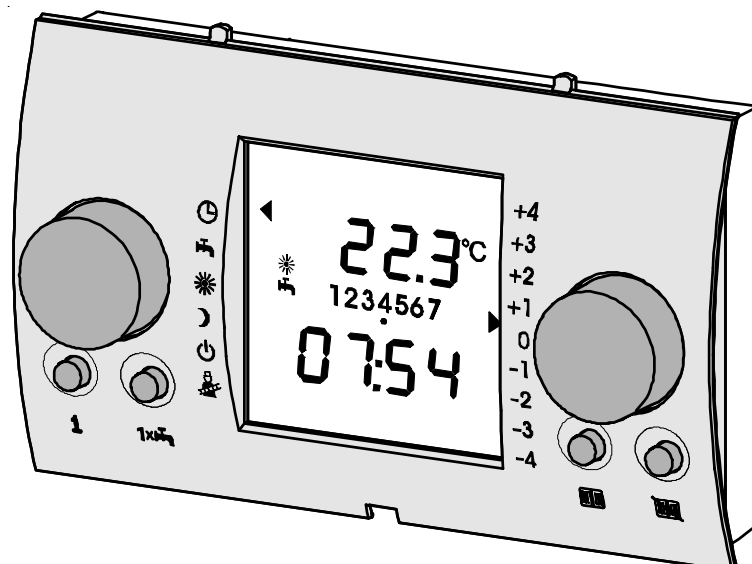


Installation and operating instructions

Programming module BM



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Safety instructions

The following symbols are used in conjunction with these important instructions concerning personal safety as well as operational reliability.



"Safety instructions" are instructions with which you must comply exactly, to prevent injury and material losses.



Danger through 'live' electrical components.
NB Switch OFF the ON / OFF switch before removing the casing.

Never touch electrical components or contacts when the ON / OFF switch is in the ON position. This brings a risk of electrocution, which may result in injury or death.

The main supply terminals are 'live' even when the ON / OFF switch is in the OFF position.



This indicates technical instructions which you must observe to prevent material losses and boiler malfunctions.

- Installation / Commissioning**
- According to DIN EN 50110-1, only qualified electricians may carry out the installation and commissioning of the heating control unit and connected accessories.
 - Observe all regulations stipulated by your local power supply utility and all VDE or local regulations.
 - DIN VDE 0100 regulations regarding the installation of high voltage systems up to 1000V
 - DIN VDE 0105-100 operation of electrical systems
 - DIN EN 50165 electrical equipment for non-electrical devices for domestic use and similar purposes
 - EN 60335-1 safety equipment of electrical devices for domestic use and similar purposes.

Warnings

- Never remove, bypass or disable safety and monitoring equipment.
- Only operate the system in perfect technical condition. Immediately remove / remedy any faults and damage that may impact on safety.
- Always ensure that cold water is mixed in with hot water, when the DHW temperature is set above 60 °C or when operating the pasteurisation system at a temperature higher than 60 °C (risk of scalding).

Maintenance / Repair

- Regularly check the perfect function of all electrical equipment.
- Only qualified personnel may remove faults or repair damage.
- Only replace faulty components or equipment with original Wolf spare parts.
- Always maintain prescribed electrical protection values (see specification).

NB

Any damage or loss resulting from technical modifications to Wolf control units is excluded from our liability.

Remote control

The BM programming module can be used as remote control (e.g. in the living room). Using a remote control makes both the walk to the boiler / installation room superfluous and provides additional functions (e.g. room temperature hook-up).

If there are several heating circuits with controllers from the Wolf control unit range, a **single** BM programming module can operate and adjust all heating circuits.

However, an individual BM programming module can also be allocated as remote control to each heating circuit.

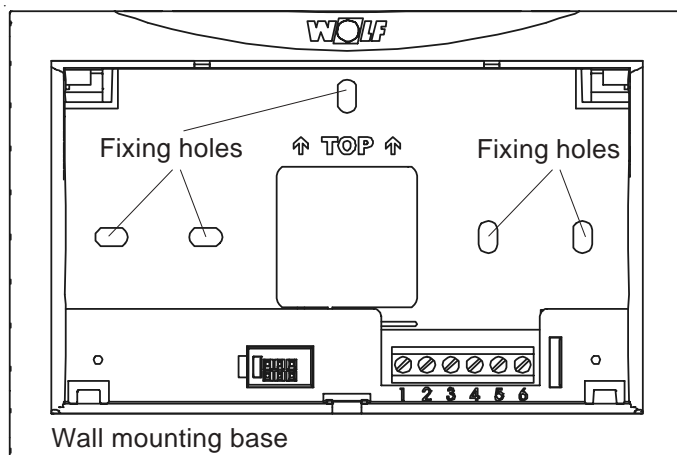
Only a two-wire BUS is required for the use as remote control.

Installation information

- Install the wall mounting base (available as option) on an internal wall at a height of approx. 1.5 m above the floor.
- For an optimum room temperature sensor function, install the BM programming module in a living room (reference room) that is representative of the entire accommodation or the entire house.
- The BM programming module must not be subject to draughts or direct radiated heat.
- The BM programming module must not be obstructed by furniture or curtains.
- In the reference room, all radiator valves must be fully opened.

Wall mounting base installation

- Remove the wall mounting base from its packing.
- Secure the wall mounting base on a flush-mounting box (Ø 55 mm) or directly on the wall.



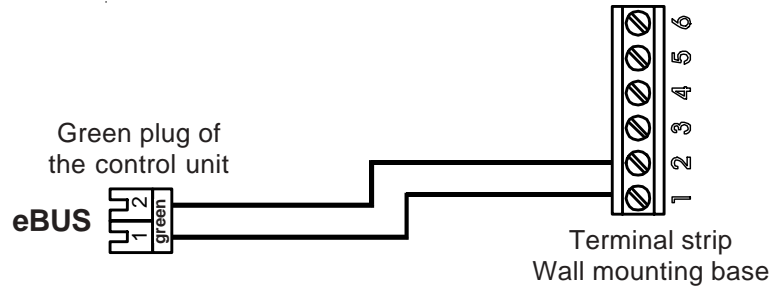
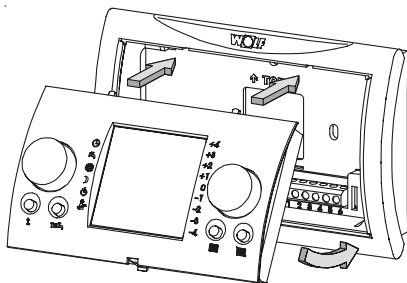
Electrical connection Remote control

The electrical connection must only be carried out by a qualified electrician.

Never route sensor leads alongside mains power cables.



- Switch OFF the ON / OFF switch at the boiler.
- Set the rotary temperature selector for central heating and the DHW selector into their central positions (5).
- Wire the wall mounting base with a two-core cable (minimum cross-section 0.5 mm²) in accordance with the diagram.



- Connect the optional outside temperature sensor to the wall mounting base.
- Connect the remote switching contact to the wall mounting base.
- Check the eBUS address (see chapter "eBUS interface settings").
- Click the BM programming module into the wall mounting base as shown in the diagram.
- Switch ON the ON / OFF switch at the boiler.

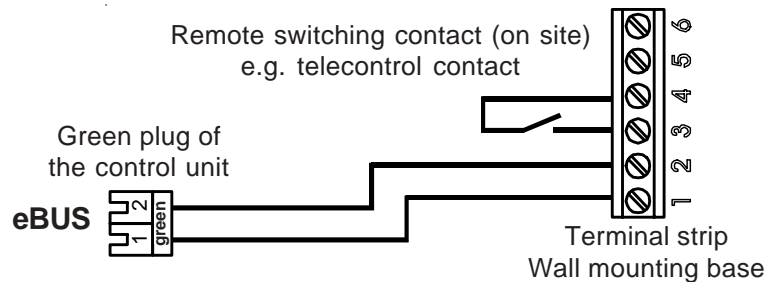
Note

All accessories are connected in parallel to the control unit eBUS when connecting several remote control units or a radio clock module.

Remote switching contact

A remote switching contact offers the possibility of switching the heating system to enable 24 h central heating and DHW, using a zero-volt contact (e.g. a telecontrol contact). The control unit operates with the set time programs if the remote switching contact remains open.

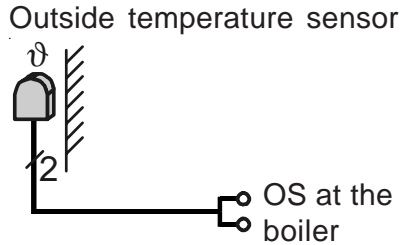
- Switch OFF the ON / OFF switch at the boiler.
- Wire the remote switching contact with a 2-core cable (minimum cross-section 0.5 mm²) in accordance with the diagram.



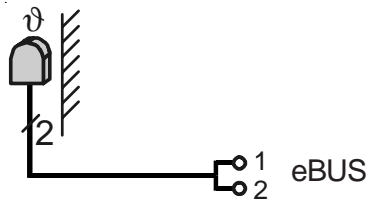
- Click the BM programming module into the wall mounting base as shown in the diagram.
- Switch ON the ON / OFF switch at the boiler.

Outside temperature sensor

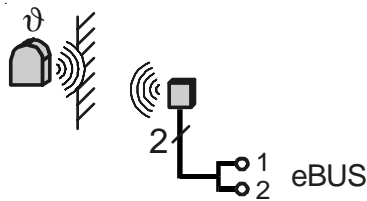
Installation at the boiler



Radio clock module with outside temperature sensor



External wireless sensor



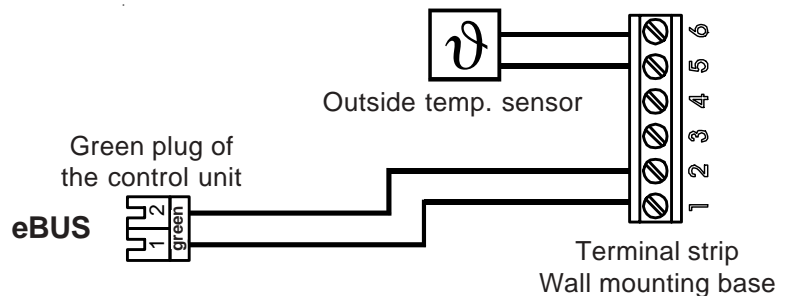
Installation at the programming module

The outside temperature sensor can either be connected directly to the boiler (preferred option) or at the BM programming module. Join the on-site lead of the outside temperature sensor with the plug supplied in the boiler control unit. Insert the plug into the designated location in the plug-in connector strip of the boiler control unit, and secure the lead with its strain relief. Route the lead through the boiler casing cutout. Fit the outside temperature sensor to the north or northeast wall, 2 to 2.5 m above ground level (cable entry pointing down).

A wireless outside temperature sensor can also be used if there is no cable or conduit available on site for the outside temperature sensor.

A wireless outside temperature sensor or a radio clock module with outside temperature sensor is available as optional accessory.

- Switch OFF the system ON / OFF switch at the boiler control unit.
- Wire the outside temperature sensor with a 2-core lead (minimum cross-section 0.5 mm²) in accordance with the diagram.



- Click the BM programming module into the wall mounting base as shown in the diagram.
- Switch ON the ON / OFF switch at the boiler.

Boiler integration

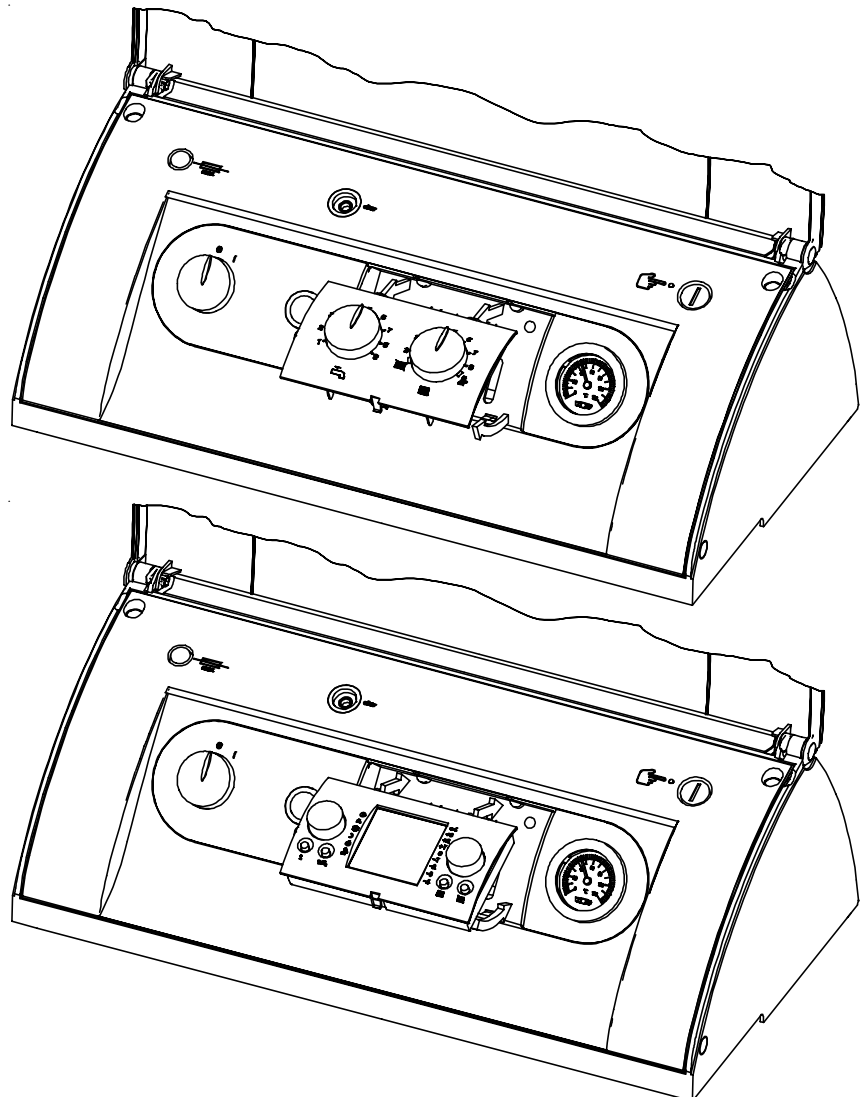
The BM programming module can also be integrated into the boiler control unit. That means that all settings are made at the boiler control unit.

In addition, all heating circuits can be controlled and adjusted from the boiler control unit, if there are several heating circuits that are operated with components from the Wolf range of control equipment.



The electrical connection must only be carried out by a qualified electrician.

- Switch OFF the ON / OFF switch at the boiler.
- Set the rotary temperature selector for central heating and the DHW selector into their central positions (5).
- Check the eBUS address (see chapter "eBUS interface settings").
- Remove the facia or the BM programming module from the boiler control unit as shown in the diagram.
- Click the BM programming module or facia into the boiler control unit as shown in the diagram.
- Switch ON the ON / OFF switch at the boiler.



Integration into a gas fired boiler

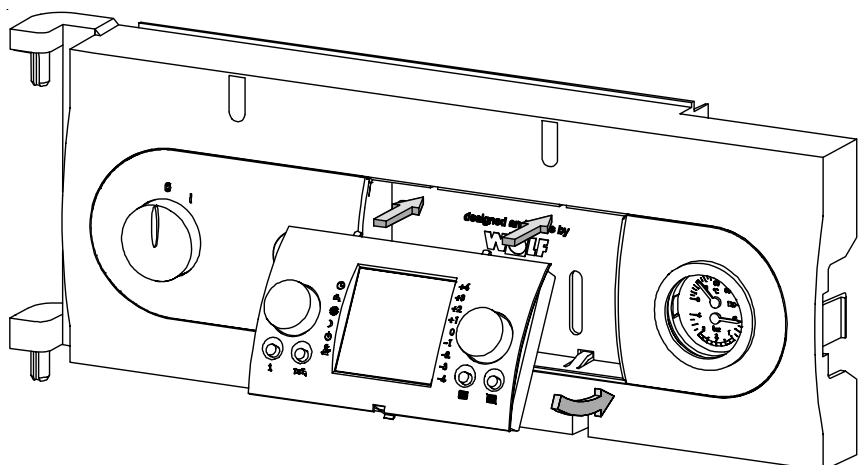
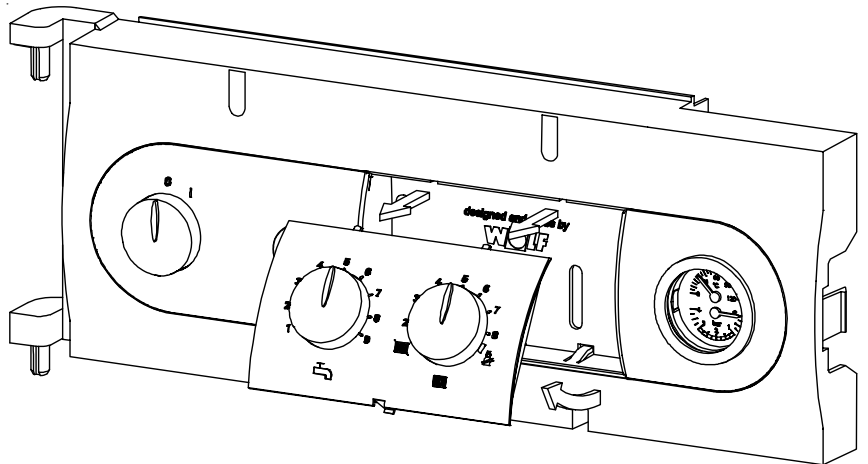
The BM programming module can also be integrated into the control unit of gas fired boilers. That means that all settings are made at the control unit of the gas fired boiler.

In addition, all heating circuits can be controlled and adjusted from the control unit of the gas fired boiler, if there are several heating circuits that are operated with components from the Wolf range of control equipment.



The electrical connection must only be carried out by a qualified electrician.

- Switch OFF the ON / OFF switch at the boiler.
- Set the rotary temperature selector for central heating and the DHW selector into their central positions (5). Check the eBUS address (see chapter "eBUS interface settings").
- Remove the fascia from the control unit of the gas fired boiler as shown in the diagram.
- Click the BM programming module into the control unit of the gas fired boiler as shown in the diagram.
- Switch ON the ON / OFF switch at the boiler.



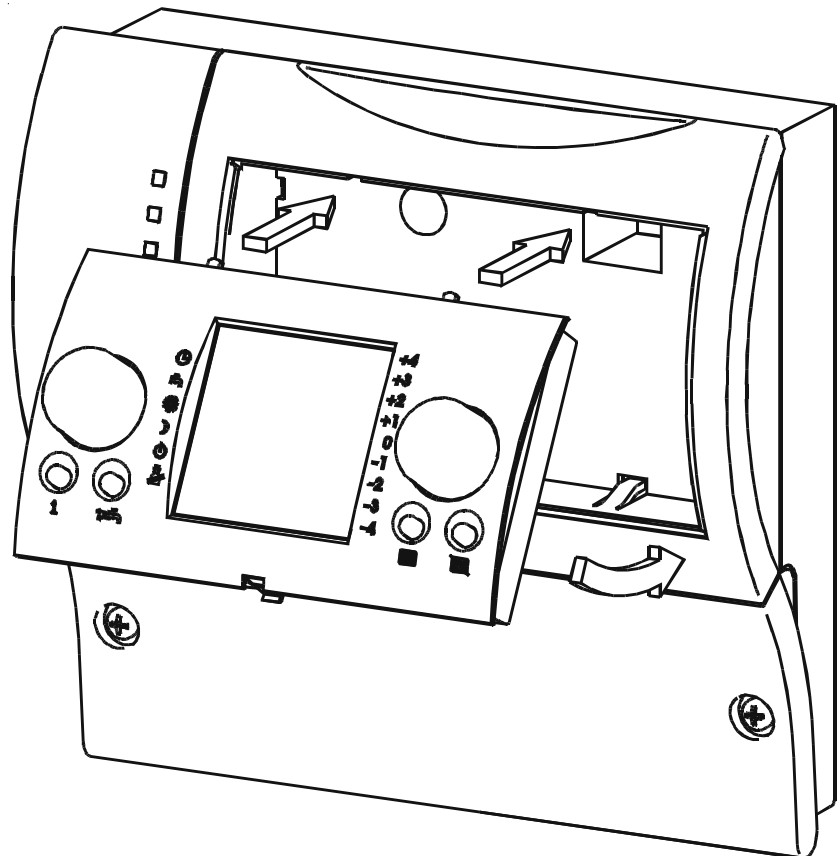
Module installation

The BM programming module can also be integrated into modules (e.g. mixer module MM, solar module SM). That means that all settings are made at the relevant module.



The electrical connection must only be carried out by a qualified electrician.

- Switch OFF the ON / OFF switch (or system ON / OFF switch) at the module.
- Remove the fascia from the module as shown in the diagram.
- Check the eBUS address of the BM programming module and the module (see chapter "eBUS interface settings").
- Click the BM programming module into the module as shown in the diagram.
- Switch ON the ON / OFF switch (or system ON / OFF switch) at the module.



Setting eBUS interface

The BM programming module is factory-set so that all connected components of the heating system are controlled from the programming module. You can ignore the following chapter, if only one BM programming module is to be installed as part of the heating system.

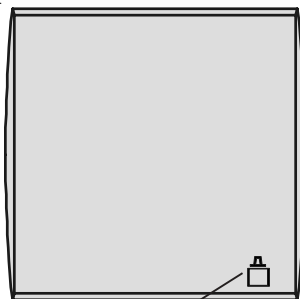
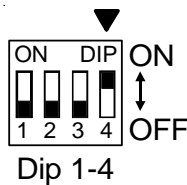
Setting eBUS	
Address 0 (factory settings)	
Address 1	
Address 2	
Address 3	
Address 4	
Address 5	
Address 6	
Address 7	

In addition, the programming module can be used to provide the complete control of an extension module (see the illustration below as example).

For this, set the DIP switch at the back of the programming module into the correct position (see illustration).

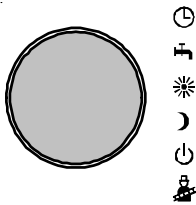
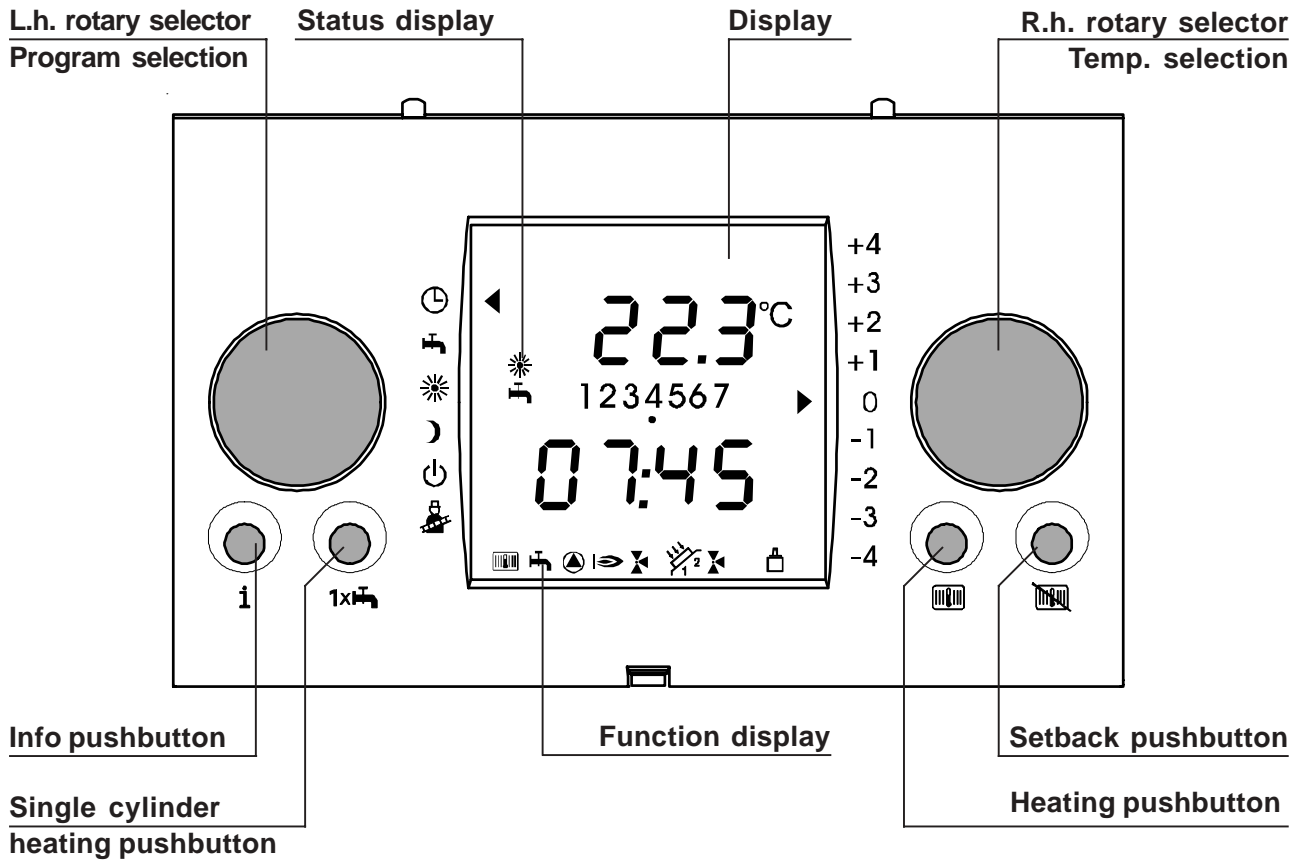
Note:

One BM with address 0 must always be part of the system. Up to seven extension modules can be connected.



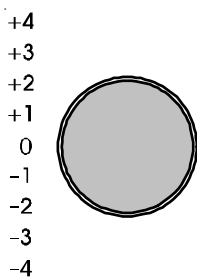
eBUS connection enabled

A correct BUS address and consequently the communication of all users with each other is indicated in the display of the connected BM programming module after approx. one minute by symbol (see diagram) or by an LED in the expansion modules.



Left-hand rotary selector, program selection

This rotary selector enables programs to be selected. The rotary selector can be moved without end stop, providing a clearly recognisable indexing function. The selected function is indicated by an arrow in the display.

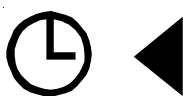


Right-hand rotary selector temperature selection

This rotary selector enables the temperature to be selected. The rotary selector can be moved without end stop, providing a clearly recognisable indexing function. The selected function is indicated by one or two arrow(s) in the display. In addition, the r.h. rotary selector enables all programming to be accomplished. Pressing the r.h. rotary selector confirms the programming step.

Program selection

You can select the following programs by turning the l.h. rotary selector. The arrow on the l.h. edge of the display points to the selected program.



Automatic mode

Heating (day mode / setback mode) and cylinder heating in accordance with the switching times program (1, 2 or 3), heating circuit pumps, mixer circuit pumps, cylinder primary pumps and DHW circulation pumps are started and stopped within the enabled time according to demand (mixer circuit pump only in heating systems with a mixer circuit).

**Summer mode (heating OFF)**

Summer mode (heating OFF) means only cylinder heating in accordance with the switching times program. Frost protection for the central heating system and anti-seizing pump protection are enabled.

**Constant DHW and central heating operation**

The switching times program (1, 2 or 3) for heating and cylinder heating are disabled. With this setting, the day mode for central heating and cylinder heating are enabled for 24 hours. The heating circuit pump, mixer circuit pump and cylinder primary pump are started and stopped according to demand. The DHW circulation pump is started and stopped in accordance with the switching times program (mixer circuit pump only for heating systems with mixer circuit). No summer/winter changeover.

**Constant setback mode**

The switching times program (1, 2 or 3) for heating is disabled. With this setting, the heating operates in setback mode for 20 hours. The heating circuit and mixer circuit pumps are started and stopped according to demand.

The cylinder primary pump and the DHW circulation pumps are started and stopped in accordance with the switching times program (1, 2 or 3) (mixer circuit pump only for heating systems with mixer circuit). Summer/winter changeover and ECO/RED are enabled.

**Standby mode**

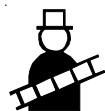
Burner and circulation pumps are OFF, cylinder heating and pasteurisation are OFF, frost protection and anti-seizing pump protection are enabled.

Frost protection:

At outside temperatures below the set value (factory setting +2 °C), the boiler and mixer circuit pumps (mixer circuit pump only in heating systems with mixer circuit) run permanently, the mixers open.

Anti-seizing pump protection:

After no more than 24 hours idle, the pumps will run for approx. 20 seconds. This prevents the pumps from seizing up.

**Flue gas test**

The flue gas test is required by your flue gas inspector or a specialist contractor for measuring the emissions.

- This selection is not available if the BM programming module is installed as remote control (e.g. in a living room). In that case, the emissions test mode is activated at the boiler control unit via the heating water temperature selector and is indicated by the signal ring flashing in yellow.
- If the BM programming module is integrated into the boiler control unit, activating the emissions test mode is then indicated by an arrow in the display (next to the chimney sweep symbol) as well as by the signal ring flashing in yellow.

For the flue gas test function, see the next page.


Function: Flue gas test

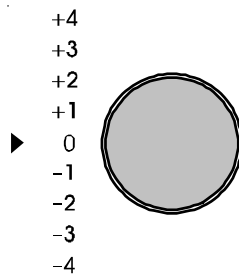
Freestanding boilers:

The heating system will not operate in weather-compensated mode, when the emission test is running. Instead it operates at maximum output and tries to hold a mean constant boiler water temperature of 60 °C. Only the burner will operate, i.e. the pump is OFF, if the boiler water temperature is lower than 60 °C. The boiler circuit pump will be started when the boiler water temperature exceeds 60 °C. The DHW cylinder primary pump only runs until the set DHW temperature has been reached. The burner is switched OFF when the max. boiler water temperature has been reached, if the heating energy supplied cannot be transferred.

Wall mounted boilers:

In emissions test mode, the heating system will not operate in weather-compensated mode, but with maximum output. Any previous cycle block will be cancelled. The heating circuit pump runs permanently.

The emissions test mode terminates either after 15 minutes or automatically, if the maximum flow temperature has been exceeded. For a repeat activation, turn the heating water temperature selector or the l.h. rotary selector (program selector) first anti-clockwise and then back into position .

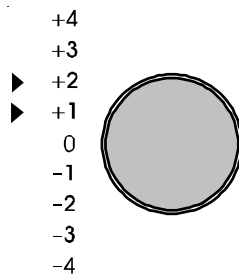


Temperature selection

By turning the r.h. rotary selector, the required room temperature can be raised or lowered by a maximum of 4 K by turning the selector respectively anti-clockwise or clockwise. Subject to the direction of rotation, the arrow on the r.h. side of the display drifts either up or down.

Example:

- +1: The set room temperature is raised by approx. 1 K.
- 1: The set room temperature is reduced by approx. 1 K.



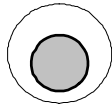
If two arrows are displayed one above the other, the selected value will be between both.

Example:

Arrow 1 +1, arrow 2 +2: The set room temperature is raised by approx. 1.5 K.

0 corresponds to the selected room temperature (factory setting: day mode 20 °C, setback mode 12 °C).

The current room temperature will not be captured, if the BM programming module is integrated into the boiler control unit or if it is operated as remote control with room influence switched OFF. The selected room temperatures are simply reference and calculating values for the heating curve; therefore the actual room temperature can deviate from these values.



i

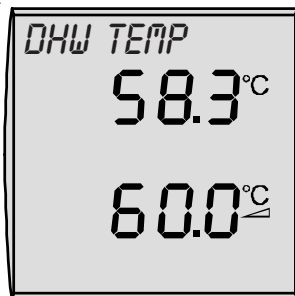
Info pushbutton

All available set and actual temperatures, burner starts and hours run as well as other system values can be displayed with the Info pushbutton.

Pressing the Info pushbutton several times displays the following values in sequence, subject to the relevant sensor being connected. Any circuits that are not connected are skipped, as only available values can be displayed.

The relevant parameters are displayed if additional programming modules BM are integrated into the Wolf control system or are installed as remote control units.

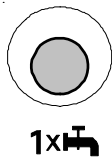
Example:



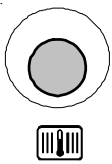
Display	Name
<i>DHW TEMP</i>	Actual DHW cylinder temp., heating (°C) Set DHW temp., heating (°C)
* <i>SOLAR DHW 1</i>	Actual DHW temp., solar heating system (°C)
* <i>DHW SOL 24H</i>	Max. temp., solar cylinder sensor (°C) Min. temp., solar cylinder sensor (°C)
* <i>COLLECTOR 1</i>	Collector temp., solar heating system (°C)
* <i>COLLECT 24H</i>	Max. temp., collector, solar heating system (°C) Min. collector temp., solar heating system (°C)
* <i>RETURN</i>	Return temp., solar heating system (°C)
* <i>FLOW RATE</i>	Throughput of the solar circuit (l / min)
* <i>OPERATION H</i>	Hours run, solar circuit pump (h) **
* <i>SOL. OUTPUT</i>	Current output, solar heating system (kW)
* <i>OUTPUT 24 H</i>	Current yield, day, solar heating system (kWh) **
* <i>OUTPUT KWH</i>	Total yield, solar heating system (kWh) **
* <i>OUTPUT MWH</i>	Total yield, solar heating system (MWh) **
* <i>SOL STATUS</i>	DHW heating, solar heating system Pasteurisation (0 = not successful / 1 = successful)
<i>OUT TEMP</i>	Outside temperature (°C)
<i>ES AVERAGE</i>	Average outside temp. (°C)
<i>ES MAX MIN</i>	Max. outside temp. (°C, 0 to 24 h) Min. outside temp. (°C, 0 to 24 h)
<i>ROOM TEMP</i>	Actual room temp. (°C) Set room temp. (°C)
<i>MODE HC</i>	Operating mode, heating circ. (sun, moon, standby)
<i>BOILER TEMP</i>	Actual boiler water temp. (°C) Set boiler water temp. (°C)
* <i>MIX VALVE 1</i> (mixer 2-7)	Actual mixer temp. (°C) Set mixer temp. (°C) Mixer circuit operating mode (sun, moon, standby)
<i>RETURN</i>	Actual return temp. (°C)
<i>STATUS HG</i>	Boiler status
<i>BURN RUN H</i>	Burner hours run
<i>BURN START</i>	Boiler burner starts

* No values are displayed for modules that are not connected (mixer module MM, solar module SM).

** This value can be reset to 0 by holding down the rotary selector for at least 10 seconds.

**Single cylinder heating pushbutton**

Pressing the single cylinder heating pushbutton enables an unscheduled single cylinder heating, if DHW is required outside the selected DHW switching times. To signal this event, the tap symbol flashes in the display during the unscheduled cylinder heating. The single cylinder heating terminates automatically after one hour, and the control unit continues to operate in accordance with the current switching times program. Pressing the single cylinder heating pushbutton again terminates this function early.

**Heating pushbutton**

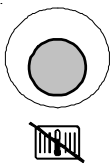
To avoid the need for changing the switching times program during bank holidays, parties or illness, the day temperature can be selected by pressing the Heating pushbutton, independent of the Switching times program or the program selection.

After pressing the Heating pushbutton, heating mode will be displayed automatically for three hours. Pressing the r.h. rotary selector enables the selection of the required time in hours or days (up to 30 days).

Pressing the r.h. rotary selector enables the Heating function. To signal this event, the sun symbol flashes in the display during the unscheduled heating operation.

This function is stopped automatically after the set time has expired (hours or days).

Pressing the Heating pushbutton again terminates this function early.

**Setback pushbutton**

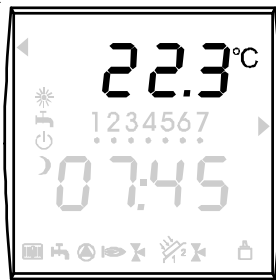
To avoid the need for changing the switching times program during absence or holidays, the setback temperature can be selected by pressing the Setback pushbutton, independent of the Switching times program or the program selection.

After pressing the Setback pushbutton, setback mode will be displayed automatically for three hours. Pressing the r.h. rotary selector enables the selection of the required time in hours or days (up to 30 days).

Pressing the r.h. rotary selector enables the Setback function. To signal this event, the moon symbol or Standby (ECO/RED function) flashes in the display during the unscheduled setback.

This function is stopped automatically after the set time has expired (hours or days).

Pressing the Setback pushbutton again terminates this function early.



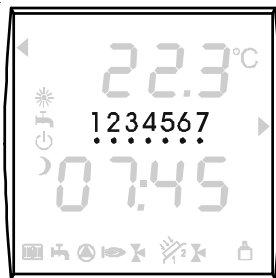
Room temperature, boiler water temperature, mixer circuit temperature or DHW temperature, solar heating system

The room temperature is shown on the display if the BM programming module is installed as remote control (e.g. in a living room). The boiler water temperature will be displayed if the module is integrated into the boiler; the mixer circuit temperature will be displayed, if the unit is integrated into the mixer module, and the DHW temperature of the solar heating system is displayed if the module is fitted into the solar module.



Time and outside temperature

Time and outside temperature are displayed alternately (subject to an outside temperature sensor being installed).



Day

The display shows the day of the week that is currently selected.

- 1 = Monday
- 2 = Tuesday
- ...
- 7 = Sunday



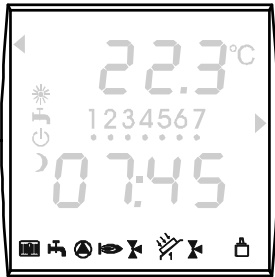
Status display

the following five symbols indicate the current operating state of your heating system.










- Heating mode
- Setback mode
- Heating OFF, frost protection enabled
- DHW heating enabled
- Flue gas test active

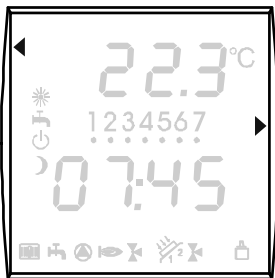
Symbols flashing

- The Heating pushbutton has been pressed (see Heating pushbutton)
- The Setback pushbutton has been pressed (see Setback pushbutton)
- Pushbutton 1 x WW has been pressed (see Single cylinder heating pushbutton)

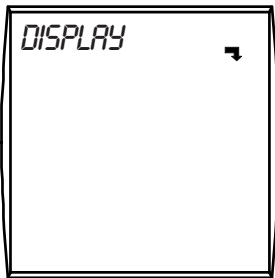



Function displays:

-  Boiler in heating mode
-  Boiler in DHW mode
-  Boiler pump ON
-  Burner ON
-  Mixer circuit pump mixer 1 ON
-  Mixer circuit pump mixer 2 ON
-  Programmable output ON
-  BUS connection enabled
-  Solar circuit pump enabled



-  **Right hand arrow**
selected temperature
-  **Left hand arrow**
selected heating program

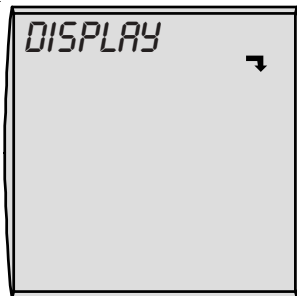


-  Submenu available

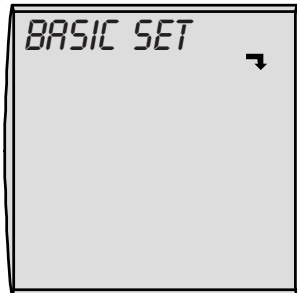
Overview

Pressing the r.h. rotary selector leads to control level 2, where you can select the menu levels shown in the summary by turning the rotary selector clockwise.

Pressing the Info pushbutton enables the recall of the standard display, irrespective of which submenu is currently active. The system also returns to the standard display automatically when no adjustment is made for more than a minute.

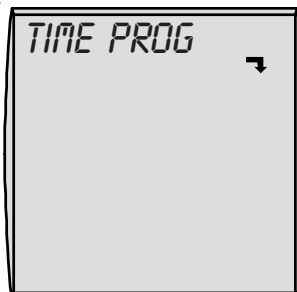


All available set and actual temperatures, burner starts and hours run as well as other system values can be displayed. This scan is identical to that initiated via the Info pushbutton.

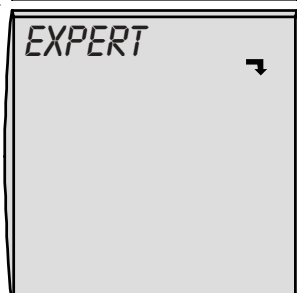


Setting the most important parameters of the heating control unit, such as time, day, active time program, day temperature, setback temperature, heating curve, room influence, automatic summer/winter changeover, ECO/RED selection, DHW temperature, language and key lock.

Optional adjustments and explanations to the individual parameters in the chapter on standard settings.

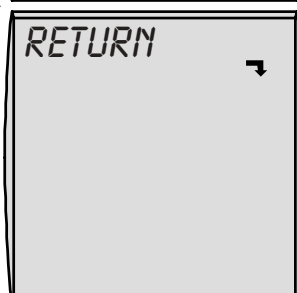


Changing the switching times programs for heating, cylinder heating, DHW circulation and mixer circuit pumps (mixer circuit pump only for heating systems with mixer circuit). Optional adjustments and modification of the individual switching times programs in the chapter on time programs.



Setting the Contractor parameters of the heating system and the boilers.

Optional adjustments and explanations to the individual parameters in the chapter, "Contractors".



Return to the standard display.

Parameter overview, standard settings

(Settings and functions on the following pages)

Parameter	Setting range	Factory setting
Time	0 to 24 h	-
Day	1 (Mon) to 7 (Sun)	-
Time program	1 / 2 / 3	1
Day temp.	5 to 30 °C	20 °C
Setback temp.	5 to 30 °C	16 °C
Heating curve	Boiler circuit	0 to 3.0
	Mixer circuit	0 to 3.0
Room influence	ON / OFF	OFF
Summer/winter changeover	0 to 40 °C	20 °C
ECO/RED	-10 to 40 °C	10 °C
DHW/temp.	Freestanding boiler	15 to 60 °C
	Wall mounted boiler with cylinder	15 to 65 °C
	Wall mounted combi boiler	40 to 65 °C
Language	German, English, French, Dutch, Spanish, Portuguese, Italian, Czech, Polish, Slovakian, Hungarian, Russian, Greek, Turkish	German
Pushbutton lock	ON / OFF	OFF

Time



Setting range: 0 to 24 h

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again.

The time is changed by pressing (display indication flashes) and then turning the r.h. rotary selector.

Turning slowly = Changing the minutes
Turning quickly = Changing the hour

After setting or changing the current time, pressing the r.h. rotary selector again confirms the input.

Pressing the Info pushbutton returns the standard display.

There will be no automatic change between summer and winter time. Reset the time if the control unit has been disconnected from the power supply longer than 48 hours.

The time will be displayed automatically if a radio clock module is connected. However, the time cannot then be changed.

Day

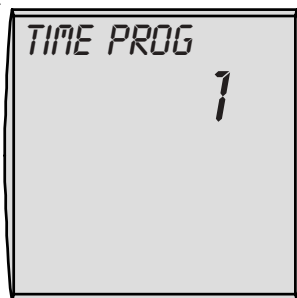
Setting range: 1 (Mon) to 7 (Sun)

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Day parameter by turning the rotary selector further clockwise.

The day is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting or changing the current day (1 = Monday 7 = Sunday), pressing the r.h. rotary selector again confirms the input.

Pressing the Info pushbutton returns the standard display.

Reset the day if the control unit has been disconnected from the power supply longer than 48 hours. The time will be displayed automatically if a radio clock module is connected. However, the time cannot then be changed.

Time programFactory setting: 1
Setting range: 1 / 2 / 3

Individual settings: _____

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Time program parameter by turning the rotary selector further clockwise.

The time program 1, 2 or 3 is selected by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the time program, pressing the r.h. rotary selector again confirms the input.

Pressing the Info pushbutton returns the standard display.

Please note:

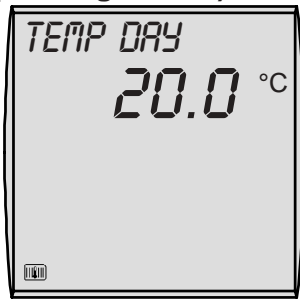
You can match the switching times to individual requirements. For setting options and explanations to the programming of switching times, see the chapter on switching times programming.

Info

If several heating circuits are connected, that heating circuit is selected at this point the settings of which are to be changed.

If settings are made for the mixer circuits (day temperature, setback temperature, heating curve, room influence, SU / WI changeover, ECO/RED) at the programming module, call up the respective value from the mixer module. It may, therefore, take several seconds before the value can be changed.

Day temperature (set room temperature, heating mode)



Factory setting: 20 °C
Setting range: 5 to 30 °C

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Day temperature parameter by turning the rotary selector further clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector again clockwise at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector. Select the Day temperature parameter by turning the rotary selector further clockwise.

Individual settings:

Heating circuit: _____

Mixer circuit 1: _____

Mixer circuit 2: _____

Mixer circuit 3: _____

Mixer circuit 4: _____

Mixer circuit 5: _____

Mixer circuit 6: _____

Mixer circuit 7: _____

The day temperature is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the day program, pressing the r.h. rotary selector again confirms the setting.

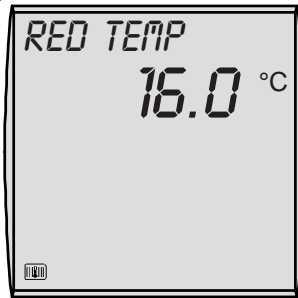
Pressing the Info pushbutton returns the standard display.

Please note:

A different day temperature can be selected for each of the heating circuits remotely controlled by this programming module.

For control units that are purely room temperature-dependent (Room influence OFF parameter or programming module only integrated into the boiler control unit), the selected day temperature is only an approximation and serves as calculation value for the heating curve.

**Setback temperature
(set room temperature,
setback mode)**



Factory setting: 16 °C
Setting range: 5 to 30 °C

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Setback temperature parameter by turning the rotary selector further clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector again clockwise at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector. Select the Setback temperature parameter by turning the rotary selector further clockwise.

Individual settings:

- Heating circuit: _____
- Mixer circuit 1: _____
- Mixer circuit 2: _____
- Mixer circuit 3: _____
- Mixer circuit 4: _____
- Mixer circuit 5: _____
- Mixer circuit 6: _____
- Mixer circuit 7: _____

The setback temperature is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the setback temperature, pressing the r.h. rotary selector again confirms the setting.

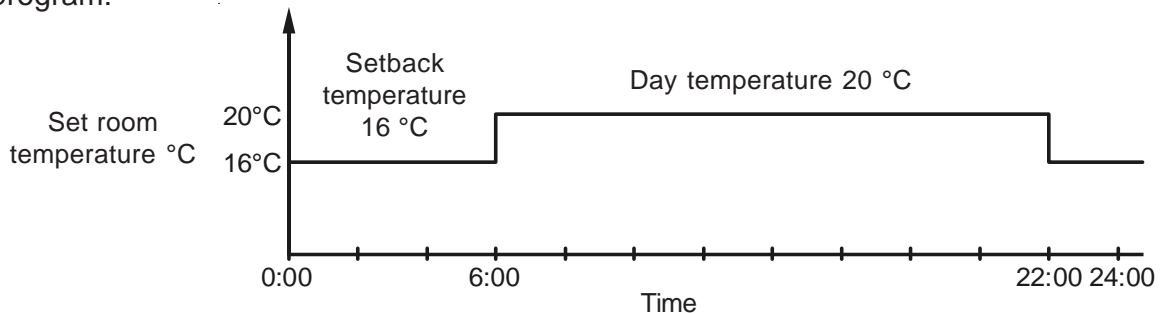
Pressing the Info pushbutton returns the standard display.

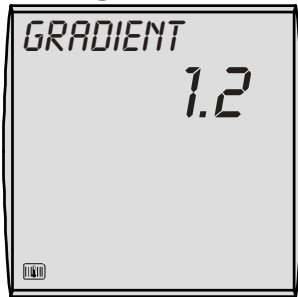
Please note:

A different setback temperature can be selected for each of the heating circuits remotely controlled by this programming module.

The selected day temperature is only an approximation for control units that are purely room temperature-dependent (Room influence OFF parameter or programming module only integrated into the boiler control unit).

Example of a changeover between day temperature and setback temperature with a preset heating program:



Heating curve

Factory setting:

Boiler circuit: 1.2

Mixer circuit: 0.8

Setting range: 0 to 3.0

Individual settings:

Heating circuit: _____

Mixer circuit 1: _____

Mixer circuit 2: _____

Mixer circuit 3: _____

Mixer circuit 4: _____

Mixer circuit 5: _____

Mixer circuit 6: _____

Mixer circuit 7: _____

Function explained
Heating curve

The Heating curve parameter will not be displayed when the system is regulated only in room temperature-dependent mode.

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Heating curve parameter by turning the rotary selector further clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector again clockwise at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector.

Select the Heating curve parameter by turning the rotary selector further clockwise.

The Heating curve parameter is set by pressing (display indication flashes) and then turning the r.h. rotary selector. After changing the Heating curve parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

A different heating curve can be selected for each of the heating circuits remotely controlled by this programming module.

This setting will be made by the heating contractor for each heating circuit separately, subject to the heating system, the thermal insulation of the building and the relevant climatic zone.

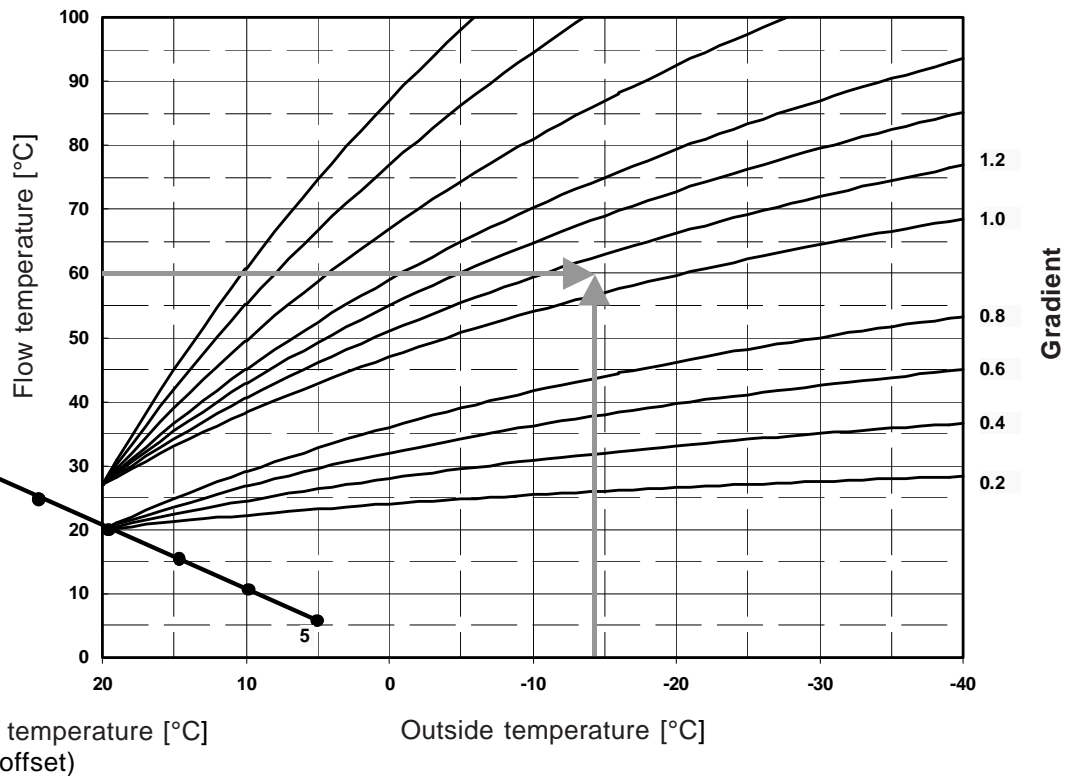
Setting the slope will match the heating water temperature to these conditions.

The following diagram indicates an example applicable to the following heating system:

- Climate zone with an average minimum outside temperature of -14 °C
- Radiator for flow/return temperatures 60/50 °C, with direct control
- Thermal building insulation in accordance with current regulations

For all other conditions, match the slope to the prevailing circumstances. The slope must always be set so that, at the min. outside temperature, the maximum flow temperature for the radiators or the underfloor heating system will be achieved.

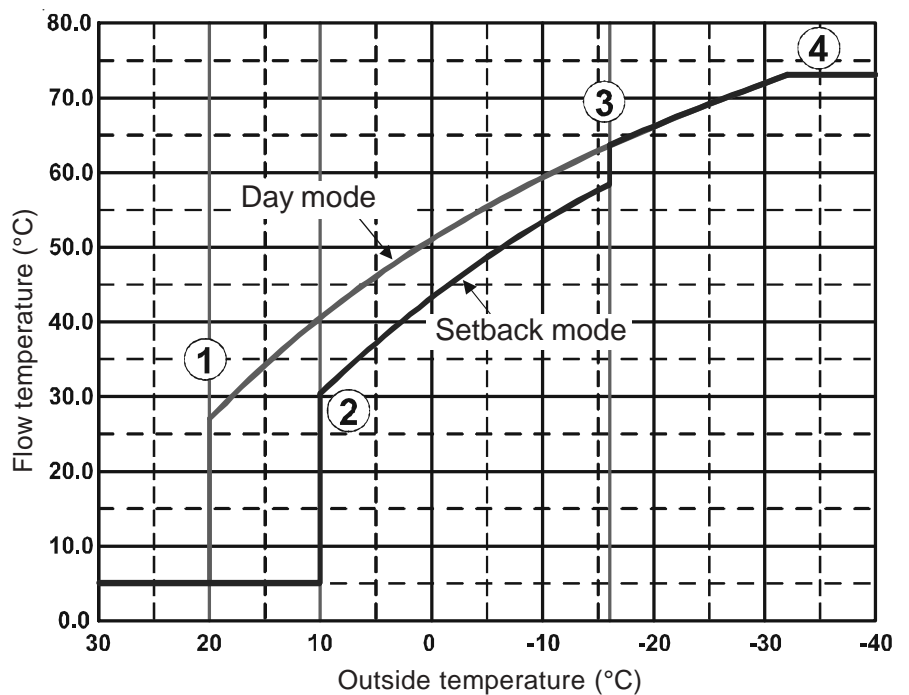
As rule of thumb, a slope of 1.0 can be used for a radiator heating system, and a slope of 0.4 for underfloor heating systems in a well insulated house. Similarly, a slope of 1.4 can be used for a radiator heating system, and a slope of 0.8 for underfloor heating systems in a less well insulated house.



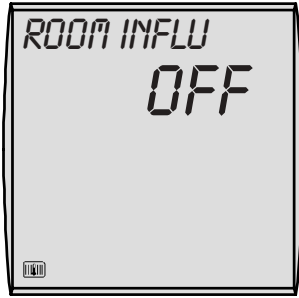
The set room temperature is influenced by the Day temperature parameter, Setback temperature and the position of the r.h. rotary selector (temperature selection).

The following example illustrates the interaction between the different parameters.

- Factory setting:
- Day temperature: 20 °C
- Setback temperature: 16 °C
- Temperature selection: 0
- Heating curve: 1.2
- S/W switch: 20 °C
- ECO/RED: 10 °C



- ① Summer/winter changeover
- ② ECO/RED
- ③ Setback stop
- ④ Maximum limit

Room influence

Factory setting: OFF
 Setting range: ON / OFF

Individual settings:

- Heating circuit: _____
- Mixer circuit 1: _____
- Mixer circuit 2: _____
- Mixer circuit 3: _____
- Mixer circuit 4: _____
- Mixer circuit 5: _____
- Mixer circuit 6: _____
- Mixer circuit 7: _____

The Room influence parameter will not be displayed if the BM programming module is integrated into the boiler control unit.

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Room influence parameter by turning the rotary selector further clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector again clockwise at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector. Select the Room influence parameter by turning the rotary selector further clockwise.

The Room influence parameter is set by pressing (display indication flashes) and then turning the r.h. rotary selector. After changing the Room influence parameter, pressing the r.h. rotary selector again confirms the setting.

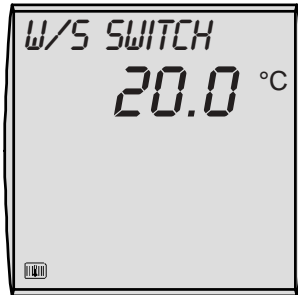
Pressing the Info pushbutton returns the standard display.

Please note:

A Room influence can be switched ON or OFF for each of the heating circuits remotely controlled by this programming module.

Function explained
Room influence

Using room influence, room temperature fluctuations due to external heat or cold (e.g. solar irradiation, woodburning stove or open windows) can be compensated. Room influence will only work if the BM programming module is operated as remote control. A room temperature sensor is integrated into the programming module that captures the actual room temperature and compares it with the set value (day or setback temperature). Activating room influence results in a correction of the weather-compensated calculated flow temperature via a room temperature sensor, either upwards (actual room temperature lower than the set room temperature) or downwards (actual room temperature higher than the set room temperature). The level of temperature correction can be set via system parameter A00 (see the "Contractor" chapter).

**Summer/winter
changeover, subject to
outside temperature**

Factory setting: 20 °C
Setting range: 0 to 40 °C

Individual settings:

Heating circuit: _____

Mixer circuit 1: _____

Mixer circuit 2: _____

Mixer circuit 3: _____

Mixer circuit 4: _____

Mixer circuit 5: _____

Mixer circuit 6: _____

Mixer circuit 7: _____

The summer/winter changeover parameter will not be displayed when the system is regulated only in room temperature-dependent mode (no outside temperature sensor).

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the summer/winter changeover parameter by continuing to turn the selector clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector again clockwise at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector. Select the summer/winter changeover parameter by continuing to turn the selector clockwise.

The summer/winter changeover parameter is set by pressing (display indication flashes) and then turning the r.h. rotary selector. After changing the summer/winter changeover parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

A different summer/winter changeover can be selected for each of the heating circuits remotely controlled by this programming module.

**Function explained
Summer/winter
changeover, subject to
outside temperature**

The control unit constantly calculates an average outside temperature over several hours, i.e. during day and night operation (setback mode).

- The heating system will be immediately switched OFF, if the adjusted outside temperature exceeds the preselected set value.
- The heating system will be automatically switched ON, if the adjusted average temperature falls more than 2 K below the preselected set value.

The DHW cylinder heating continues in accordance with the selected switching times program.

Example 1:

Temperature setting 20 °C.

Time setting: 3 h

Average temperature over the last 3 h = 21 °C.

The heating system remains OFF (pumps OFF, mixer closed).

Example 2:

Temperature setting 20 °C.

Time setting: 3 h

Average temperature over the last 3 h = 17 °C.

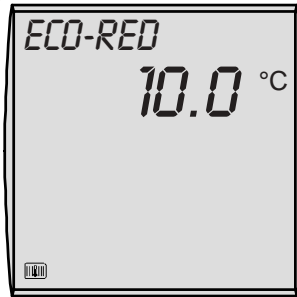
The heating system is switched ON.

Example 3:

Temperature setting 18 °C.

Time setting: 0 h

At outside temperatures above 18 °C, the heating system is switched OFF. At outside temperatures below 16 °C, the heating system is switched ON.

ECO/RED

Factory setting: 10 °C
Setting range: -10 to 40 °C

Individual settings:

Heating circuit: _____

Mixer circuit 1: _____

Mixer circuit 2: _____

Mixer circuit 3: _____

Mixer circuit 4: _____

Mixer circuit 5: _____

Mixer circuit 6: _____

Mixer circuit 7: _____

The ECO/RED parameter will not be displayed if the system is regulated only in room temperature-dependent mode.

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the ECO/RED parameter by turning the rotary selector further clockwise.

Note:

If more than one heating circuit is present in the heating system (mixer circuit 1 up to mixer circuit 7), select heating circuit (HK) or mixer circuit 1 ...7 (mixer 1...7) by turning the r.h. rotary selector clockwise again at the standard settings menu level, and confirm the selection by pressing the r.h. rotary selector.

Select the ECO/RED parameter by turning the rotary selector further clockwise.

The ECO/RED parameter is set by pressing (display indication flashes) and then turning the r.h. rotary selector. After changing the ECO/RED parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

The ECO/RED function can be set differently for each of the heating circuits remotely controlled by this programming module.

**Function explained
ECO/RED**

The function is similar to the summer/winter changeover. However, it only applies to the setback mode.

The control unit constantly calculates an average outside temperature over several hours.

- In setback mode, the heating system will be immediately switched OFF, if the adjusted outside temperature exceeds the preselected set value.
- The heating system will be automatically switched to setback mode, if the adjusted average temperature falls more than 2 K below the preselected set value.

The DHW cylinder heating continues in accordance with the selected switching times program.

Example 1:

Temperature setting 10 °C.

Time setting: 3 h

Average temperature over the last 3 h = 11 °C.

The control unit will not switch over from heating mode to setback mode in accordance with the switching times program but instead switches OFF (ECO) immediately (pumps OFF, mixer closed).

Example 2:

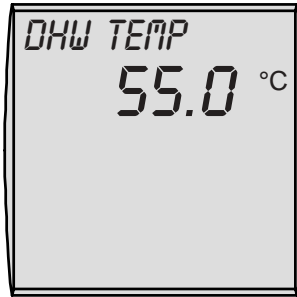
Temperature setting 10 °C.

Time setting: 3 h

Average temperature over the last 3 h = 7 °C.

The control unit switches from heating mode to setback mode (RED) in accordance with the switching program.

The aim is to switch the central heating OFF automatically when high outside temperatures prevail at night.

DHW temperature

Factory setting: 55 °C

Setting range:

Freestanding boiler: 15 to 60 °C

Wall mounted boilers: 15 to 65 °C

Individual settings: _____

The DHW temperature parameter will not be displayed when the heating system provides no DHW heating (no cylinder sensor installed).

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the DHW temperature parameter by turning the rotary selector further clockwise.

The DHW temperature is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the DHW temperature, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

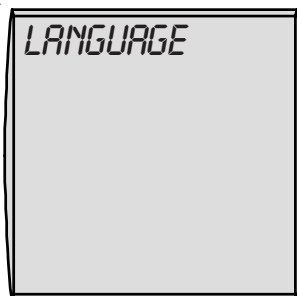
This parameter enables the selection of the required DHW temperature.

The DHW will be heated to the selected value if DHW heating is enabled via the switching times program.

Where higher DHW temperatures than 60 / 65 °C are required, enable these via the Contractor parameter HG23 (see chapter "Contractor, boiler parameters").

NB

Always ensure that cold water is mixed in with hot water, when the DHW temperature is set above 60 °C or when operating the pasteurisation system at a temperature higher than 60 °C (risk of scalding).

Language

Factory setting: German

Setting range:

German / English / French /

Dutch / Spanish / Portuguese /

Italian / Czech / Polish /

Slovakian / Hungarian / Russian /

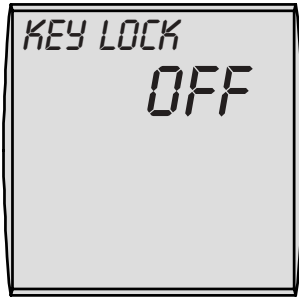
Greek / Turkish

Individual settings: _____

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Language parameter by turning the rotary selector further clockwise.

The Language is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the language, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Pushbutton lock

Factory setting: OFF
Setting range: ON / OFF

Individual settings: _____

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Standard settings submenu and confirm the selection by pressing the r.h. rotary selector again. Select the Pushbutton lock parameter by turning the rotary selector further clockwise.

The pushbutton lock is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After selecting the pushbutton lock, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

The Pushbutton lock parameter is designed to prevent an unintentional adjustment of the heating system (e.g. through children or when cleaning).

If the Pushbutton lock parameter is set to ON, the pushbutton lock will be activated automatically one minute after the last adjustment. No adjustments or scans can be implemented when the pushbutton lock is enabled. If, nevertheless, a pushbutton or rotary selector is activated, then the display shows KEY LOCK.

The pushbutton lock can be lifted for a single adjustment or to display the set/actual values by holding down the r.h. rotary selector for approx. one second.

To disable the pushbutton lock permanently, the Pushbutton lock parameter must be set to OFF again (for setting, see above).

Setting switching times for time program

At the factory, three non-volatile time programs are preset. The active time program is selected via the Standard settings parameter Time prog (see standard settings).

Changing the Standard settings parameter Time prog switches the ON and OFF time blocks for heating, DHW and DHW circulation over to the relevant time program.

The following table shows the factory-set switching times.

The switching times of the mixer circuits will not be displayed if only heating circuits are controlled (no mixer circuit installed).

Time program	Block	Switch. time	HK		Mixer		DHW		DHW circ. line	
			ON	OFF	ON	OFF	ON	OFF	ON	OFF
Time prog. 1	Mo-Fr	1	6:00	22:00	5:00	21:00	5:30	22:00	6:00	6:30
		2							17:00	18:30
		3								
	Sa-Su	1	7:00	23:00	6:00	22:00	6:30	23:00	6:30	7:00
		2							11:00	12:00
		3							17:00	18:30
Time prog. 2	Mo-Fr	1	6:00	8:00	5:00	7:00	5:00	6:00	6:00	6:15
		2	15:00	22:00	14:00	21:00	17:00	18:00		
		3								
	Sa-Su	1	7:00	22:00	6:00	21:00	6:00	7:00	6:30	6:45
		2					16:00	21:00	16:30	17:00
		3								
Time prog. 3	Mon	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Tue	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Wed	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Thu	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Fr	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Sa	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								
	Su	1	5:30	21:00	4:30	20:00	5:00	7:00	6:00	6:30
		2					15:00	21:00	17:00	17:30
		3								

Programming example

For DHW heating, switching time 1 is to be changed in time program 1 as follows:

from: SA - SU 6:00 h ON
SA - SU 21:00 h OFF

to: SA - SU 8:00 h ON
SA - SU 22:00 h OFF

Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the Time prog menu level and confirm the selection by pressing the r.h. rotary selector again. Select the DHW parameter by turning the rotary selector further clockwise.

Push the r.h. rotary selector and select the block SA-SU, then confirm the selection by pressing the r.h. rotary selector again. Switching time 1 will then be shown.

The start time is changed by pressing (display flashes 6:00) and then turning the r.h. rotary selector. After selecting the start time, pressing the r.h. rotary selector again confirms the setting; the display then changes automatically to the stop time (display flashes 21:00). Turning the r.h. rotary selector changes the stop time, which is then confirmed by pressing the r.h. rotary selector again.

Pressing the Info pushbutton returns the standard display.**Notes:**

- You can adjust the switching times program in steps of 15 minutes.

- Switching times must always be programmed in chronological order.

Correct: Switching time 1: 6:00 – 10:00 h
Switching time 2: 15:00 – 22:00 h

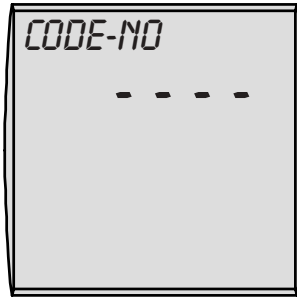
Incorrect: Switching time 1: 15:00 – 22:00 h
Switching time 2: 6:00 – 10:00 h

- When forming a time block, a time entry beyond midnight must be made according to the following example:

Example: In time program 1, central heating should take place from 16:00 h to 3:00 h the following day. For this, set the following times:

Switching time 1: 0:00 h – 3:00 h

Switching time 2: 16:00 h – 24:00 h

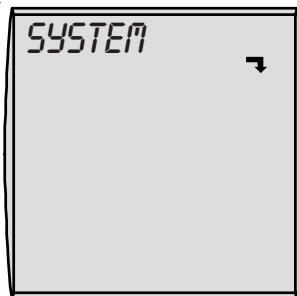
Code scan

Factory setting: 1

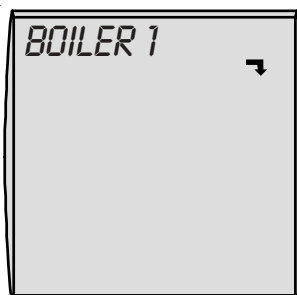
Press the r.h. rotary selector to change to control level 2. Turn the r.h. rotary selector clockwise to select the menu level Contractor and confirm the selection by pressing the r.h. rotary selector again.

The display shows the code scan.

The correct code is set by pressing (display indication flashes) and then turning the r.h. rotary selector **from 0 to 1**. After changing the code from 0 to 1, pressing the r.h. rotary selector again confirms the setting; you are then at the Contractor level.

Overview

Setting the system parameters for the heating control unit. For the optional adjustments and explanation of individual parameters, see chapter "System parameters".



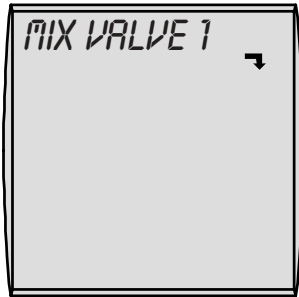
The boiler parameters (e.g. maximum boiler water temperature, input 1, output 1) can be adjusted via the BM programming module. The boiler parameters may vary, subject to the respective boiler version.

Possible adjustments and explanations regarding the individual parameters are shown in the respective boiler or control unit installation instructions.

After selecting the parameter, the details are obtained from the boiler control unit and displayed approx. 5 seconds later.

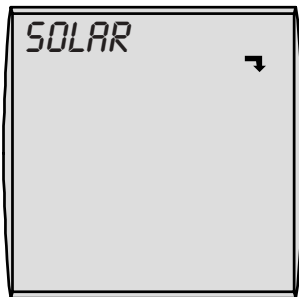
The currently selected value will be shown in the display and can be modified, subject to the parameter being available in the boiler control unit.

A display of four lines indicates that the parameter is not available in the connected boiler control unit.



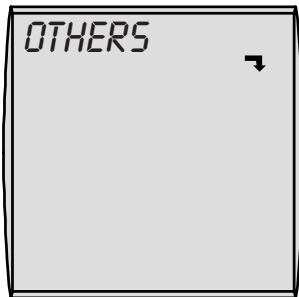
The menu level Mixer will not be displayed if only heating circuits are controlled (no mixer circuit installed).

The parameters for mixer circuits 1-7 (e.g. configuration, heating curve gap) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the installation instructions of the mixer module or boiler.



The menu level Solar will not be displayed if no solar module is installed.

Parameters (e.g. start-up differential, shutdown differential) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the solar module installation instructions.

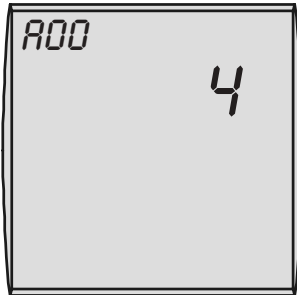


Other parameters (e.g. fuel consumption, screed drying, etc.) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the respective boiler or control unit installation instructions.

System parameter overview, Contractor menu

(Settings and functions on the following pages)

Parameters		Setting range	Factory setting
<i>R00</i>	Room influence	1 to 20 K / K	4 K / K
<i>R01</i>	Heat-up optimisation	0 / 1	0
<i>R02</i>	Max. heat-up time	0 to 180 min	0
<i>R03</i>	Required heat-up time	-	-
<i>R04</i>	Adjusted outside temperature sensor	0 to 24 h	3 h
<i>R05</i>	Room temperature sensor matching	-5 to +5 K	0 K
<i>R06</i>	External room temperature sensor	0 to 1	1
<i>R07</i>	Pasteurisation function	0 to 8	0
<i>R08</i>	Service message	0 to 104 weeks	0
<i>R09</i>	Frost protection level	-20 to +10 °C	+2 °C
<i>R10</i>	Parallel DHW operation	0 / 1	0
<i>R11</i>	Room temperature-dependent Summer/winter changeover	OFF / ON	ON
<i>R12</i>	Setback stop	OFF, -39 to 0 °C	-16 °C
<i>R13</i>	Minimum DHW temperature	0 to 60 °C	40 °C

**Room influence
Parameter A00**

Factory setting: 4 K / K
Setting range: 1 to 20 K / K

Individual settings: _____

With the r.h. rotary selector, select the Room influence system parameter A00 from the Contractor menu level (after entering the correct code).

The Room influence parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Room influence parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Note:

Small room influencing factor → little effect on the flow temperature.

Greater room influencing factor → stronger effect on the flow temperature.

Thermostat function

The programming module will also function as a remote control; if it is fitted in a wall mounting base and is connected as a remote control, and the room influence (standard settings) has been enabled. If the room temperature is more than 1 K higher than the set room temperature, the heating circuit pump will be switched OFF (exception frost protection). The heating circuit pump will only restart, if the actual room temperature falls below the required set room temperature.

If this is not required, disable the room influence (standard settings) or the room temperature-dependent summer/winter changeover (parameter A11).

**Function explained
Room influence**

Using room influence, room temperature fluctuations due to external heat or cold (e.g. solar irradiation, woodburning stove or open windows) can be compensated. Room influence will only function if the BM programming module is operated as remote control. A room temperature sensor is integrated into the programming module that captures the actual room temperature and compares it with the set value (day or setback temperature). A set value deviation is multiplied with the set room influencing factor (0 to 20 K / K) and the heating curve. The boiler or mixer is adjusted by this value.

Example:

Set room temperature 20 °C

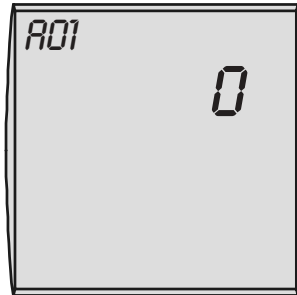
Heating curve: 1.2

Actual room temperature 18 °C (e.g. after airing) → deviation 2 K

Room influence boiler circuit: Setting 4 K / K

Deviation 2 K x room influence 4 K / K x heating curve 1.2 = 10 K

The heating water temperature is raised by 10 °C to quickly raise the room temperature to the set value of 20 °C.

**Heat-up optimisation
Parameter A01**

Factory setting: 0
Setting range: 0 to 2

Individual settings: _____

With the r.h. rotary selector, choose the Heat-up optimisation system parameter A01 from the Contractor menu level (after entering the correct code).

The Heat-up optimisation parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Heat-up optimisation parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

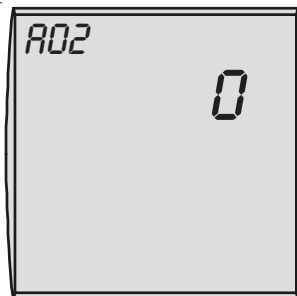
Please note:

The heat-up optimisation calculates the required heat-up time in setback mode, enabling the required room temperature to be achieved at the time selected by the time program.

The calculation can be implemented subject to the outside or the room temperature. The heat-up time optimisation is switched ON with parameter A02 (maximum heat-up time).

The settings have the following meaning:

- 0 → Programming the heat-up OFF
- 1 → Weather-compensated heat-up optimisation
- 2 → Room-temperature-dependent heat-up optimisation

**Maximum heat-up time
Parameter A02**

Factory setting: 0
Setting range: 0 to 180 min

Individual settings: _____

With the r.h. rotary selector, choose the Maximum heat-up time system parameter A02 from the Contractor menu level (after entering the correct code).

The Maximum heat-up time parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Maximum heat-up time parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

The poorer the building insulation, the longer the maximum heat-up time.

Function explained
Maximum heat-up time

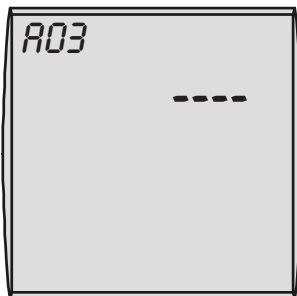
This parameter specifies the maximum heat-up time. Starting from the changeover command of the time switch (minus selected maximum heat-up time), the boiler control unit calculates the latest possible start-up time for the changeover point, so that the required room temperature is achieved at the selected time. Heat-up optimisation will not take place, if 0 has been entered for maximum heat-up time.

Example:

Start time heating mode in accordance with the time program:
6:00 h

Maximum heat-up time: 120 min

From 4:00 h, the boiler control unit starts to calculate the latest start-up point "t", so that the required room temperature will be achieved by 6:00 h.

Required heat-up time
Parameter A03

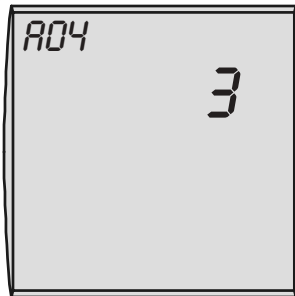
This parameter will only be displayed if the Heat-up optimisation parameter A01 has been enabled.

With the r.h. rotary selector, choose the required Heat-up time system parameter A03 from the Contractor menu level (after entering the correct code).

The required Heat-up time parameter indicates the last heat-up time that was required in minutes.

This parameter is merely an indicator and cannot be changed.

Pressing the Info pushbutton returns the standard display.

**Adjusted outside temperature
Parameter A04**

Factory setting: 3 h
Setting range: 0 to 24 h

Individual settings: _____

With the r.h. rotary selector, choose the Adjusted outside temperature system parameter A04 from the Contractor menu level (after entering the correct code).

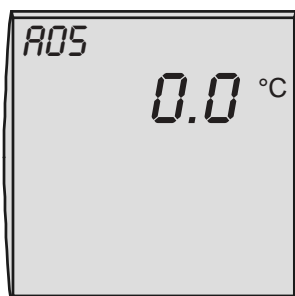
The Adjusted outside temperature parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Adjusted outside temperature parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

For some automatic functions (e.g. summer/winter changeover, ECO/RED), the control unit calculates over several hours an average outside temperature using the current outside temperature. With the Average outside temperature parameter you can select over how many hours the boiler control unit should calculate an average value. If this parameter is set to 0 h, the control unit will no longer calculate an adjusted value; instead the adjusted value will always be equal to the current outside temperature.

The outside temperature display at control level 1 will not be adjusted.

**Room temperature sensor matching
Parameter A05**

Factory setting: 0
Setting range: -5 to +5 K

Individual settings: _____

With the r.h. rotary selector, choose the Room temperature sensor matching system parameter A05 from the Contractor menu level (after entering the correct code).

The Room temperature sensor matching parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Room temperature sensor matching parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

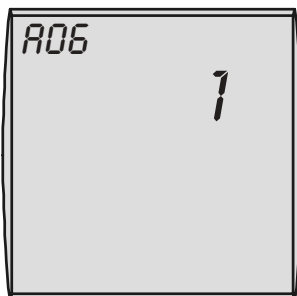
Please note:

The current display can be changed by + / - 5 K, to match the room temperature display to the installation conditions or other thermometers. The corrected display value will be applied to all calculations of relevant functions.

Example:

The remote control indicates a room temperature of 20 °C. In the living area, a temperature of 22 °C is measured with a thermometer.

The set value must be changed to +2 °C. That way, the actual temperature measured by the remote control will always be indicated 2 °C higher.

**External sensor
Parameter A06**

Factory setting: 1
Setting range: 0 to 1

Individual settings: _____

With the r.h. rotary selector, choose the External sensor system parameter A06 from the Contractor menu level (after entering the correct code).

The External sensor parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the External sensor parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

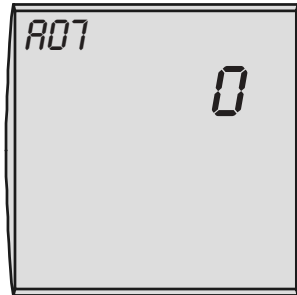
Please note:

If the programming module is used as remote control fitted into a wall mounted base, the terminal 5 / 6 of the terminal strip inside the wall mounting base (see chapter "Installation"), an external room temperature sensor or an external outside temperature sensor can be connected. This sensor can have a function allocated via the External sensor system parameter A06.

The settings have the following meaning:

0 → External room temperature sensor

1 → External outside temperature sensor

**Pasteurisation function
Parameter A07**

Factory setting: 0
Setting range: 1 to 8

Individual settings: _____

With the r.h. rotary selector, choose the Pasteurisation function system parameter A07 from the Contractor menu level (after entering the correct code).

The Pasteurisation function parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Pasteurisation function parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:**• Systems without solar module:**

If pasteurisation has been enabled, the DHW cylinder will be heated to 65 °C during the first cylinder heating of the selected day. This set temperature will be maintained for one hour.

• Systems with solar module:

The pasteurisation function will be safeguarded by the boiler or the solar heating system, if pasteurisation has been enabled.

a. Pasteurisation by the solar heating system

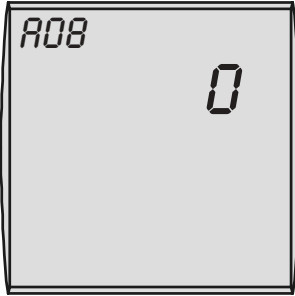
The pasteurisation function via the boiler will be blocked if the solar yield has achieved a cylinder temperature in excess of 65 °C for at least one hour. Blocking the pasteurisation by the boiler is indicated at the info level STATUS SOL.

b. Pasteurisation by the boiler

If the solar yield is insufficient for a pasteurisation, the set DHW temperature is set to 65 °C for one hour at 18:00 h on the selected day.

The settings have the following meaning:

- 0 → Pasteurisation disabled
- 1 to 7 → Pasteurisation once a week (1 = Mon; 7 = Sun)
- 8 → Daily pasteurisation

**Service message
Parameter A08**

Factory setting: 0
Setting range: 1 to 104 weeks

Individual settings: _____

With the r.h. rotary selector, choose the Service message system parameter A08 from the Contractor menu level (after entering the correct code).

The Service message parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Service message parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

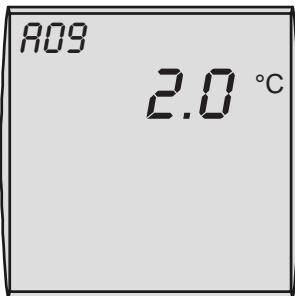
Please note:

Enabling the Service message parameter, e.g. set value greater than 0, the display will show Service after expiry of the selected number of weeks. You can acknowledge this message by pressing the Setback pushbutton (control level 1). Afterwards, the cycle restarts again.

The settings have the following meaning:

0 weeks → Service message disabled

52 weeks → Annual service message

**Frost protection limit
Parameter A09**

Factory setting: 2 °C
Setting range: -20 to +10 °C

Individual settings: _____

With the r.h. rotary selector, choose the Frost protection limit system parameter A09 from the Contractor menu level (after entering the correct code).

The Frost protection limit parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Frost protection limit parameter, pressing the r.h. rotary selector again confirms the setting.

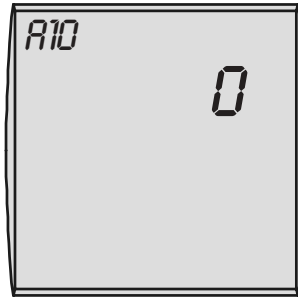
Pressing the Info pushbutton returns the standard display.

The boiler circuit pump operates constantly if the outside temperature stays below the selected value.

The burner starts and heats the boiler up to the minimum boiler water temperature, if the boiler water temperature falls below the permanently set value of +5 °C.

Note:

Only change the factory setting if you can ensure that the heating system and its components will not freeze up at low outside temperatures.

**Parallel DHW operation
Parameter A10**

Factory setting: 0
Setting range: 0 / 1

Individual settings: _____

With the r.h. rotary selector, choose the Parallel DHW operation system parameter A10 from the Contractor menu level (after entering the correct code).

The Parallel DHW operation parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Parallel DHW operation parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

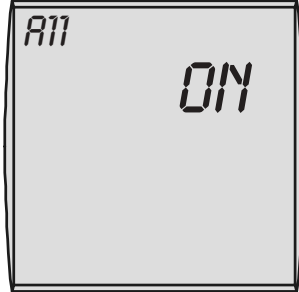
The boiler circuit pump is switched OFF during DHW cylinder heating with **DHW priority (0)**. The boiler energy will then be used exclusively for heating the DHW cylinder. The cylinder primary pump will only start, if the boiler water temperature is 5 °C higher than the actual cylinder temperature. The burner shuts down and the heating circuit pump is started, as soon as the cylinder has reached its set temperature. The cylinder primary pump runs on for the time selected under parameter HG19 (cylinder primary pump run-on time).

The heating circuit pump continues to operate in **parallel DHW mode (1)**. The cylinder primary pump starts, if the boiler water temperature is 5 °C warmer than the cylinder temperature. The cylinder is fully heated up when the cylinder has reached the selected water temperature. The cylinder primary pump runs on for the maximum period selected under parameter HG19 (cylinder primary pump run-on time).

NB

In the parallel DHW mode (1), the heating circuit can temporarily be operated at a higher temperature.

For wall mounted boilers, this parameter has no function.

**Room temperature-dependent summer/winter changeover
Parameter A11**

Factory setting: ON
Setting range: ON / OFF

Individual settings: _____

**Function explained
Room temperature-dependent
summer/winter
changeover**

With the r.h. rotary selector, choose the Room temperature-dependent summer/winter changeover parameter A11 from the Contractor menu level (after entering the correct code).

The Room temperature-dependent summer/winter changeover parameter is set by pressing (display indication flashes) and then turning the r.h. rotary selector. After changing the Room temperature-dependent summer/winter changeover parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

This parameter is only active if room influence is enabled.

Using room influence, room temperature fluctuations due to external heat or cold (e.g. solar irradiation, woodburning stove or open windows) can be compensated. With room influence enabled or in case of simple room control, if the room temperature exceeds the selected set room temperature by 1 K, then the system changes over from winter to summer operation, subject to this parameter being enabled.

The summer/winter changeover can be enabled / disabled via this parameter.

The settings have the following meaning:

OFF → Summer/winter changeover OFF

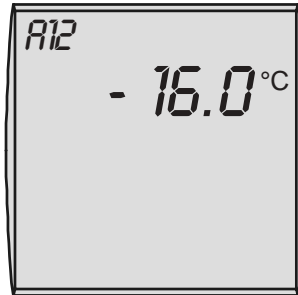
ON → Summer/winter changeover ON

Example 1:

The summer/winter changeover (**ON**) prevents the area being overheated, if room influence is enabled and the accommodation is only heated by a boiler.

Example 2:

A summer/winter changeover can occur, if a room, where the programming module is installed (e.g. living room) is heated by a second heat source (e.g. a woodburning stove), and room influence is enabled. This would result in other rooms getting cold. Remedy: Disable room temperature-dependent summer/winter changeover (**OFF**).

**Setback stop
Parameter A12**

Factory setting: -16 °C
Setting range: OFF, -39 to 0 °C

Individual settings: _____

With the r.h. rotary selector, choose the Setback stop system parameter A12 from the Contractor menu level (after entering the correct code).

The Setback stop parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Setback stop parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

The boiler control unit returns from setback mode to heating mode, if the adjusted outside temperature falls below the selected value.

Otherwise, if the adjusted outside temperature lies below the radiator design temperature, the required room temperature would not be able to be achieved for a considerable period of time after the temperature setback.

Example 1:

Setting: -16 °C

Adjusted outside temperature: -16 °C

There will also be no changeover to setback mode, even outside the selected switching times.

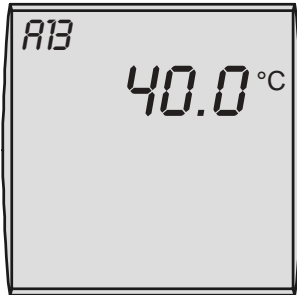
Example 2:

Setting -16 °C

Adjusted outside temperature: -10 °C

Outside the selected switching times, the system changes from day mode to setback mode.

Set Setback stop parameter to OFF, if no setback stop is required.

**Minimum DHW
temperature
Parameter A13**

Factory setting: 40 °C
Setting range: 0 to 40 °C

Individual settings: _____

With the r.h. rotary selector, choose the Minimum DHW temperature parameter A13 from the Contractor menu level (after entering the correct code).

The Minimum DHW temperature parameter is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the Minimum DHW temperature parameter, pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Please note:

The setting for the minimum DHW temperature is enabled when a solar extension module is connected. This parameter has no function for the heating system if no solar module is connected.

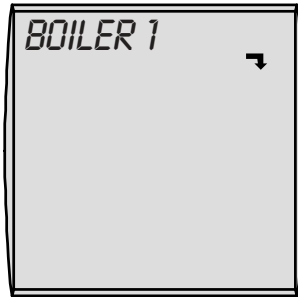
The set DHW temperature will be adjusted to the minimum DHW temperature (parameter A13) until 14:00 h the following day, if the solar heating has been completed successfully (selected DHW temperature is exceeded at the solar cylinder sensor).

The boiler provides no cylinder heating, when the selected DHW temperature is not achieved.

Only when the minimum DHW temperature is not achieved and cylinder heating has been enabled by the DHW time program, will the boiler heat the cylinder to the minimum DHW temperature.

The set DHW temperature remains at the value of the selected DHW temperature, if solar heating is not completed successfully.

Pressing the pushbutton Single cylinder heating sets the required DHW from minimum DHW temperature to DHW temperature (standard settings parameter), even if the solar heating was successful.



The boiler parameters (e.g. maximum boiler water temperature, input 1, output 1) can be adjusted via the BM programming module. The boiler parameters may vary, subject to the respective boiler version.

Possible adjustments and explanations regarding the individual parameters are shown in the respective boiler or control unit installation instructions.

After selecting the parameter, the details are obtained from the boiler control unit and displayed approx. 5 seconds later.

The currently selected value will be shown in the display and can be modified, subject to the parameter being available in the boiler control unit.

A display of four lines indicates that the parameter is not available in the connected boiler control unit.

Changing the boiler parameters HG...

With the r.h. rotary selector, choose the boiler parameter to be modified (HG..) from the Contractor menu level (after entering the correct code).

The boiler parameter to be modified (HG..) is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the boiler parameter to be modified (HG..), pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

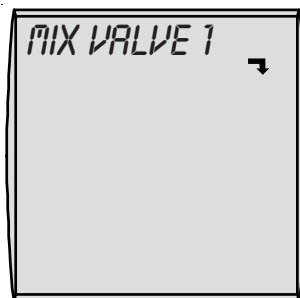
NB

An incorrect adjustment of these parameters can result in a faulty boiler operation.

Boiler parameter overview, Contractor menu

(Setting and function in the installation instructions of the boiler or the boiler control unit)

Parameters	
HG00	Matching the pipe length
HG01	Burner switching differential
HG02	Low end fan speed HZ
HG03	High end fan speed WW
HG04	High end fan speed HZ
HG06	Pump operating mode
HG07	Boiler circuit pump run-on time
HG08	Maximum limit boiler circuit TV-max.
HG09	Burner cycle block
HG10	eBUS address
HG11	DHW quick start
HG12	Gas type
HG13	Programmable input E1
HG14	Programmable output A1
HG15	Cylinder hysteresis
HG16	Pump rate HK, minimum
HG17	Pump rate HK, maximum
HG19	Cylinder primary pump run-on time
HG20	Max. cylinder heating time
HG21	Minimum boiler temperature TK-min.
HG22	Maximum boiler water temperature TK-max.
HG23	Maximum DHW temperature
HG24	DHW sensor operating mode
HG25	Boiler excess temperature during cylinder heating
HG26	Boiler soft start
HG27	Burner stage during cylinder heating
HG28	Burner operating mode
HG29	Modulation block
HG30	Modulation dynamic
HG31	Blocking time, burner stage 2
HG32	Return temperature raising
HG33	Hysteresis time
HG34	eBUS feed
HG50	Test functions



Changing the mixer parameter MI...

The menu level Mixer will not be displayed if only heating circuits are controlled (no mixer circuit installed).

The parameters for mixer circuits 1-7 (e.g. configuration, heating curve gap) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the installation instructions of the mixer module or boiler.

After selecting the parameter, the details are obtained from the mixer module and displayed approx. 5 seconds later.

With the r.h. rotary selector, choose the mixer parameter to be modified (MI..) from the Contractor menu level (after entering the correct code).

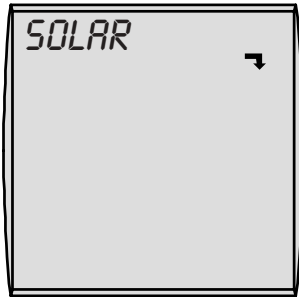
The mixer parameter to be modified (MI..) is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the mixer parameter to be modified (MI..), pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Mixer parameter overview, Contractor menu

(Setting and function in the installation instructions of the mixer module or the boiler control unit.)

Parameters	
MI 01	Minimum limit mixer circuit TV-min.
MI 02	Maximum limit mixer circuit TV-max.
MI 03	Heating curve gap
MI 04	Screed drying
MI 05	Configuration
MI 06	Mixer circuit pump run-on time
MI 07	P range, mixer
MI 08	Set return temperature
MI 09	Max. cylinder heating time
MI 10	eBUS feed
MI 11	Hysteresis, bypass sensor
MI 12	Primary pump block
MI 13	Primary pump run-on time
MI 14	Constant temperature
MI 15	dTAus (shutdown differential)
MI 16	dTEin (start-up differential)
MI 17	Excess boiler temperature during cylinder heating
MI 50	Relay test



Changing the mixer parameter SOL...

The menu level MSolar will not be displayed if only heating circuits are controlled (no solar circuit installed).

Solar module parameters (e.g. start-up differential, shutdown differential) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the solar module installation instructions.

After selecting the parameter, the details are obtained from the solar module and displayed approx. 5 seconds later.

With the r.h. rotary selector, choose the solar parameter to be modified (SOL..) from the Contractor menu level (after entering the correct code).

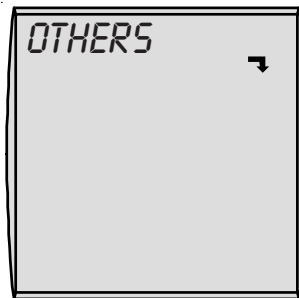
The solar parameter to be modified (SOL..) is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the solar parameter to be modified (SOL..), pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Solar parameter overview, Contractor menu

(Setting and function in the installation instructions of the solar module.)

Parameter	
<i>SOL01</i>	Start-up differential
<i>SOL02</i>	Shutdown differential
<i>SOL03</i>	Collector protection function
<i>SOL04</i>	Critical collector temperature
<i>SOL05</i>	Maximum collector temperature
<i>SOL06</i>	Maximum cylinder temperature
<i>SOL07</i>	Cylinder allocation
<i>SOL08</i>	Capturing the heat volume
<i>SOL09</i>	Pulse transducer, flow rate
<i>SOL10</i>	Medium selection
<i>SOL11</i>	eBUS feed
<i>SOL50</i>	Relay test



Other parameters (e.g. screed drying) can be adjusted via the BM programming module. Possible adjustments and explanations regarding the individual parameters are shown in the respective boiler or control unit installation instructions.

Changing other parameters SO...

With the r.h. rotary selector, choose the parameter to be modified (SO..) from the Contractor menu level (after entering the correct code).

The parameter to be modified (SO..) is changed by pressing (display indication flashes) and then turning the r.h. rotary selector. After setting the parameter to be modified (SO..), pressing the r.h. rotary selector again confirms the setting.

Pressing the Info pushbutton returns the standard display.

Other parameter overview, Contractor menu

Parameter	
<i>SO 01</i>	N / A
<i>SO 02</i>	N / A
<i>SO 03</i>	N / A
<i>SO 04</i>	N / A
<i>SO 05</i>	N / A
<i>SO 06</i>	N / A
<i>SO 07</i>	Screed drying, direct heating circuit
<i>SO 08</i>	Screed temperature

Screed drying, direct heating circuit**Parameter SO 07****Parameter SO 08**

If an underfloor heating system is started for the first time in new buildings, the set flow temperature may, as an option, be controlled independent of the outside temperature either to a constant value or to control the set flow temperature in accordance with an automatic screed drying program.

If this function has been enabled (setting 1 or 2), it can be terminated by resetting parameter SO 07 to 0.

SO 07 = 0 no function

SO 07 = 1 constant temperature heating circuit

The heating circuit is heated to the set flow temperature. The set flow temperature is regulated permanently to the temperature selected in parameter SO 08.

To change the constant temperature for screed drying, proceed as follows:

1. Press the r.h. rotary selector
2. Turn the r.h. rotary selector clockwise until *EXPERT* is displayed.
3. Press the r.h. rotary selector.
4. *CODE-NO* will be displayed.
5. Press the r.h. rotary selector to be able to enter the contractor code.
6. Set code to 1.
7. Press the r.h. rotary selector to be able to confirm the code.
8. Turn the r.h. rotary selector clockwise until *OTHERS* is displayed.
9. Press the r.h. rotary selector.
10. Turn the r.h. rotary selector clockwise until *SO08* is displayed.
11. Press the r.h. rotary selector.
12. Select the required constant temperature in accordance with the heat-up curve by turning the r.h. rotary selector.
13. Press the r.h. rotary selector.
14. Press the Info pushbutton to return to the standard display.

SO 07 = 2 Screed drying function

For the first two days, the set flow temperature will remain constant at 25 °C. It will then be automatically raised every day (at 0.00 h) by 5 °C up to the screed temperature (SO 08). That temperature will then be held for two days. Subsequently, the flow temperature is automatically reduced again in 5 °C steps per day to 25 °C. The program sequence is terminated after a further two days.

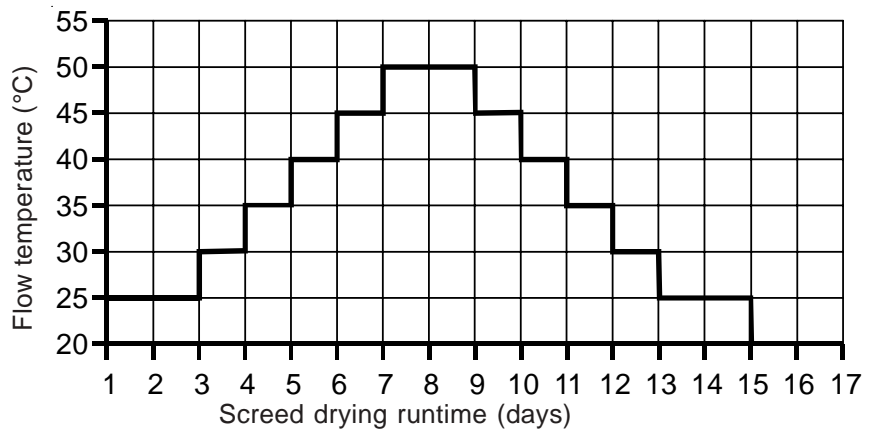


Fig.:
Flow temperature progress over time during screed drying
(parameter SO 08 = 50 °C)

NB

Agree the time sequence and the maximum flow temperature with the screed contractor, otherwise the screed may be damaged, particularly through cracking.

The screed drying program continues uninterrupted after a power failure. The remaining time in days is shown on the display.

Reset

Observe the following steps to implement a reset:

- The ON / OFF switch of the boiler control unit must be set to **O** (OFF).
- Press and hold down the rotary selector of the programming module whilst setting the ON / OFF switch to **I** (ON).
- Keep holding down the reset button for at least 2 seconds after the system has started.

All parameters (individual settings) are returned to their factory settings by a reset. As a check, EEPROM will be shown afterwards for approx. 3 seconds in the programming module display.

Wolf recommends you complete the settings report carefully and to keep it safe to enable a quick solution to be found during service and in case of a full reset.

Parameters		Setting range	Factory setting	Individual setting
Time		0 to 24 h	-	
Day		1 (Mon) to 7 (Sun)	-	
Time program		1 / 2 / 3	1	
Day temp.	Boiler circuit	5 to 30 °C	20 °C	
	Mixer circuit 1	5 to 30 °C	20 °C	
	Mixer circuit 2	5 to 30 °C	20 °C	
	Mixer circuit 3	5 to 30 °C	20 °C	
	Mixer circuit 4	5 to 30 °C	20 °C	
	Mixer circuit 5	5 to 30 °C	20 °C	
	Mixer circuit 6	5 to 30 °C	20 °C	
	Mixer circuit 7	5 to 30 °C	20 °C	
Setback temp.	Boiler circuit	5 to 30 °C	16 °C	
	Mixer circuit 1	5 to 30 °C	16 °C	
	Mixer circuit 2	5 to 30 °C	16 °C	
	Mixer circuit 3	5 to 30 °C	16 °C	
	Mixer circuit 4	5 to 30 °C	16 °C	
	Mixer circuit 5	5 to 30 °C	16 °C	
	Mixer circuit 6	5 to 30 °C	16 °C	
	Mixer circuit 7	5 to 30 °C	16 °C	
Heating curve	Boiler circuit	0 to 3.0	1.2	
	Mixer circuit 1	0 to 3.0	0.8	
	Mixer circuit 2	0 to 3.0	0.8	
	Mixer circuit 3	0 to 3.0	0.8	
	Mixer circuit 4	0 to 3.0	0.8	
	Mixer circuit 5	0 to 3.0	0.8	
	Mixer circuit 6	0 to 3.0	0.8	
	Mixer circuit 7	0 to 3.0	0.8	
Room influence	Boiler circuit	ON / OFF	OFF	
	Mixer circuit 1	ON / OFF	OFF	
	Mixer circuit 2	ON / OFF	OFF	
	Mixer circuit 3	ON / OFF	OFF	
	Mixer circuit 4	ON / OFF	OFF	
	Mixer circuit 5	ON / OFF	OFF	
	Mixer circuit 6	ON / OFF	OFF	
	Mixer circuit 7	ON / OFF	OFF	

For further parameters, see next page.

Parameters	Setting range	Factory setting	Individual setting
Summer/winter changeover			
Boiler circuit	0 to 40 °C	20 °C	
Mixer circuit 1	0 to 40 °C	20 °C	
Mixer circuit 2	0 to 40 °C	20 °C	
Mixer circuit 3	0 to 40 °C	20 °C	
Mixer circuit 4	0 to 40 °C	20 °C	
Mixer circuit 5	0 to 40 °C	20 °C	
Mixer circuit 6	0 to 40 °C	20 °C	
Mixer circuit 7	0 to 40 °C	20 °C	
ECO/RED			
Boiler circuit	-10 to 40 °C	10 °C	
Mixer circuit 1	-10 to 40 °C	10 °C	
Mixer circuit 2	-10 to 40 °C	10 °C	
Mixer circuit 3	-10 to 40 °C	10 °C	
Mixer circuit 4	-10 to 40 °C	10 °C	
Mixer circuit 5	-10 to 40 °C	10 °C	
Mixer circuit 6	-10 to 40 °C	10 °C	
Mixer circuit 7	-10 to 40 °C	10 °C	
DHW temperature			
Freestanding boiler	15 to 60 °C	60 °C	
Wall mounted boiler with cylinder	15 to 65 °C	60 °C	
Wall mounted combi boiler	40 to 65 °C	60 °C	
Language	German, English, French, Dutch, Spanish, Portuguese, Italian, Czech, Polish, Slovakian, Hungarian, Russian, Greek, Turkish	German	



Settings report, time programs

Wolf recommends you complete the settings report carefully and to keep it safe to enable a quick solution to be found during service and in case of a full reset.

Time program	Block	Switch. time	HC		Mixer 1		Mixer 2		Mixer 3		Mixer 4	
			ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Time prog. 1	Mo-Fr	1										
		2										
		3										
	Sa-Su	1										
		2										
		3										
Time prog. 2	Mo-Fr	1										
		2										
		3										
	Sa-Su	1										
		2										
		3										
Time prog. 3	MON	1										
		2										
		3										
	TUE	1										
		2										
		3										
	WED	1										
		2										
		3										
	THU	1										
		2										
		3										
	FRI	1										
		2										
		3										
	SAT	1										
		2										
		3										
	SUN	1										
		2										
		3										

For further time programs, see next page.

Time program	Block	Switch. time	Mixer 5		Mixer 6		Mixer 7		DHW		DHW circ. line	
			ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Time prog. 1	Mo-Fr	1										
		2										
		3										
	Sa-Su	1										
		2										
		3										
Time prog. 2	Mo-Fr	1										
		2										
		3										
	Sa-Su	1										
		2										
		3										
Time prog. 3	MON	1										
		2										
		3										
	TUE	1										
		2										
		3										
	WED	1										
		2										
		3										
	THU	1										
		2										
		3										
	FRI	1										
		2										
		3										
	SAT	1										
		2										
		3										
	SUN	1										
		2										
		3										

**Operating mode
Boiler status**

Boiler status	
0	Standby
1	Emission test mode
2	Soft start
3	Heat demand (heating mode)
5	Heat demand with cycle block
6	Cycle block
7	Frost protection – heating
8	Soft start
11	DHW draw-off
12	DHW reheating
13	Minimum combi time
14	DHW quick start reheating
15	Cylinder mode
16	Frost protection – cylinder
17	Pump run-on – cylinder
18	Boil dry
19	dt output reduction
20	Parallel cylinder mode
21	Max. cylinder heating time exceeded
22	Sensor operating mode 2, contact closed
23	Sensor operating mode 3, contact closed

Wolf recommends you complete the settings report carefully and to keep it safe to enable a quick solution to be found during service and in case of a full reset.

Parameter		Setting range	Factory setting	Individual setting
R00	Room influence	1 to 20 K / K	4 K / K	
R01	Heat-up optimisation	0 / 1	0	
R02	Max. heat-up time	0 to 180 min	0	
R03	Required heat-up time	-	-	-
R04	Adjusted outside temp. sensor	0 to 24 h	3 h	
R05	Room sensor matching	-5 to +5 K	0 K	
R06	External room temp. sensor	0 to 1	1	
R07	Pasteurisation function	0 to 8	0	
R08	Service message	0 to 104 weeks	0	
R09	Frost protection level	-20 to +10 °C	+2 °C	
R10	Parallel DHW operation	0 / 1	0	
R11	Room temperature-dependent summer/winter changeover	OFF / ON	ON	
R12	Setback stop	OFF, -39 to 0°C	-16 °C	
R13	Minimum DHW temp.	0 to 60 °C	40 °C	

NTC

Sensor resistances

Boiler sensor, cylinder sensor, solar cylinder sensor, outside temperature sensor, flow sensor, central sensor

Temp. °C	Resist. Ohm	Temp. °C	Resist. Ohm	Temp. °C	Resist. Ohm	Temp. °C	Resist. Ohm
-21	51393	14	8233	49	1870	84	552
-20	48487	15	7857	50	1800	85	535
-19	45762	16	7501	51	1733	86	519
-18	43207	17	7162	52	1669	87	503
-17	40810	18	6841	53	1608	88	487
-16	38560	19	6536	54	1549	89	472
-15	36447	20	6247	55	1493	90	458
-14	34463	21	5972	56	1438	91	444
-13	32599	22	5710	57	1387	92	431
-12	30846	23	5461	58	1337	93	418
-11	29198	24	5225	59	1289	94	406
-10	27648	25	5000	60	1244	95	393
-9	26189	26	4786	61	1200	96	382
-8	24816	27	4582	62	1158	97	371
-7	23523	28	4388	63	1117	98	360
-6	22305	29	4204	64	1078	99	349
-5	21157	30	4028	65	1041	100	339
-4	20075	31	3860	66	1005	101	330
-3	19054	32	3701	67	971	102	320
-2	18091	33	3549	68	938	103	311
-1	17183	34	3403	69	906	104	302
0	16325	35	3265	70	876	105	294
1	15515	36	3133	71	846	106	285
2	14750	37	3007	72	818	107	277
3	14027	38	2887	73	791	108	270
4	13344	39	2772	74	765	109	262
5	12697	40	2662	75	740	110	255
6	12086	41	2558	76	716	111	248
7	11508	42	2458	77	693	112	241
8	10961	43	2362	78	670	113	235
9	10442	44	2271	79	649	114	228
10	9952	45	2183	80	628	115	222
11	9487	46	2100	81	608	116	216
12	9046	47	2020	82	589	117	211
13	8629	48	1944	83	570	118	205

If a fault is indicated by the signal ring of the control unit flashing red, a fault code is displayed via the Wolf-control accessory with eBUS capability that allows a cause to be allocated using the following table.

This list of fault messages is designed to allow your heating contractor to trace the fault more easily.

Note: Faults that are not listed may be faults of the air-condition or ventilation control.

No.	Fault	Cause
1	TB excess temperature	The external temp. limiter has shut down the system.
4	No flame established	No flame established during the burner start
5	Flame failure during	Flame failure during the safety time
6	TW excess temperature	The boiler water temp. has exceeded the limit for the TW (e.g. 95 °C)
7	STBA - excess temperature	The temperature limiter has shut down the system
8	No flue gas damper response	Flue gas damper or damper feedback faulty
11	False flame indication	A flame is recognised before the burner starts
12	Boiler sensor faulty	The boiler water temp. sensor or sensor lead is faulty
13	Flue gas temp. sensor faulty	The flue gas sensor or sensor lead is faulty
14	Cylinder sensor faulty	The DHW temp. sensor or sensor lead is faulty
15	Outside temperature sensor faulty	The outside temperature sensor is faulty (short circuit or break, wireless reception interference, battery of the wireless outside temperature sensor dead), power supply boiler interrupted or boiler fuse blown / tripped
16	Return sensor faulty	The return sensor or the sensor lead is faulty
17	Fault modulation current	The modulation current is outside its set range
20	Faulty gas valve V1	The gas valve is faulty
21	Faulty gas valve V2	The gas valve is faulty
22	Lack of air	The air pressure switch does not switch ON
23	Faulty air pressure switch	The air pressure switch does not switch OFF
24	Gas fan, fault	The gas fan does not reach the required pre-purging speed
25	Gas fan, fault	The fan does not reach the ignition speed
26	Gas fan, fault	The fan does not stop
30	CRC fault, boiler	Internal device error
31	CRC fault, burner	Internal device error
32	Power failure 24 V	24 V power supply faulty

No.	Fault	Cause
33	CRC fault, factory setting	Internal device error
34	CRC fault, BCC	Faulty boiler coding card
35	BCC missing	Boiler coding card was removed
36	CRC fault, BCC	Faulty boiler coding card
37	Incorrect BCC	The boiler coding card is incompatible with the control unit PCB
38	BCC no. invalid	Faulty boiler coding card
39	BCC system error	Faulty boiler coding card
40	Faulty flow limiter	The flow limiter does not switch OFF or ON
41	Faulty flow limiter	The return temperature is at least 12 K higher than the flow temperature
52	Max. cylinder heating time exceeded	The cylinder heating takes longer than permitted
60	Siphon back pressure	The siphon or the flue gas system is blocked
61	Flue gas system back pressure	The flue gas system is blocked
64	Pulse transducer faulty	The pulse transducer of the solar module is faulty or the solar heating system has no circulation
70	Mixer circuit sensor faulty	The mixer circuit sensor or the sensor lead is faulty
71	Sensor faulty	The cylinder sensor of the solar module or the multi-function sensor input E1 of the mixer module is faulty
72	Return sensor faulty	The return sensor of the sensor module is faulty
76	Cylinder sensor faulty	The cylinder sensor or the sensor lead is faulty
78	Central sensor faulty	The central sensor or the sensor lead is faulty
79	Sensor faulty	The multi-function sensor input E1 of the boiler control units R1, R2, R3 or the multi-function sensor input E2 of the mixer module or the collector sensor of the solar module is faulty
80	Outside temperature sensor accessory controller is faulty	The outside temperature sensor or the sensor lead at the accessory controller is faulty
81	EEPROM fault	Internal equipment error at the accessory controller
82	Oil level fault	The oil tank is empty or check the oil level transducer
91	Fault eBUS parameter	One BUS address was allocated more than once
97	Bypass pump faulty	The bypass pump of the mixer module is faulty

Specification

Supply voltage:	eBUS 15-24 V
Power consumption:	Max. 0.5 W
Protection:	Wall mounting base: IP 30 Boiler: as per control unit protection level
Battery backup:	> 48 h
Ambient temp.:	0....50 °C
Storage temperature:	-20....+60 °C
Data memory:	EEPROM (non-volatile)