

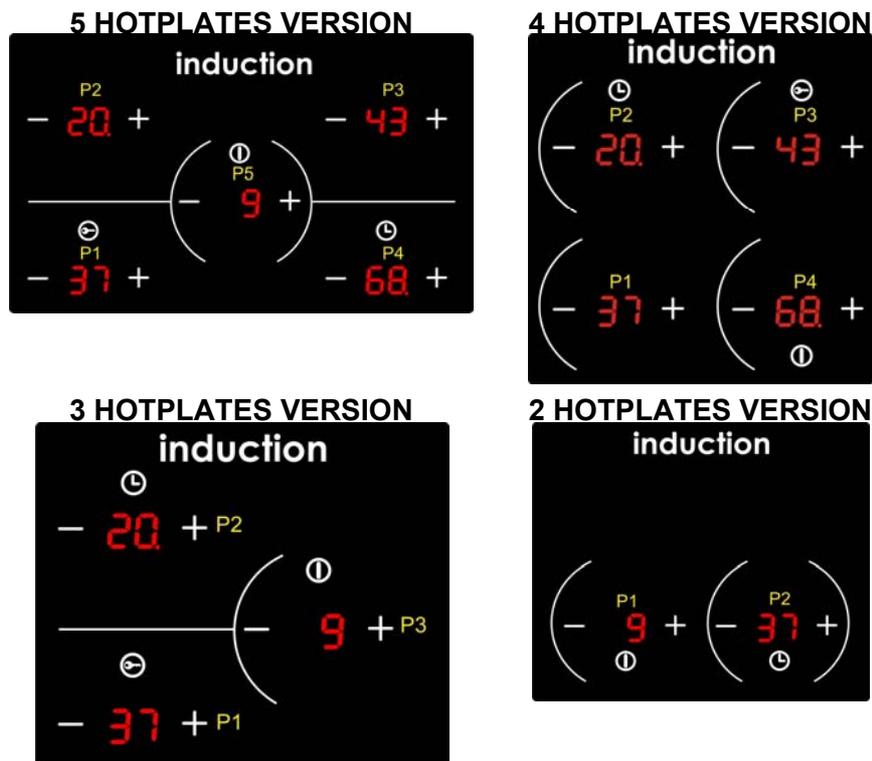
**ELECTRONIC
SPECIFICATIONS
“Universal” Series
(brandt IX7 technology)**

REV.	MODIFICATION	DATE
00	First Version	09/2011

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"Universal" electronic induction hobs



1-UNIVERSAL VERSION FIRMWARE OPERATION

In the Universal version, due to unavailability of the relevant button, it is not possible to quickly set up the power.

1.1 STARTUP: When connecting to the mains, the hob runs a startup program consisting of several phases each with a duration of 1 sec:

- Turning on all the displays that show all "8". This status is maintained for 3 seconds. Buzzer On.
- Check PT1000 probes operation
- Software version displaying for 4 seconds.

At the end of the power on the hob turns OFF (see below).

1.2-OPERATING CONDITIONS OF THE HOB:

The operating conditions of the hob are the following:

- OFF condition: all the hobs and displays are OFF
- ON condition: at least one hotplate activated; the display shows the power set

1.3 SECONDARY MENU:

A secondary menu is available to allow setting some basic configurations of the hob:

1. Control Lock: if activated it automatically inserts the button lock one minute after the last activation of a button. However the ON/OFF button can always be activated when pressed for at least 2 seconds.
2. Show Room: full operation of the user interface, but all the relays are always open.
3. Power Limiter: limits the maximum consumption to 2. 3 or 4 kW.

To enter the secondary menu, follow these steps:

Operation	Display
Starting from OFF status	All displays off
Press simultaneously for at least 5 seconds the  and  buttons	Control lock configuration • display P1 shows “1n”
Press the  and  buttons of P5	Display P1 shows in turn “1n” and “1S” to indicate that the automatic control lock is activated (S) or not (n)
Press 	Show room configuration: • display P1 shows “2n”
Press the  and  buttons of P5	Display P1 shows in turn “2n” and “2S” to indicate that the Show Room configuration is activated (S) or not (n)
Press 	Power limiter configuration 2-3-4 Kw. • display P1 shows “3n”
Press the  and  buttons of P5	the P1 display shows in turn “32”, “33”, “34” to indicate that the power configuration is activated: • 32 = 2kW • 33 = 3kW • 34 = 4kW • 3n = Maximum power allowed
Press  or wait 10 seconds without pressing any button	The board returns in OFF conditions storing all the values set

NOTE In the version with 2 hotplates, to access the secondary menu press simultaneously  and .

To forward from one option to another (Control Lock, Show Room, Power Limiter) press the  button.

Besides being a model with 3100 watt maximum power it is possible only to limit the power to 2 kW.

2-HOTPLATES OPERATION

To turn on the hotplate press the  button for at least 1 sec. All displays will turn on for 5 seconds then shut off automatically if no value is set on the relative hotplate.

- Press the  and  buttons to select a power level in the range 1-P (the display starts flashing until the cookware is placed, then it remains fixed indicating the value set).
- Starting from level 0, pressing the  button the P level is immediately set
- If after 1 minute no cookware is positioned, the zone returns OFF
- The increase/decrease is fast if the buttons are kept pressed

Pressing the  button for 2seconds all the hotplates turn off. To turn off each hotplate, set the level 0. After 5 seconds the hotplate will turn off.

3 CONTROL LOCK

The lock is enabled/disabled pressing the  symbol for 3 seconds, confirmed by the buzzer on for 0.5 seconds and showing on all the "bl" displays for 2 seconds and then displaying again the previously set power values, all the controls are locked except the  button that is always enabled.

NOTE: in the 2P model it is not possible to activate the button lock, due to the absence of the function button but it can be set in automatic mode through the secondary menu.

4-RESIDUAL HEAT: The hotplate high temperature is indicated by the letter H displayed. Below 60°C the display is off. This test is also carried out at each power-up.

5-SETTING THE COOKING END TIMER

The timer function setting is realized as described below

Operation	Display
Set the power using  and 	The display shows the level set
Press the  button for 2 seconds	Display P1 shows "00".
Press the  button repeatedly to select the hotplate on which to set the timer.	The display of each hotplate, from P1 to P5 in rotation, displays 00 and the dot next to the right flashing digit
Set the cooking time in the 1-99 minutes range with the  and  buttons	The display shows the time set. Keeping the  and  buttons pressed the forwarding is fast.
Release the button after the desired value is reached	The display shows the timer with the flashing dot for 5 seconds. After 5 seconds the timer is activated and the dot is lit steadily. The display shows again the power level set
To display the countdown press repeatedly the  button until the desired hotplate is selected	The display shows the countdown with the flashing dot for 5 seconds. In this moment it is possible also to change the timer value with the  and  buttons. After 5 seconds the display shows the power again.
Cooking time end	At the end of cooking time, the display begins flashing the No. 00 + buzzer ON alternated for 20 seconds. The hotplate stops cooking.
20 seconds buzzer end	The display shows the residual heat according to the temperature (see paragraph 2.6). After showing the H value, the display turns off.

It is possible to set a different timer for each hotplate.

To clear the timer, it is necessary to enter in the setup and take the count down to 0. Alternatively, turning off the hotplate also the timer is cleared.

After the last minute, pressing the  button, the display shows the seconds count down and then it returns displaying the power level until the same button is pressed again.

Similarly it is possible to set a minute counter without activating the relative hotplate.

6- POWER GENERATORS MANAGEMENT

The hotplate power operation is controlled according to the tables below. For the electrical characteristics of generators see par. 2.8

6.1 OVERTEMPERATURE PROTECTION:

The power level supplied by the generator is automatically reduced to keep the electronic components within the temperature safety limits. To limit the temperature on the components, the maximum power available to each hotplate is supplied for a maximum time of 5 seconds.

6.2 FAN MANAGEMENT :

To comply with applicable safety standards, overtemperature on the cookware, detected by ntc sensor on the hotplate, causes the reduction of the power supplied to prevent damaging the cookware itself.

6.3 COOKWARE OVERTEMPERATURE :

Coil Ø 28	
Level	W Nom
P	3600
9	2000
8	1400
7	1200
6	1000
5	625
4	400
3	250
2	150
1	50
0	0

Coil Ø 21	
Level	W Nom
P	3100
9	2000
8	1400
7	1200
6	1000
5	625
4	400
3	250
2	150
1	50
0	0

Coil Ø 16	
Level	W Nom
P	2000
9	1400
8	1200
7	1050
6	800
5	550
4	350
3	200
2	100
1	50
0	0

COIL 160-210 UNIVERSAL

	210	0	1	2	3	4	5	6	7	8	9	P
160		0	50	150	250	400	625	1000	1200	1400	2000	3100
0	0	0/0	0/50	0/150	0/250	0/400	0/625	0/1000	0/1200	0/1400	0/2000	0/3100
1	50	50/0	50/50	50/150	50/250	50/400	50/625	50/1000	50/1200	50/1400	50/2000	50/2900
2	100	100/0	100/50	100/150	100/250	100/400	100/625	100/1000	100/1200	100/1400	100/2000	100/2900
3	200	200/0	200/50	200/150	200/250	200/400	200/625	200/1000	200/1200	200/1400	200/2000	200/2900
4	350	350/0	350/50	350/150	350/250	350/400	350/625	350/1000	350/1200	350/1400	350/2000	350/2700
5	550	550/0	550/50	550/150	550/250	550/400	550/625	550/1000	550/1200	550/1400	550/2000	550/2500
6	800	800/0	800/50	800/150	800/250	800/400	800/625	800/1000	800/1200	800/1400	800/2000	800/2200
7	1050	1050/0	1050/50	1050/150	1050/250	1050/400	1050/625	1050/1000	800/1200	1050/1400	1050/2000	
8	1200	1200/0	1200/50	1200/150	1200/250	1200/400	1200/625	1200/1000	1200/1200	1200/1400		
9	1400	1400/0	1400/50	1400/150	1400/250	1400/400	1400/625	1400/1000	1400/1200			
P	2000	2000/0	2000/50	2000/150	2000/250	2000/400	2000/625	2000/1000				

COIL 180-180 UNIVERSAL

	180	0	1	2	3	4	5	6	7	8	9	P
180		0	50	100	200	350	550	800	1050	1400	2000	2800
0	0	0/0	0/50	0/100	0/200	0/350	0/550	0/800	0/1050	0/1400	0/2000	0/2800
1	50	50/0	50/50	50/100	50/200	50/350	50/550	50/800	50/1050	50/1400	50/2000	50/2900
2	100	100/0	100/50	100/100	100/200	100/350	100/550	100/800	100/1050	100/1400	100/2000	100/2900
3	200	200/0	200/50	200/100	200/200	200/350	200/550	200/800	200/1050	200/1400	200/2000	200/2900
4	350	350/0	350/50	350/100	350/200	350/350	350/550	350/800	350/1050	350/1400	350/2000	350/2900
5	550	550/0	550/50	550/100	550/200	550/350	550/550	550/800	550/1050	550/1400	550/2000	550/2500
6	800	800/0	800/50	800/100	800/200	800/350	800/550	800/800	800/1050	800/1400	800/2000	
7	1050	1050/0	1050/50	1050/100	1050/200	1050/350	1050/550	1050/800	1050/1050	1050/1400		
8	1400	1400/0	1400/50	1400/100	1400/200	1400/350	1400/550	1400/800	1400/1050			
9	2000	2000/0	2000/50	2000/100	2000/200	2000/350	2000/550	2000/800	2000/1050			
P	2800	2800/0	2750/50	2650/100	2550/200	2400/350	2175/550					

7- OPERATION PRIORITY:

The operation priority of the 2 hotplates (of a single generator) is given to the last hotplate set, in case the maximum power which can be supplied by the generator is exceeded, the software limits the power to the other hotplate, the display will show the power decrease.

8-HOTPLATE MAX. TEMPERATURE SAFETY OFF:

If the temperature of the probe on the hotplate exceeds 250°C, the software turns OFF the hotplate in question; the display shows alternately the E symbol and the H symbol. The error is restored automatically when the temperature lowers, or it can be reset by pressing the  button.

9 GENERAL SAFETY OFF:

Pressing for at least 5 seconds any  button of an active hotplate, the software turns OFF all the operating cooking zones.

This function is not available if the  button of an inactive hotplate is pressed.

10- AUTOMATIC TEMPERATURE CONTROL: The automatic temperature control function allows the software to manage the cooking temperature, once the desired cooking level is found, press simultaneously the **+** and **-** buttons for at least 3 seconds, the °C indication appears on the display in question, from this moment, the cooking zone automatically manages the operation.

To increase or decrease the temperature level (power), press the **+** and **-** buttons, the °C indication will remain on the display.

Contrary to what indicated in par. 2.9, in the areas with double cooking zone, the priority of the power control is of the hotplate in which the automatic temperature control is activated.

In the second hotplate the maximum power that can be set is therefore defined by the first hotplate considering the total maximum power available. The attempt to set a higher power on the second hotplate is displayed with an "L" flashing for 2 seconds. The power will remain the maximum available.

To disable the automatic temperature control, press simultaneously the **+** and **-** buttons for at least 3 seconds.

NOTE It is possible to set the temperature control simultaneously on two hotplates of two different zones. In the model with 5 burners in case of simultaneous attempt to set this function on 3 hotplates of 3 different zones, the E2 error occurs (see paragraph 2 "ERROR E2").

11-POWER LIMITER CONFIGURATION:

In the case of Power Limiter activation, the electronics controls the total power supplied from the hotplates so as to limit the total absorption at 2-3-4 kW. The power management policy must follow the following priorities:

- Highest priority to the last hotplate activated
- Higher priority to the hotplate with greater power

12-ERROR CODES LIST

ERROR CODE	DESCRIPTION	POSSIBLE CAUSES
E1	Generator high temperature	High temperature and/or lack of proper ventilation
E2	Continuous use of buttons, the control unit turns off after 1s	Presence of water or pots on the glass of the hob above the control unit
E3	Communication error between Keypad and inductor	Absent or defective communication
E4	Low Voltage	Incorrect power supply voltage
E5	sensor on the coil high temperature	Temperature sensor defective or not properly inserted
E6	High voltage	Incorrect power supply voltage
E7	Breaking, short circuit, sensor-coil illogical value	Temperature sensor defective or not properly inserted

The viewing on the display takes place using the available display starting from P1. The last 10 occurrences of these conditions are stored inside the flash of the microprocessor to make them readable, as subsequently indicated. In the error condition, the buzzer sounds intermittently. The error is reset by turning off the hotplate.

13- SAFETY TIMEOUT MANAGEMENT

The timeout function is varied for each hotplate and each settable level: after the timeout the hotplate is switched off; pressing any button causes the timeout reset. The following table shows the timeout interval according to the level of the heater:

level	timeout (minutes)	level	timeout (minutes)
U	360	0	0
1	480	2	480
3	360	4	360
5	300	6	300
7	180	8	120
9	80	≥10-P	60

17-E2 ERROR (CONTINUOUS USE OF BUTTONS)

Any electrically conductive object (eg water), with sufficient mass and extension, located on the surface of the Touch Control soft keys hob, just above the buttons can cause accidental "pressure" of the buttons on the keypad.

As protection against this potential risk situation, the "pressure" of three or more buttons simultaneously on a single zone or of five or more buttons on two zones causes the interruption of power to all the hotplates within 1 second; the display shows "E2" until the keypad is engaged in an anomalous way. After the cause of the potential risk has been removed from the zone of the keyboard the Touch Control board immediately retrieves its functionality going in STAND-BY status.