

## INDEX

## ENGLISH

<b>WARNINGS</b> _____	pag. 29	<b>5 - START THE CHRONOTHERMOSTAT</b> _____	pag. 35
<b>1 - TECHNICAL SPECIFICATIONS</b> _____	pag. 30	<b>6 - PROGRAMMING THE CHRONOTHERMOSTAT</b> _____	pag. 36
<b>2 - INSTALLATION</b> _____	pag. 31	<b>7 - USER AND ENERGY SAVING FUNCTIONS</b> _____	pag. 39
<b>3 - DISPLAY AND KEY OPERATION DESCRIPTION</b> _____	pag. 33	<b>8 - PROGRAMMABLE FUNCTIONS</b> _____	
<b>4 - INSERTING AND REPLACING BATTERIES</b> _____	pag. 34	<b>FOR USE WITH DIFFERENT APPLIANCES</b> _____	pag. 43

## INTRODUCTION

### EN *Dear Customer, thank you for choosing our product.*

The daily or weekly model of the Chronothermostat can control heating systems (wall boilers, burners, local solenoid valves, floor systems) and/or conditioning systems thanks to its HEATING (WINTER) and COOLING (SUMMER) functions.

It comes with a calendar with factory-set date and time.

It automatically changes standard time to summer time and vice versa.

This chronothermostat's main feature is that it can be easily programmed.

It was designed with the user's needs in mind.

Settings can be changed simply by pressing a specific key instead of multiple keys.

There is a key for each weekday (weekly model), as there is a key for increasing or decreasing the temperature at any time during the day.

The chronothermostat is factory-set to differentially turn ON/OFF the temperature. Hysteresis can be set from 0.1°C to 0.9°C, thus adapting to the system's thermal inertia. It can also operate in the modulating proportional mode with cycles whose durations can be set (7-10-15-20 minutes).

This maintains a stable temperature increasing the user's comfort level.

The apparatus can also advance the starting and stopping of the connected device (economy and standard intelligent operation). This allows the desired temperature to be reached at the set time.

The temperature scale is Celsius and it can be adjusted by setting a correction value.

Special attention is paid to energy savings.

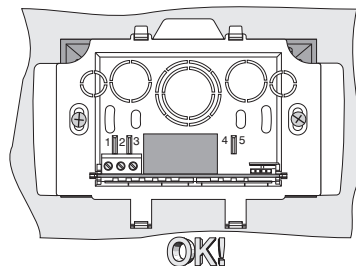
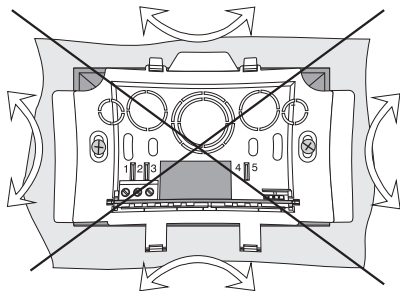
The WEEKEND function, the pause for housekeeping, the optional block of setpoint temperatures (MAX/MIN) saves energy and therefore money (these and other functions are described in the following pages).



## WARNINGS


- The instructions are valid for both the daily and weekend models (the figures shown are for the weekly model).
- Carefully read the instruction manual before using the product as it provides important guidelines regarding safety, installation and use. The instruction manual must be preserved with care for future reference.
- The manufacturer reserves the right to introduce any technical and/or constructive changes deemed necessary, with no prior notice.
- The installation and electrical connection of the devices and appliances must be implemented by qualified personnel and in conformity with current laws and regulations.
- The chronothermostat is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or by those with a lack of experience and knowledge of the instructions, unless they are supervised or have received the necessary instructions concerning use of the device by a person responsible for their safety.  
Children should be supervised to ensure that they do not play with the device.
- Ensure the product is intact once it is removed from its packaging. Packaging components (any plastic bags, PVC suspensions, etc.) must be kept out of reach of children.
- Use only 1.5V type AAA (LR03) alkaline batteries; the use of unsuitable batteries may cause the loss of entered programming. Batteries not included.  
*the product has been tested and its characteristics are guaranteed when alkaline DURACELL or ENERGIZER batteries are used.*
- If a  $0^{\circ}\text{C}$  or  $+50^{\circ}\text{C}$  room temperature flashes on the display, **the measured temperature is beyond the scale.**
- A (steady) "Err" (fixed) message indicates a faulty sensor. All temperature control activities are stopped.
- The chronothermostat is factory programmed. When batteries are inserted, it shows: date, current hour and minutes. If necessary, it can be set manually, following the procedure in paragraph. 6.1.
- If necessary, use a damp cloth to clean the chronothermostat.

The chronothermostat must be installed on a flat wall base (paragraph 2.4). In fact, it can be bent when fixing screws of the rectangular box embedded in the wall (see figure below), are excessively tightened.



EN

# 1 - TECHNICAL SPECIFICATIONS

Supply voltage: _____	N° 2 <b>alkaline batteries</b> 1,5 V each type AAA (LR03)
Working: _____	1 year min.
Type of action, disconnect and device: _____	1/ B / U / Electronic
Type of output: _____	Relay with changeover contact NO / COM / NC voltage free - max 5(2)A/250 Vac
Software: _____	class A
Nominal pulse voltage: _____	4 kV
Wire section at terminals: _____	1,5 mm <sup>2</sup> ÷ 2,5 mm <sup>2</sup>
Insulation: _____	Class II 
Protection degree: _____	IP30
Pollution rating: _____	Normal
Clock precision: _____	± 1 sec/day
Precision read of temperature: _____	± 0,5 °C
Ambient temperature indicator resolution: _____	0,1 °C
Ambient temperature display range: _____	0 °C ÷ +50 °C
Heating temperature range: _____	15 - 17 - 18 - 19 - 20 - 20,5 - 21 - 22 - 23 - 24°C: <b>10 step (levels)</b>
Antifreeze thermal protection (winter): _____	+6 °C (default activated)
Cooling temperature range: _____	20 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 32 - 36 °C: <b>10 step (levels)</b>
Summer thermal protection (anti-heat): _____	+40°C (default excluded)
<b>Temperature adjustment method:</b>	
- differential ON/OFF (default): _____	Setable from 0,1 to 0,9 °C (default 0,3 °C)
- modulating proportional: _____	Setable from 7 - 10 - 15 - 20 minutes (default 10 minutes)
Thermal gradient: _____	1°K / 15 min
Operating temperature limits: _____	0 ÷ +55 °C
Storing temperature limits: _____	-10 ÷ +65 °C
Reference standard for CE mark: _____	LVD/EMC EN60730-2-7 EN60730-2-9



## DISPOSAL OF OLD ELECTRICAL AND ELECTRONIC EQUIPMENT (EU directive 2002/96/EC)

When this symbol is found on the product or on its packaging, it indicates that this product cannot be disposed of as household waste.

It must be delivered to a specific collection point where electrical and electronic equipment is recycled, such as:

- retail outlets, if a new product is bought, similar to that being disposed of
- local collection points (waste collection centers, local recycling centers, etc).

By ensuring that the product is disposed of correctly, you will help prevent potential negative consequences for the environment and health, which can be caused by this product being disposed of inappropriately. Recycling the materials will help conserve natural resources. For more detailed information about recycling this product, please contact your Local Council, household waste disposal service or the shop where you purchased the product.

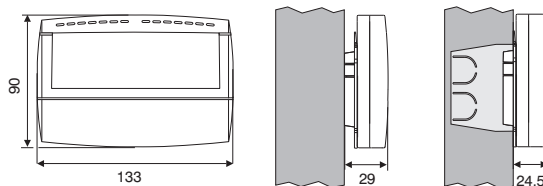
**Attention:** in some EU countries, the implementation of the European Directive 2002/96/CE does not include this product in the field of application, therefore these countries are not obliged to dispose of such products in collection points at the end of the product life.



The equipment contains a non-removable battery and it must not be disposed of as urban waste but recycled in order to protect the environment. Failure to comply with the requirements of EU Directive 2006/66, and the national legislations for implementation of this Directive, for the disposal of products at the end of their service life, is punishable by law.

## 2 - INSTALLATION

### 2.1 - OVERALL DIMENSIONS

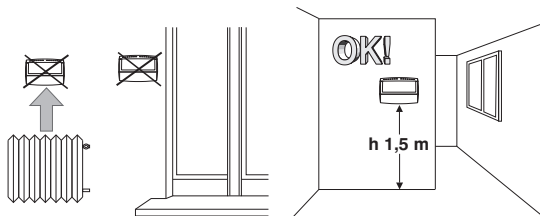


### 2.2 - INSTALLATION GUIDELINES

**Important:** installation and electrical connections of devices and appliances must be carried out by skilled people and in compliance with current regulations. The manufacturer declines any liability in connection with the use of products subject to special environmental and/or installation standards.

**Installation of device: independent - fixed**

- wall mounting - on the back round box - on rectangular flush mounting box (3 modules)
- Install the chronothermostat at a height of  $1,5 \div 1,7$  m from the floor, far from heat sources, windows and anything that might modify de standard operational mode.



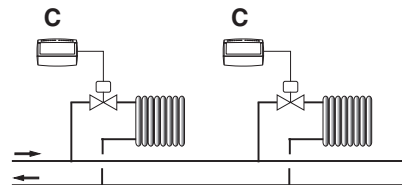
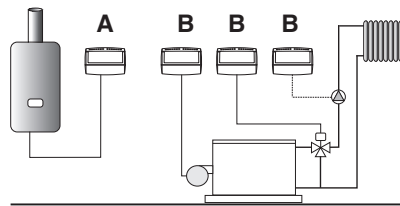
### 2.3 - EXAMPLES OF INSTALLATION

**Attention:**  
**disconnect the 230V~ mains voltage**

Heating systems with a chronothermostat that controls:

- A) Wall mounted boiler
- B) Burner or Circulation pump
- C) Solenoid valve

*Note: the examples given in this documentation are indicative.*



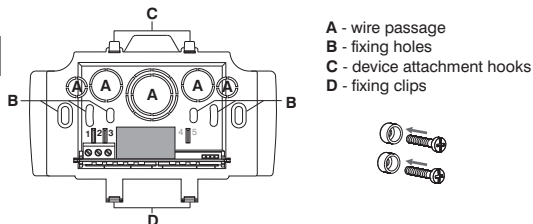
EN

## 2 - INSTALLATION

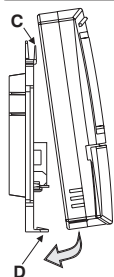
### 2.4 - FIXING BASE AND DEVICE

- Isolate the controlled appliance from the electrical power supply.
- Using screws, fixing the base to the wall or to the back box using holes **B** provided. If the thermostat base is to be fastened onto a metal wall, apply the two special insulating washers to the two screws.
- Make the electrical connections and fix the device on the base, taking care to insert the contacts correctly, then exert light pressure until you hear the click of the attachment hooks.

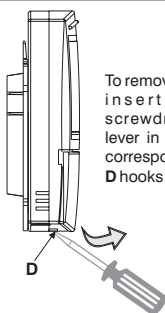
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**!** To ensure the thermostat is fitted correctly to the wall-mounted base, the latter must not be bent due to the screws being tightened too much to the rectangular recessed box.



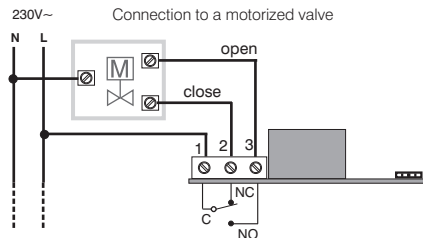
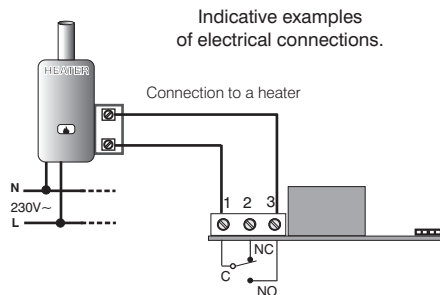
Place the device on the **C** hooks and fix it with a slight pressure



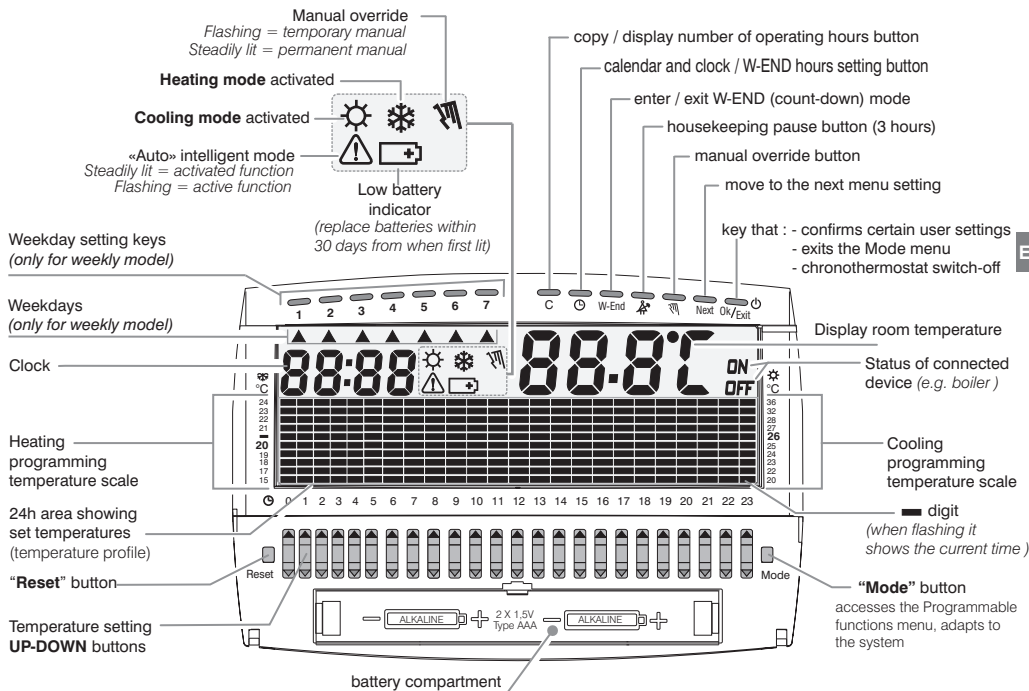
To remove the device insert a small screwdriver as a lever in the position corresponding to the **D** hooks

### 2.5 - ELECTRICAL CONNECTIONS

- Turn off the electrical power to the wiring.
- Connect the controlled device to the terminals:
  - 1 - common
  - 2 - normally closed contact
  - 3 - normally open contact




### 3 - DISPLAY AND KEY OPERATION DESCRIPTION



**Note:** whenever any key is pressed (with sound activated), the chronothermostat will BEEP if the action is correct or BOOP if you are performing an operation that is not correct.

Further details on display and button functions are described in the related paragraphs.

## 4 - INSERTING AND REPLACING BATTERIES

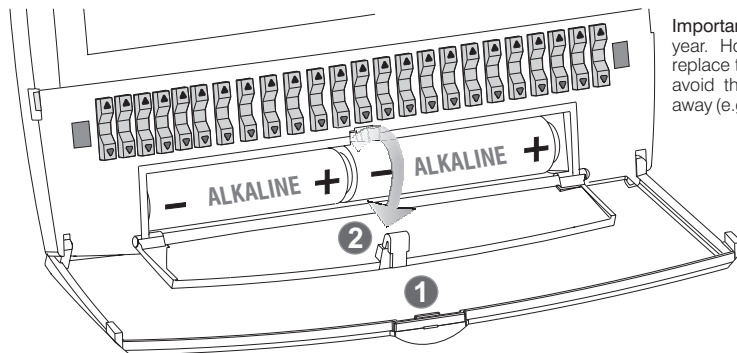
When the  (steadily lit) symbol appears the batteries are low; there are approximately 30 days left to replace them. If within this time the batteries are not replaced the display will not turn on.

All temperature control activities will stop.

The settings remain in the memory and will be restored when new batteries are inserted.

### How to insert and replace batteries:

- open the front key cover **1**
  - open the battery cover **2**
  - Insert or replace the dead batteries with two **ALKALINE** 1.5 V type AAA (LR03) batteries, paying attention to their polarity
- ONLY USE GOOD QUALITY ALKALINE BATTERIES** (*Duracell or Energizer batteries are recommended*)
- close the battery cover **2**
  - close the front key cover **1**



**Important:** battery life may be more than 1 year. However, it is recommended to replace them at least every 12 months to avoid them running out when you are away (e.g. Christmas holidays, etc.)



Dispose of flat batteries in appropriate containers and as required by the environmental protection regulations.

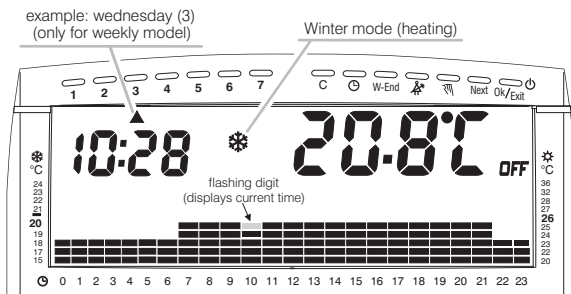
## 5 - START THE CHRONOTHERMOSTAT

### A) First start

After the batteries are inserted, the chronothermostat carries out a lamp-test on the display.

After the test, the factory **programmed chronothermostat is immediately operational**, displaying:

- current hour and minutes;
- current day (only for weekly model);
- **Winter «heating»** mode with temperature profile (from 00:00 to 6:59 set at 18°C, from 7:00 to 21:59 set at 20°C, from 22:00 to 23:59 set at 18°C).
- the flashing digit in the temperature profile shows the current hour.



### ⚠ Attention!

if **ON** and **OFF** are both not lit, the chronothermostat is not properly inserted into the base with relays secured to the wall.

If the chronothermostat is programmed before being fastened to the wall-mounted base, once installation is completed, the **ON** or **OFF** indicator on the display may not correspond to the actual state of the relay. Within 1 minute (max) after having fastened the thermostat to the wall-mounted base, the relay will be activated in accordance with the **ON** or **OFF** indication displayed.

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In order for the chronothermostat to follow the temperature profile the time and day must be current. Otherwise update them as described in paragraph 6.1: **Change year, month, day, hours and minutes (current).**

Adjust the setpoint temperature (level) with the 24 **UP-DOWN** buttons (one for each hour of the day). Change the programmed temperatures over 24h according to the current day and weekday needs (only for the weekly model) - see paragraph 6.2.

**Important:** to go from the Winter ❄ (heating) to the Summer ☀ (cooling) operating mode see chapter 8, paragraph 8.2.

**note:** the temperature profile in Summer mode is factory set from 00:00 to 23:59 set at 26°C (which can be changed).

### B) Following starts

The chronothermostat will maintain, even without batteries, current time and weekday (weekly model), user program and the set options.







The current date and time can, however, be manually updated (see par. 6.1).



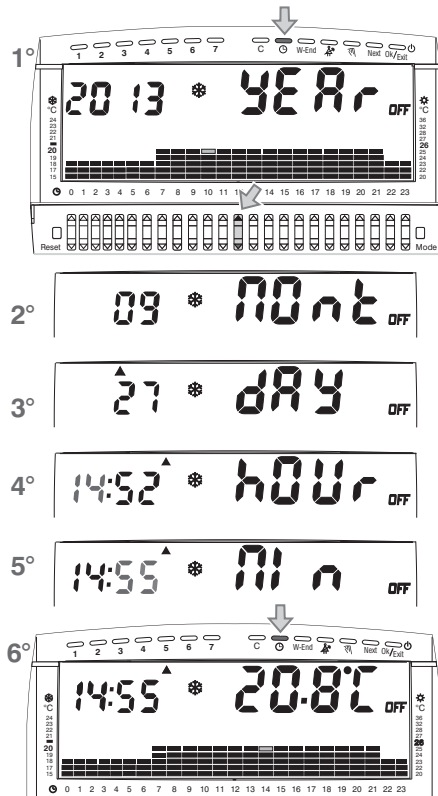
## 6 - PROGRAMMING THE CHRONOTHERMOSTAT

To simplify programming, the chronothermostat is factory-set. During the first start or when required, if the **current day** (only for the weekly model) and **time** are incorrect, use the change procedure described below.

### 6.1 - CHANGE: YEAR- MONTH - DAY HOUR - MINUTES (CURRENT)

- 1° Press the  button: “**YEAr**” appears on the right and the actual year on the left. Change, if necessary, the current year (from 2012 to 2075 max) by repeatedly pressing one of the UP/DOWN keys.
- 2° Press the  button: “**MOnt**” appears. Change, if necessary, the current month by repeatedly pressing one of the UP/DOWN keys.
- 3° Press the  button: “**dAY**” appears. Change, if necessary, the current day by repeatedly pressing one of the UP/DOWN keys. Note: **only for the weekly model** does the flag (▲) of the day of the week (1 ÷ 7) automatically move.
- 4° Press the  button: “**hOUr**” appears. Change, if necessary, the current hour (first two digits to the left) by repeatedly pressing one of the UP/DOWN keys.
- 5° Press the  button: “**MIn**” appears. Change, if necessary, the current minutes by repeatedly pressing one of the UP/DOWN keys.
- 6° Press the  button to save the new settings and return to normal chronothermostat operation.

**important:** if the procedure is not completed up to point 6 the chronothermostat will automatically return to normal operation 1 minutes after a button was last pressed. Any changes will not be saved.

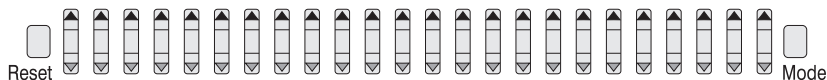


## 6 - PROGRAMMING THE CHRONOTHERMOSTAT

### 6.2 - SETTING THE DESIRED TEMPERATURE

The programmable chronothermostat allows setting the temperature for each hour of the day, and different programs for each day of the week (weekly model), ensuring the optimum room temperature for the user's every need.

#### 6.2.1) TEMPERATURE ADJUSTMENT



There is an **UP-DOWN** key corresponding to every hour. Pressing the upper part of the ▲ key (red), increases the temperature setting; pressing the lower part ▼ (blue), decreases it. The device immediately displays the temperature change in the temperature indicator area and shows the level set on the ambient temperature display. 8 seconds after the last UP-DOWN key is released, the display returns to show the room temperature, 8 seconds after the last UP-DOWN button was pressed. Any setting changes will be memorised 60 seconds after the last button was pressed.

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**Note:** the maximum and minimum Set (level) temperatures can be blocked (see chap. 8 - PROGRAMMABLE FUNCTIONS).

#### Winter «antifreeze» thermal protection

Decreasing the temperature in **Winter mode** ❄ until **15.0°C** is reached (ex. in fig. 1), when pressed again the antifreeze temperature will appear **06.0°C** (ex. in fig. 2). If the antifreeze is switched off three dashes **- - - °C** will appear (see paragraph 8.9).

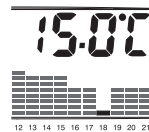


fig. 1

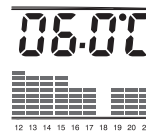
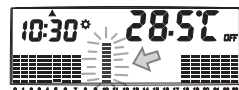


fig. 2

#### Summer «anti-heat» thermal protection

Increasing the temperature in **Summer mode** ☀ until **36.0°C** is reached (ex. in fig. 3), when pressed again three dashes will appear **- - - °C** (ex. in fig. 4), indicating that the summer (anti-heat) thermal protection is switched off. If the anti-heat is activated (see paragraph 8.10) **40.0°C** will appear and the column with 10 (digit) temperature levels will disappear.



**Note:** 10 flashing simultaneously temperature levels (digits) indicate that the current time is in the program of an «anti-heat» thermal protection (activated or switched off).



fig. 3

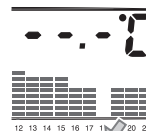


fig. 4

## 6 - PROGRAMMING THE CHRONOTHERMOSTAT

### 6.2.2) SETTING THE DAILY DESIRED TEMPERATURE

- set the desired temperature for each hour (24h) with the **UP/DOWN** buttons as described in par. 6.2.1.

### 6.2.3) SETTING THE DESIRED WEEKLY TEMPERATURE (only for the weekly model)

- Select the day of the week programmed by pressing the corresponding key: the indicator of the selected day flashes on the display and the set temperature profile appears.
- Newly set the desired temperature for each hour of the day (24h) with the **UP/DOWN** buttons as described in paragraph 6.2.1
- 8 seconds after a set button is pressed the chronothermostat will go to the current day.
- Several days can be programmed at a time without waiting for the current day to be displayed. Simply press the button of the desired day.

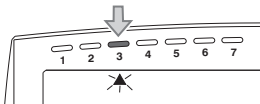
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### 6.2.4) COPYING THE TEMPERATURE SETTING (weekly model only)

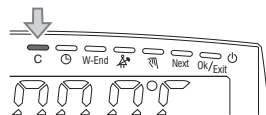
In the example shown at the side, the setting for day 3 is copied to days 1,2,4,5.

From normal chronothermostat use:

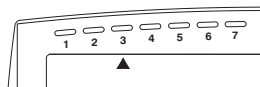
- 1° Select the day of the week that you wish to copy. The corresponding indicator will flash.



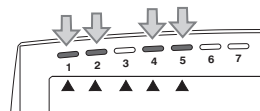
- 2° Press the key **C**



- 3° The previously selected day stops flashing.

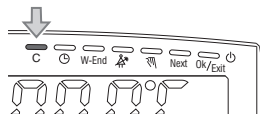


- 4° Press buttons of days 1,2,4,5;



*note: in case of error, with the selection buttons turn off the indicator/s of the day/s that must not change.*

- 5° Press **C** to copy the programming. The chronothermostat resumes normal operation.



*At any time the set daily temperature profile of any day can be **displayed** by pressing the key (the indicator flashes). After 8 sec the chronothermostat resumes normal operation displaying the current day and temperature profile.*

## 7 - USER AND ENERGY SAVING FUNCTIONS

**7.1 - CHANGE: YEAR - MONTH - DAY - TIME - MINUTES (CURRENT)** see paragraph 6.1

**7.2 - READING THE TEMPERATURE PROFILES (only for the weekly model)**

At any time the set daily temperature profile of any day can be **displayed** by pressing the key (the indicator flashes). After 8 seconds the chronothermostat resumes normal operation displaying the current day and temperature profile.

### 7.3 - MANUAL OPERATION

Two manual operating modes are possible, with a pause in the current program:

#### 7.3.1) TEMPORARY MANUAL OPERATION

From normal chronothermostat operation, press **once** for temporary manual override. The symbol flashes and the set temperature for the current hour is applied to the remaining hours of the current day.

**Temporary manual operation stops automatically at midnight of the current day.**

During this temporary manual override period, the desired temperature can be selected by pressing any **UP-DOWN** button. This increases or decreases all the digits from the current time to midnight.

The temporary manual override period can be interrupted in advance by pressing **once** (flashing symbol disappears).

#### 7.3.2) PERMANENT MANUAL OPERATION

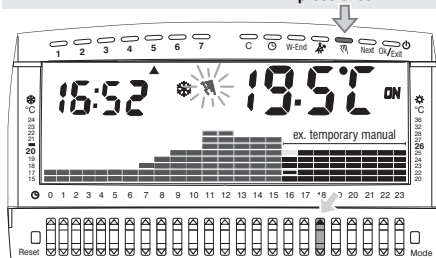
From normal chronothermostat operation, **press twice**. The symbol is **steadily lit** on the display and the set temperature for the current hour is applied to all 24 hours of the day.

During this permanent manual period the desired temperature can be selected by pressing any **UP-DOWN** button. This increases or decreases all the digits of the 24 hours.

**Permanent manual operation is activated indefinitely.**

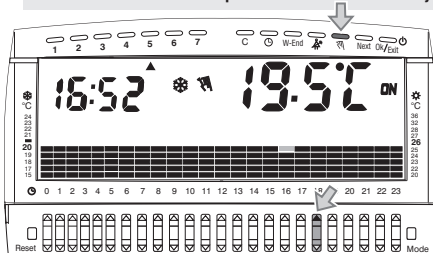
To deactivate it and return to programmed operation press the button **once** (steady symbol disappears).

to activate TEMPORARY MANUAL from normal operation  
press once





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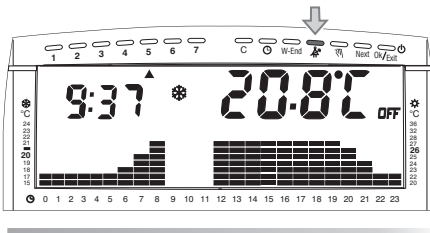
to activate PERMANENT MANUAL from normal operation  
press two times consecutively



## 7 - USER AND ENERGY SAVING FUNCTIONS

### 7.4 - SUSPENDING THE SYSTEM FOR CLEANING

From normal chronothermostat operation, by pressing the  key, the programmable thermostat will turn off the system for three hours, placing itself in the anti-freezing position (winter) or disabling the cooling (summer). This function has been designed to avoid wasting energy in all of those cases (such as household cleaning) when it is necessary to keep the windows open. The activation of the suspension program is displayed by the disappearance of the display segments corresponding to the three hours starting from the current hour. After 3 hours the chronothermostat returns to the interrupted program. To return to the interrupted program before 3 hours press . The missing digits will reappear on the display.



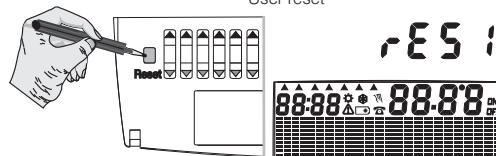
User reset

### 7.5 - RESET

The chronothermostat is equipped with a «user» and «general» reset that restores the factory settings.

#### 7.5.1) USER RESET

When there are display anomalies, faulty operation or to delete changes done in the last minute, gently press the **Reset** button with a pointed object. The display shows **rES 1**, followed several seconds later by a lamp-test, after which it is in the normal operation conditions.



#### 7.5.2) GENERAL RESET

**General Reset is for the installer or expert user. In fact, this operation deletes any previous settings and programs carried out according to the type of system.**

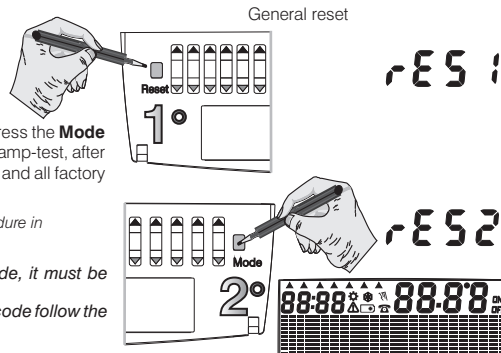
Gently press the **Reset** button and release it. When **rES 1** appears, press the **Mode** button. The display shows **rES 2**, followed several seconds later by a lamp-test, after which it is in normal operation conditions in the Winter (heating) mode and all factory settings are restored.

**Note:** to update the day (weekly model), hour and minutes follow the procedure in paragraph 6.1.



*If the General Reset operation is protected by a secret code, it must be entered as per the example in par. 8.1.*

*Note: this code will be deleted after the reset (to enter a new code follow the procedure in par. 8.13)*



## 7 - USER AND ENERGY SAVING FUNCTIONS

### 7.6 - WEEKEND PROGRAM (ex. when on a vacation)

*This function optimises consumption when no one is home for several days, without changing the program of the set temperature profile.*

From normal chronothermostat operation, to activate the WEEKEND program and set in terms of hours (from 1 to 999) do the following:

**ex. set 168 hours corresponding to 7 days of absence.**

Press the **W-End** key. The **C001** counter is displayed with the first digit (hundreds) flashing. Repeatedly press the  $\odot$  button to set the value desired (from 0 to 9).

Press the **Next** button to go to the second digit (tens). Repeatedly press the  $\odot$  button to set the value desired (from 0 to 9).

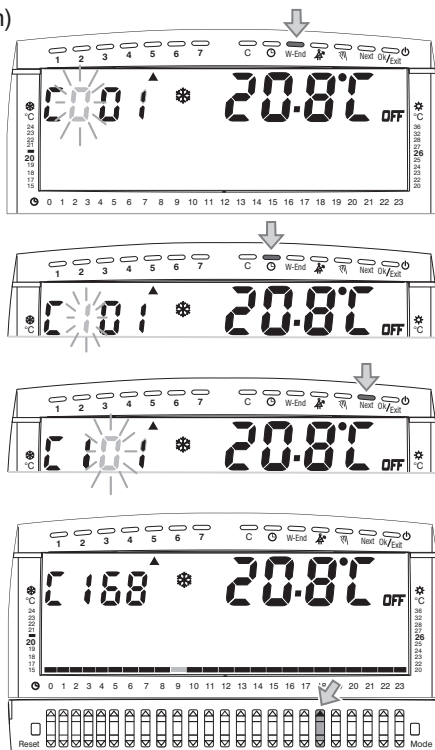
Press the **Next** button to go to the third digit (units). Repeatedly press the  $\odot$  button to set the value desired (from 0 to 9).

*Note: in case of error, the entered numbers can be changed at any time. Repeatedly press the **Next** button to go to the desired field and change the number with the  $\odot$  button.*

Enter the hours of absence desired (ex. C168) in order for the chronothermostat to start the countdown and the **W-End** program to keep the device deactivated. Once the countdown is completed, the chronothermostat will restore your normal temperature profile in order to re-establish the household temperature upon your return.

**Note:** during the **W-End** program the chronothermostat automatically uses, for **Winter mode**, the antifreeze temperature of 6 °C (three dashes if the antifreeze temperature is switched off). In **Summer mode**, it uses «anti-heat» protection (three dashes if switched off, 40 °C if activated). In both modes, if maximum and minimum temperature blocks (paragraph 8.4) have not been set, the temperature can be changed with the **UP-DOWN** buttons. Otherwise, the temperature can be changed only within the set maximum and minimum temperature limits.

You can exit the WEEK-END program at any time with the **W-End** button.



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## 7 - USER AND ENERGY SAVING FUNCTIONS

### 7.7 - SYSTEM OPERATION HOURS

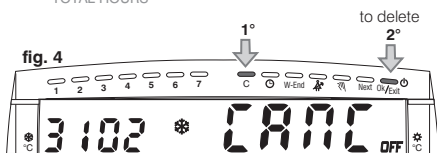
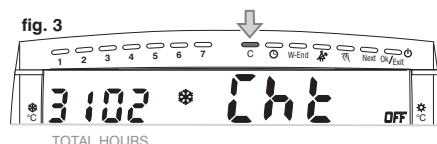
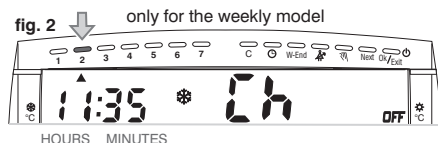
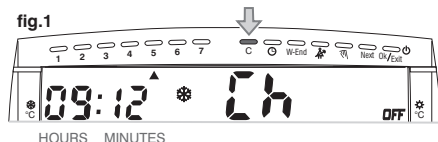
The chronothermostat shows the operating hours of the connected device in the current day, in each of the previous 6 days (only the weekly model), and the total of the entire season. From normal chronothermostat use:

1°) Press the function button **C** the display shows **Ch** (hour counter) preceded by the number of operating hours and minutes of the current day (fig.1). To display the number of operating hours and minutes of any day (only for the weekly model), press the corresponding button (fig. 2).

2°) Press button **C** (or Next) again, the display shows **Ch<sub>t</sub>** (total hour counter) preceded by the number of operating hours since the start of the season (fig. 3).

3°) Press **C** (or Next) again, the display shows **CANC.** Press **C** to exit without deleting or press the **Ok/Exit** button to reset the total hour counter of the season, current day and the other weekdays (only the weekly model) (fig. 4) and return to normal operation.

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*note: during the display, 5 sec. after a button is pressed the chronothermostat returns to normal operation.*

### 7.8 - CHRONOTHERMOSTAT SWITCH-OFF (OFF)

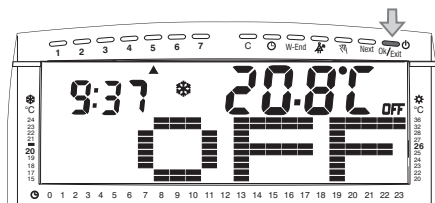
From normal chronothermostat operation, press **⏻**; **OFF** appears indicating that the chronothermostat is deactivated.

In this state, all chronothermostat functions are deactivated.

Only the current time and temperature are displayed.

Press the **⏻** button to return to the previously set thermal program.

*note: in this condition the chronothermostat also deactivates the antifreeze or anti-heat thermal protections.*




## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.1 - ACCESS TO FUNCTION PROGRAMMING

It is recommended to give access to the programs **to the installer or expert users** since a change in some settings can compromise the proper functioning of the system.

From the normal chronothermostat operating condition gently press the **Mode** button with a pointed object (ex. ballpoint pen).

After an open lock appears, a programming menu for special functions can be accessed. In the first screen the chronothermostat operation mode (**SEAS**): can be selected: Winter or Summer.

 **Alternatively:** if a secret access code was previously entered, the screen to the side is shown:

For each available field, (4), enter the number by repeatedly pressing one of the **UP-DOWN** buttons. Press the **Next** button to go to the next field.

*Note: exit the secret code setting by pressing **Ok/Exit** , or wait 12 sec.*

After the 4th digit is pressed, **Err** is briefly displayed when pressing the **Next** button. Following this, a program menu for special functions can be accessed. In the first screen the chronothermostat operation mode (**SEAS**) can be selected: Winter or Summer.

*Note: in case an invalid secret code is entered when **Next** is pressed an **Err** message briefly appears. After this, the code can be re-entered.*

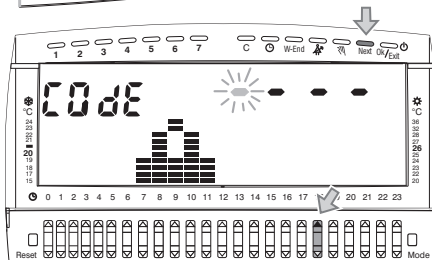
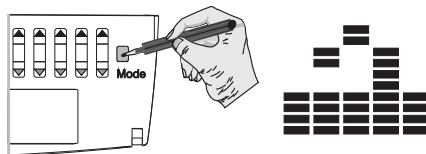
#### Information reserved to installer or expert user



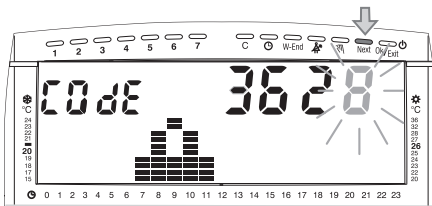
if the password is lost enter the restore code:

the secret code will be deleted.

**0927**



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## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

In the program menu (paragraph 8.1) the following programs can be set and/or modified (described in the same order in the upcoming paragraphs):

Setting Winter and Summer programming modes (SEAS) .....	(Par. 8.2)
Key block (tast bloc) .....	(Par. 8.3)
MAX and MIN temperature set block (WINTER) .....	(Par. 8.4.1)
MAX and MIN temperature set block (SUMMER) .....	(Par. 8.4.2)
«WINTER» room temperature correction (OFFS) .....	(Par. 8.5.1)
«SUMMER» room temperature correction (OFFS) .....	(Par. 8.5.2)
Activation/deactivation of the button acoustic signal (BEEP) .....	(Par. 8.6)
Selection of the temperature adjustment mode (REG) (THERM. DIFFERENTIAL ON/OFF or PROPORTIONAL) .....	(Par. 8.7.1)
Setting the hysteresis for the ON-OFF thermal differential .....	(Par. 8.7.2)
Setting the duration for the Modulating proportional .....	(Par. 8.7.3)
Activation/deactivation of intelligent mode (AUTO) .....	(Par. 8.8)
Activation/deactivation of antifreeze protection .....	(Par. 8.9)
Activation/deactivation of Summer thermal protection .....	(Par. 8.10)
Activation/deactivation of descaling cycle .....	(Par. 8.11)
Activation/deactivation of automatic summer/standard time change .....	(Par. 8.12)
Enter, change, delete the secret Code .....	(Par. 8.13)

### USE OF «Mode» MENU KEYS:

- Press the **UP-DOWN** buttons to modify the selected parameter.
- Press **“Next”** to go to the next function.
- To exit programming press the **“Ok/Exit”** button.

Note: from the **Mode**, program menu, the chronothermostat returns to normal operation with the new settings, 60 seconds (time-out) after a button is pressed.

Each new setting is memorised 1 minute after exiting the Mode menu.

### 8.2 - WINTER ❄ OR SUMMER ☀ MODE SETTING

The chronothermostat is factory-set to the Winter ❄ (heating); mode. The **UP-DOWN** buttons switch between the Winter and SUMMER ☀ (cooling) modes.

Winter mode activated



Summer mode activated



Press the **Next** button to go to the next setting or **Ok/Exit** to exit the program menu.

## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.3 - KEY BLOCK

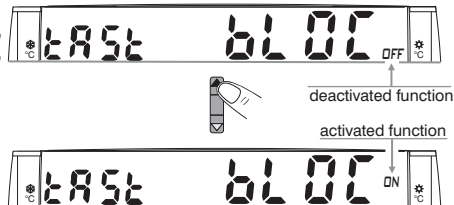
This function allow to lock the keys prevents the chronothermostat from being used by unauthorised personnel as well as preventing children from playing with it.

This factory setting is not activated.

Pressing the **UP-DOWN** buttons activates **ON** or deactivates **OFF** the function.

Note: the Mode button remains activated.

Press the **Next** button to go to the next setting or **Ok/Exit** to exit the program menu.



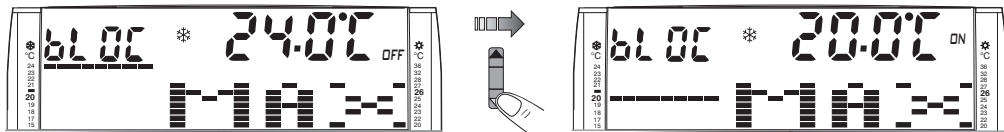
### 8.4 - MAX and MIN TEMPERATURE SET BLOCK for Winter and Summer mode

In certain chronothermostat installations (public buildings, hotels, etc.) might be useful to limit the MAXIMUM and MINIMUM temperature sets (levels). This avoids incorrect settings by unauthorised personnel.

Note: factory settings do not contain blocks (**OFF**).

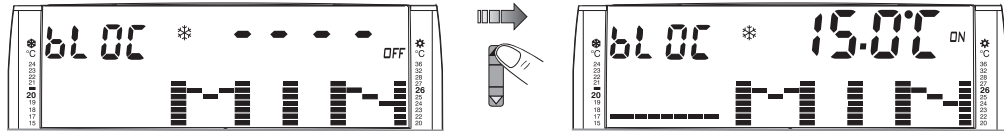
#### 8.4.1) MAX and MIN TEMPERATURE SET BLOCK for Winter (❄) mode

Repeatedly press the **UP-DOWN** buttons to block the desired **maximum** set temperature.



Press **Next** to go to the next setting (MIN set temperature block in Winter mode) or press **Ok/Exit** to exit from the program menu.

Repeatedly press the **UP-DOWN** buttons to block the desired **minimum** set temperature.



Press **Next** to go to the next setting (MAX set temperature block in Summer mode) or press **Ok/Exit** to exit from the program menu.

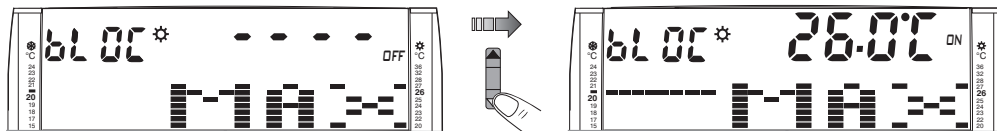
*continue* → 45

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## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

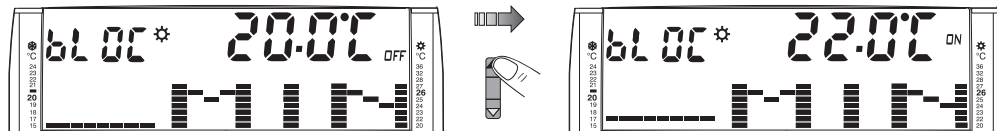
### 8.4.2) MAX and MIN TEMPERATURE SET BLOCK for **Summer** (☀) mode

Repeatedly press the **UP-DOWN** buttons to block the desired **maximum** set temperature.



EN Press **Next** to go to the next setting (MIN set temperature block in Summer mode) or press **Ok/Exit** to exit from the program menu.

Repeatedly press the **UP-DOWN** buttons to block the desired **minimum** set temperature.



Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.

**Note:** the MIN temp block setting can not be greater than the MAX block setting both in the Winter and Summer modes.

**Note:** to remove any previously set blocks bring the sets to **OFF**.

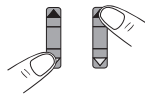
## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.5 - CORRECTION (OFFSET) OF ROOM TEMPERATURE READING

The chronothermostat may be installed in a position from which the measured room temperature can be influenced (ex. perimeter wall that during the winter, on average, is colder and in the summer is warmer than the rest of the dwelling). The device has 2 separate parameters to adjust the temperature measured in the Winter and Summer modes.

#### 8.5.1) CORRECTION OF ROOM TEMPERATURE READING in **Winter mode** (❄)

Repeatedly press the **UP-DOWN** buttons to set the measured room temperature to the desired value.



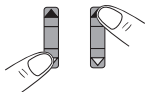
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Note: the general Reset control (par. 7.5.2) brings the OFFSET to 00.0 °C

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.

#### 8.5.2) CORRECTION OF ROOM TEMPERATURE READING in **Summer mode** (☀)

Repeatedly press the **UP-DOWN** buttons to set the measured room temperature to the desired value.



Note: the general Reset control (par. 7.5.2) brings the OFFSET to 00.0 °C

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.

### 8.6 - SETTING THE ACOUSTIC SIGNAL (Beep)

This function activates/deactivates the acoustic signal.

Pressing the **UP-DOWN** it deactivates **OFF** or activates **ON**.  
It is activated in the factory setting.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.

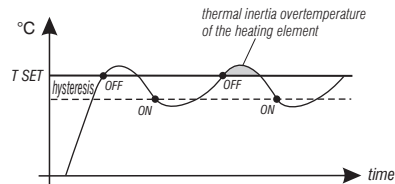


## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.7 - TEMPERATURE ADJUSTMENT METHODS

The chronothermostat operates (factory set) in **THERMAL DIFFERENTIAL MODE ON-OFF** with a differential value (hysteresis) factory-set to 0,3 °C (adjustable from 0,1 °C to 0,9 °C).

The differential value must be set according to the system's thermal inertia; a low value is recommended for systems with radiators (e.g. in cast iron) and a high value for systems with fan coils.



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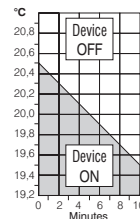
**As opposed** to the thermal differential, the temperature can be adjusted **MODULATING PROPORTIONAL (PROP)**; setting cycles from 7, 10, 15 20 minutes (factory set 10 minutes). This system maintains the desired temperature more stable by increasing the user's sense of comfort and saving on energy consumption.

Recommended: a long cycle for systems with high thermal inertia (cast iron radiators, floor systems); a short cycle for systems with low thermal inertia (fan-coils).

**Setting example: WINTER mode**

**T Set = 20 °C - Cycle = 10 minutes**

t = 20,5 °C	Device is always off
t = 20,4 °C	Device is 1 min ON - 9 min OFF
t = 20,3 °C	Device is 2 min ON - 8 min OFF
t = 20,2 °C	Device is 3 min ON - 7 min OFF
t = 20,1 °C	Device is 4 min ON - 6 min OFF
t = 20,0 °C	Device is 5 min ON - 5 min OFF
t = 19,9 °C	Device is 6 min ON - 4 min OFF
t = 19,8 °C	Device is 7 min ON - 3 min OFF
t = 19,7 °C	Device is 8 min ON - 2 min OFF
t = 19,6 °C	Device is 9 min ON - 1 min OFF
t = 19,5 °C	Device is always on



#### 8.7.1) SELECTION OF THE TEMPERATURE ADJUSTMENT MODE (DIFFERENTIAL ON/OFF or MODULATING PROPORTIONAL)

This procedure selects the temperature adjustment mode: Thermal differential **On-Off** (factory setting) or Modulating proportional **Pr-OP**.

Press the **UP-DOWN** buttons to select the desired temperature adjustment mode.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



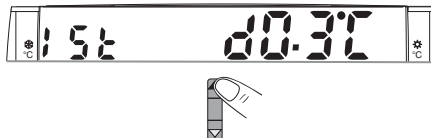
## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.7.2) SETTING THE HYSTERESIS FOR THE ON-OFF THERMAL DIFFERENTIAL

The hysteresis for the ON/OFF ( **On-Off** ) thermal differential adjustment mode is set based on the system's thermal inertia. Low levels are recommended for radiator systems (cast-iron), while high levels for fan coil systems. Hysteresis can be set from 0.1 °C to 0.9 °C. It is factory-set at **0.3 °C**.

Repeatedly press the **UP-DOWN** buttons to set the desired hysteresis.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



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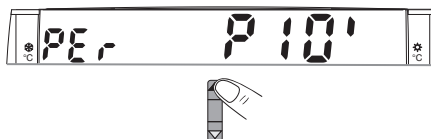
### 8.7.3) SETTING OF THE MODULATING PROPORTIONAL CYCLE DURATION

Control cycle (or period) duration for the MODULATING PROPORTIONAL operating mode ( **P-OP** ) can be set at 7, 10, 15, 20 minutes. A long cycle is recommended for systems with high thermal inertia (cast-iron radiators, floor systems), while a brief cycle is recommended for systems with low thermal inertia (fan-coil).

The factory setting is **10 minutes**.

Repeatedly press the **UP-DOWN** buttons to set the desired cycle duration.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



## 8.8 - SETTING INTELLIGENT OPERATION (AUTO)

With "Intelligent operation" the chronothermostat can **switch-on** or **switch-off** the connected device in advance, to achieve the desired temperature at the desired time. Switch-on can start 2 hours in advance, at most. An early switch-off can achieve approximately **-1° C** compared to the set temperature. Both functions can automatically adjust based on system features.

The factory setting of the «Auto» intelligent function is deactivated.

This function is available in both "Winter" and "Summer" modes.

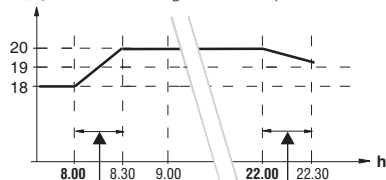
With activated function in normal chronothermostat operation, the **stable** is displayed. In case of early switch-on or switch-off the **flashes**.



deactivated function

## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

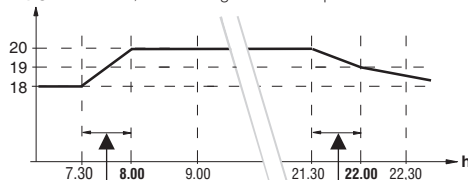
t°C «Auto» intelligent function operation deactivated



time needed to reach the set temperature.

time needed to achieve approximately -1°C compared to the set temperature.

t°C «Auto» 1, 2 or 3 intelligent function operation activated



the system automatically starts in advance in order to reach the set temperature.

the system automatically stops early in order to achieve approximately -1°C compared to the set temperature.

**example:** in Winter (heating) mode

- programmed start of the chronothermostat from 8:00 (set temp. 20°C) and programmed stop from 22:00 (set temp. 18°C)

Repeatedly press the **UP-DOWN** buttons to set the desired (1 or 2 or 3) Auto function

standard intelligent operation  
only early device switch-on



economy intelligent operation  
only early device switch-off



standard and economy intelligent operation  
both early device switch-on and switch-off



Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.

### 8.9 - ANTIFREEZE PROTECTION

The chronothermostat is factory-set to protect the system against temperatures that drop below +6.0 °C. This function can be switched off, in which case the system can be damaged by freezing temperatures.

Repeatedly press the **UP-DOWN** buttons to deactivate or activate the antifreeze protection.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



activated function

deactivated function



## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

### 8.10 - SUMMER THERMAL PROTECTION

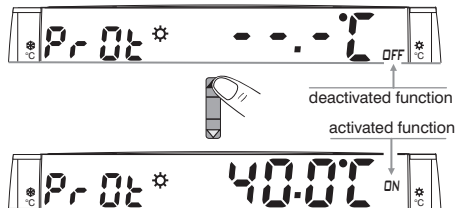
The chronothermostat is provided with thermal protection for the Summer operation mode.

It activates the cooling system if the temperature exceeds +40 °C.

**Is factory-set to deactivated (conditioner always off).**

Repeatedly press the **UP-DOWN** buttons to activate or deactivate the summer thermal protection.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



### 8.11 - DESCALING CYCLE

If the function is activated, the chronothermostat activates every day of the year at 12:00, for 2 minutes. It activates the controlled device (pump, valve) to prevent encrustations or blocks caused by prolonged inactivity.

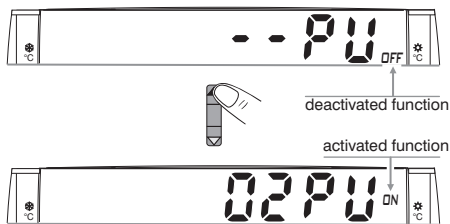
*The chronothermostat activates only if the controlled device was not switched on in the previous 12 hours.*

**Note:** it is factory set to **deactivated**.

Press the **UP-DOWN** buttons to activate/deactivate the descaling cycle:

**-- PU OFF** (deactivated function) or **02 PU ON** (activated function).

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



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### 8.12 - AUTOMATIC SUMMER/STANDARD TIME CHANGE

The chronothermostat automatically changes the standard/summer time in compliance with the protocol that regulates time in Europe (UTC+1)

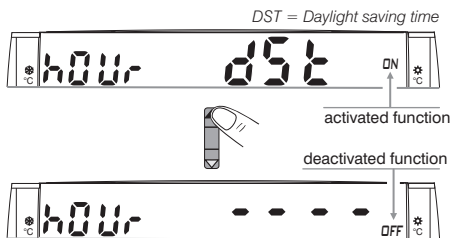
- On the last Sunday in October, time automatically changes from 3:00 to 2:00

- On the last Sunday in March, time changes from 2:00 to 3:00

**Note:** the factory setting for this function is **activated**.

Press the **UP-DOWN** buttons to deactivate or activate the automatic time change function.

Press **Next** to go to the next setting or press **Ok/Exit** to exit from the program menu.



**Note:** if the function is disabled the change must occur manually, following the procedure in paragraph 6.1.



## 8 - PROGRAMMABLE FUNCTIONS THAT ADAPT TO THE TYPE OF SYSTEM

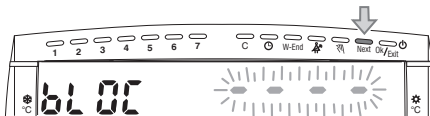
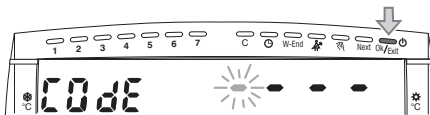
### 8.13 - ENTER/CHANGE/DELETE THE SECRET CODE (4 digits)

Access to Mode menu programming, can be protected by a secret code enabled by the expert user, installer or system manager.  
No code is set in the basic configuration.

#### 8.13.1) No secret code

To avoid entering a password press the **Ok/Exit** button to exit the Mode programming menu.

*(In this condition it is also possible to press the **Next** button 5 times to avoid memorising a secret code and to return to the Winter/Summer operation setting mode).*



#### 8.13.2) Entering the secret code

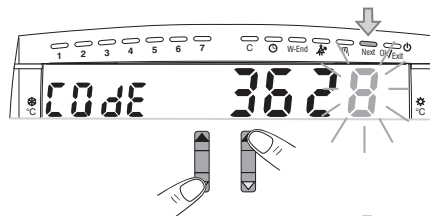
Enter the 4 digits of the desired secret code.

For each available field, repeatedly press the **UP-DOWN** buttons to enter a number from 0 to 9 (not including the dash). Confirm each digit by pressing the **Next** button.

When all 4 digits are entered press **Next**: **bLOC** appears on the display **and flashing the entered code**.

Press again **Next** to memorise and return to the Winter/Summer (SEAS) operation mode setting.

Then press **Ok/Exit**, to exit from the Mode programming menu.



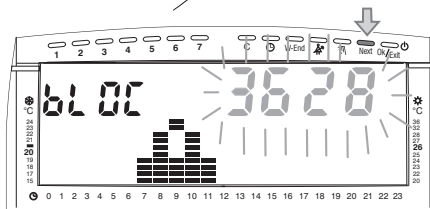
#### 8.13.3) Change or delete the secret code

To **modify** a previously memorised code simply change it. To **instead delete** it enter dashes in all 4 fields (- - - -). In both cases follow the above procedure.



### WARNING!

Every time the «Mode» programming menu is accessed using a secret code, a new code is entered, or an existing code is modified or deleted, the device saves the operation 60 seconds after exiting from the Mode menu.



*note: in this condition should an error occur press the **UP-DOWN** buttons to enter a code.*