



Radio Thermostat Clock

Installation & User Instructions

Part number: ZU0800009

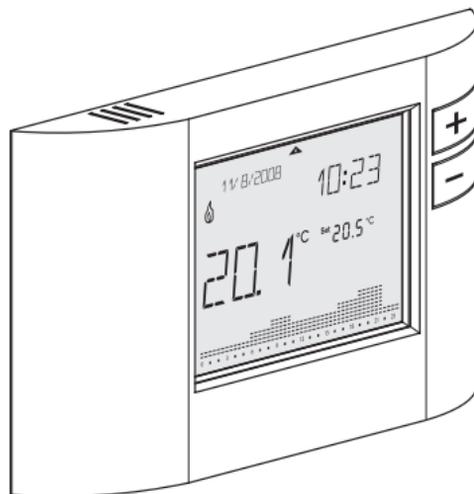




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Safety instructions



Danger from electric shock!

- ▷ The connection and installation of electrical devices may only be carried out by a qualified electrician.

- It is imperative to observe the generally applicable safety measures, e.g. before starting any work on the appliance, switch off power supply and secure against switching on.
- Interventions in and changes to the device result in the voiding of the warranty claim.
- Observe your national regulations and the respective safety provisions.

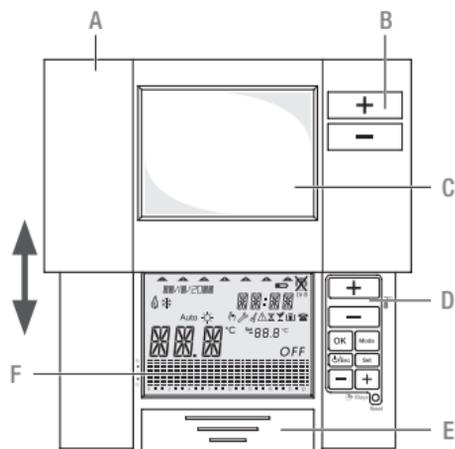


Product details

The radio thermostat clock is a 7 day radio frequency (RF) wireless thermostat/ timer which communicates with a special receiver designed to fit in the clock aperture of the boiler casing.

The radio thermostat clock is battery powered and can be sited wherever conventional room thermostats would normally be sited. See installation locations information on page 7.

The radio thermostat clock is a room thermostat and clock of highly advanced technology. The device is wireless and controls the heating via radio, providing both time control and comfortable room temperatures.



Assembly description

A Moveable sliding cover
B Keys for manual override function

C Window
D Keyboard
E Battery compartment

F Display



Technical data – RF Set, Transmitter

| | |
|--------------------------------------|---|
| Power supply: | 2 x 1.5 V AA LR6 alkaline batteries |
| Battery service life: | 2 years (depending on switching frequency) |
| Room temperature display resolution: | 0.1°C |
| Temperature setting display: | Program: +5°C...+32°C (0.5°C steps) Frost protection: 5°C (adjustable 3°C...7°C) |
| Time setting resolution: | Time of day: 1 minute Program: 30 minutes |
| Programming: | weekly program with up to 48 time and temperature programs changes |
| Pre-programmed programs: | 4 + 1 user-defined |
| RF signal: | 868.3 MHz |
| RF signal range: | Indoor 30 m (2 walls + 1 ceiling) |
| Protection class / type: | II / IP40 |
| Operating temperature range: | Max. 45°C |
| Operating humidity range: | 10% to 90% RH non-condensing |
| Dimensions H x W x D (mm): | 87 x 154 x 27 |



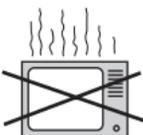
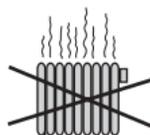
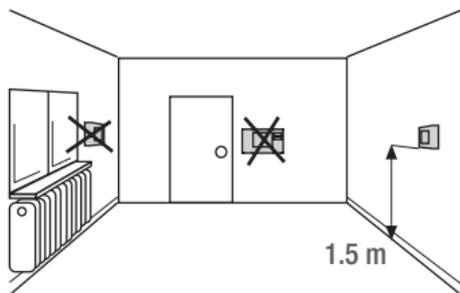
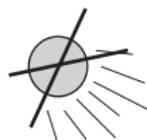
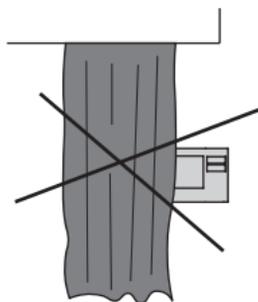
Technical data – RF Set, Receiver

| | |
|------------------------------|-----------------------------------|
| Power supply: | 230 V +/-10% 50-60 Hz |
| Switching output: | SPDT (potential-free) |
| Switching capacity: | 5 (1) A 250 V AC |
| RF signal: | 868.3 MHz |
| RF signal range: | Indoor 30 m (2 walls + 1 ceiling) |
| Protection class / type: | II / IP20 |
| Operating temperature range: | Max. 45°C |
| Operating humidity range: | 10% to 90% RH non-condensing |
| Dimensions H x W x D (mm): | 60 x 60 x 32 |



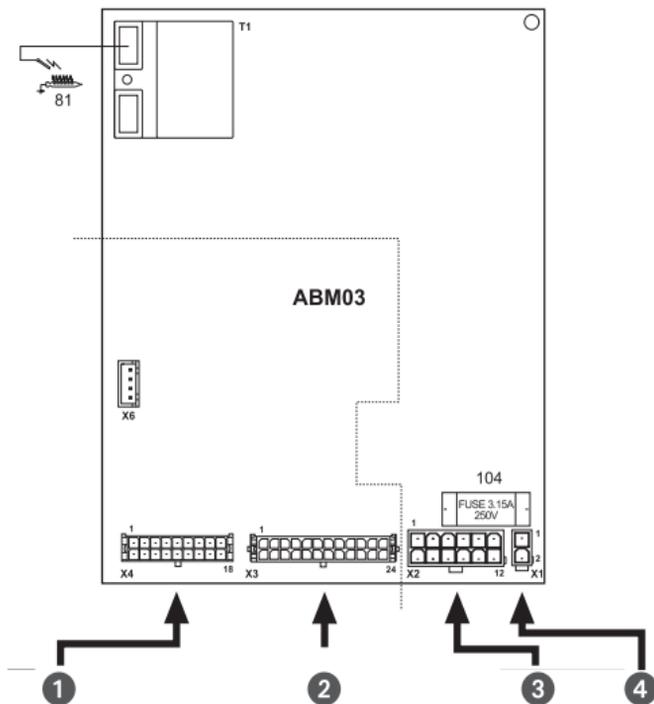
Installation and assembly

General information





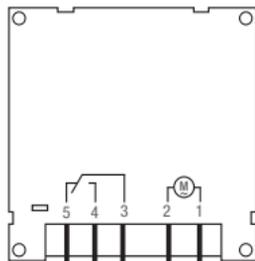
Modena C HE



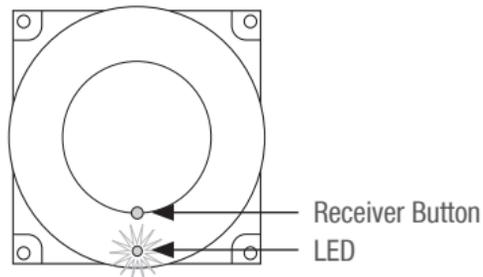


Installation of the receiver

Wiring Connections



- 1 - Live (Brown)
- 2 - Neutral (Blue)
- 3 - Switched circuit (White #1)
- 4 - Switched circuit (White #2)
- 5 - No connection required



Commissioning, please turn to page 11.



Installation of the radio link

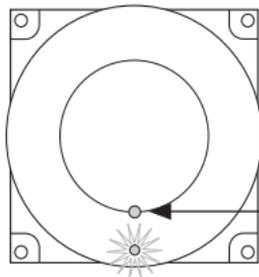


The transmitter and receiver are pre-commissioned. If the radio link doesn't work correct, follow the sequence of commissioning.

Press and hold the black button of the receiver until the LED light has flashed twice. Release the button and the LED light will remain illuminated.

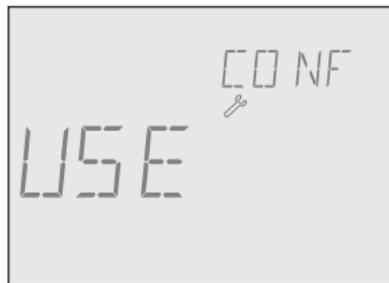
Press and hold MODE-button and SET-button of the transmitter at the same time for more than 3 seconds to enter into the User menu. Then press the OK-button until RF Comm is displayed.

1



Receiver Button

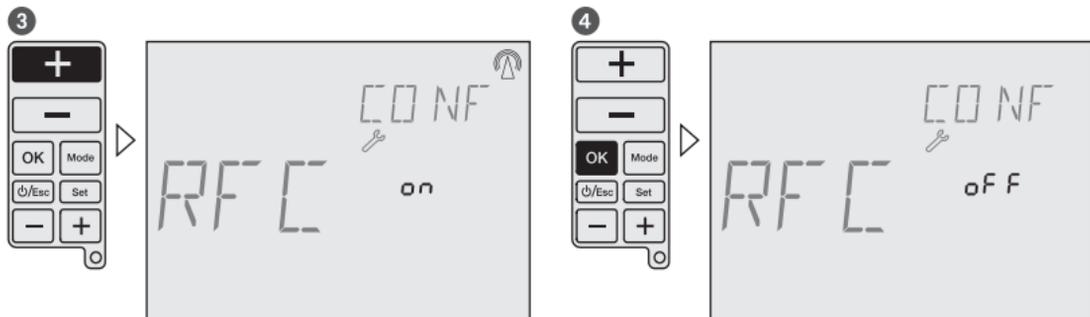
2





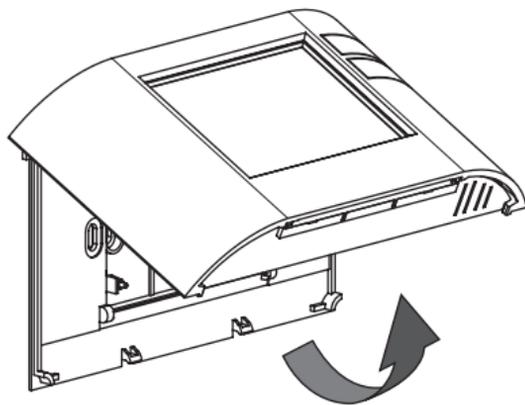
Press upper + button (– button disables the RF signal) to enable an continuous RF signal. The receiver LED will go out as soon as a signal from the transmitter is received. Then press the OK-button, the radio link between transmitter and receiver is now established. Press the ESC-button to return to Auto mode.

Receiver: When operating in heating mode and an ON signal is received, the LED illuminates continuously. When an OFF signal is received, the LED is off (and flashes periodically at longer intervals). Is no valid radio signal received from the transmitter for more than one hour (e.g. low battery) the emergency operating mode will be activated. The LED flashes every 0,5 seconds.

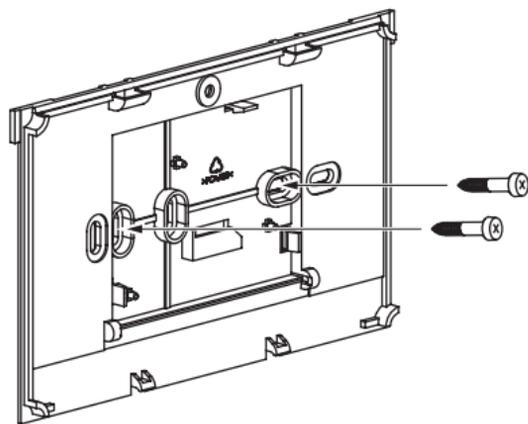




Open housing

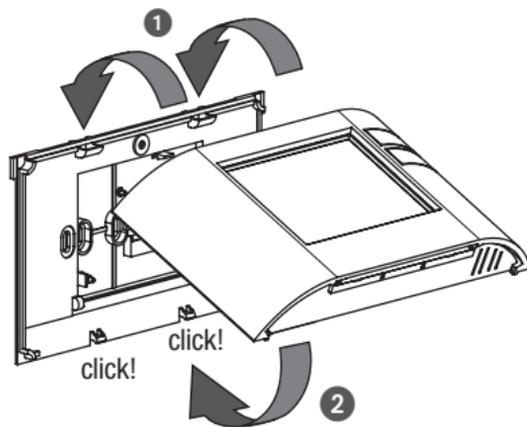


Wall mounting

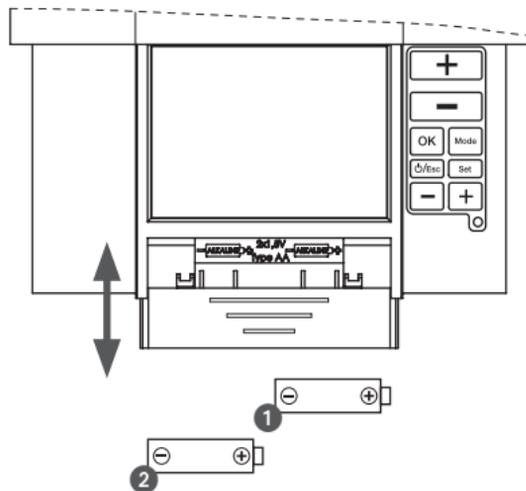




Close housing



Insert batteries



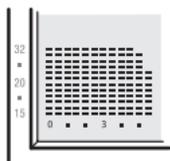
Only use 2 x 1.5 V type AA.



Operating and adjustment

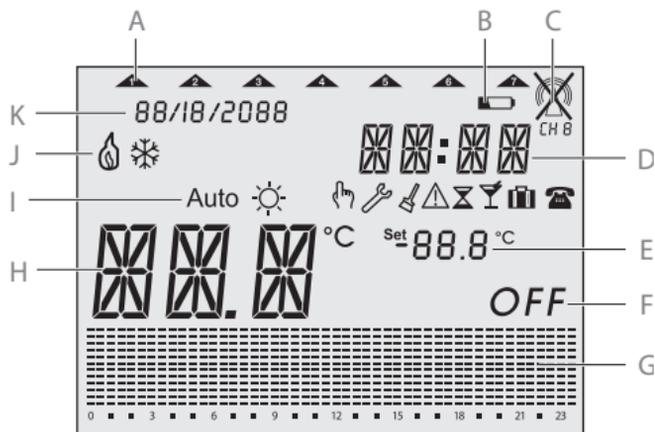
Operating information

- Flashing texts signal the need for an entry. If no button is pressed for 2 minutes, the device reverts to the Automatic mode.
- All settings need to be confirmed with OK.
- All settings saved will remain in the memory.
- The histogram shows the programmed temperature profile
 - 7 – 14°C = displayed as one segment
 - 15 – 24°C = one segment displays 1°C
 - over 24°C = one segment displays 2°C





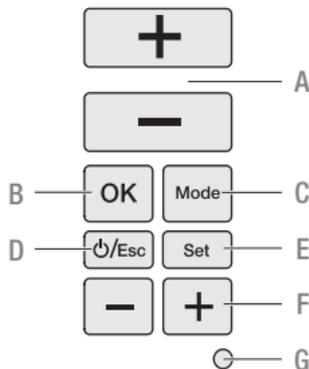
Display



- A Current week day
- B Battery
- C RF signal
- D Current time
- E Set temperature
- F Off mode
- G Histogram over 24 hours
- H Current temperature
- I Operating mode
- J Status indication
- K Current date



Function keys



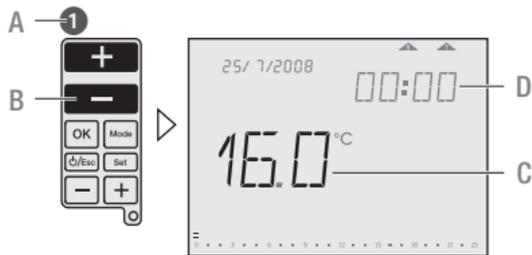
- A +/- buttons used to increase/decrease temperatures.
- B OK-button to confirm settings and go to the next step.
- C MODE-button to select from the available operating modes.
- D ESC-button used for ON/OFF, go one step back in menu or return to main menu by pressing the button more than 3 seconds.
- E SET-button for settings following commissioning.
- F +/- buttons used to increase/decrease hours, days and events.
- G RESET-button to return to factory settings. The programs are retained in the case of a reset. The date and time must be set again. Press reset button with a blunt object (pen).



Configuration

General information

For the use of this manual you must observe the following informations:



- A Sequence of operation
- B Pressed buttons are shown in black.
- C Flashing elements are shown in black
- D Fixed elements are shown in grey

- Buttons which can be pressed during an action are shown in black. The related display is also shown in black.
- Follow exactly the numbers of the sequence of operation.
- The configuration of the device is described based on configuration.
- After starting the device for the first time, follow the menu for a correct configuration of the device.
- Following commissioning, you can also change the configuration by pressing the SET-button.

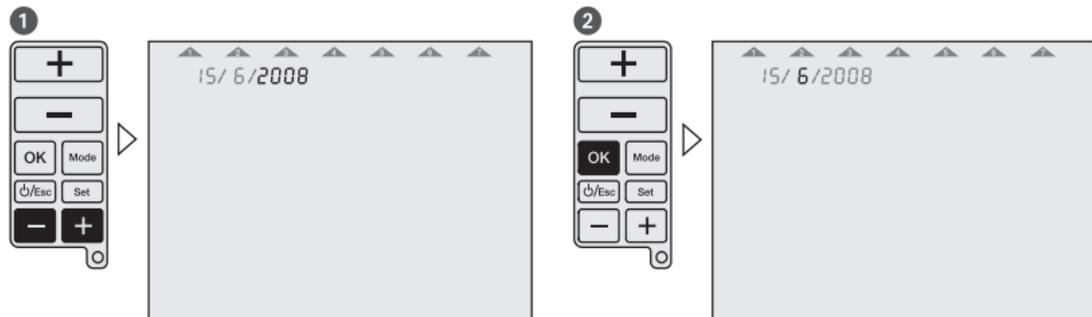


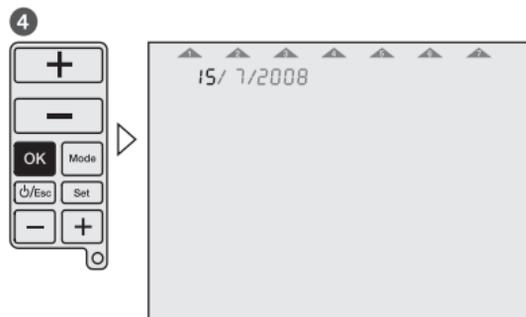
Initial start-up

Set date and time

Sequence for setting the date and time during initial start-up.
15/6/2008 appears as factory default.

To set the date and time after initial start-up press the SET-button, then choose Date or Time Menu with the upper +/- buttons and confirm with OK.





5
The time is set in the same way as the date.

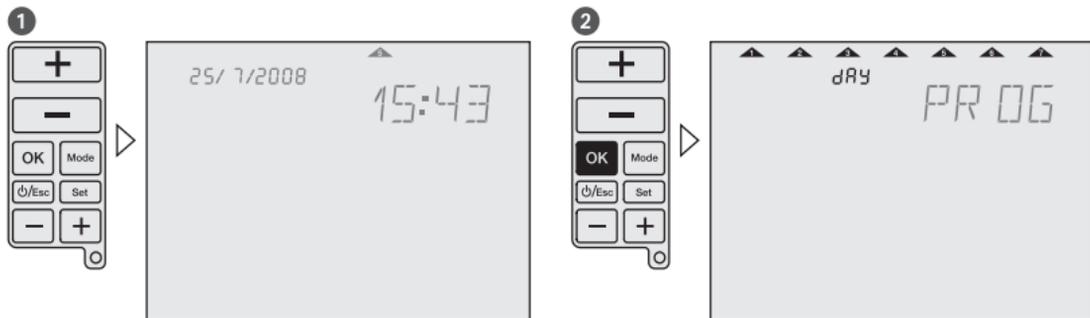




Programming

Sequence for specifying programs during initial start-up.

To specify programs after initial start-up press the SET-button, then choose the Prog menu with the upper +/- buttons and confirm with OK.





| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
| ▲1 | ▲2 | ▲3 | ▲4 | ▲5 | ▲6 | ▲7 |
| ▲1 | ▲2 | ▲3 | ▲4 | ▲5 | ▲6 | ▲7 |
| ▲1 | ▲2 | ▲3 | ▲4 | ▲5 | ▲6 | ▲7 |
| ▲1 | ▲2 | ▲3 | ▲4 | ▲5 | ▲6 | ▲7 |

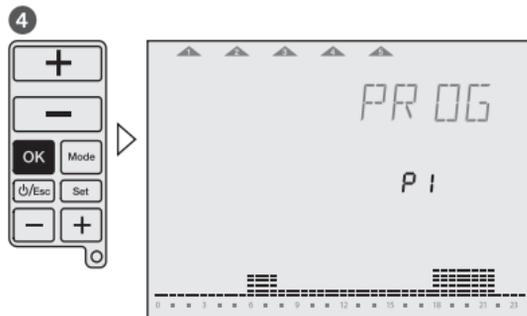
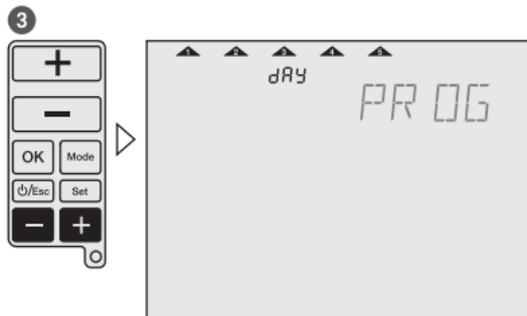
Choose between:

7 days – one programm

5-2 days – one program per day block

1-7 days – each day an individual program

free block formation – one program per day block





Select program

Each weekday or day block must be allocated a program P1, P2, P3, P4 (pre-defined) or Pd (user-defined).

P1



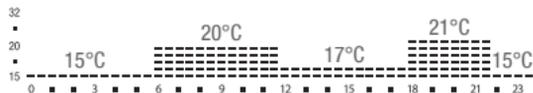
P2



P3



P4



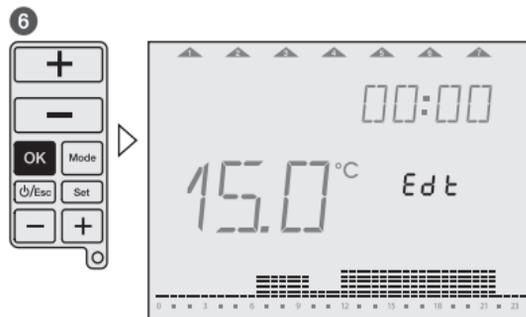
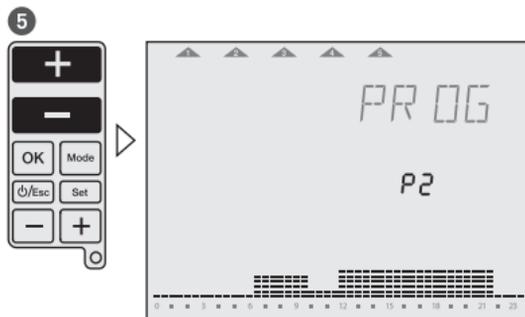
Pd

User-defined program.

During initial start-up, program will be shown with 15°C from 00:00 to 23:59 PM.



If you wish you can modify the pre-defined programs. Use the upper +/- buttons to increase/decrease the temperature of each segment by 0.5°C. Use the lower +/- buttons to go forward/backward 30 minutes each time and copy the selected temperature value.





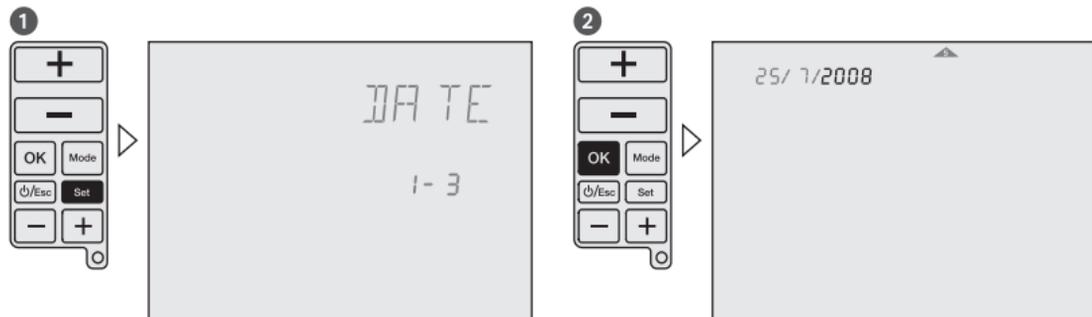
Settings

After commissioning you can change the date, time, temperature and time programming. By pressing the upper +/- buttons you jump to the different menus.

1-3 = adjustment of date

2-3 = adjustment of time

3-3 = adjustment of time and temperature programming





3

You are now able to adjust the date as described in the initial start-up. The sequence of setting the time is similar to the method for setting the date.

4



5

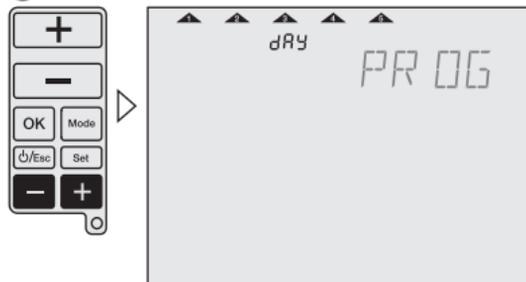


With the lower +/- buttons you can choose days or day blocks for programming and confirm with OK. Go to operation number **6**.

By pressing the OK-button you can choose between the pre-defined programs P1 – P4 or the user-defined program Pd. Go to operation number **7**.



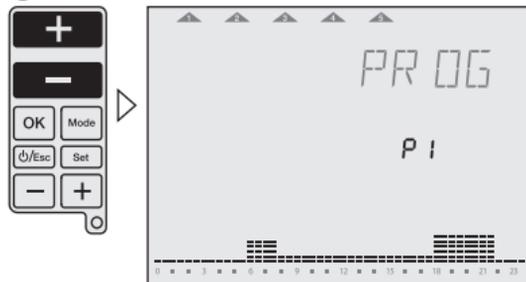
6



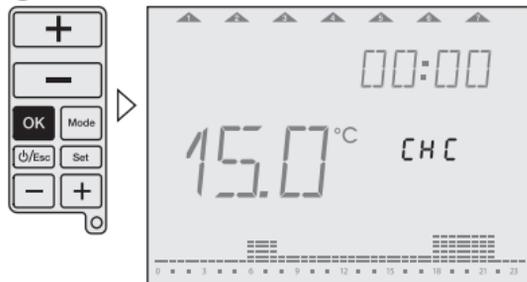
7



8

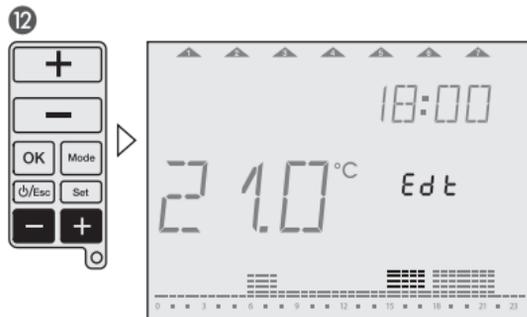
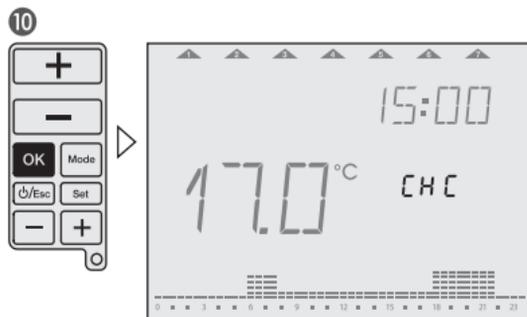
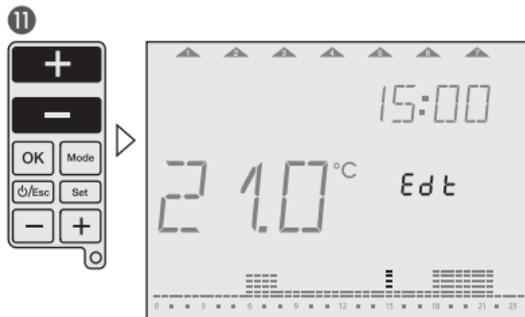


9





By pressing the lower +/- buttons you can go through the program to check it. For editing the program, use the upper +/- buttons to increase/decrease temperature in each segment by 0.5°C. Use the lower +/- buttons to go forward/backward and copy the selected temperature value.





Operating modes

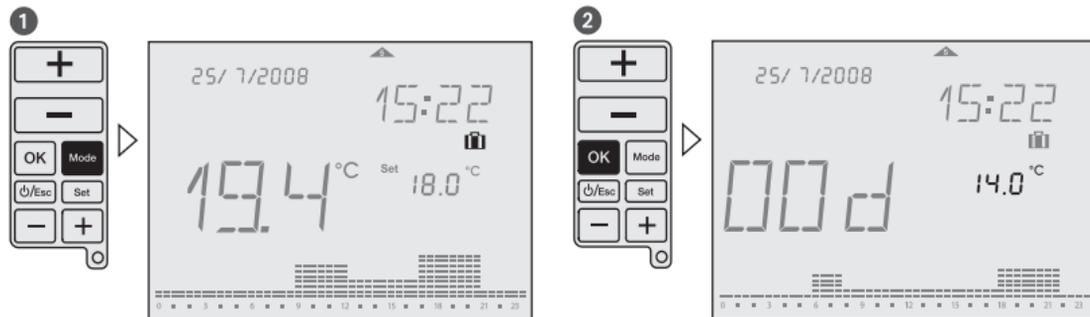
Set operating modes

Follow the sequence for selecting the desired operating mode. The operating modes in the device appear in the same order as described here.



Press and hold the ESC-button for 3 seconds to return to Auto mode.

Example:





Auto

Symbol: Auto

After each programming session, the device automatically returns to the Auto mode. The predefined or user-defined program run here.





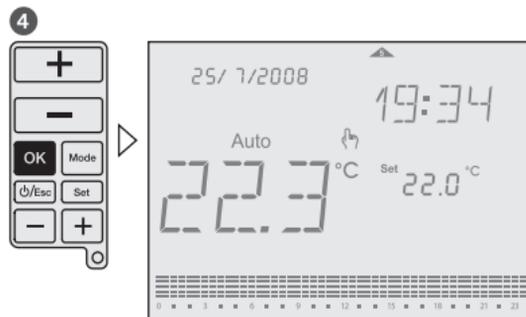
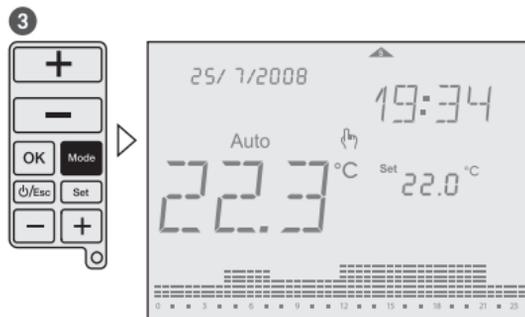
Manual-ECO-Fix

Symbol: Auto

Manual-ECO-Fix mode calculates an average temperature of the actual program. This temperature is kept for the whole day until any user's intervention is made. To return to Auto mode, press OK.

The average temperature is the starting point for increasing or decreasing the desired temperature, pressing upper +/- buttons. The new temperature set value is then, after 3 sec., set for all day long.

Example: 4 different temperatures in the actual program (e.g. 17°C, 19°C, 20°C and 22°C).
Average temperature is then 19,5°C.





Cleaning mode

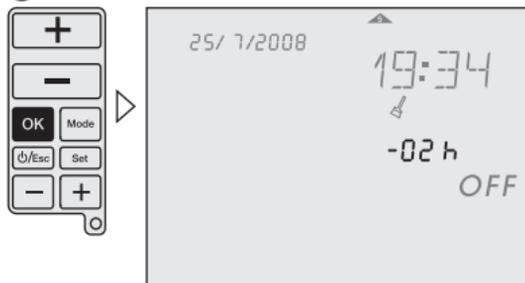
Symbol:

This mode sets the device into OFF mode for a preset time of 2 hours. During the cleaning time, remaining time is shown until running mode elapsed. After the Cleaning mode is elapsed, the device returns into Auto mode.



To end Cleaning mode early, press ESC-button for more than 3 seconds. The anti-freeze protection is granted.

3



4





Countdown mode

Symbol: ⌘

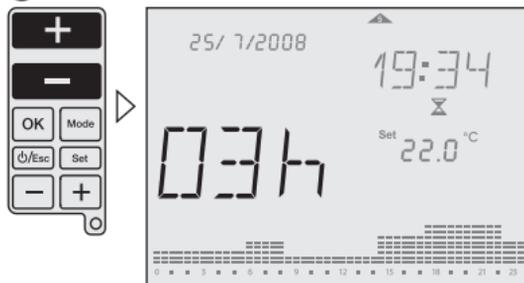
This function runs into a desired set temperature during certain period of time. Adjustable period of time is 1 – 23 hours. After the time is elapsed, the device returns into OFF mode (Anti-freeze temperature is kept). During the Countdown mode, remaining countdown time is indicated.

Example: The device shall be run into OFF mode after 4 hours.

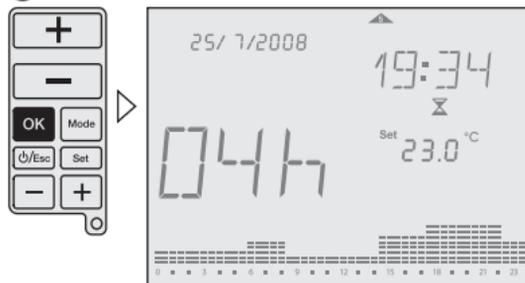


To end Countdown mode early, press ESC-button for more than 3 seconds.

3



4





Party mode

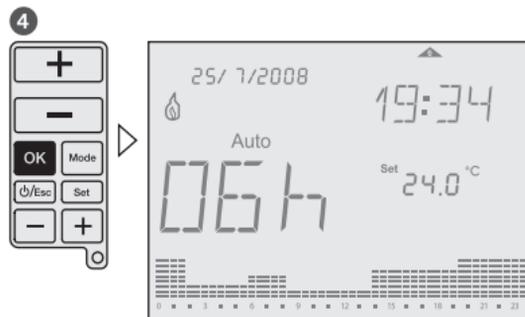
Symbol: 🍷

This mode allows the user to set a desired temperature during defined period of time. Adjustable period of time is 1 – 23 hours. After the time is elapsed, the device returns into the mode before the Party mode was activated. During the Party mode, the rest of the time is indicated.

Example: The temperature shall be set for 6 hours on 24°C.



To end Party mode early, press ESC-button for more than 3 seconds.





Holiday mode

Symbol:

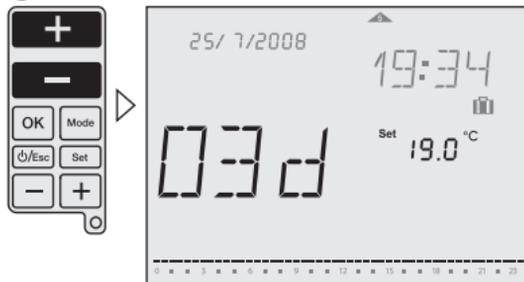
This function runs into a desired set temperature during certain period of time. Adjustable period of time is 1 – 90 days. After the time is elapsed, the device returns into the mode before the Holiday mode was activated. During the Holiday mode, the rest of the days is indicated.

Example: The temperature shall be set for 16 days on 13°C.

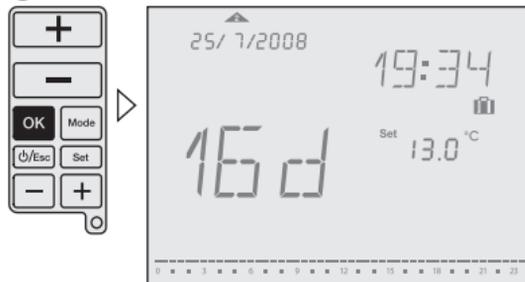


To end Holiday mode early, press ESC-button for more than 3 seconds.

3



4



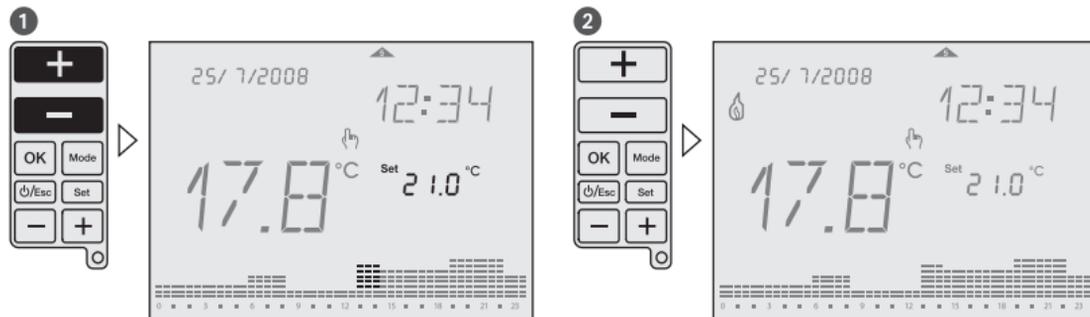


Operating status

Manual override

Symbol: 

While the sliding cover is closed, you can temporarily adjust the temperature in the current period with the upper +/- buttons. It is not necessary to confirm the setting with OK. The setting will remain as temperature set value until the next programmed change (time and temperature) appears. To return into Auto mode, press and hold upper +/- buttons for 3 seconds, or open the sliding cover and press OK-button.





OFF mode

Symbol: **OFF**

This mode switch off the device completely. To activate this mode press and hold ON/OFF/ESC-button for more than 5 seconds. To leave this mode press and hold the ON/OFF/ESC-button again for more than 5 seconds.



The anti-freeze protection is granted.





Low battery

Symbol: 

A low battery level is indicated with the battery icon in the display. Please change the batteries. If batteries are not placed or are installed in the wrong polarity, <Bat> text will appear on display until they are placed or installed in the right polarity.



If the battery goes completely empty, the programming is protected.



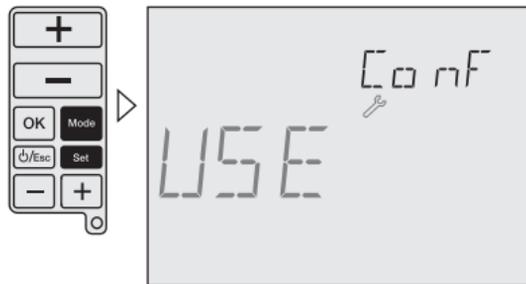


User menu/Configuration

Symbol: 

Press the **MODE**-button and **SET**-button at the same time until User menu is shown in the display.
To go to previous menu press **ESC**-button. It is possible to adjust:

- **RF commissioning (RFC):** Enable/disable continuous radio signal
- **Offset (OFS):** Possibility to adjust/modify the measured temperature (-5°C...+5°C)
- **Summer/Winter time (SWT):** enable/disable automatic summer/winter time change
- **Time Format (TMF):** possibility to change time format into 24 hours or 12 hours (default: 24 hours)
- **Restore Default (DFL):** Restore values to factory default status.



Use lower +/- buttons to navigate through menus.

Use upper +/- buttons to change values and OK to confirm.



Installation menu

Symbol: 

To access this Configuration menu, press the MODE-button, the OK-button and SET-button at the same time until Installer menu is shown in the display. Press ESC-button to go to previous Menu.

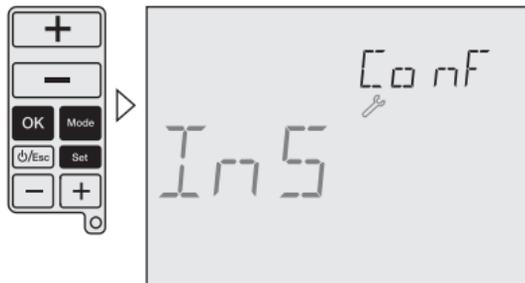


The adjustments in this menu are only for experts.

All possibilities for adjustment are shown with a self-explaining, floating real text in the display.

Use lower +/- buttons to navigate through menus.

Use upper +/- buttons to change values and OK to confirm.





Following adjustments are possible:

- High Temp (HIT):** set maximum temperature value for programming
from low temperature value up to +32°C (default: +32°C)
- Low Temp (LOT):** set minimum temperature value for programming
from +7°C up to high temperature value (default: +7°C)
- Frost protection (FRT):** set anti freeze minimum temperature value from +3°C to +7°C (default: 5°C)
- Regulation (REG):** possibility to select between PID or 2 points regulation (default: 2 points)
- Differential (DIF):** possibility to modify differential value from 0,1 K to 0,9 K (default: 0,2 K)
- Keypad Lock (LOK):** enable keypad to protect against non authorized interventions
To enable/disable the keypad lock press and hold **MODE-** and **ESC-** button for more than 3 seconds.
- Operating hours (OPT):** this feature shows total operating running time (max. 99.999 hours)
- Battery Level (BAT):** battery charge level is shown on display



Because of our constant endeavour for improvement
details may vary from those quoted in these instructions

Should you require any assistance during the installation
call our Technical Service Helpline on
0843 479 0 479

Ferrol Limited,
Lichfield Road, Branston Industrial Estate, Burton Upon Trent,
Staffordshire, DE14 3HD
Service/Technical Tel: 0843 479 0 479

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