

Glass Ceramic Gas Hobs

GKS 324.0
GKS 644.0

Technical Manual: H 2-120-59-01

Responsible: Kirchmair
Tel.: (0209) 401-718
Fax: (0209) 401-743
Date: 26.05.1998

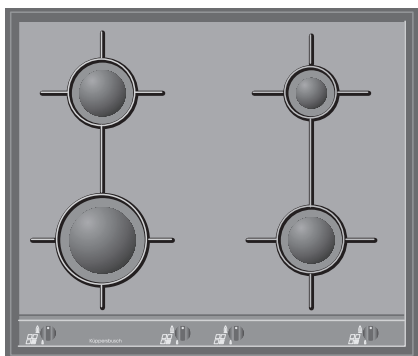
Küppersbusch Vertriebsges.mbH
Kundendienst
Postfach 100 132
45801 Gelsenkirchen

Contents

1. 1. General Technical Data	4
1.1 Built-In Glass Ceramic Gas Hob GKS 644.0	4
1.2 Built-In Glass Ceramic Gas Hob GKS 324.0	5
1.3 GKS 644.0	6
1.4 GKS 324.0	6
2. Installation Conditions and Assembly	7
2.1 Notes regarding Installation	7
2.2 Assembly	7
2.3 Installation Dimensions	8
2.4 Installation	8 - 9
3. Technical Components (Exploded View)	10
3.1 GKS 644.0J / GKS 644.0M	10
3.2 GKS 324.0J / GKS 324.0M	11
4. Changing of Components	12
4.1 Disassembly of the Hob	12
4.2 Changing of Components	12
5. Wiring Plans	13
5.1 GKS 644.0	13
5.2 GKS 324.0	14
6. Conversion to A Different Gas Type – Table of Injectors	15
6.1 Accessory Numbers of the Injector Conversion Kits	15
6.2 Changing the Main Injectors	15
6.3 Changing the Low Setting Injectors	16
6.4 Functional Testing	16
6.5 Injector Diameter	16
7. Gas Connection Values	17
7.1 Gas Connection Values	17
7.2 Table of Gas Connection Pressure Ranges	17
7.3 Table of Permissible Gas Types and Pressures	17
8. Power Table	18
9. Further Technical Information	19
9.1 Notes regarding the Correct Pot Sizes	19

1. General Technical Data

1.1 Built-In Glass Ceramic Gas Hob GKS 644.0



GKS 644.0 M E natural gas
in metallic design (stainless steel look)

GKS 644.0 J E natural gas
in jet black design (black)

Note:

This hob can also be operated with LPG.

An appropriate injector kit can be supplied as special accessory.

Features: "Hardline" design

Built-in glass ceramic gas hob with 4 cooking zones:

- low-emission gas burners, integrated in the glass ceramic surface
- 1 high speed cooking zone 2.9 kW
- 2 standard cooking zones 1.9 kW, each
- 1 simmering zone 0.9 kW

Full safety.

Electric one-hand spark ignition.

Technical data:

- Gas connection 7.6 kW
- Electric connection 0.1 kW
- Appliance dimensions:
W x D approx. 589 x 519 mm
installation height approx. 42 mm
- Recess dimensions:
W x D approx. 560 x 490 mm

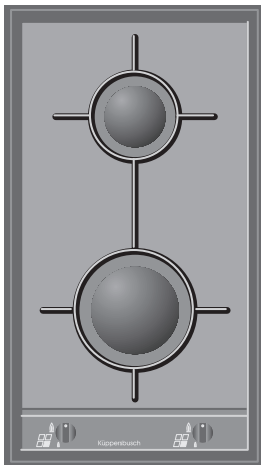
Special accessories:

- LPG injector kit 50 mbar, accessory no. 192
- gas connection 1/2"

The new built-in glass ceramic gas hobs with open burners:

- Modern look thanks to "hardline" design
- The burners integrated in the glass ceramic surface heat up less which results in a considerably longer life.
- The scratch-resistant glass ceramic surface does not get hot. It is especially easy to clean as food that might boil over cannot get burnt.
- The electric one-hand spark ignition and the high-precision regulation of the individual cooking zones offer maximum user convenience.
- The pot grids can be removed and put in the dishwasher for cleaning.

1.2 Built-In Glass Ceramic Gas Hob GKS 324.0



GKS 324.0 M E natural gas
in metallic design (stainless steel look)

GKS 324.0 J E natural gas
in jet black design (black)

Note:

This hob can also be operated
with LPG.

An appropriate injector kit can be
supplied as special accessory.

Features: "Hardline" design

Built-in glass ceramic gas hob with 2 cooking zones:

- low-emission gas burners, integrated in the glass ceramic surface
- 1 high speed cooking zone 1.9 kW
- 1 standard cooking zone 1.9 kW

Full safety.

Electric one-hand spark ignition.

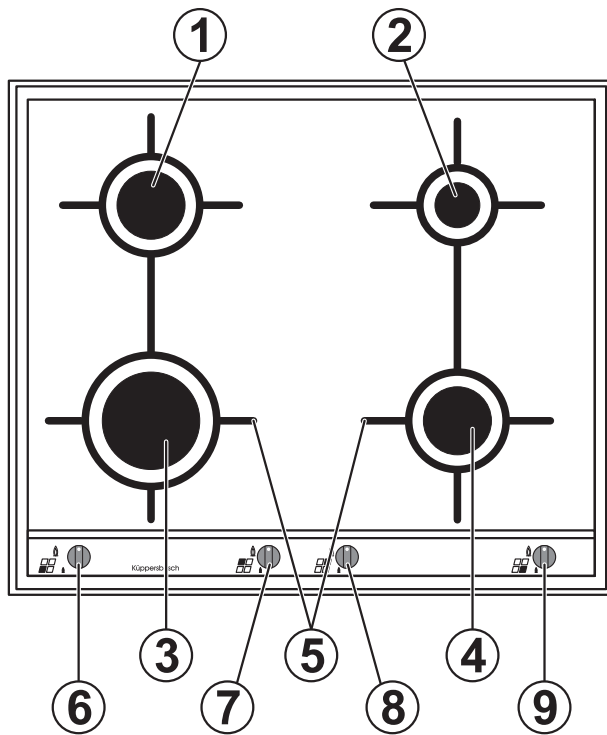
Technical data:

- Gas connection 4.8 kW
- Electric connection 0.1 kW
- Appliance dimensions:
W x D approx. 294 x 519 mm
installation height approx. 42 mm
- Recess dimensions:
W x D approx. 265 x 490 mm

Special accessories:

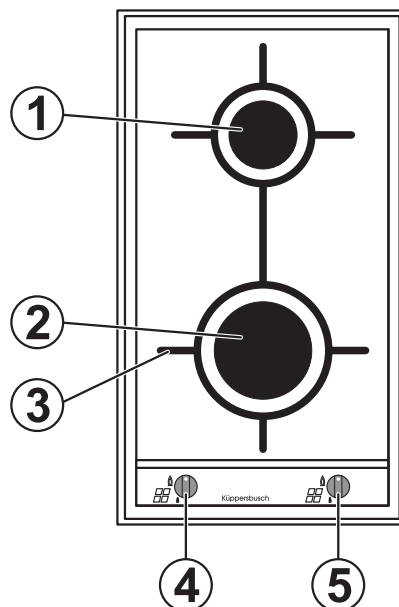
- LPG injector kit 50 mbar,
accessory no. 190
- gas connection 1/2"

1.3 Appliance Illustration GKS 644.0



- 1 Standard cooking zone
- 2 Simmering zone
- 3 High-speed cooking zone
- 4 Standard cooking zone
- 5 Pot grids
- 6 Control for high-speed cooking zone
- 7 Control for left-hand top standard cooking zone (1)
- 8 Control for simmering zone
- 9 Control for right-hand bottom standard cooking zone (4)

1.4 Appliance Illustration GKS 324.0



- 1 Standard cooking zone
- 2 High-speed cooking zone
- 3 Pot grid
- 4 Control for high-speed cooking zone
- 5 Control for standard cooking zone

2. Installation Conditions and Assembly

2.1 Notes regarding Installation

- Make sure that the worktop is horizontally aligned and precisely cut out!
- The distances of the hob recess at the front, rear and lateral to the wall must be observed in accordance with the dimension drawing. In the case of correct minimum distances, wall sealing strips of solid wood can be used on the worktop behind the cooking zones. The lateral distance to high cupboards should be at least 300 mm for technical reasons.
- There must be no cross strips below the worktop recess. They have to be cut to at least the size of the worktop recess.
- In the case of fitted furniture the plastic covering or the varnish must be processed with heat-resistant adhesive (100 °C).
- The minimum distance of fume extractors and wall-cupboards above the cooking surface must be 650 mm.

It is recommended to seal the cutting surface of the worktop recesses for built-in sinks and oven hobs by water-resistant painting.

2.2 Assembly

KÜPPERSBUSCH built-in hobs can and may be exclusively combined with KÜPPERSBUSCH built-in ovens with appliance ventilation. Exception: model series EGS. The use of other brands excludes any liability by KÜPPERSBUSCH. The granted test marks and approvals become void in the case of disregarding of this instruction!

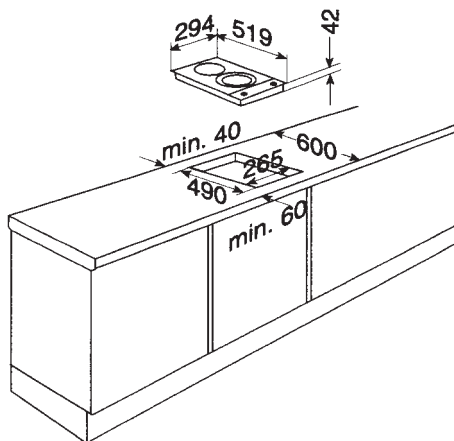
In the case of built-under ovens the gas connection bracket located centrally at the rear side under the appliance has to be twisted to the left-hand or right-hand side.

For this purpose undo the union nut, twist the bracket and tighten the union nut again.

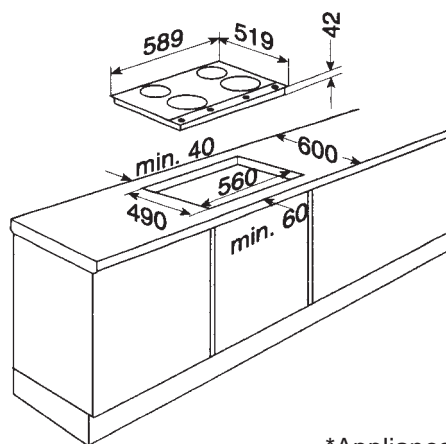
Check for gas tightness.

2.3 Installation Dimensions

GKS 324.0



GKS 644.0



*Appliance height

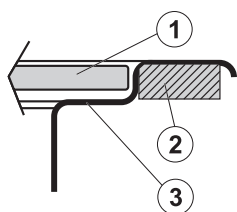
2.4 Installation

Make the worktop recess in accordance with the specified dimensions (see above drawing "Installation dimensions").

Always lift the hob at the sides and not at the front fascia!

Install sealing between cooking zone and worktop:

Prior to connecting the appliance to the power and gas supply install the sealing between cooking zone and worktop. To this end fasten the loosely attached, self-adhesive expanded rubber gasket at the underside of the cooking zone frame starting at the rear middle. After the assembly the gasket must fit as shown in the drawing below.



- 1 Glass ceramics
- 2 Expanded rubber gasket
- 3 Hob

Prior to installation and after any disassembly the seal has to be checked for damage and correct seat and replaced, if required.

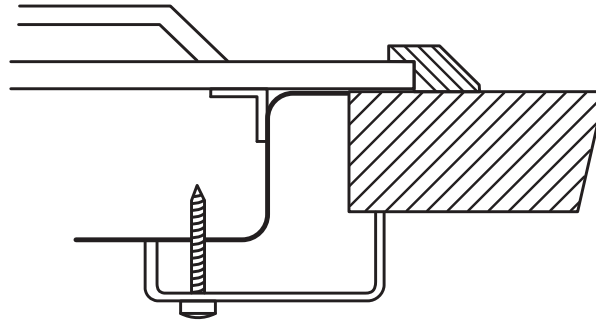
Additional sealing with silicon, etc. must not be provided as there is a risk that the coated worktops will be damaged when the hob is removed.

The built-in cupboard below the gas hob may be closed by means of an intermediate bottom as air is supplied to the burner from the top through the knob opening.

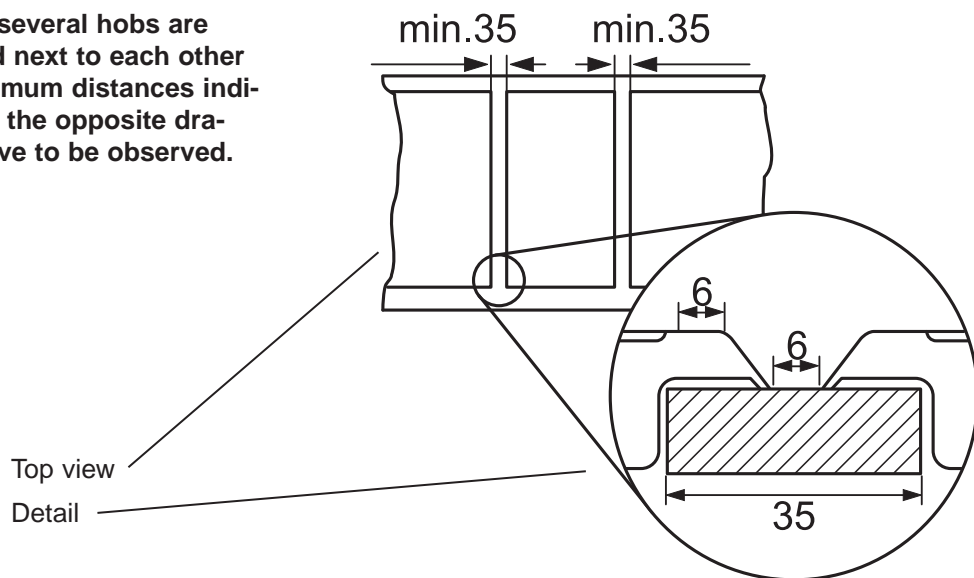
Fix the cooking zone:

After installation of the sealing position the cooking zone at the left-hand side of the worktop recess, align and fasten.

The attached fastening brackets are inserted in the front and rear recesses at the underside of the cooking hob and screwed down to the worktop (see drawing below).

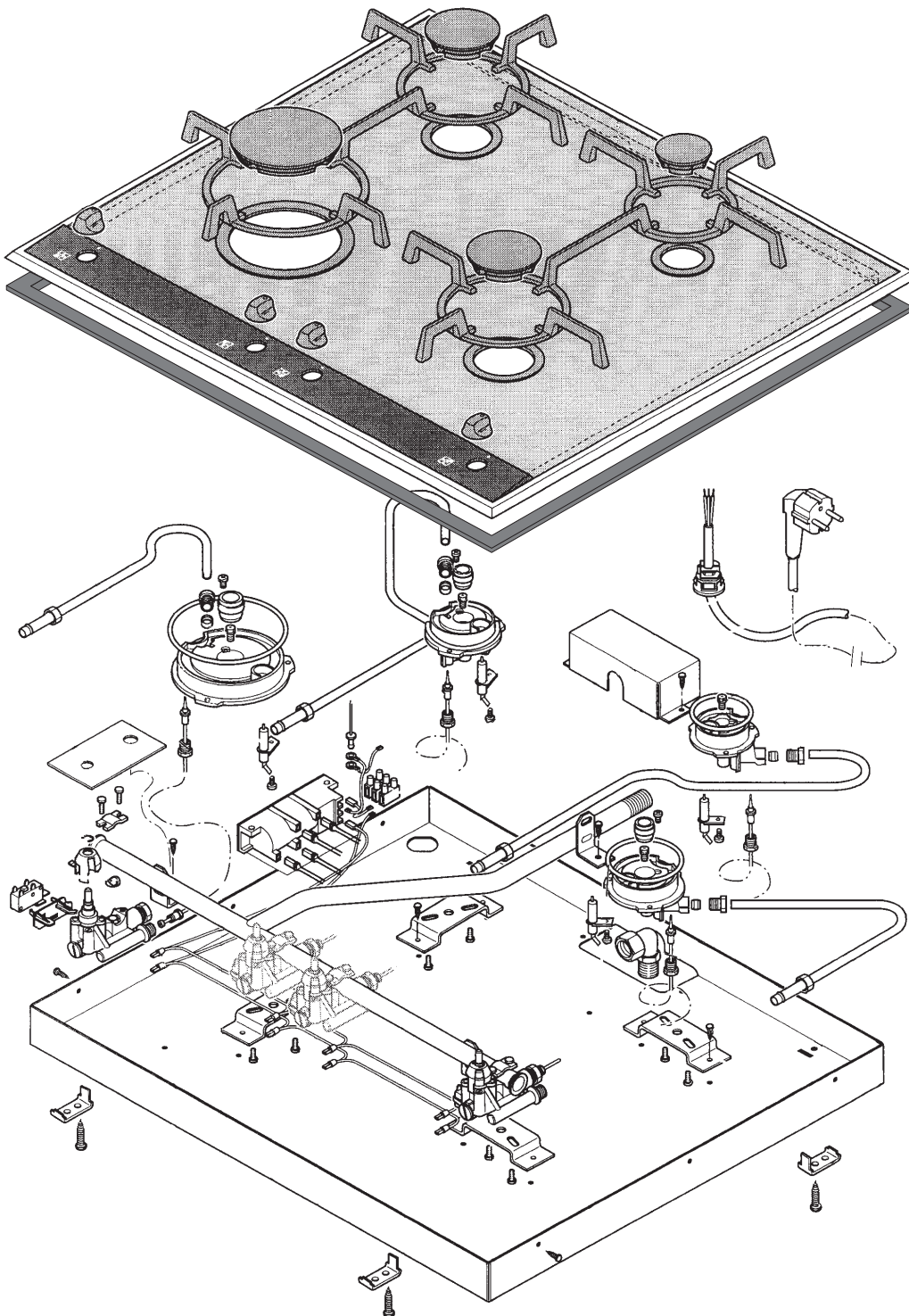


In case several hobs are installed next to each other the minimum distances indicated in the opposite drawing have to be observed.

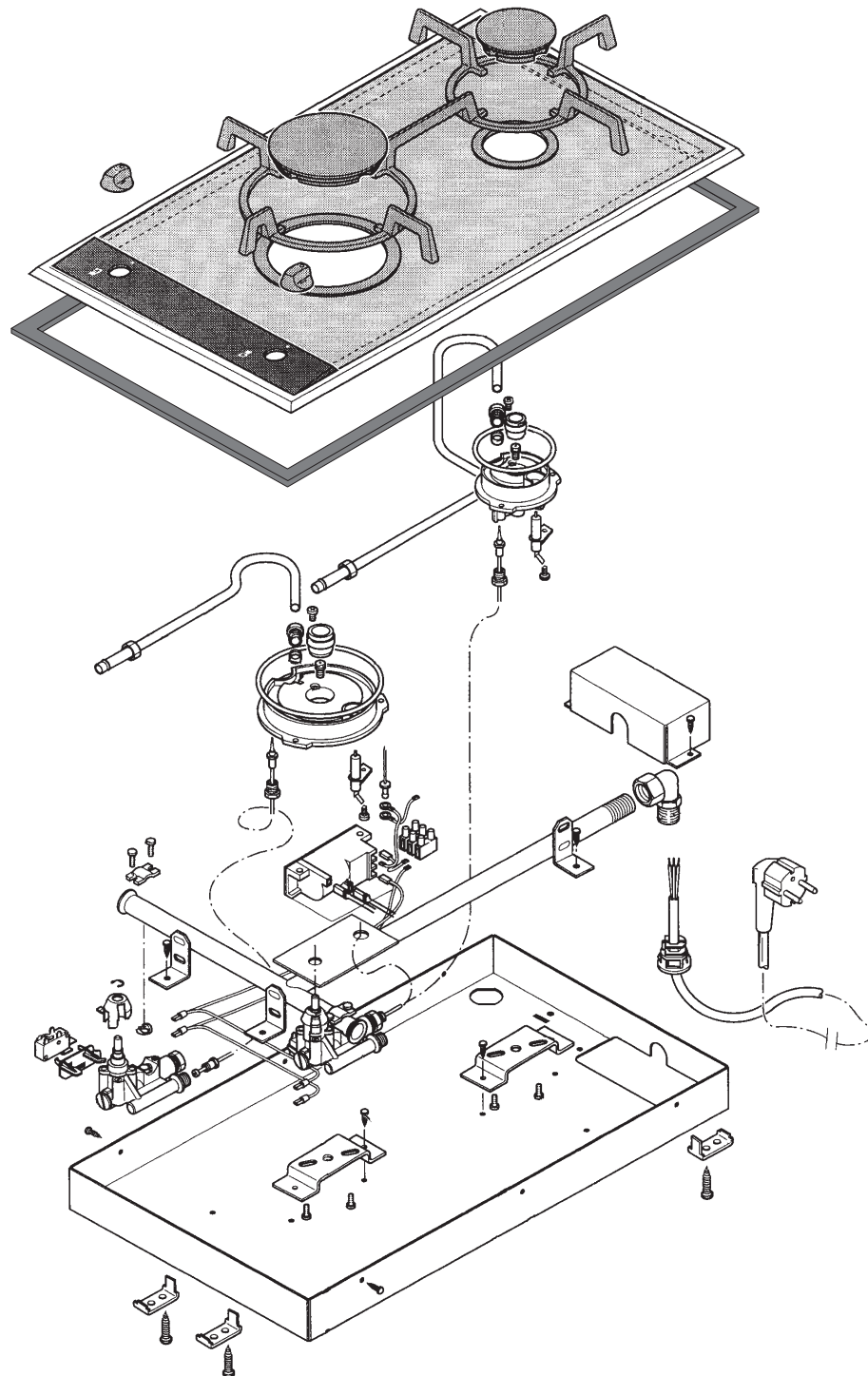


3. Technical Components (Exploded View)

3.1 GKS 644.0J GKS 644.0M



3.2 GKS 324.0J GKS 324.0M



4. Changing of Components

4.1 Disassembly of the Hob

- To remove the glass surface, lift out the ribbed plates and burner lid.
- Remove the control knobs.
- Unscrew the circumferential fastening screws of the base trough.
- Then lift out the glass surface with the frame towards the top.
- Now all internal technical components are accessible.

4.2 Changing of Components

1. Ignition device

The ignition transformer is fastened on the left-hand side of the base trough by means of adhesive tape which is supplied with the ignition transformer.

The spark plugs are fastened from the underside of the burner head by means of 1 screw each. To remove these spark plugs the gas supply line to the burner head must be loosened and the burner head screwed off from the underside of the appliance. Disassemble the spark plug by lifting the burner head.

The ignition switches are fastened at the gas tap by means of plastic brackets.

2. Thermoelectric safety pilot

The thermodetectors are fastened at the burner head by means of a union nut 13 mm SW and at the gas tap by means of a screw 8 mm SW. For disassembly undo both screw connections and remove the thermoelement.

In order to replace the solenoid inserts remove the thermoelement from the gas tap. Undo the union nut 13 mm SW at the gas tap. Pull solenoid inserts out of the gas tap.

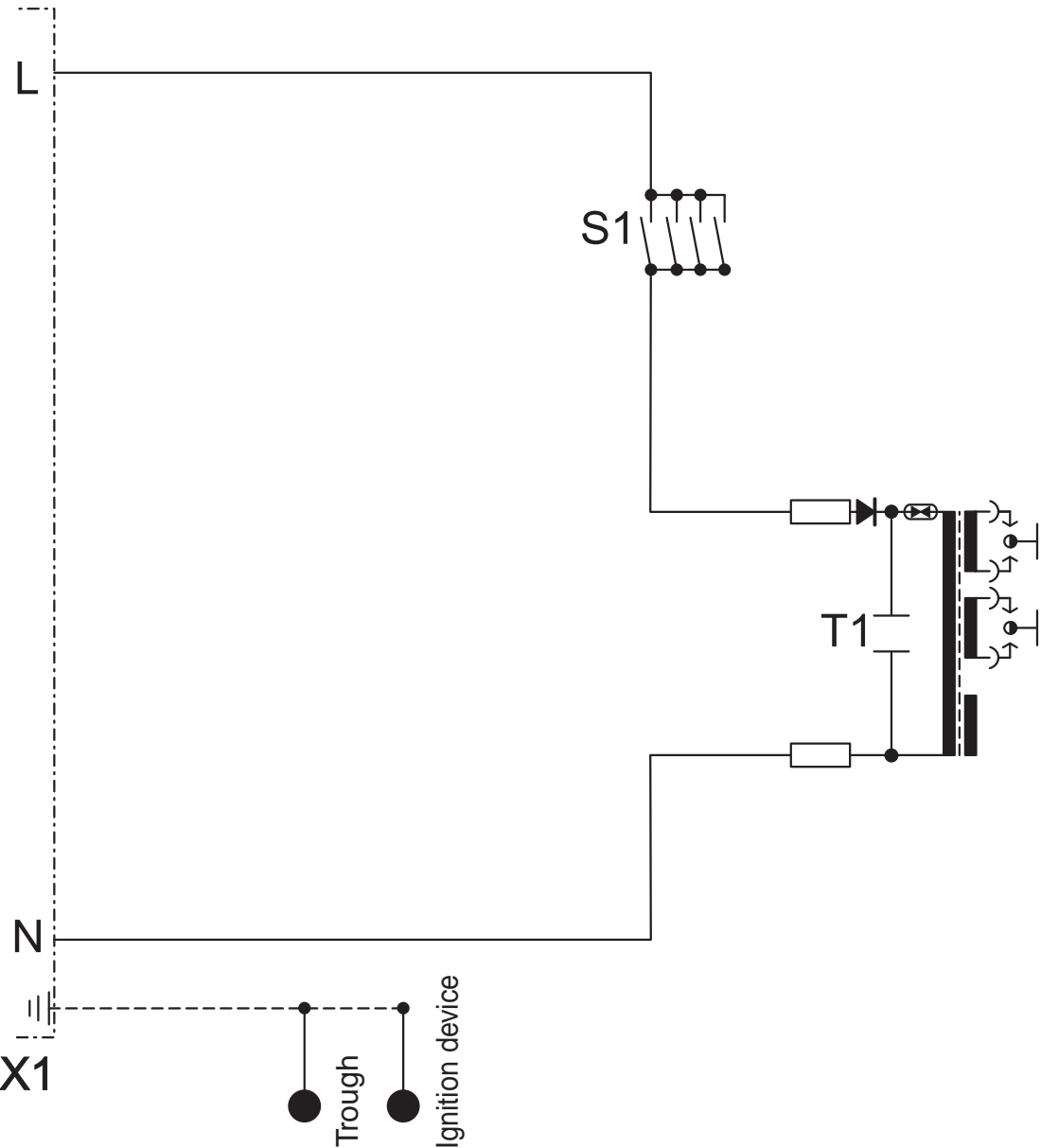
After reassembly carry out a leakage test.

3. Gas taps

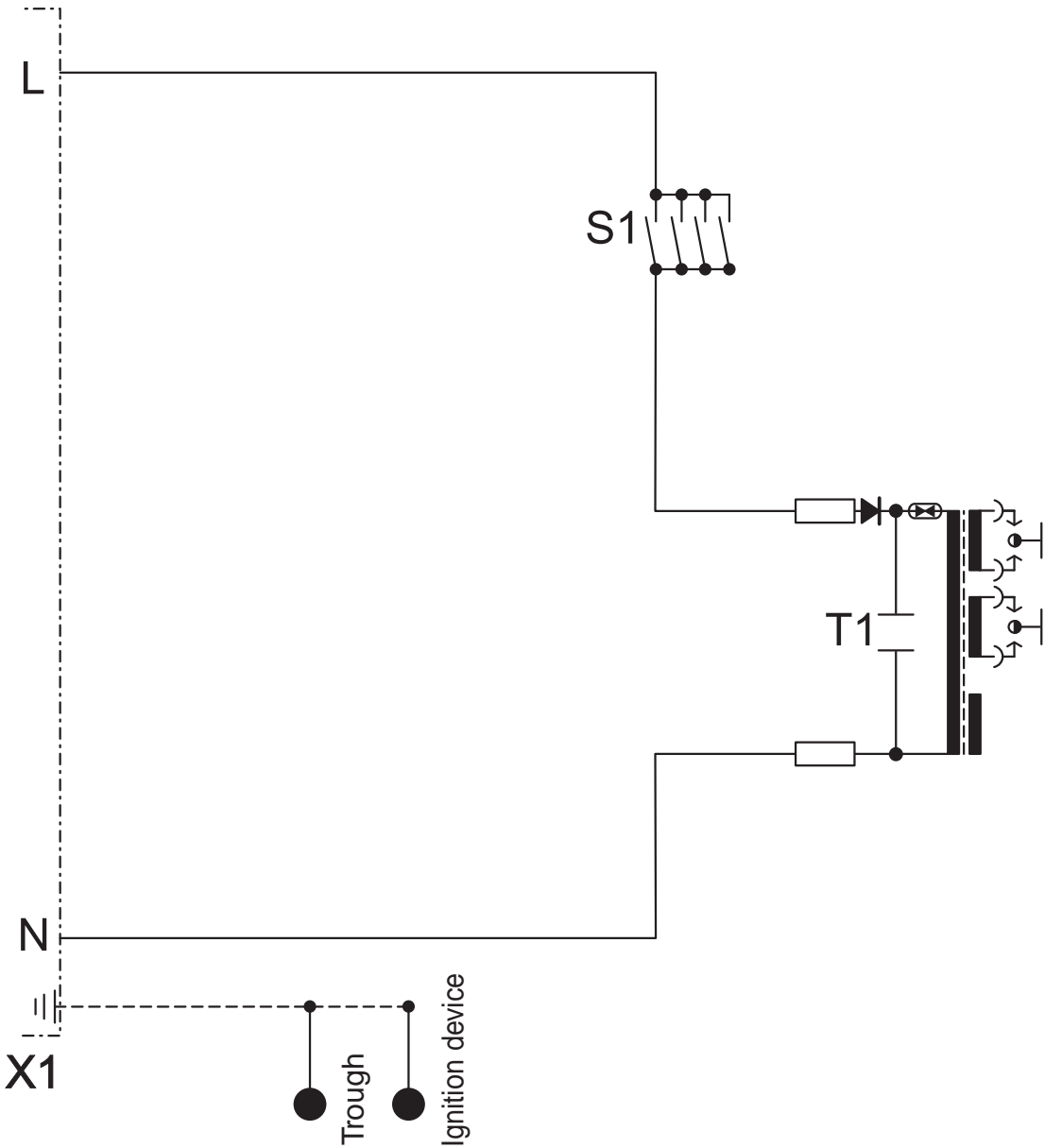
In order to change the gas taps separate the ignition switch by force, remove the fastening bracket of the gas tap by undoing 2 screws and lift the float rail by loosening the screws at the underside of the appliance. After reassembly carry out a leakage test.

5. Wiring Plans

5.1 GKS 644.0



5.2 GKS 324.0



6. Conversion to a Different Gas Type

The appliance has been factory-set to natural gas G20, 2H, 2E, 2E+.

All appliances marked with G20 are to be operated in the Wobbe index range (Wo) from 11.3 kWh/m³ to 15.2 kWh/m³ without changing the setting.

If the setting is changed, the new setting has to be marked.

6.1 Accessory Numbers of the Injector Conversion Kits

Gas type	Appliance	
	GKS 324.0	GKS 644.0
Natural gas H, E, E+ 20 mbar	Factory setting	Factory setting
Pressure pair Natural gas 20/25 mbar		
Natural gas LL 20 mbar	ACC. NO. 186	ACC. NO. 186
LPG Butane/Propane 50 mbar	ACC. NO. 190*	ACC. NO. 192*
LPG Butane/Propane 28-30 mbar	ACC. NO. 189	ACC. NO. 191
Pressure pair Butane/Propane 28-30 mbar / 37 mbar		

*Includes burner lid for replacement.

6.2 Changing the Main Injectors

- Close the gas tap!
- Remove the burner lid.
- Disassemble the injectors by means of a 7 mm wrench.
- Install new main injectors for the respective gas type in the corresponding burner housings.
- Reassemble the burner lid; if required, use the newly supplied burner lids for this purpose (see table above).

6.3 Changing the Low Setting Injectors

- Close the gas tap!
- Disassemble the hob from the worktop.
- Pull off the control knobs.
- Undo the screws at the housing side and remove the glass ceramic surface.
- Disassemble the low setting injectors located on the right side of the gas tap axis by means of a suitable screwdriver.
- Insert new low setting injectors for the corresponding gas type in the respective taps.
- Reassemble the hob in the opposite sequence and re-install. Make sure that the sealing strip at the underside fully fits.
- The air supply to the burner cannot be adjusted.

6.4 Functional Testing

After the appliance has been completely re-assembled a functional testing is to be performed!

Put the appliance into service in accordance with these operating instructions.

Check the appliance for gas leakage (see DVGW working sheet G600) ((DVGW TRGI/1986)/TRF 1988).

Check burners for overignition and regular flame aspect (also in low setting).

Provide respective nameplates for the newly set gas type in an appropriate location.

6.5 Injector Diameter

Injector marking main injector/low setting injector			
Gas type	High-speed burner	Standard burner	Simmering burner
Natural gas H, E, E+ 20 mbar	138/52	102/43	78/34
Pressure pair Natural gas 20/25 mbar			
Natural gas LL 20 mbar	145/52	112/43	83/34
LPG Butane/Propane 50 mbar	80/30	63/25	46/23
LPG Butane/Propane 28-30 mbar	92/39	71/29	54/24
Pressure pair Butane/Propane 28-30 mbar / 37 mbar			

7. Gas Connection Values

7.1 Gas Connection Values

Gas type	Rated heat load / kW (Flow)		
	High-speed burner	Standard burner	Simmering burner
Natural gas H, E, E+ 20 mbar	3.20 (5.1 l min ⁻¹)	1.65 (2.6 l min ⁻¹)	1.00 (1.6 l min ⁻¹)
Pressure pair Natural gas 20/25 mbar			
Natural gas LL 20 mbar	3.00 (5.5 l min ⁻¹)	1.65 (3.0 l min ⁻¹)	1.10 (2.0 l min ⁻¹)
LPG Butane/Propane 50 mbar	3.00 (5.5 l min ⁻¹)	1.65 (3.0 l min ⁻¹)	1.10 (2.0 l min ⁻¹)
LPG Butane/Propane 28-30 mbar	3.00 (5.5 l min ⁻¹)	1.65 (3.0 l min ⁻¹)	1.10 (2.0 l min ⁻¹)
Pressure pair Butane/Propane 28-30 mbar / 37 mbar			

The flow data refer to the combustion value and have been calculated with the test gases G20 (natural gas H, E) G25 (natural gas LL) and G30 (LPG).

The appliance has been checked in accordance with the VDE and DVGW guidelines as well as the EC guideline for gas appliances (90/396/EEG) and EN 30.

The settings for this appliance are provided on an information sign (or on the nameplate).

7.2 Table of Gas Connection Pressure Ranges

Gas type	P _n / mbar	P _{min} / mbar	P _{max} / mbar
Natural gas	20	17	25
	25	20	30
Pressure pair Natural gas	20	17	25
	25	17	30
LPG	28-30	25	35
	50	42,5	57,5
Pressure pair LPG	28-30	20	35
	37	25	45

7.3 Table of Permissible Gas Types and Pressures

Country (abbreviation acc. to ISO)	Cat.	Natural gas	LPG
Germany (DE)	I2ELL I3B/P	E (G20) 20 mbar LL (G25) 20 mbar	Butane/Propane (G30, 3B/P) 50 mbar
Austria (AT)	I2H I3B/P	H (G20) 20 mbar	Butane/Propane (G30, 3B/P) 50 mbar
Italy (IT)	I2E I3+	E (G20) 20 mbar	Pressure pair Putane/Propane (G30/31) 28-30/37 mbar
Portugal (PT) Spain (ES) United Kingdom (GB)	I2H I3+	H (G20) 20 mbar	Pressure pair Putane/Propane (G30/31) 28-30/37 mbar
Netherlands (NL)	I2L I3B/P	L (G25) 25 mbar	Butane/Propane (G30, 3B/P) 28-30 mbar
Belgium (BE) France (FR)	I2E+ I3+	Pressure pair (G20/25) 20/25 mbar	Pressure pair Putane/Propane (G30/31) 28-30/37 mbar
Luxembourg (LU)	I2E I3B/P	E (G20) 20 mbar	Butane/Propane (G30, 3B/P) 28-30 mbar
Greece (GR) Cyprus (CY)	I3B/P		Butane/propane (G30, 3B/P) 28-30 mbar

8. Power Table

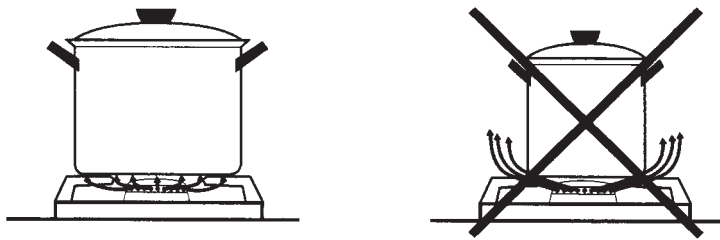
			Power in kW			
Country	Cat.	Pressure (mbar)	Simmering burner	Standard burner	Standard burner	High-speed burner
DE	I2E	20	1.00	1.65	1.65	3.20
	I3B/P	50	0.90	1.60	1.60	2.65
BE	I2E+	20	0.95	1.50	1.50	2.65
	I3+	28-30/37	1.00	1.70	1.70	2.75
	I3+	50/67	0.8/0.95	1.4/1.6	1.4/1.6	2.45/2.85
IT	I2E	20	1.00	1.65	1.65	3.20
	I3+	28-30/37	1.00	1.70	1.70	2.75
FR	I2E+	20	1.00	1.65	1.65	3.20
	I3+	28-30/37	1.00	1.70	1.70	2.75
	I3B/P	30	1.00	1.70	1.70	2.75
LU	I2E	20	1.00	1.65	1.65	3.20
	I3B/P	30	1.00	1.70	1.70	2.75
AT	I2H	20	1.00	1.65	1.65	3.20
	I3B/P 50	50	0.90	1.60	1.60	2.65
NL	I2L	25	1.10	1.65	1.65	3.00
	I3B/P	30	1.00	1.70	1.70	2.75
ES	I2H	20	1.00	1.65	1.65	3.20
	I3P	37	1.00	1.60	1.60	2.70
	I3+	28-30/37	1.00	1.70	1.70	2.75
GR	I3B/P	30	1.00	1.70	1.70	2.75
GB	I2H	20	1.00	1.65	1.65	3.20
	I3P	37	1.00	1.60	1.60	2.70
	I3+	28-30/37	1.00	1.70	1.70	2.75
Cy	I3B/P	30	1.00	1.70	1.70	2.75
PT	I2H	20	1.00	1.65	1.65	3.20
	I3P	37	1.00	1.60	1.60	2.70
	I3+	28-30/37	1.00	1.70	1.70	2.75

9. Further Technical Information

9.1 Notes regarding the Correct Pot Sizes

Using the correct pot sizes saves cooking time and energy.

Select the pot diameter in accordance with the burner size.



- Recommended pot diameters:
- High-speed cooking zone 22 - 24 cm
- Standard cooking zone 18 - 20 cm
- Simmering zone (only GKS 644.0) 16 - 18 cm
- For gas-technical reasons it is not allowed to use disks on the burners.
- Using pots with appropriate diameters prevents the pots from getting too near to the control knobs which could result in heating up or damage of the knobs.

The ribbed plates and burner lids can be cleaned in the dishwasher. After drying provide them with a thin coating of resin, acid-free grease or oil in order to avoid corrosion.

The built-in gas hobs manufactured until September 1997 have been equipped with thermoelements with a holding/releasing time of approx. 3 seconds. Due to temporary lifting off of the flames (especially at the high-speed burner) the thermoelement was partially not heated which resulted in a release of the safety pilot.

In case of problems "Flame goes out when on high setting" a thermoelement with a longer time-delay must be installed. This thermoelement is to be ordered under the already published accessory number. In case of problems "Flame goes out when on low setting" the low setting screw at the gas tap must be slightly turned out. This is due to a dimensional tolerance of the low setting injectors.