Berner- Kochsysteme GmbH & Co KG
Sudetenstrasse 5 – D-87471 Durach
Tel. 0831/697247-0; Fax. 0831/697247-15
E-Mail: Berner-Kochsysteme@t-online.de

Operation instructions for Induction Units

BM,BI1S,BI2S,BWM,BI1K,BI1F,BI1SP,BWK,BFW,BWBK
BI2K,BI4K,BIH2K,BIHW,BIH4K,BIH6K,BI2SH,BI4SH,BI6SH,BIHK

BI1EG,BI2EG,BI3EG,BI4EG,BI6EG,BWEB,BWB

Contents list

		Page
1	**General information**	3
1.1	Area of application	3
2	**Products description**	3
2.1	Products	3
2.2	Technical Data	4
	2.2.1. Operation and Control	4
	2.2.2. Technical data	4-6
	2.2.3. Function conditions	6
3	**Installation**	
3.1	Electrical data of the Units	7
	3.1.1. Unit Performance (2,5 kW, 3 kW)	7
	3.1.2. Unit Performance (3,5 kW)	7
	3.1.3. Unit Performance (5 kW)	7
	3.1.4. Unit Performance (7 kW, 8 kW)	7
3.2	Installation requirements	8
3.3	Installation instructions	8
3.4	Additional Installation instructions for the built-in Model	8-9
4	**Taking the Unit into Service**	9
4.1	Unit Assembly	9-10
5	**Function test**	11
6	**Operation**	12
6.1	Cooking	12
7	**Safety instructions**	13
7.1	Description of warning symbols and indicators	13
7.2	Dangers resulting from not observing the safety instructions	13
7.3	safe Application	14
7.4	Operator Safety Instructions	14
7.5	Improper operation	15
7.6	Modification / use of spare parts	15
7.7	Pan detection	15
7.8	Heating zone monitoring	15
7.9	Noises	15
8	**When the unit is not in use**	15
9	**Troubleshooting**	16-18
9.1.	Overview error messages on display	18
10	**Cleaning**	19
11	**Maintenance**	20
12	**Disposal**	20
13	**Sparepartlist**	21-24
14	**Declaration of conformity**	25
15	**Technical documentation**	26-

1. General information

These operating instructions contain basic information on what needs to be considered during installation, operation, and maintenance of the equipment. They must be read entirely by the fitter and operators before the equipment is installed and taken into operation. They must always be kept close to the cooking site for reference.

1.1 Area of application

"Berner" cooking units have been designed for the preparation of meals. They can be used for cooking, keeping food warm, as well as for flambé singing, grilling, etc. Note: Only use pans suitable for induction cooking with these units. You should not use no-name products. The pan bottom must be magnetic. If in doubt, check with the help of a magnet.

2. Products description

2.1 Products

BM-Models

BM2.5, BM3, BM3.5, BI1K ,BI1F, BI1SP, BWK, BWBK, BFW, BWM, BI1S, BI2S, BI2K, BI4K, BIH2K, BIHW, BIH4K, BI2SH, BI4SH, BIHK

BI-Models

BI1K, BI2K, BI1EG, BI2EG, BI3EG, BI4EG, BI6EG, BWEB, BWB, BI4K,

- Compact module design
- Easy installation
- service-friendly
- easy operation via power control knob
- compact high-performance electronics for easy and safe operation
- max. operation safety due to various protecting and control functions
- compact outside dimensions
- low weight

2.2 Technical Data

2.2.1 Operation and Control

Operation indicator lamp **„Operation, Pan Detection"** 2V DC/ approx. 10mA (LED red)
Output regulator – potentiometer 0Ohm – 10kOhm
Digital display **„Performance und Fault display"** 2,8V DC/ca. 60mA (red)
Lamp **„ Mode " green** (just for Models with Main switch)

Dimensions	W x D x H	Ceramic glass surface
On table units		
BM	340 x 420 x 100 mm	290 x 290 x 4 mm
BI1S	330 x 380 x 100 mm	320 x 310 x 4 mm
BI2SK	330 x 575 x 100 mm	320 x 510 x 4 mm
BI2SQ	600 x 380 x 100 mm	590 x 310 x 4 mm
BWM	330 x 380 x 175 mm	Wok glass bowl
BI1K2.5/3.5/S3.5	400 x 455 x 120 mm	350 x 350 x 4 mm
BI1K3.5/5	400 x 455 x 120 mm	350 x 350 x 6 mm
BI1K7/KF5/KF7	400 x 455 x 130 mm	350 x 350 x 6 mm
BI1FP/BI1FF/BI1SP	400 x 455 x 180 mm	388 x 388 x 6 mm
BWK	400 x 455 x 180 mm	Wok glass bowl
BFW	400 x 655 x 120 mm	Wok glass bowl
BWBK	500 x 555 x 240 mm	Wok glass bowl
BI2K7/10	400 x 655 x 120 mm	350 x 560 x 6 mm
BI2KT	400 x 765 x 120 mm	350 x 650 x 6 mm
BI2KQ7/10	700 x 455 x 120 mm	650 x 350 x 6 mm
BI2KFQ10/14	700 x 455 x 130 mm	650 x 350 x 6 mm
BI4KT14K	700 x 665 x 120 mm	650 x 605 x 6 mm
BI4KT14/20	700 x 765 x 120 mm	650 x 650 x 6 mm
BI2KTH../ BI2KTHF..	400 x 700 x 200 mm	350 x 605 x 6 mm
BI4KTH../ BI4KTHF..	700 x 700 x 200 mm	650 x 605 x 6 mm
BWKTH..	400 x 700 x 200 mm	Wok glass bowl
Mount-in		
BI1EGM	340 x 340 mm	290 x 290 x 4 mm
BI1EGS	400 x 400 mm	350 x 350 x 4 mm
BI1EG/ BI1EGF	400 x 400 mm	350 x 350 x 6 mm
BI1EGG/F/SP	440 x 440 mm	388 x 388 x 6 mm
BI1EGSF/ BI1EGSPW	440 x 600 mm	388 x 560 x 6 mm
BI1EGHK8	480 x 480 mm	430 x 430 x 6 mm
BI1EGSM1/2/4	480 x 480 mm	430 x 430 x 6 mm
BI1EGSPQ1	840 x 280 mm	788 x 230 x 6 mm
BI1EGSPL1	280 x 840 mm	230 x 788 x 6 mm
BI2EGQ7/10	700 x 400 mm	650 x 350 x 6 mm
BI2EGFFQ10/14	700 x 400 mm	650 x 350 x 6 mm
BI2EG7/10/ FF10/14	400 x 700 mm	350 x 650 x 6 mm
BI2EG7K/10K	400 x 650 mm	350 x 605 x 6 mm
BI2EGF10K/14K	400 x 650 mm	350 x 605 x 6 mm
BI2EG7SK/10SK	400 x 600 mm	350 x 560 x 6 mm
BI2EG5M/7M	350 x 550 mm	310 x 510 x 6 mm
BI3EGQ/QF	1000 x 400 mm	950 x 350 x 6 mm
BI4EG/D/DF	700 x 700 mm	650 x 650 x 6 mm
BI4EG..K/ EGD./EGDF.	700 x 650 mm	650 x 605 x 6 mm
BI4EG14SK/20SK	700 x 600 mm	650 x 560 x 6 mm
BI4EG10KK/14KK	590 x 600 mm	550 x 560 x 6 mm
BI410M/14M	590 x 550 mm	550 x 510 x 6 mm
BI6EG..K/ BI6EGAF..K	1000 x 650 mm	950 x 605 x 6 mm
BI2EGAQ10/FQ10/14	770 x 420 mm	720 x 370 x 6 mm
BI2EGA10/F10/14	420 x 770 mm	370 x 720 x 6 mm
BI4EGA../K../F..	750 x 770 mm	700 x 720 x 6 mm
BI6EGA../K../F..	1100 x 770 mm	1050 x 720 x 6 mm
BI4EGAL../K../F..	770 x 750 mm	720 x 700 x 6 mm
BI2EGMQ10	890 x 490 mm	788 x 388 x 6 mm
BI2EGMQ..	890 x 490 mm	788 x 388 x 6 mm
BI2EGMF16/ BI2EGMS16	840 x 600 mm	788 x 560 x 6 mm
BI2EGM..	490 x 890 mm	388 x 788 x 6 mm
BI4EGM..	890 x 890 mm	788 x 788 x 6 mm
BI2EGLQ..	850 x 450 mm	800 x 400 x 6 mm
BI2EGL..	450 x 850 mm	400 x 800 x 6 mm
BI4EGL..	850 x 850 mm	800 x 800 x 6 mm
BI4EGLK..	850 x 850 mm	800 x 800 x 6 mm
BWEB..	400 x 400 mm	Wok glass bowl
BWEBFW..	440 x 440 mm	388 x 388 x 6 mm
BWEBEB	500 x 500 mm	Wok glass bowl

Dimensions	W x T x H	Ceramic glass surface
Stand alone		
BIH2K../BIH2KF..	400 x 700 x 850 mm	350 x 605 x 6 mm
BIHW..	400 x 700 x 850 mm	Ceranglasschale
BIH4K../ BIH4KF..	700 x 700 x 850 mm	650 x 605 x 6 mm
BIH6K../ BIH6KF..	1000 x 700 x 850 mm	950 x 605 x 6 mm
BI2SH../ BI2SHF..	400-**550** x 800-**950** x 825-**970** mm	370 x 720 x 6 mm
BI4SH../ BI4SHF..	800-**950** x 800-**950** x 825-**970** mm	700 x 720 x 6 mm
BI6SH../ BI6SHF..	1100-**1200** x 800-**950** x 825-**970** mm	1050 x 720 x 6 mm
BIHK8	480 x 480 x 465 mm	468 x 468 x 6 mm
BIHKR8	480 x 520 x 535 mm	468 x 468 x 6 mm

2.2.2 Technical Data

Unit	Voltage	Performance	Weight
On table units			
BM2.5/**3.0**/3.5	1 x 230 V	2.5/**3,0**/3,5 kW	9 kg
BI1S	1 x 230 V	3,0 kW	8 kg
BI2SK3.5	1 x 230 V	3,5 kW	10 kg
BI2SQ6	3 x 400 V	6,0 kW	16 kg
BWM	1 x 230 V	3,0 kW	8,5 kg
BI1K2.5/**3**/3.5/**BI1KS3.5**	1 x 230 V	2,5/**3**/3,5/**3,5** kW	9,5/**9,5**/12/**12,6** kg
BI1K5/**BI1K7**	3 x 400 V	5,0/**7,0** kW	14/**14** kg
BI1KF5/**BI1KF7**	3 x 400 V	5,0/**7,0** kW	14,5/**14,5** kg
BI1FP3.5	1 x 230 V	3,5 kW	17,4 kg
BI1FP5/**BI1FP7**	3 x 400 V	5,0/**7,0** kW	17,4/**17,4** kg
BI1FF5/**BI1FF7**/BI1SP	3 x 400 V	5,0/**7,0** kW	17,4/**17,4**/17,4 kg
BWK2.5/**BWK3.0**/BWK3.5	1 x 230 V	2,5/**3,0**/3,5 kW	10,5/**13**/14 kg
BWK5/**BWK7**	3 x 400 V	5,0/**7,0** kW	14,4/**14,8** kg
BFW3.5/**BFW5**	1 x 230 V/**3 x 400 V**	3,5/**5,0** kW	14/**14** kg
BWBK8	3 x 400 V	8,0 kW	19 kg
BI2K7/**BI2K10**/BI2KT10	3 x 400 V	7,0/**10,0**/10,0 kW	21/**22**/23,5 kg
BI2KQ7/**BI2KQ10**	3 x 400 V	7,0/**10,0** kW	23/**24,5** kg
BI2KFQ10/**BI2KFQ14**	3 x 400 V	10,0/**14,0** kW	25/**25** kg
BI4KT14K	3 x 400 V	14,0 kW	38 kg
BI4KT14/ **BI4KT20**	3 x 400 V	14,0/**20,0** kW	40/**43** kg
BIH2K7/**BIH2K10/**.F10	3 x 400 V	7,0/1**0,0**/10,0 kW	40/**40/**40 kg
BIHW3.5/**5**/7	1 x 230 V/3 x 400 V	3,5/**5,0**/7,0 kW	--/--/-- kg
BIH4K14/**BIH4K20**/.F20	3 x 400 V	14,0/**20,0** kW	--/--/-- kg
BI2SH10/**.F10**/.F14	3 x 400 V	7,0/**10,0**/14,0 kW	40/**41**/42 kg
BI4SH20/**.F20**/.F28	3 x 400 V	20,0/**20,0**/28,0 kW	80/**80**/80 kg
BIHK8/**BIHKR8**	3 x 400 V	8,0/**8,0** kW	**--/--** kg

Unit	Voltage	Performance	Weight
Mount in			
BI1EGM2.5/**3.5**	1 x 230 V	2,5/**3,5** kW	**--/--** kg
BI1EGS2.5/**3.5**	1 x 230 V	2,5/**3,5** kW	**--/--** kg
BI1EG3.5	1 x 230 V	3,5 kW	12 kg
BI1EG5/**7**/.F5/**.F7**	3 x 400 V	5,0/**7,0**/5,0/**7,0** kW	12,5/**13,5**/**--/14,7** kg
BI1EGG5/**7**/.F5/**.F7**	3 x 400 V	5,0/**7,0**/5,0/**7,0** kW	**--/--/--/--** kg
BI1EGSP/**BI1EGHK8**	3 x 400 V	8,0/**8,0** kW	**--/--** kg
BI1EGSM1/**.2**/.4	3 x 400 V	12,0/**12,0**/12,0 kW	**--/26,5/--** kg
BI1EGSPQ1/**BI1EGSPL1**	3 x 400 V	8,0/**8,0** kW	**--/--** kg
BI2EGQ7/**.10**	3 x 400 V	7,0/**10,0** kW	**--/--** kg
BI2EGFFQ10/**.14**	3 x 400 V	10,0/**14,0** kW	**--/--** kg
BI2EG7/**.10**	3 x 400 V	7,0/**10,0** kW	**--/16,4** kg
BI2EGFF10/**.14**	3 x 400 V	10,0/**14,0** kW	**--/--** kg
BI2EG7K/**.10K**	3 x 400 V	7,0/**10,0** kW	**--/22,5** kg
BI2EGF10K/**.14K**	3 x 400 V	10,0/**14,0** kW	**--/--** kg
BI2EG7SK/**.10SK**	3 x 400 V	7,0/**10,0** kW	**--/20** kg
BI2EG5M/**.7M**	3 x 400 V	7,0/**10,0** kW	**--/--** kg
BI3EGQ10/**.15**	3 x 400 V	10,0/**15,0** kW	**--/--** kg
BI3EGQF15/**.21**	3 x 400 V	10,0/**15,0** kW	**--/--** kg
BI4EG14/**20**	3 x 400 V	14,0/**20,0** kW	**--/--** kg

Unit	Voltage	Performance	Weight
Mount in			
BI4EGD20/**24**	3 x 400 V	20,0/**24,0** kW	--/-- kg
BI4EGDF20/**28**	3 x 400 V	20,0/**28,0** kW	--/-- kg
BI4EG14K/**20K**	3 x 400 V	14,0/**20,0** kW	--/**43,5** kg
BI4EGD20K/**24K**	3 x 400 V	20,0/**24,0** kW	38,5/-- kg
BI4EGDF20K/**28K**	3 x 400 V	20,0/**28,0** kW	--/-- kg
BI4EG14SK/**20SK**	3 x 400 V	14,0/**20,0** kW	--/-- kg
BI4EG10KK/**14KK**	3 x 400 V	10,0/**14,0** kW	--/-- kg
BI4EG10M/**14M**	3 x 400 V	10,0/**14,0** kW	--/-- kg
BI6EG21K/**30K**	3 x 400 V	21,0/**30,0** kW	--/-- kg
BI6EGAF30K/**42K**	3 x 400 V	30,0/**42,0** kW	--/-- kg
BI2EGAQ10	3 x 400 V	10,0 kW	-- kg
BI2EGAFQ10/**14**	3 x 400 V	10,0/**14,0** kW	--/-- kg
BI2EGA10	3 x 400 V	10,0 kW	-- kg
BI2EGAF10/**14**	3 x 400 V	10,0/**14,0** kW	--/-- kg
BI4EGA20	3 x 400 V	20,0 kW	-- kg
BI4EGAK20/**24**	3 x 400 V	20,0/**24,0** kW	--/-- kg
BI4EGAF20/**28**	3 x 400 V	20,0/**28,0** kW	--/-- kg
BI6EGA30	3 x 400 V	30,0 kW	-- kg
BI6EGAK30/**36**	3 x 400 V	30,0/**36,0** kW	--/-- kg
BI6EGAF30/**42**	3 x 400 V	30,0/**42,0** kW	--/-- kg
BI4EGAL20	3 x 400 V	20,0 kW	-- kg
BI4EGALK20/**24**	3 x 400 V	20,0/**24,0** kW	--/-- kg
BI4EGALF20/**28**	3 x 400 V	20,0/**28,0** kW	--/-- kg
BI2EGMQ10/**14**/16	3 x 400 V	10,0/**14,0**/16,0 kW	--/--/-- kg
BI2EGM10/**14**/16	3 x 400 V	10,0/**14,0**/16,0 kW	--/-- kg
BI4EGM20/**28**/26/**32**	3 x 400 V	20/**28**/26/**32** kW	--/--/--/-- kg
BI2EGLQ10/**14**/16	3 x 400 V	10,0/**14,0**/16,0 kW	--/--/-- kg
BI2EGL10/**14**/16	3 x 400 V	10,0/**14,0**/16,0 kW	--/--/-- kg
BI4EGL20/**28**/32	3 x 400 V	20,0/**28,0**/32,0 kW	--/--/-- kg
BI4EGLK24/**26**	3 x 400 V	24,0/**26,0** kW	--/-- kg
BWEB3.5	1 x 230 V	3.5 kW	13 kg
BWEB5/**7**	3 x 400 V	5,0/**7,0** kW	15/15 kg
BWEBFW3.5/**5**	1 x 230 V/**3 x 400** V	3,5/**5,0** kW	--/-- kg
BWBEB	3 x 400 V	8,0 kW	15 kg

2.2.3 **Function conditions**

- max. tolerance of main voltage +5%/-10%
- frequency 50 / 60 Hz
- IP Code IP 43
- min. Pan-diameter 12cm

3 Installation

3.1 Electrical data of the Units

3.1.1. Unit Performance (2,5 kW, 3 kW)

Inductions unit 1-phase (Voltage 230 Volt +5% / -10%)

Connection	Colour	Frequency	Fuse
Phase	Black	50 Hz / 60 Hz	Empty
N	Blue	**Working frequency** 22-35 kHz	**Control fuse** 1 X 400mA T (time lag)
Ground	Yellow/Green		

3.1.2. Unit Performance (3,5 kW)

Inductions unit 1-phase (Voltage 230 Volt +5% / -10%)

Connection	Colour	Frequency	Fuse
Phase	Black, Brown or 1	50 Hz / 60 Hz	2 X 20A FF (super-quick)
N	Blue or 2	**Working frequency** 22-35 kHz	**Control fuse** 2 X 160mA T (time lag)
Ground	Yellow/Green		

3.1.3. Unit Performance (5 kW)

Inductions unit 3-phases (Voltage 400 Volt +5% / -10%)

Connection	Colour	Frequency	Fuse
Phase	Black, Brown or 1, 2, 3	50 Hz / 60 Hz	3 X 12,5A FF (super-quick)
N	Blue or 4	**Working frequency** 22-35 kHz	**Control fuse** 2 X 100mA T (time lag)
Ground	Yellow/Green		

3.1.4. Unit Performance (7 kW, 8 kW)

Inductions unit 3-phases (Voltage 400Volt +5% / -10%)			
Connection	**Colour**	**Frequency**	**Fuse**
Phase	Black, Brown or 1, 2, 3	50 Hz / 60 Hz	3 X 16A FF (quick)
N	Blue or 4	**Working frequency** 22-35 kHz	**Control fuse** 2 X 100mA T (time lag)
Ground	Yellow/Green		

Installations-environment

- **max. ambient temperature**

  Storage >-20°C till +70°C in Function >+5°C till +35°C

- **max. relative Atmospheric humidity**

  Storage > 10% till 90% in Function > 30% till 90%

3.2 Installation requirements

The Induction-Unit has to be placed on a flat horizontal area. Don't cover the air supply for the air circulation. The place must be allowing a weight up to min. 40 kg. To disconnect the Power, the user needs easy access to the power-connection.

3.3 Installation instructions

The following Points must always be observed during installation:

Make sure that the main voltage corresponds to the voltage indicated on the nameplate of the equipment.

- All electric installations must fulfill the local building code regulations. All regulations issued by the national electricity authorities must be observed.
- The induction unit is equipped with a main cable and a plug which can be plugged into a socket.
- When using fault-current circuit breakers, they must be designed for a minimum fault current of 30 mA.
- Avoid blocking the air inlet and outlet zones with objects (textiles, walls, etc.).
- Prevent hot ambient air from being drawn into the induction unit (for example, when several units stand next to each other, behind each other, or when the unit is placed close to tilt fryers or ovens). In such cases, use a separate air duct.
- The induction unit must not be placed close to or on top of hot surfaces.
- The unit is equipped with a suction filter. Despite the presence of this filter, you must still make sure that no greasy ambient air resulting from other activities can be drawn into the induction unit (e.g. close to deep fryers, griddles, or tilt fryers).
- The temperature of the drawn-in air must be below +35°C.
- The personnel operating the equipment must make sure that all installation, maintenance, and inspection work is done by specially trained and certified personnel only.
- All BI models (BI1K, BI2K, BI1EG, BI2EG, BWEB, BI4K, and BI4HK.) must be fastened (using the included mounting angles).

3.4 Additional Installation instructions for the built-in Model

- The inlet air must be guided through an air duct and passed on directly to the fans via the filters delivered with the equipment. The size of the air inlet should be at least 200 cm^2.
- The inlet air upstream of the cooler fan must never exceed a maximum temperature +35°C.

- Do not allow a “thermal closed circuit” to occur. Under no circumstances the outlet air must be drawn in again, because this overheats the unit.
- After installation, the equipment’s functions must be tested. To do so, determine the maximum cooling plate temperature. The temperature must be measured at the cooling plate base, below the induction coil, which is located at the centre of the equipment, close to the transistor module (large black block). In continuous operation of at least 2 hours and at an ambient temperature of 20°C, the temperature must not exceed 50°C.
- When using potentiometer lines, longer than 60 cm, the lines must be shielded and connected to terminal S of the induction module.
- The main cable must always be shielded, clean contacts provided at both sides.
- Select and set up the main isolator so, that the equipment is switched on and off no more than 5 times a day.

Our induction units are equipped with cables and plugs that comply with the national regulations.

The Induction-Unit has to be equipped with right Cable and Plug for the Regulations of the Country **WHERE** the Unit will be used.

Make sure that the plug is wired correctly:

For the electric Connection for the Unit take attention. The Law Regulations of the Country have to be adhered!

Warning
Wrong Voltage can damage the Induction Unit

Warning
The electrical Connection must only be implemented by specially trained staff

4 Taking the Unit into Service

4.1 Unit Assembly

<Warning Electrical connections must be installed by trained staff personnel only.>

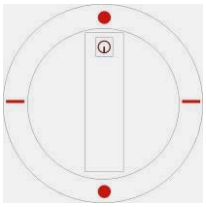
Our induction units are equipped with one a main cable which must be connected with a wall socket. If no plug has been installed at the cable, connect the plug as described in chapter 3.
Electric installations must be carried out by registered installation companies only, observing the specific national and local regulations. These companies are responsible for correctly interpreting all regulations and performing the installation in compliance with the safety instructions. Indications on warning signs and nameplates must be strictly observed.

Make sure that the main voltage corresponds to the voltage indicated for the unit (given on the nameplate).

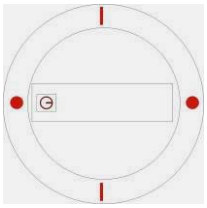
The Induction-unit must always be installed on a clean, plain, and horizontal surface only (table, cupboard, etc.). The equipment stands on non-slip rubber feet which are permanently mounted. It must be placed so that it cannot fall down or be moved due to a slanted position. Make sure that the requirements given in chapter 3.1 “Installation requirements” are fully met.

Unit On and off switch
Model with two types of Main switches: with “rotary switch” or “Pushbutton” (with Lamp inside) Model dependent.

Position Off:
`0` point to the marking (o)



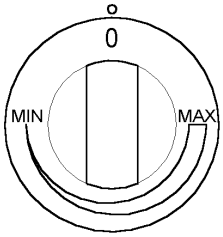
Position On:
`I` point to the marking (o).

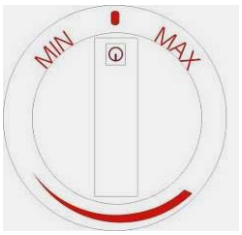


Power control knob

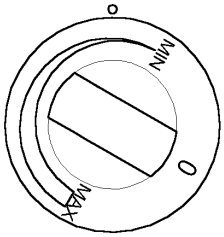
The knob’s position in relation to the marker shows the current mode of operation.

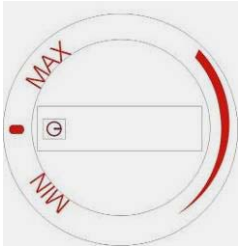
OFF position:
‘0’ points to the marker (o).





ON position:
Any position between: MIN (minimum) and MAX (maximum) that points towards the marker (o).





Before doing an operational check, the user needs to know how the equipment is operated.

Your induction unit has been placed in a suitable location and is connected to the main supply. Make sure that the equipment stands secure and can’t move. The power control knob is in the “0” position.

Remove all objects from the heating zone. Make sure that the heating zone is either cracked or broken. If the heating zone is cracked or broken, stop immediately, turn off the equipment and pull out the main plug.

5 Function test

Warning

The heating zone is heated by the hot pan.
Do not touch the heating zone, which can cause injuries

Use a pan that is suitable for induction and has a minimum bottom diameter of 12 cm.
To test the Function of Units with main switch, it must switch on first. Then follow the description.

- Place a pan in the centre of the heating zone and put in some water.
- **With LED:** Turn the power control knob to the ON position (any position between Min. and Max.). The operation indicator lamp (red LED) either flashes (power level 10%-30%) or lights up continuously (power level 30%-100%). The water is heated.
- **With Digital display:** turn the performance knob on (a position between Minimum and Maximum.). **display** shows chosen performance between (1-9).
- **With LED:** Remove the pan from the heating zone – the operation indicator lamp must start to flash (pan detection).
- Put the pan back on the heating zone – the operation indicator lamp lights up again and the heating process starts again.
- Turn the power control knob to the 0 position – the heating process is stopped and the operation indicator lamp goes off.
- When the operation indicator lamp is on, this means that energy is transferred to the pan.
  With Digital display: Remove the pan from the heating zone – the Digital Display shows symbol for (pan detection). Overview on page 16
- Put the pan back on the heating zone – the **display** shows chosen performance between (1-9) and the heating process starts again.
- Turn the power control knob to the 0 position – the **display goes in stand by**
- When the **display shows a number between (1-9),** this means that energy is transferred to the Cook ware.

If the operation indicator lamp stays off or flashes only very briefly, check the following:

- Is the induction unit connected with the main supply?
- Is the power control knob in the ON position?
- Are you using a pan that is suitable for induction (test with a magnet) and have a minimum bottom diameter of 12 cm?
- Is the pan in the centre of the heating zone?

To check if the material of your pan is suitable for induction, use a magnet. It must stick slightly to the bottom of the pan. If it doesn't stick there, your pan is not suitable for use with induction units. Choose a pan recommended for use with induction units.

If the induction unit still doesn't work, please refer to the "Troubleshooting" section of this manual.

6 Operating

6.1 Cooking

The unit can be used immediately. When the operation indicator lamp lights continuously or flashes, energy is transferred to the pan. By turning the power control knob, you can choose the desired power level. How much inductive power is transferred to the pan depends on the position of the potentiometer.

Position MIN > minimum performance
Position MAX > maximum performance

There are certain aspects which differ from cooking with traditional cooking systems and which you must pay special attention to:

The food reacts immediately when the cooking level is changed via the power control knob. Empty pans or pots heat up very quickly. NEVER place empty pans on the ceramic hob. Before starting to cook, first put grease or liquid into the pan. Use the power control knob to select the exact power level that matches the desired cooking method.

The pan should always be placed in the centre of the heating zone, or the pan bottom will be heated unevenly. Check the pan continuously when heating oil or grease to prevent it from overheating or burning.

Attention! Place the Cookware only with whole extent on the Cooker. **Ignoring** this note results to damages of the Cookware and the Equipment. **Consequence when ignoring:** Cookware is welded together with each other. The warm Cookware burning the seal material and the material get destroyed. This result humidity and grease can penetrate in the equipment and can result in the defect of the Equipment.

Comfort

The induction equipment only transfers energy as long as a pan is located in the heating zone. This is independent of the position of the power control knob. When you remove a pan from the heating zone, the energy transfer to the pan is stopped immediately. When you put the pan back in the heating zone, the energy level you have selected before, is again transferred to the pan.

When turning the power control knob to the OFF position, the cooking process is stopped. However, the equipment still stays ready for work (standby mode). To disconnect the unit completely, you must pull the main plug **or** turn the Main switch off (if available).

7 Safety instructions

7.1 Description of warning symbols and indicators

General warning signals
If you don't follow the safety instructions, you will place yourself in danger of injuries.

This Symbol warning from
Dangerous Voltage.
(Picture Sign 5036; IEC 60417-1)

This Symbol warning from
not- ionizing electric magnetic radiation.
(Picture Sign 5140; IEC 60417-1)

Warning
Improper use may result in minor injuries or damages.

Warning symbols that are located directly on the equipment must always be observed. Their readability must be ensured at all times.

Warning
Before you connect or use the Induction Unit, you have to read the Operation Instructions

Warning: Read the operating instructions before using or servicing the equipment.

7.2 Dangers resulting from not observing the safety instructions

Not observing the safety instructions, may lead to danger for people, the surroundings, and the induction unit itself. We are not liable for any damages caused by a failure to observe the safety instructions.
Specifically, not observing the safety instructions could result in the following risks (among others):

- Risk of personal injuries as a result of electric factors
- Risk of personal injuries because of overheated pans
- Risk of personal injuries because of overheated ceramic hob surface

7.3 Safe Application

To ensure safe use, you must observe all of the safety instructions given in this manual, the existing national regulations for accident prevention with electrical systems as well as any company-specific work, operation, and safety instructions.

7.4 Operator Safety instructions

The surface of the ceramic hob is heated by the heat of the pan. To avoid injuries (burns), do not touch the surface of the ceramic hob.

- **Attention**! Place the Cookware only with whole extent on the Cooker. **Ignoring this note** results to damages of the Cookware and the Equipment. **Consequence when ignoring:** Cookware is welded together with each other. The warm Cookware burning the seal material and the material get destroyed. This result humidity and grease can penetrate in the equipment and can result in the defect of the Equipment.

In order to avoid overheating the pan, never heat an empty pan.

- Turn off the heating zone when you take away the pan for a longer period of time. This way, the heating process doesn't restart automatically as soon as a pan is put on the heating zone again. As a result, the pan will not be heated inadvertently, i.e., if someone wants to use the induction unit, they must first start the heating process by turning the knob to the 'ON' position.
- Do not put paper, carton, textiles, etc. between the pan and the ceramic hob – they could catch fire.
- Because metal objects heat up very quickly when put in contact with the turned on heating zone, never place objects other than pans on the induction unit (closed cans, aluminum foil, cutlery, jewellery, watches, etc.).
- People with a cardiac pacemaker should contact their doctor to find out whether it is safe for them to be near induction systems.
- Do not place credit cards, phone cards, cassettes, or other magnet-sensitive objects on the ceramic hob.
- The induction unit is equipped with an internal air cooling system. Avoid blocking the air inlet and outlet areas with objects (e.g. textiles). This would cause, to overheat and switch off, the unit.
- Prevent liquids from entering the equipment, and try not to let water or food flow over the pan edge. Do not jet-clean the equipment.
- If the ceramic glass is cracked or broken, the induction unit must be turned off and separated completely from the main supply. Do not touch any parts inside the induction unit.

7.5 Improper operation

The working of the induction equipment can only be guaranteed when it's used correctly. The equipment must always be operated within the limits given in the technical data.

7.6 Modification / use of spare parts

Contact the manufacturer if you intend to make any modifications to the equipment. For safety reasons, always use original parts and accessories only which have been approved by the manufacturer. If you use anything other than the original components, the manufacturer will not assume any liability for any costs that result.

7.7 Pan detection

Pans with a diameter smaller than 12 cm are not detected by the system. During operation, the operation indicator lamp is on **or** the Display Shows the Performance between (1-9). When using the equipment without a pan or with a pan made of a material not suitable for induction, no current is induced and the operation indicator lamp flashes only very briefly **or** the Display show the symbol Pan detection Overview on page 16.

7.8 Heating zone monitoring

The heating zone is monitored by a temperature sensor in the middle of the cooking place, beneath the ceramic glass surface. It can detect overheated pans (hot oil, empty pans) in the middle of the cooking place; when this occurs the energy supply is stopped. Only when the temperature has lowered to a normal value the system resume inducing energy to the pan.

Attention!

Only the cooking unit is protected against overheating – not the pan.
The overheated pan is detected only if the ceramic surface has reached the turn-off temperature of 260 °C as a result of the heat given off by the pan.

7.9 Noises

The cooling fans are audible but switch off from time to time.

8 When the unit is not in use

When the induction unit is not in use, make sure that the power control knob is not turned on inadvertently. If you do not use the induction unit for a longer period of time (several days), pull the main plug from the socket **or** turning off the main switch. Make sure that no liquids can get into the induction unit, and do not use excessive amounts of liquid to clean the equipment.

9 Troubleshooting

Warning

Do not open induction unit!
High voltage!

The induction unit may only be opened by approved, specially trained service Employee.

If the heating zone (ceramic glass surface) is cracked or broken, stop working with the equipment at once. Turn off the induction unit immediately and pull the main plug from the socket. Do not touch any parts inside the unit.

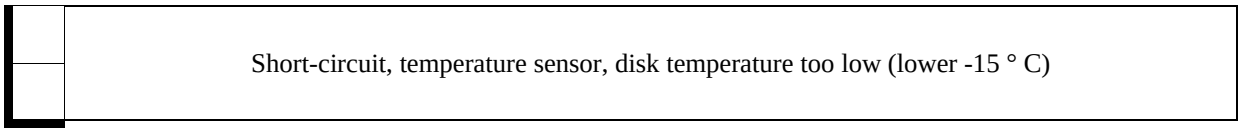
Error	**Possible cause**	**Error: correction by User- or Service staff**
Pan does not heat; operation indictor lamp is OFF (dark)	No current supplied	Control, is the unit connected to the power (Power cable connected?), Main switch is in Off Position, check Fuses. partly also in On-Table units like Model BI4KTH14
	Power control knob in OFF position	Main switch is in Off Position Turn Power control knob in ON position.
	Pan too small (pan bottom diameter smaller than 12 cm)	Use the right Pan.
	Pan not placed in the centre of the heating zone (pan cannot be detected)	Put the Pan in the middle of the Heating Zone.
	Unsuitable pan	Choose for the Induction suitable Pan *1.
	Induction unit defective	Contact your Dealer for the Repair service. Disconnect the Unit from the Power.
Insufficient heating power; operation indicator lamp is ON	Pan used not ideal	Choose for the Induction suitable Pan. Compare the result with your Pan.
	Air cooling system blocked	Take sure, the Air circulation is working (Not Blocked).
	Air filter clogged	Clean Filter or replace Filter.

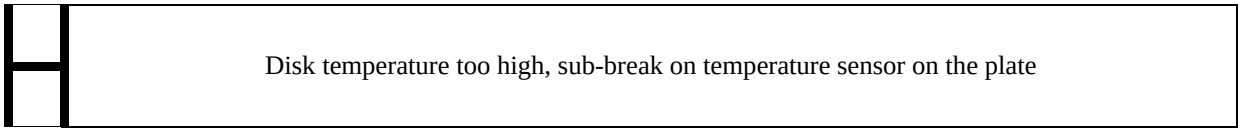
	Ambient temperature too high (cooling system cannot keep hob at its normal operating temperature)**)	Take sure; in the Air circulation come no hot Air. Reduce temperature. The Temperature may not higher be than 40°C / 110 °F.
	One phase missing	Check the Fuses.
	Induction unit defective	Contact your Dealer for the Repair service. Disconnect the Unit from the Power.
The system does not react when you turn the power control knob.	Power control knob defective	Contact your Dealer for the Repair service. Disconnect the Unit from the Power.
The heating power switches on and off within a few minutes. The fan is working.	Air cooling system blocked	Take sure, the Air circulation is working (Not Blocked).
	Fan dirty	Clean Fan.
The heating power switches on and off within a few minutes. The fan does not work.	Fan or fan control defective	Contact your Dealer for the Repair service. Disconnect the Unit from the Power.
The heating power switches on and off within a few minutes (after longer, continuous operation).	Coil overheated, heating zone too hot	Turn Unit OFF, put Pan away and wait until the Heating Zone is cooled down.
	Empty pan	Turn Unit OFF, put Pan away and wait until the Heating Zone is cooled down.
	Overheated oil in pan	Turn Unit OFF, put Pan away and wait until the Heating Zone is cooled down.
Small metal objects (e.g. spoons, knifes, etc.) are being heated on the heating zone.	Incorrect pan detection setting	Check the Logic print (only for the Service staff „Dealers“!).

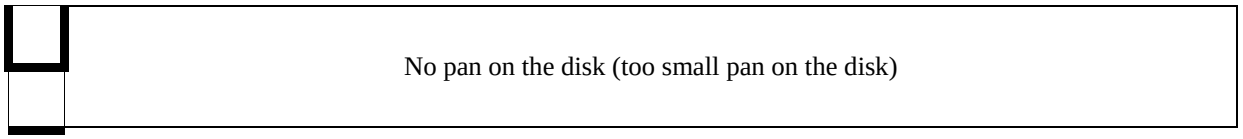
*****) To check if your pan is suitable for induction, use a magnet. The magnet must stick slightly to the bottom of the pan. If it does not stick there, your pan is not suitable for use with induction units. Choose a pan material that is suitable for induction.

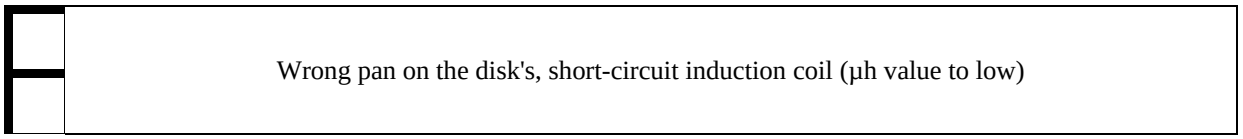
**) The fan starts to work when the cooling plate temperature exceeds 45°C. At cooling plate temperatures over 70°C, the control printed circuit board reduces the power level automatically to keep the power printed circuit board at normal operating conditions. The induction unit will continue to work with reduced maximum performance.

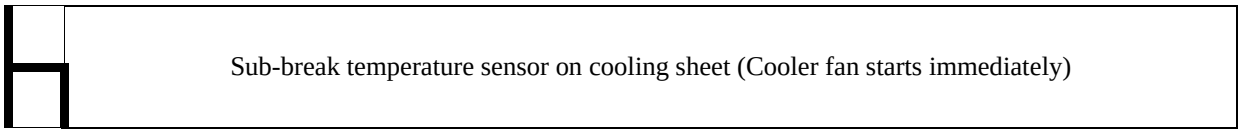
9.1 Overview error messages on Display

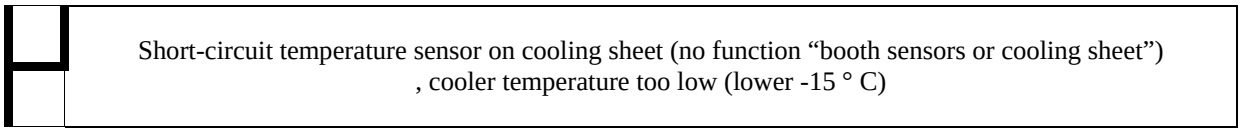


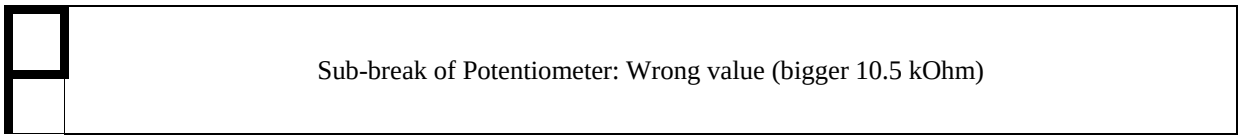


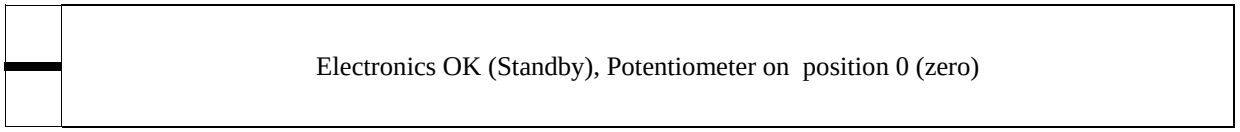


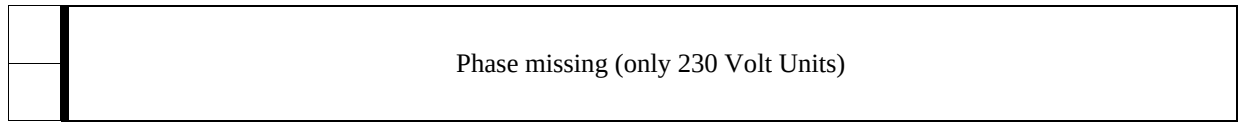


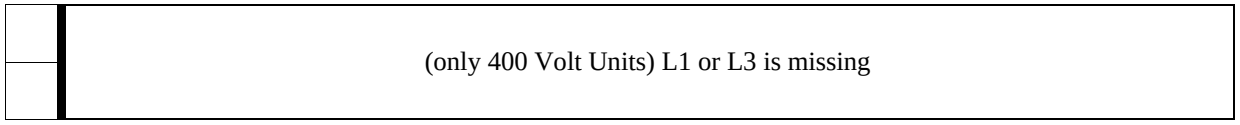












10 Cleaning

List of cleaning agents for specific types of dirt and stain:

Dirt / stain type	**Cleaning agent**
Minor stains and dirt	Moist cloth (Scotch cloth) with some industrial kitchen cleaning agent
Greasy Stains (sauces, soups, etc.)	Polychrome Sigolin chrom, Inox crème Vif Super Cleaner Supernettoyant, Sida, Wiener Kalk Pudol System Care
Lime and water stains	Polychrom Sigolin chrom, Inox crème Vif Super- Cleaner Supernettoyant
Strongly shimmering, metallic discolorations	Polychrom Sigolin chrom
Mechanical cleaning	Razor blade Non-abrasive sponge

Do not use abrasive cleaning agents, steel wool, or abrasive sponges, since these may damage the ceramic surface.

Residues of cleaning agents must be removed from the ceramic hob with a moist cloth (Scotch cloth), since they can corrode during heating. Correct maintenance of the induction hob includes regular cleaning, careful treatment, and service.

No liquids may enter the unit!

11 Maintenance

The users have to make sure, that all safety-relevant components always are in perfect working condition. The induction unit have to be inspected at least once a year by a specially trained technician from your supplier. The air filter must be checked for clogging at least every 6 months.

Warning
Do not open induction unit!
High voltage!

The induction unit must only be opened by specially trained service personnel.

12 Disposal

When the induction unit has reached to the end of the service life, it must be disposed of correctly.

Avoid misuse:

The equipment can't be used, by someone who is not qualified to do. Make sure, that an induction unit you want to dispose of, can't taken into operation again. The induction unit consists of common electro-mechanic and electronic parts. No batteries are used. The user is responsible for disposing of the induction unit correctly and safely.

Note for Waste management:

Units that for this point decide can be shipped to us. We take only Post-paid packets

Delivering address:

Berner- Kochsysteme GmbH & Co KG
Sudetenstrasse 5 – D-87471 Durach
Tel. 0831/697247-0; Fax. 0831/697247-15
E-Mail: Berner-Kochsysteme@t-online.de

14 Sparepartlist

Spareparts Generator 2,5 - 3,5 kW

Item Nr.	Used	Name
100100	X	Connection Cable 230 Volt, 1500 mm 1,5 mm² with Plug
100102	X	Aluminium Filter
100108	X	Controller with Poti
100107		Knob Min - Max
100110		Knob MIN - MAX (Black/silver)
100127	X	Temperature Sensor for Coil 210 mm
200190		Coil 210 mm 75 µH
200191		Wok Coil 75 µH
500103	X	Cooler 160 mm Diameter
500232	X	LED with supply (control print)
500235	X	Print fitting to Power print
500237	X	Fuse (400 mA)
500307	X	Feet (on table units)
500736	X	Power print
700107		Knob MINI
800201	X	Control lamp " GREEN " 250 Volt

Spareparts Generator 3,5 kW

Item Nr.	Used	Name
100099	X	Connection Cable 230 Volt, 1500 mm 2,5 mm² with Plug
100102	X	Aluminium Filter
100107		Knob Min - Max
100108	X	Controller with Poti
100109		Knob MIN - W70 / 90 / 110 - MAX
100111		Knob Induction BEHIND MIN W70 - W90 - W110 - MAX
100112		Knob Induction IN FRONT MIN W70 - W90 - W110 - MAX
100114	X	Temperature Sensor for Coil
100116	X	Rectifier
100117		Knob 0 - 6
100118	X	Control print " Version 3.15 GRÜN "
100119	X	Control print " Version 2.24 ROT"
100121		Knob Main switch (red line)
100123		Knob Induction LEFT SIDE MIN W70 - W90 - W110 - MAX
100124		Knob Induction RIGHT SIDE MIN W70 - W90 - W110 - MAX
100126	X	temperature Sensor for Coil
100128		LED Control lamp with Synthetic material hold socket
100129		Digital Print 1 - 9
100130		Knob Induction BEHIND Min - Max
100131		Knob Induction IN FRONT Min - Max
100132		Knob Induction LEFT SIDE Min - Max
100133		Knob Induction RIGHT SIDE Min - Max
100195	X	IGBT " Version A " 3,5 kW
100301		Cooler 800 x 800 x 25 mm
100302		Cooler 600 x 600 x 25 mm
100620	X	Power print " 230 Volt " 3,5 kW
100161	X	Fuse 20 Ampere
100720	X	Fuse 160 mA
300120		Fuse B6A (Control)
300122		Fuse B20A
300302		Push Button with light Main switch (EAO) green
500307		Feet (on table units)
800100		Knob IN FRONT "1-10" Induction (LED)
800102		Knob for Main switch silver
800104		Knob RIGHT SIDE "1-10" Induction (LED)
800106		Knob "1-10" Induction (LED)
800201		Control lamp " GREEN " 250 Volt
800301		RELAIS 36 Ampere
800302		RELAIS 40 Ampere Eberle (Stand Stove)
800404		Main switch 4 - Connections
800405		Main switch 2 - Connections
801100		Knob BEHIND "1-10" Induction (LED)
801104		Knob LEFT SIDE "1-10" Induction (LED)

Spareparts Generator 5 kW / 7 kW / 8 kW

Item Nr.	Used	Name
100101	X	Connection Cable 400 Volt
100102	X	Aluminium Filter
100107		Knob Min - Max
100108	X	Controller with Poti
100109		Knob MIN - W70 / 90 / 110 - MAX
100111		Knob Induction BEHIND MIN W70 - W90 - W110 - MAX
100112		Knob Induction IN FRONT MIN W70 - W90 - W110 - MAX
100113		IGBT " Version C (7 kW / 8 kW) "
100114	X	Temperature Sensor for Coil
100115		IGBT " Version B (5 kW) "
100116	X	Rectifier
100117		Knob 0 - 6
100118	X	Control print " Version 3.15 GRÜN "
100119	X	Control print " Version 2.24 ROT"
100120	X	Power print " 400 Volt " 5 kW / 7kW / 8 kW
100121		Knob Main switch (Red Line)
100123		Knob Induction LEFT SIDE MIN W70 - W90 - W110 - MAX
100124		Knob Induction RIGHT SIDE MIN W70 - W90 - W110 - MAX
100126	X	Temperature Sensor Aluminium Cooling block
100128		LED Control lamp with Synthetic material hold socket
100129		Digital Print 1 - 9
100130		Knob Induction BEHIND Min - Max
100131		Knob Induction IN FRONT Min - Max
100132		Knob Induction LEFT SIDE Min - Max
100133		Knob Induction RIGHT SIDE Min - Max
100301		Cooler 800 x 800 x 25 mm
100302		Cooler 600 x 600 x 25 mm
100717		Fuse 12,5 A (5 kW)
100718		Fuse 16 A (7 kW / 8 kW)
100721	X	Fuse 100 mA
300120		Fuse B6 Ampere (Control)
300121		Fuse B16 Ampere
300130		Fuse Rail
300302		Push Button with light Main switch (EAO) green
500307		Feet (on table units)
800100		Knob IN FRONT "1-10" Induction (LED)
800102		Knob für Main switch with silver Ring
800104		Knob RIGHT SIDE "1-10" Induction (LED)
800106		Knob "1-10" Induction (LED)
800201		Control lamp " Green " 250 Volt
800204		Control lamp under glass plate 250 Volt with connection
800301		Relais 36 Ampere
800302		Relais 40 Ampere Eberle (Stand stove)
800303		Relais 55 Ampere

800304		Relais 63 Ampere Eberle
800404		Main switch 4 - Connections
800405		Main switch 2 - Connections
801100		Knob BEHIND "1-10" Induction (LED)
801104		Knob LEFT SIDE "1-10" Induction (LED)

14 Declaration of conformity

Berner-Kochsysteme GmbH & Co KG
Sudetenstrasse 5 – D-87471 Durach
Tel. 0831/697247-0; Fax. 0831/697247-15
E-Mail: berner@Induction.de

EG-Konformitätserklärung

EG declaration of conformity
Certificat de conformite`CE

CE

Hiermit erklären wir, daß das nachfolgend bezeichnete Gerät aufgrund seiner Konzipierung und Bauart, sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen, grundliegenden Sicherheits- und Gesundheitsanforderungen der EG-Richtlinie entspricht.
Bei einer nicht von uns abgestimmten Änderung des Gerätes verliert diese Erklärung ihre Gültigkeit.

Produktbezeichnung: Induktions-Auftischgerät / **Einbaugerät**

Type: BM,BI1S,BI2S,BWM,BI1K,BI1F,BI1SP,BWK,BFW,BWBK
BI2K,BI4K,BIH2K,BIHW,BIH4K,BI2SH,BI4SH,BIHK
BI1EG,BI2EG,BI3EG,BI4EG,BI6EG,BWEB,BWB

Seriennummer:

Bestimmungsgemäße Verwendung: Gerät zum Erhitzen von Speisen

Wir bestätigen die Konformität des oben bezeichneten Produktes mit den zu dieser Erklärung unten gelisteten EG-Richtlinien.
Niederspannungsrichtlinie 73/23EWG Änderung in EU-Recht
EMV-Richtlinie 89/336EWG in der Fassung 93/68 EWG

Die Übereinstimmung des bezeichneten Produktes mit den Vorschriften der Richtlinien 89/336 und 73/23 wird nachgewiesen durch die vollständige Einhaltung folgender Normen:

harmoniserte Europäische Normen:
Referenznummer Ausgabedatum Referenznummer Ausgabedatum
EN 60335-2-36.2002 + A1:2004
EN 60335-1:2002 + A11:2004
EN55014-1 , EN 55014-2, EN61000-3-3, EN 50366

Nationale Normen (Nach NSR)
Referenznummer Ausgabedatum Referenznummer Ausgabedatum

Diese Erklärung beinhaltet keine Zusicherung von Eigenschaften.
Die Sicherheitshinweise der mitgelieferten Produktdokumentation sind zu beachten.
Es ist durch interne Maßnahmen sichergestellt, daß die Seriengeräte immer den Anforderungen der Aktuelle EG-Richtlinien und den angewandten Normen entsprechen.

Durach, August 2005
Stand 08-2005

(Rechtsgültige Unterschrift) verantwortlich Peter Berner

15 Technical documentation