**User manual**



**02911**

Surf.Wi-Fi-touch-timer-thermostat

**CLIMA**

VIMAR S.p.A., as required by Italian Legislative Decree no. 196/2003, is authorized to manage the information needed to perform the services described below, when registering the device on the Cloud servers of Vimar S.p.A. The software platform of the Cloud servers of Vimar S.p.A. collects information from the device that is needed to perform the services relating to the registered devices: the device ID, application version and the services provided by it, the device configuration, as well as the pairing between the device and the authorized applications for the remote control function, as well as signals for verifying correct access and operation of these services and devices. The above information is all necessary and functional in order to enable correctly performing the functions of remote control and maintenance of the applications and devices supported by the platform.

The ID of the device and the rest of the information are automatically recorded on the Cloud servers of Vimar S.p.A. after WiFi configuration and access to the Internet. Users can disable the services that provide remote access to their device, thereby deleting all the data relating to their device from the Vimar S.p.A. Cloud.

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# 1. Timer-Thermostat 02911

WiFi timer-thermostat (802.11 b/g/n, 2.4GHz), wall-mounting, mains-powered (230 V~), with interface with capacitive keys and equipped with user-friendly functions to facilitate energy saving.  WiFi connectivity lets you control/consult the device remotely, directly from your smartphone or tablet. The appliance is designed to control room temperature by acting on the control circuit of the burner or circulation pump (heating) or on the control circuit of the air conditioner (air conditioning), ensuring an ideal temperature. The graphical user interface, thanks to special views, facilitates system management helping the user to operate while maintaining a state of energy saving.

# 2. Configuration via WiFi interface

The timer-thermostat 02911 features a WiFi interface that lets you configure and control your device remotely. In addition to configuring your home network you can also specify whether you want to take advantage of the Vimar cloud service.

## 2.1  Cloud Service
Vimar lets users easily access their timer-thermostat from all over the world over the Internet thanks to its cloud service.

This service enables:

• Fully controlling your timer-thermostat from all over the world.

• Receiving notifications from your timer-thermostat directly on your mobile device.

• Updating the timer-thermostat software.

• Saving all the timer-thermostat settings should you need to replace it.

Registration with the Vimar cloud is automatic and is linked to the timer-thermostat (creating a user is not required: **no login**).
By pairing a mobile device with the timer-thermostat, the smartphone/tablet is merged (at the logic level) with the registration of the timer-thermostat in the cloud.

## 2.2  Use without the cloud
If you do not wish to register on the cloud, the timer-thermostat can still be set to run without the cloud (for example, only via a local WiFi network without the Internet).

Not activating the cloud will prevent you from doing the following:

• Operating the device over the Internet (control only within the local WiFi network)

• Receiving software updates

• Receiving notifications from your timer-thermostat on your mobile device

• Saving all the timer-thermostat settings should you need to replace it.

NOTE: We recommend the installer keep the timer-thermostat in this operating mode and let the customer choose whether to use the Vimar cloud.

## 2.3 Pairing additional mobile devices with the timer-thermostat
The timer-thermostat 02911 can be controlled only with mobile devices that have been paired with the first configuration or pairing procedure.
A new mobile device (on which the By-clima App has previously been installed) can be paired at any time by using the By-clima App on the mobile device itself but only by also interacting with the local interface of the timer-thermostat and within the same WiFi network (you cannot pair mobile devices remotely/over the Internet).
When pairing, you are prompted to enter a 4-digit PIN code to pair the mobile device with the timer-thermostat, which can only be controlled if:

- the mobile device is paired with the timer-thermostat;
- the PIN code of the mobile device and that of the timer-thermostat coincide.

If you change the PIN of the timer-thermostat but not that of the tablet/smartphone, the mobile device (which is still set to the old PIN) will no longer be able to manage the timer-thermostat; it will then be necessary to update the PIN of the tablet/smartphone device(s).

CAUTION:
• **The PIN for accessing the timer-thermostat 02911 from your mobile device can only be changed with the By-clima App.**
• **The PIN code is very important because it protects the timer-thermostat from previously paired mobile devices too (eg that of the installer). The end user is advised to change the default PIN code so as to disable control of the device from all smartphones/tablets (even if already paired with the device) that do not have the updated PIN code.**

## 3. Display

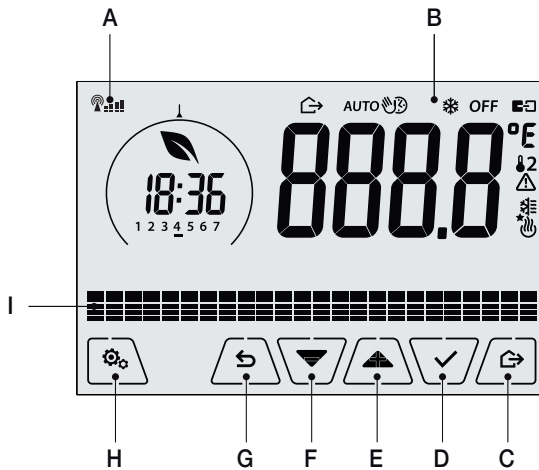The touchscreen display allows you to control the system using the following buttons and icons:



*Fig. 1: Graphical interface and buttons*

**A**: WiFi radio signal strength indicator

**B**: Operating mode

**C**: Away

**D**: Confirm

**E-F**: Menu navigation and setting parameters

**G**: Back

**H**: Settings menu

**I**: AUTO programme temperature trends

### 3.1 Functions of the buttons

$\boxed{+}$ : **increases** the numerical values. When it "disappears" from the display it means that the value cannot be increased any more.

$\boxed{-}$ : **decreases** the numerical values. When it "disappears" from the display it means that the value cannot be decreased any more.

$\boxed{\blacktriangle}$ : during navigation, it **scrolls the next item** through the available menus. If it "disappears" then you have arrived at the last of the items that can be scrolled.

$\boxed{\blacktriangledown}$ : during navigation, it **scrolls the previous item** through the available menus. If it "disappears" then you have arrived at the last of the elements that can be scrolled.

$\boxed{\checkmark}$ : **confirms** the selected option (activates the submenu if there is one or displays the next parameter/digit).
After each confirmation, the display shows the ✔ icon for approximately 1 s.

$\boxed{\leftarrow}$ : **back (or cancel)** exits the current screen/menu and returns to the previous one without saving any changes. In menus with changes to multiple digits it lets you go back to change the previous digit.

**N.B. The field/value being edited is highlighted by the field/value itself flashing.**

### 3.2 Symbols

Depending on the different operating modes, the display shows the following icons:

−0+ : Calibration

⏚ : WiFi radio signal strength indicator

✋⏱ : Timed manual operation

⇱ : Away

✋ : Manual

❄ : Antifreeze

**OFF** : Switched off (OFF)

**AUTO** : Automatic operation

▣⊐ : Connection status of the vCloud (flashing ➡ connection attempt in progress; fixed ➡ active link)

⚠ : Alarm

* : Availability new software update

❄ : Air conditioning

♨ : Heating

🍃    : Eco (saving)

✔     : Confirm

**1  2  3  4  5  6  7** : Day of the week indicator

**T**⬄     : Away temperature

**T**◇     : Economy temperature

**T**◆     : Comfort temperature

### 3.3 Standby

If no operations are carried out on the device for 30 seconds, it automatically activates standby mode which lowers the brightness level of the device.

### 3.4 Locking the interface via PIN

The timer-thermostat lets you set a password which inhibits any change to the operating mode (eg switching from Manual to OFF), limits setting the temperature values and, more generally, blocks access to the configuration menu.

This feature is useful to prevent the thermostat being used by unauthorized persons; the device prompts you to enter the PIN, indicating a shutdown with **PIN**.
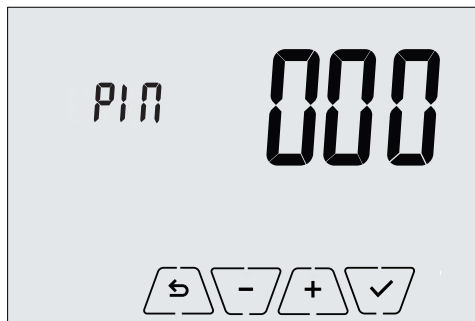


*Fig. 2: Locking with PIN*

### 3.5 Alternative views

During normal operation, i.e. when you are not navigating the menus, you can select the information to display on the left-hand side of the display.

WiFi radio signal strength indicator

Energy saving indicator

Clock

Day of the week indicator

Set temperature indicator
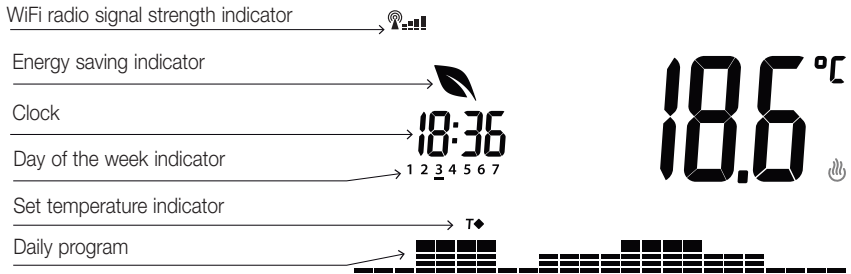
Daily program

*Fig. 3: Typical view of the time and daily program*

This view is the default and gives an indication of the daily temperature control program along with the data on the current moment.

T**he program area**, represented by histograms, is divided into 24 sectors each of which represents the corresponding hour of the 24 hours in a day.

Each sector can be composed of 1, 2 or 3 dashes:

equivalent to "T away" ( **T⇾** )

equivalent to "T economy" ( **T◈** )

equivalent to "T comfort" ( **T◆** )

T**he clock** shows the current time.

T**he indicator of the day of the week** highlights the current day with a dash under the number associated with it (eg, 4 = Thursday).

T**he set temperature indicator** highlights the current temperature being regulated thus replicating the information represented by the "dashes":

**T⇾** = T away

**T◈** = T economy

**T◆** = T comfort

T**he energy saving indicator** indicates whether, compared to a conventional average consumption, the set temperature setpoint enables you to achieve "savings" in consumption.

If the operating mode is not set on **AUTO**, the program area will not be active.

## 4. Operating mode

The timer-thermostat 02911 is able to regulate the temperature according to the following operating modes:

• **Switched off (OFF)**: switches the system off

• **Manual (ON)**: lets you set the environment temperature set-point manually

• **AUTO**: lets you set a control program that compares the room temperature with the value set for each quarter of an hour of the current day; the user defines three levels of temperature distributed over 24 hours which can then be varied for each day of the week.

• **Timed manual**: starting from AUTO mode, this lets you activate MANUAL operation of the timer-thermostat for any period of time at the end of which the device will return to AUTO mode.

• **Away**: lets you set the set-point in order to achieve significant energy savings during periods when the user is away

• **Antifreeze**: used to set a minimum temperature level to avoid damage to pipework or prevent the temperature from falling below a safety level.

**The operating mode is selected via the SETTINGS menu or with the shortcut keys.**

### 4.1 Switched off (OFF)

With this mode on, the timer-thermostat is turned off and you cannot make any adjustments; in this case, the **OFF** icon is displayed above the temperature indicator.
In this mode you cannot perform any operations other than activating the menus or changing the view mode.



*Fig. 4: Typical screen for OFF mode*

For heating-only systems this mode is typically used in the summer.

### 4.2 Manual

In this mode the device operates as a simple thermostat and regulates the ambient temperature, taking it to the value set by the user.
When MANUAL mode is active, the icon is displayed above the temperature indicator.
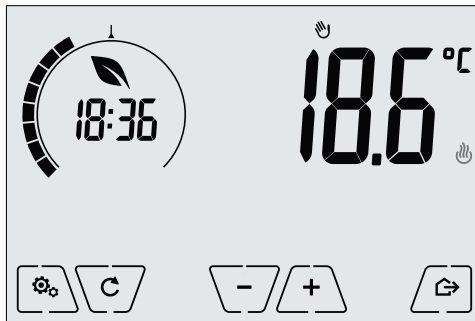
*Fig. 5: Typical screen for Manual mode*

The set point can always be changed via ⌊+⌋ or ⌊−⌋.
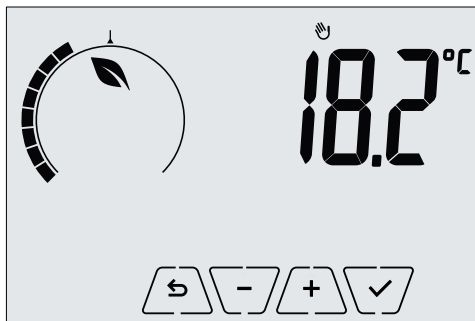


*Fig. 6: Manual set point setting*

The selection is confirmed by touching ⌊✓⌋.

The 🖐 and ❄ icons in the lower right corner indicate whether the system is operating in heating or air-conditioning mode respectively (icon illuminated = system on).

### 4.3 Auto

This is the typical mode of operation of the timer-thermostat.
The device automatically changes the ambient temperature according to the time of day and the day of the week, it minimizes user intervention thereby optimizing comfort and energy savings; three different temperatures can be set to cover the needs of normal use, user away or nighttime reduction in the environment.
For setting the automatic program, see par. 5.5.
When AUTO mode is active, the **AUTO** icon is displayed above the temperature indicator.
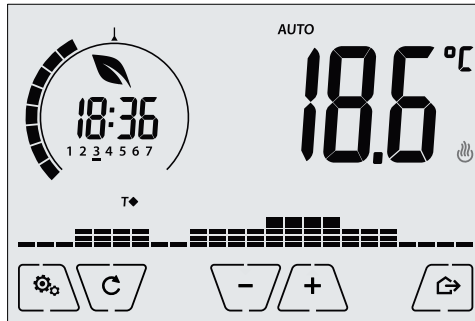
*Fig. 7: Typical screen for Auto mode*

By touching ⊞ and ⊟ you can temporarily change the ambient temperature, setting it to a different value to the one associated with the current time slot.

Confirming with ✓ it then goes into TIMED MANUAL mode.

The 🔥 and ❄ icons in the lower right corner indicate whether the system is operating in heating or air-conditioning mode respectively (icon illuminated = system on).

### 4.4 Timed manual

This mode allows you to exit the AUTO program (you enter MANUAL mode) for a certain time after which the timer-thermostat will return to AUTO mode.
*For example: take the ambient temperature to 25°C for 2 hours and then resume the Auto program.*

Activation is carried out starting from AUTO mode and is recognizable by the 🖐 icon displayed above the temperature indicator.
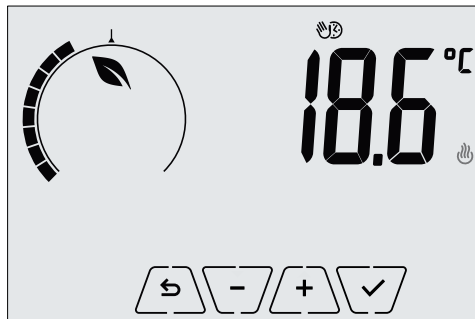


*Fig. 8: Input screen in Timed Manual mode*

Using ⊞ and ⊟ you set the temperature and confirm with ✓.

**Operating mode**

The next screen, again using ⊞ and ⊟, lets you set the time for which the temperature you have just set is maintained.
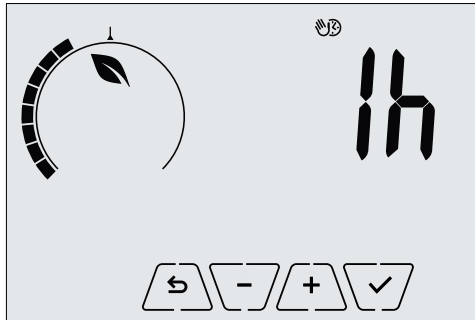


*Fig. 9: Regulating the number of hours of Timed Manual mode*

Finally confirm with ☑.
At the end of the set time the timer-thermostat goes back into AUTO mode, the 🖐️🕐 icon switches off and **AUTO** reappears.

## 4.5 Away

This mode is useful to achieve energy savings quickly and effectively whenever the user leaves the regulated room.
In "Away" mode the system makes the adjustment according to the "away temperature" setpoint $T0$.

The Away mode can only be activated by touching ⊏→.

The display will show the "away temperature" setpoint for approximately 2 seconds:
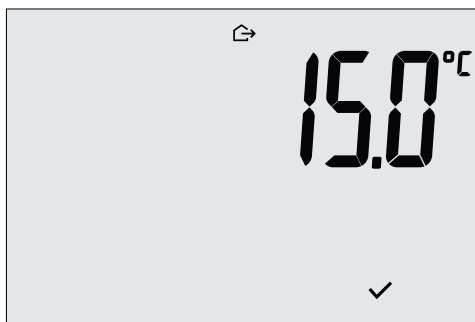


*Fig. 10: Input in away mode showing the away temperature*

Mode activation is identified by the ⊏→ icon:

*Fig. 11: Away Mode*

To exit and return to the initial mode touch the ⟨⟩ button again:

### 4.6 Antifreeze

This mode, which can only be activated when the system is operating in heating mode, lets you set a minimum temperature value ($To$ setpoint) to avoid damage to the pipework or to keep it from falling below a certain safety level when you are away for lengthy periods in the winter.

The "antifreeze" mode is activated directly from the Settings menu.
Once activated, antifreeze mode is identified by the ✳ icon above the temperature indicator.



*Fig. 12: Antifreeze mode*

## 5. Settings menu

From the settings menu you can configure all the features of the timer-thermostat.

On the main screen tap the ⚙ icon.

From the main menu, using ▲ and ▼ will display the following (flashing) symbols in succession, which provide access to the corresponding submenus:

1. ✋ AUTO ❄ OFF   operating mode setting

2. **18:36**
   1 2 3 4 5 6 7        setting the time and day of the week

3. ❄ 🔥          air-conditioning/heating setting

4. T - -          temperature setpoint setting

5. ▄▄▄▄▆▆▆▆__▆▆▆▆██▆▆▆▆____   daily program setting

6. °C °F          unit of measurement setting

7. - 0 +          calibration setting

8. 5-T          external temperature probe setting (shown only when the probe is connected)

9. Out          OnOff/PID temperature control algorithm setting

10. bEEP          buzzer (beep) setting

11. WIFI          setting WiFi functionality

12. Stby          setting the brightness level of the display during Standby

13. InFo          device info

14. PIN          lock/unlock PIN setting

Touching ✓ opens the submenu and then the flashing highlights the parameters of the submenu.

### 5.1 Operating mode setting

This menu is used to select the operating mode of the device:

- ✋    Manual
- AUTO  Automatic
- OFF   Off
- ❄    Antifreeze (only if the thermostat is set on "heating")

Using ▲ and ▼ select the desired mode and confirm with ✓.

## 5.2 Setting the time and day of the week

This menu lets you set the time and day of the week.

Using ⏶ , ⏷ , + and − set the hour, confirm with ✓ and similarly set the minutes and then the day of the week.

The days of the week are represented by numbers from 1 to 7 and indicate the days from Monday to Sunday.

## 5.3 Heating/air-conditioning setting

This menu lets you set the operation of the device depending on the season (winter/summer):

- ♨ heating
- ❄ air-conditioning

Using ⏶ and ⏷ select the desired operation and confirm with ✓ .

## 5.4 Temperature setting

This menu is for the sole use of the installer.

## 5.5 Daily program setting

This menu lets you set or modify the time and daily program for the ambient temperature.

The program lets you associate each quarter hour of the day (and in a different way, for each of the 7 days) with one of the 3 temperatures "T comfort", "T away" and "T economy".

*For example: During the night, set "T economy", for the morning and evening set "T comfort" and in the middle of the day set "T away" (when no one is in the environment and to obtain savings due to a lower consumption).*

### 5.5.1 Selecting the day of the week

As soon as you enter the menu, the display shows a flashing dash for the day to which the current programming refers (for example: 1234567 = Tuesday).

Using ⏶ and ⏷ select the day of the week to program and confirm with ✓ .

### 5.5.2 Temperature selection

After confirming the day to program, the display shows the screen for setting the temperatures associated with the different times of the day.

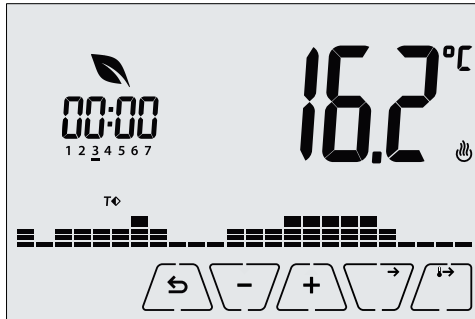*Fig. 13: Setting the time and daily program*

Using ⬆ and ⬇ select the temperature to be associated with the current time (which is shown on the clock on the left). This temperature, highlighted by the blinking, can be selected from:

**T⬦** : away temperature (T away)

**T◈** : economy temperature (T economy)

**T◆** : comfort temperature (T comfort)

The "dashes" blinking indicate the time slot that you are setting (there are 24 groups of 3 dashes and each group corresponds to one hour of the 24 in the day). The selected temperature will be applied beginning at the time indicated on the left for all of the next quarter of an hour.

On touching ⤳, the temperature selected for the current time is assigned to the next quarter of an hour too; in this case the temperature symbol is the same but the current time, shown by the clock, is moved forward by 15 minutes.

Using ↘ and ↩ you can move respectively between the hours of the day and move forwards or backwards 15 minutes at a time.
During the movement, as well as the clock, also the "dashes" indicate the time of day in which you are working. In addition, below the numbers associated with the days of the week, you will see an icon that identifies the temperature set for that specific time.

The ⊕ and ⊖ buttons permit changing the set temperature.

Programming ends when the temperatures have been set for all the hours of the day and the clock displays the time 23:45; then tap ✓ to confirm.

Finally, using ⬆ and ⬇, select one of the following options shown in the numeric field of the display:

**COPY** : to copy the entire time program for the current day to the next day (useful for replicating working days or holidays).

**Goto** : to move on to program the next day without making a copy of the day you have just set (useful when switching between programming working days and holidays).

**End** : to finish programming.

Touch [✓] to confirm the selected option.

### 5.6 Unit of measurement setting

This menu lets you set the unit of measurement used for the temperature (°C or °F)

Using [▲] and [▼] select the desired unit of measurement and confirm with [✓].

### 5.7 Calibration setting

This menu is for the sole use of the installer.

### 5.8 External probe setting

This menu is for the sole use of the installer.

### 5.9 OnOff/PID temperature control algorithm setting

This menu is for the sole use of the installer.

### 5.10 Buzzer (beep) setting

This menu lets you enable/disable the acoustic signals of the thermostat; if it is disabled there will no longer be any sound when you touch the buttons or in cases of confirmation/error.
Whereas, in the event of an alarm, the sound signal will always be guaranteed.

Using [▲] and [▼] select "**ON**" or "**OFF**" and confirm with [✓].

### 5.11 Standby brightness level setting

The menu lets you set the display brightness level when the timer-thermostat goes onto Standby.

Using [▲] and [▼] select one of the 7 available levels and confirm with [✓] (there is also the ability to turn off the display completely).

### 5.12 WiFi setting

The menu lets you configure the settings for the WiFi module.

Via [▲] and [▼] you can select:

#### 5.12.1 On/Off

The **OnOF** menu lets you turn the WiFi module on or off (completely); if it is turned off, in addition to eliminating any wireless transmission/reception of the device, some of the following submenus are inhibited.

Using [▲] and [▼] select "**ON**" or "**OFF**" and confirm with [✓].

### 5.12.2 Enable Cloud Service

The **[Lᴅ** menu lets you select whether or not to take advantage of the cloud service offered by Vimar. If you do not intend to use this service some of the following submenus will be inhibited.

Using [▲] and [▼] select "*ON*" or "*OFF*" to use or not use the cloud service and confirm with [✓].

### 5.12.3 Automatic time synchronization

The **SYNC** menu enables automatic synchronization of the clock directly from the cloud.

Using [▲] and [▼] select "*ON*" or "*OFF*" to enable or disable clock synchronization and confirm with [✓].

### 5.12.4 First configuration

The **[ᴏnF** menu enables activating the timer-thermostat configuration procedure with the App. This procedure lets you (via a smartphone or tablet) configure the WiFi network to which the timer-thermostat is to connect during normal operation and it lets you program all the functions of temperature control.

Touch [✓] and then [✓] to start the configuration procedure; then follow the instructions displayed directly on your smartphone/tablet.

### 5.12.5 Pairing with a mobile device

The **bYEL** menu enables activating the procedure for pairing the timer-thermostat with **a mobile device (smartphone or tablet) on which the By-clima App has been installed and that was not used during the first configuration**; this procedure should be carried out on every mobile device with which you want to control/query the timer-thermostat. (The interaction takes place on both the smartphone/tablet and on the timer-thermostat at the same time; this ensures that the device cannot be controlled by undesired users who have not performed the pairing phase.

Touch [✓] and then [✓] to start the pairing procedure; then follow the instructions displayed directly on your smartphone/tablet.

### 5.12.6 WiFi Info

#### 5.12.6.1 WiFi FW version

The **UErS** menu lets you view the version of the firmware for the WiFi interface. It should be used, if required, when seeking support.

Touch [✓] to display the FW version.

### 5.12.6.2 Statistics

The ⎍⎍⎍⎍ menu lets you view the device statistics (ie its error codes). It should be used, if required, when seeking support.

Touch ✓ to display the statistics.

### 5.12.6.3 FWuP

This is an advanced menu which lets you start updating the WiFi module.

Touch ✓ to start the update.

### 5.12.6.4 Reset WiFi parameters

The ⎍⎍⎍⎍ menu lets you reset ALL WiFi related configurations to their factory values. In particular the following values are reset:

- Access to the cloud service.
- Automatic clock synchronization.
- Alarm/notification threshold values.
- Enabling alarms/notifications.

Touch ✓ to return the parameters to their factory values; since this operation cannot be undone, you will see a confirmation notice and you will need to tap ✓ again.

## 5.13 Info about the device

This menu is for the sole use of the installer.

## 5.14 Lock/unlock PIN setting

This menu lets you add/change the password to inhibit use of the timer-thermostat.

Using ⎣+⎦ and ⎣−⎦ set the three digits of the PIN one at a time and then confirm each set digit with ✓.

If you wish to have free access to the thermostat (so without it prompting you for a password) it is sufficient to set the PIN to "*000*".

If you forget the value you entered, proceed as follows to reset the PIN:

1. Cut off power to the timer-thermostat and then restore it again.

2. Within the first 30 s, i.e. before going into Standby mode, go to the PIN menu and enter the new value.

# 6. Configuring and checking alarms

This menu is for the sole use of the installer.

# 7. Cleaning the device

The timer-thermostat, featuring a display with capacitive buttons, requires you to be gentle during the cleaning phase. Avoid using aggressive products. Clean the display with a special cloth for cleaning lenses.

# 8. Features

- Rated supply voltage: 230 V~, 50-60Hz
- Max power drawn from the grid: 3 VA
- Operating temperature range: 0-40°C (-T40)
- Temp. measurement accuracy (built-in probe): 0.5°C between +15°C and 30°C, 0.8°C at the ends.
- Relay output with clean change-over contacts: 5(2) A 230 V~
- Terminals: Relay C, Relay NC, Relay NO, 2 external temp. probe (art. 02965.1)
- WiFi network: complies with 802.11 b/g/n; IP address: static or DHCP
- Controlled via local interface (touchscreen) or remotely via WiFi (with Vimar By-clima App for Android, iOS, Windows Phone).
- WiFi access via cloud (for queries/updates/notifications) and via private network
- WiFi network configuration via the Vimar By-clima App
- Configurable in Heating/Air-Conditioning mode (winter/summer)
- Temperature control algorithms: ON/OFF or PID selectable via user interface.
- Operating modes: Off, Antifreeze (heating only), Away, Manual, Automatic, Timed Manual.
- 6 settable temperature set-point/offset (economy, comfort, manual, away, antifreeze, reduction).
- Action type: 1.CU. Degree of pollution: 2 (normal).
- Rated pulse voltage: 4000 V.
- ErP classification (Reg. EU 811/2013): ON/OFF: class I, contribution 1%; PID: class IV, contribution 2%.
- Frequency range: 2412-2472 MHz
- RF transmission power: < 100 mW (20dBm)
- Appliances of class II: ▣
- Number of handling cycles for manual (3000) and automatic (100000) operation;
- Disconnection type: micro switch;
- PTI=175;
- Room temperature during transport: -25°C ÷ 60°C;
- Pollution level: 2;
- Software class: A;
- Nominal pulse voltage: 4000V;
- Clock error: ≤ 1s per day

# 9. Installation rules

Installation should be carried out by qualified personnel in compliance with the current regulations regarding the installation of electrical equipment in the country where the products are installed.

# 10. Regulatory compliance

RED Directive.
Standards EN 60730-2-7, EN 60730-2-9, EN 301 489-17, EN 300 328, EN 62311.

Vimar SpA declares that the radio equipment complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is on the product sheet available at the following Internet address: www.vimar.com.

**RAEE - Informazione agli utilizzatori**
If the crossed-out bin symbol appears on the equipment or packaging, this means the product must not be included with other general waste at the end of its working life. The user must take the worn product to a sorted waste center, or return it to the retailer when purchasing a new one. Products for disposal can be consigned free of charge (without any new purchase obligation) to retailers with a sales area of at least 400 $m^2$, if they measure less than 25 cm. An efficient sorted waste collection for the environmentally friendly disposal of the used device, or its subsequent recycling, helps avoid the potential negative effects on the environment and people's health, and encourages the re-use and/or recycling of the construction materials.