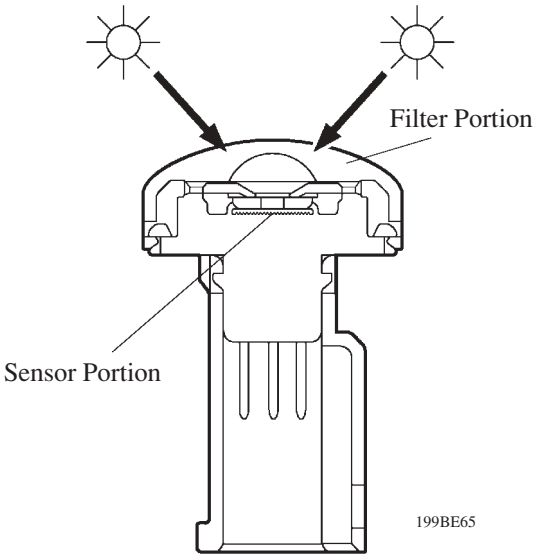
5. Construction and Operation

Solar Sensor

- Detects (in the form of changes in the current that flows through the built-in photo diode) the changes in the amount of sunlight at the driver and front passenger sides (2 direction) and outputs them to the air conditioner ECU.
- This sensor is located in the driver side above the instrument panel.



Air Conditioner ECU

The air conditioner ECU has following control.

Control	Outline	Automatic	Manual
Outlet Air Temp. Control	In response to the temperature control switch setting, the required outlet air temperature, evaporator temperature sensor, and engine coolant temperature sensor compensations are used by the air mix control damper control to calculate a tentative damper opening angle, through an arithmetic circuit in the air mix damper, to arrive at a target damper opening angle.	○	—
Blower Control	Controls the operation of the blower motor in accordance with the signals from the engine coolant temperature sensor, evaporator temperature sensor, and the solar sensor.	○	—
Air Outlet Control	When the AUTO switch has been turned ON, automatic control causes the servomotor (for air mix control) to rotate to a desired position in accordance with the target damper opening, which is based on the calculation of the required outlet air temperature.	○	—
	In accordance with the engine coolant temperature, outside air temperature, amount of sunlight, required blower outlet temperature, and vehicle speed conditions, this control automatically switches the blower outlet to the FOOT/DEF mode to prevent the window from becoming fogged when the outside air temperature is low.	○	—
Air Inlet Control	Automatically controls the air inlet control damper in accordance with the calculation of the required outlet air temperature.	○	○
	Drives the servomotor (for air inlet) according to the operation of the air inlet control switch and fixes the dampers in the FRESH or RECIRC position.	○	—
Compressor Control	Turns OFF the magnetic clutch of the compressor when the blower motor is turned OFF at the time the engine coolant temperature is below a predetermined value, an abnormal refrigerant pressure has been input, or the discharge temperature of the evaporator is below a predetermined value.	○	○

(Continued)