

MAINTENANCE INSTRUCTION

The two-channel microprocessor temperature controller designed to control the heater, ensuring You high comfort, efficiency and safety. The heating is carried out by means of two temperature sensors:

- **one** controls the room temperature, which enables to minimize the power consumption and as well to set for each room the individual temperature;
- **another** sensor monitors the surface temperature of the heater that maximizes its security (excludes overheating under high voltage power supply, covering and tipping of the device, it provides the possibility to limit the temperature in children rooms, etc.).

Besides it, the controller will warn you about the lack of earthing in the mains.

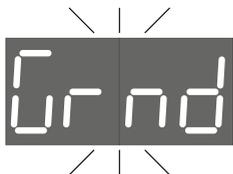
You set for yourself the necessary temperature in the room (it is possible according to the hourly programme with daily or weekly cycle), the controller, depending on heat losses in the room, automatically adjusts the temperature of the heater itself, as well as the load on the electricity grid (100% or 50% of capacity). Switching on and off of the heater is carried out electronically (silently, without sparks and noise). The heater works as much as required to maintain the needed temperature in the room, without spending any extra kilowatt of electricity and therefore doesn't need the turning off even during the summer period.

- 👉 Temperature setting range in the room "Comfort" +5 ... + 35 ° C, step of 0,5 ° C.
- 👉 Setting range of value, detecting the temperature "Economy" -9,5 ° (below Comfort temperature) 0 ° ... (equal to Comfort) ... + 9,5 ° (higher than Comfort).
- 👉 Setting range of the surface temperature limit 40 ... 72 ° C (95 ° C).

REQUIREMENTS FOR EFFICIENT HEATING AND SAFETY

- ➔ Install the heater according to the enclosed installation instructions.
- ➔ Ensure the correct positioning of the outside air temperature sensor in the room (eliminate maximum the influence of the temperature of the heater itself, contact with the floor and walls).
- ➔ Turn on the heater to the socket with grounding and make sure you turned it on by absence of warning 'Grnd' at the display (see. Below).

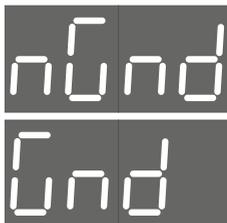
Note: If the heater can not be controlled by pressing the buttons, see «Unlocking the buttons.»



⚡ The thermostat of the heater during turning on and as well as during operation of the device controls the device grounding and in case its absence gives the warning (Fig. left) and then, depending on set function(see below), disables heating, waiting for the grounding appearance or after the warning enables the work without the grounding.

Work without grounding

✘ To enable the termination of the heating function during the absence of grounding, as well as turning it off, it is necessary at the time of display 'Grnd' (See above.) press and hold both buttons, then no later than in 1.5 seconds to take out and reinsert the plug into the socket and only once the relevant display (Fig. right) appears, release the buttons.



Work only with the grounding

Attention! Operation of the heater without grounding is not allowed. This function is intended only for device testing during the absence of the socket with an earth connection.

HEATER CONTROL

🔌 During operation of the heater the display shows the room temperature (**thermometer** with a

Heating

🔊 During operation of the heater the display shows the room temperature (thermometer with a measuring range from -9.5 ° C to + 99,5 ° C). "Heating" - heating detector (the point on - full power, flashing point - 50% of capacity).



Attention! Alternately displaying of the temperature and time means that the heater runs the program. ⏱

🔊 Setting the room temperature. Press any button. Appears and starts flashing the setpoint 'C' (Comfort) of the temperature. As long as the value is flashing, by pressing, you can change the set temperature (for auto-repeat it is necessary to hold the button). If the button is not pressed for more than 5 seconds, it will go out of the setting mode (the value stops flashing) *. **In this case, if the temperature value was changed, the work on the program will be shut down!** ⏱



Attention! Do not raise the temperature value for the rapid warm-up of the room, it can lead to unnecessary costs for electricity.

🔒 **Buttons lock (child lock, etc.).** Turn on the heater to the mains while holding down the '+' button and hold it until the appropriate indication and audible confirmation appears. After this the heater will react only with a low beep when buttons are pressed.

Locked



🔓 **Unlock buttons.** Connect the heater to the mains while holding down the '-' button and hold it until the appropriate indication and audible confirmation appears.



Unlocked

Heating turned on →

🔊 **Turning off and on of the heating.** Simultaneously press and hold both buttons (more than 2 seconds) until the appropriate indication and audible confirmation appears.



Attention! When the heating is turned off, LED brightness is lowered and the heater works only in thermometer mode.



Heating is switched off →

🔊 **Viewing the surface temperature of the heater.** Briefly press both buttons. The surface temperature of the heater will be displayed for five seconds, and then the indication of the room temperature (time) renews.



Attention! If the surface temperature of the heater is showed continuously, then the remote sensor is not connected (damaged). Irrespective of the room temperature the heater surface will be warmed continuously to the set value "P" (see below).

🔊 Setting the limit temperature of the heater surface.

During heating according to the room sensor the temperature of the heater surface is automatically set depending on heat losses in the room and can be between room temperature and set top limit. The limit is set at the factory 72/95 ° C (maximum), but you can set it lower (children's room, etc.). Keep in mind that the more you restrict the limit of the heating in the heater, the less area he will be able to warm up.



To set the limit temperature, press any button. It will be displayed and start to blink the set air temperature in the premises 'C'. As long as the value is flashing at the same time press and hold both buttons for at least 2 seconds. After the beep, it is displayed and starts flashing the set limit of the surface temperature of the heater 'P'. Set the new value and wait for 6 seconds to exit from the setting mode.

Without power autoreduction

If you do not have enough electrical power (knock protection switch), you can enable automatic derating of the heater (50%) when it reaches the desired temperature.



✂ To turn on and off this feature, you must during the set up mode limit temperature of the heater surface, simultaneously press and hold both buttons, then no later than 1.5 seconds to take out and reinsert the plug into the outlet, and only once the relevant display release button (see p. 9).



Power autoreduction

WORK ON PROGRAMME ☉

☐ Heater for the program (daily or weekly cycle) which was set to you during each hour will automatically fulfill one of the 6 heating modes:

 – **Comfort**. The set temperature 'C', see p. 1 (if the program is shut down it's supported day and night) is supported in the room;

 – **Econom**. The set temperature is supported in the room 'E' ('C' ± 0 ... 9,5 ° C);

 – **Antifreeze**. The room temperature can drop not lower than below +5 ° C;

 – (No symbol). Heating is not performed

 – The temperature of the heater surface is warmed up to the set value 'P' (see.p. 9) irrespective of the room temperature (the set temperature C is ignored);

 – (symbol flashes). The accelerated achievement of temperature 'C' in the room by heating of the heater surface to the maximum allowable temperature (ignored installed restriction value 'P'). During programming this mode is designated with "C" (dot).

Current heating mode



Turning on the work according to the programm:

① Press any button.

 The set temperature 'C' (see.p. 1) starts to flash.

If necessary, change the temperature value.

② Until the value flashes (5 sec.), simultaneously press and hold both buttons (> 2 sec.)till the audio signal appears.

 The set limit temperature of the heater surface starts to flash(see p. 9). If necessary, change the temperature value.

③ Until the value flashes (6 sec.), simultaneously press and hold both buttons (> 2 sec.) till the audio signal appears.

 The set value of the difference in degrees (-9,5 ... + 9,5 ° C) of the economic temperature relative to comfortable temperature starts to flash, and after 2 seconds - automatically calculated temperature of the Economy. If necessary, change the value (during changing the value of the difference will be displayed!).

④ While the value blinks (7 sec.), simultaneously press and hold both buttons (> 2 sec.) till the audio signal appears.

⑤ The set time (simultaneously the work under the programm is turned on) starts to flash. If you need - set the correct time by pressing the appropriate buttons (for accelerating continue to hold the button) and:

⑤-A. Wait 8 seconds to exit the Setup Mode.

⑤-B. As long as the value is flashing (8 sec.), simultaneously press and hold both buttons (> 2 sec.), till the audio signal appears in order to move to the other setup.



Attention! The heater work according to the program is confirmed by alternate displaying the time and temperature. To turn off the work under the program it's necessary to change the temperatures values 'C' point (see.p. ❶) and move to the next settings by long pressing of both buttons.

*- To avoid the program turning off after the change of temperature value, it's enough to go to the next setting (see.p. ❷) without waiting the autologout.

☐ If the daily program cycle is set will be displayed: 'h' (hour-hour) - the value is not changeable, the next two characters (00 ... 23) - hour of the day, the last character (flashing) - the set heating mode for the displaying hour (description of modes, see the section "**The work on program**"). To view the set program as well as to select the necessary hour of the day, press "+" or "-". To change the heating mode for the displayed hour of the day, simultaneously press both buttons (if you continue to hold the buttons, the selected heating mode will be copied to the next hours with sound proof).

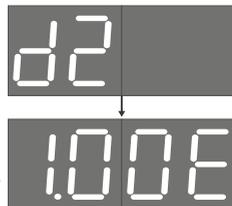


☐ If the program weekly cycle is set, starts to flash the set week value (d1 ...d7). If necessary, change the value. For example, set for Wednesday "03".

Ⓢ As long as the value is flashing (<5 sec.), simultaneously press and hold both buttons at least 2 seconds to move to the setting of programme.

There will be displayed: the first character (1 ... 7) - the day of the week, then similar to settings of the daily cycle (see. above). In this setting is foreseen the ability to copy the program, composed for the day to the next day, as follows: when the mode for the 23th hour, continue to hold the button until the sound confirmation.

Note: If you change the weekly cycle to the daily will run the program of the first day and vice versa. Programs 2 ... 7 th day of the week during the transition from one cycle to another are saved.

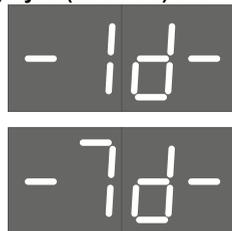


Setting the duration of the program cycle

The weekly cycle(24 hours) is set.



✳ To change the program cycle from daily to weekly week and vice versa ,in the time setting mode (see p. ❸), simultaneously press and hold both buttons, then no later than in 1.5 seconds take out and reinsert the plug into the socket and only after the appearance of the corresponding indication release the button.



The weekly cycle(168 hours) is set.

Note: at the factory is set daily cycle as well as the heating program for dual-zone electricity tariffication: in the period from 7⁰⁰ to 23⁰⁰ the temperature is maintained 'C' (Comfort) in the room, and from 23⁰⁰ to 7⁰⁰ - the temperature 'E' (Economy), which exceeds the comfort on 2°C for the accumulation of heating energy in the walls and objects according to the cheaper night tariffication.

Note: If you do not use the heating on program, but want to see on the display not only the temperature, but also the current time, then set the value for 'E' mode = 00 (if the factory program wasn't changed) or set for each hour of the daily cycle 'c' mode. Turn on the work on program.



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