

Control	Outline
	HOT).
Plasmacluster (Ion Generator) Control*2	The Plasmacluster generator is controlled by the air conditioning amplifier assembly and operates in conjunction with the blower with fan motor sub-assembly.
ECO Mode Control	When the ECO MODE switch is turned on, the A/C amplifier limits the air conditioning system performance.
Remote Air Conditioning System Control*3	When the remote A/C switch on the key (electrical transmitter) is pressed, the air conditioning system is automatically controlled and operated for a maximum of 3 minutes using power from the HV battery.

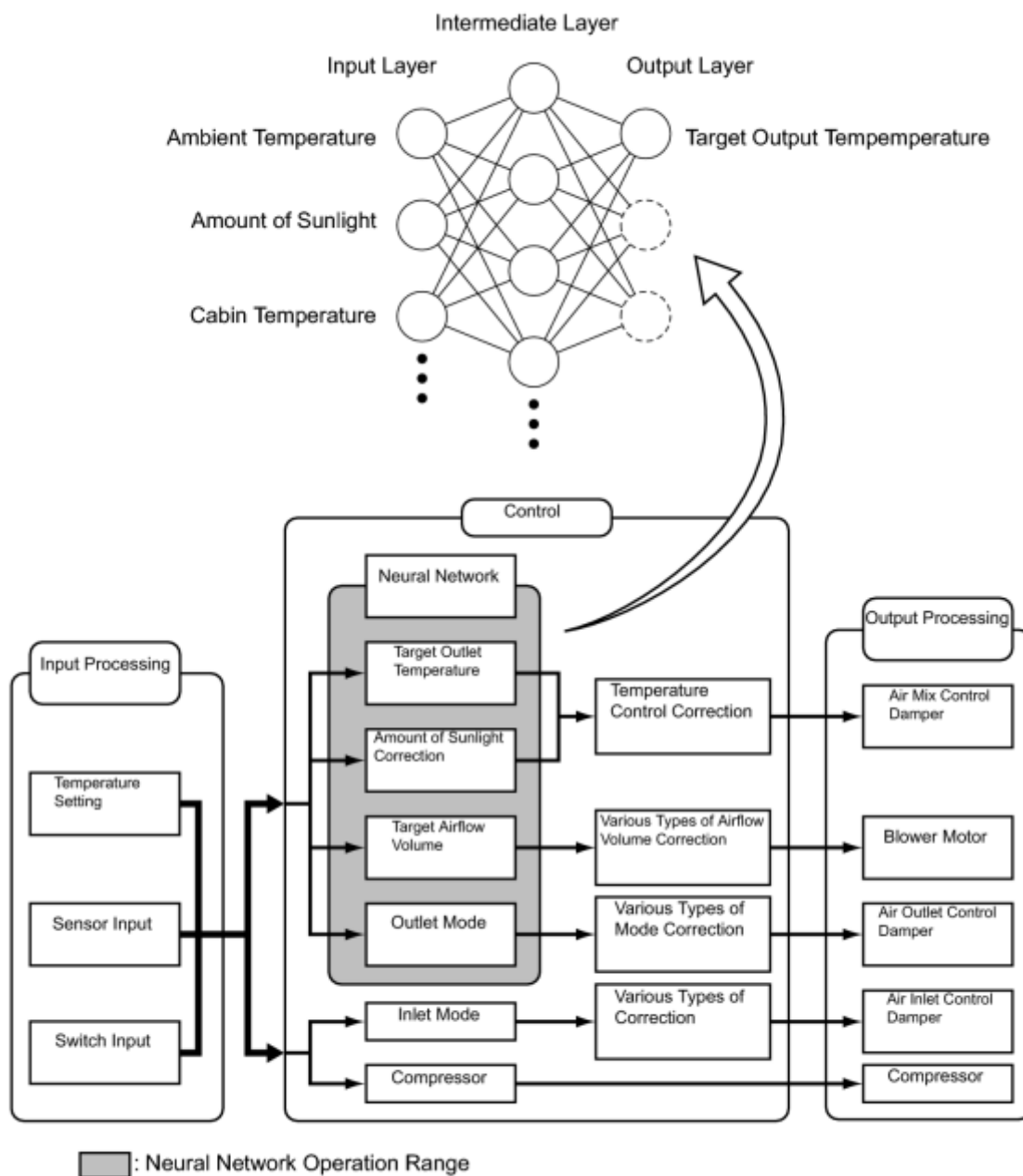
- \*1: w/ PTC heater assembly
- \*2: w/ Plasmacluster (ion generator)
- \*3: w/ Remote air conditioning system

## 2. NEURAL NETWORK CONTROL

- In the previous automatic air conditioning systems, the A/C amplifier determined the required outlet air temperature and blower air volume in accordance with the calculation formula that has been obtained based on information received from the sensors.

However, because the senses of a person are rather complex, a given temperature is sensed differently, depending on the environment in which the person is situated. For example, a given amount of sunlight can feel comfortably warm in a cold climate, or extremely uncomfortable in a hot climate. Therefore, as a technique for effecting a higher level of control, a neural network has been adopted in the automatic air conditioning system. With this technique, the data that has been collected under varying environmental conditions is stored in the A/C amplifier. The A/C amplifier can then effect control to provide enhanced air conditioning comfort.

- The neural network control consists of neurons in the input layer, intermediate layer and output layer. The input layer neurons process the input data of the outside temperature, the amount of sunlight and the room temperature based on the outputs of the switches and sensors, and output them to the intermediate layer neurons. Based on this data, the intermediate layer neurons adjust the strength of the links among the neurons. The sum of these is then calculated by the output layer neurons in the form of the required outlet temperature, solar correction, target airflow volume and outlet mode control volume. Accordingly, the A/C amplifier controls the servo motors and blower motor in accordance with the control volumes that have been calculated by the neural network control.



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### 3. MODE POSITION AND DAMPER OPERATION

#### (a) Mode Position and Damper Operation