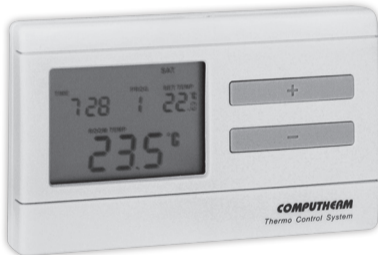# COMPUTHERM Q7

Programmable digital room thermostat

Operating Instructions

You can watch the most important aspects of the usage of this thermostat on our video presentation at www.computherm.info.

GENERAL DESCRIPTION OF THE THERMOSTAT

The **COMPUTHERM Q7** type switched-mode room thermostat is suitable to regulate the overwhelming majority of boilers and air conditioners available in Hungary. It can be easily connected to any gas boiler having a two-wire thermostat connection point and to any air conditioning apparatus or electrical apparatus, regardless of whether they have a 24 V or 230 V control circuit.

The device can be programmed according to customer-specific requirements so that the heating/cooling system heats/cools your residence or office to the required temperature at the dates and times specified
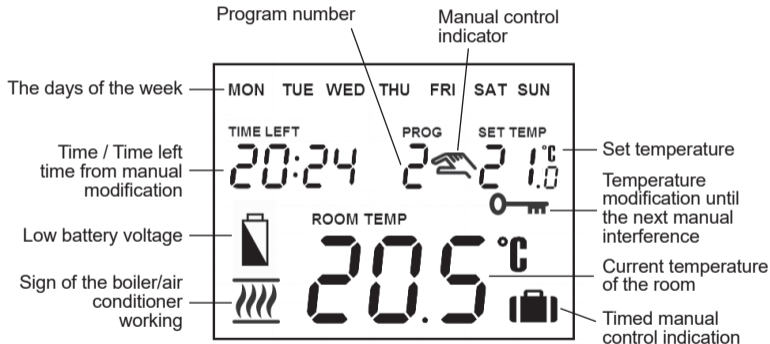
230 V AC
50 Hz
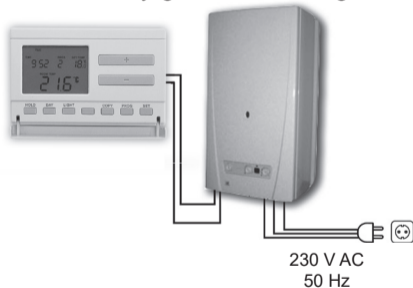
by you, to reduce energy costs while maintaining comfort.

Separate temperature programs can be prepared for each day of the week. For each day, beside 1 fixed switching time (**PROG** *0*), 6 adjustable switching times (**PROG** *1* **– PROG** *6*) can be set (at 10-minute intervals) and a different temperature (in 0.5 °C increments) can be assigned to all 7 switching times.

The simultaneous use of several **COMPUTHERM** room thermostats and one **COMPUTHERM Q4Z** zone controller provides the possibility for the thermostats to also control a pump or a zone valve in addition to starting the heater or cooler. This way it is easy to divide a heating / cooling system into zones, thanks to which the heating / cooling of each room can be controlled separately, thus greatly increasing comfort. Furthermore, the zoning of the heating / cooling system will greatly contribute to the reduction of energy costs, as due to this only those rooms will be heated / cooled at any time where it is required.

## *The information shown on the liquid crystal display of the thermostat includes the following:*

Program number

Manual control indicator

The days of the week — MON TUE WED THU FRI SAT SUN

Time / Time left time from manual modification — **TIME LEFT** 20:24

PROG 2

SET TEMP 21.0 ℃ — Set temperature

Temperature modification until the next manual interference

Low battery voltage

ROOM TEMP

Sign of the boiler/air conditioner working

20.5 ℃ — Current temperature of the room

Timed manual control indication

1. LOCATION OF THE DEVICE

It is reasonable to locate it in a room used regularly or for many hours per day so that it is in the direction of natural ventilation in the room but protected from drought or extreme heat (e.g. direct sunlight, refrigerator, chimney, etc). Do not use in wet, chemically aggressive or dusty environment. Its optimal location is 0,75-1.5 m above floor level.

IMPORTANT WARNING! *If the radiator valves in your flat are equipped with a thermostatic head, adjust it to maximum temperature or replace the thermostatic head of the radiator valve with a manual control knob in the room where the room thermostat is to be located, otherwise the thermostatic head may disturb the temperature control of the flat.*

2. INSTALLATION OF THE THERMOSTAT

WARNING! The device must be installed and connected by a qualified professional. Before installing, make sure that that neither the thermostat nor the device to be controlled is connected to the 230 V mains voltage. Modifying the thermostat can cause electric shock or product failure.

Pressing the lock on the upper side of the housing of the thermostat, remove the back cover of the thermostat as shown in the figure.
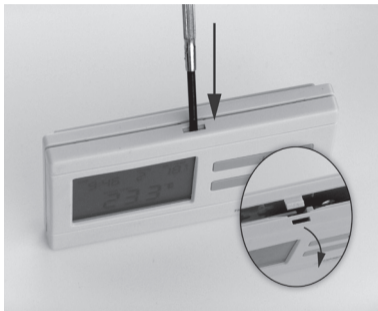
With the help of the screws provided and some tools fasten the rear panel of the device to the wall.

Using a small screwdriver, remove the cover of the terminal block from the inner side of the rear panel.

The thermostat controls the boiler or air conditioner through a potential-free alternating relay that has the following connection points: **1** (NO); **2** (COM) and **3** (NC). These connection points are located under an inner cover on the inner side of the rear panel.

Connect the two connection points of the heating or cooling equipment to be controlled to the normally open **1** (NO) and **2** (COM) terminals of the relay.

If you would like to operate an old boiler or any other device that has no connection points for thermostats, then the **1** (NO) and **2** (COM) connection points of the thermostat should be connected to the mains cable of the device, similarly as a switch would be connected.
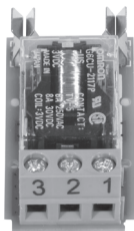
To prevent electric shock, replace the inner cover removed for the connection of wires after the assembling process has been completed.

*ATTENTION! Always consider the loadability of the thermostat and follow the manufacturer's instructions of the heating or cooling equipment. The device must be installed and connected by a qualified professional. The voltage appearing at terminals **1** (NO) and **2** (COM) depends only on the system being controlled, therefore the dimensions of the wire are determined by the type of the device to be controlled. The length of the wire is of no significance.*

3. PUTTING THE THERMOSTAT INTO OPERATION, BASIC SETTINGS

3.1 Inserting batteries

The battery compartment is in the inner side of the front panel of the housing. Insert 2 AA **alkaline** batteries (LR6 type) in accordance with the diagram in the battery compartment.

<u>Warning!</u> Alkaline batteries may only be used for this appliance. Carbon-zinc batteries known as durable or long life batteries and chargeable accumulators are not suitable for the operation of this appliance. Icon ▯ appearing on the display to indicate low battery voltage warns reliably that the batteries should be replaced only when **alkaline batteries** are used.

After the batteries have been inserted, the display flashes the day, time and program number as well as the adjusted and measured temperatures.

(If this information fails to appear on the display, press the "**RESET**" button located on the main panel of the thermostat.) After the batteries have been inserted, snap the front panel of the device into the rear panel and press the "**SET**" button. After the "**SET**" button is pressed, the display stops flashing, the thermostat goes to the main screen and the setting process can be started.

3.2 Setting the current day and time

Press the "**SET**" button to go to the main screen, then press the "**DAY**" button. At this time only the first three letters of the current day will flash on the display of the thermostat and the hour and minute values can be seen.

Using the large ⊞ + ⊞ and ⊞ − ⊞ buttons on the front panel of the device, set the current day (Monday: **MON**; Tuesday: **TUE**; Wednesday: **WED**, etc.). Press the "**DAY**" button again. At this time

the abbreviation indicating the day stops flashing and becomes visible continuously while the numbers indicating the hour will flash on the display. Using the large ➕ and ➖ buttons on the front panel of the device, set the hour value of the current time. Press the "**DAY**" button again. At this time the numbers that indicate the hour stop flashing and become visible continuously, while the numbers indicating the minute will begin flashing. Using the large ➕ and ➖ buttons on the front panel of the device, set the minute value of the current time.

When you wish to continue modifying the settings, please press the "**DAY**" button again. If you wish to finish settings, confirm them by pressing the "**SET**" button. At this point adjusted data are recorded and the device goes back to the main screen (if no buttons are pressed for at least 15 seconds, the settings are automatically confirmed and the device goes back to the main screen).

3.3 Switching between the heating and cooling mode

There is a possibility to easily switch between the heating and cooling mode of the thermostat. The output terminals **1** (NO) and **2** (COM) of the thermostat are closed below the set temperature in heating mode, and they are closed above the set temperature in cooling mode (taking the switching sensitivity into account).

To switch between the two modes, first press the "**SET**" button to go to the main screen. Then press the "**SET**" button again and hold it down and press the "**COPY**" button, too. After this, the notice „𝐻𝐸𝑅𝐹" or „𝐶𝑂𝑂𝐿" appears in place of the time characters, according to the selected mode. Following this, switch between the modes using the large ▬ + ▬ and ▬ − ▬ buttons, then confirm it by pressing the "**SET**" button (if no buttons are pressed for at least 15 seconds, the setting is automatically confirmed). After this confirmation, the device goes back to the main screen.

3.4 Setting the switching sensitivity (accuracy)

The switching sensitivity of the thermostat can be selected by the central jumper, which determines how much below/above the set temperature the thermostat switches on/off the device connected to it. A smaller switching sensitivity results in steadier room temperature and therefore in higher comfort. The heat loss of the room (building) does not depend on the switching sensitivity.

If higher comfort is needed, the switching sensitivity should be set so that it provides a steadier room temperature. On the other hand, please also take into account that the boiler should not switch on and off multiple times in an hour's time except at low outside temperatures (e.g. -10 °C), since the frequent on and off switches of the boiler reduce its efficiency and hence increases the gas consumption. We recommend using the ±0.1 °C switching sensitivity for heating systems with high thermal inertia

(e.g. underfloor heating), the ±0.2 °C (factory default setting) and ±0.3 °C switching sensitivity for heating systems with low thermal inertia (e.g. flat panel radiators).

To change the switching sensitivity, first press the "**SET**" button to go to the main screen. Then press the "**DAY**" and "**COPY**" buttons one after the other. Following this, select the desired switching sensitivity using the large ⎓**+**⎓ and ⎓**−**⎓ buttons. The notices „*5:1*", „*5:2*" and „*5:3*" indicate ±0.1 °C, ±0.2 °C and ±0.3 °C, respectively. Finally, confirm the setting by pressing the "**SET**" button (if no buttons are pressed for at least 15 seconds, the setting is automatically confirmed). After this confirmation, the device goes back to the main screen. You can read more about switching sensitivity in **Chapter 4.**

3.5 Activation of the pump protection function

Under the factory default settings, the pump protection function is inactive. In order to activate or deactivate it, first press the "**SET**" button to go to the main screen. Then press the "**DAY**" and "**PROG**" buttons one after the other. Following this, activate or deactivate this function using the large ⬛ + ⬛ and ⬛ − ⬛ buttons. The notices „ $HP:On$ " and „ $HP:OF$ " indicate activated and deactivated state, respectively. Finally, confirm the setting by pressing the "**SET**" button (if no buttons are pressed for at least 15 seconds, the setting is automatically confirmed). After this confirmation, the device goes back to the main screen.

To prevent the pump from sticking, the activated pump protection function switches on the connected device for a 1-minute period at 12:00 p.m. every day, if no switch has been performed on the given day or the day before (e.g. outside the heating season.)

The pump protection function can accomplish its task only if the boiler is in working order in the summer, too. It is reasonable to set a low temperature level, e.g. +10 °C, on the thermostat for this period, to prevent the boiler from unnecessary start-ups when the weather turns cold temporarily.

3.6 Calibrating the thermometer of the thermostat

There is a possibility to calibrate the thermometer of the thermostat (to correct the measured temperature). In order to do this, first press the "**SET**" button to go to the main screen. Then press the "**DAY**" and "**HOLD**" buttons one after the other. After this, the notice „CAL" appears in place of the time characters, and the correction value appears in place of the measured temperature (0.0 °C by default). Following this, set the desired correction value using the large $+$ and $-$ buttons between -3.0 °C and +3.0 °C, in 0.1 °C increments.

Finally, confirm the setting by pressing the "**SET**" button (if no buttons are pressed for at least 15 seconds, the setting is automatically confirmed). After this confirmation, the device goes back to the main screen. The correction of the measured temperature takes effect a couple of seconds after the confirmation.

4. OPERATION OF THE INSTALLED THERMOSTAT

The thermostat controls the device connected to it (e.g. gas boiler or pump) based on the temperature measured by it and the currently set temperature, taking into account the switching sensitivity of the thermostat (factory default ±0.2 °C). This means that if the thermostat is set to heating mode and 22 °C, then with a switching sensitivity of ±0.2 °C the connection points **1** (NO) and **2** (COM) of the output relay are closed below 21.8 °C (heating is turned on) and opened at

temperatures above 22.2 °C (heating is turned off). In cooling mode, the relay switches exactly the opposite way.

The closed status of the output relay terminals **1** (NO) and **2** (COM) is indicated by the 〰 icon or 〰̄ icon in the lower left corner of the display, depending on the selected operating mode.

5. PROGRAMMING THE THERMOSTAT

5.1 A brief introduction to programming

• Programming means the setting of switching times and selection of accompanying temperature levels. The device can be programmed for a one-week period. Its operation is automatic, and it will cyclically repeat the programs **(PROG 1 – PROG 5)** that have been set. For each day, beside 1 fixed (**PROG 0**) switching time, 6 adjustable **(PROG 1 – PROG 6)** switching times can be set. For all switching

times a different temperature can be assigned between 5 and 40 °C, in 0.5 °C increments. The temperature set for a given switch will remain valid until the start time of the next switch. Accordingly, the thermostat will keep the temperature set for switching time **PROG** 0 until switching time **PROG** 1 is reached. After switching time **PROG** 1 the temperature selected to switch **PROG** 1 will be valid until the time of the next switch (**PROG** 2).

- The start time of switch **PROG** 0 is $00:00$, which cannot be changed, only its temperature can be adjusted. So under the factory default settings, the thermostat performs only one switch (**PROG** 0) every day, which is in effect from $00:00$ until $00:00$ the next day.

Note: Setting just one switch for a day (factory default setting) is reasonable only if a constant temperature is needed all day.

(For example, if for every weekday a constant 16 °C, and for every weekend a constant 22 °C is needed.) Otherwise, from both a comfort and an energy-efficiency point of view, it is recommended to activate more than one switch for each day. Furthermore, it is advised that a comfort temperature is used only those times, when the room or building is in use, since every 1 °C decrease of temperature saves approximately 6% energy during a heating season.

• The **PROG 1** – **PROG 6** switches are deactivated by factory default (their start time is --:--), but they can be activated at need. Their start time can be freely set between 00:10 and 23:50 at 10-minute intervals given the constraint, that their start time should be in increasing order and a difference of at least 10 minutes should be between them. This minimum 10-minute difference is going to be preserved even if a previously activated switch is modified, in order

to avoid co-occurring or overlapping switches. In such a case, the device automatically increases the start time of the affected switches until a difference of at least 10 minutes between them is reached. If the start time of a switch would be later than $23{:}50$ because of this automatic modification, then that switch is deactivated instead.

- In order to enter the programming mode, press the "**SET**" button and hold it down and press the "**PROG**" button, too. **During the programming the values being adjusted are flashing on the display. The modification of these values can always be done using the large ▢ + ▢ and ▢ − ▢ buttons.** The confirmation of a value is always done by pressing the "**PROG**" button, after which the next value can be adjusted. The program can be saved by pressing the "**SET**" button. A more detailed description of the programming steps can be found in **Chapter 5.3**.

- If there are days, for which the same program is needed, than it is

sufficient to create that program only once, since it can be easily copied to another day using the "**COPY**" button as described in **Chapter 5.4.** If the same program is needed for every day, then there is also a possibility to create the program of all the days together (by selecting **MON TUE WED THU FRI SAT SUN** together during the selection of days). But be aware: if the program of all the days are created together, than their program can only be modified together. Therefore, if a different program is needed for at least one day, then the program of the days should be created separately, and the repeated programs should be copied using the "**COPY**" button.

• A separate program can be created for the heating and cooling mode, and these programs are preserved when switching between the modes. Therefore, if the thermostat is used for both heating and cooling, then there is no need to modify the program of the thermostat every time a switch between these modes is performed.

5.2 Recommendations for creating a heating program

The average comfort needs of a person can usually be satisfied by a temperature of 19-21 °C during the night, and a temperature of 22-23 °C during the day. During that time of the day, when the family is at work or school, only a lower temperature is needed. As heating up and cooling down usually takes a long time, it is reasonable to set the start time of the switches 0.5-1 hour before the desired time of the modified temperature. The programmability of the thermostat provides a perfect solution for this.

For an average working family, a program similar to the one below is recommended:

5.3 Programming steps

a. **Press the "SET" button** to go to the main screen.

b. **Press the "SET" button again and hold it down and press**

PROG 0	00:00	20 °C
PROG 1	05:30	22 °C
PROG 2	07:00	18 °C
PROG 3	15:00	22 °C
PROG 4	22:00	20 °C

the "PROG" button, too. At this point the device gets into programming mode and the abbreviations indicating the days of the week (**MON TUE WED THU FRI SAT SUN**) are flashing on the display.

c. **Select the day to be programmed** using the large ⊞ and ⊟ buttons on the front panel of the device (**MON** indicating Monday, **TUE** indicating Tuesday etc.). If you wish to create the same program for each day of the week, it is reasonable

to choose all days of the week simultaneously (by selecting **MON TUE WED THU FRI SAT SUN** together), this way there is no need to perform separate programming of the days. After selecting the desired day(s), press the "**PROG**" button.

d. At this point **the temperature of switch PROG 0 should be set,** which is indicated on the display of the device by flashing the temperature value to be set (20 °C by default). Set the desired temperature using the large + and − buttons, then press the "**PROG**" button.

e. Then, **the start time of switch PROG 1 should be adjusted**, which is indicated on the display of the device by flashing the time value to be adjusted (--:-- by default). Set the desired time using the large + and − buttons, then press the "**PROG**" button.

f. Following this, **the temperature of switch PROG 1 should be set,** which is indicated on the display of the device by flashing the temperature value to be set (20 °C by default). Set this temperature level of switch **PROG 1** using the large [+] and [−] buttons, then press the "**PROG**" button.

g. The next step in programming is the adjustment of the start time of switch **PROG 2**, which is indicated on the display of the device by flashing the time value to be adjusted (--:-- by default). The adjustment process of switches **PROG 2** – **PROG 6** can be done (the same way as switch **PROG 1** is adjusted) by repeating the "**e**" - "**f**" steps.

If you do not want to activate any more switches for the selected day(s), then press the "**PROG**" button without changing the start time of the next switch from the default --:--. This way the programming of the selected day(s) is

finished, the thermostat offers another day to be programmed and the programming can be continued from step "**c**".

If all the switches (**PROG 0** – **PROG 5**) are activated for the selected day(s), then after setting the temperature value of **PROG 5**, the programming of the selected day(s) is finished, the thermostat offers another day to be programmed and the programming can be continued from step "**c**".

h. **The adjusted program can be saved by pressing the "SET" button.** After approximately 1 minute, the adjusted program is automatically saved. Afterwards, the device goes back to the main screen.

If you wish to copy the program of the day(s) selected in step "**c**" to other days, you can easily do so using the "**COPY**" button as described in **Chapter 5.4.**

5.4 Using the „COPY" function (Copying the program of a day to other days)

- First, press the "**SET**" button to go to the main screen. Then press the "**COPY**" button for approximately 3 seconds to activate the "**COPY**" function. The notice "$COPY$" appearing in place of the time characters and the flashing abbreviation **MON** indicating Monday shows that conditions are ready for copying a program.

- Select the day whose program you wish to copy to another day or other days using the large ＋ and － buttons on the front panel of the device.

- Press the "**COPY**" button to copy the program of the selected day. After this, the flashing of the abbreviation indicating the day that has been copied stops and it will be visible continuously hereafter.

- Select the day to which you wish to copy the program of the day copied beforehand using the large ➕ and ➖ buttons. The abbreviation of the active day is flashing during this selection process.

- After selecting the abbreviation that indicates the day to which you wish to copy the program, press the "**COPY**" button to copy the program. Hereafter, the abbreviation indicating the day to which the program was copied will be visible continuously. Following this, you can select further days using the large ➕ and ➖ buttons and copy the program to those days too by pressing the "**COPY**" button.

- Finally, press the "**SET**" button to save the modifications (if no buttons are pressed for at least 15 seconds, the modifications will be automatically saved). Afterwards, the device goes back to the main screen. If required, the program of further days can be freely copied by repeating the above steps.

ATTENTION! *The "COPY" function is only available, if the days of the week were programmed separately!*

5.5 Modifying the program

• The previously set program can be modified any time by repeating the steps of programming.

• The number of activated switches can be increased at will as described in **Chapter 5.3.**

• A previously activated switch can be deactivated by setting its start time to --:-- using the large ▢+▢ and ▢-▢ buttons (or by pressing the "**DAY**" button once), and then pressing the "**PROG**" button. After this, if the deactivated switch was an intermediate one, then the serial numbers of the remaining switches will be updated.

- If you wish to finish modifying the program of the selected day, then press the "**PROG**" button and hold it down for at least 3 seconds. After this, the modification can be continued by selecting another day. When finished with all the modifications, press the "**SET**" button to save them. After approximately 1 minute, they are automatically saved. Afterwards, the device goes back to the main screen.

- If a completely different program is needed, then press the "**RESET**" button located on the main panel of the thermostat to reset the device (it deletes both the program and the basic settings). Following this, adjust the basic settings of the thermostat again and create the new program, as described in **Chapters 3** and **5.**

5.6 Program inspection

• First, press the "**SET**" button to go to the main screen, then press the "**PROG**" button. At this point, the abbreviation indicating the day(s), the symbol of switch **PROG** *0* and the time and temperature level set for switch **PROG** *0* of the selected day(s) will appear on the display (none of the values is flashing).

• Repeatedly press the "**PROG**" button to check the values of switch **PROG** *1*, **PROG** *2*, etc. Use the large **+** and **−** buttons to change the day(s). If all the days were programmed together (**MON TUE WED THU FRI SAT SUN**), then their common program can only be viewed together.

• After checking the program, press the "**SET**" button to go back to the main screen (if no buttons are pressed for at least 15 seconds, the thermostat will automatically go back to the main screen).

6. TEMPORARY MODIFICATION OF THE TEMPERATURE CORRESPONDING TO THE PROGRAM

If you wish to operate your device in a way that differs temporarily from the program that has been set (e.g. on bank holidays or the winter holidays), you can choose among the options described in **Chapters 6.1**-**6.4.**

To simplify manual temperature modifications, with factory default settings temperatures of 22 °C and 18 °C are assigned to the large ➕ and ➖ buttons, respectively. When modifying the temperature manually, pressing the ➕ or ➖ button once, the temperature will immediately jump to the factory value of the button. For example, if the current switch **PROG** 3 ensures a temperature of 22 °C, it can be modified to a standard temperature that ensures 19 °C when needed by pressing the ➕ button only once, without

having to press the ⊞ button several times in increments of 0.5 °C. Following this, using the large ⊞ and ⊟ buttons, the temperature can be further modified in increments of 0.5 °C, in accordance with current requirements.

The economy and comfort temperature values assigned to buttons ⊞ and ⊟ can be modified as follows:

• **To set the economy temperature**, press the "**SET**" button and keep it depressed and press the ⊟ button, too. Following this, with the help of the ⊞ and ⊟ buttons, set the economy temperature selected by you. After the temperature has been set, press the "**SET**" button to save the modification (after approximately 15 seconds, it is automatically saved). Afterwards, the device goes back to the main screen.

• **To set the comfort temperature**, press the "**SET**" button and keep it depressed and press the ⊞ button, too. Following this, with the help of the ⊞ and ⊟ buttons, set the comfort temperature selected by you. After the temperature has been set, press the "**SET**" button to save the modification (after approximately 15 seconds, it is automatically saved). Afterwards, the device goes back to the main screen.

6.1 Temperature modification until the next program switch

Set the required temperature using the large ⊞ and ⊟ buttons on the front panel of the device. After the temperature modification the program number disappears, and the ✍ icon appears on the display, indicating that the thermostat is operated with manual control. The device will control the boiler according to the set value until the time of the next switch specified in the program is reached.

During this temporary modification, the segments indicating the time on the display alternately show the exact time (**TIME**) and the time remaining in manual control (**TIME LEFT**, for example 4:02, that is 4 hours and 2 minutes). After this time has elapsed, the 🖐 icon disappears and the device resumes the program that has been set. If you wish to return to the set program before the time of the next switch is reached, please press the "**SET**" button.

6.2 Temperature modification for 1-99 hours (party program)

Set the required temperature using the large ➕ and ➖ buttons on the front panel of the device. After the temperature modification the program number disappears, the 🖐 icon appears on the display, indicating that the thermostat is operated with manual control. Then press the "**DAY**" button. At this time, the 🖐 icon disappears and the the 💼 icon appears on the display, along with 1 h in place of the the exact time, which indicates the duration of

modification in hours (the number which indicates the hours flashes, showing that the it can be modified). Adjust this time to the desired length (between I and 99) using the large ➕ and ➖ buttons.

The party program will start approximately 10 seconds after the adjustment. Following this, the device will keep the modified temperature for the given period of time. The adjusted temperature can be freely changed during the party program without exiting it.

During this temporary modification, the segments indicating the time on the display alternately show the exact time (**TIME**) and the time remaining in manual control (**TIME LEFT**, for example $3:20$, that is 3 hours and 20 minutes). After this time has elapsed, the 🧳 icon disappears and the device resumes the program that has been set. If you wish to return to the set program before the time set for temperature modification has expired, please press the "**SET**" button.

6.3 Temperature modification for 1-99 days (holiday program)

Set the required temperature using the large ➕ and ➖ buttons on the front panel of the device. After the temperature modification the program number disappears, at this time the ☜ icon appears on the display, indicating that the thermostat is operated with manual control. Then press, and then press the "**HOLD**" button and hold it down for at least 2 seconds. At this time, the ☜ icon disappears, for 2 seconds the 0━ᴍ icon appears, then the 🛅 icon appears in the place of 0━ᴍ icon. This time the 'ᴅ notice appears in place of the time characters indicating the duration of the manual control in days (this number flashes, showing that the duration can be changed). Adjust this time to the desired length (between 1 and 99) using the large ➕ and ➖ buttons (1 day means 24 hours). The holiday program will start approximately 10 seconds

after the adjustment. Following this, the device will keep the modified temperature for the given period of time. The adjusted temperature can be freely changed during the holiday program without exiting it.

During this temporary modification, the segments indicating the time on the display alternately show the exact time (**TIME**) and the days remaining in manual control (**TIME LEFT**, for example 3d, that is 3 days). After this time has elapsed, the 🧳 icon disappears and the device resumes the program that has been set. If you wish to return to the set program before the time set for temperature modification has expired, please press the "**SET**" button.

6.4 Temperature modification until the next manual interference

Set the required temperature using the large ➕ and ➖ buttons on the front panel of the device. At this time, the ✍ icon appears on the display, indicating that the thermostat is operated

with manual control. Then, press the "**HOLD**" button briefly, after which the $0\!-\!\!\!\!-$ icon appears and the ✎ icon disappears. The device will then control the boiler according to the set value until the next manual interference. During this time, the thermostat acts exactly the same way as a non-programmable thermostat. The adjusted temperature can be freely changed during this temporary modification without exiting it.

If you wish to return to the set program, please press the "**SET**" button.

7. TURNING ON THE BACKLIGHT

When you press the "**LIGHT**" button, the background light of the display will turn on for 15 seconds. When you press another button while the display is illuminated, the background light will turn off only after 15 seconds have elapsed since the last button had been

pushed. If you would like the light to turn on automatically after a button is pressed, then press the "**LIGHT**" button for 5 seconds. After this the light will automatically turn on after any button is pressed and will turn off 15 seconds after the the last button had been pressed. Turning the automatic light function on is shown on the display after pressing the "**LIGHT**" button for 5 seconds: in the place of the exact time the notice "L:0n" appears for 3 seconds. If you press the "**LIGHT**" button for 5 seconds again, then this automatic light function turns off and the "L:0F" notice is shown on the display for 3 seconds.

8. LOCKING THE CONTROL BUTTONS

The thermostat enables you to lock its control buttons. With this function, you can prevent unauthorised modification of the program

or the set temperature. To activate the lock, first press the "**SET**" button to go to the main screen, then press the + and – buttons together and hold them down for at least 5 seconds. After the control buttons have successfully been locked, the notice "LOC" appears in place of the time characters for a couple of seconds. Until the control buttons are locked, their normal function do not work; if any button is pressed, then only the notice "LOC" appears and nothing else happens. To unlock press the + and – buttons together and hold them down for at least 5 seconds. After unlocking the buttons, the notice "$ULOC$" appears in place of the time characters for a couple of seconds, whereupon all the buttons can be used normally again.

9. CHANGING THE BATTERY

The average lifetime of the batteries is 1 year, but frequent use of the background light may shorten this time considerably. If the 🔋 icon indicating low battery voltage appears on the display, the batteries should be replaced (see **Chapter 3.1**). The exact time should be set again after the batteries have been replaced, but the device saves the program and the settings that has been loaded even without batteries therefore there is no need to reprogram the device.

<u>Warning!</u> Alkaline batteries may only be used for this appliance. Carbon-zinc batteries known as durable or long life batteries and chargeable accumulators are not suitable for the operation of this appliance. Icon 🔋 appearing on the display to indicate low battery voltage warns reliably that the batteries should be replaced only when **alkaline batteries** are used.

10. RESETTING THE THERMOSTAT TO ITS FACTORY DEFAULT SETTINGS

By pressing the "**RESET**" button located on the main panel of the thermostat, the thermostat can be reset to its factory default settings. This results in deleting the day, exact time, basic settings and the set program. After resetting the device, adjust the basic settings of the thermostat again and create the new program, as described in **Chapters 3** and **4.**

FREQUENTLY ASKED QUESTIONS

When you think that your appliance is operating incorrectly or encounter any problem while the appliance is being used then we recommend that you read Frequently Asked Questions (FAQ) available on our website, where we collected the problems and questions that most frequently occur while our appliances are being used, along with the solutions thereto:

https://www.computherm.info/en/faq

The vast majority of the problems encountered can be solved easily by using the hints available on our website, without seeking professional help. If you have not found a solution to you problem, please pay a visit to our qualified service.

Warning! The manufacturer does not assume responsibility for any direct or indirect damages and loss of income occurring while the appliance is being used.

A BRIEF DESCRIPTION OF PROGRAMMING

- **Setting the date and time:** press the "**DAY**" button, then adjust values using the "**DAY**", **+** and **−** buttons.

- **Programming:** press and hold down the "**SET**" button, while pressing the "**PROG**" button too, then adjust values with the "**PROG**", **+** and **−** buttons; use the "**COPY**" button to copy repeated programmes.

- **Program inspection:** using the "**PROG**", **+** and **−** buttons.

- **Temporary modification of the temperature set in the program:**
  - **until the next switch in the program**: set the temperature using the **+** and **−** buttons.
  - **for a period of 1 to 99 hours**: set the temperature using the **+** and **−** buttons, then press the "**DAY**" button, and finally set the duration using the **+** and **−** buttons.
  - **for a period of 1 to 99 days**: set the temperature using the **+** and **−** buttons, then press the "**HOLD**" button and hold it down for 2 seconds, and finally set the duration using the **+** and **−** buttons.
  - **until the next interference**: set the temperature using the **+** and **−** buttons, then press the "**HOLD**" button briefly.

PRODUCT INFORMATION DATA SHEET:

- Trademark: **COMPUTHERM**
- Model identifier: **Q7**
- Temperature control class: **I. class**
- Contribution to the efficiency of seasonal space heating: **1%**

Remark:

In addition to using modern temperature regulators, the following up-to-date regulation methods also contribute significantly to the improvement of the comfort provided by the heating network, the energy efficiency of the heating network and the coefficient of performance:

- By dividing the heating network into sections or zones (e.g. by means of **COMPUTHERM** *Q4Z* zone controller and the associated **COMPUTHERM** zone valves) and with their separate regulation we can ensure that every room (zone) is heated only when it is necessary. (You can obtain information on the establishment of the heating network and apparatuses and fittings needed for division into zones in our publication titled "**Energy Savings and Comfort**" which is also available on our website **www.computherm.info**).

- Using programmable thermostats you can ensure that every room (zone) is just heated according to a timetable preset in accordance with the demands.

- (You can obtain information on the services provided by **COMPUTHERM** *Q7; Q7RF* and *Q8RF* programmable room thermostats on our website).
- Using modern modular heating devices equipped with an external temperature sensor the boiler can be operated at a higher efficiency.
- Using low temperature heating networks (e.g. 60/40 °C) and condensing boilers the temperature of the flue gas leaving the boiler can be reduced, and this way fuel efficiency can be improved significantly.

TECHNICAL DATA

— **switchable voltage:**	max. 30 V DC / 250 V AC
— **switchable current:**	8 A (2 A inductive load)
— **temperature measurement range:**	3 to 45 °C (in 0.1 °C increments)
— **adjustable temperature range:**	5 to 40 °C (in 0.5 °C increments)
— **temperature measurement accuracy:**	±0.5 °C
— **temperature calibration range:**	±3 °C (in 0.1 °C increments)
— **selectable switching sensitivity:**	±0.1 °C; ±0.2 °C; ±0.3 °C
— **battery voltage:**	2 x 1.5 V **ALKALINE** batteries (LR6 type; AA size)
— **power consumption:**	1.3 mW
— **battery lifetime:**	approx. 1 year
— **storage temperature:**	-10 °C to +40 °C
— **operating humidity:**	5% - 90% (without condensation)
— **protection against environmental impacts:**	IP30
— **dimensions:**	130 x 80 x 23 mm (W x H x D)
— **weight:**	120 g
— **temperature sensor type:**	NTC 3435 K 10 kΩ ±1% at 25 °C

The **COMPUTHERM Q7** type thermostat complies
with the requirements of directives EMC 2014/30/EU,
LVD 2014/35/EU and RoHS 2011/65/EU

**Please watch our video presentation of the most important aspects of the
usage of this thermostat at our websites!**