FantiniCosmi

WEEKLY PROGRAMMABLE THERMOSTAT WITH TOUCHSCREEN

CH193

INDEX

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- 1 chronothermostat
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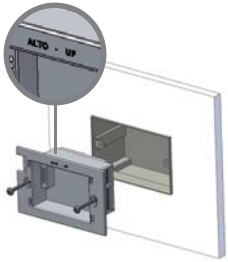
1 INSTALLATION

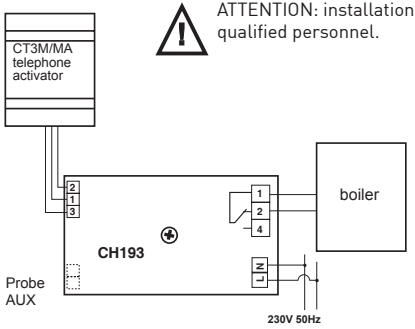
The CH193 chronothermostat must be installed in a 3-module recessed box, in the middle of the apartment, preferably 1.5 m off the ground.



PERFORM THE FOLLOWING OPERATIONS:

1. Act on the master switch on the electric panel to cut power to the electrical system;
2. Connect the two wires of the boiler to terminals 1-2 of chronothermostat;
3. Connect the two power cables L-N;
4. Screw the frame onto the box using the provided screws, paying attention to the indicated assembly direction;
5. Switch the electric system back on;
6. Insert the thermostat body in the frame fixed to the wall.

2 ELECTRICAL CONNECTIONS



ATTENTION: installation must be carried out by qualified personnel.

N.B. When CH193 is disconnected, the boiler contact remains in its current position.
Unscrew the lid to connect the auxiliary probe.

Use compatible Fantini Cosmi probes:
EC18 external probe
EC19 floor probe
EC20 room probe

3 BUFFER BATTERY FUNCTION

During black-outs, the programmed parameters will not be lost as the settings are stored in a non-volatile memory. Even when there are long power failures, the time/date remain stored thanks to an internal battery.

4 MAINTENANCE

Use only a soft cotton cloth to clean the chronothermostat without any detergent. Do not use paper tissue to clean the screen.

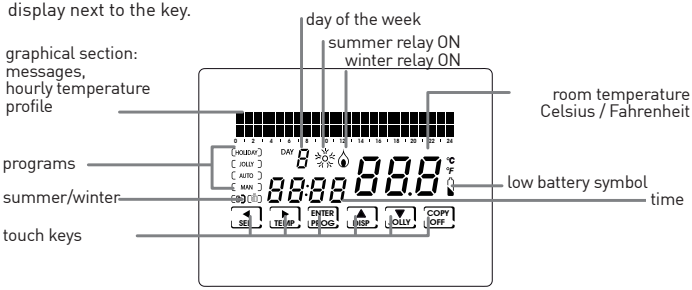
KEYBOARD BLOCK

To make sure you don't change any settings on the chronothermostat unintentionally while cleaning, enable the keyboard block by pressing the middle of the display for 5 seconds. The text "BLOCKED" appears on the display when the keyboard has been blocked. The keys will re-enable automatically after 30 seconds.

5 QUICK GUIDE FOR PROGRAMMING

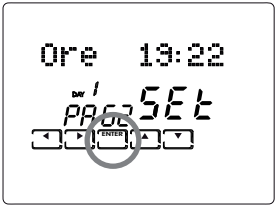
DESCRIPTION OF KEYS/DISPLAY

The chronothermostat is equipped with 6 keys, the function of which varies depending on the situation. It is described by the symbol which appears on the display next to the key.



N.B.: to switch on the display, press in the middle; if no other keys are pressed, the display switches off after 2 seconds; if other keys are pressed, the display will switch off after remaining idle when the time set in the parameter LIGHT ON expires (see Chap. 6 CONFIG. PG03).

SETTING TIME AND DATE

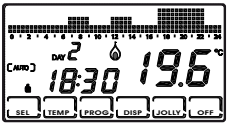


After the device switches on, press the key **PROG** briefly: the text "Setup" is displayed; now press ▶ to enter the "Hours" page. Set the hour by pressing ▲ and ▼. Then press ▶ to go to the "Minutes" setting.
Again press ▶ to select, in order, the Year, Month and Day.
Pressing ▶ again allows you to choose whether to disable automatic change of summer/winter time: initially this function is active can but can be deactivated by pressing "NO" using the keys ▲ and ▼.
Pressing ◀ allows you to go back to the previous page.
To exit the Setup menu, press **ENTER**.

OPERATING PROGRAMS

The CH193 chronothermostat has different operating modes, called programs:

- "AUTO" WEEKLY PROGRAM:



one of the four programmable temperatures can be associated to each half hour for each day of the week. This is the program displayed when the chronothermostat is switched on and is generally the one most used.

- "HOLIDAY" DAILY PROGRAM:

Like in the AUTO program, you may select one of the 4 programmable temperatures for each half hour, but the identical sequence will be repeated every day.

■ "JOLLY" TEMPORARY PROGRAM:
you may choose to hold a certain temperature for a certain number of hours, after which it will go back to the previously active program.

■ "MAN" MANUAL PROGRAM:
the chronothermostat maintains a fixed temperature, for an unlimited amount of time until another program is selected.

■ SYSTEM OFF OR WITH ANTIFREEZE PROGRAM "OFF/ANTIFREEZE":
the system remains off or else maintains a very low temperature (from 2 to 7°C) to prevent the fluid in the heating system from freezing.

SETTABLE TEMPERATURES

Four different temperatures can be set and one can be selected for each half hour of the day in the AUTO and HOLIDAY programs. Three of these temperatures (T1, T2 and T3) can have values from 2° to 40°C, while the fourth, T antifreeze (TA), can range from 2° to 7°C, or be set at "OFF" (system off). The manual program has its specific temperature (TMan), like the JOLLY program (Tj), which are set in the respective screens and can range from 2° to 40°C.
The ANTIFREEZE/OFF program, on the other hand, follows the temperature TA which, as we have said, can range from 2° to 7°C; or else, it can be set at "OFF", switching the plant completely off.

SETTING OPERATING PROGRAMS

→ PROGRAM SELECTION

press **SEL** to select, in cyclical sequence, the different operating programs: AUTO -› MAN -› OFF -› HOLIDAY.

PLEASE NOTE: the JOLLY temporary program is not included in the program sequence, but can be selected directly by pressing the JOLLY key.

→ SETTING THE TEMPERATURES

press **TEMP** in the AUTO, HOLIDAY and OFF programs to change the value of the 4 programmable temperatures: when you press **TEMP** several times, the values T1, T2, T3, Ta appear in sequence; stop at the T you want to change and use the arrow keys ▲ and ▼ to increase or decrease the temperature by a tenth of degree at a time. Press ◀ to go back to the initial status.

Remember that T1 will always be less than T2, and T2 than T3.

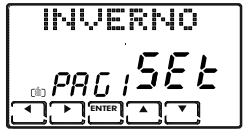
Pressing **TEMP** in the JOLLY program allows you to modify its temperature using the keys ▲ and ▼. Press ◀ to go back to the page displaying the hours, allowing you to modify them using ▲ and ▼.

The MAN program allows you to modify the fixed temperature TMan using the keys ▲ and ▼.

→ EDITING CURRENT DATE AND TIME

Press **PROG** briefly to enter the "SETUP" menu. Using ◀ and ▶ allows you to modify: winter/summer, hours, minutes, year, month, day, summer time.

These values can be changed using the keys ▲ and ▼.



→ CUSTOMISATION OF WEEKLY "AUTO" PROGRAMMING AND DAILY "HOLIDAY" PROGRAMMING

Keep the key **PROG** pressed until the text "Config" is displayed. This menu allows you to program the weekly profiles (AUTO program) and daily profiles (HOLIDAY program) and to set the advanced functions (see the following paragraphs for their description).

PLEASE NOTE: if the text "Setup" appears instead of "Config", you did not press the key long enough and you must press **ENTER** to go back to the normal operating condition and try again.

When you enter the "Config" menu, a page appears which allows you to choose the desired temperature (T1/T2/T3/Ta) for each half hour of the indicated day (from 1 to 7 indicating the days from Monday to Sunday).
PLEASE NOTE: T1/T2/T3/Ta are displayed on the right of the screen with the symbols

t1-t2-t3-tA

Pressing ◀ and ▶ allows you to move one half hour at a time to the right or to the left.
Pressing ▲ and ▼ allows you to go from one programmed temperature to another.

Pressing **PROG** (briefly) switches you to the next day (DAY 1 -› 2 -› 3 -› 4 -› 5 -› 6 -› 7 -› H).

Press **COPY** to copy the temperature profile of the current day on the following day.

After H (profile of the Holiday daily program) you go to the Correction parameter page.

Then pressing **ENTER** from the Correction page allows you to the exit the "Config" menu.

N.B.: press ◀ at the start of day 1 to go right to the Correction page.

→ "JOLLY" PROGRAM SETTING

In all programs, except MAN, pressing the key **JOLLY** selects the temporary program: this program allows you to define the desired temperature and its duration in hours (up to a maximum of 240, so to say 10 days).

For example, you may want to keep a lower temperature during the entire weekend when no one is home.

When you enter this program, you may modify the duration, which initially is one hour, and increase the number of hours by pressing ▲, or decrease them by pressing ▼.

Pressing **TEMP** allows you to view and modify temperature Tj, again using the keys ▲ and ▼.

Pressing ◀ sends you back to view the duration of the JOLLY program.

When this time elapses, you go back to the initial program.

→ "OFF/ANTIFREEZE" PROGRAM SETTING

Pressing **OFF** from any program switches the chronothermostat to the off/antifreeze status. The antifreeze temperature (Ta) can be programmed by pressing **TEMP**, from OFF (boiler always off) to an interval between 2.0 and 7.0°C, using the arrow keys ▲ and ▼.

Go back to the OFF status by pressing ◀.

Pressing OFF again sends you back to the previous operating status.

→ ALTERNATIVE DISPLAYS

Other information can be viewed in the AUTO and HOLIDAY programs in place of the temperature profile, by pressing the key **DISP** several times.

The first time it is pressed the programmed temperature for the current half hour appears, the second time it displays the date, the third time it displays the temperature of the external probe and the fourth time it goes back to the initial temperature profile.

6 FUNCTIONS IN DETAIL

AVAILABLE PROGRAMS

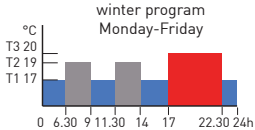
CH193 has several operating modes (programs):

- "AUTO" weekly program
- "HOLIDAY" daily program
- "JOLLY" temporary program
- "MAN" manual program
- system off or with antifreeze "OFF"program

→ "AUTO" WEEKLY PROGRAM

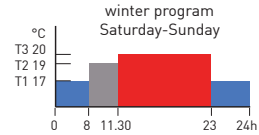
4 temperature levels can be used in the AUTO operating mode (Ta, T1, T2, T3), according to a programming with 30 minute steps, 24 hours a day, 7 days a week. The days are numbered from 1 to 7 and correspond to the seven days of the week, starting from Monday.
To simplify programming, you may set the first day and copy it on the following days. The default for days 1 – 5 (Monday to Friday) is:

00:00 – 06:30 T1
06:30 – 09:00 T2
09:00 – 11:30 T1
11:30 – 14:00 T2
14:00 – 17:00 T1
17:00 – 22:30 T3
22:30 – 24:00 T1

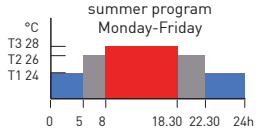


while the default for days 6 and 7 (Saturday and Sunday) is:

00:00 – 08:00 T1
08:00 – 11:30 T2
11:30 – 23:00 T3
23:00 – 24:00 T1



The value of the 4 temperatures can be programmed using the TEMP function.
The temperature profile (hourly variation) can be programmed using the PROG function.

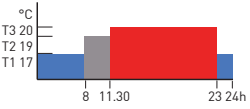


For summer mode (air conditioning), the default program
is that shown in the figure.

→ "HOLIDAY" DAILY PROGRAM

4 temperature levels can be used in HOLIDAY operating mode, according to a programming with 30 minute steps, 24 hours a day.
This achieves a daily programming, regardless of the days of the week. The default temperature profile is:

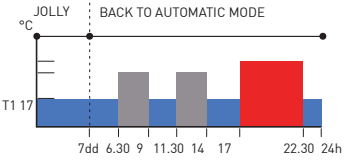
00:00 – 08:00 T1
08:00 – 11:30 T2
11:30 – 23:00 T3
23:00 – 24:00 T1



The value of the temperatures can be programmed using the TEMP function.
The temperature profile (hourly variation) can be programmed using the PROG function.

→ JOLLY

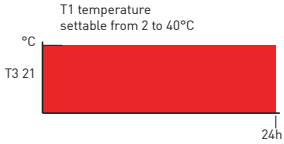
The JOLLY mode allows you to set a programmable temperature (Tj) for a programmable number of hours (from 1 to 240). It is used when you wish to introduce a temporary variation to programming without changing the parameters, for example to maintain a high temperature for longer when spending an evening with friends or to keep it low when no one is home the weekend.



If you enter JOLLY mode using the specific function key, when time is up it goes back automatically to programming in progress.

→ MANUAL

MAN mode allows you to set a fixed temperature manually (Tman), ranging from +2.0 to +40.0 degrees, without expiring and without needing to modify the weekly or daily program.
For example it can be used to keep the house at a different temperature than that of the daily program when no one is home, or to switch on the system remotely, bringing it to a constant temperature.



→ OFF

OFF mode is used when you want to switch the system off.
It uses the temperature TA (antifreeze) as a reference, to guarantee protection of the system at low temperatures.
TA is normally set at +5 degrees, but it can also be set at OFF, to switch the boiler completely off. Weekly or daily programs remain unchanged.

settable TEMPERATURES

The system can use 4 different temperature levels, three for normal use and one, called "antifreeze", to be used when you wish to keep the boiler off, but without risking having the fluid in the system freeze.
Programming of the three T is conditioned by reciprocal values:
T1 cannot be higher than T2,
T2 cannot be higher than T3.

The temperatures are set using the key **TEMP** and ▲ and ▼.

T1 ranges between +2.0 and +T2 degrees, with variations every tenth of degree [default 17.0].
T2 ranges between +T1 and +T3 degrees, with variations every tenth of degree [default 19.0].
T3 ranges between +T2 and +40.0 degrees, with variations every tenth of degree [default 20.0].
TA (antifreeze) ranges between +2.0 and +7.0 degrees, with variations every tenth of degree, or a can be OFF, when the boiler remains off [default 5.0].

ADVANCED KEYS AND FUNCTIONS

■ USING THE **SEL** KEY

The **SEL** key allows you to select the operating mode of the chronothermostat, according to the following programs:

→ HOLIDAY
→ AUTO
→ MANUAL
→ OFF

To change the selected program, press **SEL** in sequence (cyclical). The first 3 statuses are signalled with a small text on the left of the display, while the OFF status appears in the graphical area at the top.

■ USING THE **TEMP** KEY

→ In AUTO, HOLIDAY and OFF

Pressing **TEMP** allows you to enter programming of the 4 temperatures used in these statuses.
Change the temperatures using the arrow keys ▲ and ▼, as long as T1 is no higher than T2, T2 is not lower than T1 and higher than T3, T3 is not lower than T2.

Press **TEMP** to go to the next temperature (cyclical) T1›T2›T3›Ta›T1.
Press ◀ to go back to the home page.

→ In JOLLY

Press **TEMP** to program Tj;
Using ▲ and ▼ allows you to change Tj (between +2 and + 40°) while pressing ◀ sends you back to the home page.

■ USING THE **PROG** KEY

→ **PROG** (brief) -› SETUP

→ Winter/PAG1/Set
using ▲ or ▼ you switch from Winter to Summer and vice versa
press ▶ to go to the next page and **ENTER** to exit from **PROG**.

→ Hours HH : MM/PAG2/SEt
pressing ▲ cyclically increases the hours while ▼ decreases them.
press ▶ to change page and press **ENTER** to exit **PROG**.

→ Min. HH:MM /PAG3/SEt
pressing ▲ cyclically increases the minutes while ▼ decreases them.
press ▶ to change page and press **ENTER** to exit **PROG**.

→ Year: YYYY/PAG4/SEt
pressing ▲ increases the years while ▼ decreases them
press ▶ to change page and press **ENTER** to exit **PROG**.

→ Month: MM/PAG5/SEt
pressing ▲ cyclically increases the months while ▼ decreases them.
press ▶ to change page and press **ENTER** to exit **PROG**.

→ Date: DD/PAG6/SEt
pressing ▲ cyclically increases the days while ▼ decreases them.
press ▶ to change page and press **ENTER** to exit **PROG**.
PLEASE NOTE: when the date is set, the chronothermostat automatically determines the day of the week.

→ Summer Time YES/PAG7/SEt
Automatically selects summer time, applicable in Europe and some of the countries. This set up automatically updates the time when it changes (March and October). Use ▲ or ▼ to say YES or NO. Press ▶ to go back to page.1 (Winter/Summer) and press **ENTER** to exit **PROG**.

→ **PROG** (long) -> CONFIG.
The display of day 1 appears, with the graphical display of the temperatures each half hour, indication of the half hour and the associated temperature (t 1 - t 2 - t 3 - t A).

Day 1 corresponds to Monday, and so on. Day H is the Holiday, which does not Change during the week.

Pressing ▶ moves forward a half hour
Pressing ▲ or ▼ moves up or down from tA to t1 to t2 to t3.
Press **PROG** (briefly) to change the day (1, 2, 3, 4, 5, 6, 7, H).
After H you go to page1 (Correction).
Press **COPY** to copy the temperature profile of the current day on the following day. From page 1 on, pressing **ENTER** allows you to exit programming.
Press ◀ to go back to the previous half hour (even the day before).
N.B.: press ◀ at the start of day 1 to go right to page 1 (correction).

→ Correction/PG01/XX.X°
This allows you to modify the read temperature, which due to the recessed wall installation or perhaps a non-ideal height might not indicate the true temperature perceived.
It is recommended to calibrate it by comparing it with a thermometer placed at the desired height/area.
Use ▲ and ▼ to modify the temperature value on the display.
Press ▶ to go to page 2 and **ENTER** to exit.

→ Celsius/PG02/XX.X°
This allows you to choose the temperature display scale between Celsius and Fahrenheit degrees.
Press ▲ or ▼ to switch from Celsius to Fahrenheit.
Press ▶ to go to page 3 and **ENTER** to exit.

→ Light ON Xs/PG03
Allows you to set the switch on mode (timed or stable) of the display back lighting.
Pressing ▲ or ▼ allows you to time switch-on between 2 and 29 seconds, or else steady switch-on identified by the text ON. Press ▶ to go to page 4 and **ENTER** to exit.

→ Int. Light X/PG04
Allows you to modify the luminous intensity of the display, at 10 levels.
Press ▲ or ▼ to modify the brightness level (1-10).
Press ▶ to go to page 5 and **ENTER** to exit.

→ Italiano/PG05
Allows you to change the language used during programming.
Press ▲ or ▼ to cyclically switch from one language to another.
Press ▶ to go to page 6 and **ENTER** to exit.

→ Block? NO(YES)/PG06
Allows you to block the keyboard, with the 4-digit password. It only works once and then must be re-enabled.
Pressing ▲ or ▼ switches from NO to YES, and press **ENTER** to request the password, entered with the arrow keys ▲ or ▼, selecting the digits with ◀ and ▶.
Press **ENTER** to store it, going back to the normal operating display, where only the function key **ENTER** is visible. When you press it you are requested to enter the password, using the arrow keys ▲ and ▼ , followed by **ENTER**. The display goes back to normal programming, enabling all the functions.
Press ▶ to go to page 7 and **ENTER** to exit.

→ Reset? NO (YES)/PG07
Press ▲ or ▼to switch from NO to YES. Pressing **ENTER,** while "YES" is displayed restores all the parameters (except date and time) to the default values.
Press ▶ to go to page 8 and **ENTER** to exit.

→ CH193 vX.Y/--/PG08
Displays the software version of the CH193 chronothermostat.
Press ▶ to go to the next page and **ENTER** to exit.

→ EXT IN: ---/PG12
Allows you to modify management mode of the auxiliary input using keys ▲ and ▼ to change:
---: not active
Connecting a probe- EC18 - EC19 - EC20 allows you to set:
VIS: visualisation of the temperature;
REG: regulation of room temperature with the external probe;
UP: use as maximum temperature threshold, to manage it you must: press the key ▶ and set the desired maximum threshold using the keys ▲ and ▼.
This function deactivates the system when the temperature read by the external probe is higher than the set temperature.
LOW: use as minimum temperature threshold, to manage it you must: press the key ▶ and set the desired minimum threshold using the keys ▲ and ▼.

This function deactivates the system when the temperature read by the external probe is lower than the set temperature.

Connecting a voltage-free contact allows you to set:

ALR C: views an alarm in presence of closed contact. With this function active, you may also enable a buzzer by pressing the key ▶ followed by ▲ and ▼.

ALR 0: views an alarm in presence of an open contact. With this function active, you may also enable a buzzer by pressing the key ▶ followed by ▲ and ▼.

Having selected **ALR C** or **ALR 0,** pressing ▲ and ▼ allows you to enable (ALM SND: ON) or disable (ALM SND: OFF) the buzzer after the alarm is triggered. Press ▶ to go to the next page and **ENTER** to exit.

→ BEEP ON (OFF)/PG14
enables or disables the beep upon pressing a key. The selection is made by pressing ▲ and ▼. Press ▶ to go to the next page and **ENTER** to exit.

→ LED ON (OFF)/PG15
enables or disables switch on of the front LED (1 flash every 10 seconds). The selection is made by pressing ▲ and ▼.
Press ▶ to go to the next page and **ENTER** to exit.

→ TOUCH TEST/PG16
This function is used by technical support. Exit by pressing ◀ and ▶. If the key **ENTER** is pressed accidentally, the function is activated for about 5 minutes, after which it ends automatically. Press ▶ to go back to the hourly programming menu.

→ TOUCH SENS. (MED)/PG18
This function indicates the level of touch sensitivity. The user can choose between 3 levels (HI-MED-LO) by pressing the ▲ and ▼ keys. Press ▶ to go back to the hourly programming menu.

■ USING THE **DISP** KEY

The **DISP** key allows you to view windows with different information regardless of the operating status, only when in AUTO or HOLIDAY modes.

The following windows may be viewed:
→ Profile of the day / hour:min / Tamb
→ Currently set temperature (e.g T3=20.0°) / hour:min /Tamb
→ Dd/Mm/Yyyy / hour:min /Tamb
→ External probe/hour:min/Tamb

■ USING THE **JOLLY** KEY

The **JOLLY** key allows you to force a temperature to a fixed value for a preset amount of time to replace normal operation.
The following window is displayed:

→ Duration of JOLLY status (HH h MM m) / hour:min / Tamb
Using the arrow keys ▲ and ▼ allows you to change the duration of the JOLLY status with hourly steps. The Jolly temperature is set by pressing the key **TEMP**, which displays a window such as the following:

→ Tj=xx.x° / hour:min / Tamb
Modify the temperature by using the arrow keys ▲ and ▼.
Pressing ◀ allows you to go back to view the "JOLLY status duration".
To exit JOLLY status before time is up, change the number of hours to zero using the arrow key ▼, or else press **SEL** to go to the desired status (AUTO, MAN, HOLIDAY, OFF).

■ USING THE **OFF** KEY

The **OFF** key allows you to switch the system off, in whatever operating status it is found. The following window is displayed:

→ OFF / hour:min / Tamb

The antifreeze temperature (Ta) can be programmed by pressing TEMP, from OFF

WASTE DISPOSAL

The symbol of the crossed-out wheeled bin indicates that the products must be collected and disposed of separately from household waste. The batteries and integrated accumulators may be disposed of together with the product. They will be separated at the recycling facilities. A black bar indicates that the product was placed on the market after August 13th, 2005.
Participating in the separate collection of products and batteries contributes to the correct disposal of these materials and therefore avoids possible negative consequences for the environment and human health. For more detailed information on the collection and recycling programmes available in your country, contact the local authorities or the sales point where you purchased the product.

CH193

TECHNICAL FEATURES

Temperature adjustment scale	2-40 ÷ 0,1 °C, increase 0.1°C
Measurement scale/room T display	-35 +60 °C
Power supply	230V 50Hz
Maximum absorbed power	5VA
Connection to boiler	3 screw clamps (closed + open)
Contact range	5(3)A / 250 Vac
Type of action	1.B.U (micro disconnection)
Software	class A
Minimum adjustment differential	0.1°C
Thermal gradient of reference	4K/h
Maximum room temperature	T45
Electric insulation	⧈ double insulation
Degree of protection	IP20
Pollution degree	2
Pulse voltage	4000V
Connection with CT3M or CT3MA telephone activator	screw clamps
Assembly	recessed in 3-module box type 503, with 2 screws
Dimensions	127 x 82 x 56 mm
Compliant with standards	EN 60730-1 and second parts
ErP classification	ErP Class IV; 2% (Reg. EU 811/2013 - 813/2013)

(boiler always off) to an interval between 2.0 and 7.0°C, using the arrow keys ▲ and ▼. The following window is displayed:

→ Ta=x.x° / hour:min / Tamb

To go back to the OFF window, press the arrow key ◀.
Pressing **OFF** again sends you back to the previous operating status.

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