



INSTRUCTIONS FOR USE

CH180

TOUCH-SCREEN PROGRAMMABLE THERMOSTAT



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Thank you for purchasing a **FANTINI COSMI S.p.A.** product.

Read this instructions manual carefully and always keep it handy for any consultation.

The documentation reflects the characteristics of the product. However, due to regulatory or commercial changes, customers are advised to check the availability of updates to this documentation on the website at FANTINI COSMI S.p.A.: pdf.fantincosmi.it

OPERATION

The CH180 is a programmable thermostat for controlling heating and/or cooling systems.

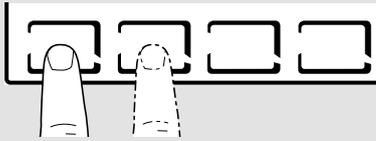
It has a customised temperature program on a time profile for every season, which can be changed as needed.

The positive LCD display with white backlighting can also show an intuitive graph of the energy consumption of the entire system.

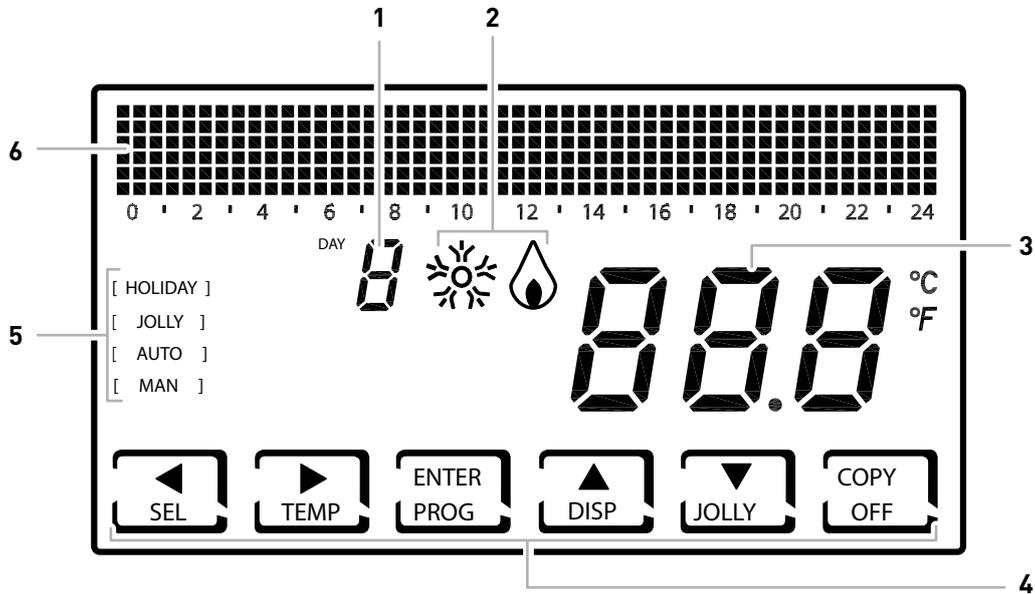
CONTENTS OF PACKAGE

- 1 programmable thermostat
- 2 6/32UNC American standard thread screws to secure onto 503 flush mounting box (approximately Ø 3.5mm)
- 1 quick guide

DESCRIPTION OF DISPLAY KEYS



The first press of any touch button allows you to activate the functions of the buttons themselves and to light up the display.



- | | |
|---|--|
| 1 | Day of the week |
| 2 | Activation status: air conditioning or heating |
| 3 | Measured room temperature (Celsius/Fahrenheit) |
| 4 | Multi-function touch icons |
| 5 | Operating mode |
| 6 | Bar graph for viewing messages and daily programming |

The function of the multi-function keys varies depending on the situation and is described by the symbol that appears on the display next to the key.

TECHNICAL FEATURES

Temperature adjustment scale	2 - 40°C, increase 0.1°C
Measurement scale/room T display	- 50 - + 50 °C
Power supply	2 AA 1.5V alkaline batteries
Battery life:	> 1 year
Type of output	1 relay with potential-free change-over contact (COM/NA/NC) 3 screw terminals (closed + open)
Relay contact range	5(3)A 250 Vca
Type of action	1 B.U. (connection micro)
Software	class A
Minimum adjusting differential	STD- 0.3 - 5 K
Reference thermal gradient	4 K/h
Maximum room temperature	45°C
Storage temperature	-10°C - +60°C
Electric insulation	Double insulation
Protection rating	IP40
Degree of pollution	2
Pulse voltage	4000V
Assembly	wall-mounted or on flush mounting box
Dimensions	127 x 82 x 24 mm
Compliant with standards	EN 60730-1 and second parts
ErP classification	■ ErP Class IV; 2% [Reg. EU 811/2013 - 813/2013]
Compliant with Directive	Directive 2014/53/EU (RED)

Product made in Italy

Summary

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1 - INSTALLATION

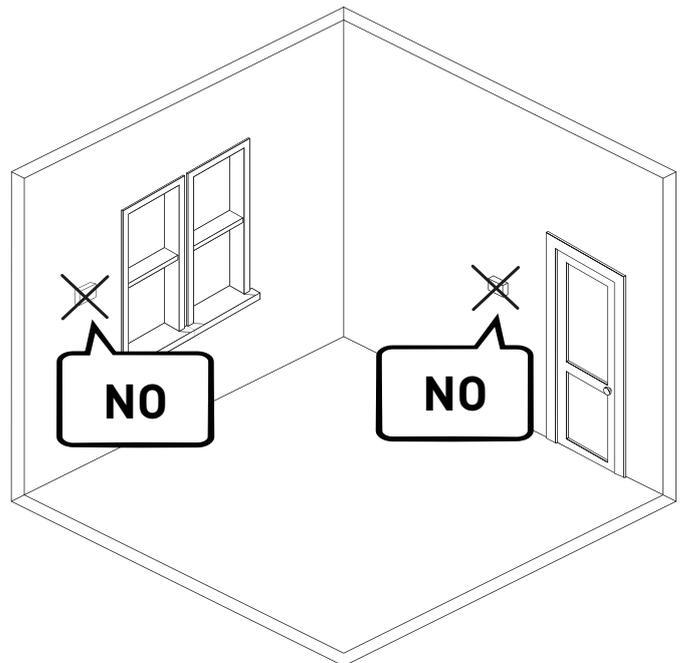
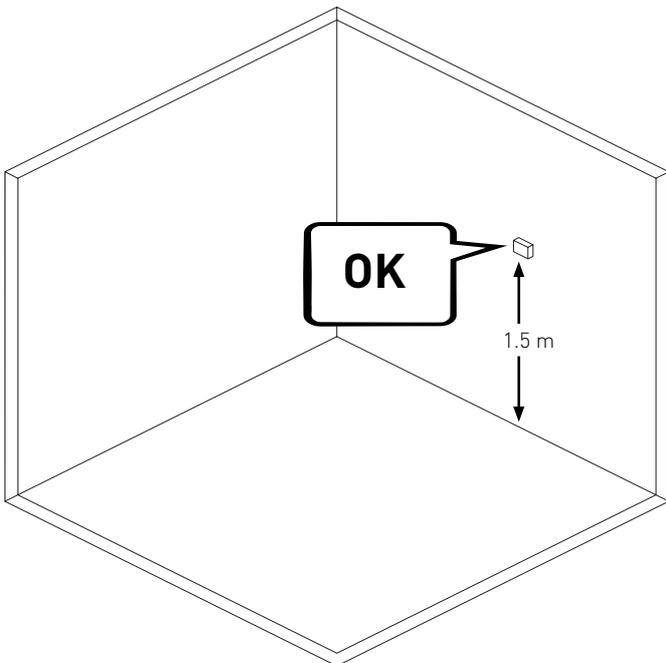
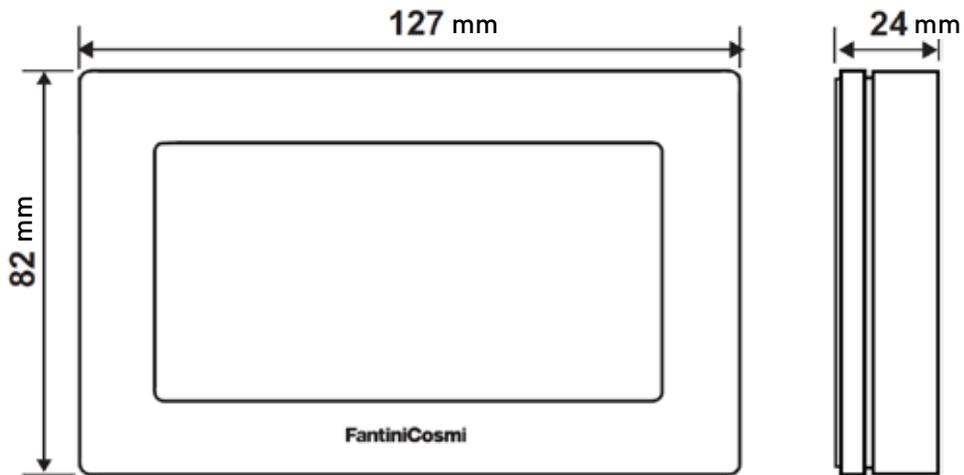
**ATTENTION!**

Installation must be carried out by qualified personnel in compliance with the requirements concerning the installation of electrical devices.

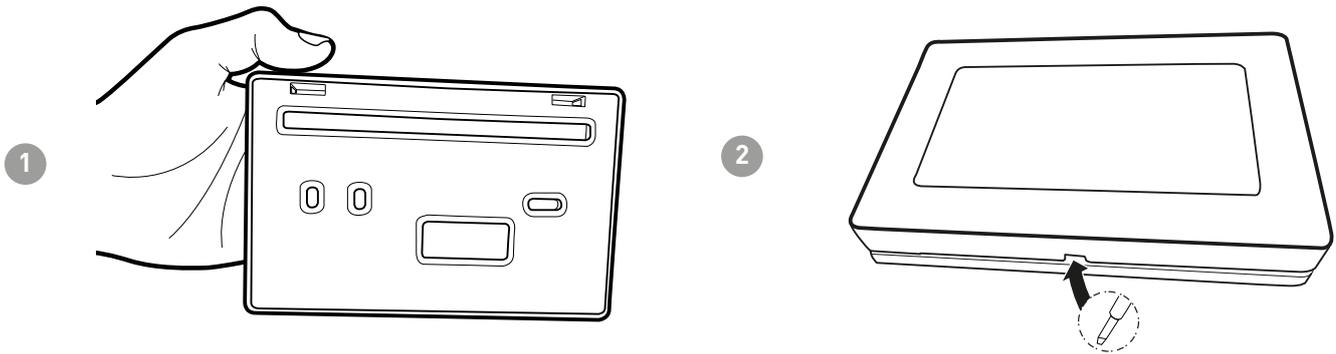
**ATTENTION!**

Make sure that the power supply is disconnected before performing installation.

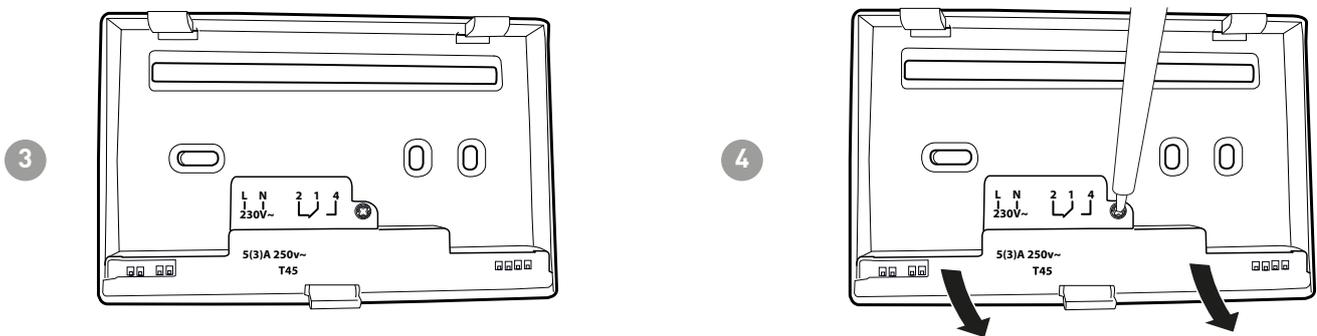
The CH180 programmable thermostat must be installed on the wall or on a flush mounting box, in 3 units or round, at a height of about 1.5m from the floor, in a suitable position to detect the room temperature correctly.



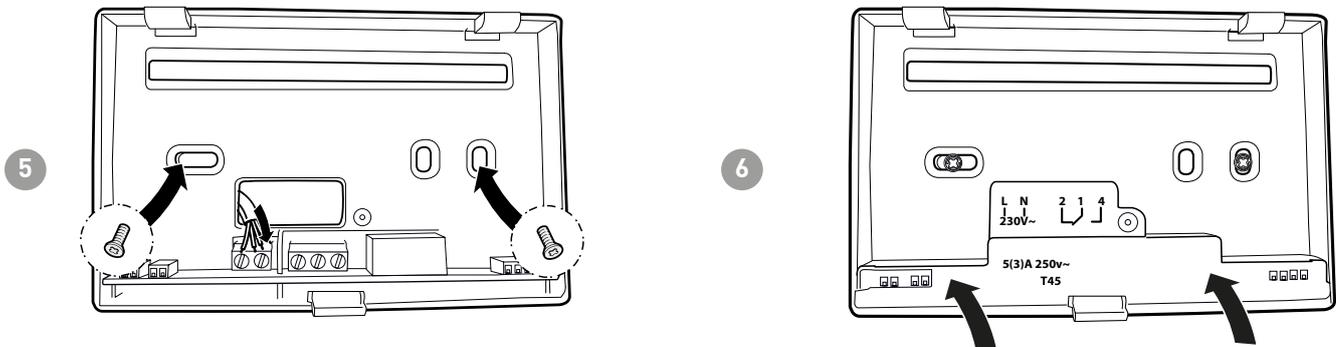
Pry the back panel off the body by applying pressure to the specific groove at the bottom.



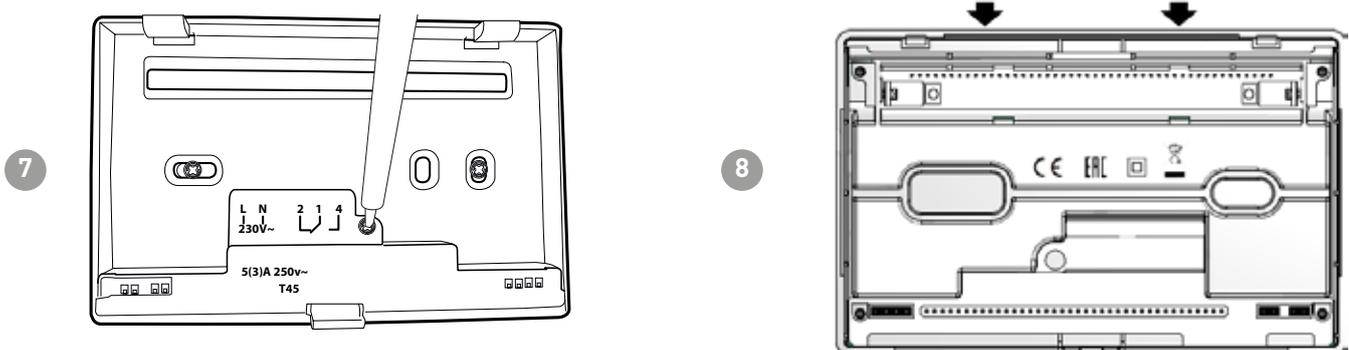
Remove the insulating protection by unscrewing the specific waterproof screw.



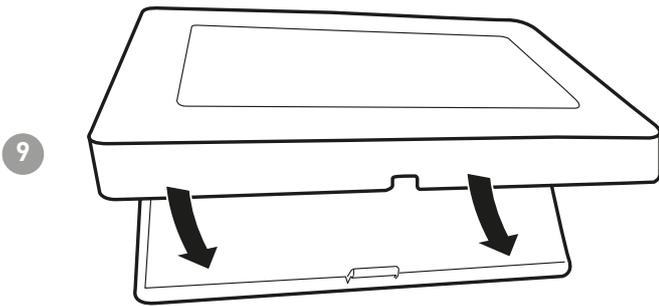
Make the electrical connections (refer to the "Electrical connections" paragraph) and secure the panel to the wall with the supplied screws.



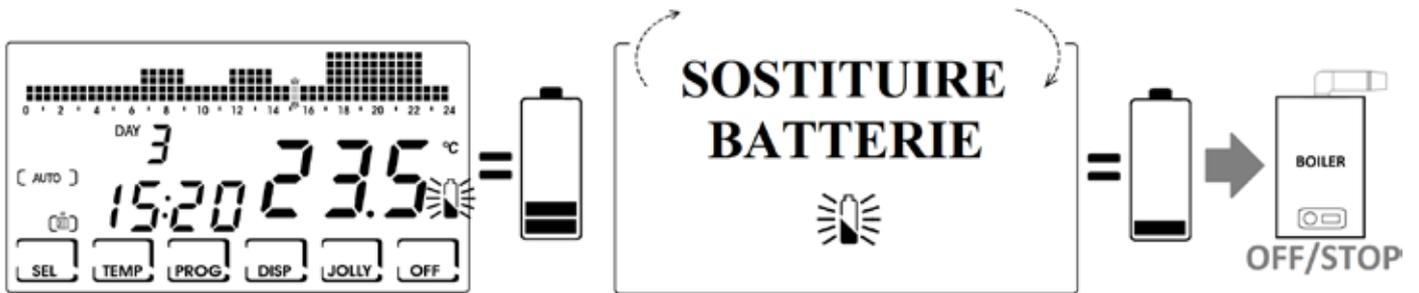
Tighten the screw shown and hook the body onto the panel on the wall.



Hook the body onto the panel on the wall.



2 - REPLACING BATTERIES



3 - ELECTRICAL CONNECTION



ATTENTION!

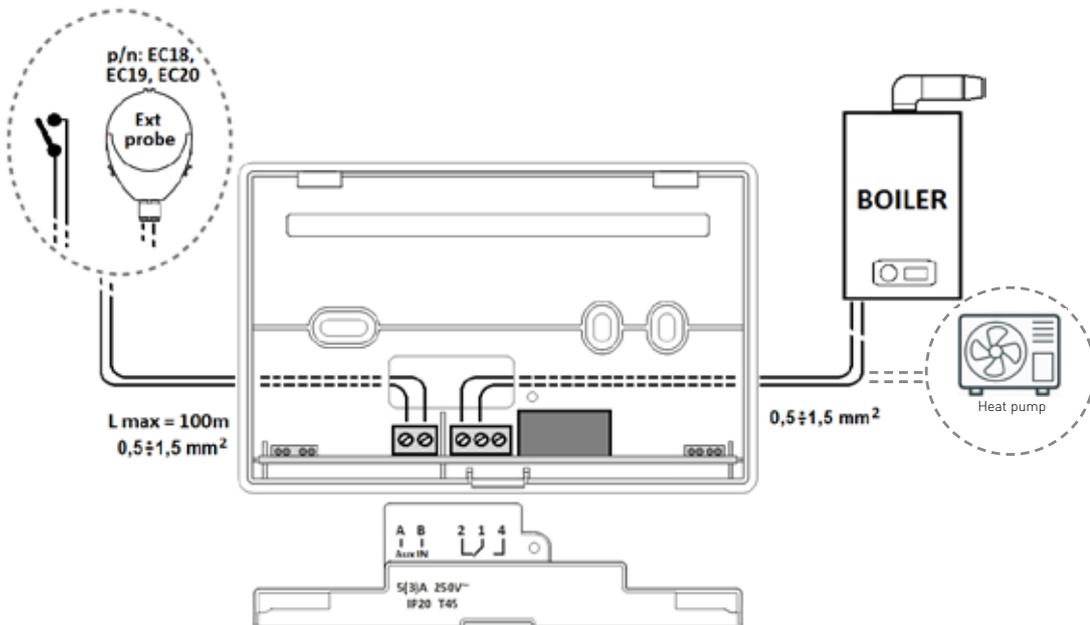
Electrical connections must be made by qualified personnel.



ATTENTION!

Electrical connection operations must be done with the system's power disconnected.

Electrical connections must be made referencing the following diagram.



4 - QUICK GUIDE FOR PROGRAMMING (PROG)

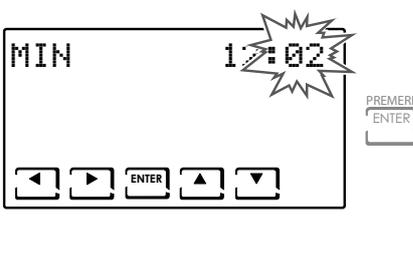
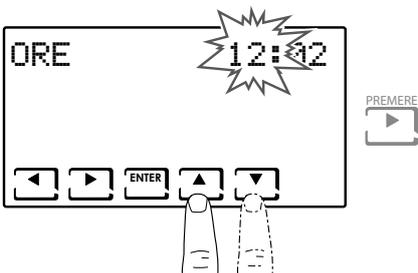
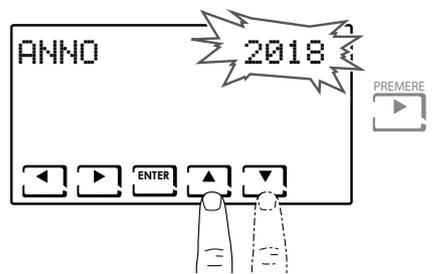
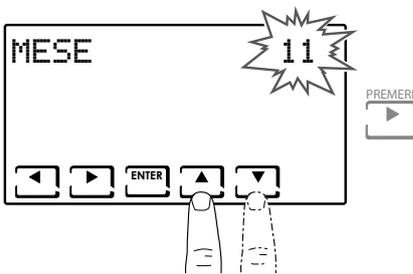
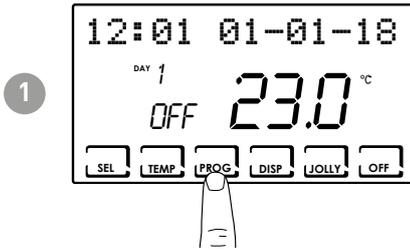
The first time any touch key is pressed has no effect, but only activates the functions of the buttons themselves and lights up the display.

After 60 seconds of no interaction, the display goes back to the main screen.

 = allows you to CONFIRM

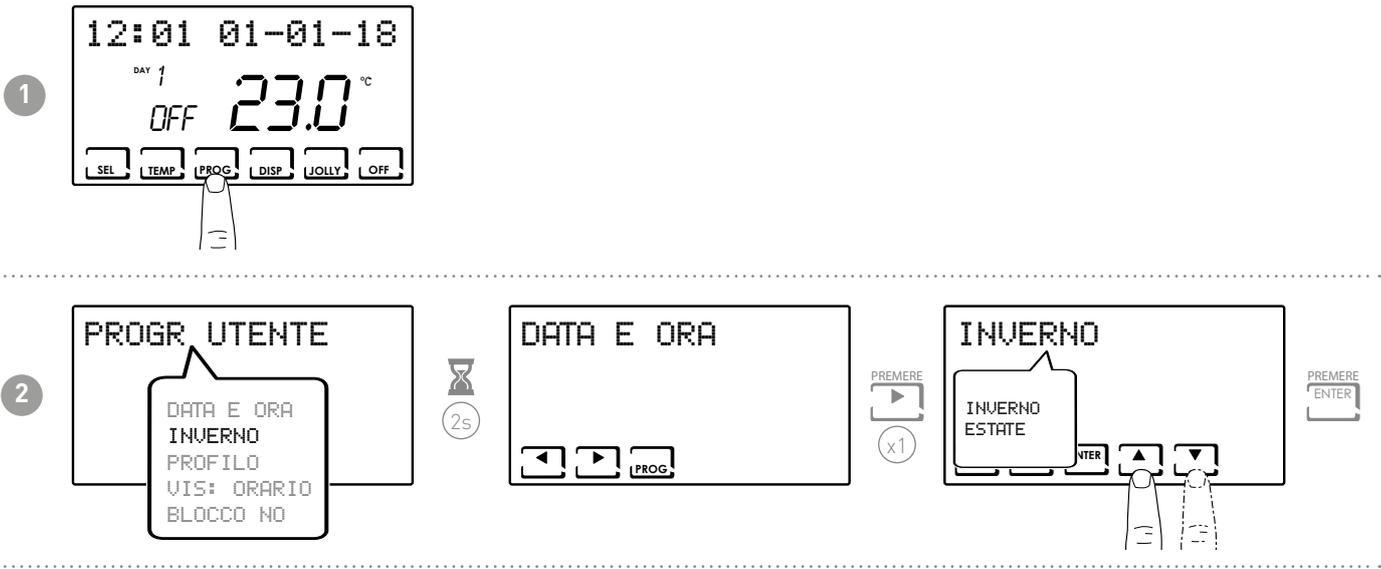
 = allows you to PROGRAM

4.1 - DATE AND TIME SETTING



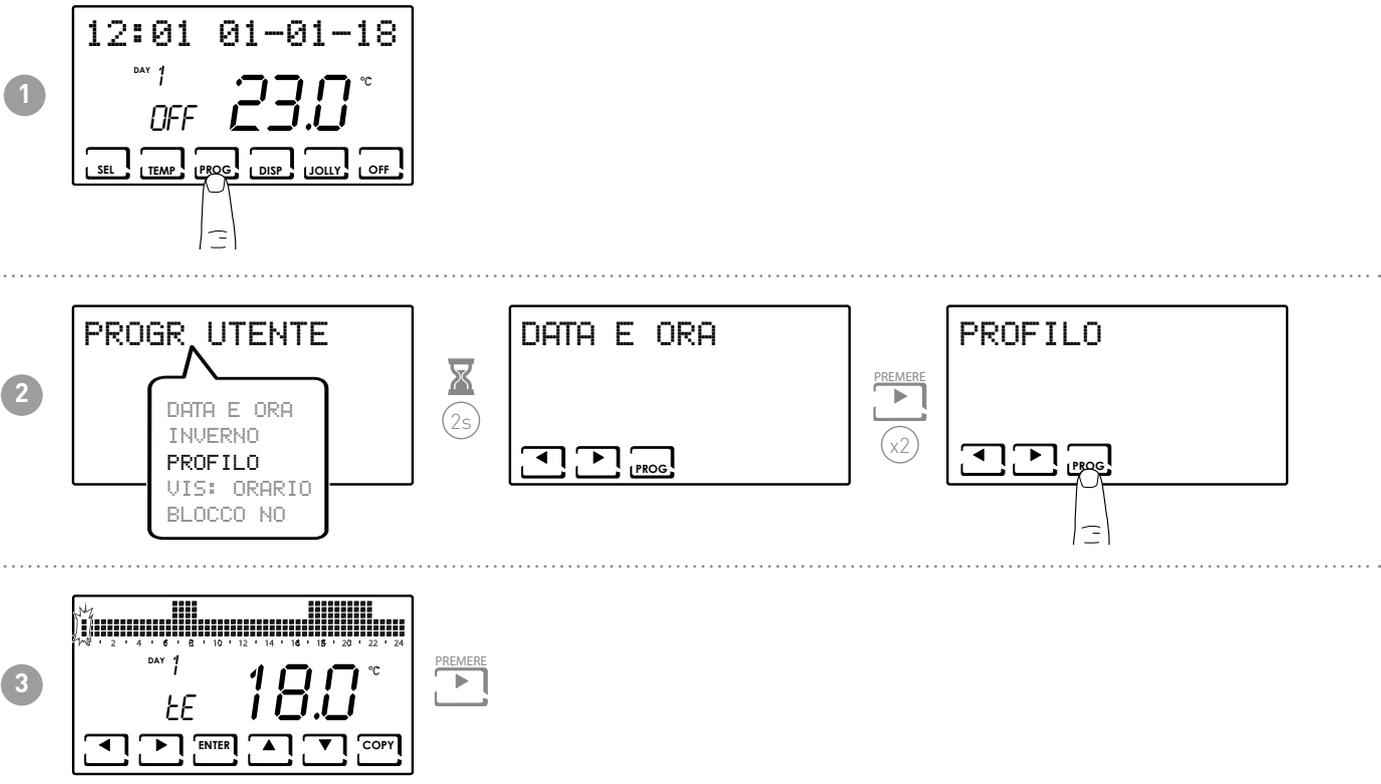
Note: pressing ◀ always allows you to go back to the previous page.

4.2 - WINTER/SUMMER SETTING



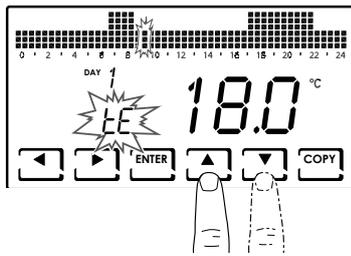
4.3 - HOURLY PROGRAMMING SETTING (PROFILE)

The profiles are set based on whether WINTER or SUMMER mode was previously selected.



Note: pressing ◀ or ▶ allows you to move within the hours.

4



Pressing ▲ or ▼ allows you to select the profile depending on the time.

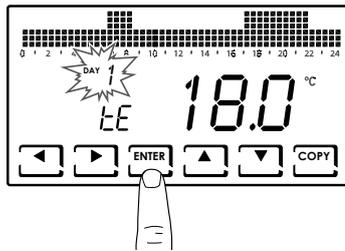
SETTABLE PROFILES:

- tC (comfort) = SUMMER, WINTER
- tE (economy) = SUMMER, WINTER
- tA (antifreeze) = only for WINTER
- OFF = only for SUMMER

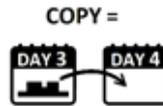
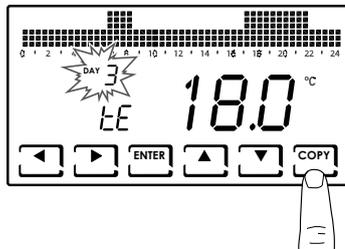
In winter tE < tC; in summer tC < tE.

Note:

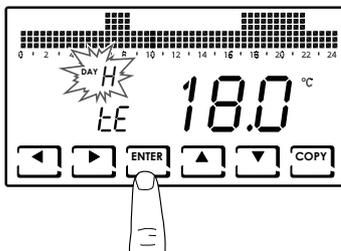
- Pressing ENTER allows you to go to the next day.



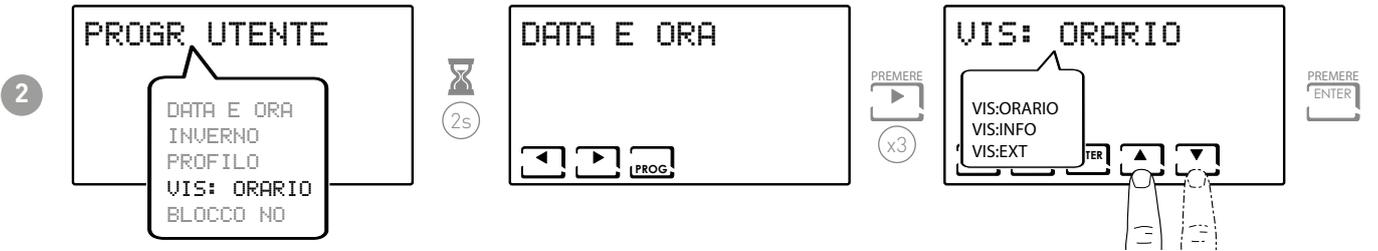
- Pressing COPY allows you to copy the temperature profile being displayed to the following day.



- When you reach DAY H (HOLIDAY), pressing ENTER allows you to exit the sub-function.



4.4 - SETTING THE DISPLAY

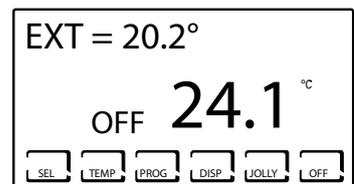
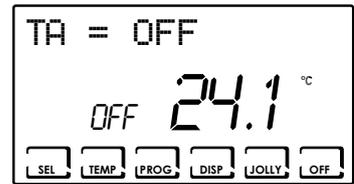
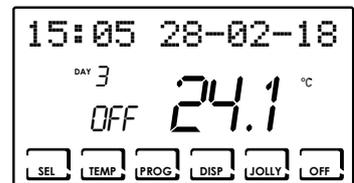


DISPLAYS:

- 1
 - DISP: HOUR = displays the time on the main bar.

- 3
 - DISP: INFO = displays information on the set operating mode.

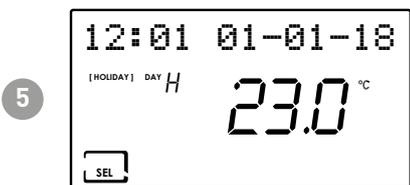
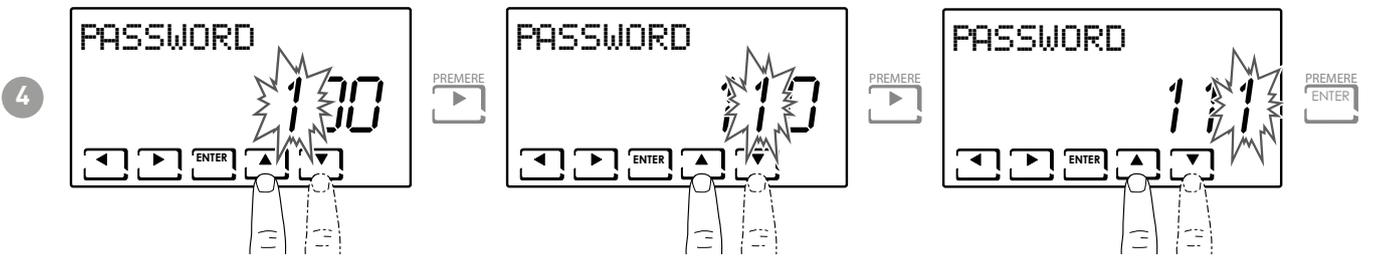
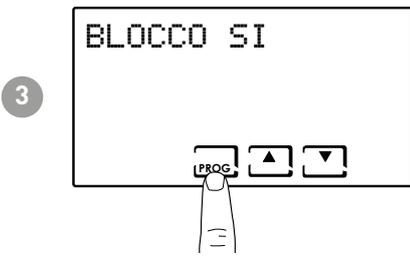
 - DISP: EXT = displays the temperature detected by the external probe.



4.5 - SETTING KEYBOARD LOCK WITH PASSWORD



Note: selecting LOCK YES displays the PROG key. Then follow the procedure described in points 3 and 4.



When the keyboard is locked, you can only press the SEL key. Pressing SEL allows you to enter the set password and unlock the keyboard.

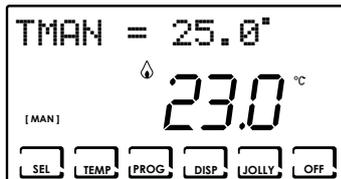
5 - OPERATION (SEL)

The CH180-230V programmable thermostat is a device equipped with a temperature sensor, with an output relay on board, which manages heating and/or air conditioning units.

The LCD display shows you how much energy the entire system consumes through an intuitive graph.

5.1 - OPERATING PROGRAMS

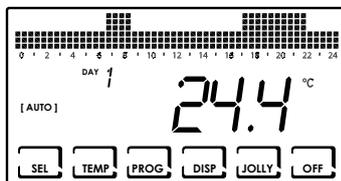
The programmable thermostat CH180WIFI has various operating modes called programs to manage heating/air conditioning.



[MAN]

■ MANUAL PROGRAM

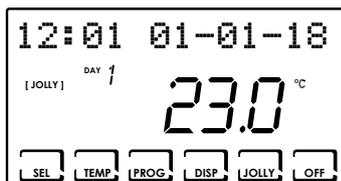
The device regulates room temperature using a set temperature specified on a case-by-case basis, for an unlimited amount of time until another program is selected.



[AUTO]

■ WEEKLY PROGRAM

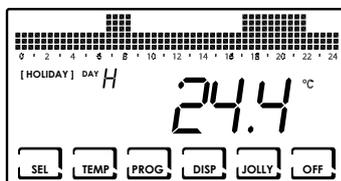
The device manages the temperatures set based on the hourly programs on a weekly profile. You can set the following temperature levels: tC, tE, tA/ OFF (every half hour).



[JOLLY]

■ TEMPORARY PROGRAM

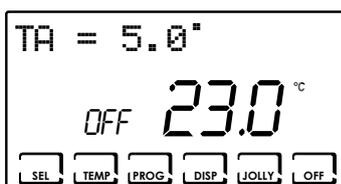
The device manages the system using a temperature that can be set over a variable amount of time (you set the hour and the day up to when you wish to keep the set temperature).



[HOLIDAY]

■ HOLIDAY PROGRAM

The device manages the system through an extra daily profile (in the event you stay home for a holiday). You can set two temperature levels: tC, tE, tA, OFF (every half hour).



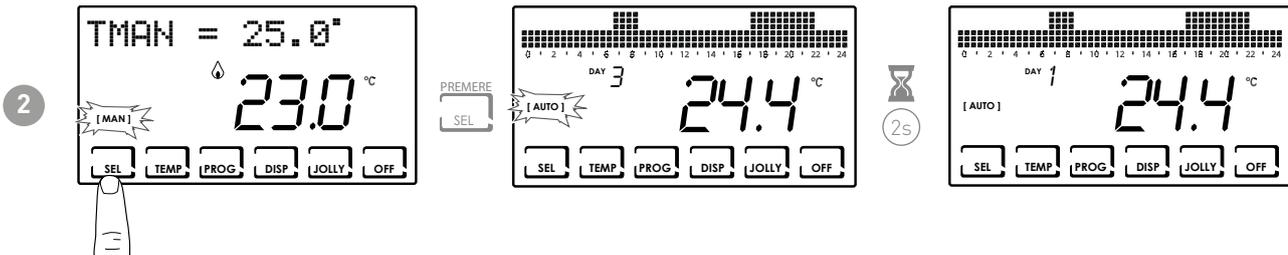
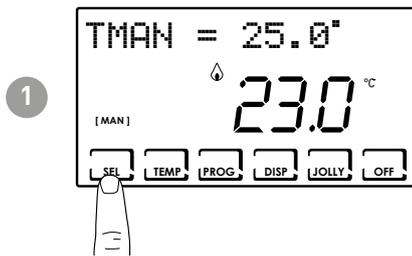
■ SYSTEM OFF or ANTIFREEZE PROGRAM

Press the OFF key to switch off the system. During WINTER mode, it maintains the antifreeze temperature.

If you press the OFF key again in SYSTEM OFF mode, it goes back to the previously set operating mode.

5.2 - SELECTING THE OPERATING PROGRAM

The programs are selected in cyclical order.



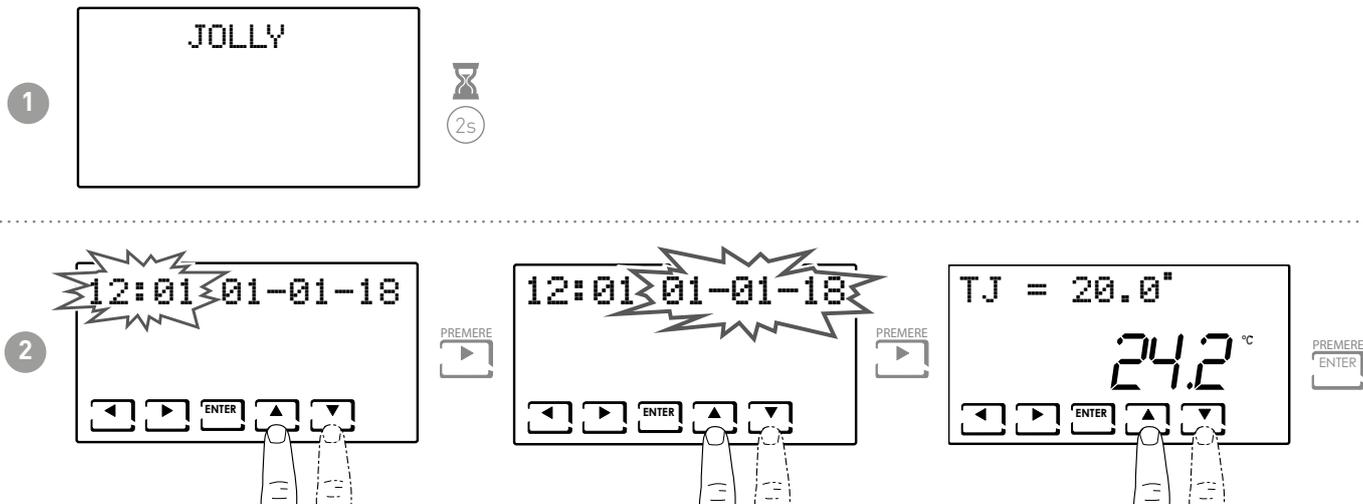
Note: you can select the program from: [MAN] - [AUTO] - [JOLLY] - [HOLIDAY].



Pressing the DISP key allows you to display certain parameters set according to the active operating program.

5.3 - "JOLLY" PROGRAM SETTING

Select JOLLY mode by following the procedure described in the "SELECTING THE OPERATING PROGRAM" paragraph or by pressing JOLLY.

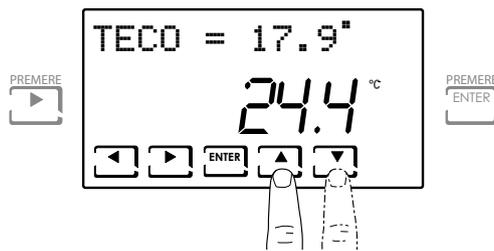
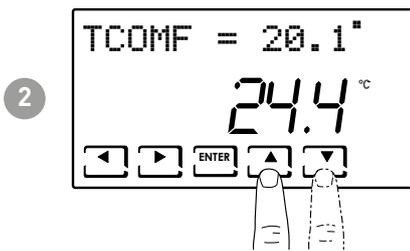
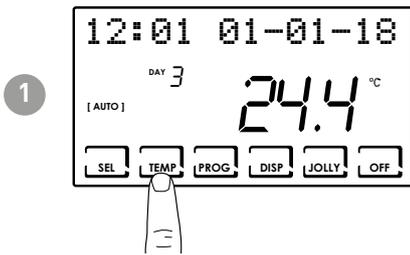


Set the time and day until you which you want to maintain the set temperature.

At the end of JOLLY mode, the programmable thermostat will return to the previously set operating status.

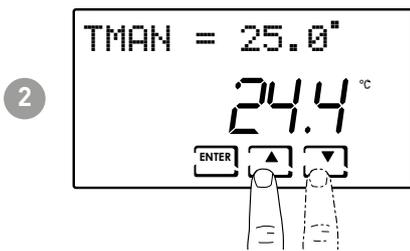
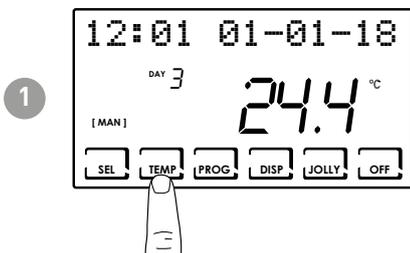
5.4 - SETTING "AUTO" and "HOLIDAY" PROGRAM TEMPERATURE

You can set a tCOMF (comfort temperature) and tECO (economy temperature) temperature value between 2° and 40°C.



5.5 - SETTING "MANUAL" and "JOLLY" PROGRAM TEMPERATURE

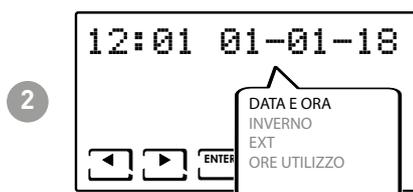
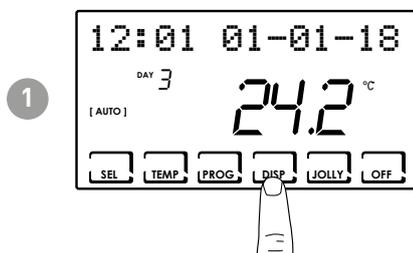
You can set a TMAN and TJ temperature value between 2° and 40°C



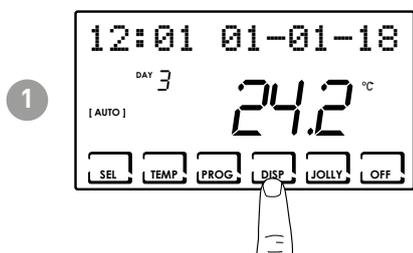
6 - PARAMETER DISPLAY (DISP)

Press the DISP key to view the most significant parameters cyclically.

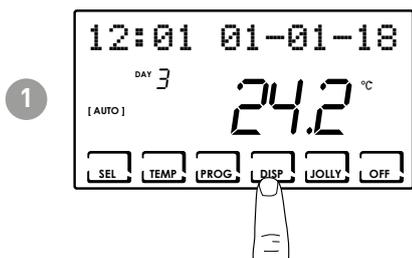
6.1 - DATE AND TIME



6.2 - SEASON

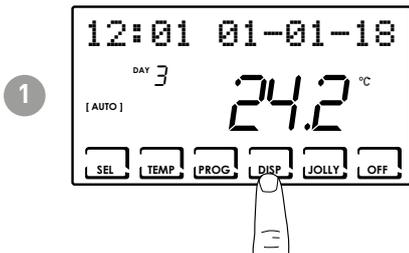


6.3 - EXT



6.4 - HOURS OF USE

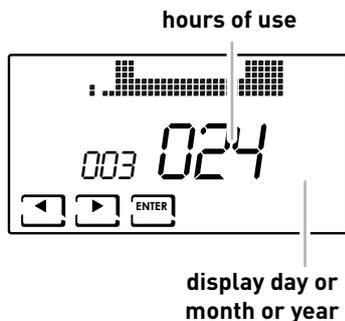
The programmable thermostat records the total consumption of the heating and cooling hours.



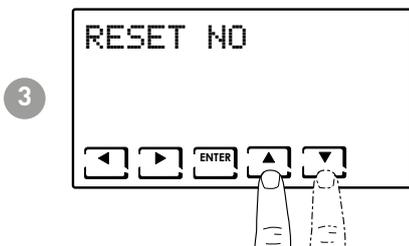
Note: it is possible to vary the use statistics by

- PREVIOUS DAY = total operating hours in the previous day
- CURRENT MONTH = total operating hours in the current month
- PREVIOUS MONTH = total operating hours in the previous month
- CURRENT YEAR = total operating hours in the current year
- TMAX = maximum room temperature measured the previous day
- TMIN = minimum room temperature measured from the previous day
- RESET

Pressing DISP on the CURRENT MONTH, PREVIOUS MONTH, and CURRENT YEAR screens displays a graph with details on use (shown below).



Press ◀ or ▶ to move and view the day of the month (or month or year, depending on the page displayed) and hours of use.



Note: select RESET YES to reset the use statistics.

7 - ADVANCED FUNCTIONS (PROG)

To access ADVANCED PROGRAMMING, hold down the PROG key for a few seconds.

7.1 - SECONDS DISPLAY STAYS ON

Allows you to adjust the display's backlight (sky blue light) with a duration that can be programmed between 5 and 30 seconds.

1

2

PROGR AVANZ	
LUCE ON 5S	CELSIUS
INT LUCE 5	ITALIANO
ORA LEG SI	EXT IN: ---
TA = 5.0	CHG O: ---
CORREZIONE	CH180WIFI V1.0
DIFF: STD	RESET NO

2s

LUCE ON 5S

PREMERE ENTER

7.2 - DISPLAY INTENSITY

Allows you to modify the luminous intensity of the display, at 10 levels + 0 Off.

1

2

PROGR AVANZ	
LUCE ON 5S	CELSIUS
INT LUCE 5	ITALIANO
ORA LEG SI	EXT IN: ---
TA = 5.0	CHG O: ---
CORREZIONE	CH180WIFI V1.0
DIFF: STD	RESET NO

2s

LUCE ON 5S

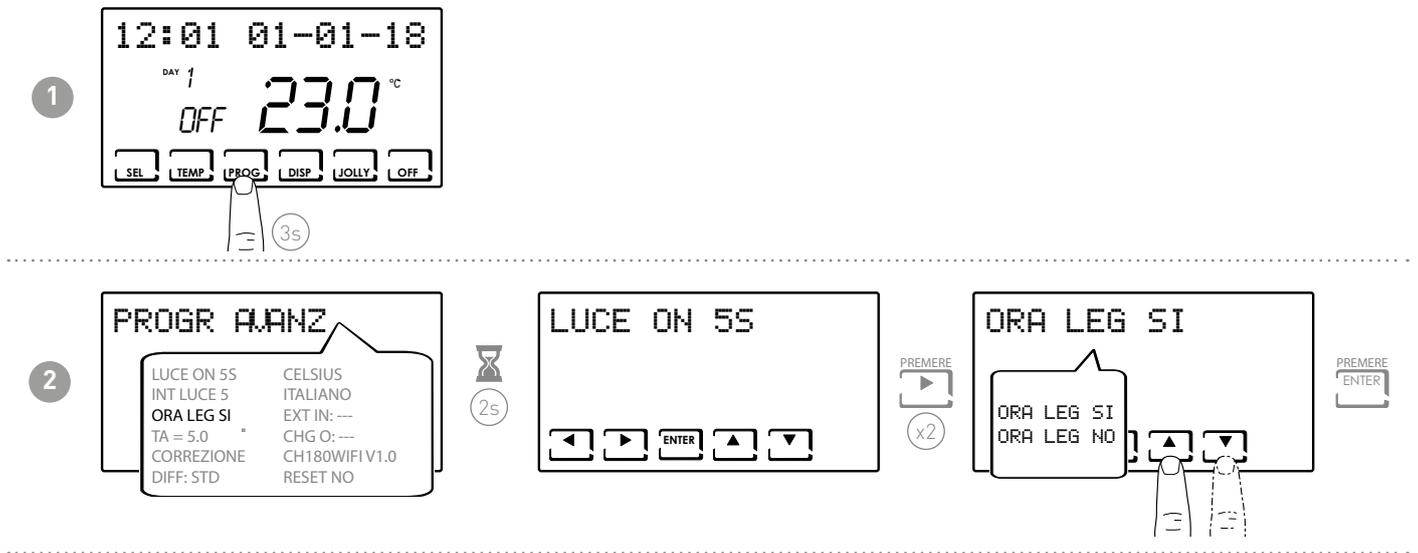
PREMERE x1

INT LUCE 5

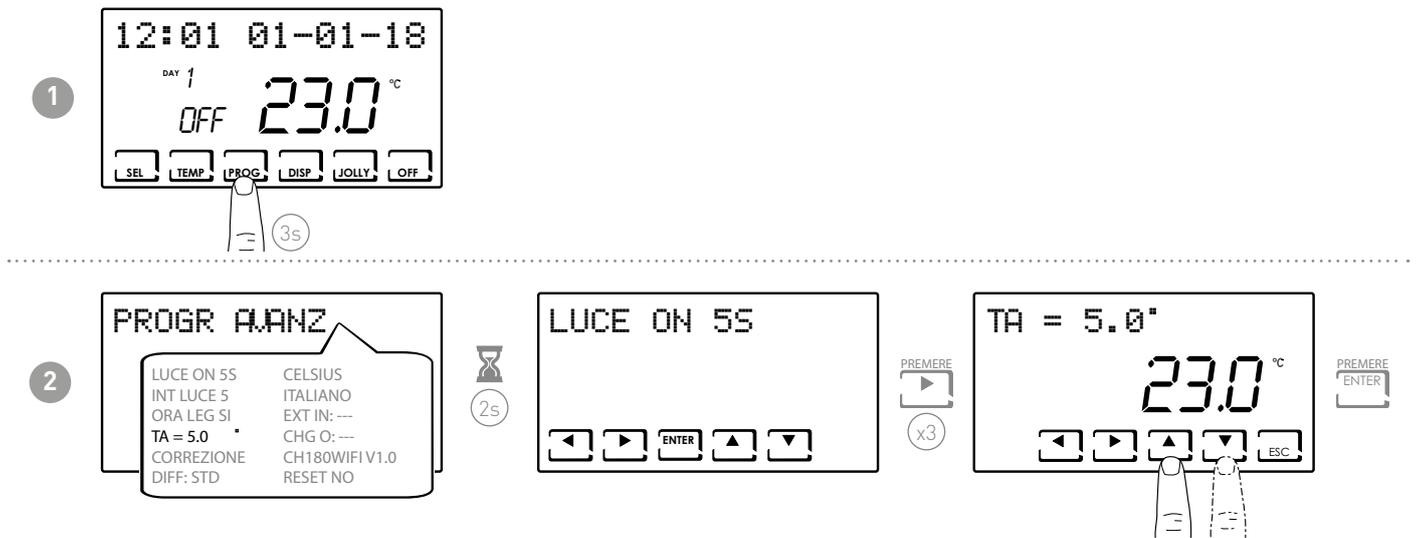
PREMERE ENTER

7.3 - DAYLIGHT SAVINGS TIME

Automatically selects the daylight saving time, applicable in European and some other countries. This allows you to automatically update the time at the time change (March and October) (default = YES).



7.4 - ANTIFREEZE TEMPERATURE



Note:

- the tA that can be set is between 2.0 and 7.0°C or OFF.

7.5 - ROOM TEMPERATURE CORRECTION

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.

1

2

LUCE ON 5S	CELSIUS
INT LUCE 5	ITALIANO
ORA LEG SI	EXT IN: ---
TA = 5.0	CHG O: ---
CORREZIONE	CH180WIFI V1.0
DIFF: STD	RESET NO

Note:

- the tA that can be set is between -5.0 and +5.0°C or OFF.

7.6 - DIFFERENTIAL MANAGEMENT

It allows the temperature difference between the OFF and ON status to be managed.

1

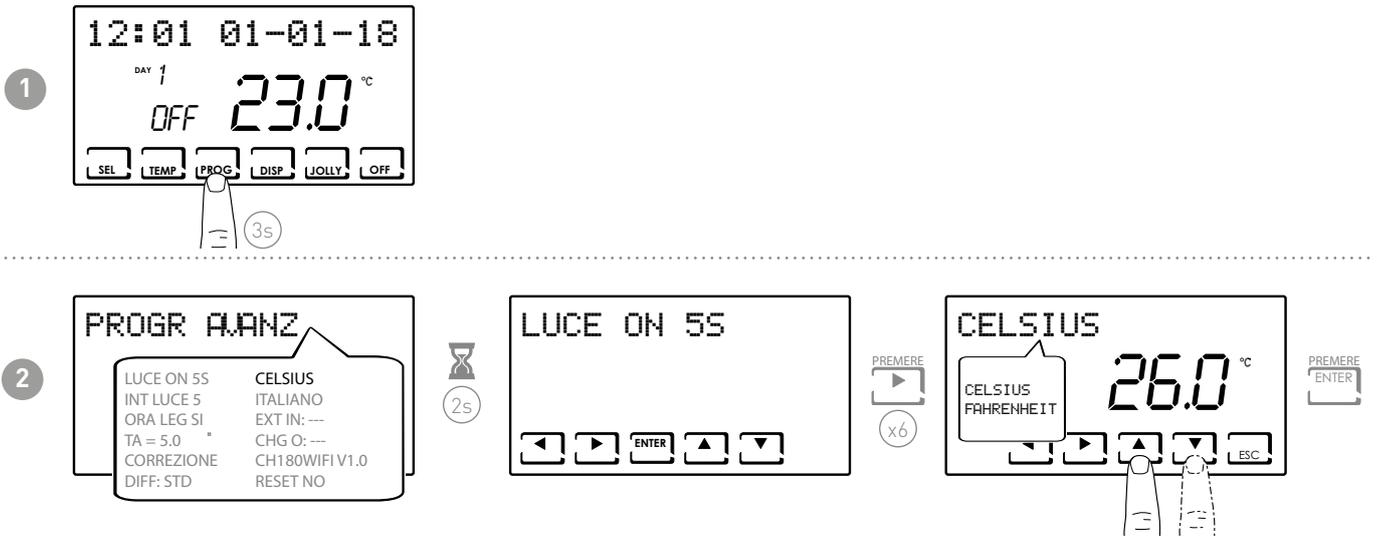
2

LUCE ON 5S	CELSIUS
INT LUCE 5	ITALIANO
ORA LEG SI	EXT IN: ---
TA = 5.0	CHG O: ---
CORREZIONE	CH180WIFI V1.0
DIFF: STD	RESET NO

Note: the differential value that can be set is between 0.3 and 5.0, or STD (default = STD).

7.7 - CELSIUS / FAHRENHEIT

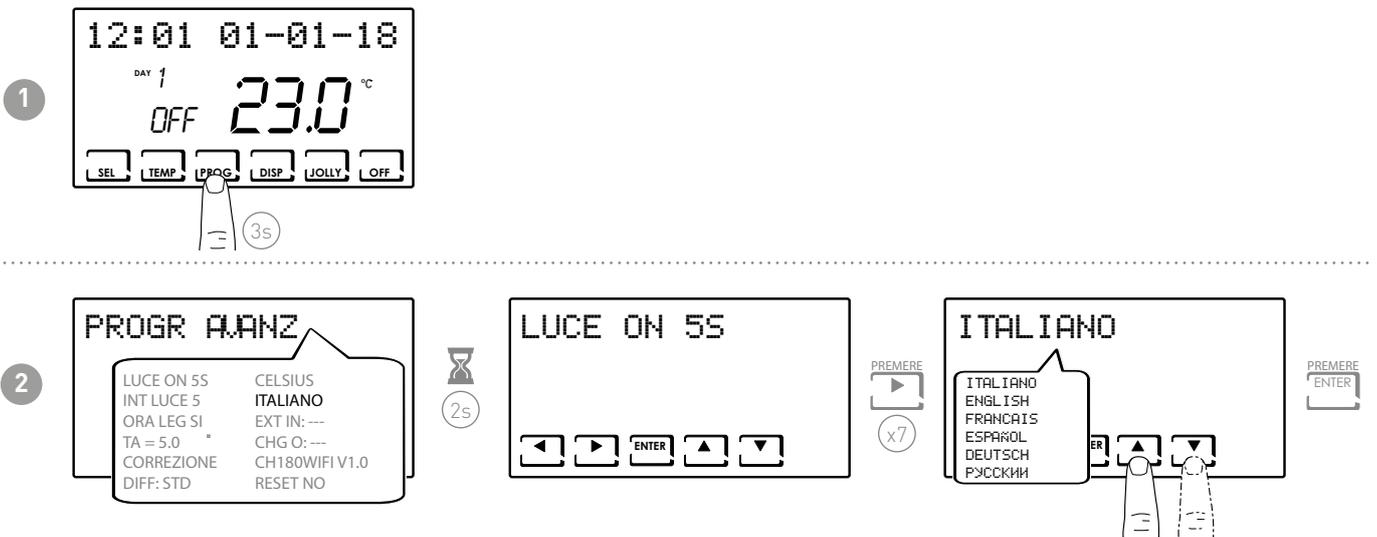
Allows you to choose the set the temperature display scale between degrees Celsius and degrees Fahrenheit.



Note: the default setting is Celsius.

7.8 - LANGUAGE

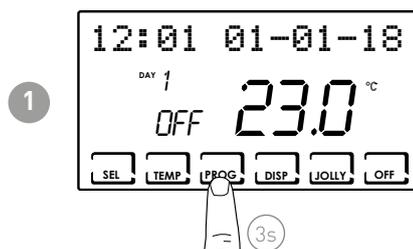
Allows you to choose which language to use during programming.



Note: the default setting is Italian.

7.9 - EXT IN

Allows you to set the external probe.





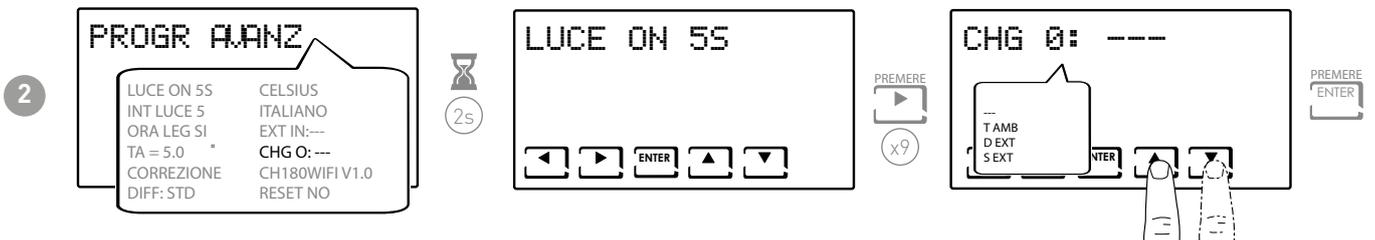
Press ▲ or ▼ to select functions.

SETTABLE FUNCTIONS:

- **REG:** The temperature on the device is read by the external probe.
- **HIGT:** alarm exceeding maximum safety temperature (winter) settable (2 to 40°C).
- **LOW:** alarm exceeding minimum safety temperature (summer) settable (2 to 40°C).
- **ALR C:** alarm in the presence of a closed contact.
- **ALR O:** alarm in the presence of an open contact.

7.10 - CHG

It allows the automatic change of seasons.



Note: Then follow the procedure described in step 3.

3

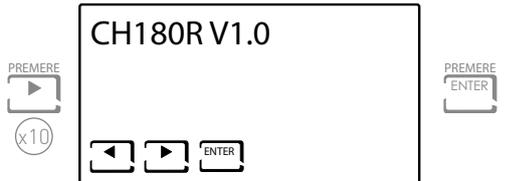
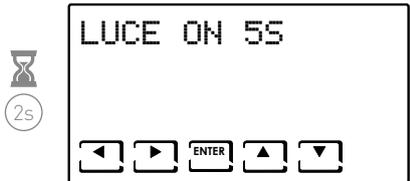
Note: When T AMB is selected, the PROG key is displayed, a delta value between 2 and 10°C can be set.

Note: Digital input (open contact-winter / contact closed-summer)

Note: When S EXT is selected, the PROG button is displayed, two values can be set: T1 (°C) and T2(°C) with T1 < T2;
 T1 (0 to 24°C)
 T2 (26 to 40°C)

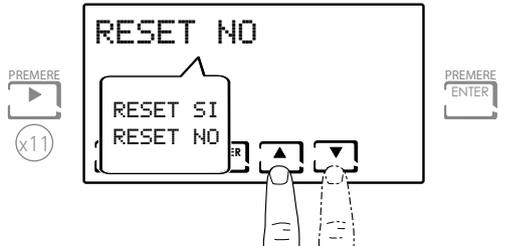
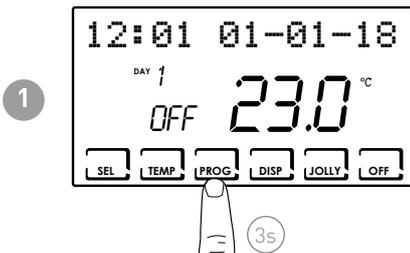
7.11 - INFORMATION

Displays the software version of the programmable thermostat.



7.12 - RESETTING DEFAULT PARAMETERS

Allows you to reset all parameters (except the date and time) to the factory settings.



8 - 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.

9 - GENERAL WARRANTY CONDITIONS

The conventional warranty lasts 24 months, starting from the date the equipment is installed. The warranty covers all parts of the equipment, with the exception of those subjected to normal wear.

EAC CE

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