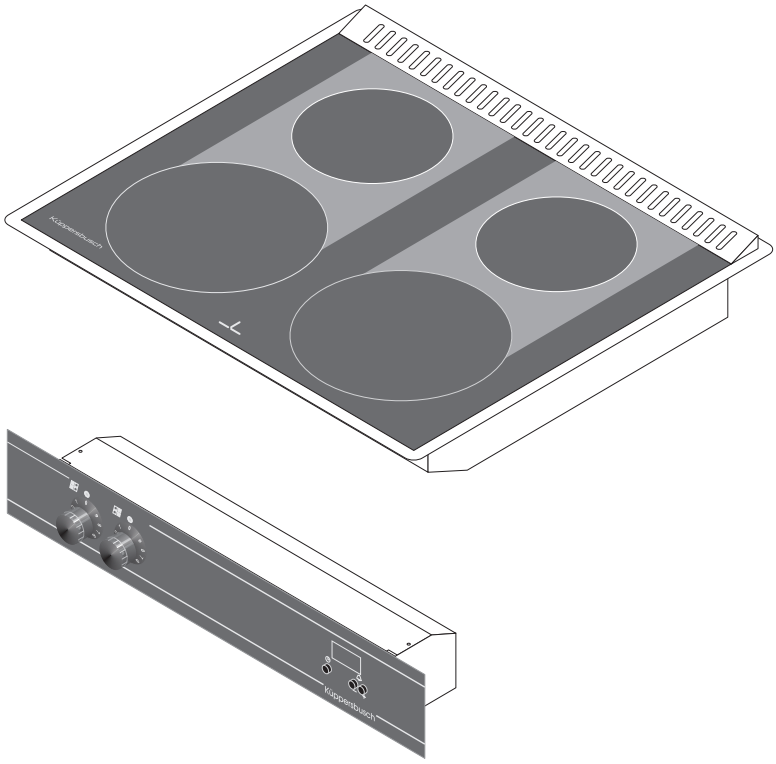

Built-in Glass Ceramic Gas Hob

GCM 642.0 ME

Built-in Electronic Control Panel

GES 642.0

Küppersbusch

THE HEART OF A GOOD KITCHEN

GB

Service Manual: H2-120-57-02

Responsible: N. Kirchmair
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Date: 05.02.1999

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Kundendienst
Postfach 100 132
45801 Gelsenkirchen

Contents

1. General technical data

Appliance dimensions, hob:

- W x D approx. 584 x 514 mm
- Installation height 80 mm
- Recess dimensions, hob:
  W x D approx. 560 x 490 mm
- Recess dimensions, control panel:
  W x H approx. 525 x 90 mm

Features:

Built-in glass ceramic gas hob:

- 2 high-speed cooking zones, 2.0 kW each
- 2 residual heat indicators
- 2 additional simmering zones

Electronic ignition device

Built-in electronic control panel:

- 2 energy controllers for cooking zones
- pilot light for each cooking zone
- fault light for each cooking zone
- electronic clock with minute minder without switch-off function

Technical data:

- Gas connection 4.0 kW
- Electric connection 0.1 kW (plug-in type)
  DIN EN 30 product ident No. CE0085AQ0988

Note:

The appliance may also be operated with LPG (50 mbar).

The LPG injectors are supplied as standard features with the appliance.

Special accessories:

- Natural gas injector kit
  for natural gas G 25 LL-12.4
  with high fluctuation range and Wobbe number below the natural gas L quality.
  Accessory No. 205
  Spare part No. 537551

Note:
Cannot be combined with GEH, KEH, EEB and EEH

Gas-heated HI-TEC hob:

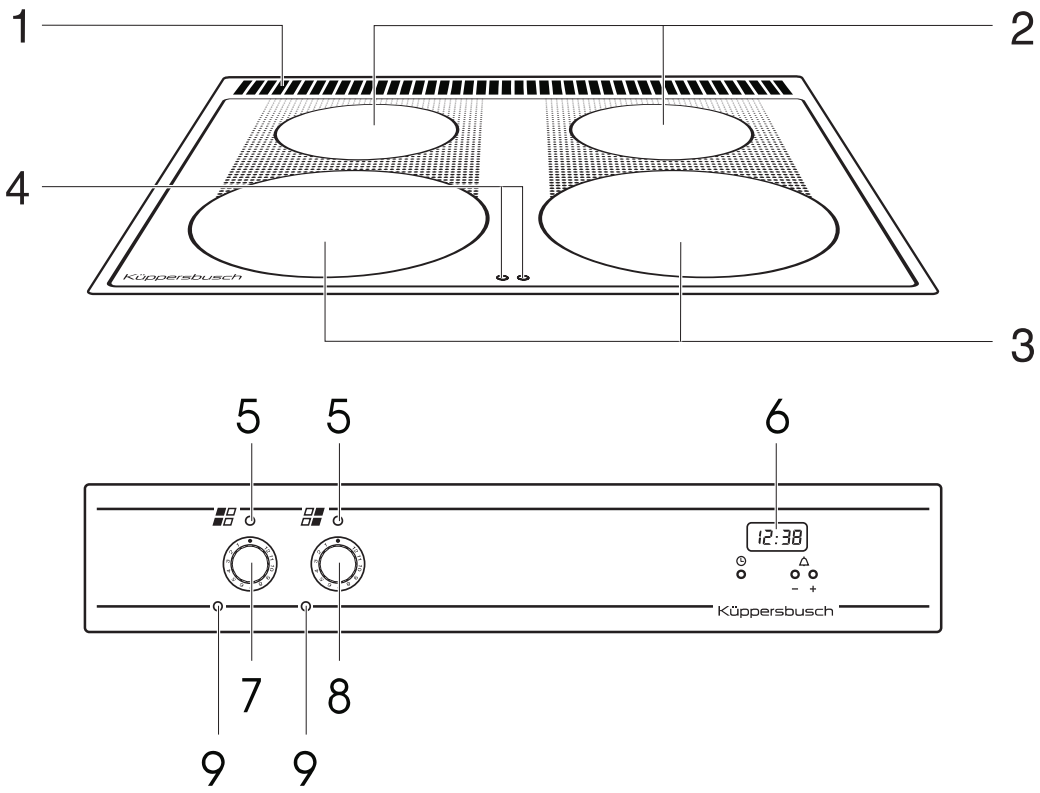
- Economical, safe and convenient thanks to advanced microprocessor technology.
- 2 cooking zones
- 2 simmering zones. These zones can be used to cook while saving energy through the use of the exhaust air heat.
- The all-electronic, high-precision regulation and control system saves energy and ensures maximum safety.
- Reliable, electronic (patented) ignition device
- Pilot and fault lights for each cooking zone
- Built-in electronic control panel
- 2 residual heat indicators

The 1/2" gas connection is arranged in the centre of the rear hob bottom section and points downwards.

If LPG is used, a transition element for 1/2" to 8 mm can be requested if required.

Connected voltage 230 V (min. 180 V).

2. Appliance illustration



Hob

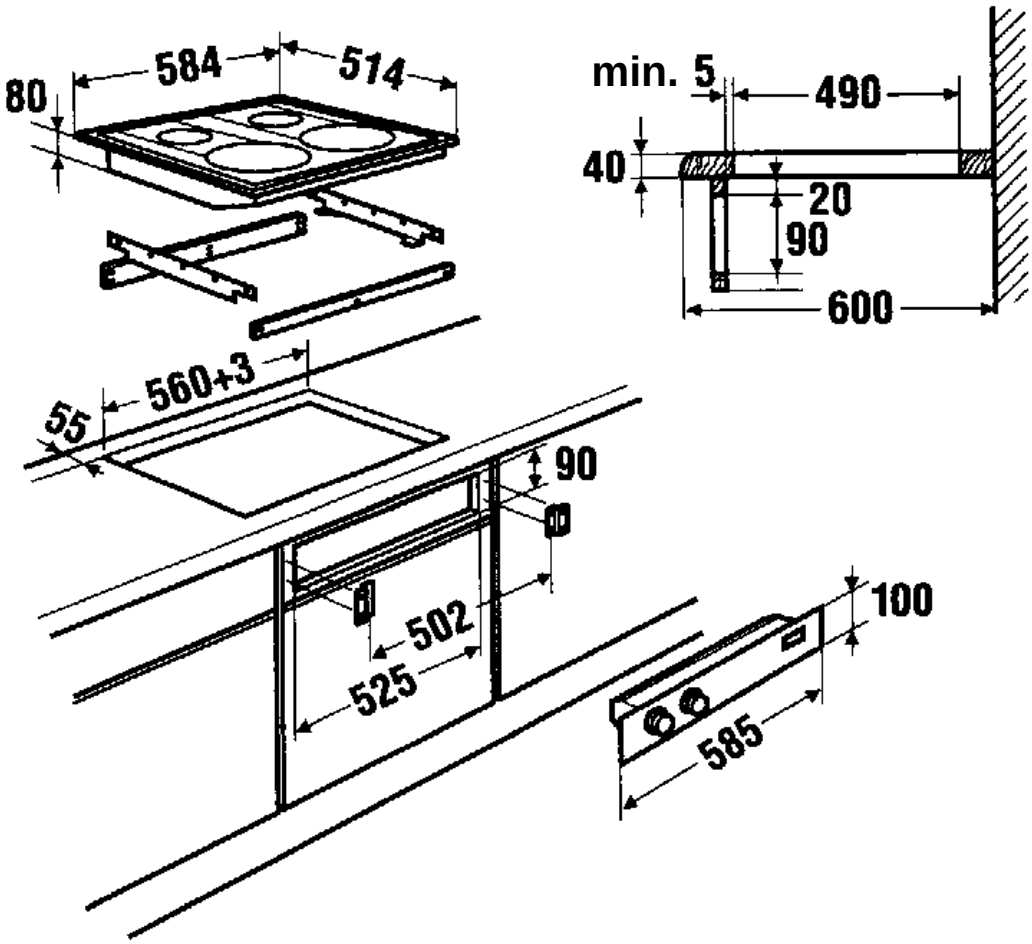
1 Aeration opening
2 Simmering zones
3 Cooking zones
4 Residual heat indicators

Control panel

5 Pilot light for the cooking zones
6 Digital clock
7 Control knob for left-hand cooking zone
8 Control knob for right-hand cooking zone
9 Fault lights for the cooking zones

3. Installation/Disassembly

3.1 Installation Conditions



The room where the appliance is installed must have a volume of at least 20 m³ and offer access for aeration to the outside through a window or a door.

The hob is installed in a worktop recess which is to be made to suit the following installation dimensions. If the worktop is 600 mm deep, a space of 55 mm remains at the back.

Distance hob-wall min. 50 mm.

The space at the back increases if the worktop is deeper.

Additional space is required under the hob for the gas connection.

If the room where the appliance is installed is limited at the bottom by a horizontal partition plate, an aeration duct must be created to the surrounding furniture through an at least 180 cm² (e. g. 10 x 18 cm) large opening in the partition plate.
A space of at least 5 mm must remain between the inside edge of the furniture front and the worktop recess.

The wall sealing strip must be made of heat-resistant material and must not be provided with sockets in the hob area. A plastic carrier strip with a cover strip of aluminium is recommended. The leg length on the worktop must not exceed 30 mm.

As regards protection against overheating of the surrounding areas, the appliance is of the type Y to VDE 0700/6 and IEC 335-2-6.
The wall above the sealing strip near the appliance must be made of non-flammable material. Wood, plastic, PVC films etc. do not satisfy this requirement.
In normal use, radiated temperatures of 70°C above room temperature can act on the surrounding furniture. The furniture must satisfy at least this requirement. In the case of fitted units the plastic covering or the varnish must be processed with heat-resistant adhesive (100°C).

The temperature produced at the back of the hob is approx. 300°C. The minimum distance of wall cupboards and fume extractors above the hob is 650 mm.

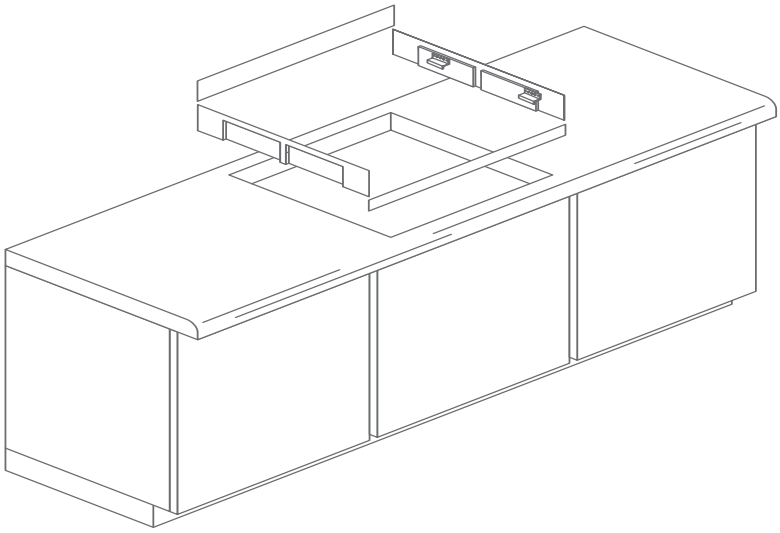
Due to the high temperature produced at the back of the hob, the stainless steel grid becomes bluish. These discolourations can be removed by means of stainless steel cleaners and are no reason for claims.

3.2 General notes on the installation

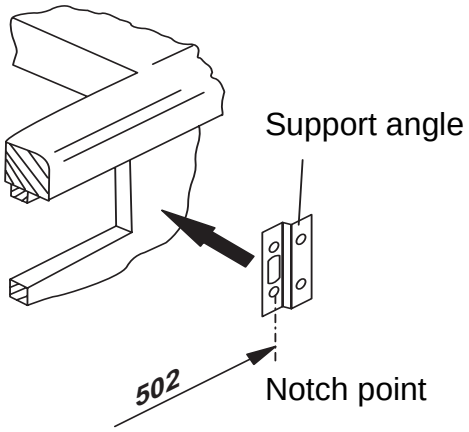
a) Make the worktop and control panel recesses in accordance with the specified dimensions.

b) Secure the sheet panelling on all four sides in the worktop recess with the enclosed nails (see Fig.).
The angled part of the shielding sheets rests on the worktop. The notch on the angled side of the sheets must coincide with the centre of the worktop recess.

c) In order to fasten the shielding sheets in granite worktops glue them into the recess by means of heat-resistant silicon adhesive, e. g. Pactan.



d) Secure support angles on the left and right in the switch panel recess with the enclosed screws in such a way that there is a distance of 502 mm between the notch points (see Fig.).

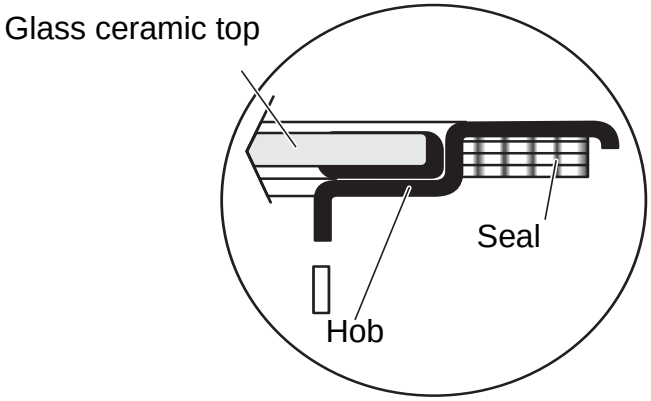


3.3 Installing the seal between hob and worktop

a) Before the appliance is connected to electricity or gas, a seal must be installed between the hob and the worktop. This seal is glued onto the underside of the hob frame.

b) Press the self-adhesive sponge rubber seal around the hob frame starting from the centre at the back (see Fig.).
After installation the seal must be in the position as shown in the illustration.

Do **not** use additional silicon or similar: Otherwise, when the hob is removed, the worktop could be damaged.



3.4 Making the gas connection

3.5 Installing the hob

a) Insert the hob into the worktop opening.

b) The pins on the side panelling sheets must engage the spring catches in the hob.

c) Press the hob edge by hand lightly.

3.6 Installing the control panel

a) Hold the control panel in front of the prepared opening and insert the two connection lines with 6 and 9-pole plug into the connection bushes of the control panel.
Do not use force. The shape and size of the plugs prevent them from being inserted the wrong way round.

b) Guide the electric cable of the control panel through the opening in the bottom cupboard to the rear.

c) Carefully press the control panel into the opening. The pins of the control panel must engage the spring catches of the support angles.

Caution! The all-round gap between the front of the control panel and the furniture front serves to ventilate the appliance and must not be sealed.

d) Insert the plug into an earthed shock-proof socket.
If the indicator lights on the control panel glow weakly when the plug is inserted, insert the plug the other way round.

Prior to commissioning, the appliance must be checked by the fitter for perfect functioning and any gas leaks. The appliance is then ready for operation.

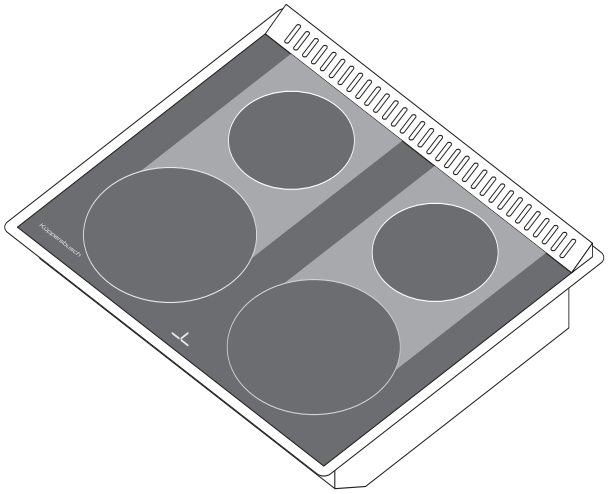
Disassembly of the appliance is carried out in reverse sequence.

4. Description of the appliance

The built-in hob comprises the following five assemblies:

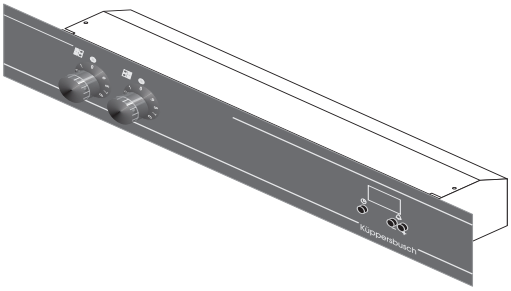
Glass ceramic hob

complete with radiant burners, ignition and monitoring electrodes, ignition transformer, residual heat indicators, thermal relay with residual heat contacts and solenoid valves.

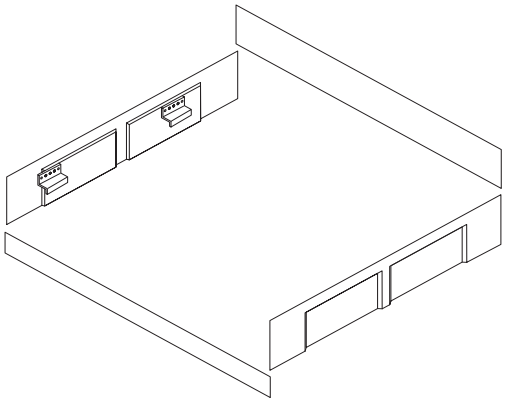


Control unit

complete with fascia, energy controller, ignition fuses, control lights, control knobs, electronic clock with minute minder, terminal, power supply cable and radio interference suppression capacitor.



Shielding sheets (4 off)



Appliance description

The glass ceramic hob GCM 642.0 ME is a gas-operated, built-in glass ceramic hob for installation in a worktop, with an operation fascia at the front.

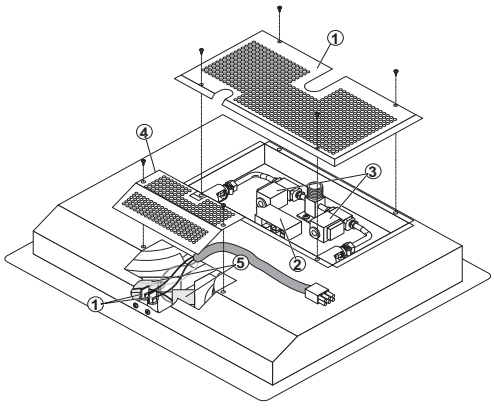
The appliance mainly consists of the following components:

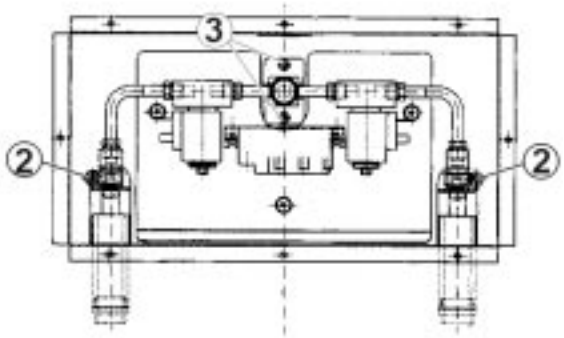
1. the **panelling sheets** for the worktop recess in the side sections of which the hob bottom section is suspended by means 4 connectors.
2. the **glass ceramic hob** is formed from two gas radiant burners at the front, the insulation mouldings which serve as insulation and heating gas line, the ignition and monitoring elements, the ignition transformer, thermal relay with residual heat contact, solenoid valves and residual heat indicators and the assembly box surrounding the components.
3. the **control unit** is inserted into two holding angles screwed onto the sides of a recess in the cabinet front and engaged.
4. the **operation fascia** with the screwed-on control box comprising the energy controllers, ignition fuses, control knobs, pilot lights, electronic clock, terminal, radio interference suppression capacitor and power supply cable.

5. Conversion to a different gas type

5.1 Changing the burner injectors

a) It is imperative to first disconnect the gas and electricity supply.
b) Pull the control panel forwards out of the holder and disconnect the two plug connections to the hob.
c) Carefully lift the hob forwards out of the worktop ①.
d) Remove the cover around the gas connection ②.
e) Unscrew clips on the injector pipes.
f) Unscrew the fastening screws and push the valve block to the rear. The injector holders are pulled out of the injector pipes ③.
g) Remove the injectors using a 9 mm-wrench and insert the new injectors.
Make sure that injectors with the correct diameter are used!
Suitable injectors are indicated on the following page in the table “Diameter of injectors”.
h) After the injectors have been changed, the injector holders are to be inserted again into the injector pipes right to the stop and secured with the clips.
i) Screw the fastening screws of the gas connection back in again and screw on the cover.
j) First insert the hob back into the worktop.
k) Connect the hob with the control panel and insert the panel back into the opening.





Diameter of injectors

Gas type	Dia. of injectors for burners
Natural gas G20, 2H, 2E, 2E+ 20 mbar	1.15 mm
Natural gas G25, 2LL 20 mbar	1.25 mm
Netherlands (NL): Natural gas G25, 2L 25 mbar	1.15 mm
LPG G31, 3P Propane 50 mbar	0.72 mm
Pressure couple butane/propane G30/31 28 - 30/37 mbar	0.74 mm

The gas suppy pressure is

- for natural gas H, E, LL 20 mbar
- for LPG 50 mbar

The appliance must not be put into operation if the gas supply pressure is outside the specified ranges:

- natural gas min. 17.0 mbar, max. 25.0 mbar
- LPG min. 42.5 mbar, max. 57.5 mbar

The specified gas supply pressure applies for the Federal Republic of Germany.

Gas connection values

Gas type	Rated load per burner	Gas flow per burner
Natural gas G20, 2H, 2E, 2E+ 20 mbar	2.2 kW	3.5 l/min.
Natural gas G25, 2LL 20 mbar	2.2 kW	4.0 l/min.
Netherlands (NL): Natural gas G25, 2L 25 mbar	2.2 kW	4.0 l/min.
LPG G31, 3P Propane 50 mbar	2.2 kW	156 g/h
LPG G30, 3B/P Butane/propane 50 mbar	2.2 kW	156 g/h

The injector kits can be ordered for LL natural gas if required.

G20; 2H, 2E, 2E+, 20 mbar setting:

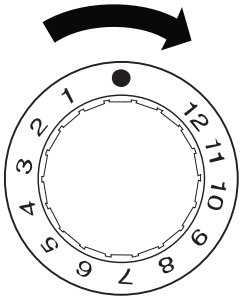
All appliances marked with G20, 2H, 2E+, 20 mbar setting are to be used in the Wobbe index range of 11.3 to 15.2 kWh/m³ without changing the setting.

Caution: The settings for this appliance are provided on an information sign (or on the appliance name plate).

6. Appliance operation

6.1 Switching the cooking zones on and off

The appliance has two cooking zones. Each zone has its own control knob. Which control knob belongs to which cooking zone can be seen from the symbols on the control panel.



The control knobs are each marked with twelve settings. You should generally start cooking with the control knob at a high setting and then switch back to a lower setting to continue.

To switch on a cooking zone turn the control knob to the right and select the desired setting.

The cooking zone pilot light illuminates. After about 5 seconds the flame will ignite automatically and the cooking zone will also be supervised automatically.

Combustion is barely visible. After some time (at setting 12 after about 2 minutes), the radiant burners will glow red.

The burner does not burn continuously during operation, but is permanently switched on and off by the cooking zone’s energy controller depending on the setting you have selected.

Caution! There is no such regulation at setting 12.

To switch off the cooking zone, turn the control knob to the left, back to setting “0”.

6.2 The simmering zones

The simmering zones on the hob can be used for simmering food until it is done and for keeping food warm.
As from setting 8, this part of the glass ceramic hob heats up so intensely that additional simmering is possible.

Example of an application

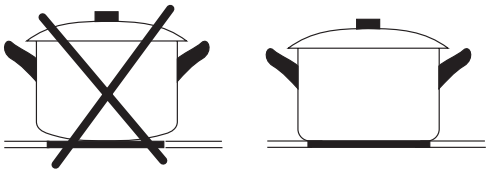
Menu:

Beef soup
Roast pork
Vegetables
Potatoes

Cook the beef soup and the roast pork on the two front cooking zones until the food is 3/4 done. Then slide both pans to the simmering zones and cook the vegetables and the potatoes on the front cooking zones.

If the cooking zones are loaded in this way, all the food will be cooked until it is done.

6.3 Notes on the use of the right saucepans



Using the right saucepans will help you to reduce cooking times and save energy.

Only use saucepans with a smooth and even base.

Saucepan and pan bases must contract inwards slightly in the cold condition as they expand when hot and then rest on the cooking zone. This is the best way for the heat to be transferred.

The optimum base thickness is 2 – 3 mm for steel enamel and 4 – 6 mm for stainless steel with a sandwich bottom.

The saucepan bases must be clean and dry in order to avoid scratches on the glass ceramic hob.

Do not use saucepans made of cast iron or saucepans with electrographic bases.
Never use aluminium dishes or plastic vessels!

Avoid saucepans boiling dry.

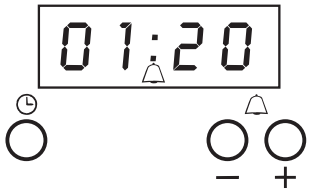
6.4 Setting the digital clock

You can use the digital clock to remind yourself of the end of the planned cooking time. The cooking zones are not switched off automatically.

Setting the time

Briefly press the button with the clock symbol and then set the time with the buttons + or -.

Setting a cooking time

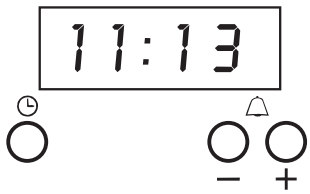


If you have just set the time:
Wait for about 10 seconds.

Then enter the desired cooking time with +. Each time the button is pressed, the cooking time is increased by 10 seconds (max. 99 minutes can be set). A bell symbol appears in the display.

The elapsing cooking time is shown in the display and can be changed at any time with + or -. The pre-set cooking time is deleted by pressing + and - simultaneously. Release the button + first as otherwise a new cooking time is set.

Displaying the time while a cooking time is running



Briefly press the button with the clock symbol. The time is displayed; after a few seconds the cooking time is automatically shown again.

End of the cooking time

The end of the cooking time is indicated by an acoustic signal.
The alarm is manually switched off with the + button, otherwise it stops automatically after 7 minutes.
While the signal is sounding, you can change the tone:
Press the button - once or twice to set one of the other three tones.

6.5 Operation

- The gas supplied to the appliance passes in the OFF condition to the two solenoid valves assigned to each cooking zone.
  5 seconds after a cooking zone has been switched on, the electronic safety pilot is supplied with power through the energy controller; this power then causes the solenoid valves to open and the gas/air mixture to ignite. The mixture must ignite within 10 seconds. The electronic safety pilot monitors the operating status on the radiant burners by means of ionisation.

- When the cooking zones are in operation, the area above the radiant burners is heated the most (boiling zone) - max. 600°C.
  The gases passed backwards to the heating gas outlet heat the adjacent part of the cooking zone so much that simmering is possible in this area (simmering zone), max. 300°C.

- The energy supply is regulated by means of the control knobs assigned to the energy controllers.

- At control setting 12 the cooking zone is not switched off via the energy controller.

- In case the max. permissible temperature of approx. 600°C is exceeded, the energy supply can be switched off via the thermal relay assigned to each cooking zone.

- If the thermal relay is switched off, the power supply is interrupted by the energy controller. If the thermal relay is switched on again, the respective cooking zone will automatically switch on again.

- The operating status and any critical situations are optically displayed by the lights on the operation fascia.

- Should the appliance indicate a fault after being switched on, it can be restarted after first being switched off and then on again.

- Combustion is barely visible. After about 2 minutes at setting 12 the radiant burners glow red.

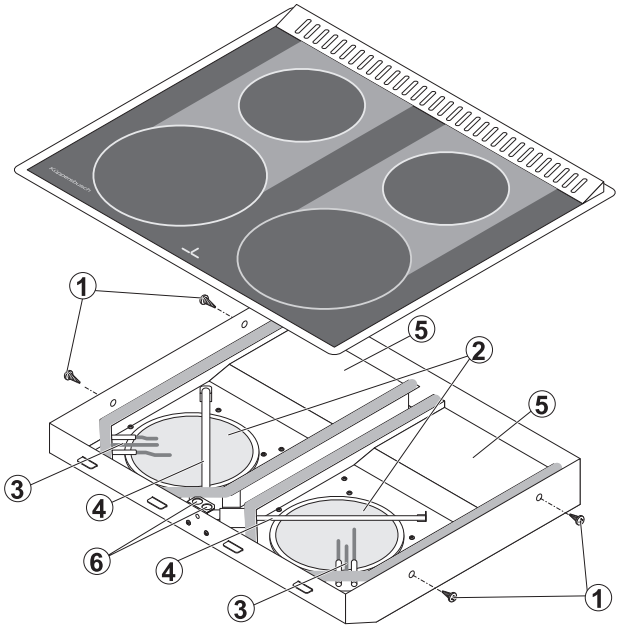
- Brief blinking of the fault light during the starting process has no significance.

7. Disassembly of the components

7.1 Disassembly of the hob

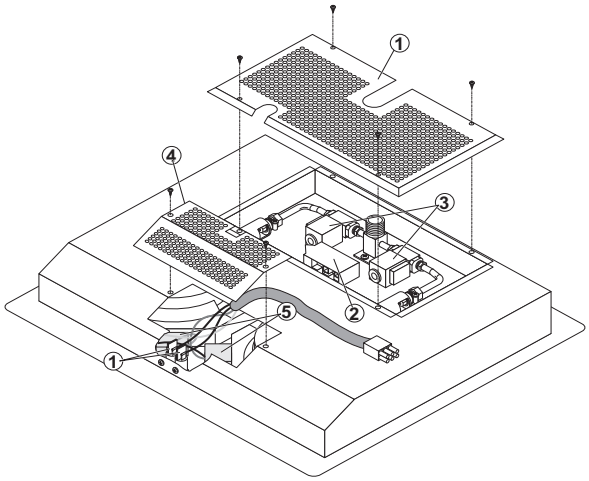
a) After disassembly of the glass ceramic hob, the ceramic top can be lifted off from the bottom trough by removing the flat screws ① that have been screwed into the side panels of the hob frame.

b) The burners ②, ignition monitoring block ③, thermal relays ④, heat conducting sheets ⑤ and resistant heat indicator ⑥ are now accessible from the top side of the bottom trough.



c) The large cover sheet ① can be removed by unscrewing the four fastening screws at the bottom trough underside. The ignition transformer ② and the solenoid valves ③ are now accessible.

d) The small cover sheet ④ can be removed after unscrewing the two fastening screws at the bottom trough underside.
The connections of the thermal relay ⑤ and residual heat indicator ⑥ are accessible.



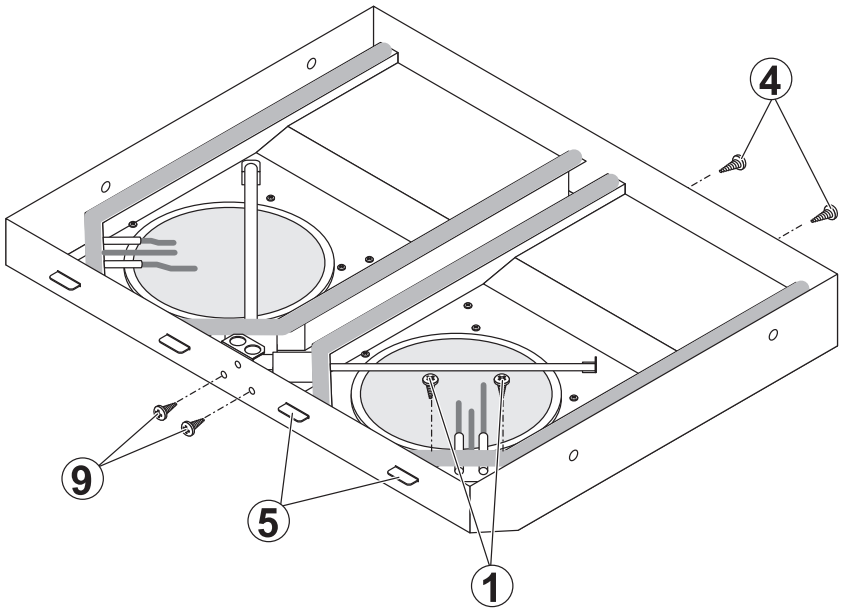
7.2 Disassembly of the hob components

7.2.1 Ignition and monitoring block

a) Unscrew the 2 fastening screws ①.
b) Pull the ignition cable off from the ignition transformer ②.
c) Remove the ionisation sensor cable from the plug connector ③.
d) Remove the ignition and monitoring block towards the top.

7.2.2 Thermal relay

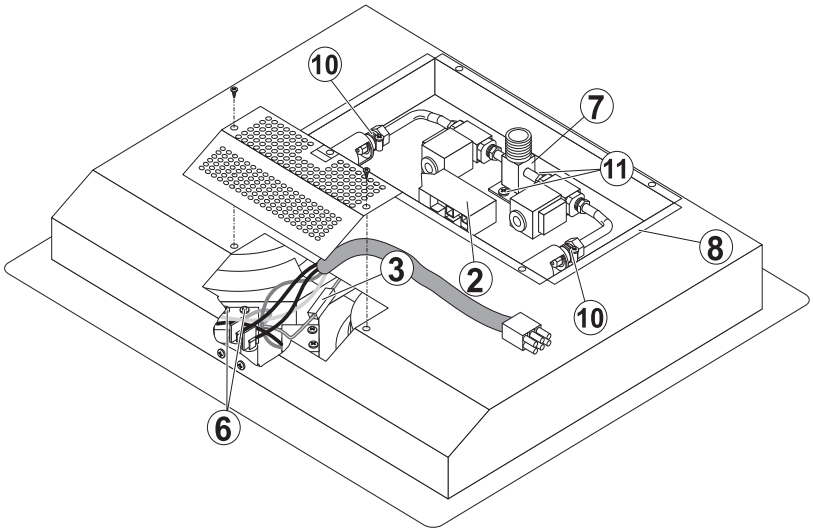
a Unscrew the fastening screws of the heat conducting sheet ④.
b) Pull off the cable from the thermal relay.
c) Push the heat conducting sheet to the rear and lift it out of the holding catches ⑤.
d) Unscrew the fastening screws ⑥ from the thermal relay and pull out the thermal relay.



7.2.3 Gas radiant burners

a) Remove the solenoid valves ⑦ together with the injector holders.

b) Unscrew the shielding sheet ⑧ and remove it. Remove the entire gas radiant burner together with the heat conducting sheet ⑫ by lifting towards the top.



7.2.4 Residual heat indicator

a) Pull off the cable of the residual heat indicator.

b) Unscrew the screws ⑨, then lift off the residual heat indicator.

7.2.5 Solenoid valves with injector holders

a) Loosen the clamps ⑩.

b) Unscrew the screws ⑪.

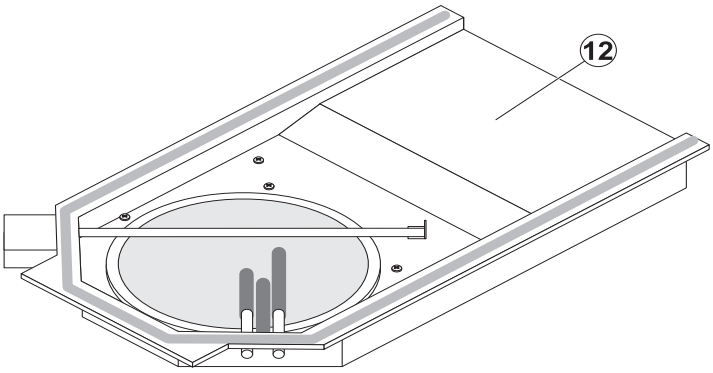
c) Remove solenoid valves together with the injector holders, pull off the cable. Observe the gas flow direction ->.

7.2.6 Ignition transformer

a) Unscrew the fastening screws.

b) Pull off the cable from the ignition transformer.

c) Lift off the ignition transformer ②.

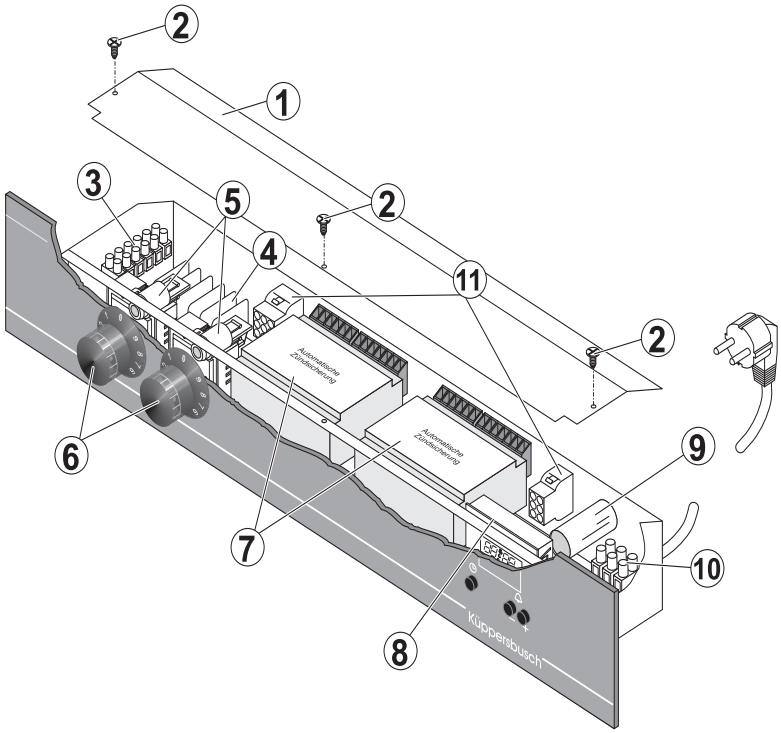


Installation of the components is carried out in reverse sequence.

7.3 Disassembly of the control unit

a) After disassembly of the control unit the cover ① can be lifted off by unscrewing the three screws ②.

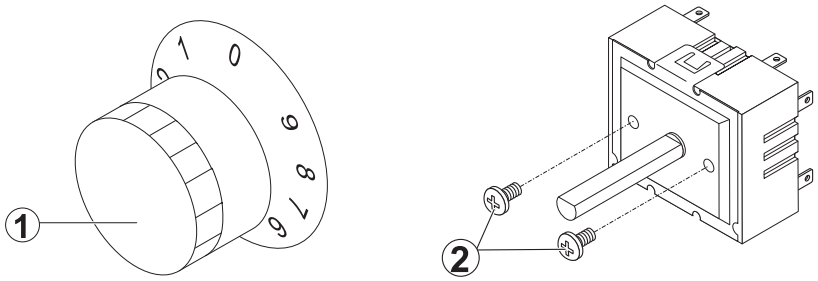
b) The following components are now accessible from the top side:
- ③ terminal, pilot lights
- ④ plug, wiring
- ⑤ pilot lights
- ⑥ energy controllers
- ⑦ ignition and monitoring electronics
- ⑧ electronic clock
- ⑨ mains filter
- ⑩ mains input terminalclock
- ⑪ plug connectors 6 and 9-pole



7.4 Disassembly of the components of the control unit

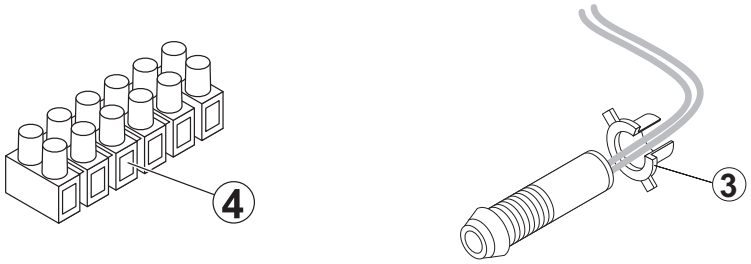
7.4.1 Energy controller

a) Pull off the detachable control knob ①.
b) Unscrew the fastening screws ② of the controller.
c) Pull off the mains plug.



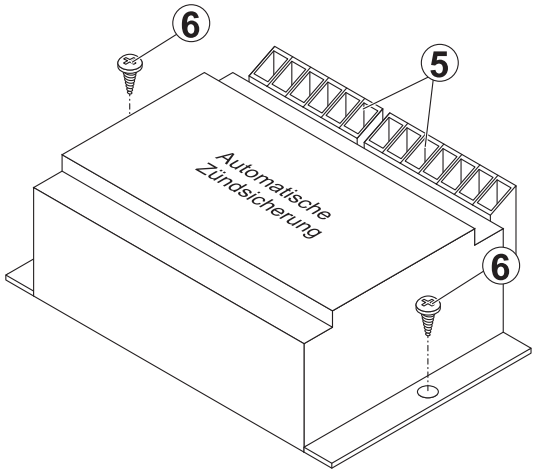
7.4.2 Pilot lights

a) Push the detachable holding ring ③ on the connection side backwards.
b) Unscrew the cable from the terminal ④.
c) Pull out the light to the front through the fascia.



7.4.3 Ignition and monitoring electronics

a) Pull of the group plug ⑤.
b) Unscrew two fastening screws ⑥, detach the electronic unit.
c) After unscrewing the four screws at the underside of the electronic unit the cover can be removed to allow access to the 0.36 A miniature fuse.



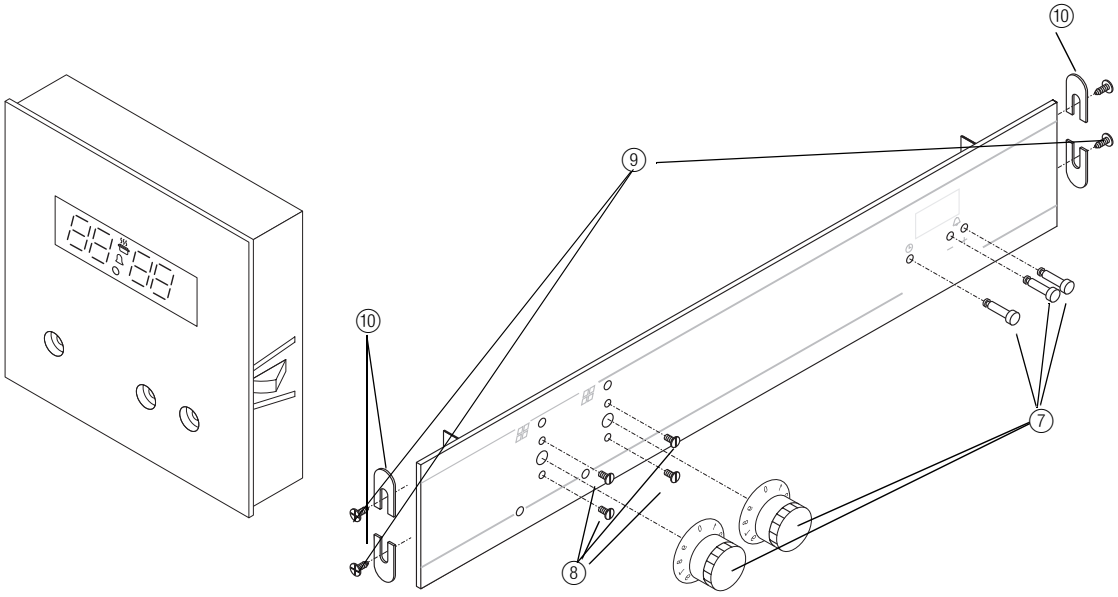
7.4.4 Electronic clock

a) Pull off the control knob of the energy controller and clock keys ⑦.

b) Unscrew the screws of the energy controller ⑧.

c) Remove the fascia after unscrewing two screws ⑨ on each side (take care of the washers) ⑩.

d) Pull off the mains plug of the clock and remove the clock by pulling it to the front.

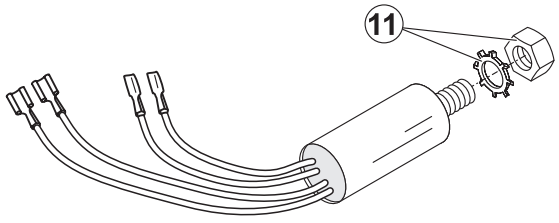


7.4.5 Mains filter

a) Unscrew the holding nut SW13 at the back of the appliance (take care of the tooth lock washer) ⑪.

b) Unscrew the blue cables (incoming cables) from the terminal.

c) Pull the black cables (outgoing cables) out of the plug connectors.



Installation of the components is carried out in reverse sequence.

8. Troubleshooting table

Fault	Detection	Cause	Remedy
Ignition operation must be repeated several times.	Fault light comes on after ignition operation.	Air in the gas line.	Switch on all burners at the same time and wait until air has escaped from the line; if necessary, repeat ignition operation several times.
		Wrong or clogged injectors.	Check to see if the number engraved on the injector matches the data in the injector table; remove dirt from the injector but do not use pointed or sharp objects which could damage the injector bore.
		Defective radiant burner.	Replace radiant burners.
		Ignition not perfect.	Check ignition cables for damage; check connectors for perfect contact; check electrode distance on the ignition electrode (setpoint 3 - 4 mm); check earth connection to ignition transformer. Check ignition electrode for short circuit to earth.
		Protective conductor missing.	Check socket outlet with earthing contact.
Cooking zones cannot be regulated.	Radiant burner is not switched off or switched off too early.	Control switch defective.	Change control switch.
Loud humming/ fluttering noises from the solenoid valves during operation.	Fault light comes on.	Short circuit in the solenoid valve.	Replace solenoid valve.
Humming noises when one cooking zone in use.		Radiant burner defective.	Renew radiant burner.
Pilot and fault lights stay on when appliance switched off.		Contacts of energy controller defective.	Renew energy controller.

Fault	Detection	Cause	Remedy
Burner goes off on expiry of the ignition time.	Fault light comes on.	No gas.	Look for cause and remedy (appliance connection tap open?).
		Socket outlet not properly earthed.	
		Ionisation does not cut in.	Make the contact between the connectors on the ionisation electrode and the multi-pole connector of the regulation and control unit for the relevant burner. Check to ensure that the ionisation electrode does not rest on the earth.
		Controlling and monitoring unit defective.	Replace.
Fault light glows when appliance switched off.	Indicator light glows.		Turn connection earthed-pin plug by 180° and insert again.
Burners do not work when first switched on although power available.	When appliance switched on, the relevant pilot light comes on.	Fuse of the relevant controlling and monitoring unit defective.	Replace fuse.
	Intermittent spark igniter cannot be heard.	Connector loose or no contact.	Check connectors on the intermittent spark igniter on the board and switch.
		Intermittent spark igniter defective	Replace intermittent spark igniter.
		Controlling and monitoring unit defective	Replace controlling and monitoring unit.
Burner switches off at setting 12.	Fault light comes on, burner switches off.	Ionisation sensor distance too small	Set ionisation sensor.
	Burner switches off and then on again.	Thermal relay switches off.	Check saucepans and pans, renew thermal relay, check injectors and gas pressure.
Boiling time too long (front cooking zones).	Customer complaint.	Saucepan bottoms not flat, saucepan too small.	It takes rougly 8 minutes to boil 1 litre of water (room temperature).
No function when first switched on.	Pilot does not come on.	No power in the socket.	Look for cause and remedy.
		Radio interference suppression filter defective.	Replace radio interference suppression filter.

9. Further technical descriptions

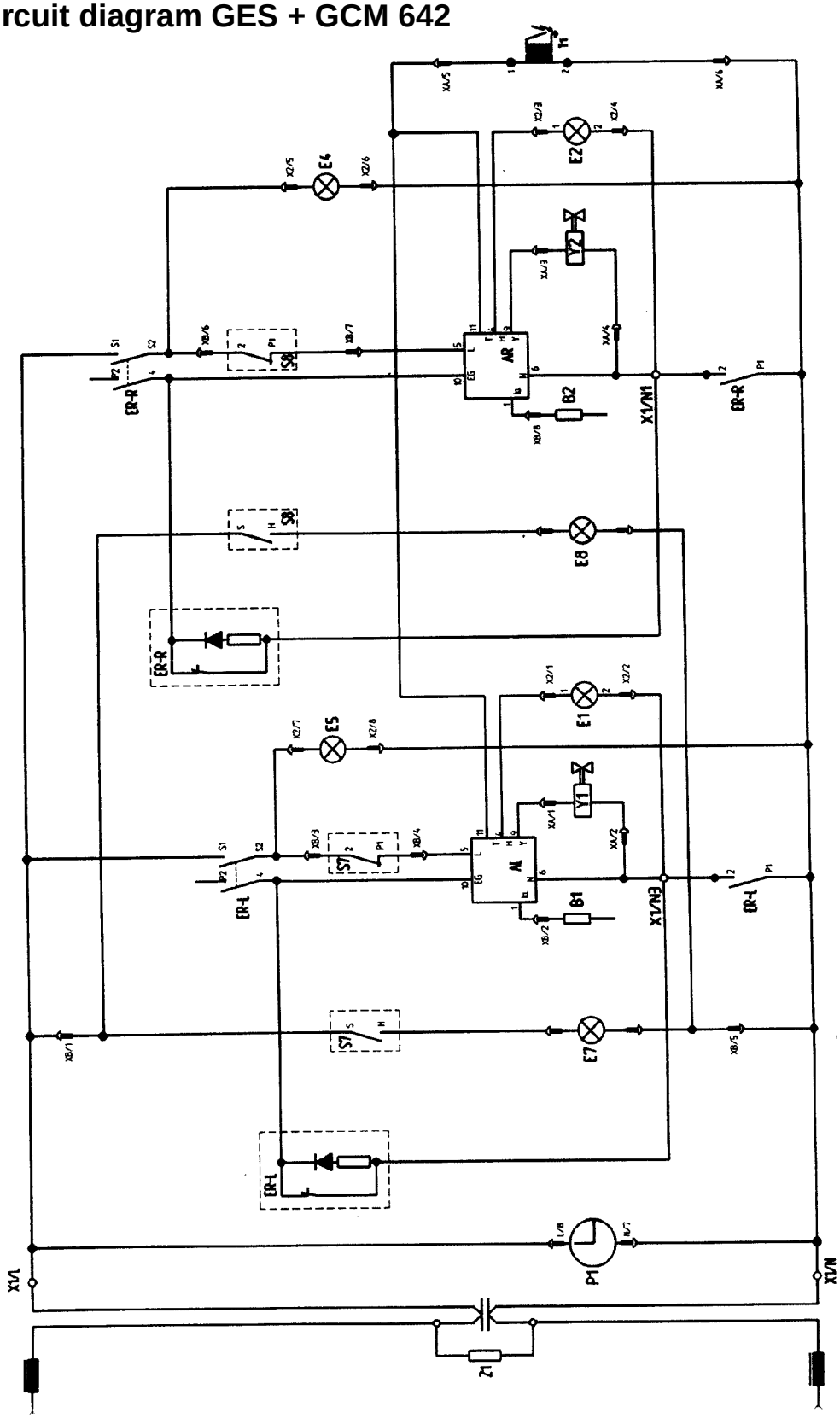
- Switching times of the energy controller in approx. seconds

Controller setting	Burning time	Off time	Controller setting	Burning time	Off time
1	6 sec.	55 sec.	7	13 sec.	27 sec.
2	6 sec.	52 sec.	8	18 sec.	24 sec.
3	7 sec.	43 sec.	9	26 sec.	22 sec.
4	8 sec.	37 sec.	10	42 sec.	20 sec.
5	9 sec.	34 sec.	11	50 sec.	20 sec.
6	11 sec.	30 sec.	12	no switching off	

- Insulation resistance of the ionisation sensor electrode greater than 50 MΩ.
  Insulation current 0.5 µA (± 0.1 µA)
- Recycling of the ignition transformer when the appliance is cold is a standard feature.
- Distance between electrode and earth:
  Ignition electrode 3.5 – 4 mm
  Ionisation electrode 4 mm
  Parallel to earth and radiant burner
- Residual heat indicator is lit up to 50 minutes after the cooking zone has been switched off. It is activated at a temperature of approx. 60 °C on the glass ceramic top.
- The thermal relay switches the appliance off after approx. 6 – 10 minutes, if the appliance is operated with no saucepan on the cooking surface.
  If there is a saucepan on the cooking surface, the apppliance will not be switched off via the thermal relay.

10. Wiring plans

10.1 Circuit diagram GES + GCM 642



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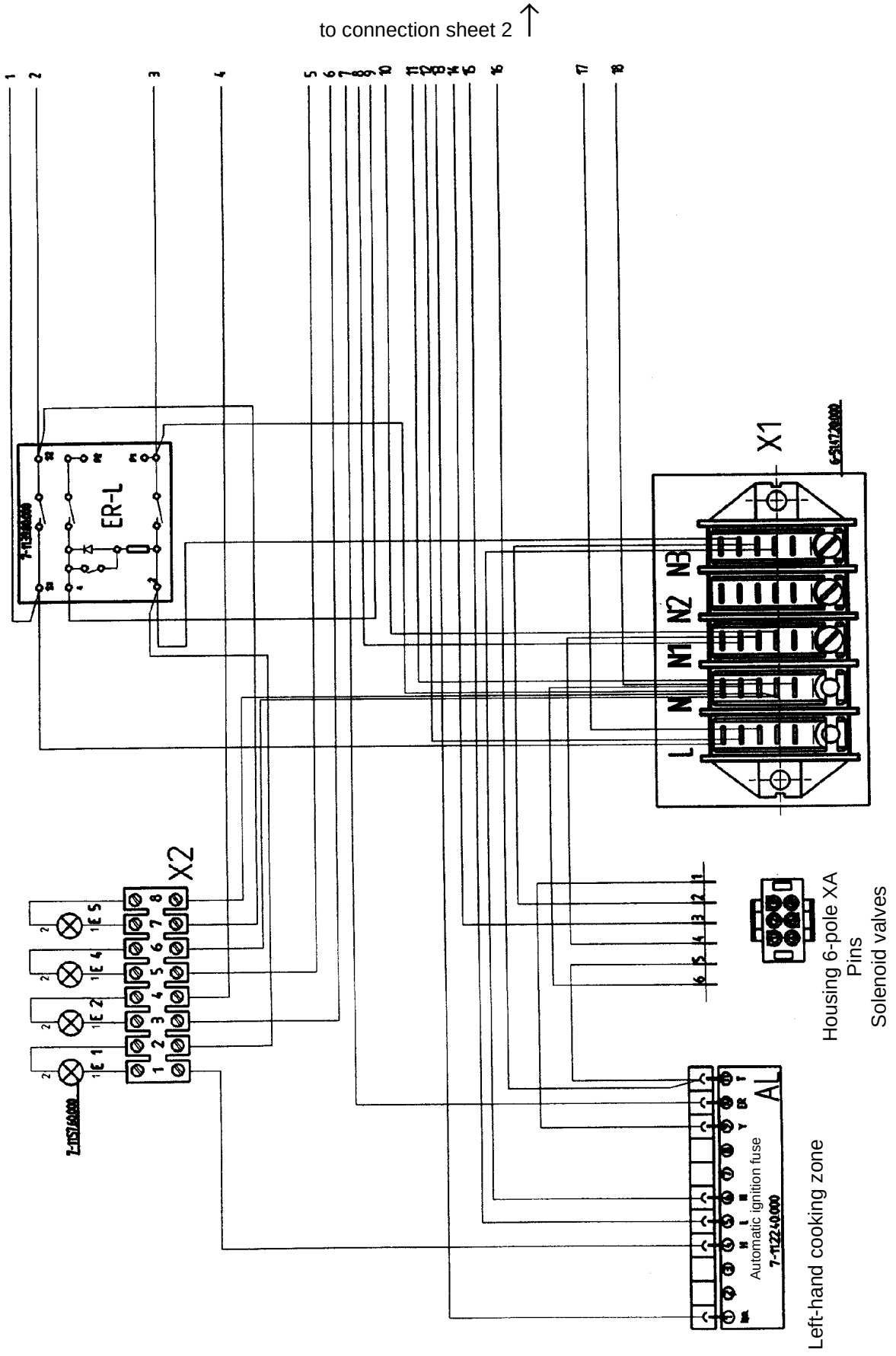
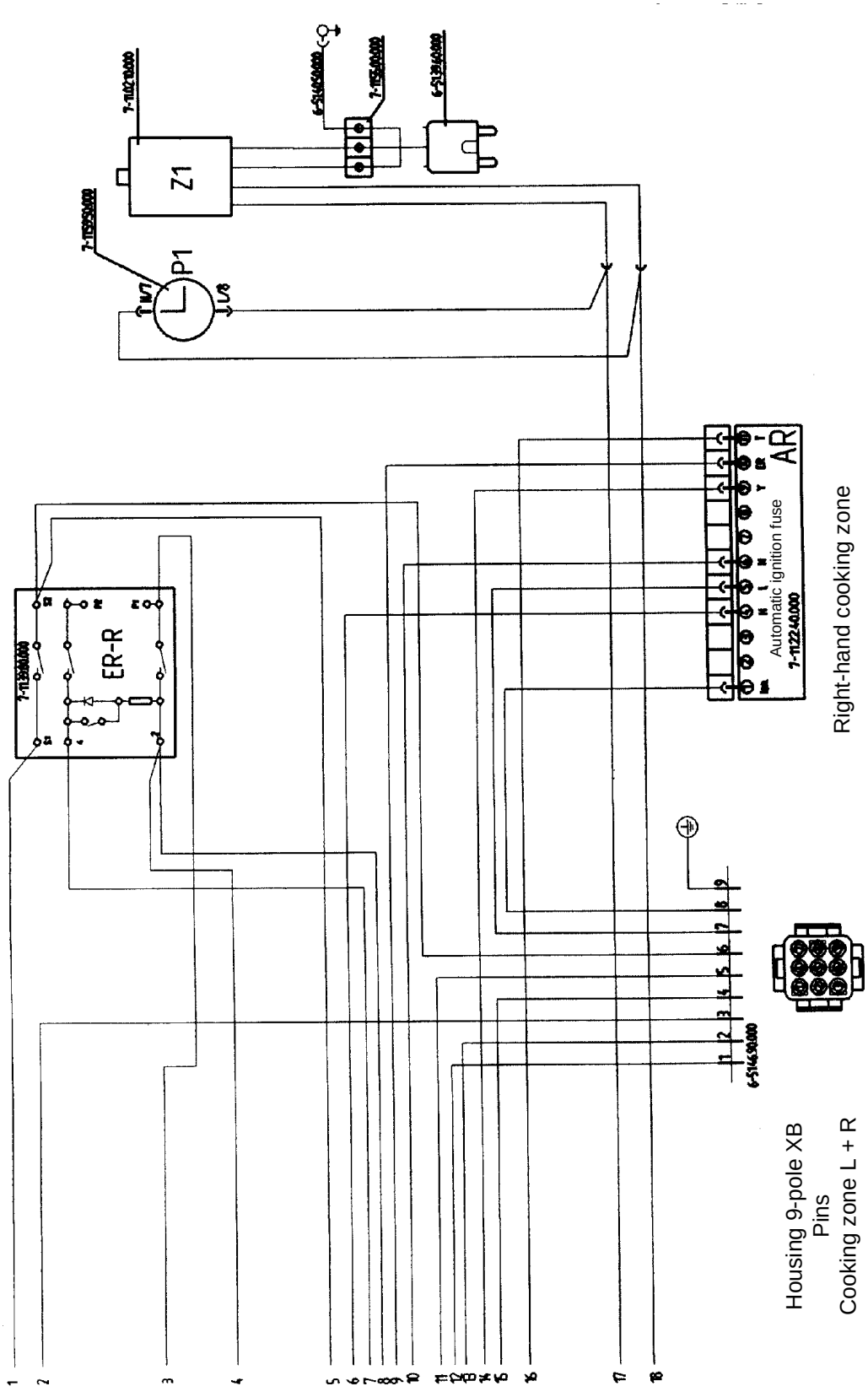
10.2 Circuit diagram control module GCM 642



Circuit diagram control module GCM 642 (continued)



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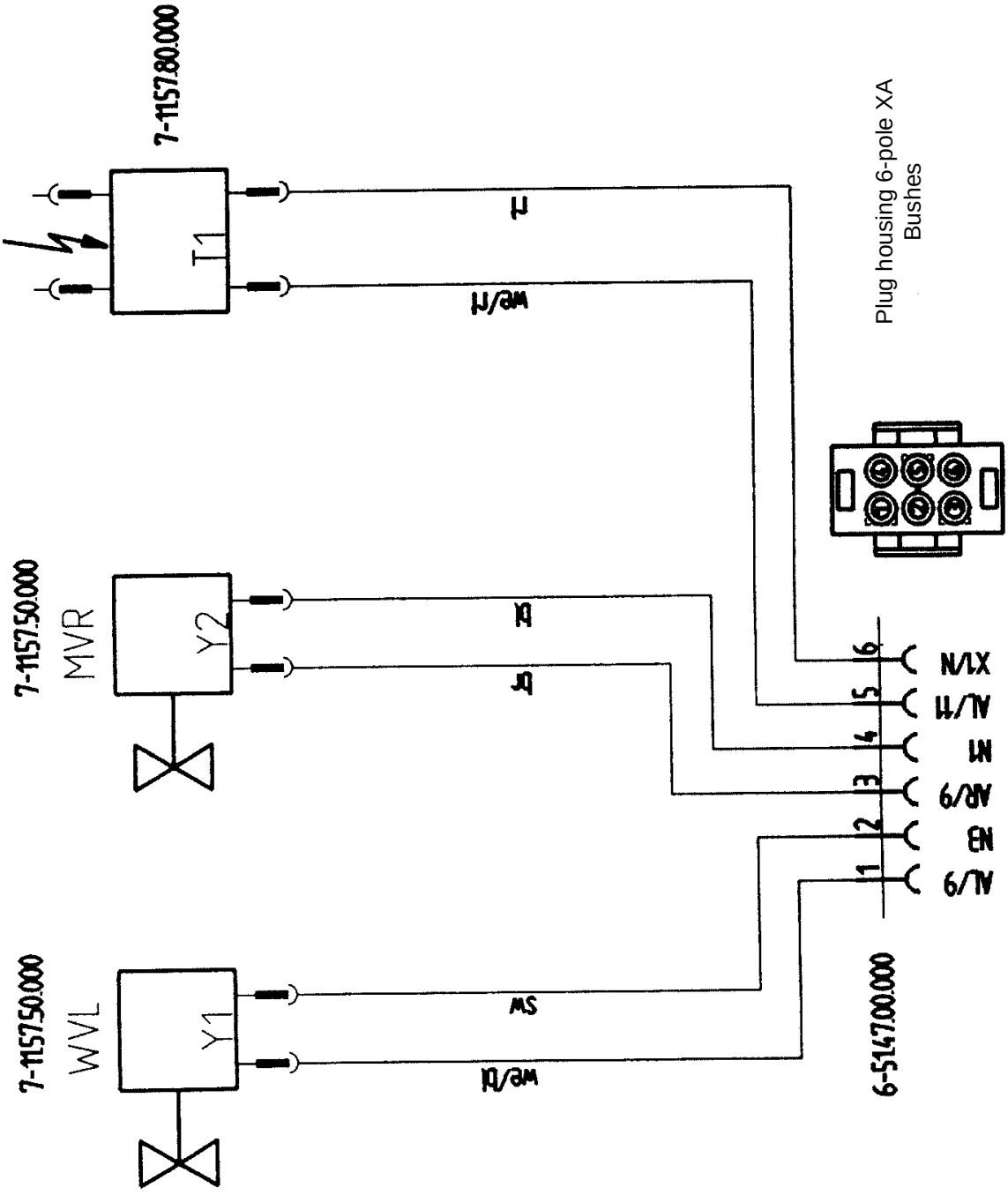
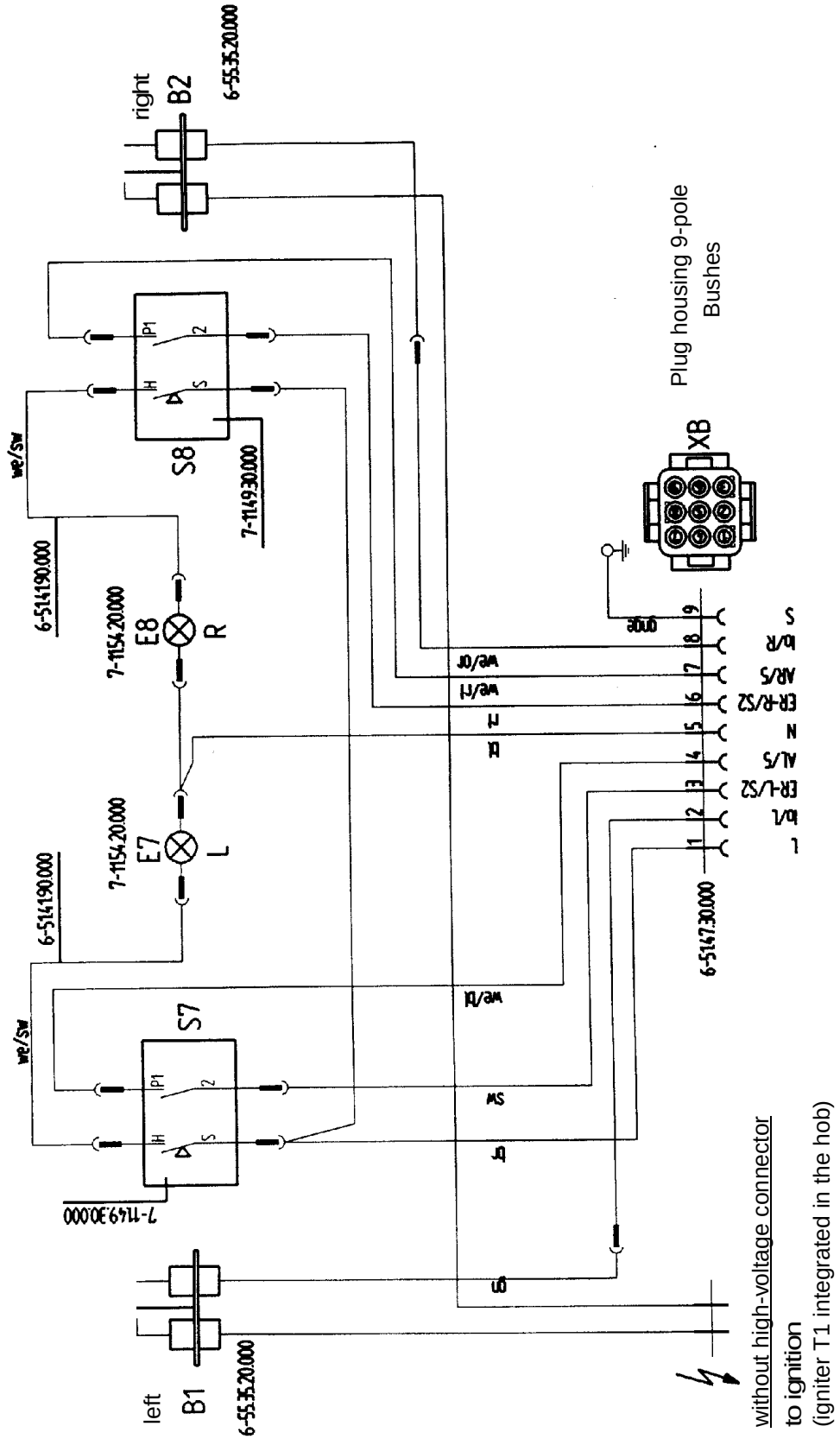
10.3 Wiring plan MV/T1 - GES 642



10.4 Wiring plan built-in hob GES 642



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Legend

AL	Controlling and monitoring system cooking zone, left-hand
AR	Controlling and monitoring system cooking zone, right-hand
AB	Controlling and monitoring system oven
B1	Ionisation monitoring element cooking zone, left-hand
B2	Ionisation monitoring element cooking zone, right-hand
E1	Fault light burner, left-hand
E2	Fault light burner, right-hand
E4	Pilot light burner, right-hand
E5	Pilot light burner, left-hand
E7	Residual heat indicator, left-hand
E8	Residual heat indicator, right-hand
ER-R	Energy controller, right-hand
ER-L	Energy controller, left-hand
P1	Electronic minute minder
S7	Bar controller, left-hand
S8	Bar controller, right-hand
T1	Intermittent spark igniter
XA	Connector, solenoid valves
XB	Connector, left-hand and right-hand cooking zone
X1	Distribution strip
X2	Connection piece
Y1	Solenoid valve burner, left-hand
Y2	Solenoid valve burner, right-hand
Z1	Radio interference suppression filter