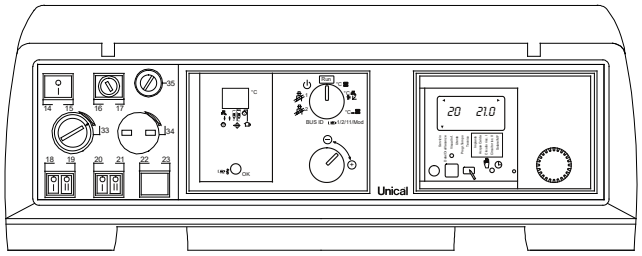
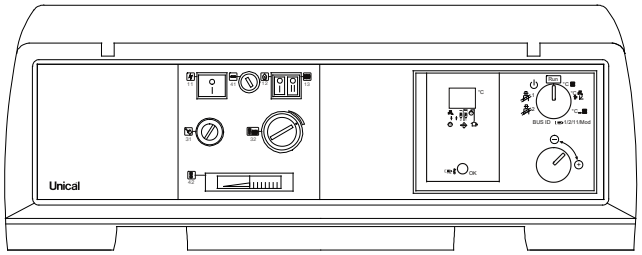
Unical®

ENGLISH



PANEL BOARD

- MODULATING MASTER
- DUAL-STAGE MASTER



PANEL BOARD

- MODULATING CASCADE
- DUAL-STAGE CASCADE

SYSTEM MANAGER OPERATING INSTRUCTIONS

Table of contents

TABLE OF CONTENTS

1 - SYMBOLS USED IN THE MANUAL

Pay special attention when reading this manual to the parts marked by the symbols:

DANGER!
Serious danger for personal safety and life

ATTENTION!
Possible hazardous situation for the product and the environment

NOTE!
Suggestions for the user

2 - APPROPRIATE USE OF APPLIANCE

XC-K appliances have been built according to the current level of engineering and acknowledged technical safety rules.
Nonetheless, if improperly used, dangers could arise for the safety and the very life of the user and other persons or damage to the equipment or other objects.
The appliance is intended to operate in hot air circulation heating systems.
Any other use must be considered improper.
UNICAL shall not held be liable for any damage resulting from improper use; in this case the user is fully responsible for the risk.
Use according to the intended purposes also include careful compliance with the instructions in this manual.

3 - WATER TREATMENT

- The hardness of the supplied water conditions the frequency at which the domestic hot water exchanger must be cleaned.
- If the water has a hardness greater than 15°f, we recommend using water softeners, chosen according to the characteristics of the water.
- We recommend checking and cleaning the domestic hot water exchanger at the end of the first year of use and every two years thereafter; on this occasion, also check the state of wear of the anode.

4 - INFORMATION FOR SYSTEM MANAGER BY INSTALLER/MAINTENANCE TECHNICIAN

The system manager must be instructed concerning the use and operation of his heating system, in particular:

- Give the system manager these instructions, as well as the other appliance documents inserted in the envelope inside the packaging. **The system manager must keep this documentation for future consultation**.
- Inform the system manager about the importance of the air vents and the flue gas exhaust system, highlighting their essential features and the absolute prohibition of modifying them.
- Inform the system manager concerning control of the system's water pressure as well as operations to restore it.
- Inform the system manager concerning correct control of temperatures, control units/thermostats and radiators to save energy.
- Remember that the system must receive regular maintenance at least once a year and a combustion analysis must be performed in the timetable foreseen by standards in force.
- Should the appliance be sold or transferred to a new owner or if you move and leave the appliance, always make sure that the instruction booklet accompanies it in order to be consulted by the new owner and/or installer.

The manufacturer will not be held liable in case of damage to persons, animals or objects resulting from failure to comply with the instructions contained in this manual.

5 - SAFETY WARNINGS

ATTENTION!
The appliance must be installed, adjusted and maintained by professionally qualified personnel, in compliance with standards and provisions in force. Incorrect installation can cause damage to persons, animals and objects for which the manufacturer cannot be held responsible.

DANGER!
NEVER attempt performing maintenance or repairs on the boiler on your own initiative.
Any work must be done by professionally qualified personnel authorised by Unical.
We recommend stipulating a maintenance contract.
Insufficient or irregular maintenance can jeopardise the operating safety of the appliance and cause damage to persons, animals and objects for which the manufacturer cannot be held responsible.

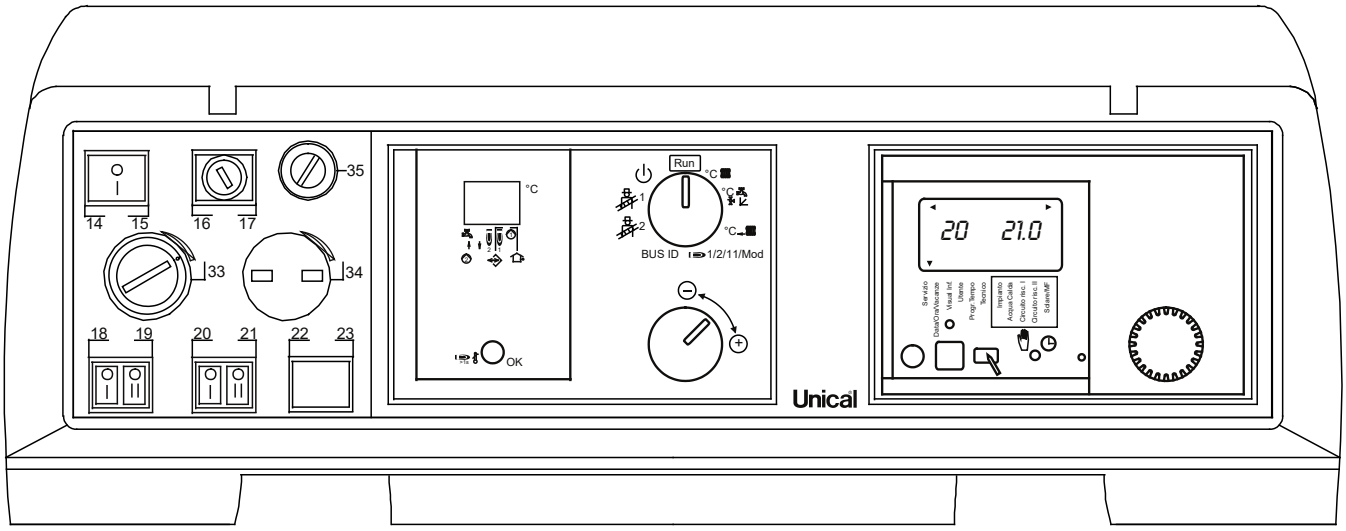
Modifying parts connected to appliance
Do not modify the following parts:
- the boiler
- the gas, air, water and electricity lines
- the flue gas pipe, safety valve and heating water drain pipe
- construction parts which affect the operating safety of the appliance

Smell of gas
Should a smell of gas be perceived, follow these safety guidelines:
- do not turn electric switches on or off
- do not smoke
- do not use the telephone
- close the gas shut-off valve
- air out the area where the gas leakage has occurred
- inform the gas supplier or a company specialised in installation and maintenance of heating systems.

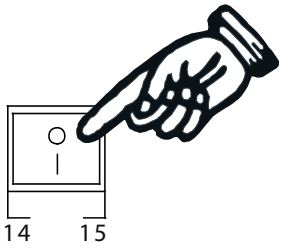
Explosive and easily flammable substances
Do not use or store explosive or easily flammable materials (e.g. petrol, paints, paper) in the room where the appliance is installed.

6 - OPERATING INSTRUCTIONS

6.1 - MODULATING MASTER PANEL BOARD code 37892 (with single boiler)

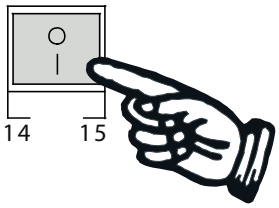


14 Main switch with indicator light
16 General fuse
18 Burner switch
19 P1 system pump switch (cascade)
20 Pz1 direct zone system pump switch
21 Pz2 mixed zone system pump switch
33 Working thermostat
35 Safety thermostat

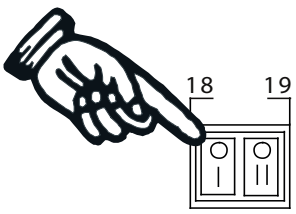


Main switch

This switch connects and disconnects power to the boiler:
- With the switch at **0** , the boiler is not powered electrically (green indicator light off).

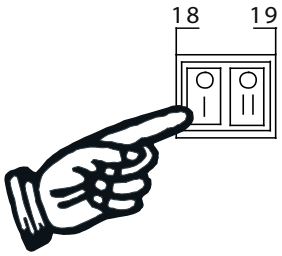


- With the switch at **I** , the boiler is powered electrically (green indicator light on) and is set up for the production of hot water for heating.

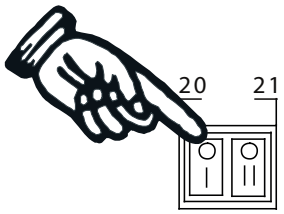


Burner switch

This switch connects and disconnects power to the burner:
- With the switch at **0** , the burner is not powered electrically.



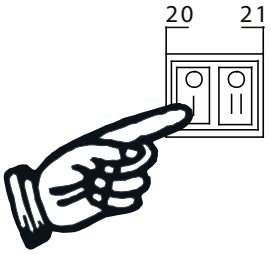
- With the switch at **I** , the burner is powered electrically and is set up to run at request of the heating controller.



Direct zone system pump switch

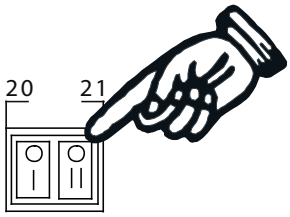
This switch connects and disconnects power to the direct zone system pump:

- With the switch at **0** , the pump is not powered electrically.



- With the switch at **I** , the system pump is powered electrically and is ready to run.

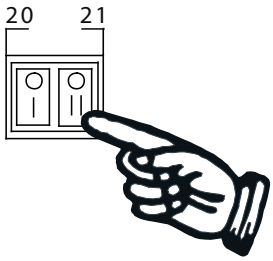
IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.



Mixed zone system pump switch

This switch connects and disconnects power to the mixed zone system pump:

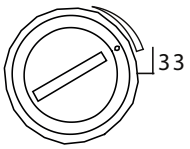
- With the switch at **0** , the pump is not powered electrically.



- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

Heating temperature control

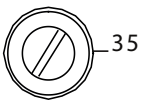


Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.

For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.

Resetting safety thermostat

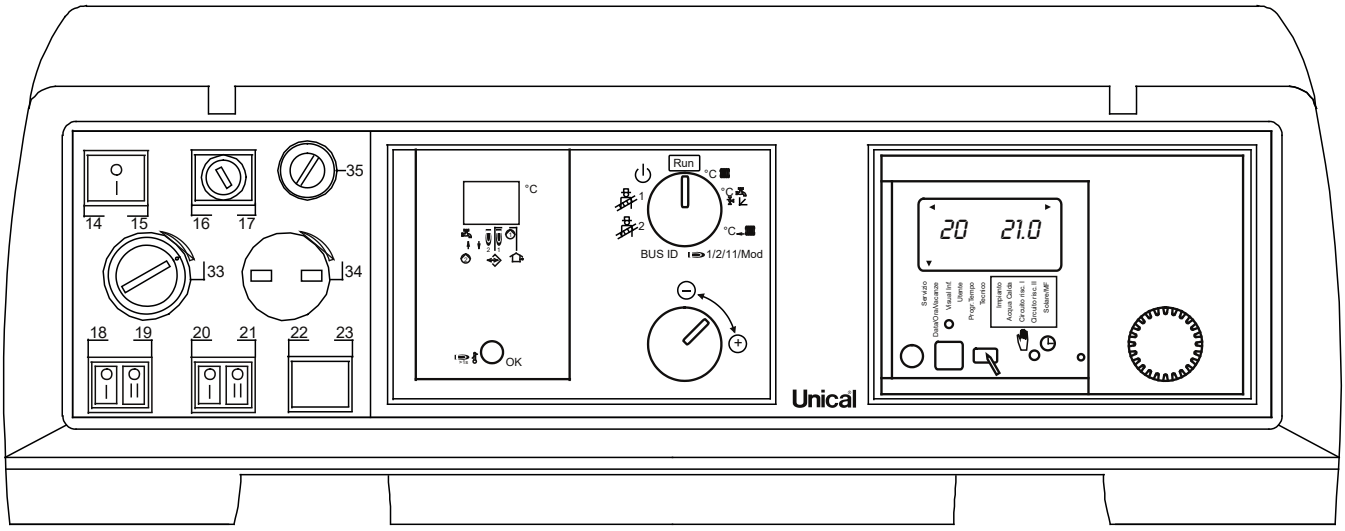


IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

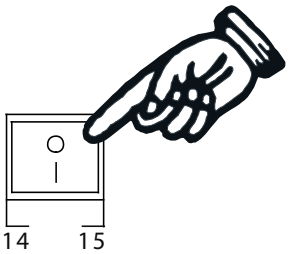
The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

If the safety device of the boiler continues to trigger, do not try to restore operation of the boiler on your own.
Contact an Authorised Assistance Centre.

6.2 - MODULATING MASTER PANEL BOARD code 37892 (with boilers in cascade)



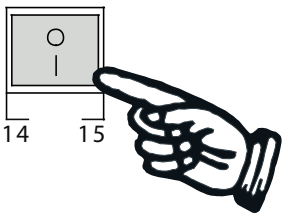
14 Main switch with indicator light
16 General fuse
18 Burner switch
19 System pump switch P1 (boiler n°1 in cascade primary ring)
20 Pz1 direct zone system pump switch
21 Pz2 mixed zone system pump switch
33 Working thermostat
35 Safety thermostat



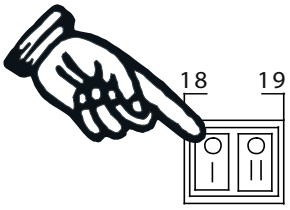
Main switch

This switch connects and disconnects power to the boiler n°1:

- With the switch at **0** , the boiler n°1 is not powered electrically (green indicator light off).



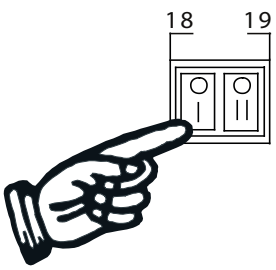
- With the switch at **I** , the boiler n°1 is powered electrically (green indicator light on) and is set up for the production of hot water for heating.



Burner switch

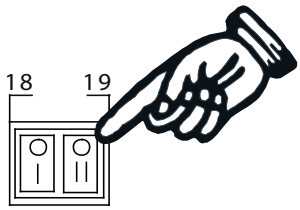
This switch connects and disconnects power to the burner of the boiler n°1:

- With the switch at **0** , the burner of the boiler n°1 is not powered electrically.



- With the switch at **I** , the burner of the boiler n°1 is powered electrically and is set up to run at request of the heating controller.

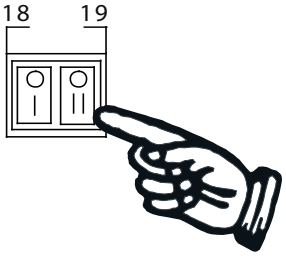
System manager operating instructions



Boiler n°1 primary ring system pump switch

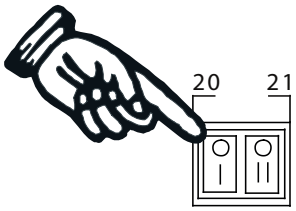
This switch connects and disconnects power to the system pump of the primary ring of boiler n°1:

- With the switch at **0** , the pump is not powered electrically.



- With the switch at **II**, the system pump is powered electrically and is ready to run.

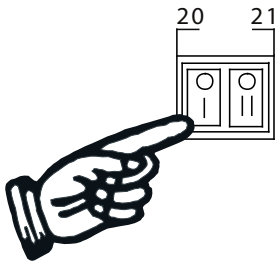
IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.



Direct zone system pump switch

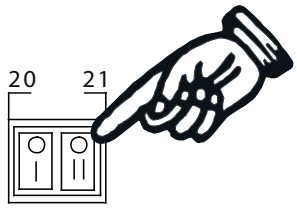
This switch connects and disconnects power to the direct zone system pump:

- With the switch at **0** , the pump is not powered electrically.



- With the switch at **I** , the system pump is powered electrically and is ready to run.

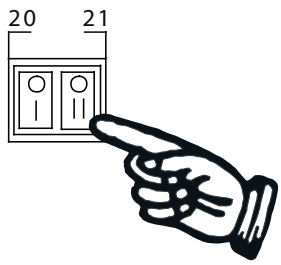
IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.



Mixed zone system pump switch

This switch connects and disconnects power to the mixed zone system pump:

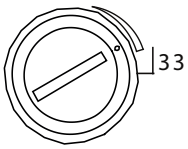
- With the switch at **0** , the pump is not powered electrically.



- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

Heating temperature control

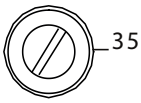


Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.

For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.

Resetting safety thermostat of boiler n°1

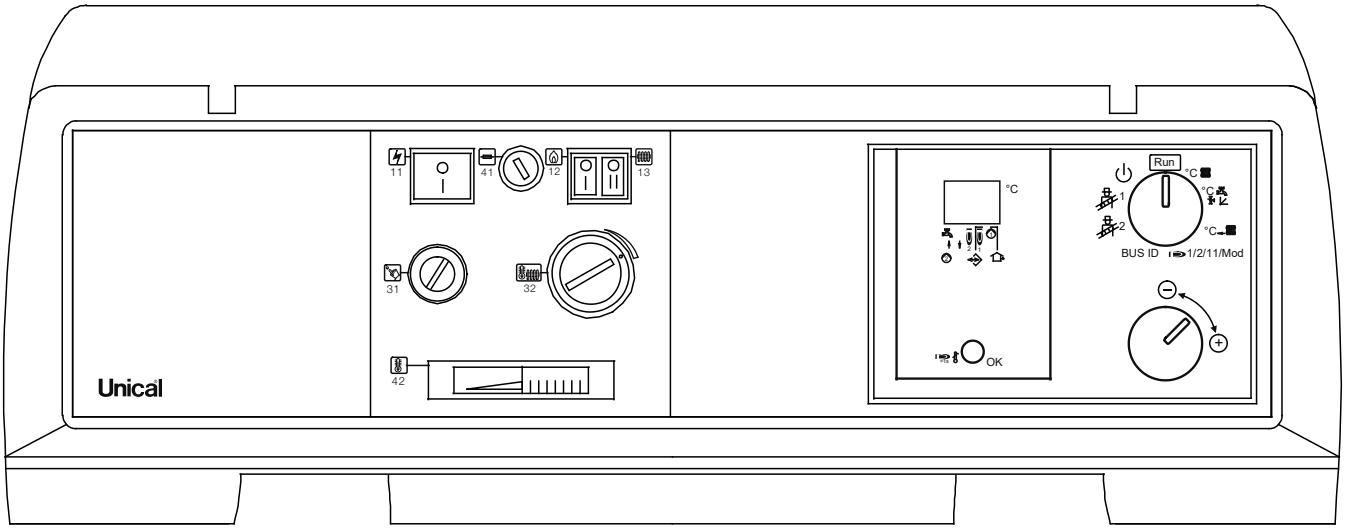


IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

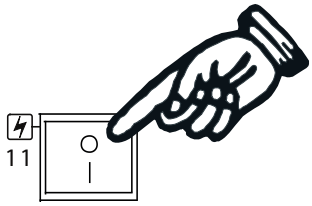
The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

If the safety device of the boiler continues to trigger, do not try to restore operation of the boiler on your own.
Contact an Authorised Assistance Centre.

6.3 - MODULATING CASCADE PANEL BOARD code 37900 (with boilers in cascade)



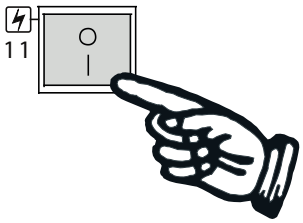
11 Main switch with indicator light
12 Burner switch
13 System pump switch P1 (boiler n°2 in cascade primary ring)
31 Safety thermostat
32 Working thermostat
41 General fuse



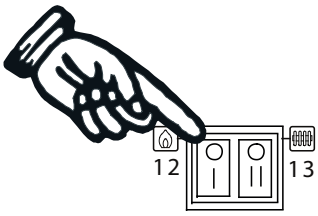
Main switch

This switch connects and disconnects power to the boiler n°2:

- With the switch at **0** , the boiler n°2 is not powered electrically (green indicator light off).



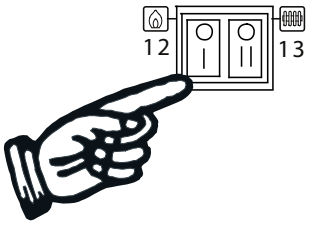
- With the switch at **I** , the boiler n°2 is powered electrically (green indicator light on) and is set up for the production of hot water for heating.



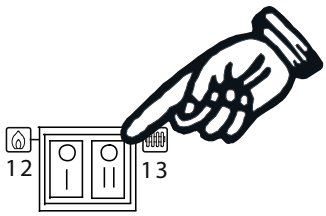
Burner switch

This switch connects and disconnects power to the burner of the boiler n°2:

- With the switch at **0** , the burner of the boiler n°2 is not powered electrically.



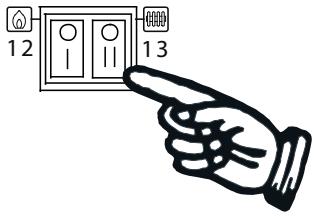
- With the switch at **I** , the burner of the boiler n°2 is powered electrically and is set up to run at request of the heating controller.



Boiler n°2 primary ring system pump switch

This switch connects and disconnects power to the system pump of the primary ring of boiler n°2:

- With the switch at **0** , the pump is not powered electrically.

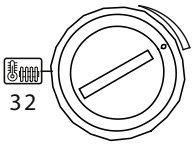


- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

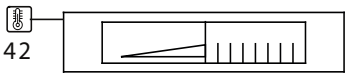
Heating temperature control

Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.



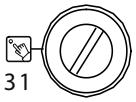
For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.



The temperature will also be visible on the thermometer indicated at the side, as long as the bulb has been positioned correctly in the sump on the upper part of the body of boiler n°2.
N.B. There could be a difference of a few degrees between the temperature displayed on the analogue thermometer and the heating control digital display.

Resetting safety thermostat



IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

System manager operating instructions

PROGRAMMING E8.5064 HEATING CONTROLLER

As far as adjustment and programming of the heating controller, the following are the parameters which can be programmed by the user according to his requirements.

PARAMETERS PROGRAMMABLE BY USING

PARAMETERS VISIBLE AT COMMISSIONING **open level, change the value, save the value and activate next value**	
ITALIAN	**Set language**
TIME	**Adjust the current time:** **1. Minute => => 2. Hour**
YEAR	**Adjust the current date**
MONTH	**Adjust the current date**
DAY	**Adjust the current date**
BUS ID *1*	**Enter the number for heating circuit "1":** **00-15 => default 01**
BUS ID *2*	**Enter the number for heating circuit "2":** **00-15 => default 02**
SENSOR 5K **value 00**	**00 = sensor 5 kOhm NTC** **01 = sensor 1 kOhm PTC, the code number is required;** **the controller is restarted after it is entered**
RETURN	**Commissioning complete**

INSTALLATION PROGRAMMING **open level, change the value, save the value**			
Description	**Value range**	**Default**	**Individual values**
ITALIAN	**Depending on implementation**	**ITALIAN**	
CONTRAST	**(-20) (20)**	**0**	
CHOICE OF READING	**Sensor, day**	**- - - -**	
SELECTION - PROGRAMMING	**HS 01 / HS 02**	**01**	
RETURN	**Exit level using**		

DOMESTIC HOT WATER PROGRAMMING			
Description	**Value range**	**Default**	**Individual values**
1X DHW	**00, 01 (OFF / ON)**	**00 = OFF**	
DHW TEMPERATURE 1 NOMINAL	**10 °C - 70 °C**	**60 °C**	
DHW TEMPERATURE 2 NOMINAL	**10 °C - 70 °C**	**60 °C**	
DHW TEMPERATURE 3 NOMINAL	**10 °C - 70 °C**	**60 °C**	
COIL VALUE	**OK - 70K**	**0 degrees**	
RECIRCULATION PUMP	**00, 01 (OFF / ON)**	**00 = OFF**	
ANTI-LEGIONELLA	**00, 01 (OFF / ON)**	**00 = OFF**	
RETURN	**Exit level using**		

PROGRAMMING HEATING CIRCUIT 1			
Description	**Value range**	**Default**	**Individual values**
SERVICE OPTIONS	- - - - ⏻, 🕘1, 🕘2, ☀, ☽	- - - -	
NOMINAL ROOM TEMPERATURE 1*)	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 2	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 3	5 °C - 40 °C	20 °C	
REDUCED TEMPERATURE *)	5 °C - 40 °C	10 °C	
HOLIDAY TEMPERATURE	5 °C - 40 °C	15 °C	
DAY LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	19 °C	
NIGHT LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	10 °C	
HEATING CURVE	0,00 - 3,00	1,20	
ADAPTATION	00, 01 (OFF / ON)	00 = OFF	
THERMOMETER SETTING	00 - 20	10	
ROOM ADAPTATION	(-5,0)K - (5,0)K	0.0 degrees	
HEATING OPTIMISATION	00, 01, 02	00	
MINIMUM OPENING TIME	0:00 - 3:00 (h)	2:00 (h)	
REDUCTION OPTIMISATION	0:00 - 3:00 (h)	00:00:00 (h)	
PC ENABLE	0000 - 9999	0000	
RETURN	Exit level using		

PROGRAMMING HEATING CIRCUIT 2			
Description	**Value range**	**Default**	**Individual values**
SERVICE OPTIONS	- - - - ⏻, 🕘1, 🕘2, ☀, ☽	- - - -	
NOMINAL ROOM TEMPERATURE 1*)	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 2	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 3	5 °C - 40 °C	20 °C	
REDUCED TEMPERATURE *)	5 °C - 40 °C	10 °C	
HOLIDAY TEMPERATURE	5 °C - 40 °C	15 °C	
DAY LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	19 °C	
NIGHT LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	10 °C	
HEATING CURVE	0,00 - 3,00	0,6	
ADAPTATION	00, 01 (OFF / ON)	00 = OFF	
THERMOMETER SETTING	00 - 20	10	
ROOM ADAPTATION	(-5,0)K - (5,0)K	0.0 degrees	
HEATING OPTIMISATION	00, 01, 02	00	
MINIMUM OPENING TIME	0:00 - 3:00 (h)	2:00 (h)	
REDUCTION OPTIMISATION	0:00 - 3:00 (h)	00:00:00 (h)	
PC ENABLE	0000 - 9999	0000	
RETURN	Exit level using		

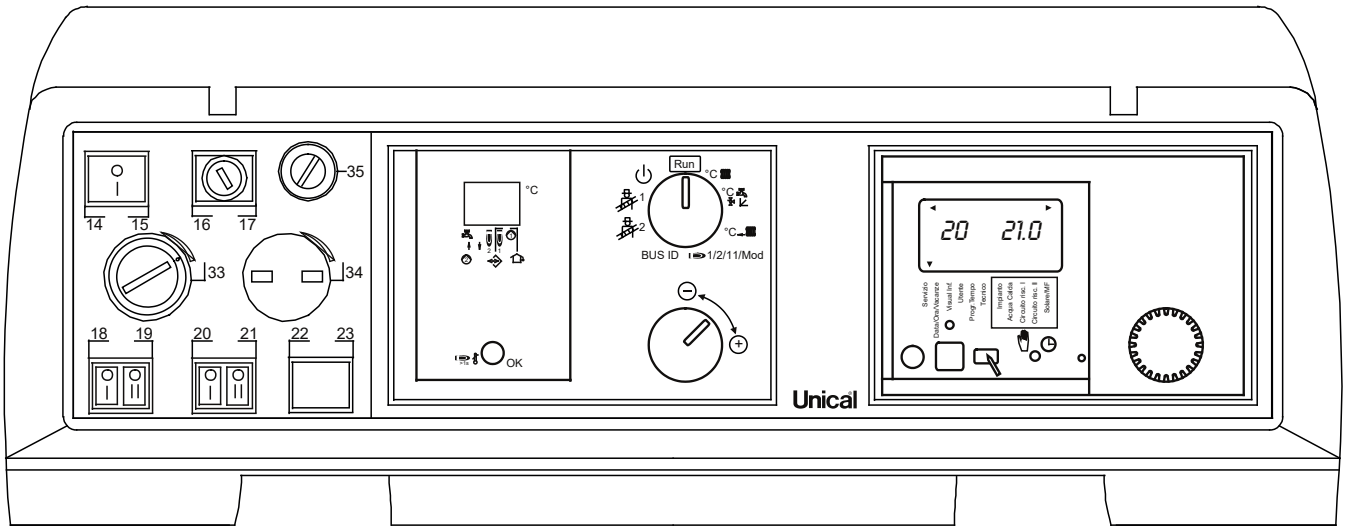
PROGRAMMING TIMER HEATING CIRCUIT 1	
Description	**Value range**
HEATING CIRCUIT 1 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**
HEATING CIRCUIT 2 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 08:00, from 16:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**

PROGRAMMING TIMER HEATING CIRCUIT 2	
Description	**Value range**
HEATING CIRCUIT 1 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**
HEATING CIRCUIT 2 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 08:00, from 16:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**

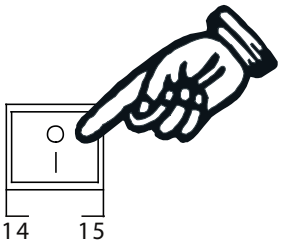
PROGRAMMING TIMER DHW PRODUCTION CIRCUIT	
Description	**Value range**
=> DEFAULT SETTINGS:	**Monday / Tuesday / Wednesday / Thursday / Friday: from 05:00 to 21:00** **Saturday and Sunday: from 06:00 to 22:00**

PROGRAMMING TIMER DHW PRODUCTION CIRCUIT RECIRCULATION PUMP	
Description	**Value range**
=> DEFAULT SETTINGS:	**Monday / Tuesday / Wednesday / Thursday / Friday: from 05:00 to 21:00** **Saturday and Sunday: from 06:00 to 22:00**

6.4 - DUAL-STAGE MASTER PANEL BOARD code 38778 (with single boiler)

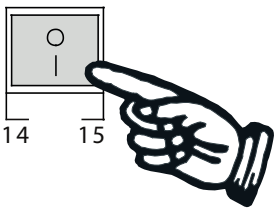


14 Main switch with indicator light
16 General fuse
18 Burner switch
19 P1 system pump switch (cascade)
20 Pz1 direct zone system pump switch
21 Pz2 mixed zone system pump switch
33 Working thermostat
35 Safety thermostat

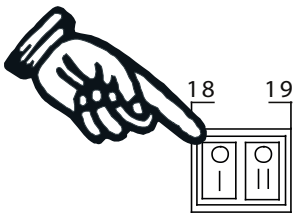


Main switch

This switch connects and disconnects power to the boiler:
- With the switch at **0** , the boiler is not powered electrically (green indicator light off).

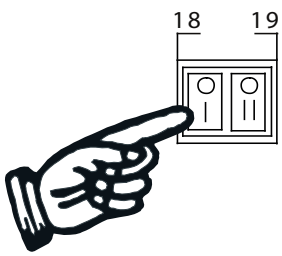


- With the switch at **I** , the boiler is powered electrically (green indicator light on) and is set up for the production of hot water for heating.



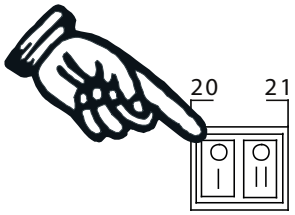
Burner switch

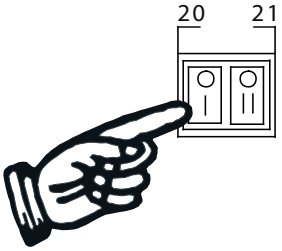
This switch connects and disconnects power to the burner:
- With the switch at **0** , the burner is not powered electrically.



- With the switch at **I** , the burner is powered electrically and is set up to run at request of the heating controller.

System manager operating instructions





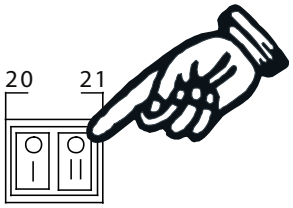
Direct zone system pump switch

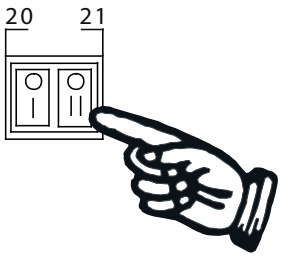
This switch connects and disconnects power to the direct zone system pump:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **I** , the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.





Mixed zone system pump switch

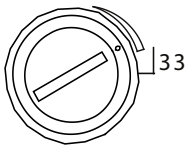
This switch connects and disconnects power to the mixed zone system pump:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

Heating temperature control

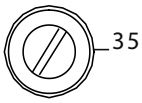


Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.

For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.

Resetting safety thermostat

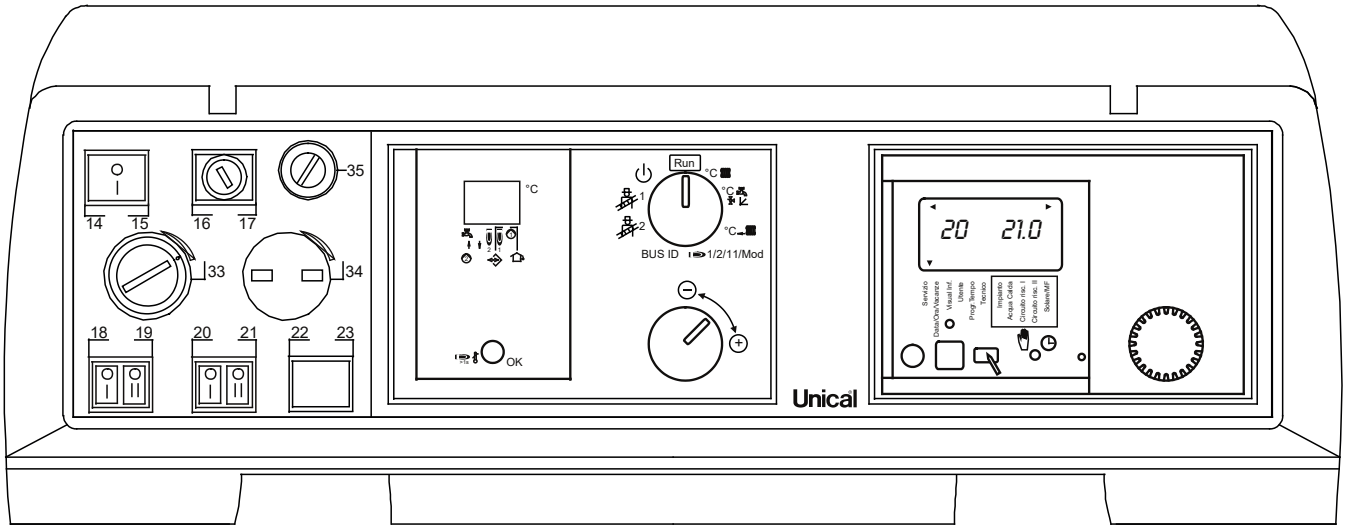


IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

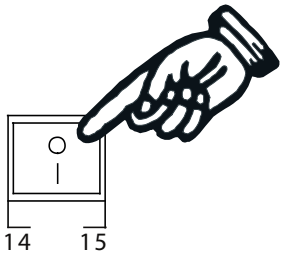
If the safety device of the boiler continues to trigger, do not try to restore operation of the boiler on your own.
Contact an Authorised Assistance Centre.

6.5 - DUAL-STAGE MASTER PANEL BOARD code 38778 (with boilers in cascade)



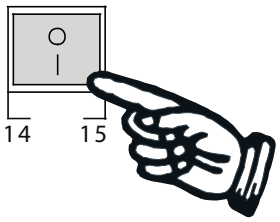
14 Main switch with indicator light
16 General fuse
18 Burner switch
19 System pump switch P1 (boiler n°1 in cascade primary ring)
20 Pz1 direct zone system pump switch
21 Pz2 mixed zone system pump switch
33 Working thermostat
35 Safety thermostat

Main switch



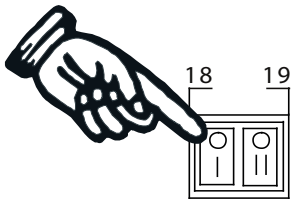
This switch connects and disconnects power to the boiler n°1:

- With the switch at **0** , the boiler n°1 is not powered electrically (green indicator light off).



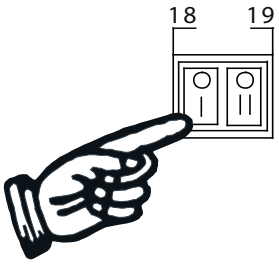
- With the switch at **I** , the boiler n°1 is powered electrically (green indicator light on) and is set up for the production of hot water for heating.

Burner switch

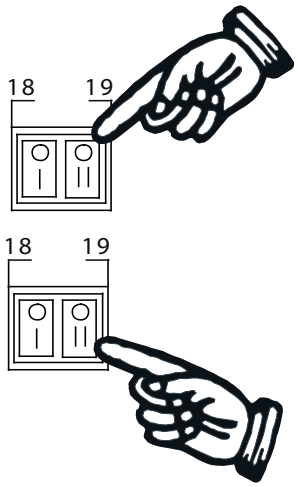


This switch connects and disconnects power to the burner of the boiler n°1:

- With the switch at **0** , the burner of the boiler n°1 is not powered electrically.



- With the switch at **I** , the burner of the boiler n°1 is powered electrically and is set up to run at request of the heating controller.



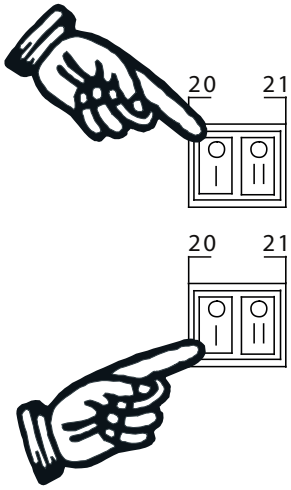
Boiler n°1 primary ring system pump switch

This switch connects and disconnects power to the system pump of the primary ring of boiler n°1:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.



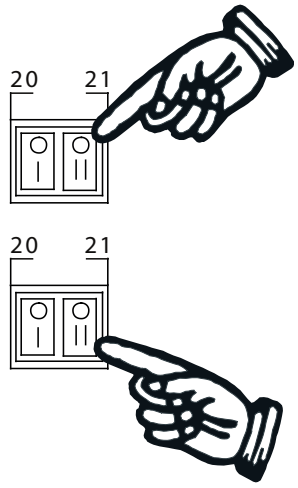
Direct zone system pump switch

This switch connects and disconnects power to the direct zone system pump:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **I** , the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.



Mixed zone system pump switch

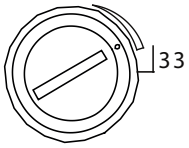
This switch connects and disconnects power to the mixed zone system pump:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

Heating temperature control

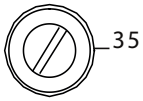


Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.

For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.

Resetting safety thermostat of boiler n°1

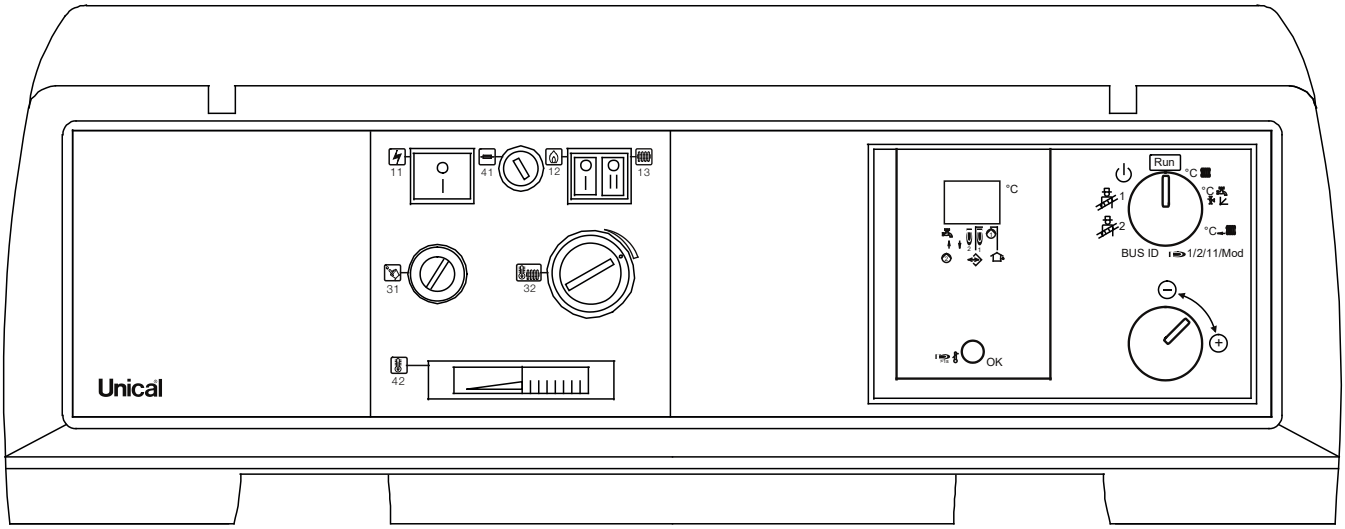


IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

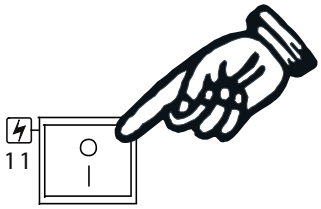
If the safety device of the boiler continues to trigger, do not try to restore operation of the boiler on your own.
Contact an Authorised Assistance Centre.

6.6 - DUAL-STAGE CASCADE PANEL BOARD code 37901 (with boilers in cascade)



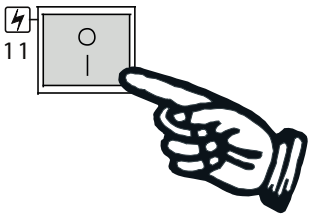
11 Main switch with indicator light
12 Burner switch
13 System pump switch P1 (boiler n°2 in cascade primary ring)
31 Safety thermostat
32 Working thermostat
41 General fuse

Main switch



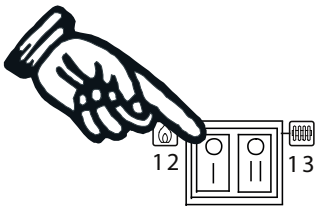
This switch connects and disconnects power to the boiler n°2:

- With the switch at **0** , the boiler n°2 is not powered electrically (green indicator light off).



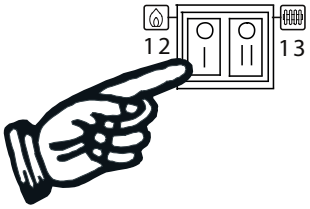
- With the switch at **I** , the boiler n°2 is powered electrically (green indicator light on) and is set up for the production of hot water for heating.

Burner switch

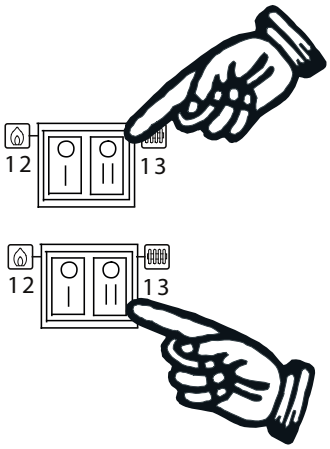


This switch connects and disconnects power to the burner of the boiler n°2:

- With the switch at **0** , the burner of the boiler n°2 is not powered electrically.



- With the switch at **I** , the burner of the boiler n°2 is powered electrically and is set up to run at request of the heating controller.



Boiler n°2 primary ring system pump switch

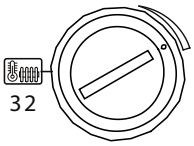
This switch connects and disconnects power to the + system pump of the primary ring of boiler n°2:

- With the switch at **0** , the pump is not powered electrically.

- With the switch at **II**, the system pump is powered electrically and is ready to run.

IMPORTANT: the system pump must **always** be ready to run before switching the burner on to allow heat to be dispersed.
Otherwise, the safety thermostat in the boiler will trigger when the maximum temperature is reached with the consequent need to be rearmed.

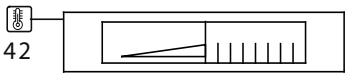
Heating temperature control



Temperature is adjusted between a minimum of 0°C and a maximum of 90°C.

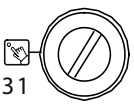
For the heating controller to work properly, the knob of the working thermostat MUST be at the MAX full-scale (to the “right”).
As far as the working temperature setting is concerned, see the paragraph “PROGRAMMING THE HEATING CONTROLLER”.

The value set will appear on the heating controller display.



The temperature will also be visible on the thermometer indicated at the side, as long as the bulb has been positioned correctly in the sump on the upper part of the body of boiler n°2.
N.B. There could be a difference of a few degrees between the temperature displayed on the analogue thermometer and the heating control digital display.

Resetting safety thermostat



IMPORTANT: The safety thermostat is located below the cap indicated in the figure to the side. To access it when the boiler blocks, unscrew the plastic cap with a screwdriver; after having reset the boiler, put the plastic cap back on.

The safety thermostat can be triggered when the boiler overheats.
This can be solved first of all by lowering the working temperature of the boiler.

PROGRAMMING E8.5064 HEATING CONTROLLER

As far as adjustment and programming of the heating controller, the following are the parameters which can be programmed by the user according to his requirements.

PARAMETERS PROGRAMMABLE BY USING

PARAMETERS VISIBLE AT COMMISSIONING open level, change the value, save the value and activate next value	
ITALIAN	**Set language**
TIME	**Adjust the current time:** **1. Minute => => 2. Hour**
YEAR	**Adjust the current date**
MONTH	**Adjust the current date**
DAY	**Adjust the current date**
BUS ID *1*	**Enter the number for heating circuit "1":** **00-15 => default 01**
BUS ID *2*	**Enter the number for heating circuit "2":** **00-15 => default 02**
SENSOR 5K **value 00**	**00 = sensor 5 kOhm NTC** **01 = sensor 1 kOhm PTC, the code number is required;** **the controller is restarted after it is entered**
RETURN	**Commissioning complete**

INSTALLATION PROGRAMMING open level, change the value, save the value			
Description	**Value range**	**Default**	**Individual values**
ITALIAN	**Depending on implementation**	**ITALIAN**	
CONTRAST	**(-20) (20)**	**0**	
CHOICE OF READING	**Sensor, day**	**- - - -**	
SELECTION - PROGRAMMING	**HS 01 / HS 02**	**01**	
RETURN	**Exit level using**		

DOMESTIC HOT WATER PROGRAMMING			
Description	**Value range**	**Default**	**Individual values**
1X DHW	**00, 01 (OFF / ON)**	**00 = OFF**	
DHW TEMPERATURE 1 NOMINAL	**10 °C - 70 °C**	**60 °C**	
DHW TEMPERATURE 2 NOMINAL	**10 °C - 70 °C**	**60 °C**	
DHW TEMPERATURE 3 NOMINAL	**10 °C - 70 °C**	**60 °C**	
COIL VALUE	**OK - 70K**	**0 degrees**	
RECIRCULATION PUMP	**00, 01 (OFF / ON)**	**00 = OFF**	
ANTI-LEGIONELLA	**00, 01 (OFF / ON)**	**00 = OFF**	
RETURN	**Exit level using**		

PROGRAMMING HEATING CIRCUIT 1			
Description	**Value range**	**Default**	**Individual values**
SERVICE OPTIONS	- - - - ⏻, 🕘1, 🕘2, ☀, ☽	- - - -	
NOMINAL ROOM TEMPERATURE 1*)	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 2	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 3	5 °C - 40 °C	20 °C	
REDUCED TEMPERATURE *)	5 °C - 40 °C	10 °C	
HOLIDAY TEMPERATURE	5 °C - 40 °C	15 °C	
DAY LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	19 °C	
NIGHT LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	10 °C	
HEATING CURVE	0,00 - 3,00	1,20	
ADAPTATION	00, 01 (OFF / ON)	00 = OFF	
THERMOMETER SETTING	00 - 20	10	
ROOM ADAPTATION	(-5,0)K - (5,0)K	0.0 degrees	
HEATING OPTIMISATION	00, 01, 02	00	
MINIMUM OPENING TIME	0:00 - 3:00 (h)	2:00 (h)	
REDUCTION OPTIMISATION	0:00 - 3:00 (h)	00:00:00 (h)	
PC ENABLE	0000 - 9999	0000	
RETURN	Exit level using		

PROGRAMMING HEATING CIRCUIT 2			
Description	**Value range**	**Default**	**Individual values**
SERVICE OPTIONS	- - - - ⏻, 🕘1, 🕘2, ☀, ☽	- - - -	
NOMINAL ROOM TEMPERATURE 1*)	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 2	5 °C - 40 °C	20 °C	
NOMINAL ROOM TEMPERATURE 3	5 °C - 40 °C	20 °C	
REDUCED TEMPERATURE *)	5 °C - 40 °C	10 °C	
HOLIDAY TEMPERATURE	5 °C - 40 °C	15 °C	
DAY LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	19 °C	
NIGHT LIMIT TEMPERATURE	- - - -, (-5) °C - 40 °C	10 °C	
HEATING CURVE	0,00 - 3,00	0,6	
ADAPTATION	00, 01 (OFF / ON)	00 = OFF	
THERMOMETER SETTING	00 - 20	10	
ROOM ADAPTATION	(-5,0)K - (5,0)K	0.0 degrees	
HEATING OPTIMISATION	00, 01, 02	00	
MINIMUM OPENING TIME	0:00 - 3:00 (h)	2:00 (h)	
REDUCTION OPTIMISATION	0:00 - 3:00 (h)	00:00:00 (h)	
PC ENABLE	0000 - 9999	0000	
RETURN	Exit level using		

PROGRAMMING TIMER HEATING CIRCUIT 1	
Description	**Value range**
HEATING CIRCUIT 1 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**
HEATING CIRCUIT 2 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 08:00, from 16:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**

PROGRAMMING TIMER HEATING CIRCUIT 2	
Description	**Value range**
HEATING CIRCUIT 1 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**
HEATING CIRCUIT 2 PROGRAM **=> DEFAULT SETTINGS:**	**Monday / Tuesday / Wednesday / Thursday / Friday: from 06:00 to 08:00, from 16:00 to 22:00** **Saturday and Sunday: from 07:00 to 23:00**

PROGRAMMING TIMER DHW PRODUCTION CIRCUIT	
Description	**Value range**
=> DEFAULT SETTINGS:	**Monday / Tuesday / Wednesday / Thursday / Friday: from 05:00 to 21:00** **Saturday and Sunday: from 06:00 to 22:00**

PROGRAMMING TIMER DHW PRODUCTION CIRCUIT RECIRCULATION PUMP	
Description	**Value range**
=> DEFAULT SETTINGS:	**Monday / Tuesday / Wednesday / Thursday / Friday: from 05:00 to 21:00** **Saturday and Sunday: from 06:00 to 22:00**

Heating system pressure

Check the pressure gauge regularly to verify water pressure in the boiler.
When the pressure drops below 1 bar, it should be restored, **with the boiler cold**, until it reaches the static pressure relative to the highest point of the system, by gradually opening the filling cock outside the boiler.
Close the filling cock when the proper pressure has been reached.

If water pressure must be continually restored, contact an Authorised Assistance Centre.

6.7 - CHECKS BEFORE COMMISSIONING

Before commissioning the appliance, the following should be checked:
- Make sure the gas shut-off valve upstream the boiler is open.
- Make sure that any shut-off valves for maintenance on the flow and return pipes are open.
- Check the connection of the safety valves to the sewer system.
- Check the connection of the condensation drain siphon underneath the smoke chamber to the sewer system.
- Make sure the boilers are powered electrically; the indicator light of the switch on the panel boards must be on.
- Check the water pressure on the system's pressure gauge (with pump stopped).
  Should the pressure be lower than 1 bar with the system cold, restore pressure by opening the system filling tap.

When the burner switches on and off, slight sounds could be heard due to settling of the structure. Do not worry about this as expansions are foreseen during design.

Complete deactivation

When the system is put completely out of service, hot water production is fully deactivated.

To deactivate the system, disconnect power to the boilers by placing the main switches at **0** : the "green" indicator lights will be off.

If idle for long periods, close the gas shut-off valve and cold water cock, if present.

ATTENTION!

The heating system can be effectively protected against ice by using specific antifreeze products suitable for multi-metal plants.
Do not use car engine antifreeze as it could damage the water gaskets.

6.8 - ELIMINATING FAULTS

System pump runs but burner stopped

Meaning:
Boiler safety devices triggered due to:
- insufficient temperature reduction in boiler.

Fault elimination:
Lower working temperature of boiler.
Press the reset button on safety thermostat.

Main switch with green indicator light on but system burner and pump not running

Meaning:
Blown fuse due to:
- voltage jump.

Fault elimination:
Replace fuse - **to be done by qualified personnel.**

Burner block light on

Meaning:
Burner blocking device triggered due to:
- gas shortage
- air in pipe (when system is new or after long idle period).

Fault elimination:
Make sure the gas valve is open and that the air in the pipe has been bled.
Press the unblock button on the burner to restore correct boiler operation.

If the block device of the boiler continues to trigger, do not try to restore operation of the boiler on your own. Contact an Authorised Assistance Centre.

Unical®

www.unical.eu

44880 - 1st ed. 09/16

Unical AG S.p.A. 46033 casteldario - mantova - italia - tel. +39 0376 57001 - fax +39 0376 660556
info@unical-ag.com - export@unical-ag.com - www.unical.eu