

# AFRICA THERMO HEATING CONTROLLER

## Operating manual\*

\* for TM Africa heaters of "T" series



- Two-button control
- Indoor air temperature monitoring
- Temperature indication
- Childproofing mode



## HEATER OPERATING MANUAL

The heater is controlled by a microprocessor heating controller, which ensures high comfort level, efficient performance and safety.

Two temperature-sensing elements are involved in the heating:

- the first one controls the indoor air temperature, which enables to minimize power consumption, as well as to set an individual temperature level in each room;
- the second temperature-sensing element controls the temperature of surface of the heater itself, which ensures its safety as much as practical (eliminates overheating in the cases when the mains voltage is increased or the device is covered with something or turned over, enables to limit the temperature in children's rooms, etc.).

A user sets the desirable room temperature. The controller automatically adjusts the temperature of the heater itself depending on the room heat loss (if the relevant function is enabled, the controller also tunes up the electrical network load equal to 100% or 50% of the power).

The heater is switched ON and OFF electronically (free of noise, sparks and interference). The heater works exactly as long as it is required for maintaining the set temperature in the premises, it does not waste a single extra kilowatt of electric power and therefore does not need to be turned off even for the summer period.



- "Comfort" range of setting the indoor air temperature:  $+5\dots+35^{\circ}\text{C}$ , increment of  $0.5^{\circ}\text{C}$ .
- The range of setting the heater's maximum surface temperature:  $40\dots95^{\circ}\text{C}$  ( $72^{\circ}\text{C}$ ).
- The range of setting the time value in hours ( $1\dots12$ ) for the timer.

## REQUIREMENTS FOR EFFICIENT HEATING AND SAFETY

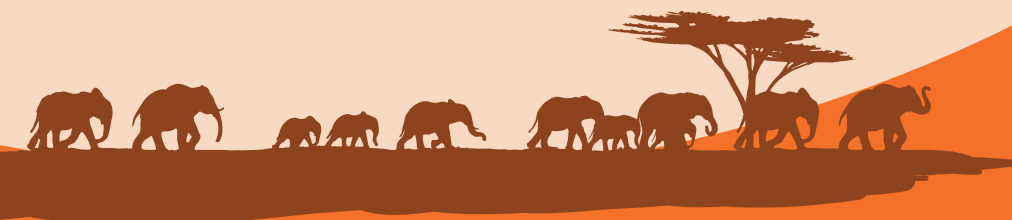
Install the heater. Ensure correct location of the external indoor air temperature sensor, as much as possible eliminating the influence of the heater itself and of other surfaces and of other items which temperature may be significantly higher or lower than the indoor air temperature.

### HEATER CONTROL

During the heater operation (Heating mode) the digital indicator displays the indoor air temperature in the range from  $-9.5^{\circ}\text{C}$  to  $+99.5^{\circ}\text{C}$  (half a degree is displayed with the illuminated dot on the right). Midpoint: frequent flashing — full power heating, flashing at 1 second intervals — heating at a cut in half power).



**Attention!** The temperature display with a change in the illumination brightness (with pulsation) means that the heating is set for a specified time (timer is ON).



## SETTING THE INDOOR AIR TEMPERATURE

Press any button briefly. The set temperature value will be displayed, and will start flashing.

While the value is flashing, a user can change the set temperature via pressing the buttons (the button must be suppressed for auto-repeat). When the buttons are not pressed for more than 5 seconds, the installation mode will be exited. Herewith, if the temperature value was changed, the timer will be disabled!

**Attention! Do not set too high temperature value in expectation of a room faster warming up, this can only lead to unjustified electrical power consumption.**



## BUTTON LOCKING

Insert a mains plug into a socket while the '+' button is pressed and do not release it until the relevant indication ("nL") appears on the screen.

Subsequently the heater will remain operating in the set mode, and it will respond to pressed buttons only through displaying "LoC".



## BUTTON UNLOCKING

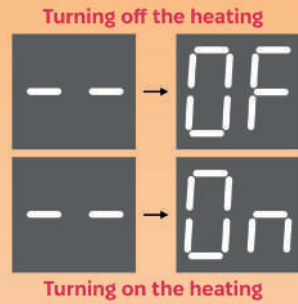
Insert a mains plug into a socket while the '-' button is pressed and do not release it until the relevant indication ("nL") appears on the screen.



## THE HEATING TURN OFF AND TURN ON

Press and hold any button (for more than 2 seconds) until the relevant indication appears on the screen.

**Note!** While the heating is turned off, the indicator brightness is lowered, and the heater operates only in the thermometer mode.

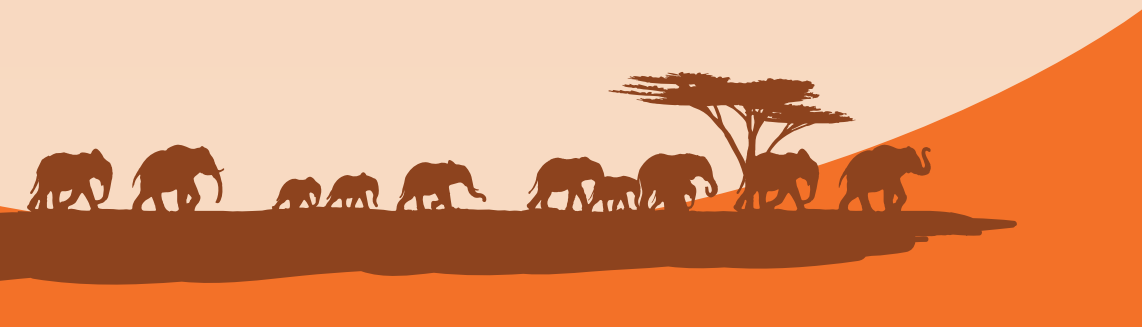


## THE HEATING TURN ON FOR A SET TIME

During the turning on and off the heating mode (see above), dashes (“- -”) will be briefly displayed. Pressing the “+” button in this state will offer heating for 1 hour, and pressing the “-” button will set the heating for 12 hours.

In order to set a different time value in hours (1...12), press the relevant buttons with the pauses not exceeding 4 seconds.

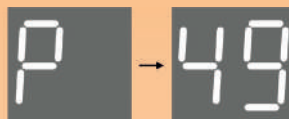
**Note!** The temperature display with a change in the illumination brightness (with pulsation) serves as the confirmation of the heating pursuant to the timer.



## VIEWING THE HEATER SURFACE TEMPERATURE

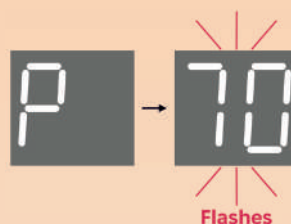
Press both buttons briefly. The heater surface temperature will be displayed during 3 seconds, upon which the indoor temperature indication will resume.

**Attention!** If the heater surface temperature is displayed permanently, it means that the remote (room) temperature-sensing element is either not connected or is damaged. Herewith, irrespective to the indoor temperature, the heater surface will constantly heat up to the "P" set value (see clause 2).



## SETTING THE MAXIMUM TEMPERATURE OF THE HEATER SURFACE

Under the heating mode the heater surface temperature is automatically set at the indoor temperature-sensing element depending on the room heat loss. It can be in the range between the indoor temperature and the set upper limit. The factory pre-set limit is 95°C (maximum), but a user can set it lower (for children's room, etc.). It should be taken into consideration, that the more a user limits the heater heating limit, the smaller is the area which the device will be capable to heat.



Press any button for setting the temperature limit. The set indoor air temperature value will be indicated and will start flashing. While the value is flashing, press and hold both buttons simultaneously for at least 2 seconds. The set "P" value of the heater maximum surface temperature will be displayed on the screen and will start flashing. Set the desired value and wait for 6 seconds in order to exit the setting mode.

## POWER MONITORING

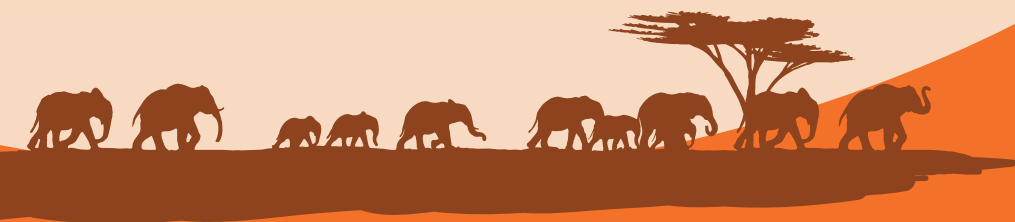
If a user's power supply capacity is not sufficient (protective circuit breaker is tripped out), you can enable the function of automated reduction of the heater power (by 50%) when reaching the set temperature.

For enabling and disabling this function, it is required to press and hold both buttons simultaneously under the mode of setting the maximum temperature of the heater surface (see clause v). Then, no later than upon 1.5 seconds, remove and re-insert a plug into a socket. And only after the relevant indication is displayed (see on the right) release the buttons.

Automatic  
decrease  
is forbidden



Automatic  
decrease  
is permitted



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