WIRELESS CHRONOTHERMOSTAT
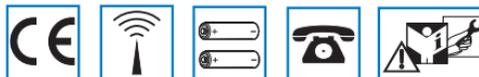
ÉQUIPPED WITH RADIO TRANSMITTER

Wall mounting

TOMEK ELECTRONICS

Power supply: alkaline batteries
Daily / Weekly
🔥 **Winter /** ❄ **Summer**
2 temperature levels (Comfort and Economy)
+ 1 Absence temperature level
Master function
Telephone programmer input

CE

DU - DETXNN010 FR/EN 06/13

SIMPLIFIED PROGRAMMING

All the settings can be made before securing the chronothermostat to the wall-mounted base. This allows you to sit comfortably while programming the settings and to perform Test operations (coupling or verification of radio signal intensity) as efficiently as possible.
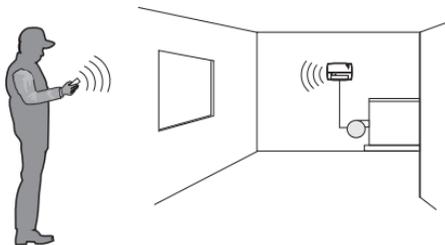
INSERT BATTERIES OR AFTER RESET OPERATION

1) Press the ▲ ▼ keys to enter the current year:
    press the **OK** *key*

2) Press the ▲ ▼ keys to enter the current month:
    press the **OK** *key*

3) Press the ▲ ▼ keys to enter the current day:
    press the **OK** *key*

4) Press the ▲ ▼ keys to enter the current hour and minutes:
    press the **OK** *key*

5) the display shows program **P01**
    (factory set «winter» program)

    press the **OK** *key*

Programming process completed!
EASY, RIGHT?

ⓘ Once programming has been completed, start coupling the chronothermostat with the receiver (see paragraph 4.8).

📖 *See the following pages of this manual for a detailed description of additional programming or settings.*

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PRESENTATION

Dear Customer, thank you for choosing our product.

The weekly chronothermostat has been studied to operate in systems where it can be the only control of actuators or else can be coupled with others (chronothermostats or thermostats). It is equipped with a big, clear display (with adjustable contrast) so as to monitor all functions in real time. The "wireless" chronothermostat sends operating commands by means of radio frequency. The signal sent can be received by a series of receivers which have the task of recognising and interpreting the signal, translating it into an operation to be performed (example: operation and/or display).

Ease of programming is the key feature of this device. This device is equipped with a calendar which, once the current year, month, day, hour, and minutes have been entered, allows for automatic changing from standard time to daylight savings time and vice-versa.

3 various freely programmable programs are already set in its permanent memory (2 winter, one of which is pre-set + 1 summer), designed to provide maximum comfort. Only a few seconds are needed to set the preferred temperatures to be applied throughout the day (even every 30 minutes!) and also for each day of the week.

The chronothermostat regulates the temperature in ON/OFF differential mode and is adjustable from 0.2°C to 0.7°C, to the thermal inertia of your particular system. The chronothermostat can automatically anticipate ignition and inform the receiving system of a possible system fault.

Particular attention has been given to the energy saving factor: the Holiday function, the interruption function for domestic cleaning, the option to block the set temperatures t1 and/or t2, the set temperature t1,t2,t3 which can be set at any time and for any needs, the control via telephone (with optional telephone programmer), all prevent energy from being wasted. Furthermore, it is possible to minimise chronothermostat battery consumption by setting the night shutdown (standby) function or the display power-off function (see the description of these and other functions on the following pages).

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Other characteristics:

- Set program or manual operation (manual temporary or permanent forcing).
- Possibility of changing the year, month, day, hours and minutes.
- Automatic Standard Time to Daylight Savings Time switching.
- Possibility of viewing the current time or room temperature.
- Possibility of correction of the detected room temperature (OFFSET).
- Possibility of total disconnection of the Absence temperature.
- Possibility of password entry to access settings for modification.
- Possibility of assignment to one or more receivers.
- Display indication of radio signal transmission.
- Complete shutdown of temperature control.
- Easy coupling of transmitter to the zone with self-learning.
- Transmission "**test**" signal to verify signal presence and range.
- Transmission to receiver of low battery level.
- Operational safety is ensured by a double transmission of information to the receiver.
- With the CLONE key, transferring of the entire program to another chronothermostat, bringing them closer and following a simple procedure.
- Master function to take the place of temperature control assigned to other devices.

⚠ WARNINGS

- The installation and electrical connection of the devices and appliances must be implemented by qualified personnel and in conformity with current laws and regulations.

- 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.

- 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 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.

- If necessary, clean the chronothermostat with a slightly damp cloth.

ⓘ Use **only** 1.5V type AA (LR6) **alkaline batteries**; the use of unsuitable batteries can cause malfunction and/or faulty viewing of the display.

The product has been tested and its characteristics are guaranteed when alkaline DURACELL or ENERGIZER batteries are used.

⚠ **Important:** **for system mode and operation of wireless temperature control and for proper installation, see also specific manual of the receiver.**

☺ *Radio frequency waves emitted by the wireless chronothermostat are not a risk to human or animal health.*

⚠ **Important: the manufacturer reserves the right to introduce any technical and/or constructive changes deemed necessary, with no prior notice.**

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.*

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1 - TECHNICAL SPECIFICATIONS

- Power supply: .... **N° 2 alkaline batteries 1.5 V type AA (LR6)**
- Autonomy: .... approx. 3 years (display always on)
- Time remaining from when "Battery Low" symbol appears ▨ : .... 30 days
- Control output: .... via radio (to an actuator receiver of the
  "Wireless Temperature Control" family)
- Antenna: .... built into the device
- Transmission frequency (carrier): .... 868,35 MHz
- Maximum signal range in a clear area: .... 120 metres
- Maximum signal range in the presence of walls or obstacles: .... 30 metres (in accordance with chapter 4.4)
- Software: .... Class A
- Input for telephone programmer: .... for a voltage free NO contact
- Cross-section of wires to telephone programmer input terminals: .... 0,5 mm^2 ÷ 1,5 mm^2
- Insulation type: .... Class III
- Degree of protection: .... IP 30
- Pollution rating: .... normal
- Type of installation: .... wall mounting (table base optional)
- Room temperature display range: .... - 5°C ÷ +39°C
- Ambient temperature indicator resolution: .... 0,1°C
- Set temperature setting adjustment field (t1/t2): .... + 4°C ÷ +39°C (restrictable)
- Absence (t3) set temperature setting adjustment field: .... excludable or adjustable from + 4°C to + 39°C
  (in Winter mode = default 5°C - Summer = default 33°C)
- Setting temperature resolution: .... 0,5°C
- Room temperature detection correction (OFFSET): .... adjustable from -1.9°C to +1.9°C (default 0.0°C)
- Differential ON/OFF temperature adjustment method: .... adjustable from 0.2°C to 0.7°C (default 0.3°C)
- Thermal gradient: .... max 1°K / 15 min
- Operating temperature limits: .... -5°C ÷ +55°C
- Storing temperature limits: .... -10°C ÷ +65°C
- Reference standard for CE mark: .... LVD EN 60 950-1   EMC EN301 489-3   RADIO EN300 220-3
  (Directive R&TTE 1995/5-CE)

When the room temperature blinks, display range (-5°C or 39 ÷ 39.9°C) has been exceeded.
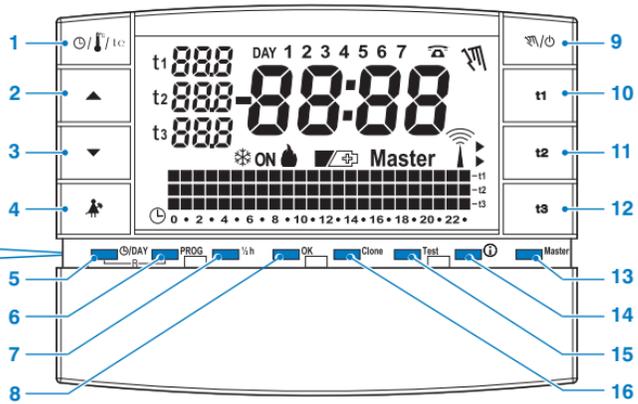*Err indicates that heat control activity has been suspended due to probe error.*

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2 - GENERAL VIEW AND KEY FUNCTIONS

ⓘ More particular key functions are described in the specific paragraphs.

Key combination to Reset

(press simultaneously for 2 sec.)

⏱/DAY R   PROG

1. Key for viewing the current time or room temperature
- display of the current outdoor temperature
(only for models with this option)

2. Key ▲ to increase selected temperature

3. Key ▼ to lower selected temperature

Keys ▲ and ▼ are also used for many other functions, purposely designed to facilitate setting and using the chronothermostat (i.e. year, month, day, hour, minute setting, changing of the set temperature settings, etc.)

4. Key to suspend the current program (e.g. for implement cleaning)

5. Key to change the year, month, day, hour and minutes

6. Key to select / display programs:
- **P 01** or **P 02** weekly winter programs (🔥 heating)
- **P 03** weekly summer program (❄ cooling)
- **P 04** HOLIDAY program (i.e. away for holidays)

7. Half-hour program (½ h)

8. Key to confirm the operation

9. Key to select manual mode and deactivate system (**OFF**)

10. Key to select "**t1**" Comfort temperature Set/programming

11. Key to select "**t2**" Economy temperature Set/programming

12. Key to select "**t3**" Absence temperature Set/programming

13. "**Master**" function activation key

14. «INFO» key for viewing the software version, battery status, serial number, display contrast and display standby setting

15. Key for sending "**Test**" transmission

16. **Clone** key for transferring the entire programming to another chronothermostat of the same series.

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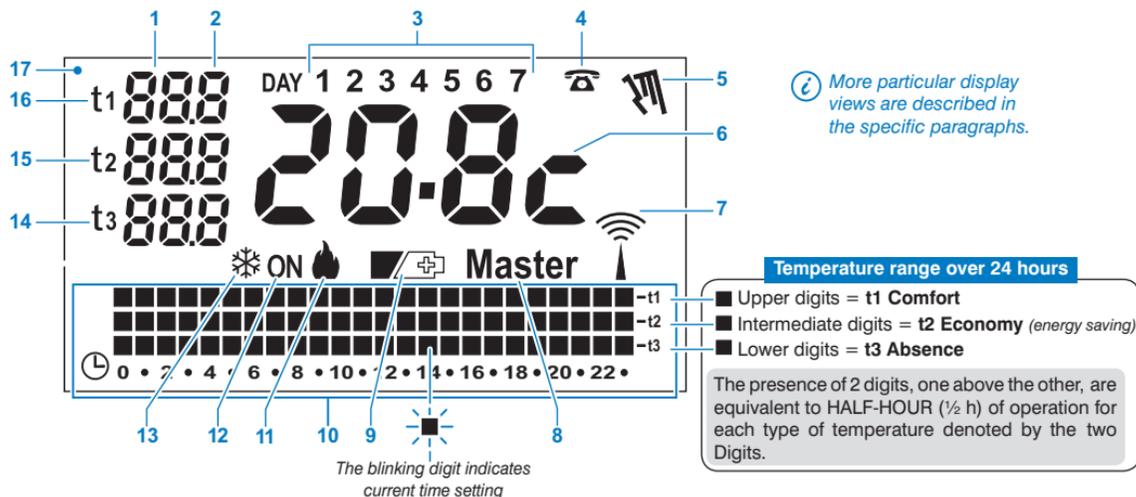
More particular display views are described in the specific paragraphs.

Temperature range over 24 hours

■ Upper digits = **t1 Comfort**
■ Intermediate digits = **t2 Economy** *(energy saving)*
■ Lower digits = **t3 Absence**

The presence of 2 digits, one above the other, are equivalent to HALF-HOUR (½ h) of operation for each type of temperature denoted by the two Digits.

The blinking digit indicates current time setting

1. Displays the set temperature
2. Displays tenths of a degree (in steps of 0.5°C)
3. Days of the week
4. Activation via telephone programmer
5. Manual mode indicator
6. Current time or room temperature
7. Radio signal transmission in progress
8. Master mode indicator
9. Low battery indicator
   (replace within 30 days from signal)

10. Temperature range over 24 hours
11. «**Winter**» heating program enabled
12. System in operation indicator
    - **ON** + message blinks ▲ *(e.g. Boiler in operation)*
    - **ON** + message blinks ❄ *(e.g. air conditioner in operation)*
13. «**Summer**» cooling program enabled
14. **t3 Absence** temperature setting
15. **t2 Economy** *(energy saving)* temperature setting
16. **t1 Comfort** temperature setting
17. Display *(adjustable contrast or automatic standby functions)*

4 - INSTALLATION

OVERALL DIMENSIONS

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120   27,6   22

INSTALLATION STANDARDS

Chronothermostat installation: independent fixed

- Wall mounted - onto a recessed rounded box - semi-recessed with a rectangular 3 module box.
- Install the chronothermostat far from sources of heat, windows and anything that may alter standard operation.
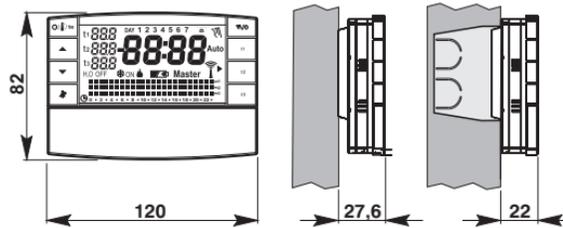
FASTENING THE WALL-MOUNTED BASE

- Install the chronothermostat at approx. 1.5 ÷ 1.6 m.

OK!

h 1,5m
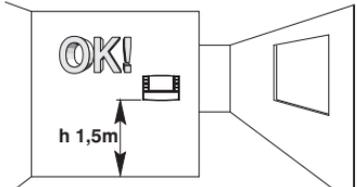
- Fasten to the wall, to the rounded or rectangular recessed box, via the relative paired holes "**A**".
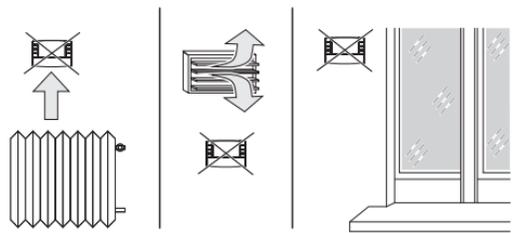
A- fastening holes

B- cable duct of the rounded or rectangular box

C- fastening teeth of the chrono-thermostat

C

A   A

B

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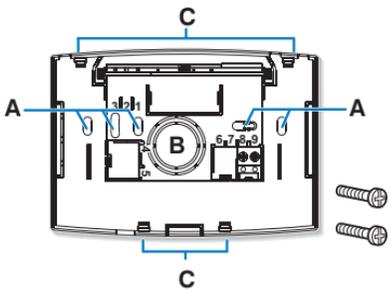
To ensure the chronothermostat is fitted correctly to the wall mounted base, the latter must not be bent due to the screws being tightened too much to the recessed rectangular box.

ⓘ *Table base available (optional)*

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4 - INSTALLATION

4.4) INSTRUCTIONS FOR THE INSTALLER

• Chronothermostat data is sent entirely via radio.
  For this reason, during installation, always take into account some necessary precautions to avoiding limiting or, in some cases, inhibiting radio wave range; namely:- install the device away from furniture or metal structures that could alter or shield the propagation of radio signals
  - ensure that there are no other electric or electronic devices (TV, microwave, etc.) within at least 1 metre from the device
  - if possible, install the device in a central position. If the apartment is made up of several floors, install the device on a middle floor.
• In the absence of barriers between the chronothermostat and control elements (valves, receiver, etc.) flow rate in "free air" is about 120 m (see "technical specifications").

Boiler   Receiver   Chronothermostat

Installation example in a heating system with wireless chronothermostat coupled to a receiver for wall mounted boiler control
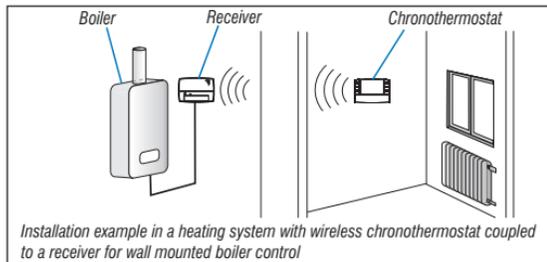
ⓘ *With support from the "test" function (see paragraph 4.9) it is possible to check the optimal position (the best signal reception) in advance for chronothermostat and receiver installation.*

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Radio range decreases significantly when the components are interposed between the obstacles. This attenuation varies in different degrees depending on the type of material the walls or barriers to cross are made of. The presence of noise or electromagnetic interference sources can also reduce the indicated radio range. Below are some examples of mitigation related to materials, which impact on the "Free air" range declared above.

DENSE VEGETATION
trees, hedges, shrubs, etc.
radio range reduction of 10% ÷ 25%

WOOD OR PLASTERBOARD WALLS
radio range reduction of 10% ÷ 30%

BRICK OR STONE WALLS
radio range reduction of 40% ÷ 60%

CONCRETE WALLS
radio range reduction of 50% ÷ 70%

METAL WALLS and/or FLOORS
radio range reduction of 65% ÷ 90%
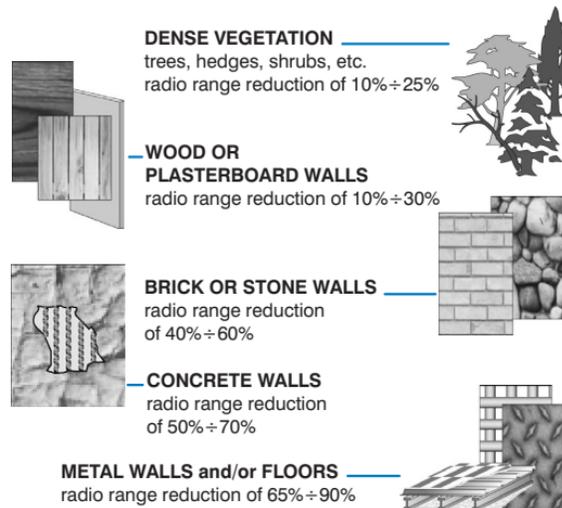
4 - INSTALLATION

CONNECTION TO TELEPHONE PROGRAMMER (optional)

· To terminals **8** and **9** it is possible to connect the telephone programmer to activate the chronothermostat from a distance.

Telephone programmer

contact
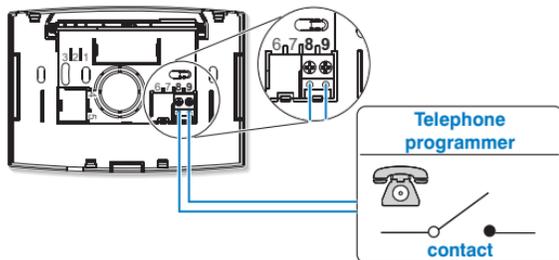
ⓘ *Pay careful attention as wiring must be placed properly to not interfere when the chronothermostat body is closed.*

FASTENING OR REMOVING THE CHRONOTHERMOSTAT

· Proceed as described

ⓘ *For convenience and installation requirements, all programming and testing can be performed before setting the chronothermostat to the wall mounted base.*

2°
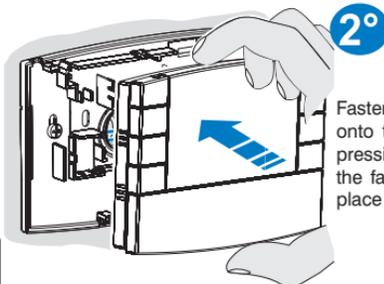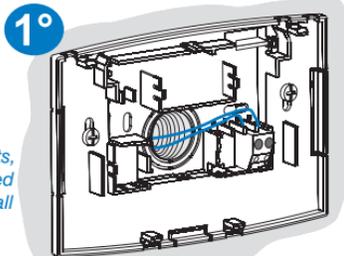
Fasten the chronothermostat onto the wall-mounted base, pressing lightly until you hear the fastening teeth click into place onto the base.

To remove the chronothermostat from the wall-mounted base, hold it as shown in the diagram, then pull outwards by turning it to the right.

1°

3°
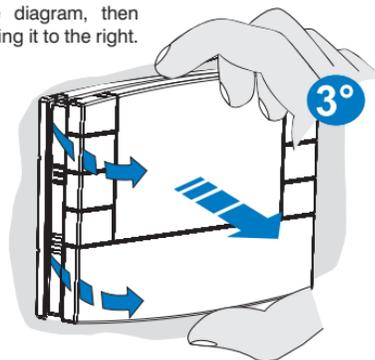
4.7) INSERTING OR REPLACING BATTERIES

- Slide the cover as shown in figure **A** to the first row of keys (access to programming keys), then slide again to reveal the second row of keys (access to the battery compartment) (fig. **B**).
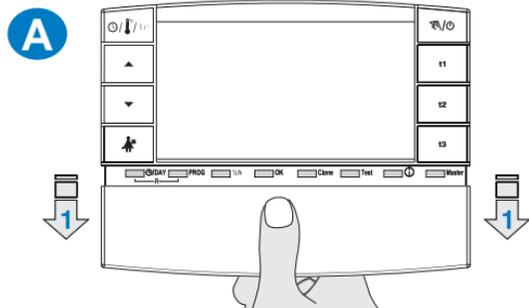
- Insert or replace with N° 2 X 1.5V batteries type AA - LR6 ensuring to place the poles correctly (fig. **B**).

⚠️ **Attention: battery life may be more than 3 years. However, it is recommended to replace them at least every 36 months to avoid them running out when you are away (e.g. Christmas holidays, etc.)**

ℹ️ *The chronothermostat saves set data in its internal memory. When batteries are removed, the display stays on for a few seconds, then it switches off. Inserting the batteries, the writing* **load** *(about 2 seconds) indicates that the software is loading the data into memory and the last active configuration as well as the room temperature detected, will be displayed.*

ONLY USE GOOD QUALITY ALKALINE BATTERIES
(Duracell or Energizer are recommended)
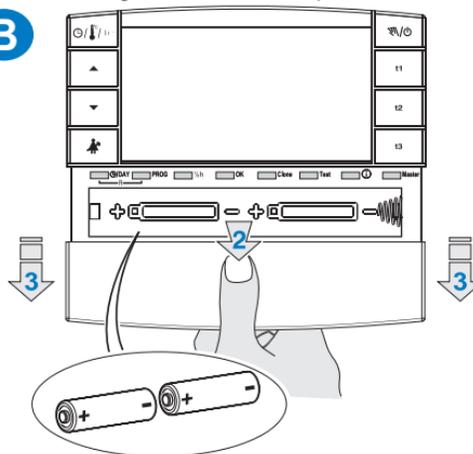
⚠️ **Very low differential on/off values, for example 0.2°C (see paragraph 6.3) may result in increased frequency of control transmission to the receiver, resulting in more rapid battery depletion.**

- It is possible to check the charge level of the battery at any time (see paragraph 7.9.2)

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

4.8) COUPLING THE CHRONOTHERMOSTAT TO THE RECEIVER (self-learning)

> ⚠️ **For this operation,**
> **carefully consult the receiver instructions**

PRELIMINARY OPERATIONS
• Install and power the receiver.
• Program the chronothermostat as indicated in chapter **5**.

🔒 *This function can be protected by a password (see chapter **8**).*

ON THE CHRONOTHERMOSTAT
• Press the **Test** key for 4 seconds; a **tESt** message will appear on the display.
• The symbol of an antenna 📡 will appear on the display, blinking will appear every 3 seconds (fig. C).

ℹ️ *Test signal transmission will remain active for 3 minutes maximum.*

ON THE RECEIVER
• Perform coupling instructions indicated in the receiver instructions manual.

ON THE CHRONOTHERMOSTAT (coupling operations output)
• Press the **Test** key for at least 1 second, then release (e.g. fig. D).
• The program previously in progress will appear on the display.
 The chronothermostat is coupled to the receiver.

Note: in the event of chronothermostat RESET, coupling with a receiver will not be cancelled.

press for 4 seconds   **fig. C**

press for 1 second   **fig. D**

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4 - INSTALLATION

4.9) RADIO SIGNAL INTENSITY VERIFICATION TEST

⚠	**For this operation,** carefully consult the receiver instructions

🔒 *This function can be protected by a password (see chapter 8).*

ON THE CHRONOTHERMOSTAT
• Press the **Test** key for 7 seconds; a **bEEP** message will appear on the display.
• The symbol of an antenna 📶 will appear on the display, blinking will appear
  every 3 seconds (fig. E).

ON THE RECEIVER
• At every signal reception, 1, 2 or 3 brief acoustic signals will be emitted, based
  on intensity (1= LOW, 2 = MEDIUM, 3 =HIGH) of the received signal.
• The corresponding LED "＿＿＿" will blink
• The **3 VMETER LEDs** (indicator of signal intensity) will light up briefly at each
  signal reception, depending on the intensity of the received signal.

ⓘ *Test signal transmission will remain active for 3 minutes maximum.*

Deactivating the "radio signal intensity verification test" operation

ON THE CHRONOTHERMOSTAT
• Press the **Test** key for at least 1 second, then release (e.g. fig. F).
• The program previously in progress will appear on the display.

press for 7 seconds — fig. E

press for 1 second — fig. F

5 - CHRONOTHERMOSTAT PROGRAMMING

⚠ **All settings must be confirmed by pressing OK, otherwise the chronothermostat returns to the previous settings after 3 minutes and any changes made will not be saved.**

Upon inserting the batteries or following a general reset, all sections that are on will appear on the display, after which, the blinking digits relative to the year will appear, as shown in figure 1.

⚠ **For the chronothermostat to work you must set the following: current year, month, day, hour, minutes, weekly program and, finally, coupling of the chronothermostat to the receiver.**

5.1/a) PROGRAMMING: YEAR (current)
- Set the current year using the ▲▼ keys, pressing repeatedly increases or decreases by a year and keeping the key pressed activates the rapid scroll. Once the year is set press **OK** to confirm.
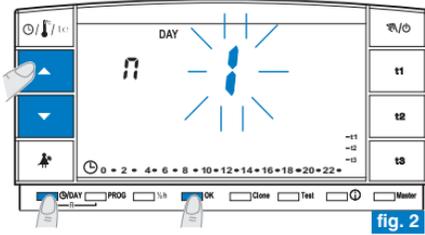
5.1/b) PROGRAMMING: MONTH (current)
- After having confirmed the year, the month will blink on the display (1 = January). Using the ▲▼ keys, select the current month (i.e. 3 = March). Keeping the key pressed activates the rapid scroll.
  note: in case of an error, press the 🕐/DAY *key to return to year setting.*
  Once the current month is set press **OK** to confirm.

5.1/c) PROGRAMMING: DAY (current)
- After having confirmed the month, the date will blink on the display (1 = first day of the month). Using the ▲▼ keys, select the current date. The day of the week (i.e. 2 = Tuesday) will be shown automatically at the top of the display, to the right of the message DAY. Keeping the key pressed activates the rapid scroll.
  note: in case of an error, press the 🕐/DAY *key to return to month setting.*
  Once the current day is set press **OK** to confirm.

fig. 1

fig. 2
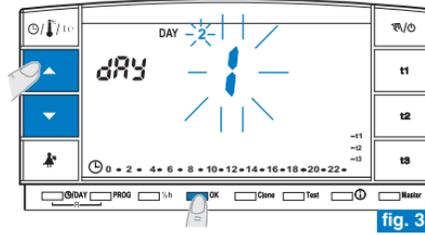
fig. 3

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5 - CHRONOTHERMOSTAT PROGRAMMING

5.1/d) PROGRAMMING: HOUR-MINUTES (current)
- After having set the day, the hour and minutes will blink on the display. Using the ▲▼ keys, select the current hour and minutes (*pressing repeatedly increases or decreases the time by one minute and keeping the key pressed activates the rapid scroll*).
  note: in case of an error, press the ⏱/**DAY** *key to return to day setting.*
  Once the current hour is set press **OK** to confirm.
  The **P 01** program will appear on the display (slow blinking).

5.1/e) SELECTING THE WEEKLY PROGRAM
    3 weekly programs are present on the chronothermostat:
    P 01 factory set winter program (reprogrammable)
    P 02 winter (fully programmable)
    P 03 summer (fully programmable)
note: program for absence from home: P 04-Holiday (see paragraph 7.3).

fig. 4

Program **P 01** with days, times and temperatures on the 24h scale present in the factory.

t1 = **Comfort** temperature

t2 = **Economy** temperature

Every days of the week

Times:
t1 — 06,30 ÷ 22,30
t2 — 00,00 ÷ 06,30
     22,30 ÷ 24,00
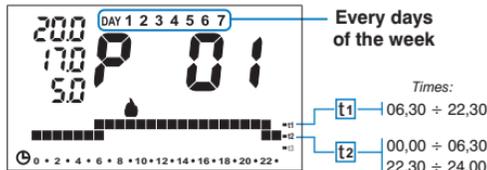
- If pre-set program **P 01** is suitable, press **OK**.

- The display will show: the current day, the room temperature and the 24-hr temperature range programmed with the current time digit blinking (example in fig. 6). *Note: briefly press the* ⏱/℃/te *key to view the current hour.*
  Now couple the chronothermostat with the receiver, see paragraph 4.8

- If, however, you want to select another program (fig. 5), quickly press the **PROG** key (or keys ▲▼) until the display shows the desired program (P02 winter or P03 summer), then press **OK**.

- **To set/change the weekly program (for the first time)**, proceed as described in the following paragraph 5.2.

fig. 5

fig. 6

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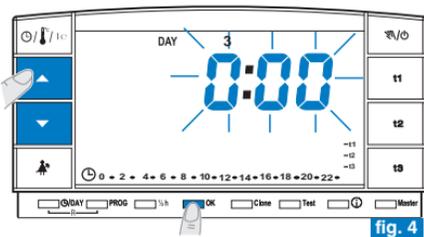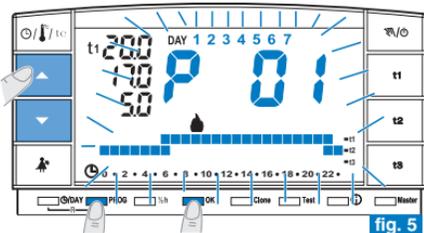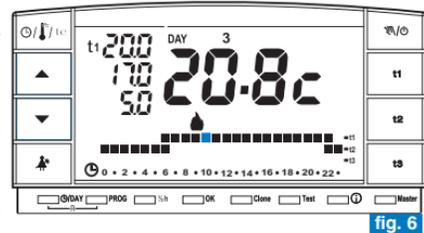
5 - CHRONOTHERMOSTAT PROGRAMMING

5.2) FIRST WEEKLY PROGRAM SETTING/CHANGING

- 3 programs can be freely programmed to your needs for each hour of the day on three different temperature levels (**t1** comfort, **t2** economy and **t3** absence) and differently for each day of the week.

  - *Program **P 01** is factory set for "Winter" operation but can be changed accordingly. It is shown on the display by the symbol* 🔥 *(heating).*
  - *Program **P 02** is freely programmable for "Winter" operation. It is shown on the display by the symbol* 🔥 *(heating).*
  - *Program **P 03** is freely programmable for "Summer" operation. It is shown on the display by the symbol* ❄ *(conditioner).*

- Press the **PROG** key to enter into program display, press the ▲▼ keys (or else quickly press PROG) until the display shows the program number you want to select. Programs **P 02 (winter)** and **P 03 (summer)**, as per their factory setting, have all the digits on the 24h scale related to **t3** temperature (Absence), example in fig. 8.
- Confirm the selection and enter into the setting procedure, **keeping the OK key** (or the **PROG** key) **pressed for 4 seconds**.
  The two digits **t1** and **t2** will appear blinking on the display, referring to the hour **0:00** and number **1** corresponding to the day **Monday** (fig. 9).
  NOTE: the two digits **t1** and **t3**, referring to the hour **0:00**, will blink when program **P 01** is being set.
- Temperature and hour selection (blinking digit) is set by pressing the corresponding key (**t1**, **t2** and **t3**) (fig. 9).

  - *Press the **PROG** key to exit without saving any programming.*
  - *Keys **t1**, **t2** and **t3** can be pressed repeatedly to advance 1h forward each time or kept pressed until the desired hour is reached, moving forward by 1h every time the digit blinks.*
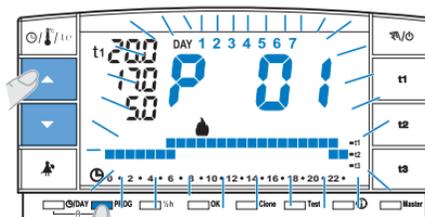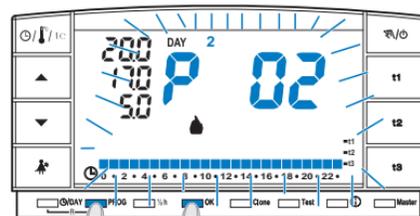
fig. 7

fig. 8

or
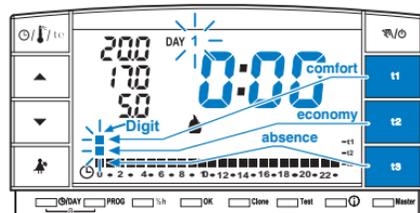press (one of the two keys)
for at least 4 seconds

fig. 9

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5 - CHRONOTHERMOSTAT PROGRAMMING

Setting the temperatures for Monday
- Confirm the type of temperature you wish for each hour of the day (Comfort, Economy, Absence) by pressing keys **t1**, **t2** and **t3** (confirmation occurs every time the key is pressed, the digit moves to the subsequent time and the corresponding time is shown on the display) until the daily 24-hr chart pertaining to **Monday** is completed; the two digits will blink on the time **0:00** (e.g. fig. 10).

ⓘ It is possible to program a half-hour as indicated in paragraph 5.3.

- If an error is made after having set the temperature for **Monday**, reset (you can use keys ▲▼ to move rapidly to the hour to be reset on the temperature range: the corresponding time is shown on the display) or press **OK** to confirm the program setting. When **OK** is pressed to confirm, the program set (for Monday) is saved in the memory and Tuesday (2) will blink together with the digits pertaining to the time **0:00** above the temperature range for the previous day (fig. 11).

fig. 10

Setting the temperatures for Tuesday
- Press **OK** (e.g. fig. 11) to apply the same temperature range as for Monday: the same range will be set for **Tuesday** and day **3**, **Wednesday** and the digits corresponding to the time **0:00** will blink.
- If the same temperature range is **NOT** required, proceed by pressing the keys **t1**, **t2** and **t3** as described for Monday.

ⓘ Keys ▲▼ can be used to move rapidly to the hour to be reset on the temperature range: the corresponding time is shown on the display.

- Having set the temperatures for Tuesday, press **OK** to confirm.

fig. 11

⚠ **You must complete the daily profile for each day of the week otherwise the setting cannot be saved.**

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5 - CHRONOTHERMOSTAT PROGRAMMING

• Once the temperature profile is set for **Sunday** (**7**), press **OK** (example in fig. 12) to save and return to Monday's (1) settings, **then press the OK key again for 4 seconds** (example in fig. 13); **this operation saves the complete weekly program**.

• The display will show: the current day, the room temperature and the 24-hr temperature range programmed with the current time digit blinking; **the chronothermostat is working**.

• Now couple the chronothermostat with the receiver, see paragraph 4.8.
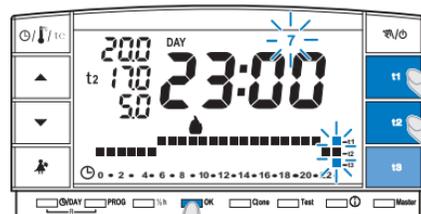
fig. 12

press for 4 seconds fig. 13

5.3) HALF-HOUR (½ h) PROGRAMMING

For example, **P 02** or **P 03** setting for programming:
- from h 06:00 to h 06:30 with **t2** (Economy) temperature
- from h 06:30 to h 07:00 with **t1** (Comfort) temperature

1° **Set temperature t2 to h 06:00**: press key **t2** until the two corresponding blinking digits are set an hour later (h 07:00).

2° **Press the "½ h" key to return to the previous hour setting (h 6:30),** the two digits corresponding to **t1** and **t3** will blink.

3° **Press key t1 to set temperature t1 for the second half hour,** in link with h 6:00, the two digits pertaining to **t1** and **t2** will remain lit, whereas the two digits for setting the subsequent hour (h 07:00) will blink.

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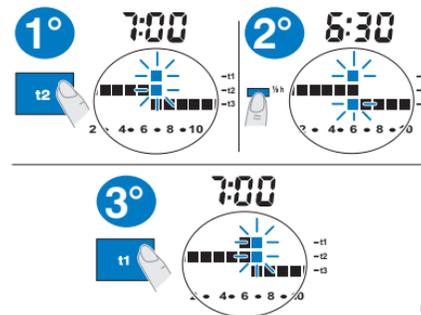
5 - CHRONOTHERMOSTAT PROGRAMMING

5.4) MODIFYING A WEEKLY PROGRAM (P 01, P 02 or P 03) PREVIOUSLY SAVED AND SET

• To change the previously saved settings of program **P 01**, **P 02** or **P03,** press the **PROG** key to enter into program display, press the ⏶⏷ keys (or else quickly press PROG) until the display shows the program number you want to change (**P 01**, **P 02** or **P 03**) fig. 14**,** press OK (or **PROG**) **key for 4 seconds** to enter the editing (example in fig. 15); if the day that is to be modified is not Monday, press **OK** once or more times until the particular day is selected.

• Use **t1**, **t2** or **t3** to edit the daily profile (example in fig. 15).

ⓘ *Keys ⏶⏷ permit the user to move to the desired hour and this will be displayed. When the key is pressed at h 23:00, ⏶ the time advances to 0:00.*

• Press **OK** to save the daily profile, then move on to another day's profile or keep the **OK key for 4 seconds** to save the new weekly program (fig. 16).

⚠ **Editing the profile of one day will not affect the following day and will only be saved for the day in question.**

ⓘ *Press the **PROG** key to exit from the weekly program without saving any changes.*

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fig. 14

or
press (one of the two keys)
for 4 seconds
fig. 15

press for 4 seconds
fig. 16

5 - CHRONOTHERMOSTAT PROGRAMMING

5.5) SELECTING THE PROGRAM "WINTER ☀" OR "SUMMER ❄"

• Programs **P 01** and **P 02** are intended for **"Winter"** operation and are shown on the display by the symbol ☀ (heating).
  In these conditions the connected device (boiler or other) will be activated as described in the example:

Temperature setting	*Boiler operation with the room temperature*
t1 - Comfort = **20,0**	lower than 20,0°C
t2 - Economy = **17,0**	lower than 17,0°C
t3 - Absence = **5,0** (excludable)	lower than 5,0°C

Functionality of the device is confirmed when **ON** appears and by the ☀ blinking symbol (fig. 17).

fig. 17

• Program **P 03** is intended for **"Summer"** operation and is shown on the display by the symbol ❄ (cooling).
  In these conditions the connected device (conditioner) will be activated as described in the example:

Temperature setting	*Air conditioner operation with the room temperature*
t1 - Comfort = **24,0**	higher than 24,0°C
t2 - Economy = **27,0**	higher than 27,0°C
t3 - Absence = **33,0** (excludable)	higher than 33,0°C

Functionality of the device is confirmed when **ON** appears and by the ❄ blinking symbol (fig. 18).

ⓘ *In either case, the temperature setting values can be changed at any point in time (see next paragraph).*

• To select the desired weekly program (**"Winter"** or **"Summer"**), see paragraph 5.1/e during the initial programming of the chronothermostat) or see paragraph 5.9 / 5.9.1.

ⓘ *Program **P 04-Holiday** (described in paragraph 7.3) will utilise the season of the program which it is following. Default setting is "**Winter**" at first installation.*

🔒 *The passage from a "winter" to a "summer" program and vice-versa may be protected by a password.*

fig. 18

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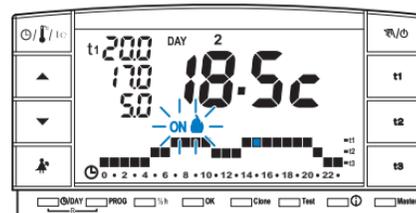
5 - CHRONOTHERMOSTAT PROGRAMMING

5.6) CHANGING THE TEMPERATURE SETTINGS: COMFORT (t1), ECONOMY (t2) AND ABSENCE (t3)

- If the default set temperatures:

    t1 = 20,0°C, **t2** = 17,0°C, **t3** = 5,0°C (for winter)
    t1 = 24,0°C, **t2** = 27,0°C, **t3** = 33,0°C (for summer)

    do not happen to be suitable, they can be changed accordingly from +4 °C to+39°C, by pressing the relative keys.

- Press the key (**t1**, **t2** or **t3**) corresponding to the temperature setting to be changed: the corresponding temperature indicator (**t1**, **t2** or **t3**) and the large central digits blink (the large central blinking digits will indicate the set temperature that has been set) (fig. 20).

- Modify the selected temperature within 8 seconds with the ▲▼ keys. The value changes by 0.5°C every time the key is pressed (fig. 21).
  The new temperatures selected in this way will be the new temperature settings (for all programs).

ⓘ *If you are already in the set temperature that you intend to change, press the ▲▼ keys to vary the temperature.*

- Approximately 4 seconds after an arrow key has been released, the display will revert to normal operation: the temperature setting symbol intended for the current hour (**t1**, **t2** or **t3**) and the central detected room temperature display (current hour and minutes) are both fixed.

> ⚠ **The chronothermostat will accept temperature values that satisfy the following conditions: - t1 greater than or equal to t2 greater than or equal to t3 - t3 greater than or equal to t2 greater than or equal to t1**

ⓘ *If one or more set temperatures are changed during «manual» operation (see paragraph 7. 1), changes will be lost upon return to the usual program.*

ⓘ *Absence temperature t3 can be excluded (see par. 6.5)*

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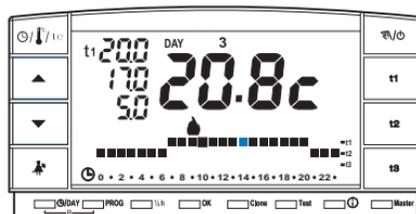
fig. 19

fig. 20
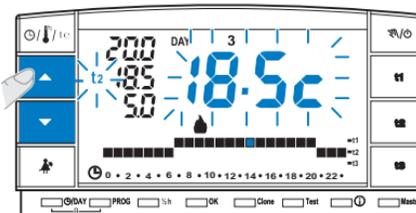
fig. 21

🔒 *Modification of t3 Absence temperature can be protected by a password (see chapter 8).*

5 - CHRONOTHERMOSTAT PROGRAMMING

5.7) CHANGING YEAR, MONTH, DAY, HOUR AND MINUTES (CURRENT)

• Keep key " ⏱/DAY " pressed for approx. 4 seconds until the year (Y) blinks on the display.
  - Use the ▲▼ keys to change the year (if necessary) (fig. 22). Pressing repeatedly increases or decreases the time by one year and keeping the key pressed activates the rapid scroll.
  In any case, confirm with **OK**. The month ( ) will blink.

  - Use the ▲▼ keys to change the month (if necessary) (1 = January). Pressing repeatedly increases or decreases the time by one month and keeping the key pressed activates the rapid scroll. Press the ⏱/DAY key to return to year setting.
  In any case, confirm with **OK**. The day (dAY) will blink.

  - Use the ▲▼ keys to change the day (if necessary) (1 = first day of the month). Pressing repeatedly increases or decreases the time by one day and keeping the key pressed activates the rapid scroll.
  Press the ⏱/DAY key to return to month setting.
  In any case, confirm with **OK**: the hours and minutes will blink.

  - Modify hour and minutes (if necessary) using keys ▲▼ (fig. 23).
  Pressing repeatedly will increase or decrease by one minute and keeping either key pressed will activate the rapid scroll.
  Press the ⏱/DAY key to return to day setting.
  Once the current hour is set press **OK** to confirm.
  The chronothermostat returns to the current program.

5.8) STANDARD TIME/DAYLIGHT SAVINGS TIME AUTOMATIC SWITCHING AND VICE-VERSA

The chronothermostat automatically switches from standard time/daylight savings time and vice-versa in accordance with the Protocol governing time in Europe.
- The last Sunday in October, the hour changes automatically from 3:00 to 2:00
- The last Sunday in March, the hour changes from 2:00 to 3:00.

press
for 4 seconds

fig. 22

fig. 23
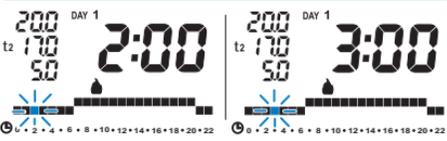
Example of standard time/daylight savings time passage (last Sunday in March)

5 - CHRONOTHERMOSTAT PROGRAMMING

5.9) READING ENTERED WEEKLY PROGRAMS

• Press the **PROG** key: the program in use will appear on the display and the scrolling of the settings of each day (or a number of days in the P01 program that has not yet been modified) will occur automatically (fig. 24).

• After reading the program, press **OK** to reactivate it (if this is not possible, the chronothermostat reactivates the program set initially after 3 minutes) example in fig. 25.

ⓘ *Quickly press* **PROG** *or press* ▲▼ *keys to switch from one program to another when reading programs.*
Settings will not be lost when switching from one program to another.

When reading programs you can replace the current program and/or modify the programs.

5.9.1) To replace the weekly program currently in operation:

• use the **PROG** key to select the new program and confirm with the **OK** key (example in figure 26).

5.9.2) To change weekly programs P01, P02 or P03:

• if the first weekly schedule setting/change, follow instructions contained in paragraph 5.2.

• If the weekly schedule had already been previously modified and saved, follow instructions in paragraph 5.4.
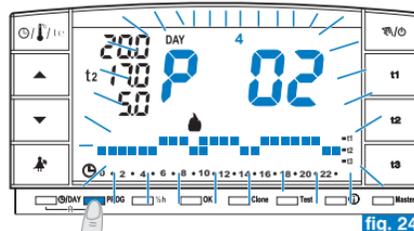
fig. 24
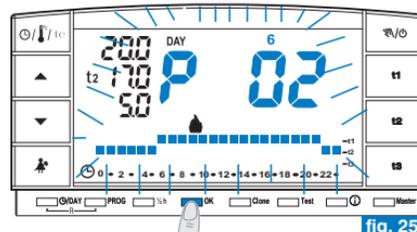
fig. 25
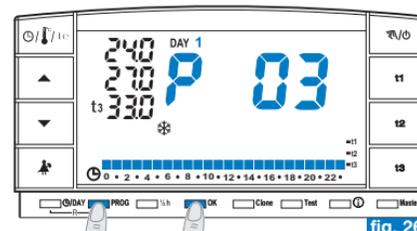
fig. 26

5.10) DISPLAY OFF (STANDBY) FUNCTIONS FOR BATTERY SAVINGS
Refer to paragraph 7.9.5.

5.11) RESET

• To clear unwanted data, press keys ⏱/DAY and **PROG** (approximately 2 seconds). All sections that are on will appear on the display (general autotest) (fig. 27/28).
• Afterwards, the display will appear as in figure 1 in paragraph 5.1/a and the chronothermostat will be ready to be programmed again.

🔒 *This function can be protected by a password (see chapter **8**).*
Note: if a RESET operation protected by a password is performed, this too will be cancelled (to enter a new password, see procedure in par. 8.1/a).

⚠️ **With this operation, all program settings are lost as the chronothermostat resets the default settings.**

ⓘ *in the event of chronothermostat RESET, coupling with a receiver will not be cancelled.*
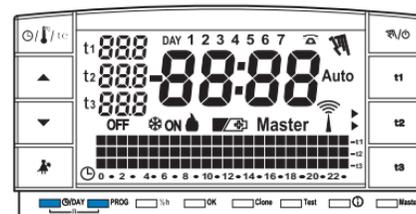
fig. 27
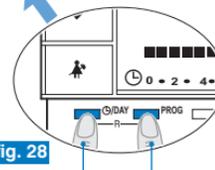
fig. 28

press simultaneously for 2 seconds

6 - SPECIAL FUNCTIONS SETTINGS

6.1) LIMITING THE TEMPERATURE SETTING VALUES

ⓘ In some particular installations, for instance in public offices, hotels, etc., it may be useful to limit the chronothermostat temperature settings to avoid incorrect settings being entered by unauthorised personnel.

*🔒 This function can be protected by a password (see chapter **8**).*

• It is possible to limit the following two settable temperature values on the chronothermostat:
  - **maximum** (**t1** Comfort) and/or **minimum** (**t2** Economy) in "**Winter**" mode 🔥.
  or
  - **minimum** (**t1** Comfort) and/or **maximum** (**t2** Economy) in "**Summer**" mode ❄.

ⓘ The operation can only be executed with one of the programs activated (P 01 ÷ P 03)

6.1/a) TEMPERATURE LIMIT VALUE (t1 comfort and/or t2 economy)

• Press the set temperature key to be limited (**t1** or **t2**). The selected symbol (**t1** or **t2**) and the central digits with corresponding temperature will blink (example in fig. 29).
• Set the limit value of the desired temperature by means of the ▲▼ keys (example in fig. 30).
• **Press** the key that corresponds to the selected value (**t1** or **t2**) and the **OK** key **simultaneously** within 8 seconds. Once confirmation is given, the symbol (t1 or t2) and the relative value to the side will start blinking (example in fig. 31).

*ⓘ If you select a key (**t1** or **t2**) relative to a blocked temperature, the symbol (**t1** or **t2**), the relative value to the side and the central digits (example in fig. 32) will blink. In this case, you cannot exceed the maximum or minimum temperature beyond the set block limit.*
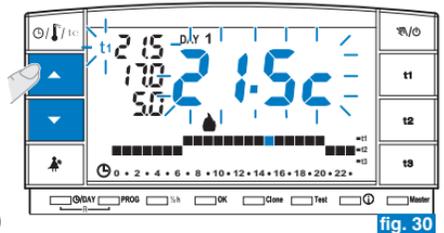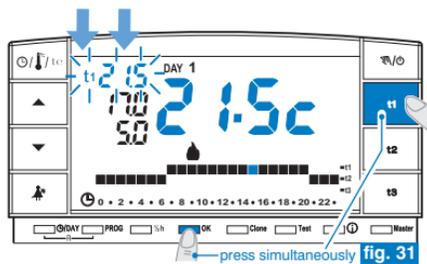
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fig. 29

fig. 30

press simultaneously   fig. 31

6 - SPECIAL FUNCTIONS SETTINGS

6.1/b) UNBLOCKING THE TEMPERATURE LIMITS

- Press the set temperature key to be unblocked (**t1** or **t2**). The selected symbol (**t1** or **t2**), the relative value to the side and the central digits will blink (example in fig. 32).
- Press **OK** and the key that corresponds to the selected value (**t1** or **t2**) simultaneously within 8 seconds. Once confirmation is given for unblocking, the temperature digits will stop blinking (example in fig. 33).
- After a few seconds, the chronothermostat will return to the set program.

fig. 32

press simultaneously fig. 33
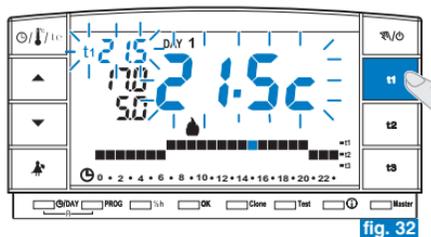
6.2) PROGRAMMING DATA TRANSFER BETWEEN TWO CHRONOTHERMOSTATS

- It is possible to transfer programming data from the chronothermostat to another equal one.
- To start the transferring procedure, simultaneously press the **Clone** and **Test for 4 seconds** keys. **Send set** will appear on the display. The chronothermostat will remain in this condition for 15 seconds, after which, if no further requests are received, it will return to the last viewed program.

*This function can be protected by a password (see chapter **8**).*

- The other chronothermostat must be met in a condition of reception within 15 seconds.

fig. 34

press simultaneously for 4 seconds

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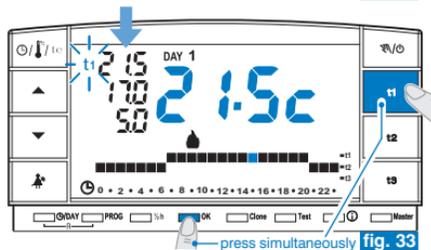
6 - SPECIAL FUNCTIONS SETTINGS

- On the reception chronothermostat, press the **Clone** key for 4 seconds. **COPY SET** will appear on the display. The symbol will switch on for 1 second to indicate sending the connection request (example in fig. 35)

- As soon as the transmission chronothermostat receives the request, it will start to send data. The symbol will switch on.

- If within 5 seconds, the reception chronothermostat does not receive any data, **COPY ERROR** will be shown on the display and it will return to the last viewed program.

Chronothermostat 1   Chronothermostat 2

fig. 35

press for 4 seconds
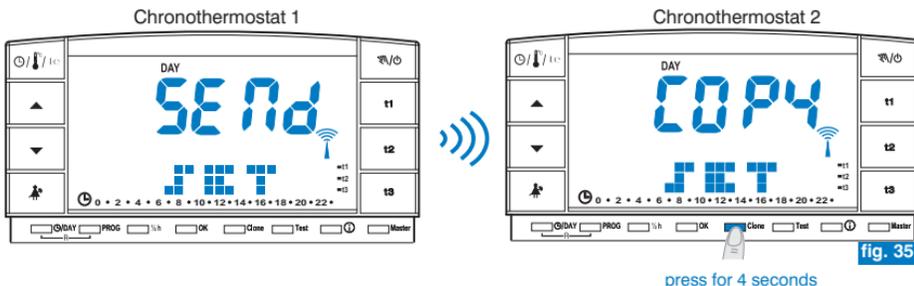
Transferred data are fixed and include the following:
- Date and Time
- Set **t1** (comfort) for winter
- Set **t2** (economy) for winter
- Set **t3** (absence) for winter
- Set **t1** (comfort) for summer
- Set **t2** (economy) for summer
- Set **t3** (absence) for summer
- Room temperature OFFSET and operation type
- Hysteresis, season, **t3** exclusion and TX intensity

- Password and Master enabling
- Level of t Set (if in manual) and of the hours at the end of temporary manual
- Program **P 01**
- Program **P 02**
- Program **P 03**
- Value of the upper block of SET **t1** for winter
- Value of the lower block of SET **t2** for winter
- Value of the upper block of SET **t1** for summer
- Value of the lower block of SET **t2** for summer

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6 - SPECIAL FUNCTIONS SETTINGS

6.3) TEMPERATURE DIFFERENTIAL (ON/OFF)

The chronothermostat is set (in factory) to work **Differential mode ON/OFF** with a preset differential value of **0.3°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. cast iron) and a high value for systems with fan coils.

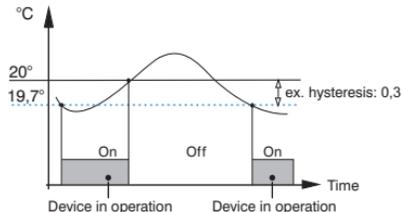🔒 *This function can be protected by a password (see chapter **8**).*

The differential value may be displayed and changed as follows:
• Keep **t1** pressed until the existing differential value blinks on the display (example in fig. 36 - factory setting **0.3C**).
• Modify the value (from 0.2 to 0.7) using the keys ▲▼ (example in fig. 36).
• Press **OK twice** the desired value is obtained to return to program operation (example in fig. 37).

⚠️ **Very low differential on/off values (for example 0.2°C) may result in increased frequency of control transmission to the receiver, resulting in more rapid battery depletion with respect to data stated.**

Example: - set "SET": 20°C in WINTER mode
- Set differential 0.3

ex. hysteresis: 0,3

fig. 36
press for 4 seconds
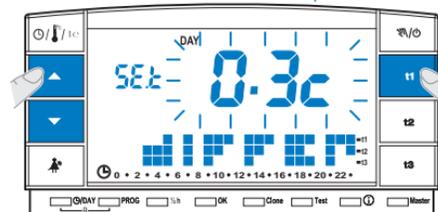
fig. 37
press 2 times

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6 - SPECIAL FUNCTIONS SETTINGS

6.4) DETECTED ROOM TEMPERATURE CORRECTION (OFFSET)

If for any reason the thermostat must be installed in a position where the detected temperature can be affected (e.g. an external wall, which is generally colder than the rest of the house in winter), an Offset value (correction value) can be set for the detected room temperature.

🔒 *This function can be protected by a password (see chapter 8).*

Correction can be set from -1.9 to 1.9°C (factory setting 0.0).
• Keep **t1** pressed until the set Differential value **blinks** (example in fig. 38 factory setting **0.3°C**).

• Press **OK** (fig. 38) to set the temperature correction (Offset). (fig. 39).

• Set the desired value by means of the ▲▼ keys (example in fig. 40).
• Press **OK** to confirm and return to program operation (example in fig. 40).

Example of room temperature correction setting (offset) in figure 40: **-0,5°C**.

press for 4 seconds

fig. 38
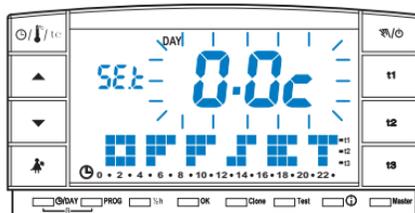
fig. 39
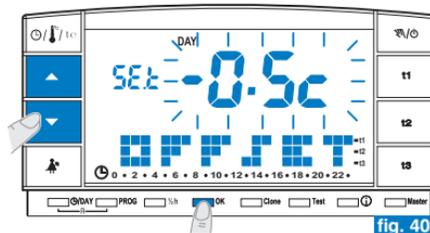
fig. 40

6 - SPECIAL FUNCTIONS SETTINGS

6.5) TOTAL DISCONNECTION OF THE t3 ABSENCE TEMPERATURE

This function allows temperature control to be deactivated when operating with Absence temperature **t3** selected

🔒 *This function can be protected by a password (see chapter 8).*

ⓘ *This function is default set to enabled.*
It will be possible to deactivate/activate both in "Winter" 🔥 (heating) and in "Summer" ❄ (cooling) operation.

Enabled function: when utilising **t3** Absence temperature, temperature control is active with factory set temperature settings at **5°C** in "**Winter**" 🔥 and **33°C** in "**Summer**" ❄ (both sets can be adjusted - see paragraph 5.6).

Disabled function:
- "**Winter**" 🔥 operation: when using **t3** Absence temperature, heating (e.g. boiler) is disabled.
  Attention: use only for systems filled with anti-freeze fluid in circuit).
- "**Summer**" ❄ operation: when using **t3** Absence temperature, cooling (e.g. conditioner) is always disabled.

To program this function:
- Keep the **t3** key pressed until **ON** (function enabled) or **OFF** (function disabled) plu a **t3** temperature setting message appear on the screen upon setting (example **5.0c** fig. 41).
- Change function status with the 🔺🔻 keys (fig. 42).
- Press **OK** to confirm and return to program operation.

ⓘ *- Set the function to **OFF** (disabled) on the **t3** temperature row and two hyphens (- - -) will appear (fig. 43).*
*- If the function is disabled (OFF), the minimum settable temperature of **t2** (Economy) will correspond to the value of **t3** (before disabling).*
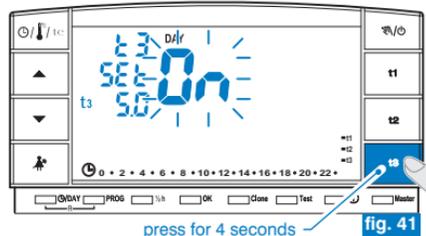
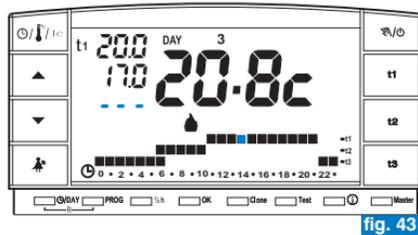press for 4 seconds — fig. 41

fig. 42

fig. 43

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7 - USER FUNCTIONS SETTINGS

7.1) MANUAL OPERATION

There are 2 manual modes, while the current program is stopped.

7.1/A) TEMPORARY MANUAL OPERATION

- Briefly press the "⚒/⏻" key: the symbol "⚒" will blink and the current temperature level will be applied to the remaining hours of the day (example in fig. 44).
- During manual operation, it is possible to set the desired temperature level by pressing keys **t1**, **t2** or **t3** and/or set the desired temperature setting by pressing the ▲▼ keys directly.

ⓘ **The temporary manual mode will automatically terminate at midnight of the current day.**

⚠ *If one or more of the* **set** *temperatures are changed during «manual» operation, changes will be lost upon return to the usual program.*

A shorter time can be set for temporary manual mode, as follows:

- Press **OK** and the number of hours that temporary manual mode will be active fore will blink on the display (example in fig. 45).
- Set the desired duration with keys ▲▼; then press **OK** to confirm (example in fig. 46).
- Once the set number of hours passes, it will return to the program operation.
- To exit from the temporary manual mode, press " ⚒/⏻", the blinking symbol " ⚒ " will disappear from the display and the thermal scale of the day in progress will appear on the display, according to the program in operation before the temporary manual mode was activated.

ⓘ *From this function, you cannot (*"**ERR**" *will appear):*
  - press the 🧹 *key to pass to suspending the program in order to clean (paragraph 7.2)*
  - enter into P 04-Holiday program

ⓘ *This function can be combined with the* **MASTER** *function (chapter 9).*
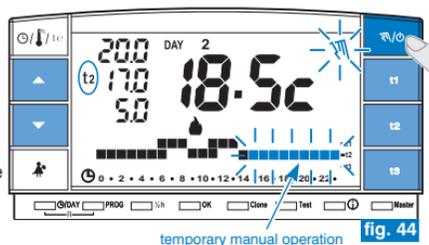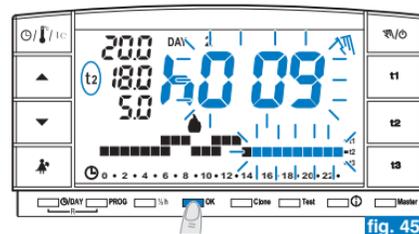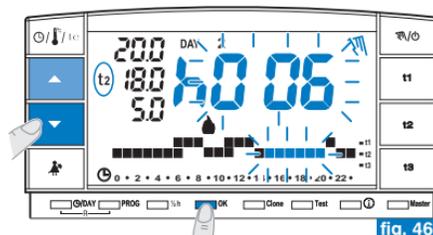
temporary manual operation
fig. 44

fig. 45

fig. 46

7 - USER FUNCTIONS SETTINGS

7.1/B) PERMANENT MANUAL OPERATION
- Keep key "⚒/⏻" pressed (approx 4 sec.); the symbol "⚒" will become fixed.
  The current temperature level will be applied to all hours of the day (e.g. fig. 47).
- During manual operation, it is possible to set the desired temperature level by pressing keys **t1**, **t2** or **t3** and/or set the desired temperature setting by pressing the ▲▼ keys directly.

ⓘ *Permanent manual operation remains active* underlined:*indefinitely.*

⚠ *If one or more of the* **set** *temperatures are changed during «manual» operation, changes will be lost upon return to the usual program.*

- **To cancel permanent manual mode**, briefly press the "⚒/⏻" key, the symbol "⚒" will disappear from the display and the thermal scale of the day in progress will appear on the display, according to the program in operation before the permanent manual mode was activated.

7.2) SUSPENDING THE PROGRAM FOR CLEANING
- When operating with programs (**P 01** ÷ **P 03**), the connected appliance can be deactivated for 3 hours, by pressing "⚘". During this time, the chronothermostat will switch to **t3 Absence** temperature. The insertion of this function is displayed in **t3** on the 24-hr scale by three blinking digits corresponding to the 3 hours, starting from the one in progress (example in fig. 48).
- Once the 3 hours have elapsed, the chronothermostat will revert to the program previously interrupted.
- To reactivate the previously interrupted program before the 3 hours elapse, press "⚘", the suspended digits will appear once again (*displayed then in* t3) on level **t1** or **t2**.

ⓘ *If the* **t3** *Anti-freeze/Absence temperature was deselected (see paragraph 6.5) the connected device (boiler or conditioner) will be completely disabled for 3 hours (signalled by the setting:* t3 - - - *see fig. 49).*

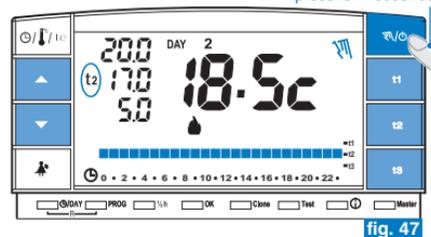ⓘ *No* **test** *transmission will be enabled during this function.*

press for 4 seconds
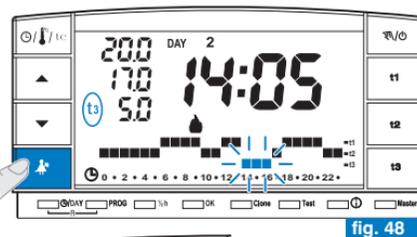
fig. 47
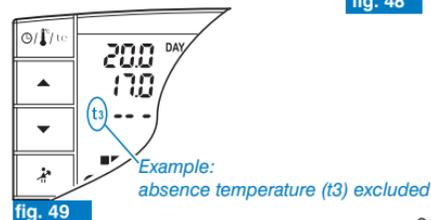
fig. 48

fig. 49

Example:
absence temperature (t3) excluded

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7 - USER FUNCTIONS SETTINGS

7.3) HOLIDAY PROGRAM - P 04 (i.e. absence for holiday)

If you will be away from home for a few days (temperature control suspension), at the end of the period set with program P04, your usual program (P01, P02 or P03) will be reactivated, in order for you to find your home at the desired temperature when you return.

All settings requested by the P04 HOLIDAY program must be confirmed by pressing OK, otherwise the chronothermostat returns to the previous settings after 3 minutes and any changes made will not be saved.

ⓘ *the **P 04 HOLIDAY** will utilise the season «🍂Winter» or «❄Summer» of the program which it is following (i.e. P01 winter, P02 winter, P03 summer).*

select the **P 04 HOLIDAY** program.
• Press **PROG** repeatedly until **P 04 HOLIDAY** appears intermittently on the display. Press **OK** to confirm (fig. 50).
• The current month will blink on the display. Using the ▲▼ keys, set the month in which you want to activate the Holiday program (leave home). Confirm with **OK** (fig. 51).

⚠ *It is not possible to select a <u>month prior to the current one</u>.*
<u>At most,</u> it is possible to set the <u>month after the current one.</u>

• The current day will blink on the display. Using the ▲▼ keys, set the day in which you want to activate the Holiday program (leave home);
note: the day of the week will set automatically based on the month and day set.
• Confirm with **OK** (fig. 52).

⚠ *It is not possible to select <u>a day prior to the current one</u>.*
You can set a date to <u>the maximum of one month after the current one.</u>

• The following will blink on the display:
the current time rounded off with minute resetting (if the current date has been set) or the hour **0:00** (if another program activation date has been set).
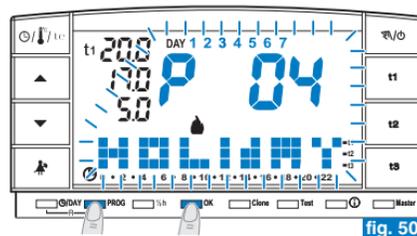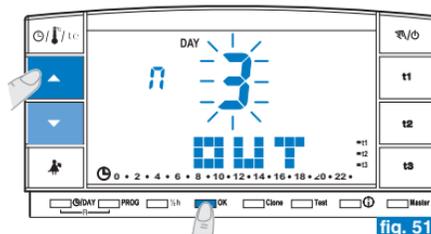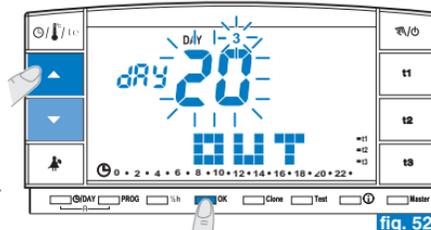
82

fig. 50

fig. 51

fig. 52

7 - USER FUNCTIONS SETTINGS

- Using the ⬆⬇ keys, set the hour in which you want to activate the Holiday program (leave home). Confirm with **OK** (fig. 53).

  ⚠ *It is not possible to select an hour prior to the current one.*

- The display will show the **IN** page in which you will enter when the program countdown should end and normal chronothermostat operation should restart (according to the original program).

- The display will show (blinking) the month that was previously set in the **OUT** function, using the ⬆⬇ keys to set the month in which you wish the countdown to end. (return home). Confirm with **OK** (fig. 54).

  ⚠ *It is not possible to select a month prior to the one set in the **OUT** function.*
  *At most, it is possible to advance one year with respect to the month set in the **OUT** function.*

- The display will show (blinking) the day in which the countdown should end (return home). Using the ⬆⬇eys, set the day (the day of the week will set automatically based on the month and day set).
- Confirm with **OK** (fig. 55).

  ⚠ *It is not possible to select a day prior to the one set in the **OUT** function.*
  At most, it is possible to advance up to the last day of the selected month.

- The display will show (blinking) the hour in which the countdown should end (return home).
  Using the ⬆⬇ keys, set the hour confirm with **OK** (fig. 56 on the next page).

  ⚠ *It is not possible to select an hour prior to the one set in the **OUT** function.*

  ⓘ *At most, it is possible to program a countdown period of 365 days (maximum 8760 hours).*

fig. 53

fig. 54

fig. 55

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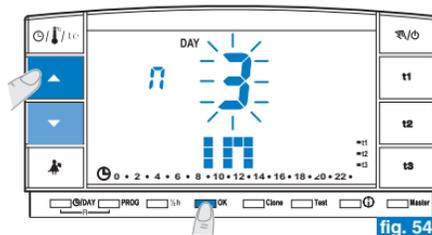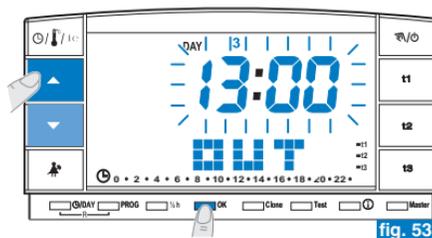
7 - USER FUNCTIONS SETTINGS

• After data has been entered and you have confirmed with **OK** (example in fig. 56), **two different messages** (depending on the data entered) can be shown on the display:

OUT date and time that are the same as the current

• Press **OK** (example in fig. 56) and the chronothermostat will begin a countdown and the program will keep the **t3** Absence temperature set (factory setting 5°C in "Winter" and 33°C in "Summer", both adjustable as per paragraph 5.6) until the end of the programmed hour. The display will show the number of hours remaining until the end of the program, plus the message **HOLIDAY** (example in fig. 57).

ⓘ To exit from P 04 HOLIDAY program early, press PROG. The chronothermostat will restart operation according to the program in operation before program P 04 HOLIDAY insertion.

OUT date and/or time that are later than the current

• Press **OK** (example in fig. 56) and the chronothermostat will return to the program that was operating before data entry in program **P 04**, as it awaits start-up of this latter program.
• The screen of the P 04 HOLIDAY program will appear on the display for 2 seconds every minute (example in fig. 58) as a reminder that it is in stand-by.

ⓘ To exit from this HOLIDAY program activation stand-by mode in advance and return to the normal operation of the chronothermostat press PROG, select P01, P02 or P03 with the arrow keys and confirm by pressing OK.

After this time, the chronothermostat will begin a countdown and the program will keep the **t3** Absence temperature set (factory setting 5°C in "Winter" and 33°C in "Summer", both adjustable as per paragraph 5.6) until the end of the programmed hour. The display will show the number of hours remaining until the end of the program, plus the message **HOLIDAY** (example in fig. 57).

ⓘ In these two conditions (above) it is not possible to change the current date, hour and minute.
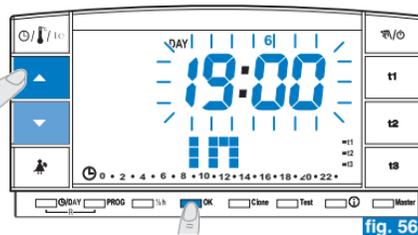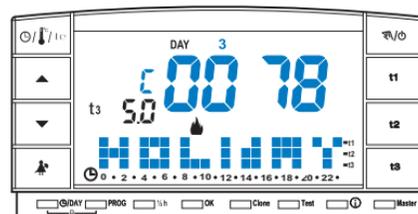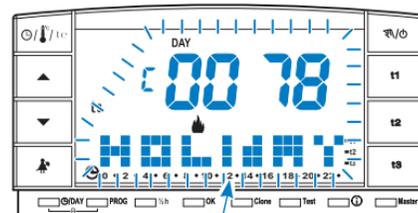
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fig. 56

fig. 57

fig. 58

Blinks every minute for 2 seconds

7 - USER FUNCTIONS SETTINGS

i *While waiting or running the P04 program, you cannot exclude the chronothermostat "OFF" (see para. 7.7).*

i *Once the countdown of the P04 Holiday program ends, the chronothermostat will adopt the season (winter or summer) of the previously selected program. If P04 is selected and set in the first programming of the chronothermostat, the season adopted by default is "winter" (P01).*

i *Once the countdown is completed or interrupted, the data entered in the **P 04 HOLIDAY** program will be cleared.*

i *The set temperature (**t1**, **t2** and **t3**) can be changed during P 04 HOLIDAY program (see paragraph 5.6).*
 *You will need to enter the password if temperature **t3** (absence) is protected by a password* 🔒 *.*

⚠ **If the t3 Absence temperature is deselected permanently (see paragraph 6.5), the Holiday program will keep the connected device (boiler or conditioner) disabled for the set duration.**

i *If the chronothermostat is in **temporary manual forcing**, the message **Err** will appear on the display for two seconds if you attempt to select the **P 04 Holiday** program. It will then return to the previously running function. If the chronothermostat is in **permanent manual override**, you can select the P04 Holiday program.*

i *While program P04 is being run, you cannot use the function that suspends the cleaning program (see para. 7.2).*

i *During **P 04 Holiday** program running, it is possible to activate the **Master** function (see chapter 9), but **Master** self-learning (MASTER TX) cannot be activated.*

7.4) CHANGING THE TEMPERATURE SETTINGS: COMFORT (t1), ECONOMY (t2) AND ABSENCE (t3)
Refer to paragraph 5.6.

7.5) READING ENTERED WEEKLY PROGRAMS
Refer to paragraph 5.9.

7.6) CHANGING YEAR, MONTH, DAY, HOUR AND MINUTES
Refer to paragraphs 5.7 and 5.8.

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7 - USER FUNCTIONS SETTINGS

7.7) DISCONNECTING THE CHRONOTHERMOSTAT (OFF)

This function has the task of blocking chronothermostat functions during periods in which heating or cooling must be off, to put the receivers in a low energy consumption condition (only those with this option).

🔒 *This function can be protected by a password (see chapter 8).*

- Keep "⟁/⏻" pressed (approx 6 sec.) to enable this function, until **OFF** appears on the display to indicate that the chronothermostat has been disabled (e.g. fig. 59).
- In this instance, all functions of the chronothermostat are disabled. Only display of the current day, the hour or the last read temperature will remain in operation (depending on the condition of origin).
  It is possible to pass from display of the current hour to the detected temperature (and vice versa) by pressing "⏱/🌡/tⓒ" (example in fig. 60).

⚠️ **To keep battery consumption to a minimum, the temperature displayed on the chronothermostat is only updated every 30 minutes.**

ⓘ *In the event of flat batteries in this condition, the below symbol will be enabled on the display:* ⟁/⏻

- Press "⟁/⏻" for a few seconds **to reactivate the chronothermostat** and return to the previously set program.

  *It is possible to pass from forcing to the telephone programmer (see par. 7.8) when the chronothermostat is excluded **(OFF).** In this case, the symbol ☎ will remain steady lit to indicate that the telephone programmer contact is still closed and that it can also be opened later. When the contact opens, the symbol ☎ will switch off and the chronothermostat will remain **OFF.***
  *When the chronothermostat exits from **OFF,** if the telephone programmer contact is open, you will return to the previously used program. If, on the other hand, the contact is closed, the chronothermostat will go into permanent manual mode with t1 comfort temperature and the ☎ symbol will blink to indicate «telephone programmer function active». To deactivate, see the following paragraph 7.8.*

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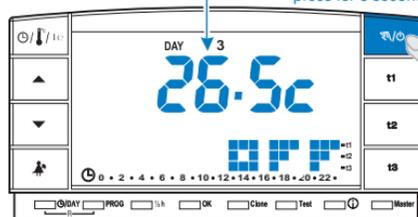*room temperature reading update only every 30 minutes*
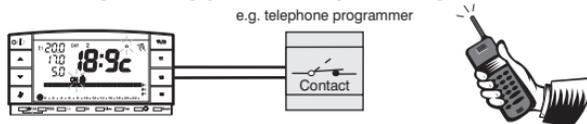
press for 6 seconds

fig. 59

fig. 60

ⓘ *In this condition (OFF), you can change the current date and time (see para. 5.7)*

7 - USER FUNCTIONS SETTINGS

7.8) TELEPHONE PROGRAMMER OPERATION

e.g. telephone programmer

Contact

The telephone programmer allows you to control the chronothermostat from a distance via the contact connected to terminals **8** and **9** (see paragraph 4.5).

Telephone programmer	Chronothermostat operation
⊸•⟶ Closed contact	in permanent manual mode with **t1 comfort** temperature
⊸•⟶ Open contact	in permanent manual mode with **t3 Absence** temperature

Closing the contact: when operating with programs, temporary/permanent manual or P 04 Holiday program, the chronothermostat is in **permanent manual mode** with **t1 Comfort** temperature. The blinking symbols ☎ and fixed " ⌇ " appear on the display to indicate forcing (fig. 61).

You can return to the previously set program (**P 01 ÷ P 03**) by pressing " ⌇/⏻". The fixed signal ☎ will appear on the display so as to indicate that the contact of the programmer is still closed. This can be opened at a later stage (fig. 62).

Opening the contact: the chronothermostat is in **permanent manual operation** with **t3 Absence** temperature (example in fig. 63).

The blinking symbols ☎ and fixed " ⌇ " appear on the display to indicate forcing. Press " ⌇/⏻" on the chronothermostat to return to program operation.

⚠ **Absence temperature t3 can be deselected permanently (see paragraph 6.5).**

ℹ *The controls to open and close contacts are effective within 1 minute. See instructions in the telephone programmer to open and close the contact.*
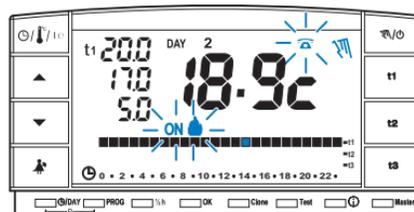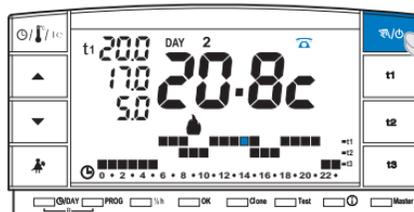
fig. 61

fig. 62

fig. 63

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7 - USER FUNCTIONS SETTINGS

7.9) USEFUL INFORMATION DISPLAYS

Quickly press ⓘ to view (sequentially) useful information regarding system and chronothermostat operation.

7.9.1) VIEWING THE PROTOCOL TYPE AND FIRMWARE VERSION

• Press ⓘ once: the display will show the radio protocol version, the installed firmware version and any revision. (example in fig. 64).

ⓘ *It is possible to return to the normal program by waiting out the time out (3 minutes) or else by pressing OK.*

ⓘ *This parameter is required in case of requests for technical assistance.*

7.9.2) BATTERY CHARGE STATUS

• From the previous screen press ⓘ again: the display will show the battery charge level (example in fig. 65).
  ▓▓▓▓▓ Batteries completely flat

  ▓▓▓▓▓ Batteries flat (in this case, the ⚡ symbol will blink)(example in fig. 66) **replace batteries within 30 days.**

ⓘ *It is possible to return to the normal program by waiting out the time out (3 minutes) or else by pressing OK.*

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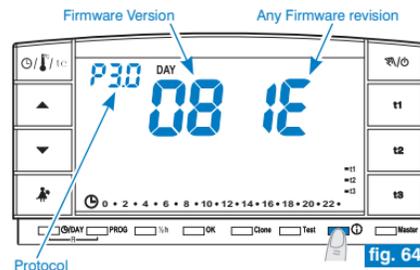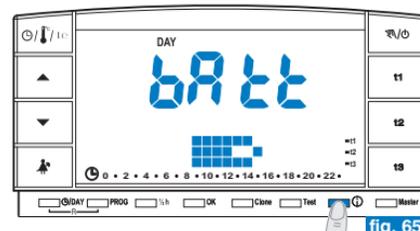Firmware Version   Any Firmware revision

fig. 64

Protocol

fig. 65
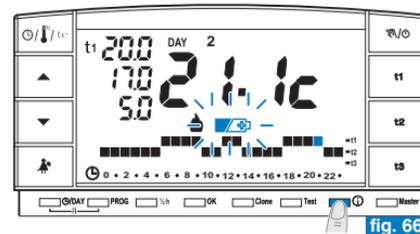

fig. 66

7 - USER FUNCTIONS SETTINGS

7.9.3) DISPLAY OF SERIAL NUMBER USED FOR TRANSMISSION

- From the previous screen (fig. 65), press ⓘ again: the display will show a serial number, which is transmitted by the chronothermostat each time data transmission is carried out (example in fig. 67).

ⓘ *It is possible to return to the normal program by waiting out the time out (3 minutes) or else by pressing OK.*

ⓘ *This parameter is required in case of requests for technical assistance.*

fig. 67

7.9.4) VIEWING AND ADJUSTING DISPLAY CONTRAST

- From the previous screen, press ⓘ again: the display will show the message **CONT** along with the value of active contrast, factory set **08** (example in fig. 68).

- Change the selected contrast value using ▲▼. The value changes by 1 point every time the key is pressed (example in fig. 69).

- Confirm with **OK**.

ⓘ *If you do not press the OK button within 3 minutes, the chronothermostat returns to normal program without saving the change of the contrast value.*

ⓘ *Contrast that is set too high results in a reduction of battery autonomy.*

ⓘ *Value modifiable from 03 to 08.*

fig. 68

⚠ Values 01 and 02 are used for automatic DISPLAY (standby) shutdown to save battery consumption.
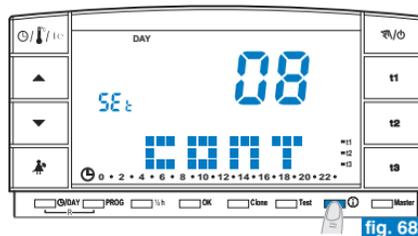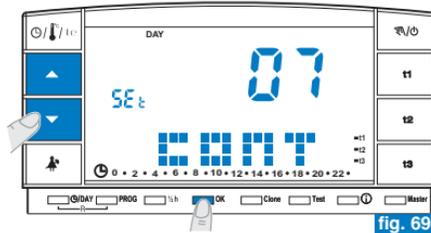See function, activation and deactivation description in the following point 7.9.5.

fig. 69

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7 - USER FUNCTIONS SETTINGS

7.9.5) DISPLAY SHUTDOWN FUNCTIONS (STANDBY) for battery savings

You can set display shutdown (standby) in two different ways **to reduce battery consumption**.

7.9.5/A - NIGHT-TIME DISPLAY SHUTDOWN FROM 0:00 AM TO 6:00 AM

The chronothermostat is normally not used frequently during this part of the day.

- From the display contrast screen (example in fig. 69) press ▲▼ to view level "**02**" **LCd dAY** (example in fig. 70).
  Note: it is possible to return to the normal program by waiting out the time out (3 minutes) or else by pressing ⓘ.
- Press **OK** to set display shutdown from 0:00 am to 6:00 am (example in fig. 71).
- During this period of time, press any key and the display will immediately turn back on for 3 minutes, then will switch off again.

To deactivate the night-time display shutdown function, set the desired display contrast value (see procedure in par. 7.9.4).

7.9.5/B - TOTAL DISPLAY SHUTDOWN

This function is particularly suitable for second homes, where the use of the chronothermostat is infrequent and limited to short periods of the year.

- From the display contrast screen (example in fig. 69) press ▲▼ view level "**01**" **LCd OFF** (example in fig. 72).
  Note: it is possible to return to the normal program by waiting out the time out (3 minutes) or else by pressing ⓘ.
- Press **OK**: after 3 minutes, the display will shut down over the 24 hours of each day (example in fig. 71).
- Press any key and the display will immediately turn back on for 3 minutes, then will switch off again.

To deactivate the «total display shutdown» function , set the desired display contrast value (see procedure in par. 7.9.4).

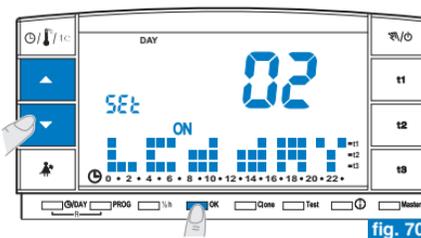ⓘ *In the event of chronothermostat reset (see paragraph 5.11), the display shutdown setting will be cancelled.*
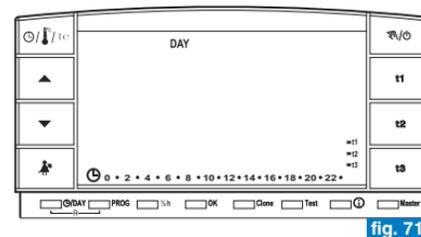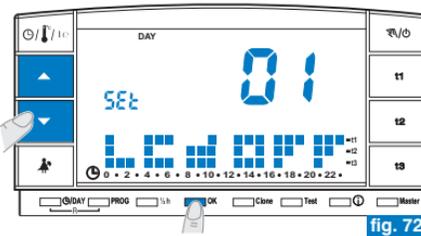
90

fig. 70

fig. 71

fig. 72

8 - PASSWORD

8.1) PASSWORD

Some functions can be protected by a password to avoid incorrect settings being entered by unauthorised personnel. Functions protected by a password are:

- Coupling the chronothermostat to the receiver (paragraph 4.8)
- Radio signal verification test (paragraph 4.9)
- Selecting the **Winter** program **(P 01 - P 02)** or the **Summer** program **(P 03)** or vice-versa (par. 5.5)
- Reset paragraph 5.11)
- Modifying Set absence temperature t3 (paragraph 5.6)
- Limiting the temperature setting values (paragraph 6.1)
- Temperature differential (ON/OFF) (paragraph 6.3)
- Correcting detected room temperature (paragraph 6.4) (OFFSET)
- Total disconnection of the **t3** Absence temperature (paragraph 6.5)
- Disconnecting the chronothermostat (OFF) (paragraph 7.7)
- Password entry, modification, disabling (paragraph 8.1)
- Transferring programming data between two chronothermostats (paragraph 6.2).
- Assignment of zones to the MASTERS (only for model with this option) (par. 9.3.1)

ⓘ Wait 8 seconds to exit from the password entry screen without saving any modifications.
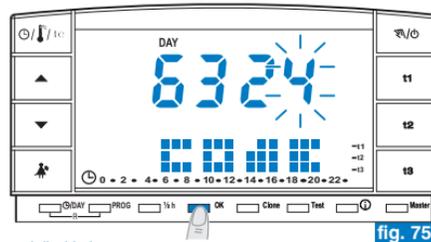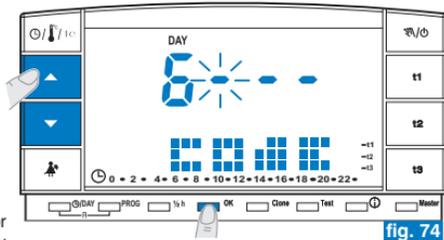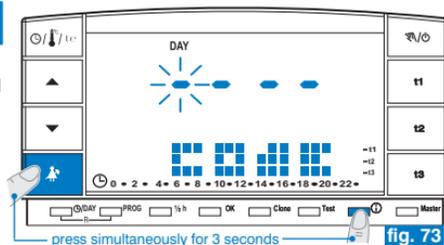
8.1/a) PASSWORD ENTRY

- To enter a password in normal chronothermostat operation, keep ✷ and ⓘ pressed (for approx. 3 sec.). A **COdE** message and the first hyphen to the left will blink on the display (fig. 73).
- Set the desired level with ▲▼ ; press **OK** to confirm (e.g. fig. 74).   Follow the same procedure for the other three hyphens (e.g. fig. 75).
- Once the last value on the display has been confirmed, return to normal operating conditions: the password has been enabled.

ⓘ - Hyphens "–" are not permitted together with numbers; only 4 consecutive hyphens are allowed for entry as described in par. 8.1/d has the purpose of disabling the password.
- Press PROG to delete any mistaken digits.

"examples":

6324 Correct   **632-** NO!   **- - - -** Correct   password disabled

press simultaneously for 3 seconds
fig. 73

fig. 74

fig. 75

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8 - PASSWORD

8.1/b) ACCESSING PROTECTED FUNCTIONS
- If the password has been enabled and the user wants to enable a protected function, a **COdE** message and the first hyphen to the left will blink on the display (fig. 73).
- If known, enter the password using ▲▼ and press **OK** to confirm each entered value (see previous procedure).

ⓘ *- If you enter the wrong password, the display will show **Err** (fig. 76).*
- After 3 wrong attempts, the chronothermostat will return to normal operation.
  - If a reset operation protected by a password is performed, this too will be cancelled.

8.1/c) MODIFYING THE PASSWORD
Proceed as follows to modify the password:
- From normal chronothermostat operation, keep keys 👤 and ⓘ pressed (approximately 3 sec.). A **COdE** message and the first hyphen to the left will blink on the display (fig. 73).
- Enter the current password with keys▲▼; press **OK** to confirm each entered value (example in fig. 75).
  A **COdE II** message and the first hyphen to the left will blink on the display (fig. 77); enter **the new password** with keys ▲▼, then press **OK** to confirm each entered value (example in fig. 78).
- *Note: press **PROG** to exit from the screen without making any changes.*
- Once the last value on the display has been confirmed, return to normal operating conditions: the new password has been enabled.

8.1/d) DELETING THE PASSWORD
  Proceed as follows to delete the password:
- Operate as described in the previous paragraph (8.1/c).
- When a **COdE II** message appears on the display, enter 4 hyphens as the password (- - - -) and confirm each "hyphen" by pressing **OK** (fig. 77).
- Once the last "hyphen" on the display has been confirmed, return to normal operating conditions: the password has been deleted.

> **If the password is lost or forgotten, contact the manufacturer's customer service centre, which will communicate the password to unlock it.**
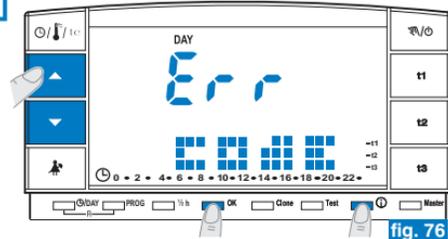
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example of erred password entry
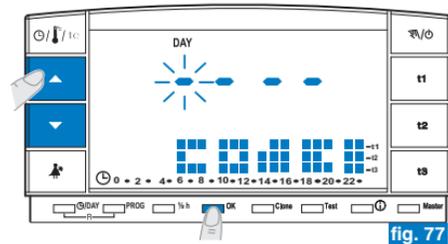

fig. 76

fig. 77

fig. 78

9 - "MASTER" FUNCTION

9.1) DESCRIPTION MASTER FUNCTION

The **"Master"** function allows you to create multi-zone installations in which, in addition to temperature control in each zone by means of a coupled thermostat or chronothermostat (via radio), the chronothermostat with "Master" can override other devices and control the temperature of all zones assigned to it (in accordance with the operation modes shown later).
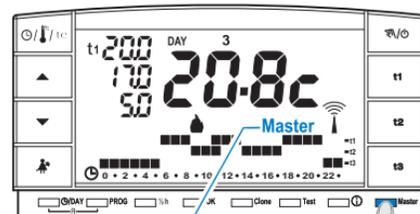
fig. 79

Master

Master activated

"MASTER" key:
- access / exit from MASTER TEST status
- activation / deactivation of Master function

9.2) INSTALLATION EXAMPLE

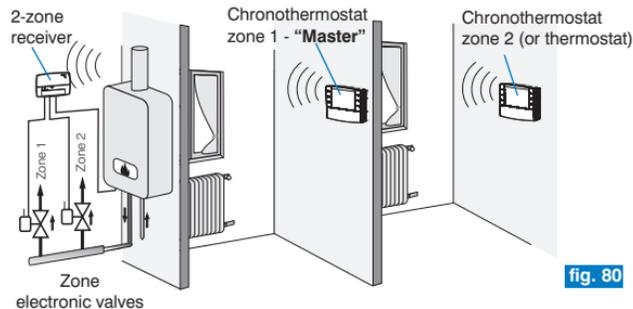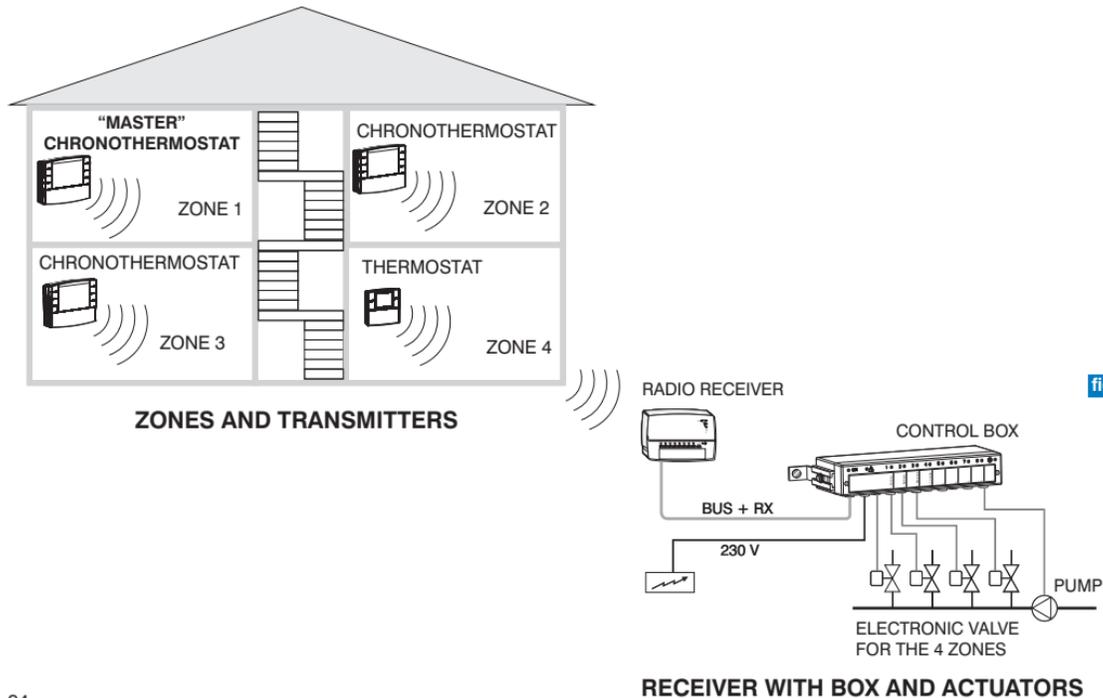• Master chronothermostat in 2-zone installation (example in fig. 80).

2-zone receiver

Chronothermostat zone 1 - **"Master"**

Chronothermostat zone 2 (or thermostat)

Zone 1

Zone 2

Zone electronic valves

fig. 80

9 - "MASTER" FUNCTION

• *Example: Master chronothermostat in 4-zone installation (example in fig. 81).*

"MASTER"
CHRONOTHERMOSTAT

ZONE 1

CHRONOTHERMOSTAT

ZONE 2

CHRONOTHERMOSTAT

ZONE 3

THERMOSTAT

ZONE 4

ZONES AND TRANSMITTERS

RADIO RECEIVER

CONTROL BOX

BUS + RX

230 V

PUMP

ELECTRONIC VALVE
FOR THE 4 ZONES

fig. 81

RECEIVER WITH BOX AND ACTUATORS

9 - "MASTER" FUNCTION

INSTRUCTIONS FOR THE INSTALLER

9.3.1) ASSIGNMENT OF ZONES TO THE "MASTERS"
(to be performed after matching transmitters, see for example paragraph 4.8).

🔒 *This function can be protected by a password (see chapter 8).*

To assign "Master" chronothermostats to zones (channels), carefully follow instructions found in the chapter "Preparing the receiver for operation with Master" in the receiver instruction manual.

fig. 82   press for 4 seconds

Activate the "Master Test" status ON THE "MASTER" CHRONOTHERMOSTAT:
• press the **Master key for 4 seconds:** "**MASt**" will be displayed (example in fig. 82).

ON THE RECEIVER:
• verify zone status and perform assigning operations indicated in the receiver instruction manual.

After operations have been completed:
Deactivate the "Master - Test" status **ON THE "MASTER" CHRONOTHERMOSTAT,** pressing the **Master key for one second:** "**MASt**" disappears and the program previously in progress will appear on the display.

9.3.2) DELETING ASSIGNMENT OF A ZONE TO A "MASTER"

Also with deleting operations, carefully follow instructions found in the receiver instructions manual.

Activate the "Master Test" status ON THE "MASTER" CHRONOTHERMOSTAT:
• press the **Master key for 4 seconds:** "**MASt**" will be displayed (example in fig. 82).

ON THE RECEIVER:
• verify zone status and perform cancelling operations indicated in the receiver instruction manual.

Deactivate the "Master - Test" status ON THE "MASTER" CHRONOTHERMOSTAT:
• press the **Master key for one second:** "**MASt**" disappears and the program previously in progress will appear on the display.

ⓘ *"Master - Test" status remains active for maximum 3 minutes, after which the chronothermostat will return to its normal operation.*
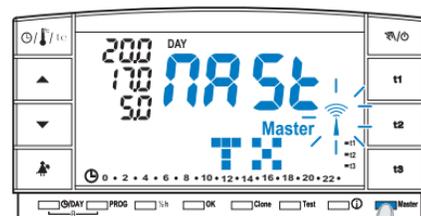
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9 - "MASTER" FUNCTION

INSTRUCTIONS FOR THE USER

9.4) "MASTER" OPERATION MODE

In installations with zones assigned to a "MASTER" chronothermostat, the "Master" function can be activated or deactivated by the user with a quick press of the **Master** key. The activated "Master" status will be indicated on the display by the constantly lit **Master** message (fig. 83).

fig. 83

"Master" function deactivated: the "MASTER" chronothermostat behaves as a normal chronothermostat and acts only in the zone where it is coupled.

"Master" function activated: until the function is deactivated, the "MASTER" chronothermostat replaces chronothermostats and/or thermostats coupled to assigned zones, as shown in the following paragraphs.
Within the "MASTER" FUNCTION, it is possible to modify temperature levels and values, pass from temporary manual to permanent manual or from a programme (or profile) in operation.
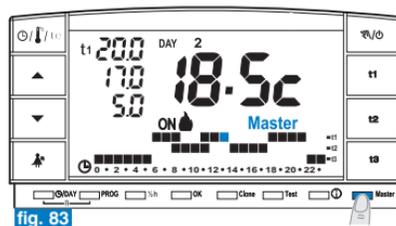
9.4.1) TEMPORARY MANUAL MASTER

Activation:
• briefly press the " ⏻ " key on the MASTER chronothermostat to enter into temporary manual operation; appears blinking symbol " " (see details in paragraph **7.1 point A**) (example in fig. 84).
Briefly press the **"Master"** key: the constantly lit message **Master** will appear on the display.
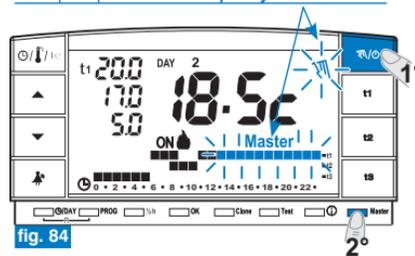
Operation:
• temperature control of all zones assigned to the "Master" is managed by the "Master": temperature level (comfort "t1", economy "t2", absence "t3") and temperature values are those set in the "Master".

Example: operation with **temporary manual Master**

fig. 84

ⓘ *In "Temporary manual master" mode, the following events can occur at midnight:*
   • *If the "Master" chronothermostat was in "temporary manual" mode when "Master" mode was selected, it quits both "temporary manual" mode and "Master" mode and resumes functioning in program mode.*
   • *If the "Master" chronothermostat was set first to "Master" mode and then to "temporary manual" mode, it quits "temporary manual" mode and resumes functioning as "Master" in program mode. (see operation in par. 9.4.3)*

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9 - "MASTER" FUNCTION

INSTRUCTIONS FOR THE USER

Deactivating the "Master" function:
• briefly press the **"Master"** key; the message **Master** will disappear from the screen: the chronothermostat stays in "temporary manual" operation and the zones assigned to the master will return under the control of their transmitters (example in fig. 85).

9.4.2) PERMANENT MANUAL MASTER

Activation:
• press the " ⟲ " key on the MASTER chronothermostat (approximately 4 sec.) to enter into permanent manual operation; the symbol " ⟲ " becomes fixed (see details in paragraph **7.1 point B**) (example in fig. 86).
Briefly press the **"Master"** key: the constantly lit message **Master** will appear on the display.

Operation:
• temperature control of all zones assigned to the "Master" is managed by the "Master": temperature level (comfort "t1", economy "t2", absence "t3") and temperature values are those set in the "Master."

Deactivating the "Master" function:
• briefly press the **"Master"** key; the message **Master** will disappear from the screen: the chronothermostat stays in "permanent manual" operation and the zones assigned to the master will return under the control of their transmitters.
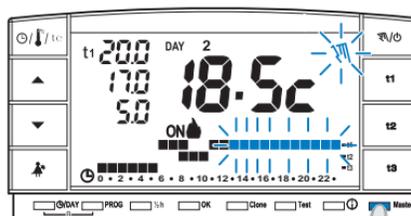(example in fig. 87).

fig. 85

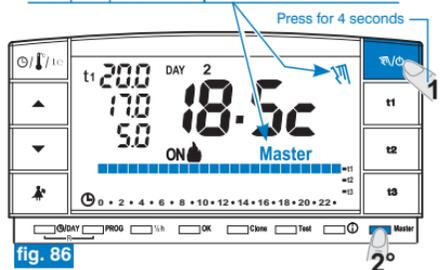Example: operation with **permanent manual Master**

Press for 4 seconds

1°

fig. 86

2°

fig. 87

EN

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9 - "MASTER" FUNCTION

INSTRUCTIONS FOR THE INSTALLER

9.4.3) PROGRAMME MASTER OPERATION (from profile)

Activation:
• When the master chronothermostat is in programme operation, briefly press the **"Master"** key. The constantly lit message **Master** will appear on the display.

Operation:
• during periods when the programme (profile) presents **economy (t2)** and **absence (t3)** levels, temperature control in all zones assigned to the "Master" is managed by the "Master"; temperature level and values are those set in the "Master."
• during periods when the programme (profile) presents the **comfort (t1)** temperature level, temperature control is no longer managed by the Master (which continues to manage its coupled zone), but by the transmitters coupled to the single zones. The message **Master** will however remain on the display (fig. 88).

Deactivating the "Master" function:
• briefly press the **"Master"** key; the message **Master** will disappear from the display, the chronothermostat will remaining programme function and the zones assigned to the master will return under the control of their transmitters (example fig. 89).

(i) **IMPORTANT:**
   when the "Master" is activated, it is possible to:
   • **utilise functions Holiday (par. 7.3), interruption key for cleaning operations (par. 7.2) or system exclusion on OFF (par. 7.7) without "Master" function being deactivated. These functions are applied in all zones assigned to the "Master".**
   • **Pass from one mode to another (programme in operation, temporary manual or permanent manual) by pressing the manual key "⚙/⏻".**

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Example: operation with **programme Master** (profile)

fig. 88

Period with Comfort (t1) temperature: the "Master", even if activated, does not control the assigned zones, which return under the control of their transmitters.
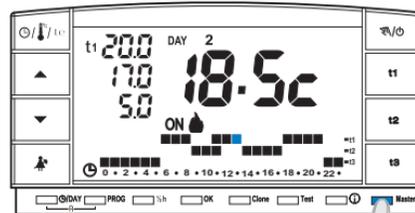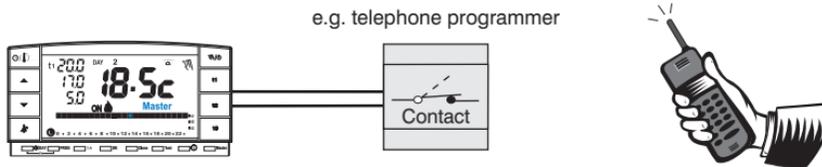

fig. 89

9 - "MASTER" FUNCTION

INSTRUCTIONS FOR THE USER

9.4.4) MASTER OPERATION WITH THE TELEPHONE PROGRAMMER
(see also paragraph **7.8**)

e.g. telephone programmer

Contact

When the telephone programmer contact connected to a "MASTER" chronothermostat in operation is closed:
• "Programme Master"
• "Temporary manual Master"
• "Permanent manual Master"
• "Master with "Holiday" programme
all assigned zones will be temperature controlled on level **t1 "comfort"** of the "Master" in permanent manual mode.
When the telephone programmer is open, all zones assigned to the chronothermostat will be temperature controlled on level
t3 "**absence**" of the "Master" in permanent manual mode.

⚠️ **In all operating conditions with temperature level t3 Absence described above, this can be permanently excluded (see details in paragraph 6.5).**

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Declaration of conformity: we hereby declare that the product below meets the essential requirements required by Directive R&TTE1999/5/CE.
Product compliance to this Directive is confirmed by the CE marking on the product and in this document.
A full copy of the "Declaration of Conformity" of Directive R&TTE1999/5/CEE is available upon request at the address of the Registrant, below.

Model:

Marking: