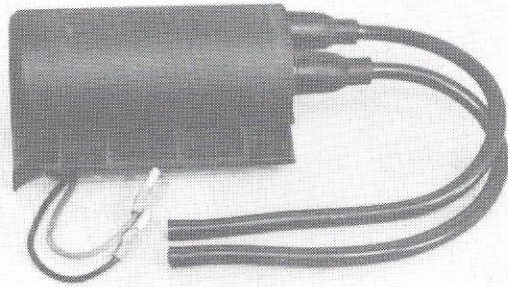


3.15 Electronic ignition unit (3)

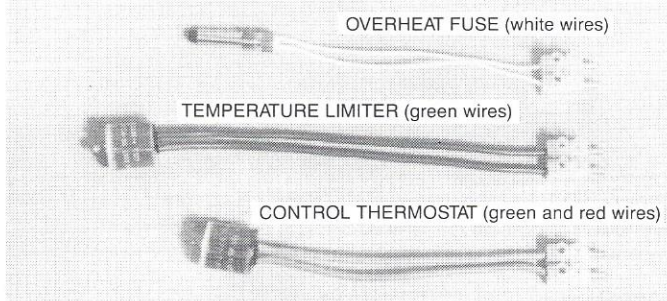


Description: Within the electronic ignition unit, a high voltage of approx. 8000 volt is generated and brought to the two ignition electrodes. The electronic ignition unit is only in operation during the starting phase.

Checks: When connecting a direct current of 12 V resp. of 24 V (positive to black, and negative to brown cable), the sparks must spring over on the ignition spark track.

Attention: Never switch on the electric ignition unit without the ignition electrodes.

3.16 Overheat fuse (12), Temperature limiter (green wires) (14)



Description: The overheat fuse protects the heater against too high and inadmissible temperatures. The overheat fuse contains a fusible link reacting when the admissible temperature is exceeded (138° C [280° F]), and switches the heater off with a purge cycle.

The temperature limiter is a thermostat which, after having been released (95° C [203° F]), can be reset by restarting the heater only if coolant temperature is below 95° C (203° F).

The deliverable overheat fuses, fusible links and temperature limiter are listed in the respective spare parts lists.

Checks: The electrical volume has to be checked. At room temperature, the contact is closed.

3.17 Control thermostat (green and red wires*) (13)

Description: After the operation temperature has been reached the control thermostat assumes the intermittent operation. By alternative switching on and off, the temperature of the heat medium is maintained at a constant level.

Switching temperature:

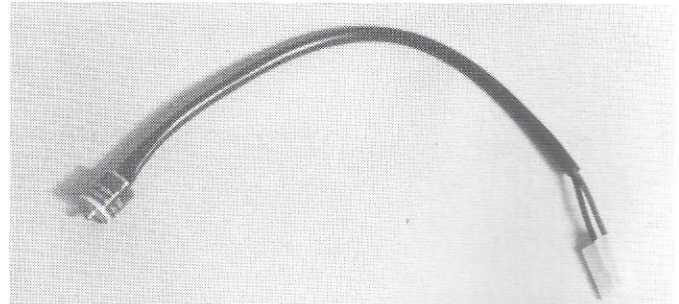
I Version	— closes at	68 ±5° C (154 ±9°F)
	— opens at	75 ±3° C (167 ±6°F)
II Version*	— closes at	60 ±5° C (140 ±9°F)
	— opens at	70 ±3° C (158 ±6°F)

Checks: The electrical volume has to be checked. At room temperature, the contact is closed, and when the temperature rises above the upper switching point, it opens.

Remarks: Only 2020, 300 and 350. Optional control thermostat (see item 12 on pages 9 and 10) could be mounted in the heating system, instead of the control thermostat located on the heater.

*Second version of the control thermostat with white and orange wires.

3.18 Pre-heat thermostat (blue and green wires) (25)

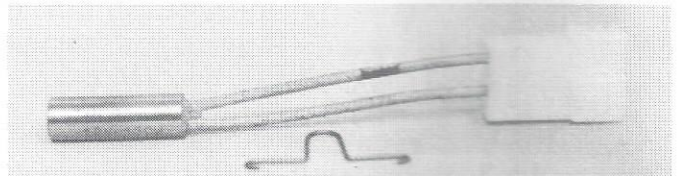


Description: The pre-heat thermostat is installed in the burner on the back wall (2010) or on the disc (2020, 300, 350). It switches the heating element (24) which warms up the fuel in the nozzle holder.

Switching temperature: — closes at 0° C (32 °F)
— opens at 8° C (48° F)

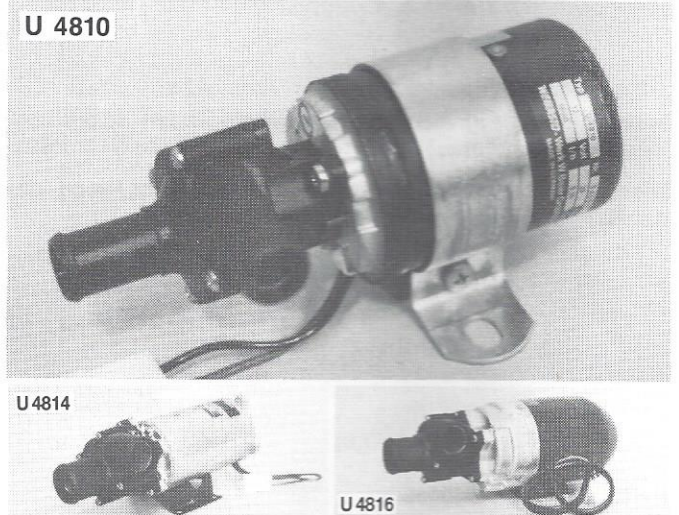
Checks: The electrical volume has to be checked. At room temperature the thermostat opens. It closes when the temperature drops under 0° C and opens at 8° C.

3.19 Pre-heater (24)



Pre-heater is a heating element located in the nozzle holder. Operated by pre-heat thermostat (green and blue wires) heats fuel when the temperature drops under 0° C (32° F).

3.20 Coolant circulating pumps U 4810 / U 4814 / U 4816



Description/installation: The circulating pump is mounted into and connected to the cooling respectively, the heating cycle. Technical data of the circulating pumps see item 1.2 and the installation instructions of the respective heaters.

NOTE — when connecting the circulating pump electrically, do not mix the cable colours (see wiring diagrams — item M 1 on pages 8-10) otherwise the rotation is incorrect.

Checks: The pump housing has to be checked for its tightness. In case coolant flows out (see item 6.19 on page 26).

Hose connections and hose clips have to be tight. A defective circulating pump may cause the heater to overheat.

Only U 4816: Check the length of the carbon brushes.