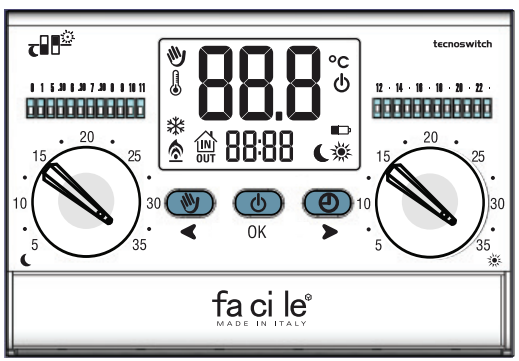
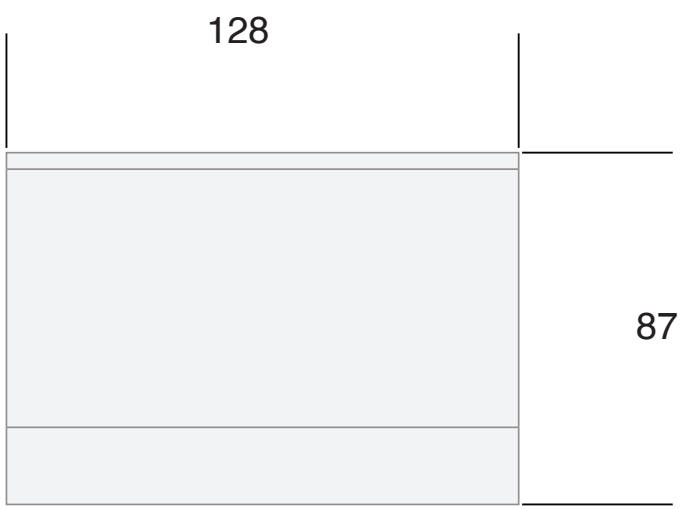
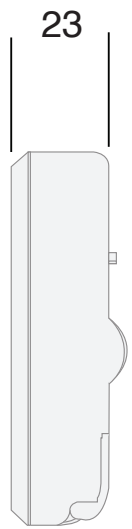
tecnoswitch

CR135BI

WALL MOUNTED DAILY PROGRAMMABLE THERMOSTAT







tecnoswitch

WALL MOUNTED DAILY PROGRAMMABLE THERMOSTAT CR135BI

Congratulations for purchasing the CR135BI “FACILE”.
To get the maximum performance, please to read carefully all the instructions.
The programmable thermostat guarantees the best comfort temperature, thanks to easy programming and intuitive graphics interface. The strengths are:

- Ease of use thanks to the switches;
- Design with attention to the smallest details;
- Easy temperature adjustment thanks to the knobs.

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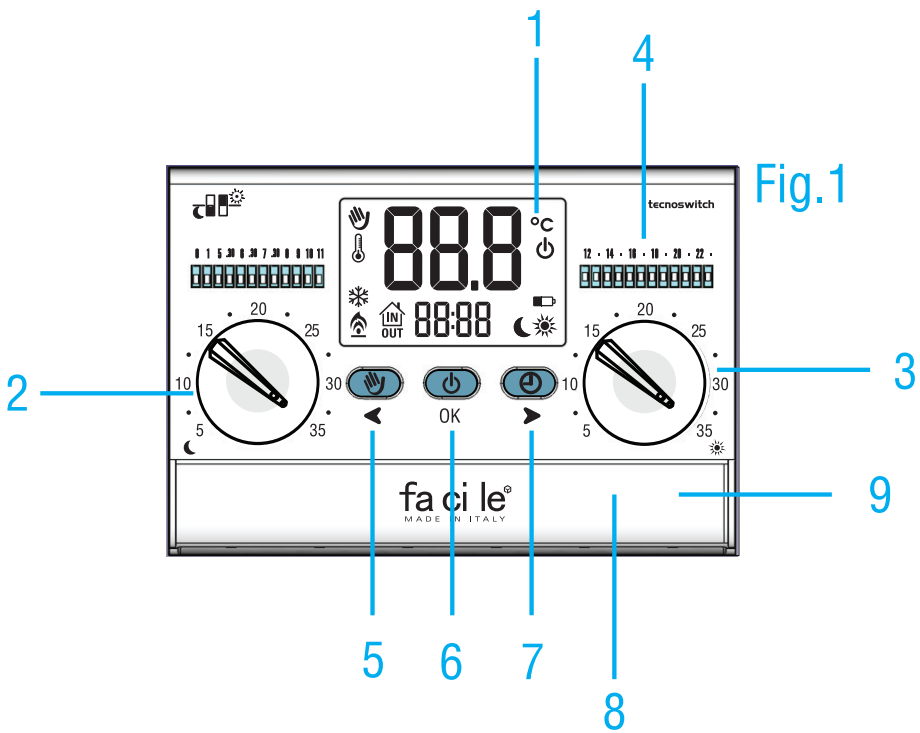


Fig.1

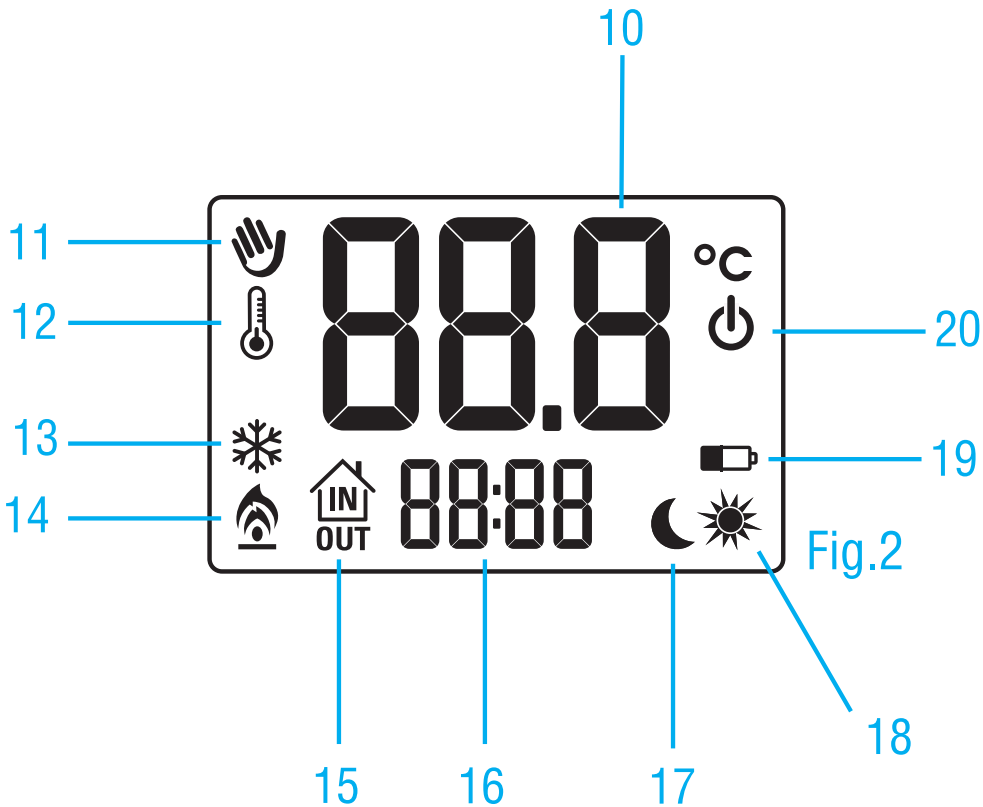


Fig.2

CE

COMMANDS AND INDICATIONS

LEGEND Fig.1

1. LCD display with back-lighting
2. Knob to set Reduction temperature
3. Knob to set the Comfort temperature
4. Switches for setting comfort / economy mode.
5. Manual / left key.
6. ON-OFF / OK key.
7. Multi-function key: external probe temperature display if present / Set Time /advanced menu / right key
8. Battery Holder.
9. Reset hardware.

DISPLAY LEGEND Fig.2

10. 88.8 °C Environment/External Temperature
11. Manual Mode.
12. Frost Protection.
13. Cooling Mode.
14. Heating Mode.
15. Operating mode by Internal / External probe.
16. 88:88 Set time.
17. Reduction Mode.
18. Comfort Mode.
19. Low batteries.
20. OFF.

INDEX

WIRING DIAGRAM

Fig.1B

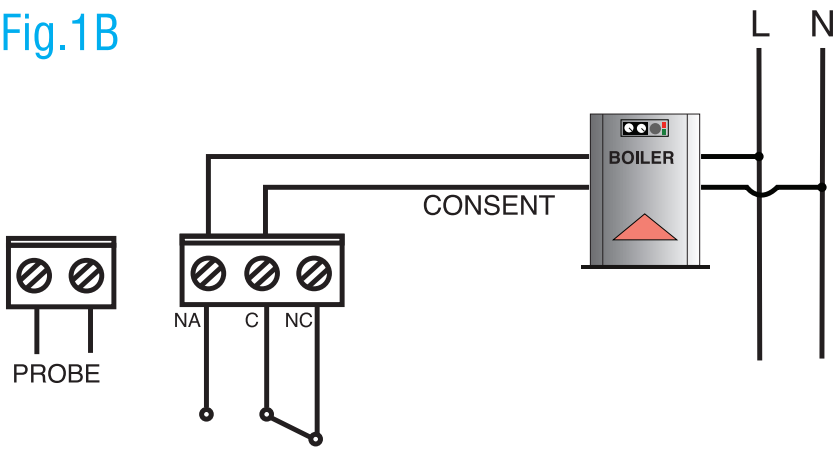
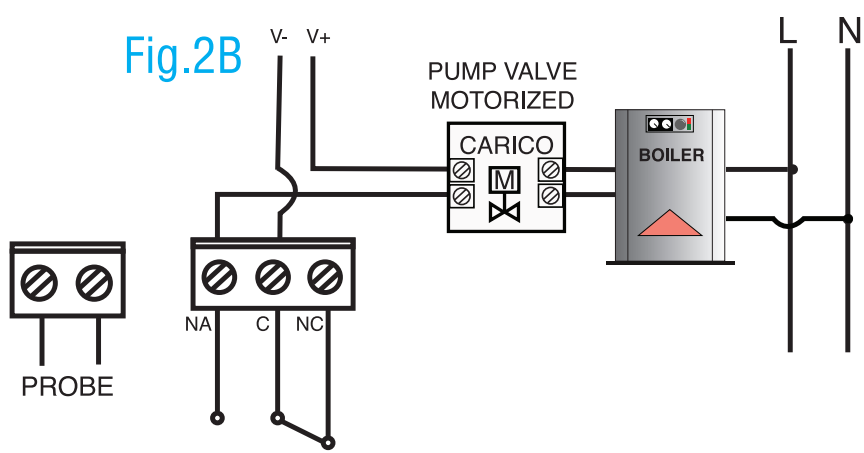


Fig.2B



1.0 INSTALLATION

The device must be positioned about 1.5 meters from the floor, avoiding heat sources, windows and doors. To install the programmable thermostat it is necessary:

1.1 Unhook the base from the thermostat.

1.2 Fix the base to the wall.

1.3 Connect the two wires of the Heating or Cooling system to the screw terminals as shown in....

1.4 Hook the lid of the device to the base after having fixed it to the wall.

1.5 Open the battery compartment. Insert n. 2 1.5V alkaline batteries AA respecting the polarities indicated on the bottom.

ATTENTION. Inserting the batteries incorrectly could damage the appliance.

After having inserted the two batteries correctly, the display will appear in sequence: the display icons, firmware code, set time.

After correctly inserting the two batteries, you have to set the time.

The device is in **OFF**. Press ⏻ to turn on it.

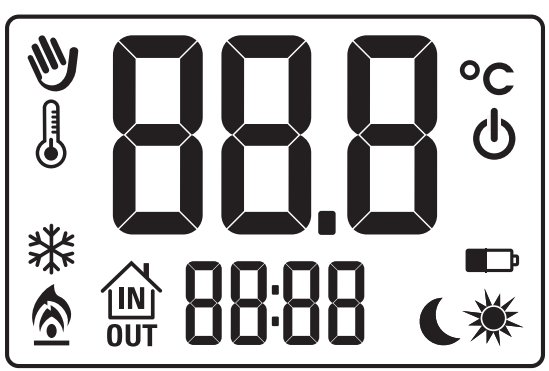


Fig.4

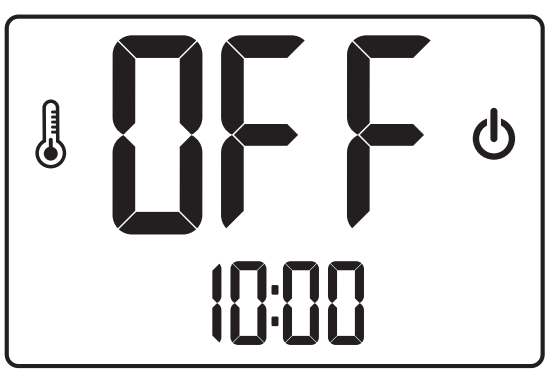


Fig.5

ASSEMBLY

Fig.1A

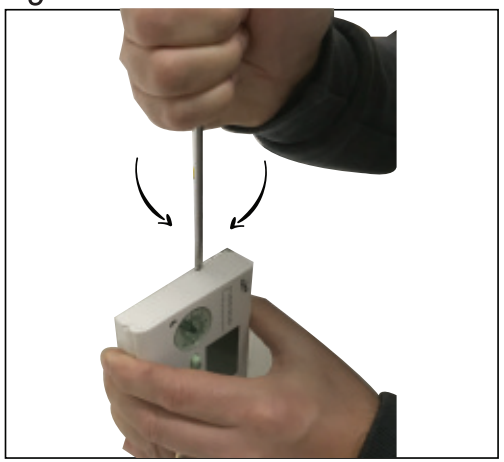


Fig.2A

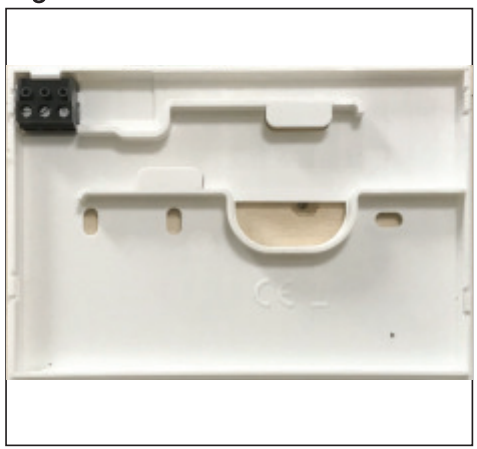


Fig.3A

Fig.4A

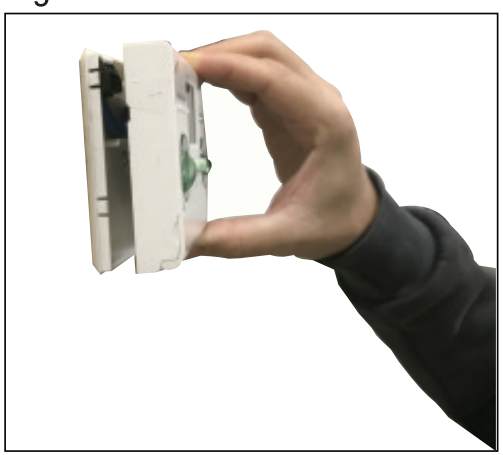


Fig.5A

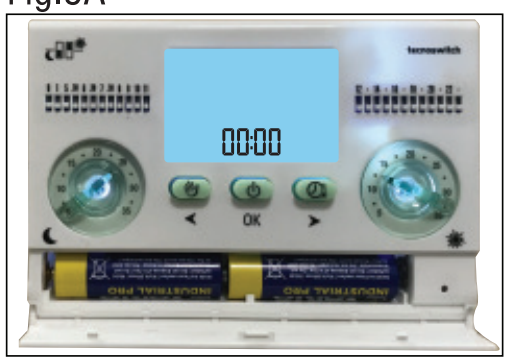
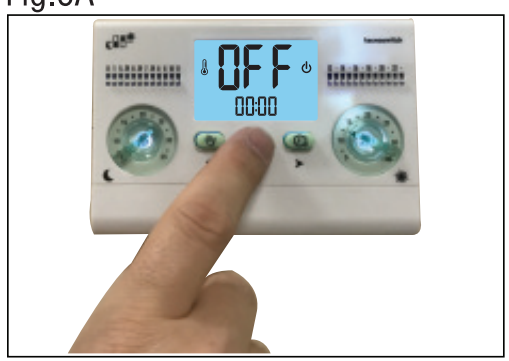


Fig.6A



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2.0 FACTORY SETTING

2.1 For faster use, the programmable thermostat is supplied with the following factory settings , Fig.6 :

a) Mode Heating

b) Automatic mode

c) Frost protection 5 °C

d) Thermal differential 0,3 °C

e) Operation with internal probe

Fig.6

3.0 SET TIME

In case of first switching on of the device or battery replacement, go directly to point 3.2

3.1 Hold down for 3 seconds. The clock flashes. Fig.7
3.2 Press ◄ or ► to set the hours.
3.3 Press **OK** to confirm. The minutes value flashes. Fig.8
3.4 Press ◄ or ► to set the minutes.
3.5 Press **OK** to confirm.

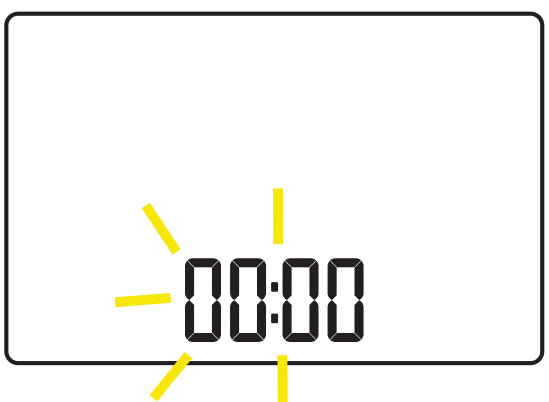


Fig.7

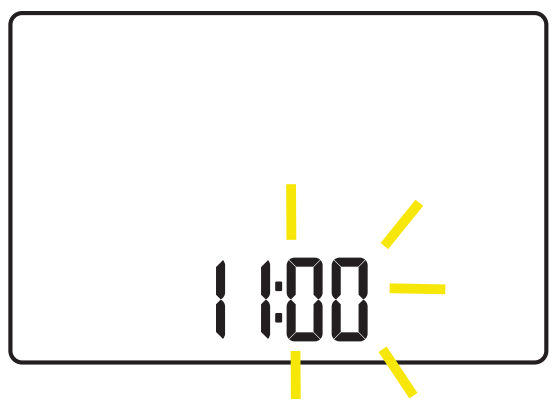


Fig.8

If you don't touch the programmable within 20 seconds, it returns to the main screen without saving the settings.

N.B.: The first time you switch on the thermostat or you replace the batteries, the time will always flash until we'll set it

4.0 OPERATION MANUAL MODE

With the manual mode you can always keep the same temperature set all day.

4.1 Press ; The display shows the icons and .
4.2 Set the desired temperature using the comfort temperature knob.
The display will show the set temperature for 5 seconds and the sun icon will flash. Fig.9

To go back to the Automatic program, press again ; the display will not show the icon.
N.B.: In this mode, the reduction temperature adjustment is not enabled
When the system is active, the icon / is animated.

Fig.9

5.0 OPERATION AUTOMATIC MODE

This function automatically turn on the heating or cooling system by position of the switches and by of knobs to set the temperature

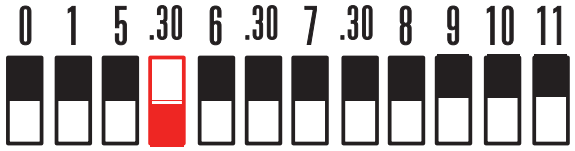
To activate it:
5.1 Press , until the icon disappears.
5.2 Set the Comfort temperature using the right knob ; the display will show the set temperature for 5 seconds and the icon will flash.
5.3 Set the Reduction temperature using the left knob ; the display will show the set temperature for 5 seconds and the icon will flash.

5.4 Move the switches:
upwards the system is activated with comfort temperature;
downwards the system is activated with a reduction temperature .

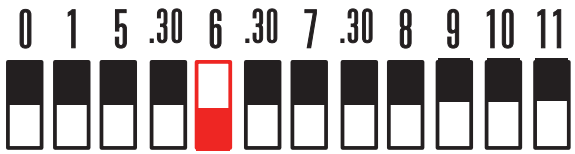
All the intervals are one hour and it can be activated by moving a single switch, except:

01:00 - 04:59 (3.59 hour interval)

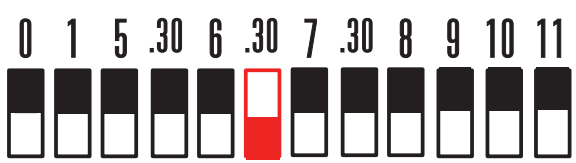
05:00 - 05:29 (30 minute interval)



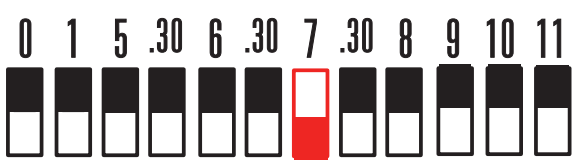
05:30 - 05:59 (30 minute interval)



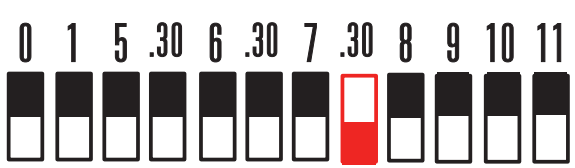
06:00 - 06:29 (30 minute interval)



06:30 - 06:59 (30 minute interval)



07:00 - 07:29 (30 minute interval)



07:30 - 07:59 (30 minute interval)

Es. If you want to have a 10 ° C Reduction temperature from 00:00 to 07:29 and a Comfort temperature of 21.5 ° C from 07:30 to 23:59, you have to:

5.4.1 Set the Reduction temperature to 10 ° C using the left knob ;

5.4.2 Set the Comfort temperature to 21.5 ° C using the right knob ;

5.4.3 Move the switches down (0 / 7)
Move the switches upwards (7.30 / 23). Fig.10

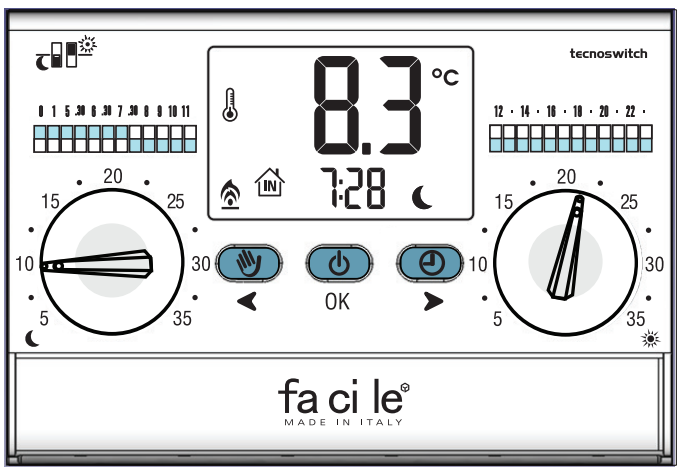


Fig.10

6.0 EXTERNAL TEMPERATURE DISPLAY

The display shows the outside temperature only if the external probe is correctly wired.

6.1 Press to display the temperature relative to the external OUT / IN internal probe.

N.B.:
OUT (FIXED): outdoor temperature display.
OUT (FLASHING): regulates the switching on of the system through an external probe.

IN (FIXED): internal temperature display
IN (FLASHING): regulates the switching on of the system through an internal probe

If the external probe is interrupted or malfunctioning, the display will show the error message, Fig.11.

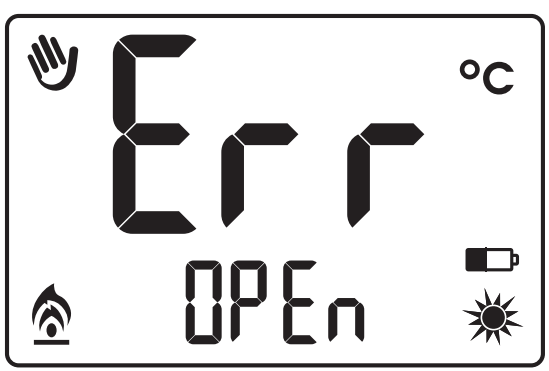


Fig.11.

7.0 ON / OFF

7.1 Press ⏻ to turn ON/OFF the system.
The display will show the symbol ⏻ and the word **OFF**.

If the Frost Protection is active, the display will also show the icon 🌡 .
(The icon is flashing if the Frost Protection threshold has been reached).
It's important to avoid damage caused by too low temperatures.
To set the Frost Protection mode, see chapter 8.2.

8.0 ADVANCED MENU

8.1 FROST PROTECTION
8.2 SET HEATING / COOLING
8.3 OPERATION WITH EXTERNAL PROBE*
8.4 CORRECTION OF MEASURED INTERNAL TEMPERATURE
8.5 CORRECTION OF MEASURED EXTERNAL TEMPERATURE*
8.6 **diff** THERMAL DIFFERENTIAL
8.7 **dFlt** RESET
8.8 **Esc** ADVANCED MENU EXIT
8.9 FIRMWARE VERSION

* If the external probe is not wired or faulty the display will show the error message.

8.0 ACCESS TO THE ADVANCED MENU

8.0.1 Hold down for 10 seconds until the icons appear on the display, Fig.12
The selected icon flashes.
8.0.2 Press ◄ or ► and select the icon to be set.
8.0.3 Press **OK** to confirm.
8.0.4 Press ◄ + ► simultaneously to return to the advanced menu, Fig.12
8.0.5 Press ◄ or ► until Esc appears. Press **OK** to confirm.

N.B. : After about 20 seconds of inactivity the device automatically exits the advanced menu saving the modified settings.

Fig.12

8.1 FROST PROTECTION

It's important to avoid damage caused by too low temperatures. This function works only in the Heating mode. The default temperature is + 5 ° C. If the temperature drops below this value the system starts working.
To change this value you have to:

8.1.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode .
8.1.2 Press ◄ or ► to increase or decrease this value from 2 to 7 ° C. Fig.13a
Below 2 ° C the function
will be disabled and the display will show the word **OFF**. Fig.13b
8.1.3 Press **OK** to confirm.

Press ◄ + ► simultaneously to return to the advanced menu. Fig.12.

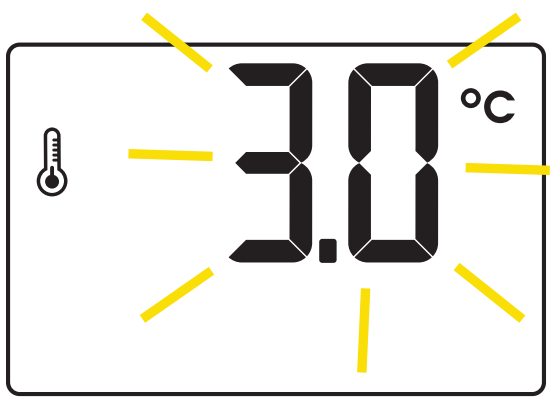


Fig.13

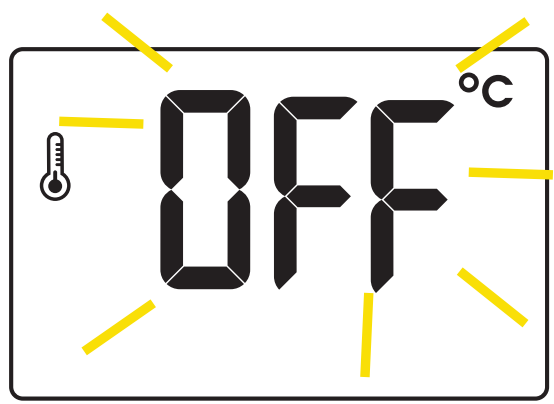


Fig.13b

To exit from the advanced menu see chapter 8.8.

N.B.: If the frost protection is enable, the display will show the icon  only visible in the OFF state of the programmable thermostat, when the antifreeze threshold has been reached the icon thermometer flashes.

If the device was off and the room temperature was below the frost protection temperature set by us, for example. 5 ° C, the system will be activated and the icon  will flash.

8.2 SET HEATING / COOLING

8.2.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode /.

8.2.2 Use ◄ or ► to select the Heating or Cooling mode.

The selected icon flashes..

8.2.3 Press OK to activate the selected mode or press ◄ + ► simultaneously to return to the advanced menu Fig.12.

To return to the main screen see chapter 8.8.

When the system is active, the icon / is animated.

8.3 IN OUT OPERATION WITH EXTERNAL PROBE

8.3.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode IN OUT .
8.3.2 Use ◄or► and select IN for operation by internal probe or **OUT** for operation by External probe. The selected icon flashes.
8.3.3 Press **OK** to confirm or press ◄ + ► simultaneously to return to the advanced menu. Fig.12.

To exit from the advanced menu see chapter 8.8.

8.4 CORRECTION OF MEASURED INTERNAL TEMPERATURE

If the device is not installed correctly (es. installation on cold walls, or near heat sources) the detected temperature may not be exact. For this reason it is possible to correct it from the device from 0 ° C (factory setting) up to ± 3 ° C.

To change this value you have to:

8.4.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode CorrIN.

8.4.2 Use ◄ or ► to set the desired value between -3 and +3 ° C. Fig.14

8.4.3 Press **OK** to confirm or press ◄ + ► simultaneously to return to the advanced menu. Fig.12

To exit from the advanced menu see chapter 8.8.

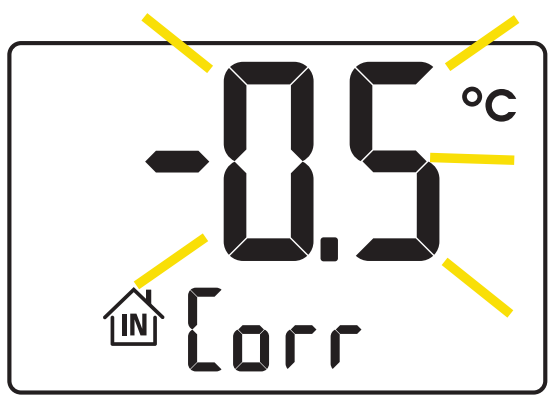


Fig.14

8.5 OUT CorrCORRECTION OF MEASURED EXTERNAL TEMPERATURE

If the external probe is not installed correctly the detected temperature may not be exact. For this reason it is possible to correct it from the device from 0 ° C (factory setting) up to ± 3 ° C.

To change this value you have to:

8.5.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode OUT Corr.
8.5.2 Use ◄ or ➤ to set the desired value between -3 and +3 ° C. Fig.15
8.5.3 Press **OK** to confirm or press ◄ + ➤ simultaneously to return to the advanced menu. Fig.12

To exit from the advanced menu see chapter 8.8.

N.B.: This setting is active only if the external probe is present and wired.

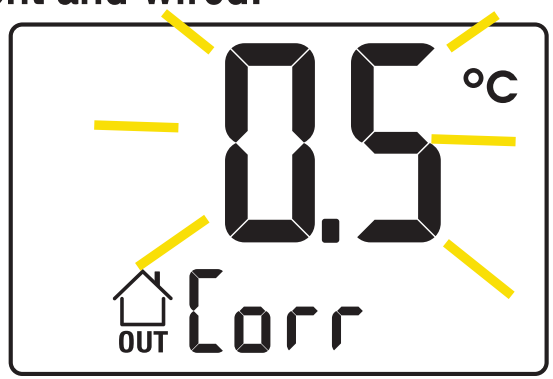


Fig.15

8.6 IN OUT diff THERMAL DIFFERENTIAL

It is the difference between the temperature value set by the knob and the switch-on or switch-off temperature of the system.
For example, having set a temperature of 20 ° C and a differential of 0.3 ° C, the system switches on when the temperature reaches 19.7 ° C and turns off when it reaches 20.3 ° C.
By choosing the differential based on the type of system, continuous switching on and off is avoided. Therefore we recommend a low thermal differential for systems with high thermal inertia (systems with cast iron radiators) and the high one for low inertia systems (eg ventilators, fan coils, etc...).

To change this value you have to:

8.6.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode IN OUT diff.
8.6.2 Use ◄ or ► to set the desired value between 0.1 and 1. Fig.16
8.6.3 Press **OK** to confirm or press ◄+► simultaneously to return to the advanced menu. Fig.12

To exit from the advanced menu see chapter 8.8.

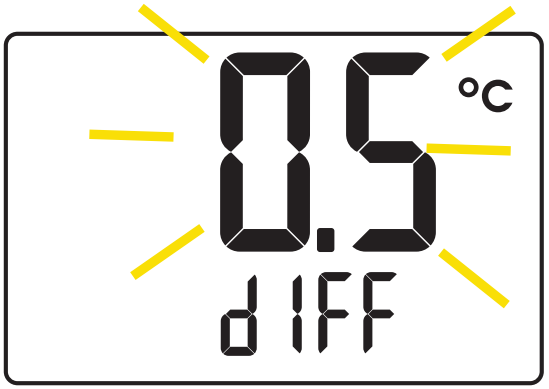


Fig.16

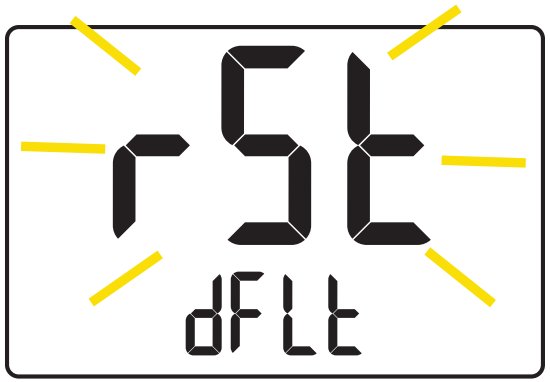


Fig.17

8.7 IN OUT dFlt RESET

8.7.1 Repeat steps 8.0.1 to 8.0.3 selecting the mode **dFLt**.

8.7.2 The display will show **rSt**. Fig.17.
Press **OK** to reset and return to factory settings or press ◄ + ➤ simultaneously to return to the advanced menu. Fig.12

8.8. ADVANCED MENU EXIT

8.8.1 Press ◄ or ➤ until Esc appears.
8.8.1.1 Press **OK** to return to the main screen.

8.9. FIRMWARE VERSION

8.9.1 Repeat step 8.0.1
8.9.2 Press ◄ or ➤ until the word bAt appears indicating the firmware version.

8.9.3 To exit from the advanced menu see chapter 8.8.

9.0 REPLACEMENT OF SUPPLY BATTERIES

When appears, batteries must be replaced within 30 days.
We suggest the replacement of Alkaline style batteries at the beginning of each season.
Fitting the batteries with the wrong polarity may damage the programmable thermostat. If you do not want to lose the programs set you have to change the batteries within 10 seconds.

10.0 RESET HARDWARE

Operating anomalies, interventions or other technical reasons may require the reset of the device and the restore of the factory settings.
To perform the reset operation, you have to remove and reinsert the batteries or press the reset button on the right side of the battery compartment, see LEGEND point 9-FIG.1.
Once the time has been set, the programmable thermostat starts with all the user settings saved.

11.0 TECHNICAL FEATURES

- Electronic thermostat with ON/OFF regulation and external probe
- Temperature regulation from 5 to 35°C
- Antifreeze temperature from 2 to 7°C
- Correction temperature from -3 to 3°C
- Thermal Differential ON/OFF from 0,1 to 1°C
- Protection degree IP20
- Microdisconnection 1BU
- Relay output with clean change-over contacts NO/ COM 5A 250Vac
- Contacts up to 230Vac or 30Vdc
- 10KΩ - 1% External Probe
- Software Class A
- Backlighted LCD display
- Micro-switches for time regulation

12.0 SAFETY WARNINGS

During the installation and operation of the device it is necessary to respect the following indications:
1)Do not feed the product if it is mechanically damaged.
2)Check that there is no voltage at the terminals and then proceed with the connection.
3)The device must be installed by a qualified person following the connection diagrams shown in the user manual.
4)Install and operate the appliance in compliance with the current regulations concerning electrical systems.
5)Do not exceed the load limits.
6)In the electrical system of the building where the device is installed, a switch and a device for protection against overcurrents should be included.
7)Once the device has been installed, it must be ensured that it is inaccessible to the connection terminals without the use of special tools.
8)For malfunctions of the appliance, contact technical assistance.

13.0 INFORMATION TO USERS

Pursuant to Legislative Decree No. 49 of March 14, 2014 “ Implementation of Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)”
The “crossed out wheelie bin” WEEE symbol on the appliance show that the product, at the end of its useful life, must be collected separately from other waste. Therefore, the user must provide the equipment with the essential components at the recycling centre for electronic and electrotechnical devices, or return it to the dealer when you purchase an equivalent appliance in one-to-pne reason, or 1 to zero for equipment with a side lower than 25cm. The correct recycling helps to avoid possible negative effects on the environment and on health, favoring the recycling of the materials that make up the equipment. The illegal disposal of the product by the user involves administrative sanctions aas per Legislative Decree No. 49 of March 14, 2014.

Tecno Switch reserves the right to make changes to its products in each moment and without further notice.
Tecno Switch declines all responsibility for damage to things or persons derived from an incorrect or improper use of its products.

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00.0 NOTE

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keep control

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