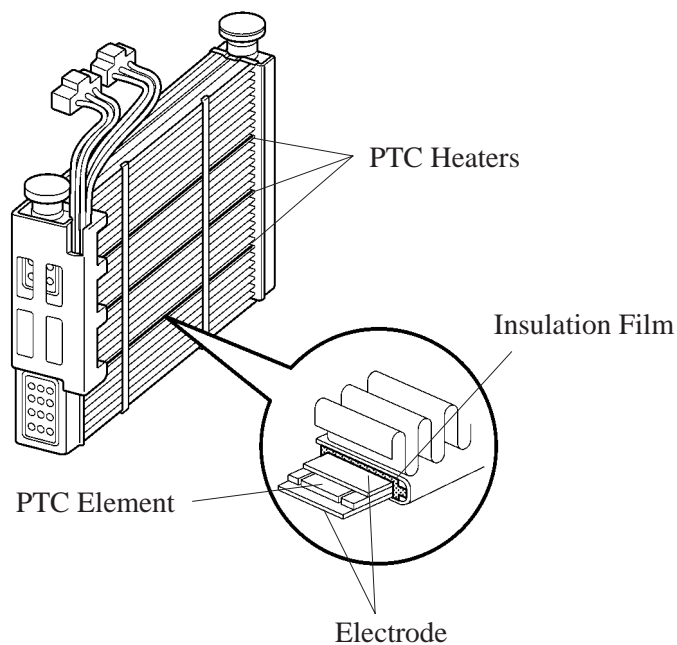
1) General

A compact, lightweight, and highly efficient straight flow (full-path flow) aluminum heater core has been adopted.



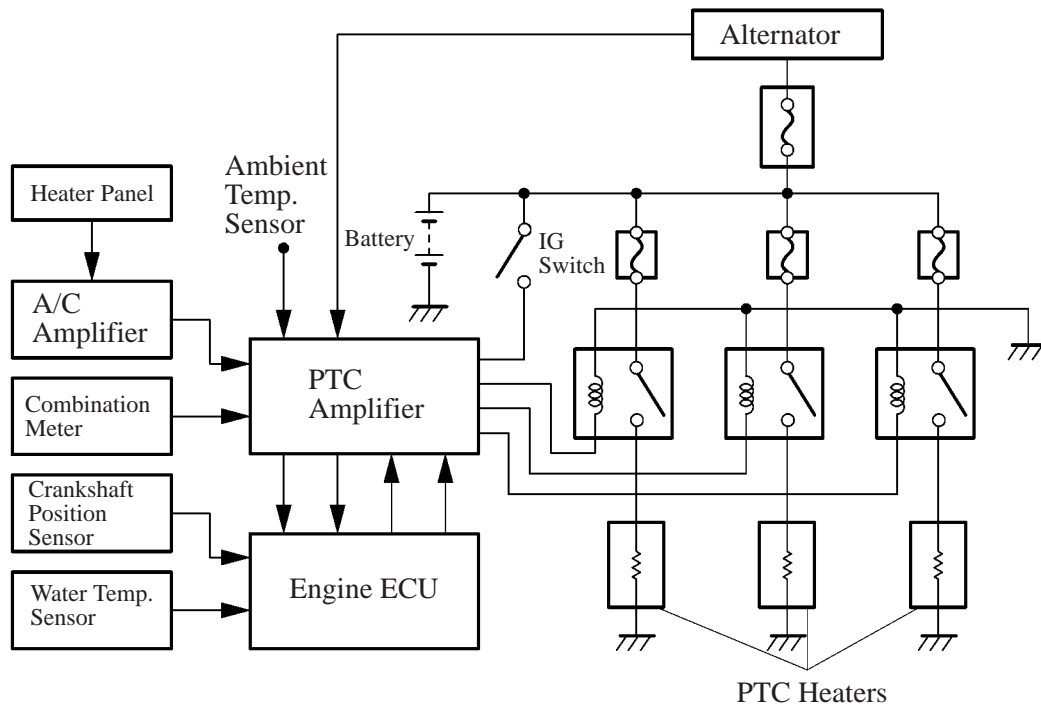
152BE21

Three PTC (Positive Temperature Coefficient) heaters have been provided on the LHD model for Europe with the cold area specification in order to improve heater performance. The heaters have been built into the heater core.



181BE14

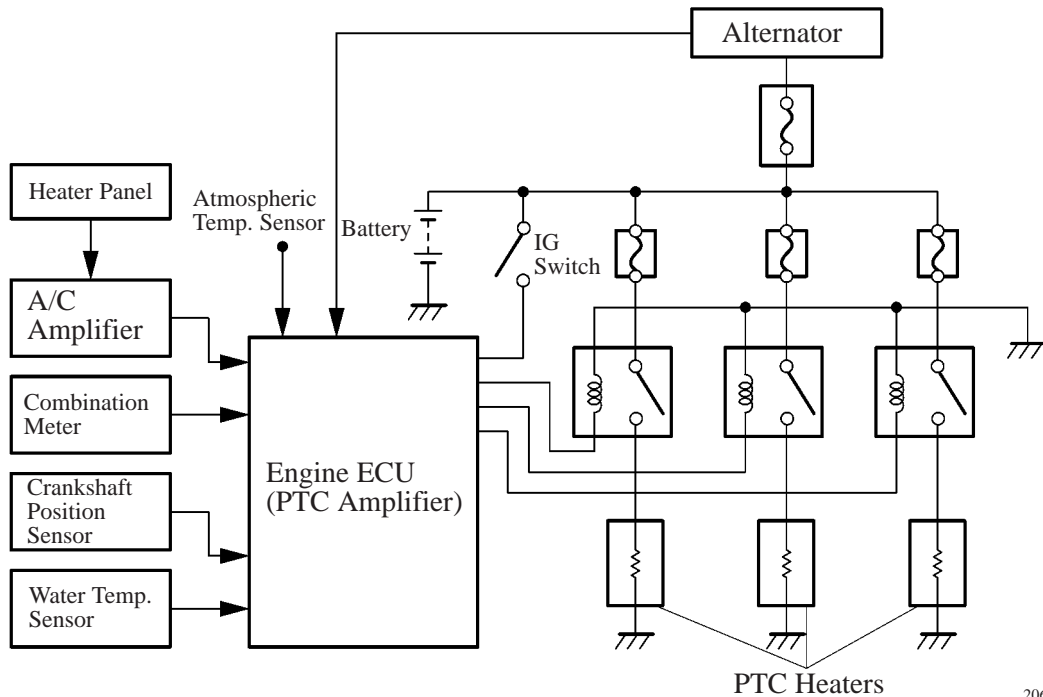
2) Wiring Diagram



206BE18

1AZ-FE Engine

BE



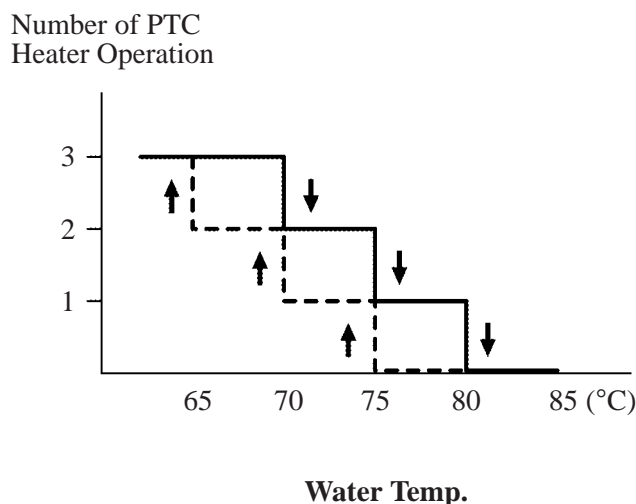
206BE19

1CD-FTV Engine

3) PTC Heater Operating Condition

The ON/OFF function of the PTC heater is controlled by the PTC amplifier in accordance with the water temperature, ambient temperature, engine speed, temperature setting, and the electrical load (alternator power ratio).

However, on the 1CD-FTV engine model, the PTC amplifier is built into the engine ECU. For example, with water temperature, the number of PTC heater operation varies as shown in the graph below.

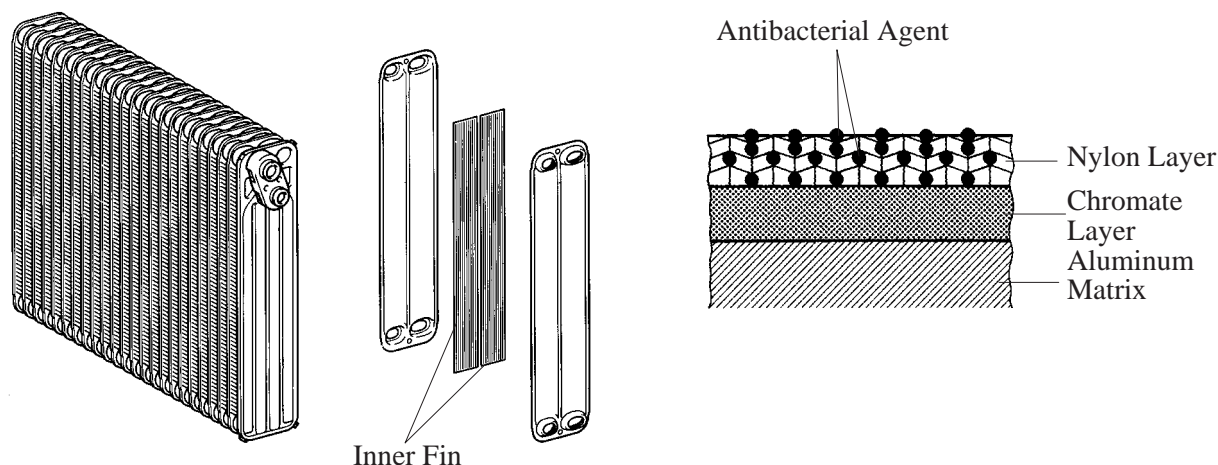


181BE16

Furthermore, the number of PTC heater operation is controlled in a complex manner in accordance with the ambient temperature, engine speed, temperature setting, and the electrical load (alternator power ratio).

Evaporator

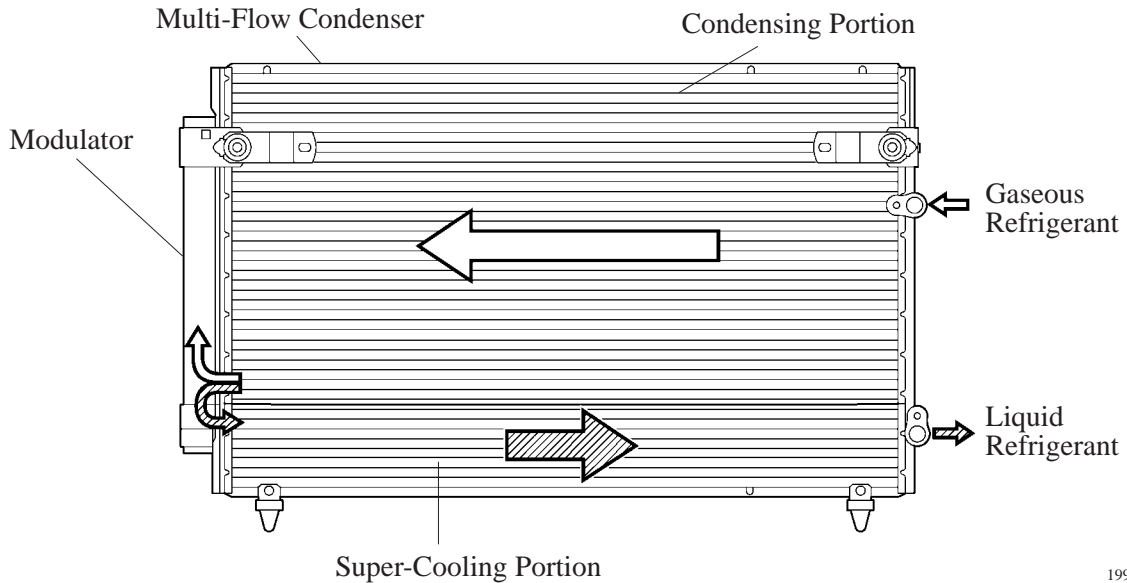
By placing the tanks at the top and the bottom of the evaporator unit and by adopting an inner fin construction, the heat exchanging efficiency has been improved and the evaporator unit's temperature distribution has been made more uniform. As a result, it has become possible to realize a thinner evaporator construction. Furthermore, the evaporator body has been coated with a type of resin that contains an antibacterial agent in order to minimize the source of foul odor and the propagation of bacteria.



163BE17

5. Condenser

- This condenser has adopted the sub-cool cycle for its cooling cycle system to improve the heat exchanging efficiency.
- A multi-flow condenser and a gas-liquid separator (modulator) have been integrated.
- The multi-flow condenser consists of two cooling portions: the condensing portion and the super-cooling portion.

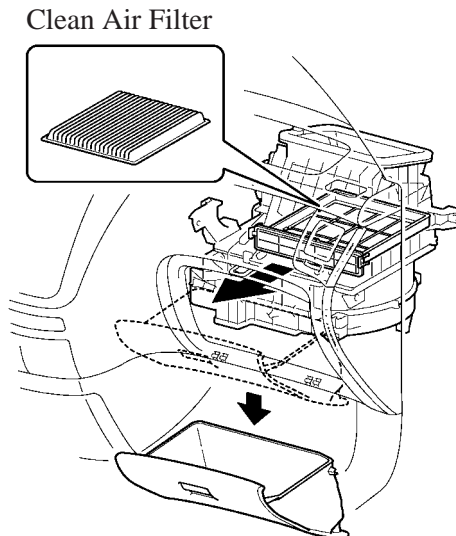


199BE402

6. Clean Air Filter

A clean air filter that excels in removing pollen and dust is standard equipment.

This filter, which cleans the air in the cabin, is made of polyester. Thus, it can be disposed of easily as a combustible material, a feature that is provided in consideration of the environment.



206BE40

Destination	Replacement Interval
Europe and Australia	Normal: 30,000 km (18,000 mile)
	Dusty Road: 15,000 km (9,000 mile)
General Countries	Normal: 30,000 km (18,000 mile)
	Severe: 15,000 km (9,000 mile)