

### OPERATING PRINCIPLE

The vehicle with a **G9T** engine is fitted with an additional heating system as an option in some countries (Germany, Nordic countries...). This comprises an engine coolant heater, mainly for starting when cold.

The heater is switched on if the following three conditions are met:

- starting the engine,
- air intake temperature less than **5 °C**,
- coolant temperature less than **75 °C**.

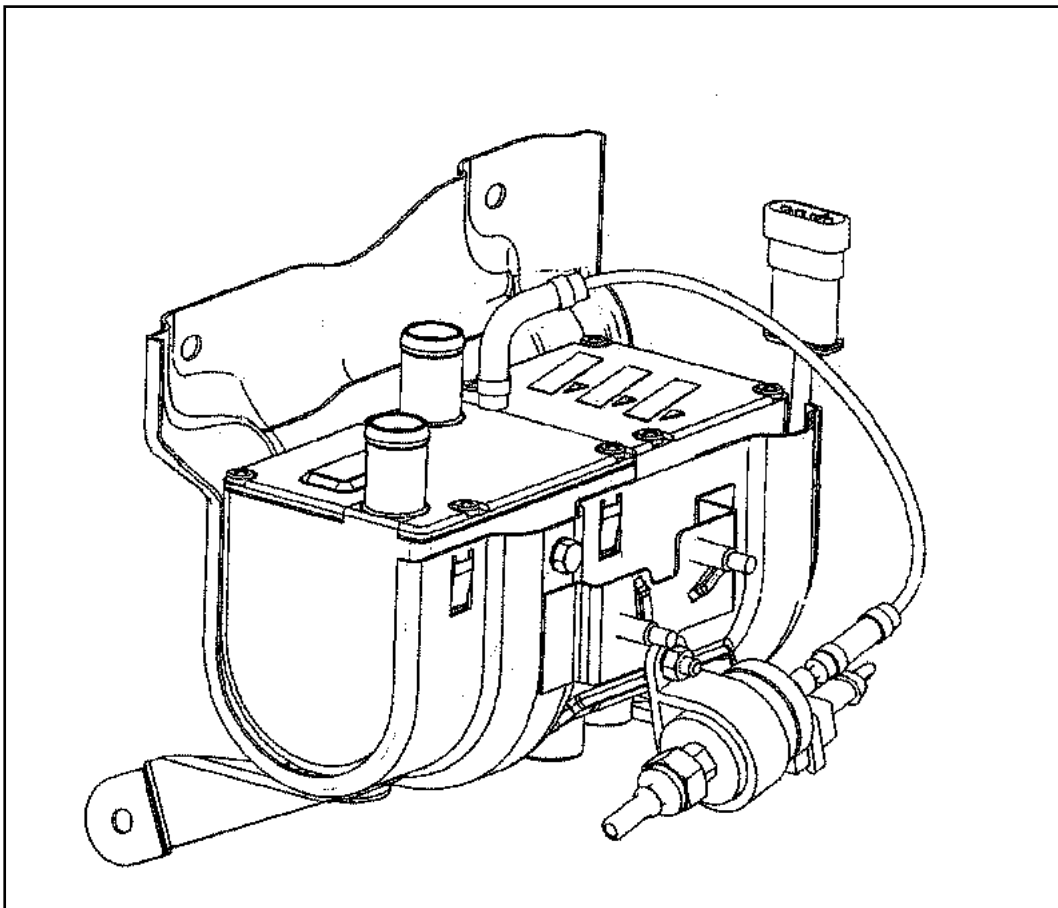
The heater is usually switched off when the engine is stopped or the coolant temperature reaches **85 °C**.

The temperature is measured inside the heater.

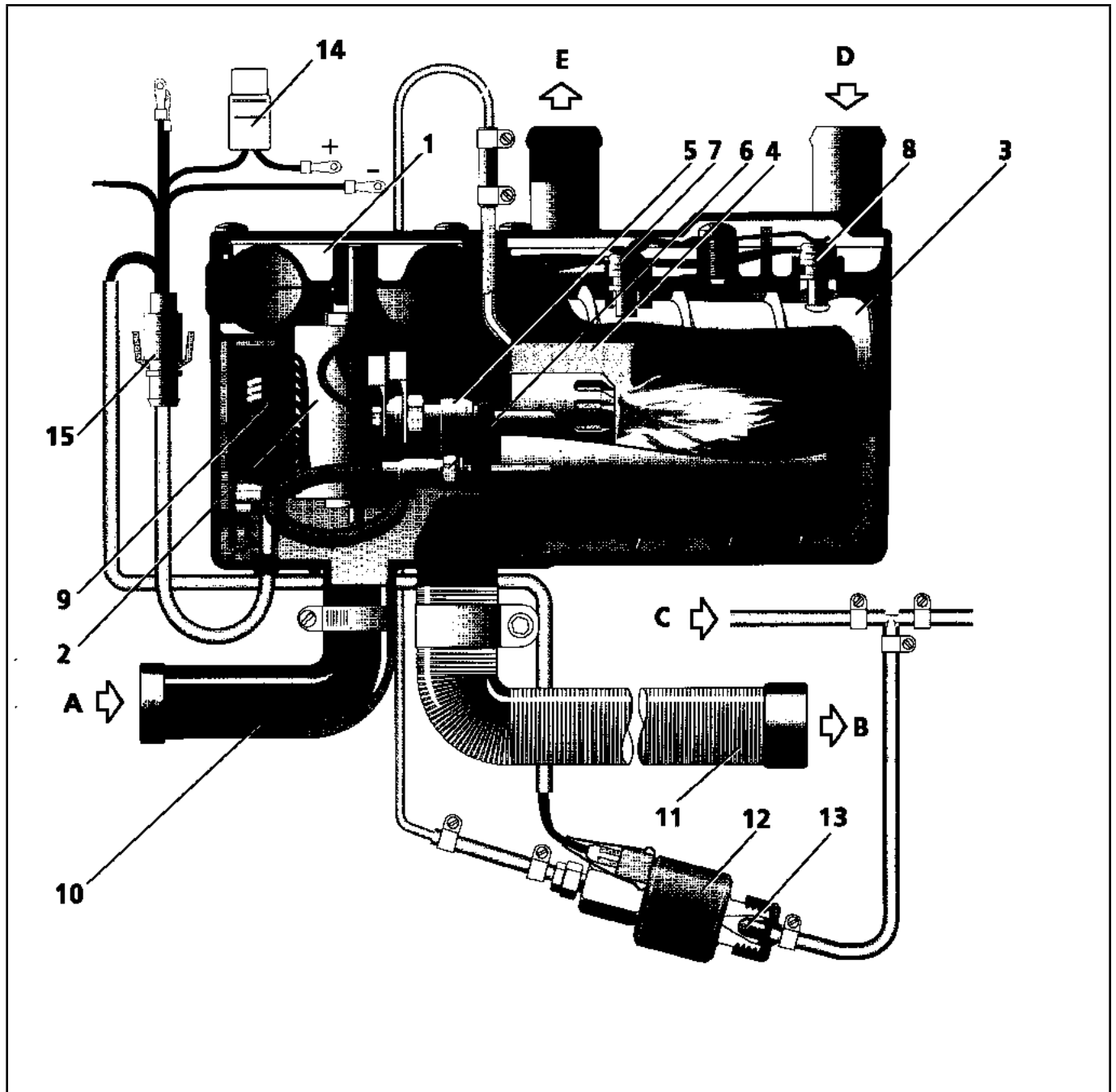
The driver does not control operation.

The system is fitted with several safety features (see **page 61-3**).

The heater is connected as the outlet of the thermoplunger unit on the coolant circuit and operates independently of this. It is fitted outside the left-hand side member in the front bumper.



**DIAGRAM OF THE D3WZ HEATER**



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1 Air blower turbine</li> <li>2 Electric motor</li> <li>3 Heat exchanger</li> <li>4 Combustion chamber</li> <li>5 Spark plug</li> <li>6 Flame detector</li> <li>7 Temperature sensor</li> <li>8 Overheating switch</li> <li>9 Control unit</li> <li>10 Combustion air intake tube</li> <li>11 Burnt gas exhaust pipe</li> <li>12 Dosing pump</li> </ul> | <ul style="list-style-type: none"> <li>13 Fuel filter</li> <li>14 Main fuse</li> <li>15 Interface</li> </ul><br><ul style="list-style-type: none"> <li>A Combustion air inlet</li> <li>B Exhaust gas outlet</li> <li>C Vehicle fuel circuit</li> <li>D Coolant inlet (thermoplunger outlet)</li> <li>E Coolant outlet (towards the heater matrix)</li> </ul> |
|--|--|

# HEATING

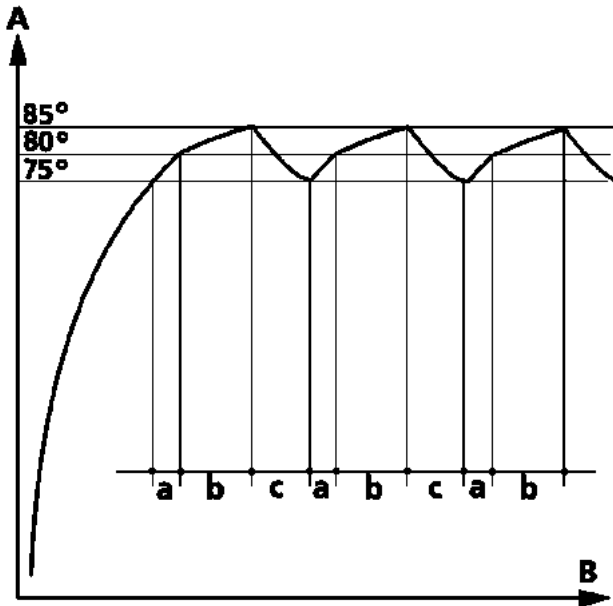
## Additional heating

61

### TECHNICAL SPECIFICATIONS

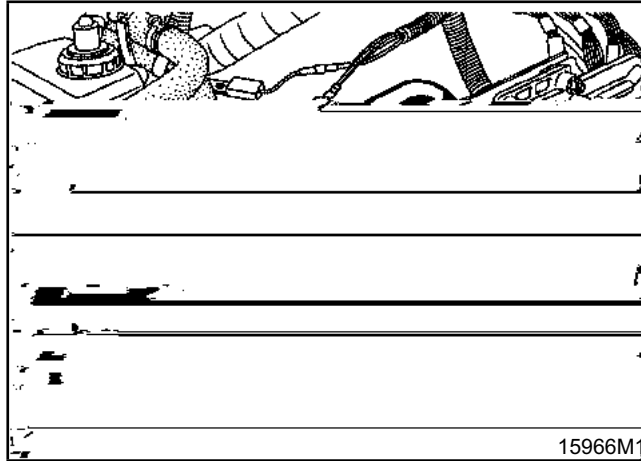
The heater is fitted with an igniter appropriate for the vehicle fuel.

It operates in two power c5 TL T(l)-er t .152268(4( ) T 12.-)-444.21(L10.152268(p°))0.152268( )0.1235226App-0.16



### RIGID HEATER COOLANT PIPES

These are fixed to the body by bolt (A).  
When refitting, tighten this bolt last after refitting and tightening all the clips.

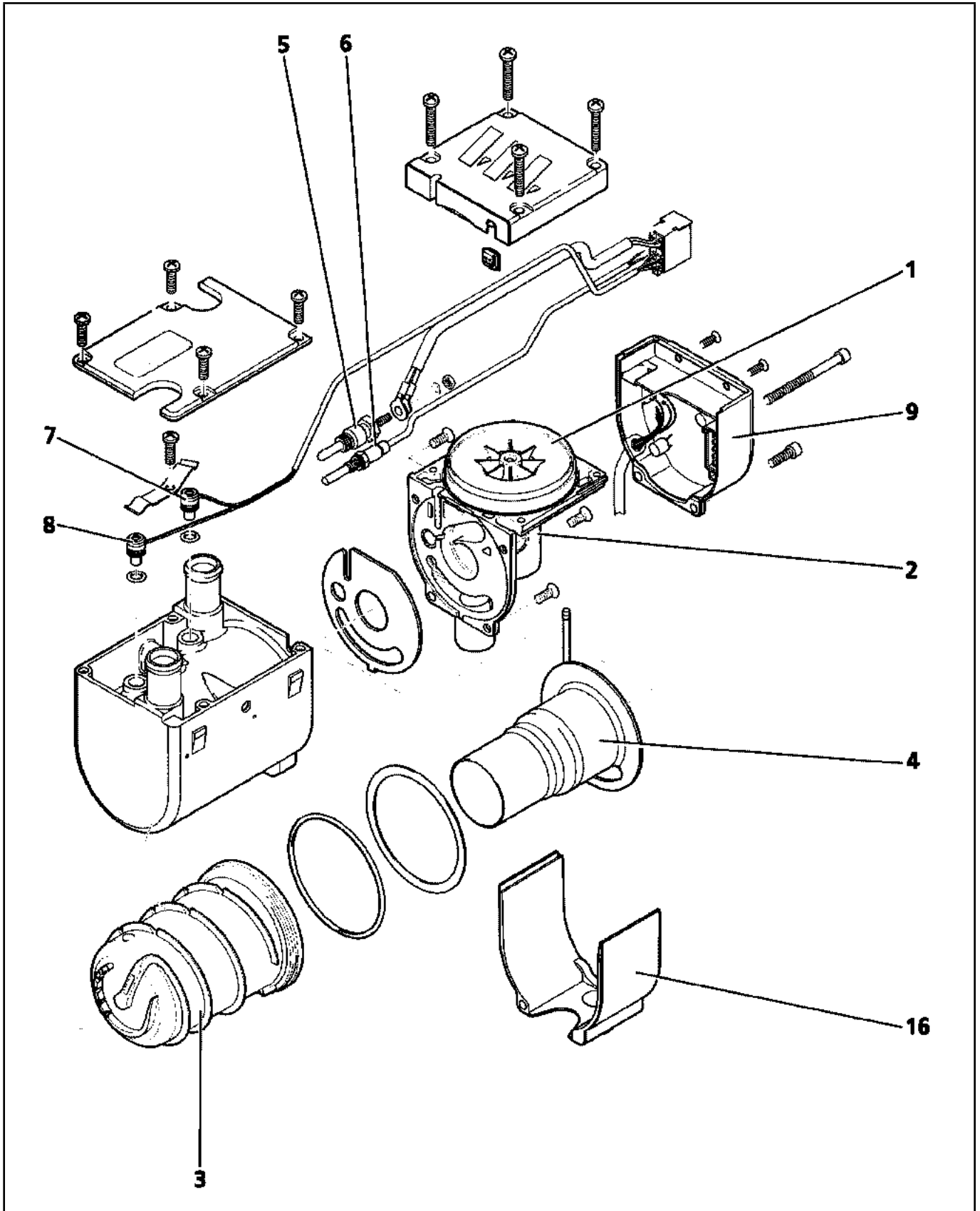


# HEATING

## Additional heating

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### EXPLODED VIEW OF THE HEATER



Marking as on page 61-2.

16 Cap

### MAINTENANCE

The principal maintenance operations on this assembly are:

- replacing the ignition spark plug (5),
- cleaning the filter at the pump inlet (13) (see **page 61-2**).

### REMOVING - REFITTING COMPONENTS

#### FUEL PUMP INLET FILTER (13)

Remove the front bumper.

Rotate the pump (12) (see **page 61-2**) if it turns and loosen the union covering the filter (13). Clean or replace the filter if there is a combustion problem.

#### IGNITION SPARK PLUG

Disconnect and remove the heater without draining the cooling circuit (use pliers **Mot. 453-01**).

Remove:

- the turbine cover (1),
- the control unit (9) and the cap (16),
- the spark plug (5) after disconnecting it.

#### FLAME DETECTOR

Disconnect and remove the heater without draining the cooling circuit (use pliers **Mot. 453-01**).

Remove:

- the turbine cover (1),
- the control unit (9) and the cap (16).

Disconnect the flame connector by pulling the flat terminals from the connector.

Remove the flame detector.  
**(WARNING: fragile part)**

### COMBUSTION CHAMBER (4) AND EXCHANGER (3)

Remove:

- the flame detector and spark plug,
- the wiring harness fitted on the overheating detector (8) and the temperature sensor (7),
- the turbine support (1).

Remove the combustion chamber (4) and the exchanger (3) if necessary.

### FAULT FINDING

In case of a fault, check:

- if there is fuel in the tank,
- if the fuses are intact
- if the pipes, connections and electrical unions are intact,
- if the combustion air ducts or exhaust gas ducts are blocked (unblock them if necessary).

In the even of combustion with the production of soot, check:

- if the combustion air ducts or exhaust gas ducts are blocked (unblock them if necessary),
- if there is a deposit in the exchanger (3) or the combustion chamber (4); clean these if necessary,
- if the dosing pump flow is correct;

To do this:

- remove the bumper,
- disconnect the electric pump inlet fuel pipe (12), from the side opposite the fuel filter (13),
- connect a pipe to the electric pump so that the flow can be collected in a glass at the same height as the heater,
- start the heater (if necessary, bridge the temperature sensor located in front of the battery screen). After approximately 40 seconds, the fuel