

Temperature regulation of connected appliance

TS 10

THERMO- SWITCH SOCKET

DESCRIPTION OF CONTROLS



- Fce** = selection of functions
- ☀ ☾** = selection of temperatures
- i ←** = confirmation (ENTER),
information present
temperatur (**tE:A**), present
time (**CL:O**), sum of
operating hours (**SU:MA**),
and day (**dE:n**)
- /+** = setting of
temperature, time,
functions

Utilization examples:

electric
heating
plates



direct
heating
bodies



electric
tubular
radiators



DISPLAY DESCRIPTION



OPERATING INSTRUCTIONS

After connection in 230V-socket is TS10 immediately ready for use. If sign **dO:bl** is flashing on the display, the back-up battery is not fully charged and it is necessary let the TS10 in 230V-socket to charge for minimal 2 days (full charge take about 4 days). After charging it is possible to remove TS10 from socket without losing the actual time and you can provide the programming outside the 230V-socket. (Maximal backup time is 100 hours).



If we disconnect TS10 from the network 230V, the TS10 comes to standby mode and only actual time will be shown on display (the colon symbol will not be flashing) and the buttons will be functionless. The activation of the buttons you can make by pressing the **i←** button. When the sign **dObI** will be permanently shown on display, it is not possible to make any settings on TS10 without connection into 230VAC

If the TS10 is not in 230V-socket the showed temperature is 2 °C lower than real actual temperature.

1. Functions of TS10

After pushing the **Fce** button you can select following functions by pushing **-/+**

1. **AUTO** : thermo-switch socket works according to program as set.
2. **MANU** : serves for manual setting of temperature (the selection by **☀️☾** or by **-/+** buttons), the temperature should be constant up to next change of mode.
3. **CLO** : setting of present day and time.
4. **PAR** : setting of parameters (constants).
5. **PROG** : programming mode.
6. **OFF** : in this mode is TS10 permanently switched-off .

Note: If you do not push any button in 2 minutes, TS10 returns into set mode. Longer pushing of **-/+** buttons speeds up their functions.

2. Proceed during programming

Before the programming itself, it is necessary to set present day, time and parameters (constants), namely in following way.

Setting of current day and time - " CLO " function

Press the **Fce** button, by pressing **-/+** select CLO (CLOCK) function and confirm by **i←**. Indication of hours blinks on the display, use **-/+** buttons to set required data and confirm by **i←** button. Use the same method for minutes and day (d:1 represents Monday, d:2 Tuesday and d:7 Sunday). After the completion of setting, press **Fce** button to return.



Setting of parameters (constants) - "PAr" function

Parameters serve for setting of temperatures and another functions.

- Press the **Fce** button, by pressing **-/+** select **Par** (Parameters) and confirm by **i←**.
- **PA:r2** shows on the display,



PA:r2 economic temperature (the 17°C temperature is factory - set)



- **PA:r2** shows on the display
- confirm by **i←** and with using of **-/+** buttons set economic temperature and press **i←** button to confirm



PA:r3 comfort temperature (the 23°C temperature is factory - set)



- **PA:r3** shows on the display
- confirm by **i←** and with using of **-/+** buttons set comfort temperature and press **i←** button to confirm



PA:r9 Firmwareversion/ factory setting restoration

- **PA:r9** shows on the display
- Firmware version for information only
- press **i←** button **Fce** button to return.

Restoring the default settings:

- Press the **Fce** button, by pressing **-/+** select function **Par** and confirm by **i←** button
- By pressing **-/+** buttons select **PA:r9**, confirm by **i←**
- Simultaneously press **☀☾** and **-** buttons, it will restore the factory settings!

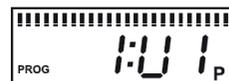
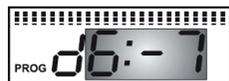
Note: Use only when necessary, all saved changes will be deleted!

Programming- "PROG" function

- Press the **Fce** button, by pressing **-/+** buttons select **PROG** (PROGRAMMING) function and confirm by **i←**.
- By repeated pressing of **-/+** buttons select one of following options:

d:1 Monday	d:5 Friday	d:1:5 Monday to Friday
d:2 Tuesday	d:6 Saturday	d:6:7 Saturday to Sunday
d:3 Wednesday	d:7 Sunday	d:1:7 all week
d:4 Thursday		

Tabel for day selection



- Confirm by **i←**, button. The sign **1:U1** shows on display for setting up of the first time interval
- by pressing **-/+** buttons set the time of first change (min. step of 30 min.)
- assign comfort or economic temperature to the setting time by repeated pressing of **☀☾** button
- Confirm by **i←**, display automatically shows symbol **1:U2** (the second time interval in the first day).

Child lock:

It serves for keyboard blocking, as a protection against unauthorized handling. By simultaneous pressing of **Fce**, ☀ and - buttons the keyboard is locked (*buttons are inactive*). Message LOC (LOCK) is shortly displayed. The function can be cancelled, e.g. the keyboard unblocked, by simultaneous pressing of **Fce**, ☀ and + buttons (the buttons are again functioning from now).



Installation:

1. Connect TS10 in 230V/50 Hz socket.
2. Program it according to instructions (register respective data in the table).
3. Connect the heating body you want to regulate.

Error messages:

If following error message is shown on the display, contact immediately the manufacturer (it is dealing with a failure of temperature sensor).



(ERROR=FEHLER)

Table for registration of your programs

☀ = °C ☾ = °C

Day \ progr.	1	2	3	4	5	6
Mon						
Tue						
Wed						
Thu						
Fri						
Sat						
Sun						

The temperature and time set

THERMO-SWITCH SOCKET

TS10

TS10 is a digitally switched socket for automatic regulation of electrical heating systems (direct heating bodies, towel driers, fires) in family houses, flats, offices. Up to four time intervals with two temperature levels can be set for each day.

Further advantages:

- different temperature program for each day
- the possibility to set 2 temperature levels (☀ , ☾)
- simple control and programming
- possibility to make a short-term change in program temperature
- permanent switching off of the appliance (OFF)
- temperature regulation at steps of 0,5°C
- well-arranged display
- back-up battery NiMH 2,4 V, for more than 100 operating hours

Specification of TS10

Power	230 V/50 Hz
Number of temp. changes	4 temperature changes for each day
Hysteresis	0,5°C
Minimal programming time	30 minute
Range of possible temp.	3 to 40°C
Step of temperature setting	by 0,5°C
Minimal step of indication	0,1°C
Measurement accuracy	± 1°C
Back-up battery	NiMH 2,4 V/ > 100 hours
Output	relay, max. 16 A

Send the socket for guarantee and after guarantee service to manufacturer's address.

CERTIFICATE OF GUARANTEE

(guarantee period for the product amounts to 2 years)

product No.:	date of sale::
	stamp of shop:
examined by::	



ELEKTROBOCK CZ s.r.o.
Blanenská 1763
Kuřim 664 34
Tel./fax: +420 541 230 216
www.elbock.cz

ELEKTROBOCK CZ
MADE IN CZECH REPUBLIC

