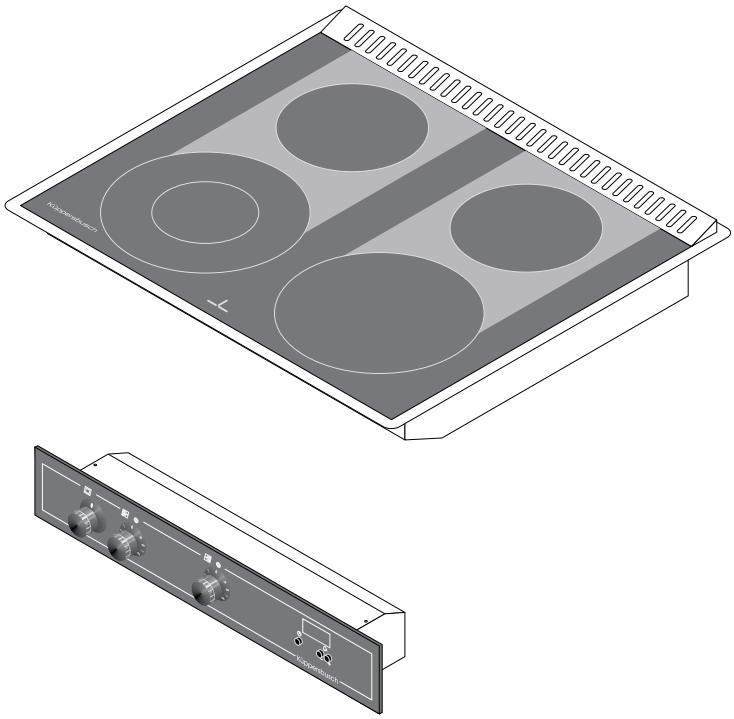

Built-in Glass Ceramic Gas Hob

GCM 642.1 ME

Built-in Electronic Control Panel

GES 642.1

Küppersbusch

THE HEART OF A GOOD KITCHEN

GB

Service Manual: H2-120-57-03

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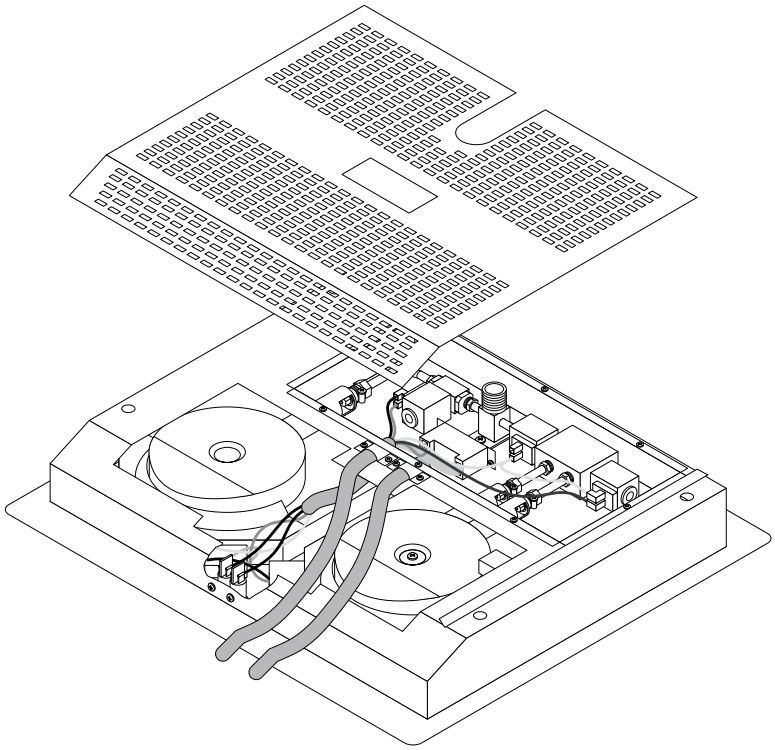
Contents

1. Technical data

Modifications in comparison to GCM 642.0 ME - GES 642.0

In the case of the previously-mentioned model 1, the following components have been modified:

- Dual-circuit cooking zone front left.
  This means that there is a selector switch on the control panel which activates the second solenoid valve (in the dual solenoid valve magnetic block), thus switching on the outer circuit as well.
- The radiation burner at the front left is equipped with two injector pipes:
  1x inner circuit and 1x outer circuit (see illustration).



Gas glass-ceramic built-in hob

- 2 high-powered burners of 2.5 kW each
- Dual circuit zone at the front left

Electronic built-in control element

- Selector switch for the front left dual-circuit cooking zone

Technical data

- Gas connection 5 kW
- Product Identification No. CE 0085 AT 0092

Special accessories

- Set of injectors for natural gas
  for natural gas G25 LL - 12.4
  with a considerable range of fluctuation and if below L-rated natural gas.
  Acc.-no. 709
  Acc.-no. 564 399

Dual-circuit operation

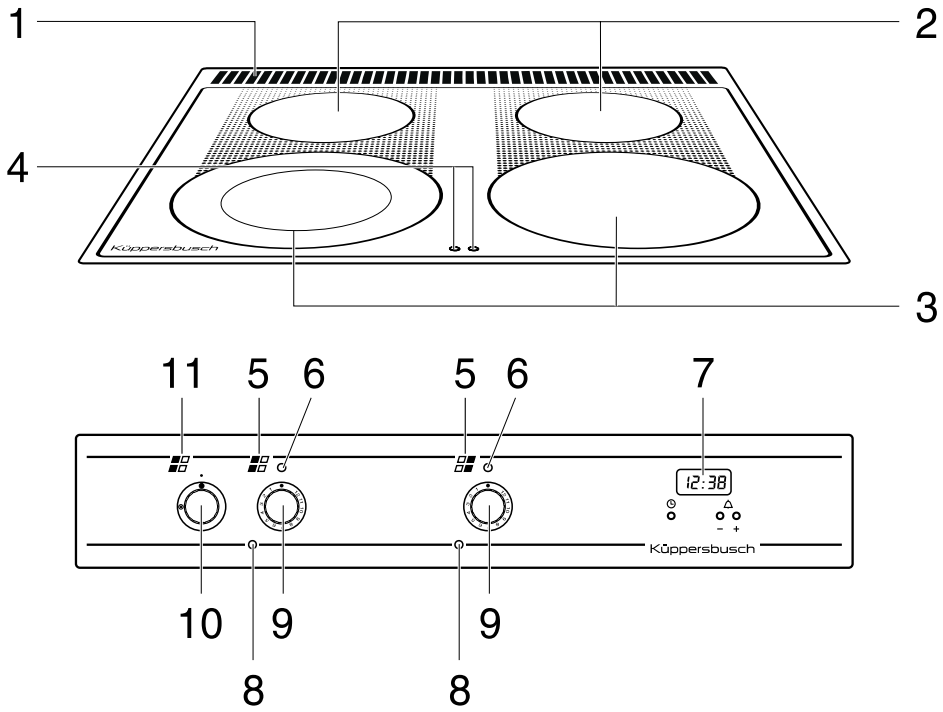
The outer annular enlargement of the burner diameter is switched on and off with the control knob located on the left beside the cooking zone control.

Knob symbols:

◉ = small burner diameter

● = large burner diameter

2. Overview of the appliance



Hob

1 Air vents

2 Simmering zones

3 Cooking zones

4 Residual heat display

Control panel

5 Symbol for cooking zones

6 Cooking zone pilot lights

7 Digital clock

8 Error displays for cooking zone

9 Controllers for cooking zones

10 Switch for dual-circuit zone

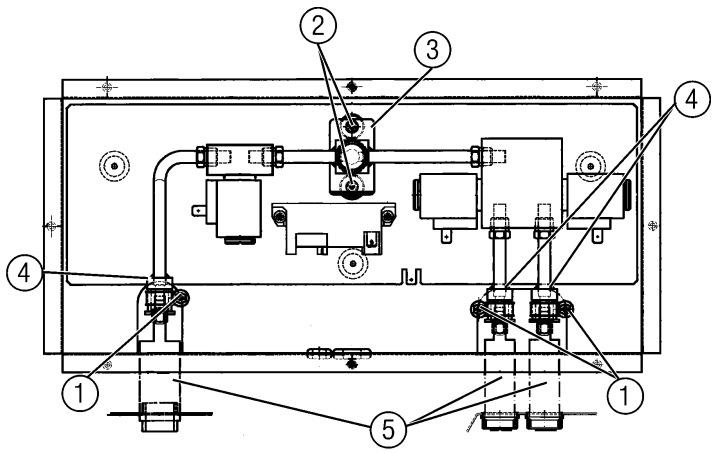
11 Symbol for dual-circuit zone

3. Converting to a different type of gas

- If the appliance is converted to run on a different type of gas, this should only be carried out by a qualified gas fitter.
- If the appliance is converted to run on a different type of gas, the jet injectors will always have to be replaced.
- All appliances marked with G20 must be operated within Wobbe index range 11.3 – 15.2 kWh/m^3 without changing the setting.
- If a setting is changed, this must be clearly indicated.

3.1 Changing the jet injectors

1. Disconnect the gas or electricity supply before converting.
2. Pull the control panel forwards out of the holder and disconnect the two plug connections to the hob.
3. Carefully lift the hob forwards out of the worktop: e.g. push scrwedriver or similar under the hob. Place the entire hob with the glass ceramic cooking surface facing down on a suitable base.
4. Remove perforated protective panelling in the area of the gas connection.
5. Undo the clips ① on the injector pipes ⑤.
6. Undo the fastening screws ② and push the valve block ③ to the rear. The injector holders ④ are pulled out of the injector pipes.
7. Remove the injectors using a 9 mm-wrench and insert the new injectors. When unscrewing the injectors, countercheck by gripping the injector holder ④ in a suitable manner.



① Clip
② Fastening screw
③ Valve block
④ Injector holder
⑤ Injector pipe

Ensure that injectors with the correct diameter are used! Suitable injectors are indicated on page 9 in the table “Diameter of injectors”.

8. After changing the injectors, insert the injector holders right back into the injector pipes and secure with the clips.
9. Screw the fastening screws of the gas connection back in again and screw on the perforated protective panelling.
10. First insert the hob into the worktop opening.
11. Connect the hob with the control panel and insert the panel back into the opening.

4. Technical data

4.1 Power, consumption and installation dimensions

Burner power (H_S)		
	Front left Front right	2.5 kW (2 x 1.25 kW) 2.5 kW
Electrical connection		
	Gas (liquefied petroleum gas) Electrical connection	364 g/h 35 W
Dimensions / mm		
	Hob W x D x H Control panel with front W x H	585 x 514 x 85 585 x 100
Opening dimensions / mm		
	Hob W x D Control panel W x H	560 x 490 525 x 90

The ratings relate to the calorific value and are calculated with the test gases natural gas G20 (methane) and LPG G31 (propane).

The appliance must be inspected in accordance with the national regulations as well as the EU Gas Equipment Directive (90/396/EEC) and EN 30.

4.2 Gas connection data

Gas type	Rated load per jet	Gas flow rate per jet
Natural gas G20, 2H, 2E 20 mbar	2.5 kW	4.0 l/min
Natural gas G20+G25, 2E+ 20/25 mbar	2.5 kW	4.0/4.6 l/min
Natural gas G25, 2LL 20 mbar	2.5 kW	4.6 l/min
Liquefied petroleum gas G30/ G31, 3B/P butane/propane gas 50 mbar	2.5 kW	182 g/h
Liquefied petroleum gas G30/ G31, 3+ butane/propane gas 28-30/37 mbar	2.5 kW	182/178 g/h

If required, sets of injectors can be ordered for natural gas LL.

G20; 2H, 2E, 20 mbar and G20/G25, 20/25 mbar settings.

All appliances marked with the setting G20; 2H, 2E, 20 mbar must be operated within Wobbe index range (15 °C, 1013 mbar) 11.3 – 15.2 kWh/m^3 without changing the setting.

All appliances marked with the pressure couple (G20/25, 20/25 mbar) must be operated within Wobbe index range (15 °C, 1013 mbar) 10.8 – 15.2 kWh/m^3 without changing the setting.

⚠ **Attention!** The settings for this appliance are indicated on an indicating label (or on the identification plate). If a setting is changed, this must be clearly indicated.

4.3 Diameter of injectors

Gas type	∅ Injector	
	left	right
Natural gas G20, 2H, 2E 20 mbar	2 x 0.85 mm	1.20 mm
Natural gas G20+G25, 2E+ 20/25 mbar		
Natural gas G25, 2LL 20 mbar	2 x 0.90 mm	1.25 mm
Liquefied petroleum gas G30/G31, 3B/P butane/propane gas 50 mbar *	2 x 0.52 mm	0.72 mm
Liquefied petroleum gas G30/G31, 3+ butane/propane gas 28-30/37 mbar	2 x 0.54 mm	0.76 mm

⚠ **Attention!** Only use special injectors obtained frome the Customer service!

The injectors are indicated 1/100 mm in the unit.

4.4 Table of permitted gas types and gas pressures

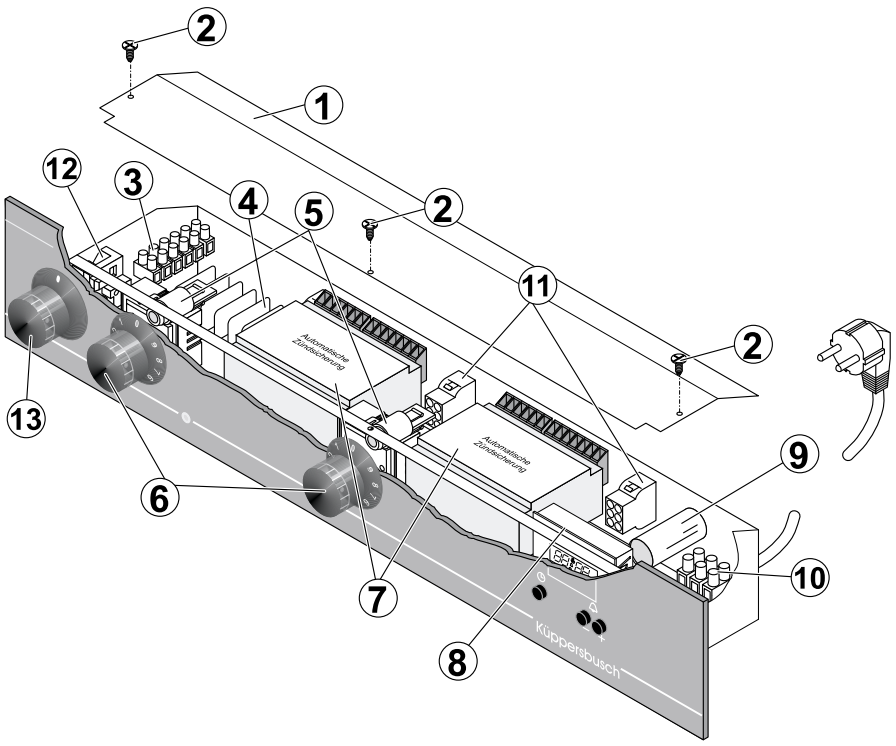
Country (ISO-abbreviation)	Category	Natural gas	Liquefied petroleum gas
Germany (DE)	$II_{2ELL3B/P}$	E (G20) 20 mbar LL (G25) 20 mbar	butane/propane gas G30/G31, 3B/P) 50 mbar
Austria (AT)	$II_{2H3B/P}$	H (G20) 20 mbar	butane/propane gas (G30/G31, 3B/P) 50 mbar
Switzerland (CH)	$II_{2H3B/P}$	H (G20) 20 mbar	butane/propane gas (G30/G31, 3B/P) 50 mbar
	II_{2H3+}	H (G20) 20 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar
Italy (IT)	II_{2H3+}	H (G20) 20 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar
Spain (ES)	II_{2H3+}	H (G20) 20 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar
United Kingdom (GB)	II_{2H3+}	H (G20) 20 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar
Netherlands (NL)	$II_{2L3B/P}$	L (G25) 25 mbar	Butane/propane gas (G30/G31, 3B/P) 30 mbar
Belgium (BE)	II_{2E+3+}	Pressure couple (G20/ G25) 20/25 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar
Luxembourg (LU)	I_{2E}	E (G20) 20 mbar	–
France	II_{2E+3+}	Pressure couple (G20/ G25) 20/25 mbar	Pressure couple butane/propane gas (G30/G31) 28-30/37 mbar

5. Dismantling the controls

a) Subsequent to removing the controls, the covering 1 can be lifted by means of unscrewing the three screws.

b) The following components are now accessible from the top:

- 3 Control lamp distribution terminal
- 4 Distribution plug wiring
- 5 Control lamps
- 6 Power controls
- 7 Ignition and monitoring electronics system
- 8 Electrical timer
- 9 Power-line filter
- 10 Mains terminal
- 11 9 + 12-polar plug connection
- 12 Dual-circuit cooking zone selector switch
- 13 Control knob for dual-circuit cooking zone

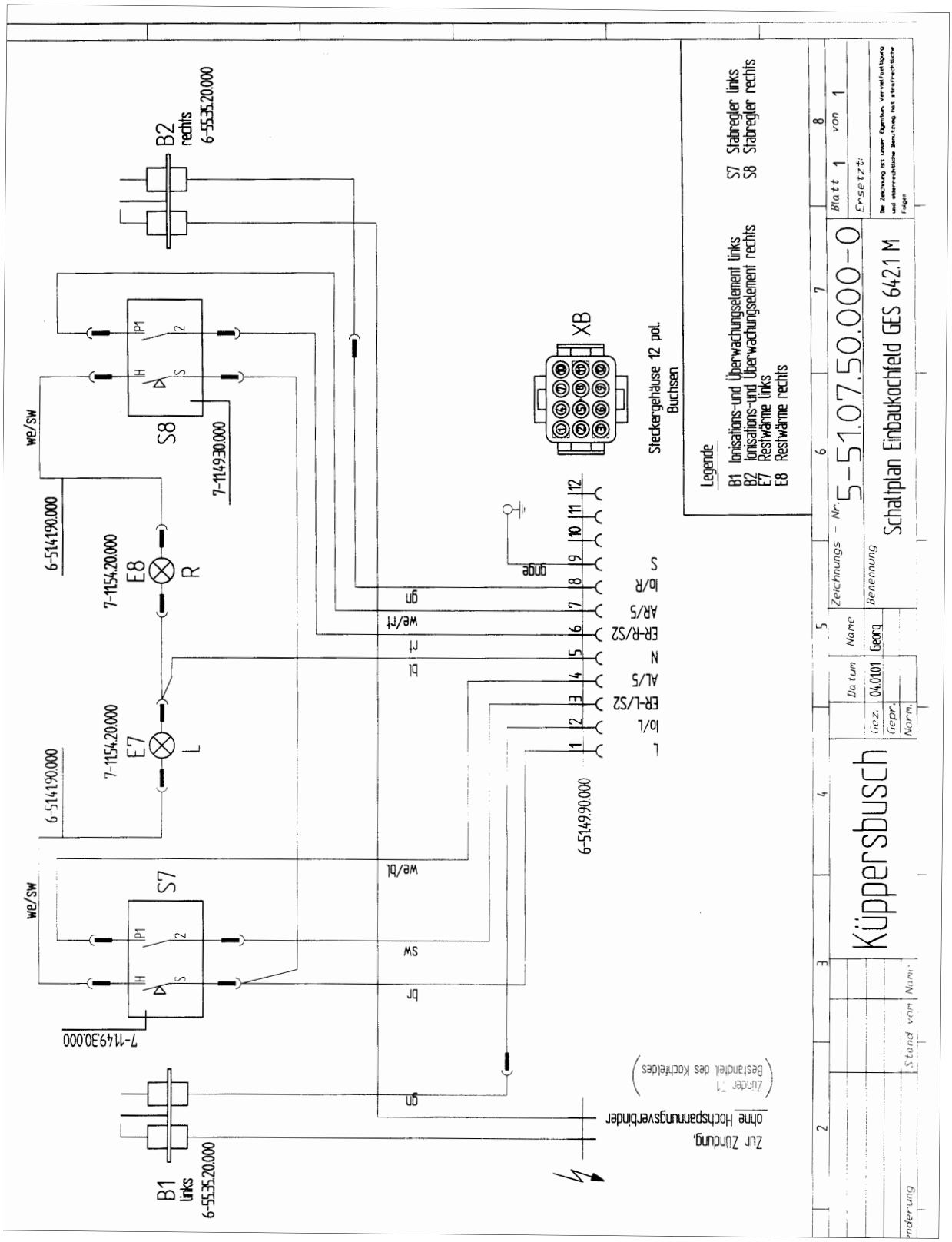


6. Wiring plans (See following pages)

Legend

A 1	Controlling and monitoring setting, left-hand cooking zone
A 2	Controlling and monitoring setting, right-hand cooking zone
A B	Controlling and monitoring setting, oven
A L	Controlling and monitoring setting, left-hand cooking zone
A R	Controlling and monitoring setting, right-hand cooking zone
B 1	Ionisation monitoring element, left-hand cooking zone
B 2	Ionisation monitoring element, right-hand cooking zone
E 1	Fault light, left-hand burner
E 2	Fault light, right-hand burner
E 4	Pilot light, right-hand burner
E 4	Pilot light, right
E 5	Pilot light, left-hand burner
E 5	Pilot light, left
E 7	Residual heat, left
E 8	Residual heat, right
ER-L	Energy controller, left
ER-L	Energy control, left, with dual-circuit connection switch
ER-R	Energy controller, right

Aufnahmegehäuse 12-pol. XB	Installation casing, 12-pole XB
Automatische Zündsicherung	Automatic safety pilot
Buchsen	Sleeves
Kochfläche L+R	Left-hand and right-hand cooking zones
(MVL) Y1 Magnetventilblock links, Hauptgas	Left-hand solenoid valve block, gas main
(MVLa) Y1a Magnetventilblock links, Zweikreisbrenner	Left-hand solenoid valve block, dual-circuit burner
(MVR) Y1 Magnetventil rechts	Solenoid valve right
Nach Anschluss Blatt 2	After connection Page 2
P 1 Elektronik Kurzzeitwecker	Electrical timer
S 7 Stabregler links	Bar control, left
S 8 Stabregler rechts	Bar control, right
S 9 Schalter Zweikreis	Dual-circuit switch
Stifte	Pins
Steckergehäuse 9-pol.	Plug casing, 9-pole
T 1 Taktfunkenzünder	Intermittent spark igniter
U1 Störungslampe Brennstelle, links	Fault light, left-hand burner
Von Anschluß Blatt 1	From connection Page 1
X A Steckverbindung Magnetventile	Connector solenoid valve
X B Steckverbindung Kochfläche links+rechts	Plug connection, cooking surface, left and right
X 1 Verteilerleiste	Distributor link
X 2 Verbindungsstück	Connecting piece
Y 1 Magnetventil Brennstelle, links	Solenoid valve, left-hand burner
Y 1a Magnetventil Brennstelle, links Zweikreisbrenner	Solenoid valve, left-hand dual-circuit burner
Y 2 Magnetventil Brennstelle, rechts	Solenoid valve, right-hand burner
Z 1 Funkenstörfilter	Radio interference filter
zur Zündung, ohne Hochspannungsverbinder	For ignition, without high-tension connector
(Zünder T1 Bestandteil des Kochfeldes)	(T1 igniters part of the hob)


Schaltplan Einbaukochfeld GES 642.1 M
5-51.07.50.000-0
Küppersbusch
Legende
B1 Ionisations-und Überwachungselement links
B2 Ionisations-und Überwachungselement rechts
E7 Restwärme links
E8 Restwärme rechts
S7 Stabregler links
S8 Stabregler rechts
XB
Steckergehäuse 12 pol.
Buchsen
B1 links 6-553520.000
B2 rechts 6-553520.000
S7
S8
E7 7-1154.20.000 L
E8 7-1154.20.000 R
6-514190.000
7-114930.000
7-1493.0.000
6-5149.90.000
Zur Zündung, ohne Hochspannungsverbinder
Zünder (Bestandteil des Kochfeldes)
L
lo/L
ER-L/S2
AL/S
N
ER-R/S2
AR/S
lo/R
S
ge
gn
we/rt
rt
bl
we/bl
sw
br
we/sw
Zeichnungs - Nr.
Benennung
Name
Datum
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Norm.
Blatt 1 von 1
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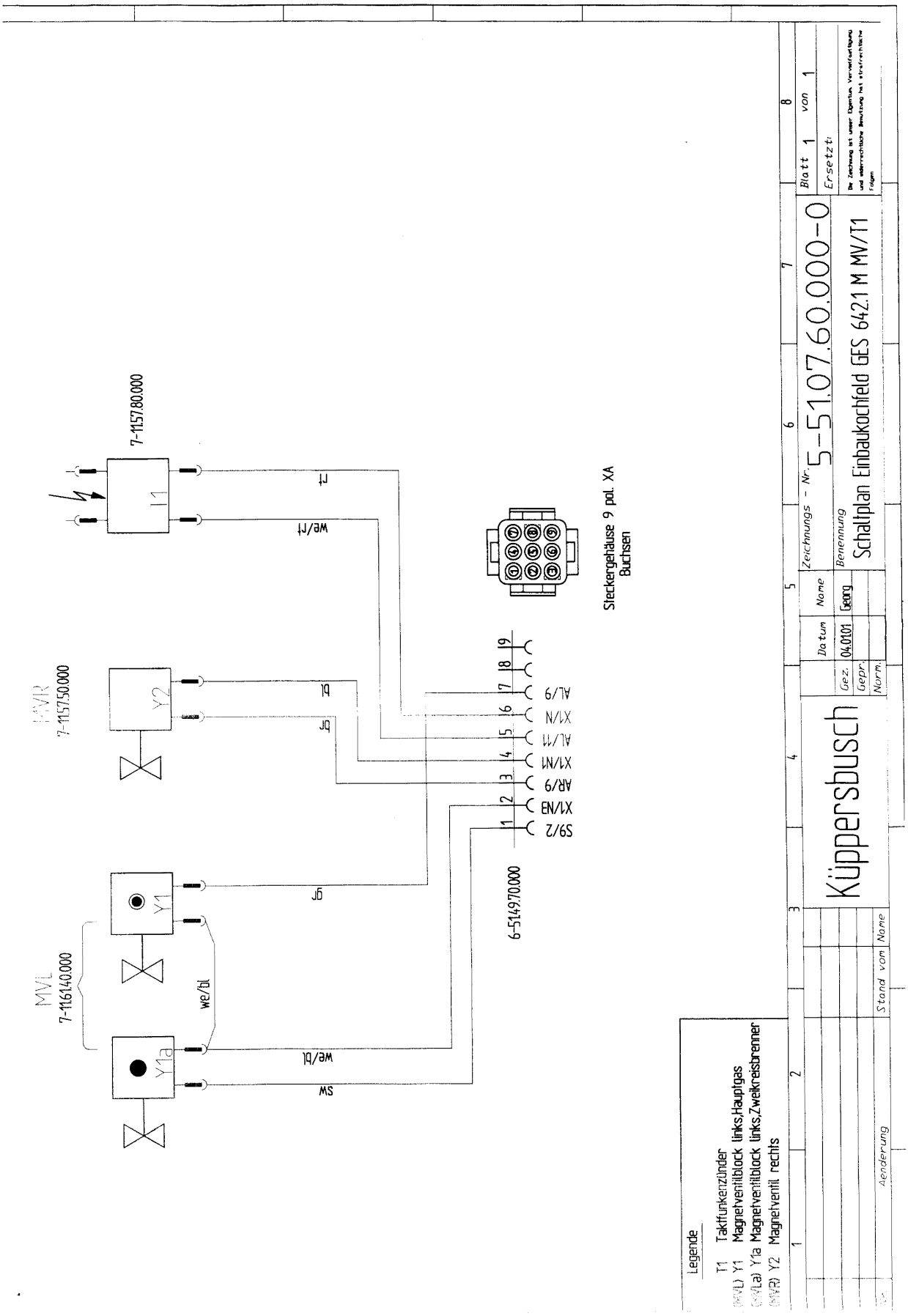
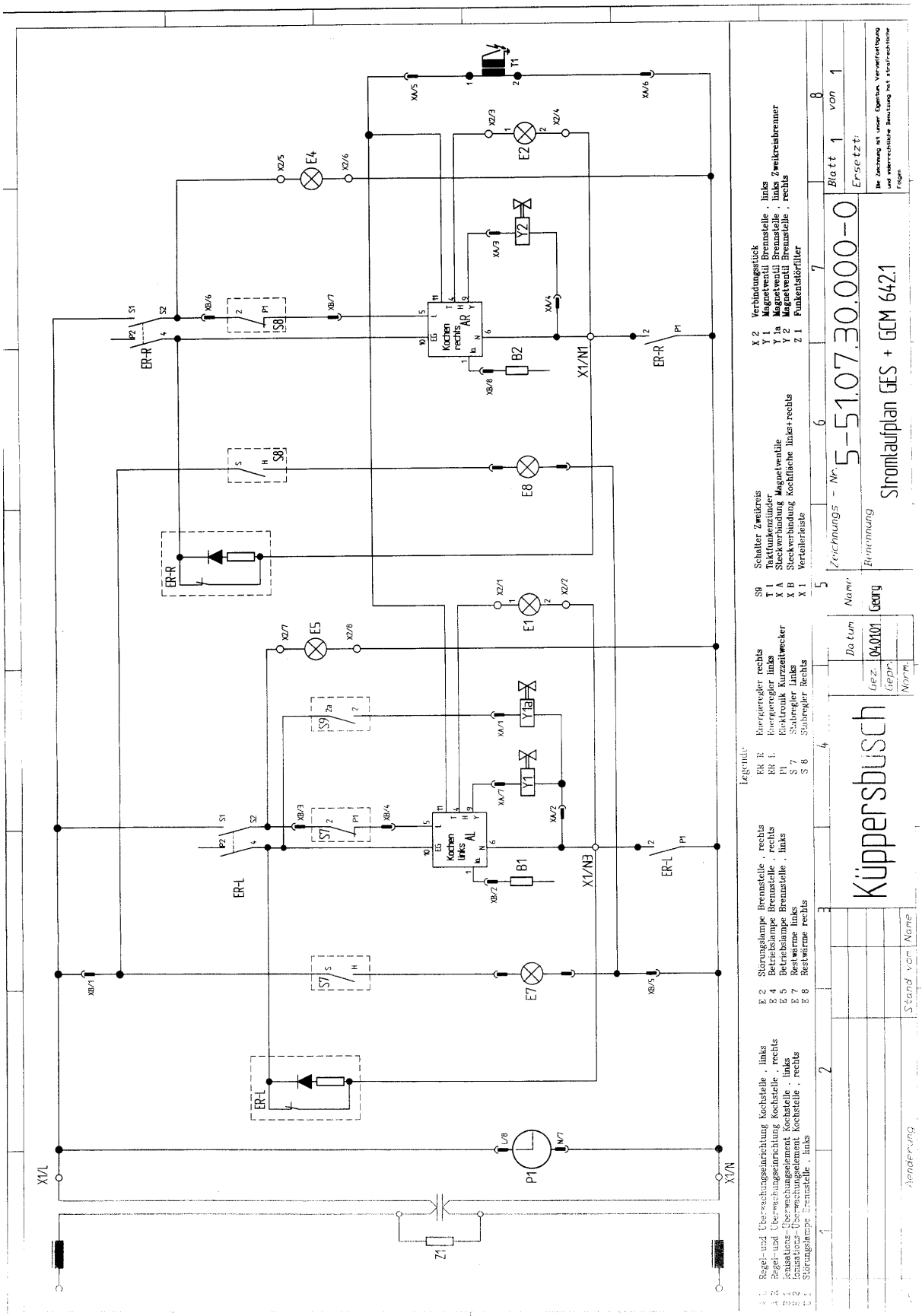
Num.
Änderung




X1/L
X1/N
X1/N1
X1/N3
P1
Z1
B1
B2
E1
E2
E4
E5
E7
E8
T1
Y1
Y1a
Y2
ER-L
ER-R
Kochen links AL
Kochen rechts AR
Legende
Schalter Zweikreis
Taktfunkenzünder
Steckverbindung Magnetventile
Steckverbindung Kochfläche links+rechts
Verteilerleiste
Verbindungsstück
Magnetventil Brennstelle , links
Magnetventil Brennstelle , links Zweikreisbrenner
Magnetventil Brennstelle , rechts
Funkenstörfilter
Störungslampe Brennstelle , rechts
Betriebslampe Brennstelle , rechts
Betriebslampe Brennstelle , links
Restwärme links
Restwärme rechts
Kippregler rechts
Kippregler links
Kurzzeitwecker
Stellregler links
Stellregler rechts
Küppersbusch
Zeichnungs - Nr. 5-51.07.30.000-0
Benennung Stromlaufplan GES + GCM 642.1
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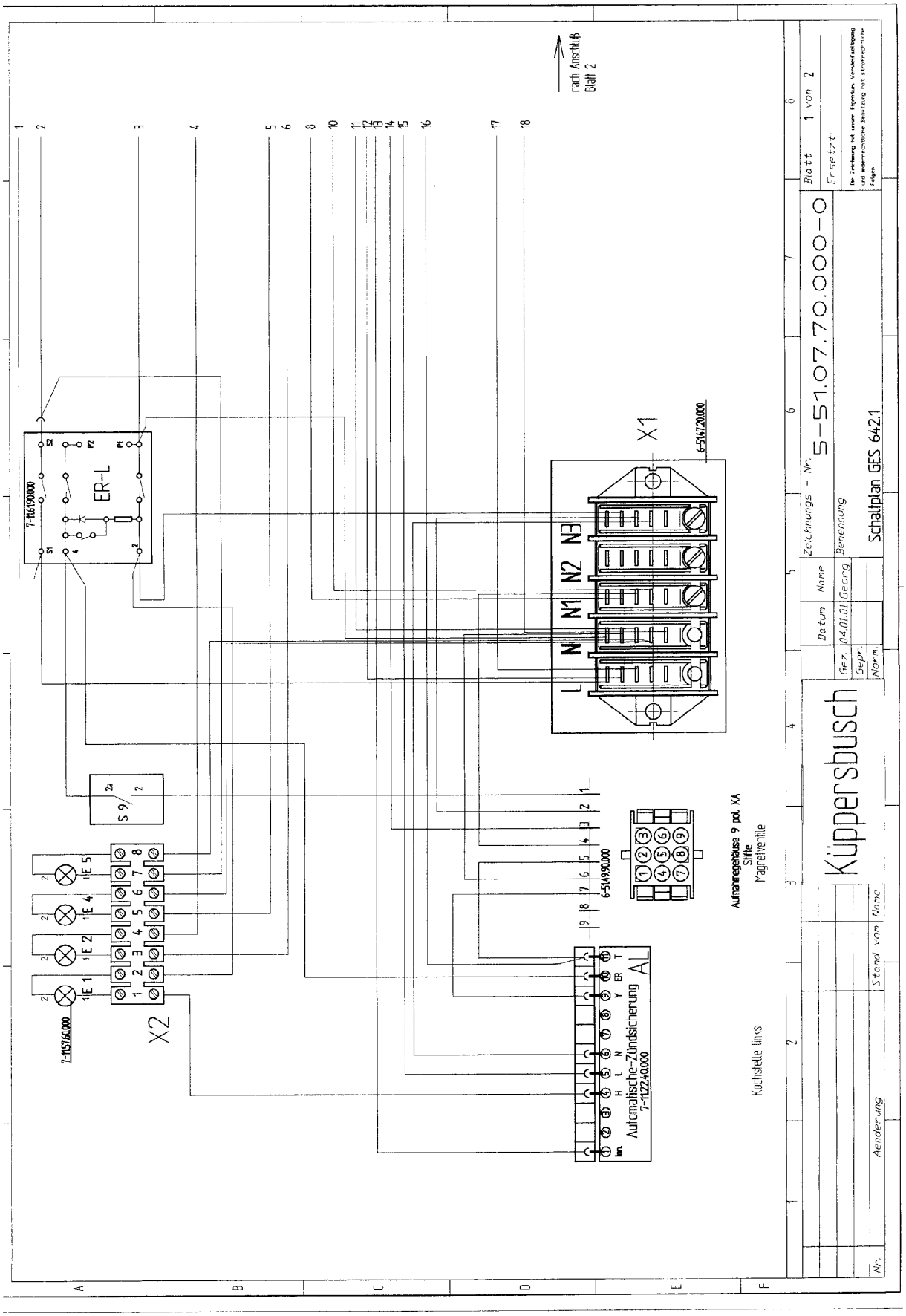
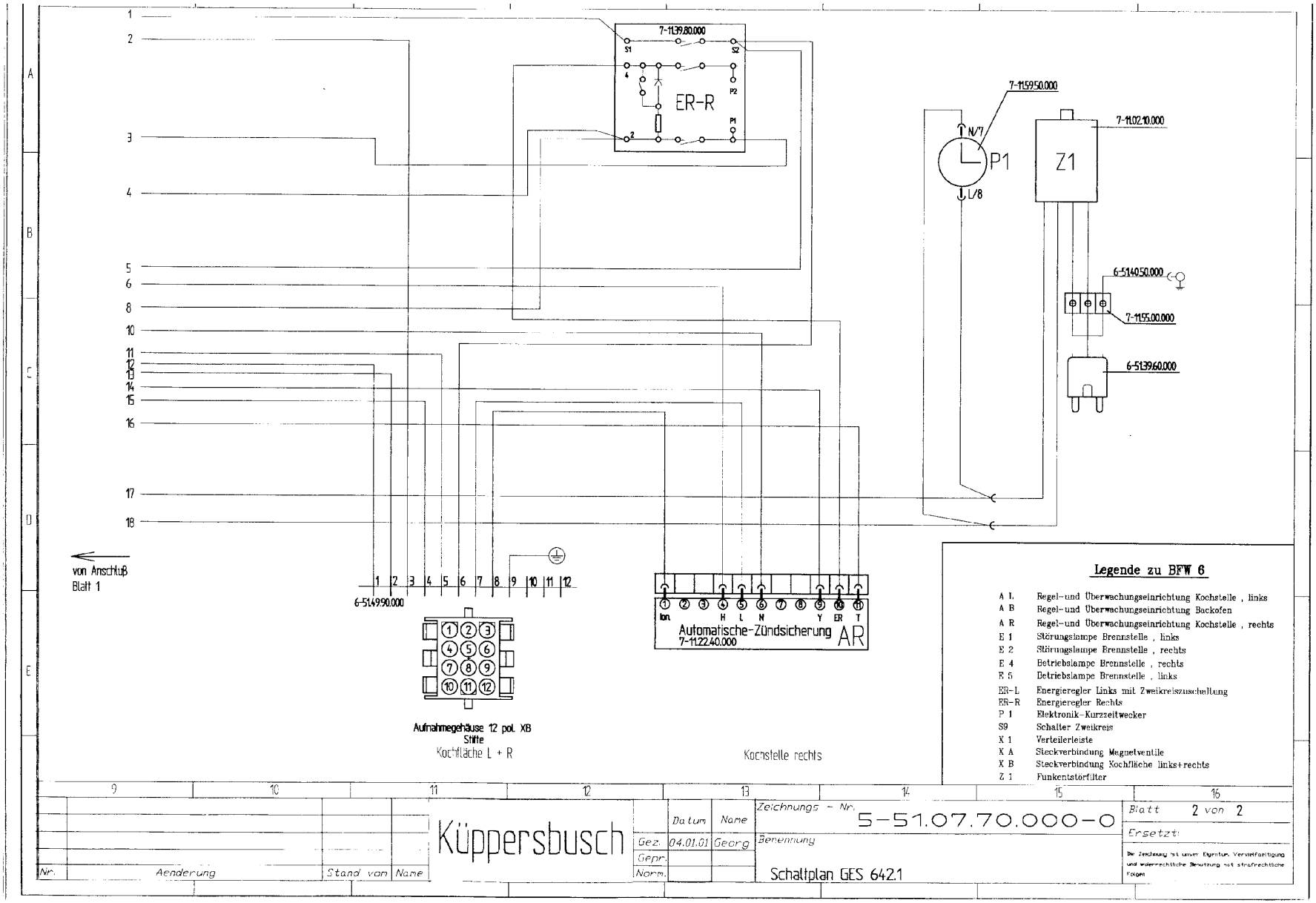
Stand vom Name
gez. 04.01.01 Georg
gepr.
Norm.
Datum
Name





Legende zu BFW 6

A L	Regel- und Überwachungseinrichtung Kochstelle , links
A B	Regel- und Überwachungseinrichtung Backofen
A R	Regel- und Überwachungseinrichtung Kochstelle , rechts
E 1	Störungslampe Brennstelle , links
E 2	Störungslampe Brennstelle , rechts
E 4	Betriebslampe Brennstelle , rechts
E 5	Betriebslampe Brennstelle , links
ER-L	Energieregler Links mit Zweikreiszuschaltung
ER-R	Energieregler Rechts
P 1	Elektronik-Kurzzeitwecker
S9	Schalter Zweikreis
X 1	Verteilerleiste
X A	Steckverbindung Magnetventile
X B	Steckverbindung Kochfläche links+rechts
Z 1	Funkentstörfilter

9	10	11	12		13		14	15	16
					Datum	Name	Zeichnungs - Nr. 5-51.07.70.000-0		Blatt 2 von 2
				Gez.	04.01.01	Georg	Benennung		Ersetzt:
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			Küppersbusch	Norm.					