Upper lever (for ventilator and temperature control)

Position 4: Ventilator and heater turned off.
Position 5: Ventilator blowing fresh air into car's interior (for ventilation at slow speeds or when parking). The lower lever must be anywhere between Position 2 and 3.
Position 6: Heater turned on. By moving the lever anywhere between Position 6 and 7, the required temperature setting is made for temperatures ranging from approx. 40° C to approx. 80° C.

The lower lever controls the flow of air to the defrosters or the floor area, or to both.

Lower lever

Position 1: With lever fully to the right, the flow of air is completely shut off. The heater will not operate when the lever is in this position.
Position 2: Warm air is directed to the defrosters.
Position 3: Warm air is directed to the floor area.

By moving the lever anywhere between Position 2 and 3, an appropriate distribution of air to both, the defrosters and the floor area is effected.

By moving the upper lever to Position 6, all appropriate heater components are put into operation, as follows:

The motor driving the blowers for combustion and ventilating air receives current. The coil is energized. The glow plug receives current through the thermoswitch. The electric fuel pump and fuel solenoid receive current. Thus, all electric components of the heater are provided with current and the heater begins to operate. The combustion air blower forces air into the combustion chamber. The electric fuel pump forces fuel through the pressure regulator and fuel solenoid to the nozzle which sprays the fuel onto the rotating diffuser. The atomized mixture combines with combustion air in the combustion chamber and is ignited by the spark plug, or the glow plug. The flame spreads and combustion gases flow through the combustion chamber and the heat exchanger. The ventilating air blower draws air through the louvered vent below the windshield and forces the air to pass along the jacket of the heat exchanger, causing the air to heat up in the process.

It should be noted that the spark plug operates continuously since the breaker points are actuated by the blower motor.

To maintain the pre-set temperature, the heater has to work intermittently, that is, when the warm air which leaves the heater reaches the pre-set temperature, the fuel solenoid is closed and the generation of heat discontinued. The fuel solenoid is governed by the heat control switch which operates in accordance with settings made or heat required.

To ensure a maximum safety of operation, the heater has been equipped with the following safety devices:

1. Overheat switch

   This switch controls the flow of current to the fuel solenoid. If the temperature in the heater should rise to a predetermined maximum, the overheat switch will shut off the fuel.

2. Thermoswitch (purge switch)

   When the heater is turned off, the thermoswitch allows the blower motor to run for a short period of time to facilitate cooling and purging the heat exchanger. The thermoswitch also controls the flow of current to the glow plug and safety switch at the initial engagement of the heater.