BPT37

WIRELESS ROOM THERMOSTAT

BPT37 offers you a variety of applications for temperature control in households, offices or workshops. The transmitting unit features comfortable and simple control. The large, well-arranged display informs you about every current state of the thermostat. Thermal comfort is guaranteed by the possibility of adjusting constants (control system) for various heat sources to economize heating power consumption as much as possible. The new code self-learning system ensures trouble-free operation with high interference immunity. The wireless version enables easy and quick installation; there is no need for complicated and tedious installation of the line between the thermostat and boiler involving floor penetration.

receiver

- Receiver mains supply of 230V/50Hz.
- Receiver with CODE SELF-LEARNING system and E-EPROM memory (saves the code even during voltage failure).
- A THROUGH-WAY receiver socket for connecting another device.

transmitter

cca 35 m

- **Two-way communication** between the receiver and transmitter (high reliability of signal transmission guaranteed)
- **Backlit display**.
- Possibility of locating the thermostat (transmitter) wherever necessary.
- The predictive system (smart timer) guarantees the given temperature at the required time.
- The adaptive regulator evaluates the temperature gradient of the room and is able to determine the necessary time to reach the required temperature.
- The PI regulation system guarantees temperature increase and its subsequent maintenance at optimum power consumption.
- The E-EPROM memory saves all data for an unlimited time even during power failure.
- Selection between PI regulation and hysteresis (0.1 to 1.5 °C).
- Six time periods and temperatures for each weekday.
- Nine weekly programs (optional).
- Even / odd week selection.
- Automatic change to WINTER or SUMMER time.
- Measured temperature of -9 °C to 39 °C.
- Calendar up to 2027.
- Automatic indication of boiler maintenance.
- Indication of boiler operating hours.

ELEKTROBOCK CZ

version 11.02

BPT37 DESCRIPTION- receiver

SWITCHING FUNCTIONS:
AUT - pworking according to program
ON - permanently switched on
OFF - permanently switched off

INDICATING LEDs:

GREEN LIT
- indication of mains connection

ORANGE LIT
- relay closed

YELLOW BLINKING
- signal received

RED BLINKING
- empty E-EPROM memory

RED LIT
- FAILURE (if no signal from the transmitter is detected within approx. 6 hours, it switches to the "2-min-ON / 8-min-OFF" mode.)

YELLOW+RED BLINKING ALTERNATELY
- code learning mode

YELLOW+RED BLINKING SIMULTANEOUSLY
- code has been learned

FUNCTION BUTTON
short press:
start of the code learning mode
long press:
memory clearing
(preset code erased + RESET)

power supply
230 V/50 Hz

potential-free (floating) contact output for boiler connection

through-way socket for connection of another device

THERMOSTAT LOCATION

The transmitter must be located as far from interference sources (TV, PC, etc.) as possible; it must not be placed on a metal base.
For its location, take the thermal properties of the place into account. Owing to bad signal reception, install the receiver as far from large metal objects as possible (at least 0.5 m).
The receiver is functional immediately after connection to 230 V/ 50 Hz – the GREEN LED lights up.
The output switching contact is galvanically isolated from the control unit.
During installation, make sure that no heavy-current lines run along the thermostat.

INSTALLATION PROCEDURE

1. Switch off the main circuit breaker.
2. Connect the boiler to the potential-free contact outputs (use the room thermostat terminals – 2 wires).
3. Connect the receiver to the 230 V/ 50 Hz mains.
4. Switch on the main circuit breaker; the green diode lights up on the receiver; the receiver is ready for operation.

CODE LEARNING (use if the receiver memory has been erased – the red diode blinks):

1, Press the receiver's "**FUNCTION BUTTON**" for about 1.5 sec; the yellow and red LEDs start blinking alternately; and the receiver awaits the code ("learning mode").
2, Push the "**TEST**" button on the receiver; the signal sending sign appears on the display.
3, Receipt of the code in the receiver is indicated by simultaneous blinking of the yellow and red diodes; thus the code has been learnt.
4, After receipt of the code, the output relay is switched several times to verify the correct functioning of BPT37.

TESTING CORRECT CONNECTION:
On completion of the installation, test the correct connection by pushing the Test button on the transmitter.
The boiler will be tested automatically. It switches ON and OFF several times, and the , sign appears on the transmitter display; the orange diode on the receiver indicates that the relay is closed.

We recommend that the installation be done by a person with suitable qualifications in electrical engineering!
Incompetent interference or damage voids the guarantee for the product!

BPT37 DESCRIPTION - transmitter

aerial

backlit character display

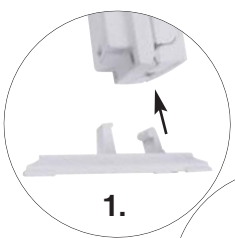
During the day, the backlight is inactive, saving energy. Once it starts getting dark (2 minutes of twilight), the display automatically lights up for approx. 2 s after any button is pushed.

control buttons

external sensor connector

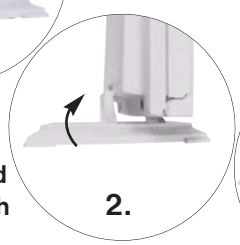
GST1 module connector

battery compartment



stand assembly

1.



2.

3.

Note: The stand is delivered with BPT37

GSM modul

Note: The GSM module is not delivered with BPT37!

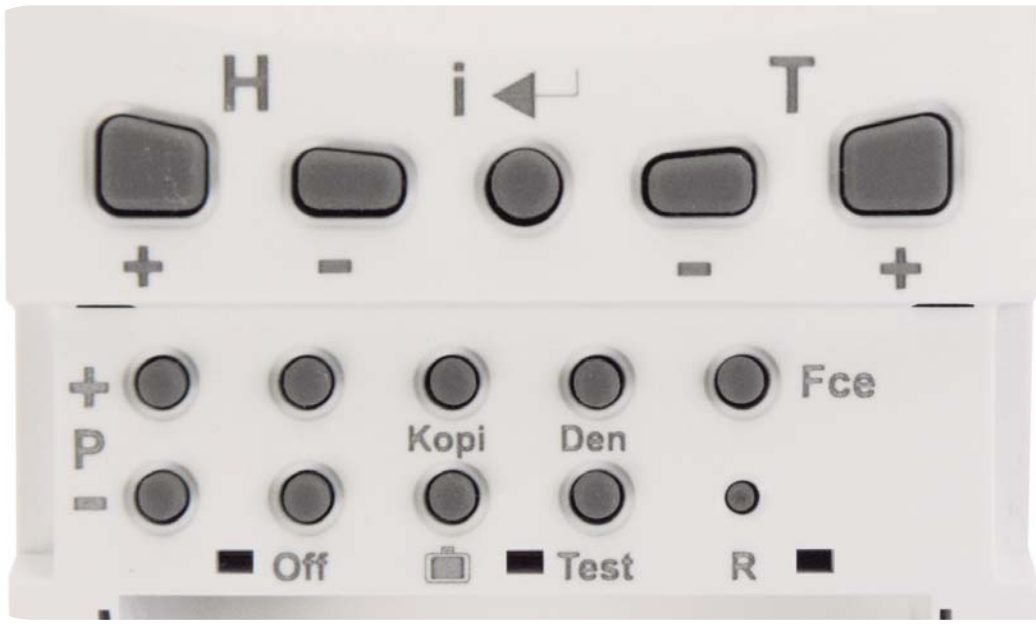
BATTERY INSTALLATION AND REPLACEMENT

- Open the battery cover and remove the protective strip; thus the BPT37 becomes functional.
- During replacement, follow the correct polarity indicated in the battery compartment.
- The batteries must be replaced if the symbol starts blinking on the display.
- Always use alkaline batteries, type 2x1,5V typ AA!

(Note: is equipped with an E-EPROM memory which preserves the data saved even in case of voltage failure)

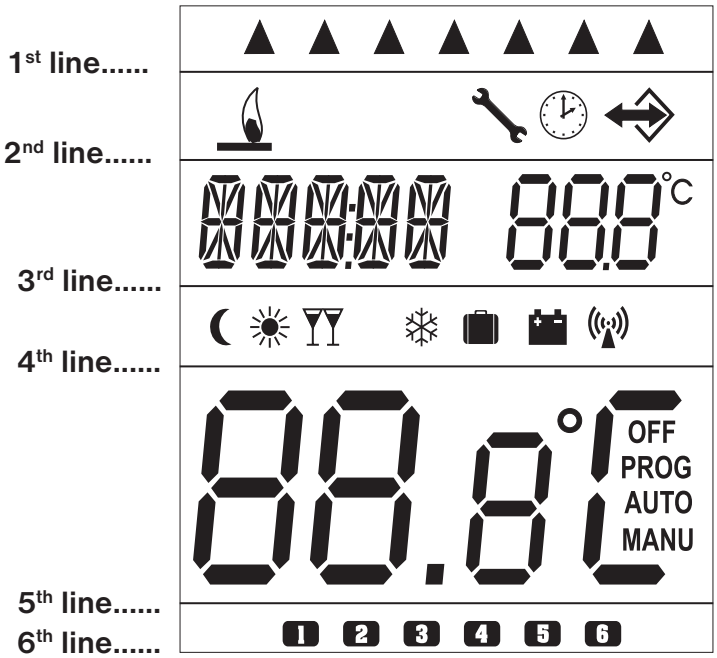
! Dispose of old batteries in conformity with regulations on hazardous waste handling!

BPT37 CONTROL ELEMENTS DESCRIPTION



H + −	clock setting (in the PROG mode) date and time setting (in the holiday mode “ ”) shift when setting the constant 12 - phone number (in the CONST mode) information on current temperature of the sensors (only if CONST is set to 10)
i ↵ ●	enter, confirmation required temperature information display information on boiler operating hours
T + −	temperature change clock and constant setting change browsing if the (Fce) function is chosen
+ ● P − ●	selection of the boiler program (in the AUTO mode) switching programs (in the PROG mode) switching constants (in the CONST mode) switching the ☾ and 🍸 temperatures (in the MAN mode)
● Off	operating hours reset switching off the boiler (temporarily in the AUTO mode; permanently in the MAN mode)
● Kopi	copying days (in the PROG mode)
● 🧳	holiday (info cannot be viewed in this mode) EVEN/ ODD week selection (in the PROG mode)
● Den	day change (in the PROG mode)
● Test	correct connection test (boiler, GSM module)
● Fce	function (mode) selection, see page 6 AUTO, MAN, CLOCK, PROG, CONST
● R	reset

BPT37 DISPLAY DESCRIPTION



1st line

▲ current day indication

2nd line

boiler on indication

boiler operating hours indication

boiler overhaul symbol

current date and time setting symbol, see page 6

external sensor connection symbol

3rd line

variable part of the display
current time and required temperature display/ program number
display of other information explained in detail with every mode

4th line

saving temperature indication (in the MAN mode)

summer mode symbol, see page 8

comfortable temperature indication (in the MAN mode)

anti-freeze mode symbol, see page 10

holiday mode symbol, see page 10

low battery indication

signal transmission / receipt indication

5th line

variable part of the display
current temperature and selected mode (OFF, AUTO, MAN, PROG) display
display of other information explained in detail with every mode

6th line

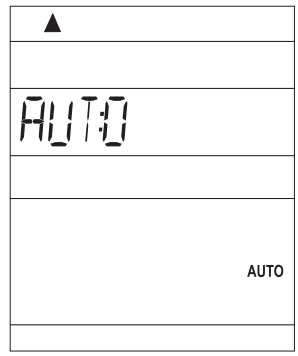
1 program interval indication (max. number of 6 intervals per day)

DESCRIPTION AND SETTING OF BPT37 FUNCTIONS

Make sure you carefully study the first part of the manual describing the device, battery location, button functions and display (LCD) symbols! The next part aims to explain the basic modes and settings of important parameters for the correct functioning of BPT37.

Push the Fce button, and browse the individual modes with the +/- T buttons. To choose a mode, push the i↵ button.

AUTO automatic mode



The system works in the automatic mode according to preset programs.

The boiler program can be changed with the +/- P buttons.

Push the i↵ button to view information:

- **about the required room temperature**, the +/- T buttons choose a short-term temperature change (page 10)
- **about the boiler operating hours**, the Off button resets the operating hours.

Possibilities of LCD display:

1st line - current day
3rd line – from the left: current time or error states, required temperature or program number
5th line – current temperature and selected mode
6th line – program interval

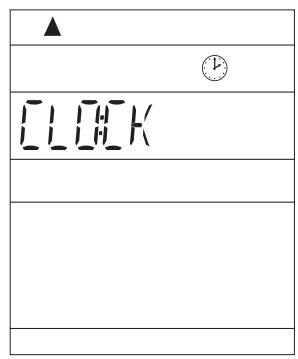
MANU manual mode

The system works in the manual mode.
In this mode, two required room temperatures can be set – an economy and comfortable one.
Selection and setting are done with the +/- P and +/- T buttons.

Possibilities of LCD display:

1st line - current day
3rd line – – from the left: current time or error states, required temperature
4th line – selected temperature – economy ☾ or comfortable 🍸
5th line – current temperature and selected mode

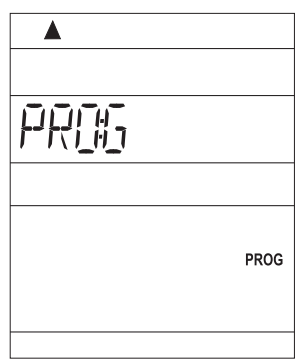
CLOCK setting the current time and date



Successively, push the +/- T buttons to set hours, confirm with i↵ , set minutes and again push i↵ to confirm; continue with seconds, day, month and year. Confirm each setting with the i↵ button.

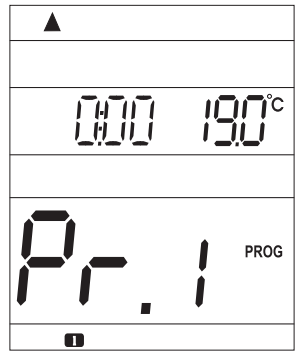
To return, push the Fce button and choose another mode with the +/- T buttons.

PROG programming



BPT37 enables you to set up to 9 different weekly programs.
You can set up to 6 time periods with different temperatures for each day.
After the first start-up, the Pr1 and Pr2 programs are free by default.
The Pr3 to Pr9 programs are preset (see tables on page 7); however, you can change them by request.
When programming, you always set the start point of the temperature change!

Programming procedure of BPT37



- Push the **Fce** button, and choose the **PROG** mode with the **+/- T** buttons. Push **i↵** to confirm.
- Push the **+/- P** buttons to choose the program you want to set (Pr1 to Pr9).
- Push the **+/- H** buttons to set the temperature change start point – the minimum step is 10 minutes.
- Push the **+/- T** button to assign a required temperature to the given time; the step is 0,5°C.
- After setting the first time and temperature, push the **i↵** button to confirm.
- Automatically, you will move on to the second time and temperature setting for the same day, which is indicated by the ❷ symbol on the last, sixth line.
- Continue in the same way until you set the last (sixth) interval.
- Pushing the **i↵** button, you automatically move on to the next day setting, where you can proceed in the same way.

Info: If you do not use all 6 options for one day, move on to the next day by repeatedly pushing the **i↵** button or **Den** button.

Copying days in the PROG mode

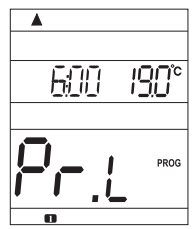
The programming can be sped up in this way. A day's program can be copied to the next day by simply pushing the **Kopi** button.

- The day indicator must be on the day you want to copy to the next day.
- Push the **Kopi** button; the program will automatically be copied to the next day and the day indicator (1st line of the display) shifts to the next day.

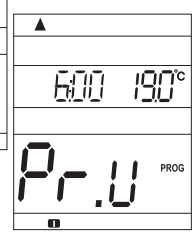
Even / odd week selection in the PROG mode

If you have set the Pr1 and Pr2 programs, you can specify which one should be active in even or odd weeks. After this setting, programs will automatically alternate every week in the **AUTO** mode (suitable when working shifts).

ODD



EVEN



- Push the **Fce** button, and choose the **PROG** mode with the **+/- T** buttons. Push **i↵** to confirm.
- Push the **+/- P** buttons to choose the **Pr1** program
- Push the 💼 button and enter the week in which the program will be active **L = odd, U = even, 1= unspecified**
- The **Pr2** program will be specified automatically.

Programs preset by default

The **Pr3 to Pr9** programs are preset by default; they can, however, be changed, as necessary, like **Pr1 and Pr2** (example: 5/21 means the required temperature of 21 °C at 5 o'clock.)

program No.3	1	2	3	4	5	6
Monday	05/21	06/18	12/20	16/21	18/22	21/18
Tuesday	05/21	06/18	12/20	16/21	18/22	21/18
Wednesday	05/21	06/18	12/20	16/21	18/22	21/18
Thursday	05/21	06/18	12/20	16/21	18/22	21/18
Friday	05/21	06/18	12/20	16/21	18/22	21/18
Saturday	07/21	21/18				
Sunday	07/21	21/18				

program No.4	1	2	3	4	5	6
Monday	06/21	07/18	15/21	18/22	22/18	
Tuesday	06/21	07/18	15/21	18/22	22/18	
Wednesday	06/21	07/18	15/21	18/22	22/18	
Thursday	06/21	07/18	15/21	18/22	22/18	
Friday	06/21	07/18	15/21	18/22	22/18	
Saturday	07/21	18/22	22/18			
Sunday	07/22	18/23	22/19			

program No.5	1	2	3	4	5	6
Monday	08/21	09/18	15/21	18/22	23/18	
Tuesday	08/21	09/18	15/21	18/22	23/18	
Wednesday	08/21	09/18	15/21	18/22	23/18	
Thursday	08/21	09/18	15/21	18/22	23/18	
Friday	08/21	09/18	15/21	18/22	23/18	
Saturday	08/21	18/22	22/18			
Sunday	08/21	18/22	22/18			

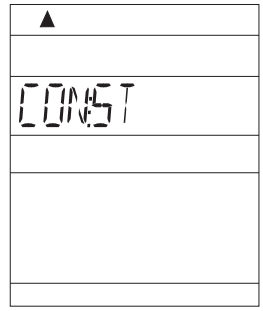
program No.6	1	2	3	4	5	6
Monday	07/21	09/18	15/22	18/23	22/18	
Tuesday	07/21	09/18	15/22	18/23	22/18	
Wednesday	07/21	09/18	15/22	18/23	22/18	
Thursday	07/21	09/18	15/22	18/23	22/18	
Friday	07/21	09/18	15/22	18/23	22/18	
Saturday	07/21	18/23	22/18			
Sunday	07/21	18/23	22/18			

program No.7	1	2	3	4	5	6
Monday	07/22	09/18	15/23	18/24	22/18	
Tuesday	07/22	09/18	15/23	18/24	22/18	
Wednesday	07/22	09/18	15/23	18/24	22/18	
Thursday	07/22	09/18	15/23	18/24	22/18	
Friday	07/22	09/18	15/23	18/24	22/18	
Saturday	08/22	18/24	22/18			
Sunday	08/22	18/24	22/18			

program No.8	1	2	3	4	5	6
Monday	06/20	08/18	14/21	17/22	22/17	
Tuesday	06/20	08/18	14/21	17/22	22/17	
Wednesday	06/20	08/18	14/21	17/22	22/17	
Thursday	06/20	08/18	14/21	17/22	22/17	
Friday	06/20	08/18	14/21	17/22	22/17	
Saturday	07/21	17/23	22/19			
Sunday	07/21	17/23	22/19			

program No.9	1	2	3	4	5	6
Monday	08/23	21/18				
Tuesday	08/23	21/18				
Wednesday	08/23	21/18				
Thursday	08/23	21/18				
Friday	08/23	21/18				
Saturday	08/23	21/18				
Sunday	08/23	21/18				

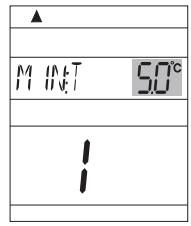
CONST setting thermostat constants



Correct functioning of the thermostat requires setting of the following constants by which you can specify, for example, temperature limits or the method of regulation (hysteresis or PI regulation).

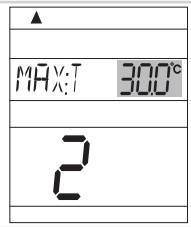
- Push the Fce button, and choose the **CONST** mode with the +/- T buttons. Push i↵ to confirm.
- Push the +/- P buttons to browse the constants (see below).
- After setting with the +/- T buttons, push i↵ again to confirm.

1. MINIMUM REGULATED TEMPERATURE



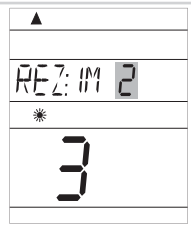
Set limits for the minimum adjustable (required) temperature.
You can choose within the range **2°C to 10°C**.
Make your setting with the +/- T buttons and push i↵; you will automatically move on to the next constant.

2. MAXIMUM REGULATED TEMPERATURE



Set limits for the maximum adjustable (required) temperature.
You can choose within the range **15°C to 39°C**.
Make your setting with the +/- T buttons and push i↵; you will automatically move on to the next constant.

3. PRELIMINARY START OF THE HEATING SYSTEM / SUMMER MODE



Push the +/- T buttons to choose one of the following modes and confirm it with i↵ .

Option 0 = normal mode
Normal operation of the heating system without preliminary heating start.

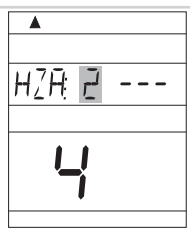
Option 1 = preliminary heating start
This function ensures the required temperature at the required time.
You need not worry about the heating start time to have a warm room when you get up in the morning and, at the same time, not to heat uselessly long before. You just specify when you wish to have the required temperature. Within two days of operation, BPT37 ascertains the temperature constants of the room, and then switches the heating in advance as necessary. The preliminary start time is limited to 2 hours.

Option 2 = summer mode
In this mode, heating cannot be switched on. In particular, the mode can be used in summer, when you need not heat. The " ☀ " symbol appears on the display after you activate the mode.
Note: Anti-freeze protection (3 °C) is functional all the time. **In this mode, you cannot change the temperature or set the holiday mode!**

4. MINIMUM ON-TIME OF THE HEATING DEVICE AT HYSTERESIS

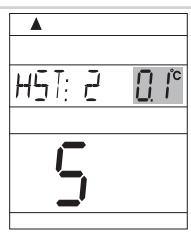
You can set the minimum boiler on-time at hysteresis in minutes. Push the +/- T buttons to make a choice acc. to the heating system type, see the table, and confirm with the i↵ button.

Type of heating	Minimal period of boiler activation
electrical heating	1
gas boiler	2
oil boiler	4
heat pump	5



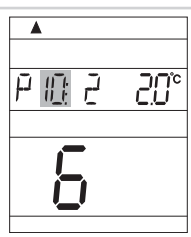
5. HYSTERESIS / PI REGULATION SELECTION

With the +/- T buttons, set the **hysteresis within the range 0.1°C to 1.5°C** (see page 12). If you choose hysteresis, the constants (6, 7, 8), related to the PI regulation parameter settings, are skipped automatically.
If you choose three dashes with the +/- T button, **PI regulation** will be active.
Again, confirm your choice with i↵ .



6. TIME INTERVAL OF PI REGULATION

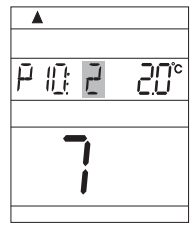
This can be set within the range **5 to 20 minutes**. The interval value is given by the room thermal inertia. Set the value with the +/- T buttons and confirm with i↵ . The optimum setting is 10 to 15 minutes (see page 12).



7. MINIMUM SWITCH-ON TIME OF THE HEATING DEVICE AT PI REGULATION

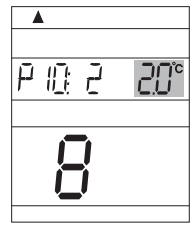
This can be set within the range **1 to 5 minutes**.
The setting is given by the type of heating system and depends on the selected time interval of PI regulation. Set the value with the +/- T buttons and confirm with i↵ .
We recommend you follow the table settings.

Type of heating	Minimal period of boiler activation
electrical heating	1
gas boiler	2
oil boiler	4
heat pump	5



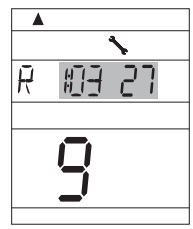
8. PROPORTIONAL BAND AT PI REGULATION

This item determines the value from which the PI regulation starts operating.
Example: The required temperature is 22.0 °C and the proportional band is 1.5 °C. Then, the source will fully heat up to 20.5 °C. Once this temperature is reached, PI regulation starts operating. The PROPORTIONAL band can be set with the +/- T buttons within the range **1.5 to 3.0 °C**. Confirm with the i↵ button (see page 12).



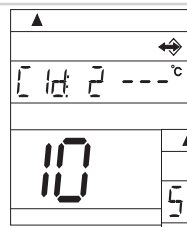
9. BOILER MAINTENANCE INDICATION

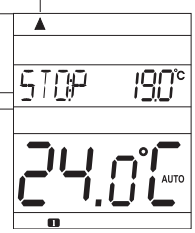
Set the date (day, month and year) on which you wish to be informed of the prescribed boiler service. At the required time, the LCD shows the **Udr** and symbols (the item can be cancelled by entering a new date for the next boiler maintenance!).
Set with the +/- T buttons and confirm with the i↵ button.



10. MAXIMUM TEMPERATURE OF FLOOR HEATING

This constant can only be set if the external sensor is used (page 11).
Set the required value with the +/- T buttons and confirm with the i↵ button.
Choose within the range **15 to 99.5 °C**.
The external (floor) sensor monitors the maximum floor temperature. If the floor temperature reaches the maximum permissible value, the heating device is switched off even if the measured room temperature has not reached the required value.
When the external sensor temperature drops by 0.5 °C, the heating device is switched on again. The **STOP** sign appears on the display.

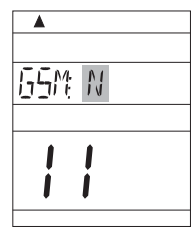




11. GSM MODULE CONTROL SELECTION

Choosing this constant, you can control the central unit via the GSM module.
Options:
GSM: N gsm module is not allowed, constants 12 and 13 are skipped.
GSM: A gsm module is allowed, constants 12 and 13 must be set!

Choose with the +/- T buttons and confirm with the i↵ button.
(The GSM module control is described in detail in the GST1 manual)

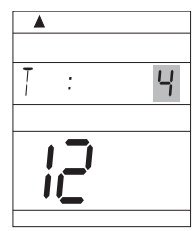


12. PHONE NUMBER SETTING

This constant can only be set in the version connectable to the GST1 module for mobile phone control (see page 10).
Set the phone number in the international format (420123456789 for Czech rep.), **to which SMS reports** about the thermostat state should be sent.

Set with the +/- T buttons and confirm with the i↵ button.

You can browse the numbers with the +/- H buttons.



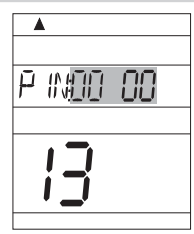
13. PIN CODE SETTING FOR THE SIM CARD USED

This constant can only be set in the version connectable to the GST1 module for mobile phone control (see page 10).

Set the PIN code of the SIM card inserted in the GST1 module.

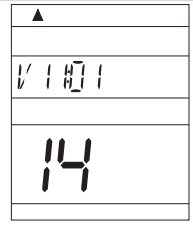
Set with the +/- T buttons and confirm with the i↵ button.

You can browse the numbers with the +/- H buttons.



14. PROGRAM VERSION

This constant cannot be set, it just informs you about the program version.

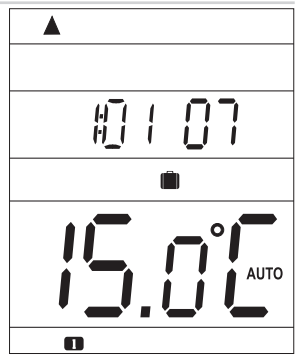


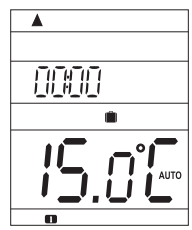
OTHER FUNCTIONS

HOLIDAY

This function is very useful at holiday time, when the house is empty and the temperature need not change.
Always enter the DATE and HOUR of your return from holiday, when you wish BPT37 to resume the preset program (in AUTO or MAN)!

- Choose the AUTO or MAN mode
- push the button.
- Set the date of return from holiday with the +/- H buttons and confirm with the i button.
- Set the time of return and confirm with the i button again.
- With the +/- T buttons, set the temperature which will be kept throughout your holiday until you return.
- BPT37 enters the holiday mode in about 30 seconds.





! Buttons are not functional in this mode (except for Off and) !
The mode can only be cancelled with the button!
TThis mode cannot be set **in the SUMMER mode** (constant 3 set ☀ symbol)!

SHORT-TERM TEMPERATURE CHANGE IN THE AUT MODE

You can use this function if the current room temperature does not suit you at the moment and you need to change it temporarily without further program interference.

This function is possible in the **AUTO** mode; by merely pushing the +/- T button, you can set a temperature other than that in the program. BPT37 will maintain this temperature until the next program change.

RESET

Use the R button only in case of an undefined error – by pushing it, you reset the processor, but all the saved changes will remain in the E-EPROM memory!
If you wish to reset all the preset parameters and programs (programs 3 to 9 and the constants return to default settings), press the Off and R buttons, release the R button, and then the Off button.

ANTI-FREEZE MODE

If the room temperature drops below 3 °C, BPT37 automatically sends a command to start the boiler. As soon as the temperature rises by 0.5 °C, it returns to the preset mode.

GST1 MODULE CONNECTION

The system can be expanded with the GSM module GST1, which enables remote control of the thermostat via a mobile phone. By means of simple SMS messages, you can control the heating or gain status information. The module setting and control are described on pages 12, 13, and in the GST1 module manual.

EXTERNAL SENSOR CONNECTION

You can choose the following functions of the BPT37 thermostat:

- regulation by the temperature measured by the internal sensor of the thermostat

- regulation by the temperature measured by the external sensor of the thermostat

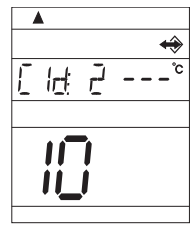
- regulation by the temperature measured by the internal sensor with correction of the maximum temperature of the thermostat external sensor (floor heating)

1, Function – internal sensor

No external sensor is connected; after connection to the heating system, the thermostat measures the room temperature with the internal sensor.
In this case, **CONST10** is **not set**!

2, Function – external sensor

Once the external sensor is connected to the connector (page 3), perform RESET (by simply pushing the RESET button). Verify correct connection of the sensor:: **CONST10** has the **CI:d2** message and the ⇔ sign. However, **do not set** the temperature with **CONST10**!

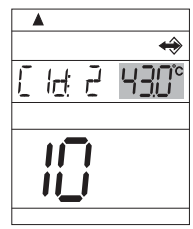


The temperature is measured with an external sensor. The advantage is that you can measure the temperature in a different room from that in which the thermostat is located (regulation of water, floor temperature, technological processes, etc.). With **CONST2** (page 8), you can set a different maximum temperature within the range 15 to 99.5 °C.
Note: After disconnecting the external sensor, you must perform RESET again; thus you re-activate the internal sensor.

3, Function – internal and external sensor = floor heating

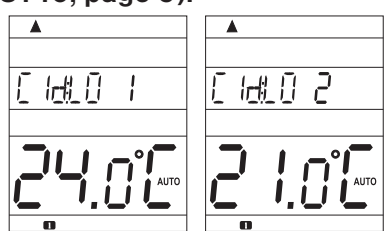
BPT37 monitors the maximum floor temperature and simultaneously controls the room temperature. The thermostat (with PI regulation) regulates the room temperature by the internal sensor (standard thermostat function).

- Connect the external sensor (see page 3), which monitors the maximum floor temperature.
- Perform RESET, the **Ci:d2** message and ⇔ sign appears with CONST10 (indicating correct connection).
- with **CONST10 set the maximum floor temperature at which the thermostat should switch off.** If the room temperature reaches the maximum permitted value, the heating device is switched off even if the measured room temperature has not reached the required value. When the external sensor temperature drops by 0.5 °C, the heating device is switched on again.



It is necessary to set the maximum external sensor temperature (see CONST10, page 9).

To ascertain the current temperature of the internal and external sensor, you can use the +/- H button; the display consecutively shows **CId:LO 1** (for internal sensor temperature) or **CId:LO 2** (external sensor temperature).



THE SENSOR CONDUCTORS MUST NOT RUN PARALLEL WITH POWER CONDUCTORS!

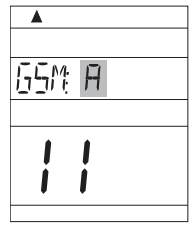
Delivered sensor types:
CT01 C 10kΩ conductor CYXY 2*0.5 mm, length 1.5 m, metal case, for measurements up to 70 °C.
CT01 S 10kΩ silicon conductor, length 1.5 m, metal case, for measurements up to 99 °C.
CT01 P 10kΩ conductor CYXY 2*0.5 mm, length 1.5 m, PVC plastic case, submersible into liquid up to 70 °C.

SETTING DECSRIPTION FOR GSM MODULE GST1

FOR CORRECT COMMISSIONING, THE FOLLOWING PROCEDURE MUST BE OBSERVED!

1. Install and set the thermostat according to the instructions

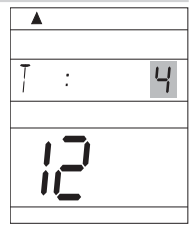
2. Constants 11, 12 and 13 must be set on the thermostat as follows:



CONTROL OPTION BY MEANS OF THE GSM MODULE – CONST 11

Choose the **GSM: A** option with the +/- T buttons and confirm with the i↵ .

PHONE NUMBER SETTING – CONST 12

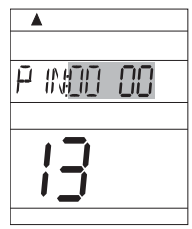


The phone number **to which SMS messages** about the thermostat status **should be sent** must be entered in the international format (0420123456789). (Enter the phone number to which all feedback reports should be sent.)

Set with the +/- T buttons and confirm with the i↵ .

You can browse the preset numbers by means of +/- H .

SETTING THE PIN CODE OF THE SIM CARD USED – CONST 13



Set the PIN code of the SIM card inserted in the GST1 module.

Set with the +/- T buttons and confirm with the i↵ .

You can browse the preset numbers by means of +/- H .

Thanks to this function, you do not have to remember the PIN code of the phone card inserted in the module connected to the thermostat.

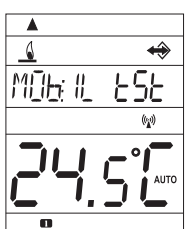
3. Insert an activated SIM card in the GST1 module. The SIM card holder is located in the rear part, once you open the cover at the arrow (see page 2).

4. Connect the thermostat to the GST1 module by means of the (enclosed) data cable; then connect the module to the 230 V / 50 Hz mains via the supply unit!

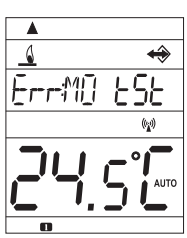
5. After orange LED start lit, push the Test button on the thermostat to test correct connection.

One of the following messages appears on the thermostat display:

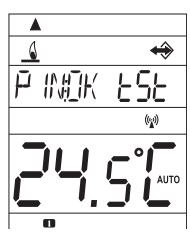
Indicating correct connection of the module



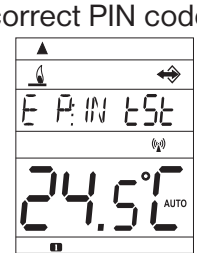
Module not connected, bad connection of the module!



Indicating correct connection of the module and PIN code setting



Indicating correct connection of the module, but bad PIN code setting! You must disconnect the module, RESET the thermostat and enter the correct PIN code!



FORMS OF MESSAGES SENT

Info	Information on the heating system status.
Off	Heating system switched off (temporarily in the AUTO mode; permanently in the MAN mode). To cancel the function, use the Temperature xx message.
Temp xx	Required temperature change (only whole numbers can be entered, within the permitted range of maximum and minimum temperatures).
Call	Back call

xx = temperature value in °C (always a two-digit number, e.g. 05)

Any type of mobile phone can be used for sending and receiving messages!
If you can set the font size (format) in your phone, always use the MEDIUM size when writing messages (if there are three options), or the BIG size (if there are two options).

FORMS OF BACK MESSAGES FROM THE CENTRAL UNIT

Set: xx.x	Temperature required (user set)
Act: xx.x	Current room temperature
On **Off**	Heating system on Heating system off
AUTO **MANU**	Thermostat in automatic AUTO mode Thermostat in manual MANU mode
Sig: x	Signal strength at the site where the module is located; where x is the value within the range 0 to 5: 0 … not determined or no signal detected 1 … the weakest signal 5 … the strongest signal
Battery!	Low battery indicated in the thermostat
Noakcept!	Error indicated (bad SMS entered, etc.)

xx.x = temperature value in °C

THE BACK MESSAGES ARE SENT WITHIN 3 MINUTES!

Note: If the minimum / maximum room temperature (preset constants 1 and 2, see BPT37 manual, page 8) is exceeded, the "WARNING" SMS is automatically sent in the Info form.

Info: If using a credit phone card, you must make a paid call once in 3 months. This call is executed automatically (in 80 days, between 4 and 9 PM) to the phone number entered in the thermostat (CONST 12); after 20 s, the call is terminated automatically.
You can execute this function earlier by means of the "**Call**" SMS message.

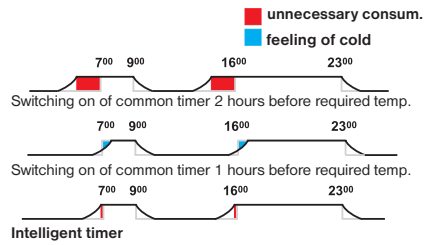
TECHNICAL PARAMETERS

Receiver	
Power supply	230 V/ 50 Hz
Communication	two-way
Frequency	433,92 MHz
Range	300 m (free area) 35 m (built-up area)
Sensitivity	< -102 dBm
Output	relay, max. 16 A
Protection	IP20
Working temp.	0°C to +40°C

Transmitter	
Power supply	2x1,5V alkal. tužkové baterie AA
Communication	two-way, f=433,92 MHz
HF power	< -10 mW
Range	300 m (free area), 35 m (built-up area)
Number of temp. changes	6 temperature changes per day
Hysteresis	0.1 to 1.5°C ,by 0.1°C
Minimum program. time	10 minut
Adjustable temp. range	3 to 39°C
Temperature setting	po 0,5°C
Minimum indication step	0,.°C
Measurement accuracy	±0.5°C
Battery life	1 to 3 years acc. to the battery type used
Protection	IP20
Working temp.	0°C to +40°C

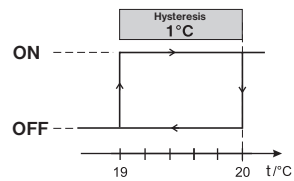
PZT FUNCTION (CONST 3) EXPLANATION

The PZT (preliminary heating start) function ensures the required temperature at the required time.
Within two days of operation, BPT37 ascertains the room temperature constants, and then automatically switches the heating in advance as necessary. The preliminary switching time is limited to 2 hours.



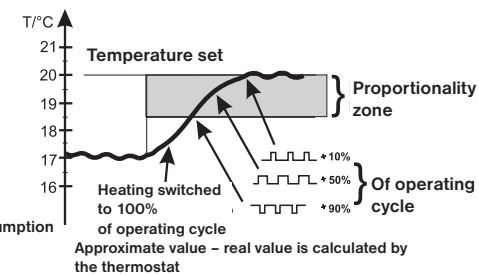
HYSTERESIS (CONST 5) EXPLANATION

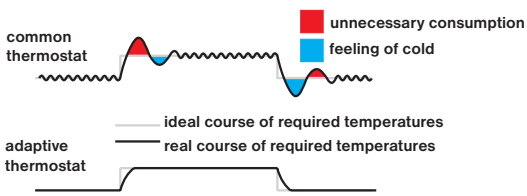
Difference between the required and actual temperature.
The hysteresis can be set from 0.1 to 1.5 °C. If the hysteresis is 1 °C and the required temperature is 20 °C, the thermostat switches off at 20 °C, and switches on again at 19 °C (see the graph).



PI REGULATION FUNCTION (CONST 6, 7, 8) EXPLANATION

The PI regulation principle consists in a comparison of the current room temperature with the required one. The CONST 6 option: when setting the time interval, you must heed the room thermal inertia. The optimum value is 10-15 minutes. However, if the room temperature fluctuates often, we recommend you choose a short time interval. The proportional band defines the value at which the PI regulation starts (CONST 8).





EC-DECLARATION OF CONFORMITY

We, ELEKTROBOCK CZ s.r.o., herewith declare that the product BPT37 conforms to the basic requirements and other corresponding provisions of Directive 1999/5/EC. Issued: 20.12.2007

In case of guarantee or post-guarantee service, send the thermostat to the manufacturer's address.

WARRANTY CERTIFICATE (a 2-year warranty is granted for the product)	
Product number:	Date of sale:
	Shop stamp:
Checked by:	

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

http:// www.elbock.cz

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