Electrorad®
Advanced Heating Technology

DigiLine

4 Zones RF Programmer

IMPORTANT!

Before starting work, the installer should carefully read this Installation & Operation Manual, and make sure all instructions contained therein are understood and observed.
- The programmer should be mounted, operated and maintained by specially trained personnel only. Personnel in the course of training are only allowed to handle the product under the supervision of an experienced fitter. Subject to observation of the above terms, the manufacture shall assume the liability for the equipment as provided by legal stipulations.
- All instructions in this Installation & Operation manual should be observed when working with the programmer. Any other application shall not comply with the regulations. The manufacturer shall not be liable in case of incompetent use of the programmer. Any modifications and amendments are not allowed for safety reasons. The maintenance may be performed by service installers approved by the manufacturer only.
- The functionality of the programmer depends on the model and equipment. This installation leaflet is part of the product and has to be obtained.

APPLICATION
- The RF programmer is developed to control and manage by program function the working mode of electric radiators.
- The programmers have been designed for use in residential rooms, office spaces and industrial facilities.
Verify that the installation complies with existing regulations before operation to ensure proper use of the installation.

SAFETY INSTRUCTIONS

Before starting work disconnect power supply!
- All installation and wiring work related to the thermostat must be carried out only when de-energized. The programmer should be connected and commissioned by qualified personnel only. Make sure to adhere to valid safety regulations.
- The programmers are neither splash - nor drip-proof. Therefore, they must be mounted at a dry place.
- Do not interchange the connections of the sensors and the 230V connections under any circumstances! Interchanging these connections may result in life endangering **electrical hazards** or the destruction of the programmer, connected sensors and other appliances.

Table of content

1 Presentation

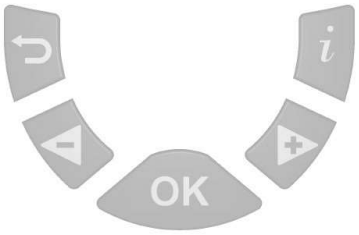
4-zone digital programmer with LCD display specifically designed to supervise the working mode of the electrical radiators installation.
It will optimise energy consumption and increase comfort levels.

- Wiring & easy Installation.
- “Easy program creation” function.
- Weekly programmable by steps of 30min.
- Temporary override function.
- Anti freeze function.
- Holiday mode function.
- EEPROM non-volatile memory.
- 2 AA batteries for 2 years operating life.
- 1 parameter menu, (User and Installer)

*In option
1 input for GSM control (secondary house…)

In order for the programmer to control the installed electrical radiators, they must be in “Auto Mode” and the Control conductor must not be connected but isolated.

1.1 Keyboard



(⮌) Back button to return to the previous menu.

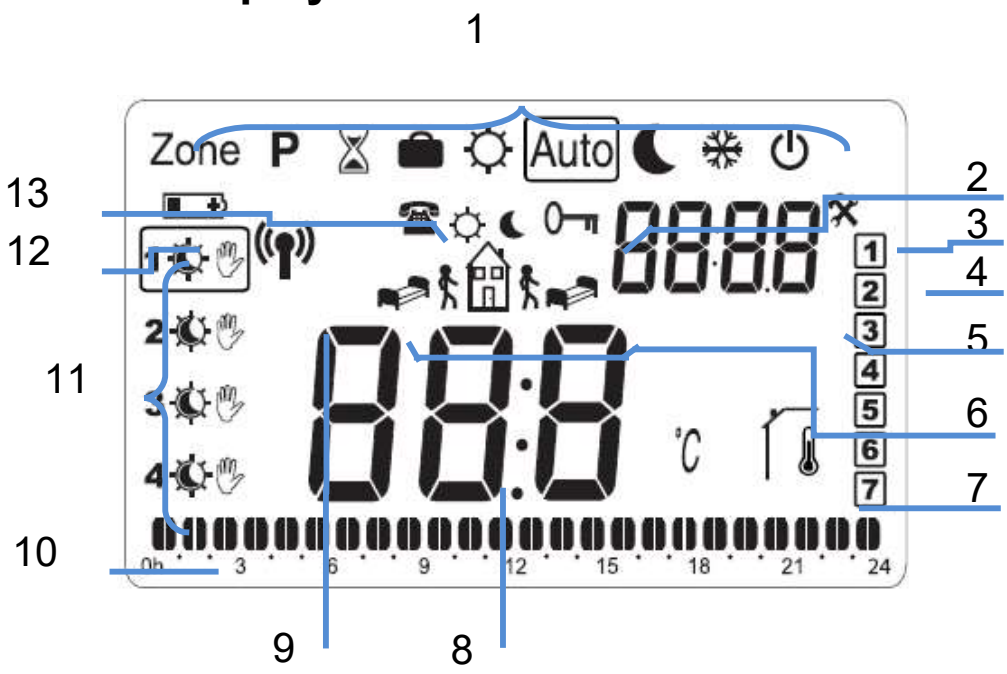
(►+) Navigation button “right” in menu selection or plus button for value edition.

(◄-) Navigation button “left” in menu selection or minus button for value edition.

(OK) Validation button.
Backlight function:
Press this button **(OK)** to light up the backlight for 60 seconds.

(*i*) Main menu button.

1.2 Display



1. Operating mode menu (active mode is framed).
2. Key lock indicator
3. Installation Parameter menu.
4. Current day of the week (1 = Monday)
5. Current time or parameter title if “ ” is displayed.
6. Icon for program creation.
7. Room Temperature indicator.
8. Room temperature if “ ” is displayed. Parameter value if “ ” is displayed.
9. RF transmission icon.
10. Program of the current day (the current time bar flashes)
11. Zone status (Comfort, Reduced or Temporary override function).
12. “Low Battery” indicator.
13. External option is activate.

2 First Installation

This section is a guide to set up the programmer for the first time.

2.1 Battery installation

- Open the backside cover and insert the 2 AA Alkaline supplied batteries (or remove the small protection sticker if the batteries are already installed in the compartment)
- Close the cover.
- Now adjust and configure the necessaries parameters.

2.2 Time and Date adjustment

Each time a value flashes, adjust it with the **(◄-)** and **(►+)** buttons, once the value is chosen, validate it by pressing the **(OK)** button. The programmer will jump automatically to the next value.

To come back to the previous value, press the back button **(⮌)**.

List order of the time and date adjustments:
Time and day:
Adjustment of the hours
Adjustment of the minutes
Adjustment of the day (1 = Monday)
Date:
Adjustment of the day number (0 to 31).
Adjustment of the month number (01 to 12).
Adjustment of the year (Century).
Adjustment of the year
Press **(OK)** to valid the adjustments.

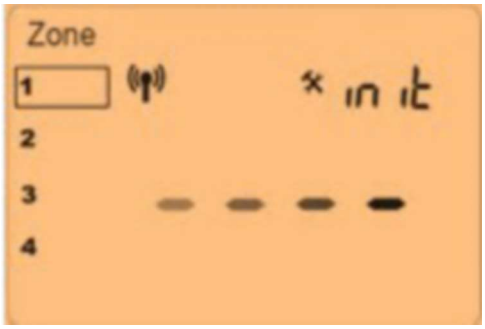
To access the time and date section while in normal working mode, at any time, press and hold the **(OK)** button for 2 seconds.

2.3 RF installation

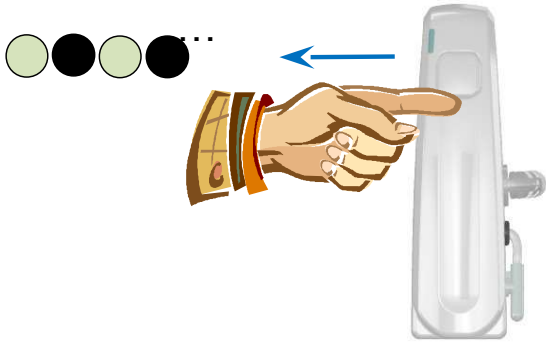
2.3.1 RF Installation with thermostat receiver

a) Press the **(OK)** button to enter in the "**init**" (initialize) mode on the programmer, then choose the zone which needs to be configured by moving the frame cursor (around number 1) with **(◄-)** and **(►+)** buttons on the desired zone number, 1 to 4.

b) Once the zone is selected, press the **(OK)** button and choose to use it with **(◄-)** and **(►+)** "**Yes**" or "**no**",
- By choosing "**no**" the zone will be not displayed on the main screen, then choose another one.
- By choosing "**Yes**" the following screen will be displayed and the programmer will start to send the radio configuration signal to the radiator controller.



c) On the radiator controller, press and hold the main button for a few seconds until the green LED flashes. Then release the button.



d) The radiator controller is now lin
with the programmer.

- Once the configuration betwee
controller and the programmer i
to link all the radiator controllers
connected to the same zone.

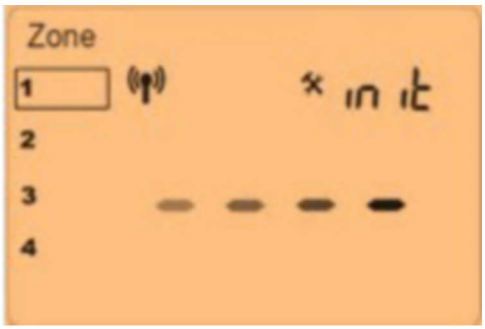
- Repeat the step (**b**) to (**d**) to in
the installation.

e) On the programmer, select "**End**
and press **(OK)** to exit the parar

2.3.2 RF Installation with thermostat receiver (Digital Control)

a) On the programmer, press and hold (8 secs) the **(↩)** button to enter in the "**init**" (initialize) mode, then press the (**OK**) button twice to confirm the "**init**" mode. Now choose the zone which needs to be configured by moving the frame cursor (around number 1) with **(◄-)** and **(►+)** buttons on the desired zone number, 1 to 4.

b) Once the zone is selected, press on the **(OK)** button and choose it with **(◄-)** and **(►+)** "**Yes**" or "**no**".
- By choosing "**no**" the zone will be not displayed on the main screen, then choose another one.
- By choosing "**Yes**" the following screen will be displayed and the programmer will start to send the radio configuration signal to the radiator controller.



c) On the radiator controller, press and hold the “OK” button for 5 seconds to enter the Set-Up menu. “rfi” will be displayed, then press “OK” again to enter the radio frequency initialization (rfi). The screen will flash “rf.un”, select this option by pressing “OK”

PLEASE NOTE: The above process is quick. It will briefly display “-“ on the screen then will quickly revert back to the home screen.

The radiator controller is now paired with the programmer.

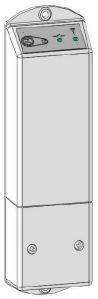
d) The radiator controller is now linked and ready to work with the programmer.

- Once the configuration between the radiator controller and the programmer is made, repeat step (c) to link all the radiator controllers, which are to be connected to the same zone.

- Repeat the step (**b**) to (**d**) to include more zones on the installation.

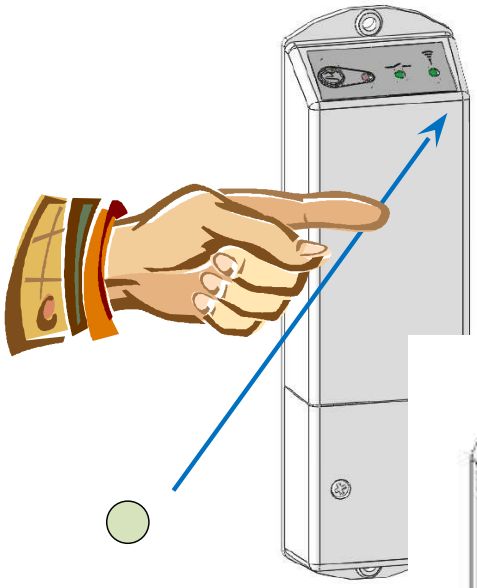
e) On the programmer, press **( )** button 3 times to return to the home screen.

2.3.3 RF Installation with Control conductor receiver



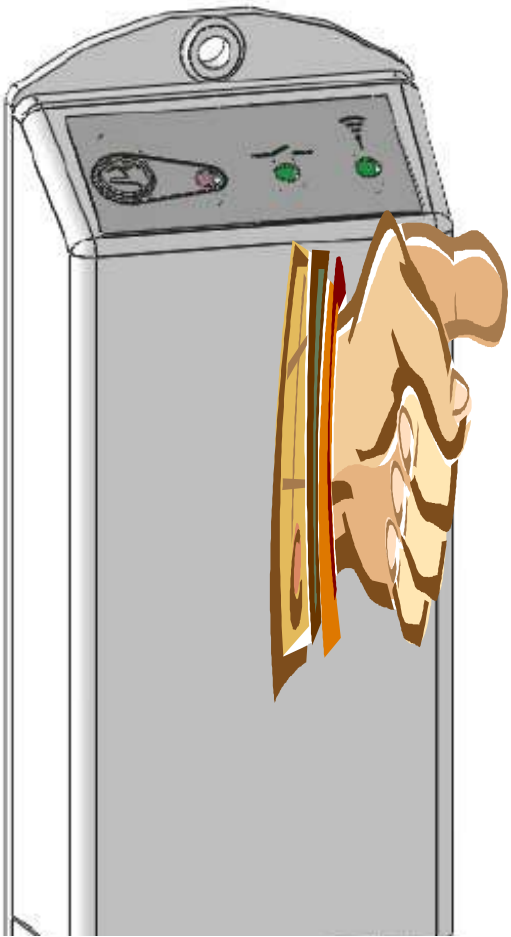
a) Firstly, program all the Control Conductor receivers which are required to work in the same zone in "**RF init**" mode.

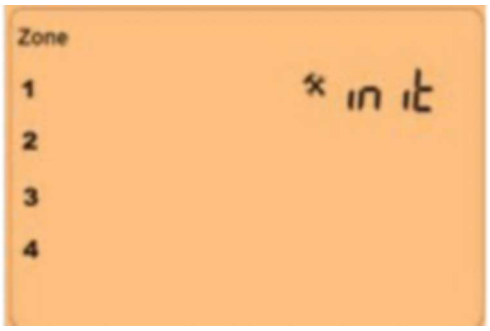
For this, press the Receiver button for 5 seconds, the Green RF LED should light up (fixed) indicating that the Receiver is now in radio configuration mode waiting for the programmer configuration address.



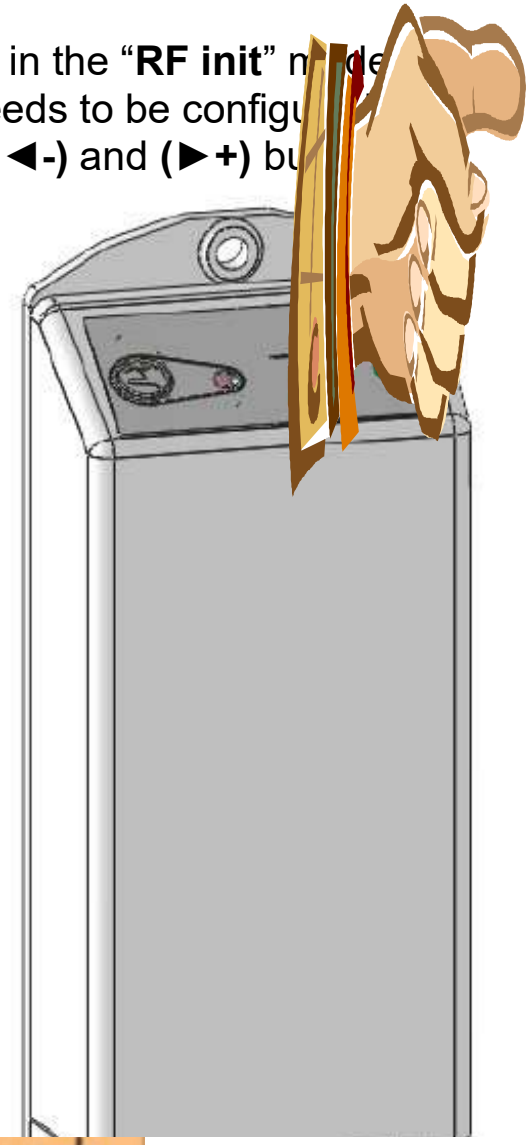
5s

b) Now on the programmer, en
pressing the (↩) button for 8
following screen will be displ

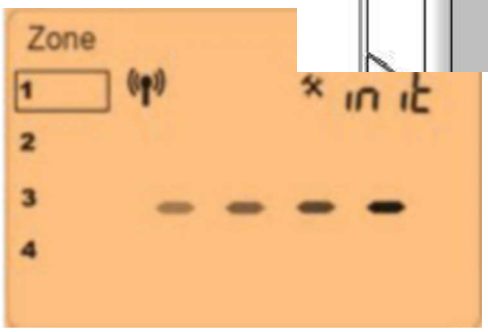




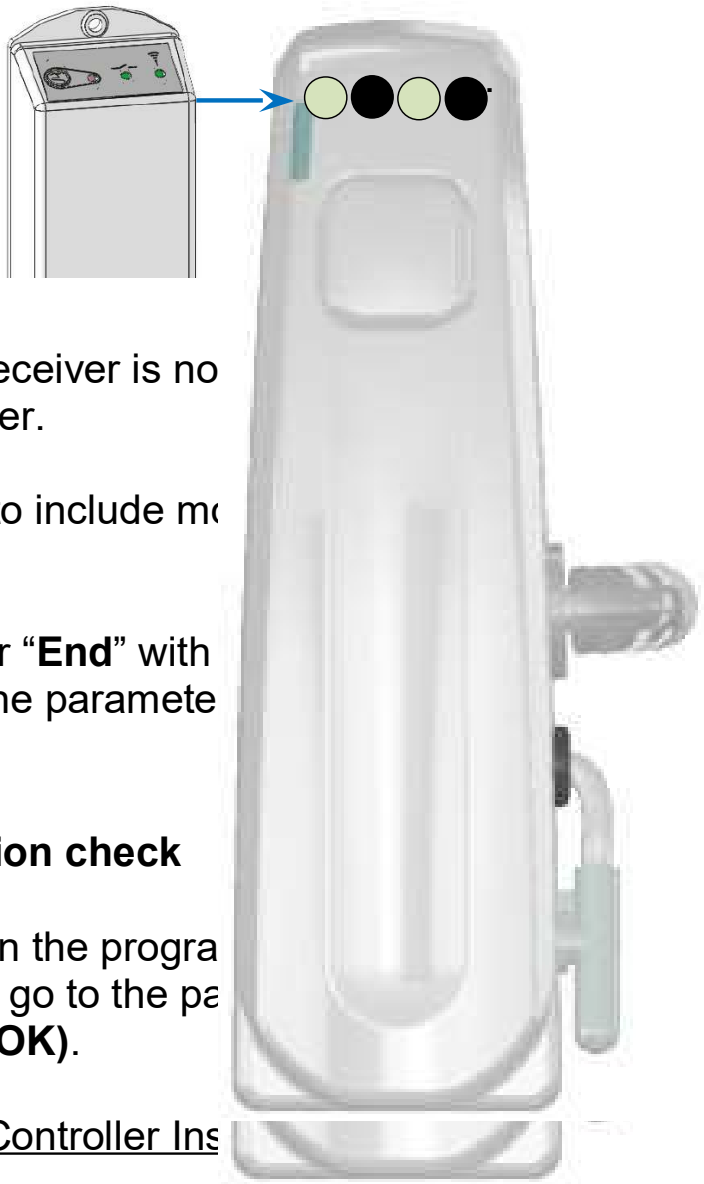
c) Press the **(OK)** button to enter in the "**RF init**" m de and choose the zone which needs to be configu moving the frame cursor with **(◄-)** and **(►+)** bu on the desired zone number



d) Once the zone is selected, p choose it with **(◄-)** and **(►+** - By choosing "**no**" the zone the main screen, then choos - By choosing "**Yes**" the follo displayed and the programm radio configuration signal to receiver.



e) Check the reception signal on the Control Conductor receivers, showed by a green flashing RF LED.



The Control Controller receiver is no
work with the programmer.

- Repeat step (**b**) to (e) to include m
installation.

f) Go to the parameter "**End**" with
press **(OK)** to exit the paramete

2.3.4 RF installation check

Exit the installer menu on the progra
main screen. To do this, go to the pa
button **(►+)** and press **(OK)**.

Checking the Radiator Controller Ins

To check the installation, perform a RF distance test.
- First of all, from the main screen on the programmer, press the menu button **(*i*)** and choose the Comfort menu with **(◄-)** and **(►+)**.
- Now, put all the radiator controllers in AUTO mode (green fixed LED or red fixed if the receiver is in heating demand).
- Then on the programmer, from the main screen press on the menu button **(*i*)** and choose the reduced menu with **(◄-)** and **(►+)**.
- Now check the zones (rooms) which are controlled by the programmer and that all radiators have received the changes (Reduced mode, green LED flashing or alternate red/green flashing if heating demand).

Now the installation is connected and ready to work.

Checking rules for Control Conductor Receiver

- First of all, from the main screen on the programmer, press the menu button **(*i*)** and choose the Comfort menu [redacted] with **(◄-)** and **(►+)**.
- Now, put all the radiators in AUTO mode and check the LED of the control conductor receiver (green fixed LED to indicate Comfort)
- Then on the programmer, from the main screen press on the menu button **(*i*)** and choose the reduced menu [redacted] with **(◄-)** and **(►+)**.
- Now check the zones (rooms) which are controlled by the programmer and that all control conductor receivers have received the changes (Reduced mode, green LED flashing).

Now the installation is connected and ready to work.

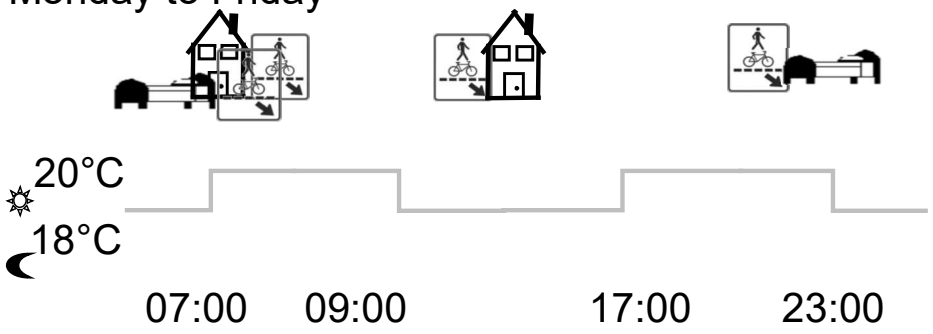
To make the installation easier, it will be better to have the programmer near to the receiver during the configuration mode.
(A minimal distance of > 50cm must be respected to avoid bad RF reception)

2.4 Getting Started

The programmer is now ready to work.

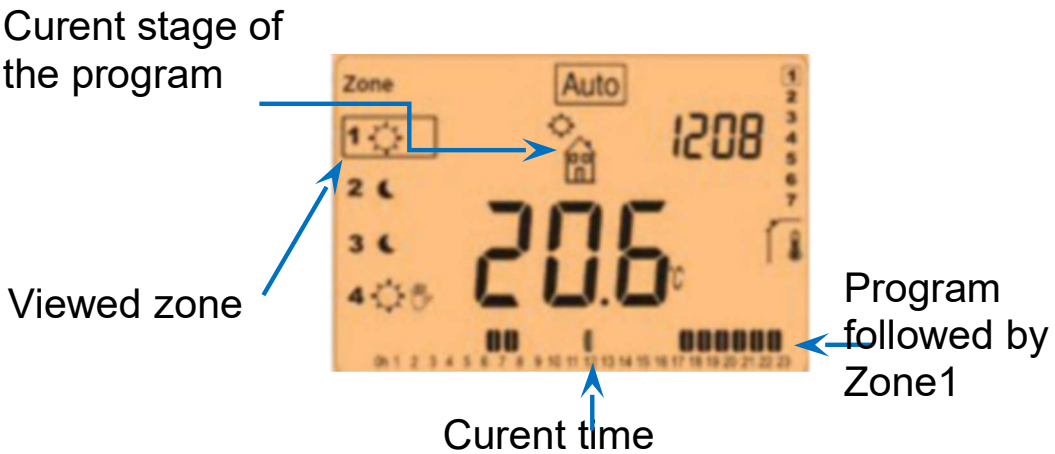
The default working mode will be automatic with a standard built-in program “**P1**” for all the zones.

Monday to Friday



Saturday & Sunday

Note:
To customise the program, please refer to page 18 “**Zone Program**” for more information.



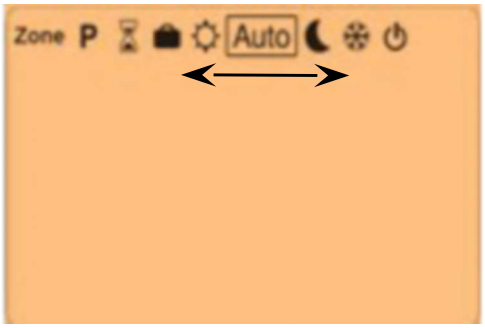
At any time, when the backlight is dimmed, press the **(OK)** button to light-up the programmer, and then press the **(OK)** button to show another zone.

3 Working mode definition

How to change the working mode?

- Press on the menu button **(*i*)** to show the working mode line.

- Press the buttons **(◄-)** and **(►+)** to move the frame cursor on the desired working mode and press **(OK)** to validate the choice.



3.1 Manual mode Comfort

Manual working mode, all zones will follow the Comfort operating mode at all times.

3.2 Manual mode, Reduced

Manual working mode, all zones will follow the Reduced operating mode at all times.

3.3 Standby mode

Use this mode to switch off all radiators.

Be Careful:

- In this mode, there is a chance the installation can freeze.
- The radiators are live, as they still are connected to the electric network.

- At any time, when display is off, press the **(Ok)** button to display the current temperature and time.

- To restart the installation, use the navigation buttons **(◄-)** and **(►+)**.

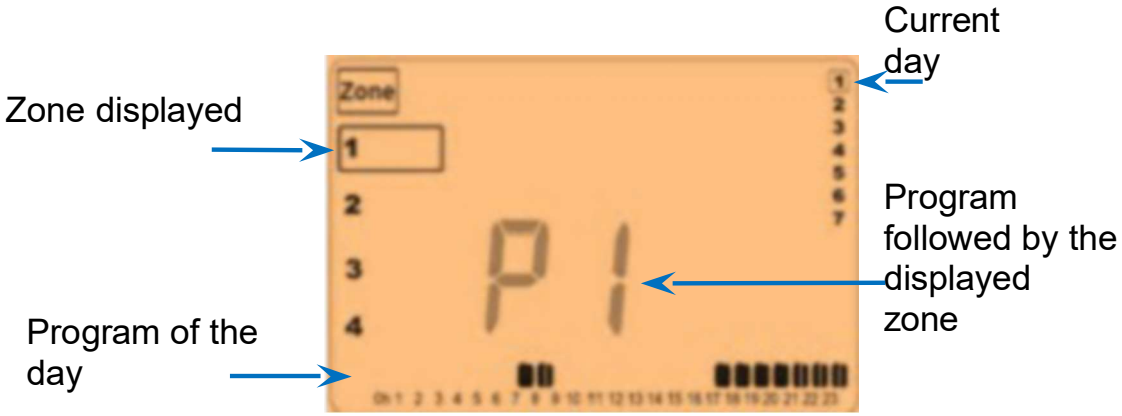
3.4 Automatic mode

In this mode, all zones will follow the chosen program (Built-in or customized) according to the actual time.

To override the Auto mode, until the next program step, press the **(◄-)** or **(►+)** buttons to move the frame cursor on the desired zone, then press **(OK)** and choose the override function with **(►+)**.
The small hand icon will be displayed when the override function is active.
The override function will disappear automatically when the program changes to "[redacted]" or "[redacted]" the next time. To stop the override manually, press **(*i*)** and **(OK)**.

3.5 Zone Program Zone

Press **(*i*)** and **(◄-)** or **(►+)** to reach the Zone mode.



When entering the Zone mode, the first operation is to choose the zone number with **(◄-)** or **(►+)** buttons.

Press **(OK)** to choose the program number by using the **(◄-)** or **(►+)** buttons. Choose between a built-in program **P1** to **P4** and a user program **U1** to **U4**.

Built-in program P1 to P4,

P1: Morning, Evening & Weekend
P2: Morning, Midday, Evening & Weekend
P3: Day & Weekend
P4: Evening & Weekend

(Please refer to pages 30/31 for Built-in program set times)

- Use the menu button **(*i*)** to change the program day displayed.

- Press the **(OK)** button to confirm and return to the main screen (in **AUTO** mode)

Personally customise the user programs (U1 to U4) in the Program Mode.

3.6 Program Mode P

Press **(*i*)** and **(◄-)** or **(►+)** to reach the Program mode.

Use this mode to customize the User programs U1 to U4.

Default setting:
U1, U2, U3, U4 = Comfort all week

Icons and explanation for program creation:

First step of the day (Comfort temp.)

The wakeup hour needs to be adjusted.

Middle step of the day (Reduced temp.)

Leaving the property hour needs to be adjusted

Middle step of the day (Comfort temp.)

The comeback hour needs to be adjusted

Last step of the day (Reduced temp.)

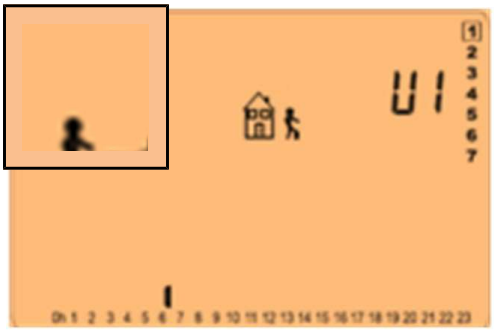
The sleeping hour needs to be adjusted

- The program step is 30 minutes
- Each time a value or icon flashes, make the choice with the **(◄-)** or **(►+)** buttons, once the choice is made press the **(OK)** button to jump to the following step.
- The program creation will always start with day **1** (Monday).

After pressing the **(OK)** button, the following display will appear:

Now, adjust the hour of the first step of the program with **(◄-)** or **(►+)**,

Press **(OK)** to validate and go to the following step.

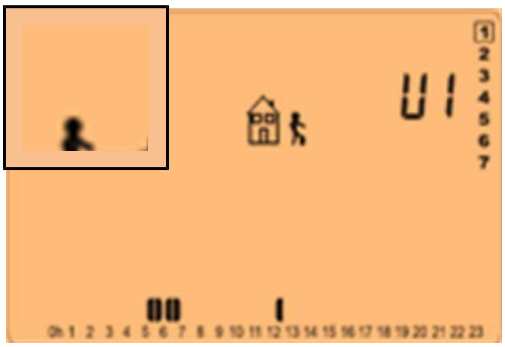


Then choose the type of the next step of the program (flashing icons), 2 choices are available:
- 1st choice is to choose the sleep icon. (End of the day)
- 2nd choice is to choose the leaving icon, to add one step to the program during the day.
When the choice is made, press **(OK)** to validate.
Then adjust the step hour with **(◄-)** or **(►+)**,

When step hour is set press **(OK)** to jump to the next step.

Then adjust with **(◄-)** or **(►+)** the hour of the comeback step.

Press **(OK)** to validate and go to the following step.



Then choose the type of the next step of the program (flashing icons), 2 choices are available:
- 1st choice is to choose the sleep icon. (End of the day)
- 2nd choice is to choose the leaving icons, to add another step to the program during the day.
When the choice is made, press **(OK)** to valid and adjust the hour of this step with **(◄-)** or **(►+)**,

Press **(OK)** to validate and finish the edition of the first day.

It is possible to copy the program day previously created to subsequent days.

Change the choice “**Yes**” or “**no**” with **(◄-)** or **(►+)** and validate with **(OK)**.

- By selecting “**no**”, create the program for Tuesday (repeat the previous steps)

- By selecting “**Yes**”, copy the program to the following day (on Tuesday on Wednesday... up to the last day of the week (7 Sunday).

Press **(OK)** on the last day (7 Sunday).

Then the message “**Save**” and flashing green LED appears:

Press **(OK)** button to save the program and return to the **AUTO** operating mode.

- To exit the program creation mode the back button **(⮌)** several times.

3.7 Holiday mode

Press **(*i*)** and **(◄-)** or **(►+)** t

The Holiday mode allows yo
for a selected number of da

- Adjust, the duration in day **d** with **(◄-)** or **(►+)**, press **(OK)** to start. (Adjustable 1 to 44 days)

The icon will flash and the number of days left is displayed until the end of the period.

To stop the Holiday function before the end, set the duration period to “**no**” with **(◄-)** button or press on the back button **(⮌).**

3.8 Timer mode

Press **(*i*)** and **(◄-)** or **(►+)** to reach the Timer mode.

The Timer mode allows you to set a Comfort period for all zones.

This function can be used when you stay at home for several days, or if you want to override the program for some time.

- Adjust, the duration in hours “H” if below 24H, then in days “**d**” with **(◄-)** or **(►+)**, press **(OK)** to validate. (Adjustable 1 Hour to 44 days)

The icon will flash and the number of hours /days left is displayed until the end of the period.

To stop the Timer function before the end, set the duration period to “**no**” with **(◄-)** button or press on the back button **( )**.

4 Special function

4.1 Keyboard lock Function

Use this function to prevent any changes to the settings (In a childs room, public area etc)

- To activate the key lock function, first press and hold the two navigation buttons **(◄-) (►+)** and then press simultaneously on the validation button **(OK)**.
- The “ ” icon will be displayed on the screen.
- Repeat the same procedure to unlock the keyboard.

The Display digits will disappear for a few seconds.

4.2 Optional Input

Telephone interface can be fitted to allow remote switching between program and reduced modes. This input can be used in conjunction with our GSM controller.

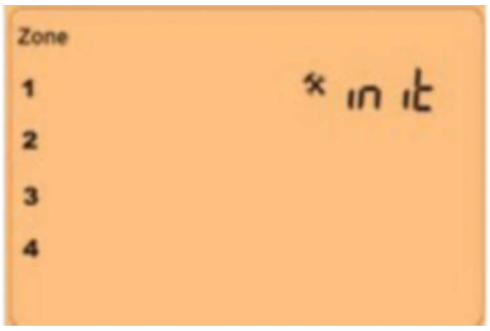
To correctly use the GSM function, the programmer must be set in **AUTO** mode. Using the GSM function will change the programmer to Holiday mode when the external input is activated. A small phone ☎ and holiday icon will appear on the screen to show the function is activated.

⚠ **IMPORTANT!**

The external input must be used with a free contact.
Check the non voltage presence before connecting another material of the Tempco GSM controller.

5 Parameter's menu

The programmer has a parameter's menu, to enter this menu, press and hold the back button (↩) for 8 seconds. The parameter menu will appear and first parameter screen will be displayed:



To select a parameter, use the navigation buttons **(◄-)** or **(►+)**, once the parameter chosen, toggle the value with the **(OK)** button, modify it with **(◄-)** or **(►+)** and confirm the adjustment with **(OK)**.

To leave the parameter menu, choose the parameter « **End** » and press **(OK)**.

N°	Default value & other possibilities
00	**init:** Radio configuration Sends the radio link signal, from the RF Programmer with all RF radiator controllers of the installation. Set simultaneously the receiver in radio configuration mode. (See chapter RF installation)
01	**Lang:** Choose the language of the parameter list. **Engl:** English language **Fran:** French language
02	**dEG:** Unit of the temperatures displayed **°C** Celsius **°F** Fahrenheit
03	**__:__** Selection of the Time programmer unit **24H** (24:00) **12H** (12:00 AM /PM)
04	**dst:** Daylight Summer time, change between Summer and Winter using the **(◄-)** or **(►+)** buttons **YES:** automatic change according to date. **no:** no daylight summer time automatic change.
05	**AirC:** Calibration of the internal probe The calibration must be done after 1 hour without manipulation of the programmer in accordance with the following description: Place a thermometer in the room at 1.5M distance from the floor (like the programmer) and check the real temperature in the room after 1 hour. When you enter on the calibration parameter, "**no**" is displayed on the right to indicate no calibration has been made. To enter the value shown on the thermometer, use the **(-)** or **(+)** buttons to enter the real value. Then, press **(Ok)** to confirm.

	"**Yes**" will then be displayed; the value will be stored in the internal memory. To erase the calibration, press on the back button **(↩)**. The old value will be erased and the message "**no**" will be displayed.
06	**In.TY** Type of free contact use with the external input. **No:** The option will be activated when the contact is closed **NC:** The option will be activated when the contact is open.
08	**Clr ALL:** Reset to Factory setting Press and hold the **(OK)** button for 10 seconds to reset the Set point temperatures and user parameters to the original factory settings. User programs will also be resetted. *** Attention:** Ensure documents are at hand to re-program the installation before using this function.
09	Software version **VErS ___**
10	**End:** Exit the parameter's menu Press the **(OK)** button to exit the installation parameter menu and return to normal operation.

6 Technical characteristics

Environmental: Operating temperature: Shipping and storage temperature:	 0°C - 40°C -10°C to +50°C
Electrical Protection Installation Category Pollution Degree	IP30 Class II 2
Measured temperature precision	0.1°C
Power Supply Operating life	2 AA LR6 1.5V Alkaline ~2 years
Sensing elements:	NTC 10k□ at 25°C
Radio Frequency	868 MHz, <10mW.
Software version	Showed in the parameter menu. **Vers xxx**
Norms and homologation: The programmer has been designed in conformity with the following standards or other normative documents:	EN 60730-1 : 2003 EN 61000-6-1 : 2002 EN 61000-6-3 : 2004 EN 61000-4-2 : 2001 EN300220-1/2 EN301489-1/3 R&TTE 1999/5/EC Low voltage 2006/95/CE EMC 2004/108/CE

My **Programmer** doesn't switch on	
Batteries Problem	- Check if the protection sticker on the batteries is removed. - Check the batteries orientation. - Check the capacity of the batteries
Batteries level is low	The battery icon flashes - Replace the batteries.
My **Programmer** seems to work fine but the radiators do not follow the orders	
With control conductor receiver or radiator controller	- Check the connection with the controllers. - Check the radiators are in AUTO mode.

7 Troubleshooting & Solution

8 **Annexes** (Built-in Program description)

P1:

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

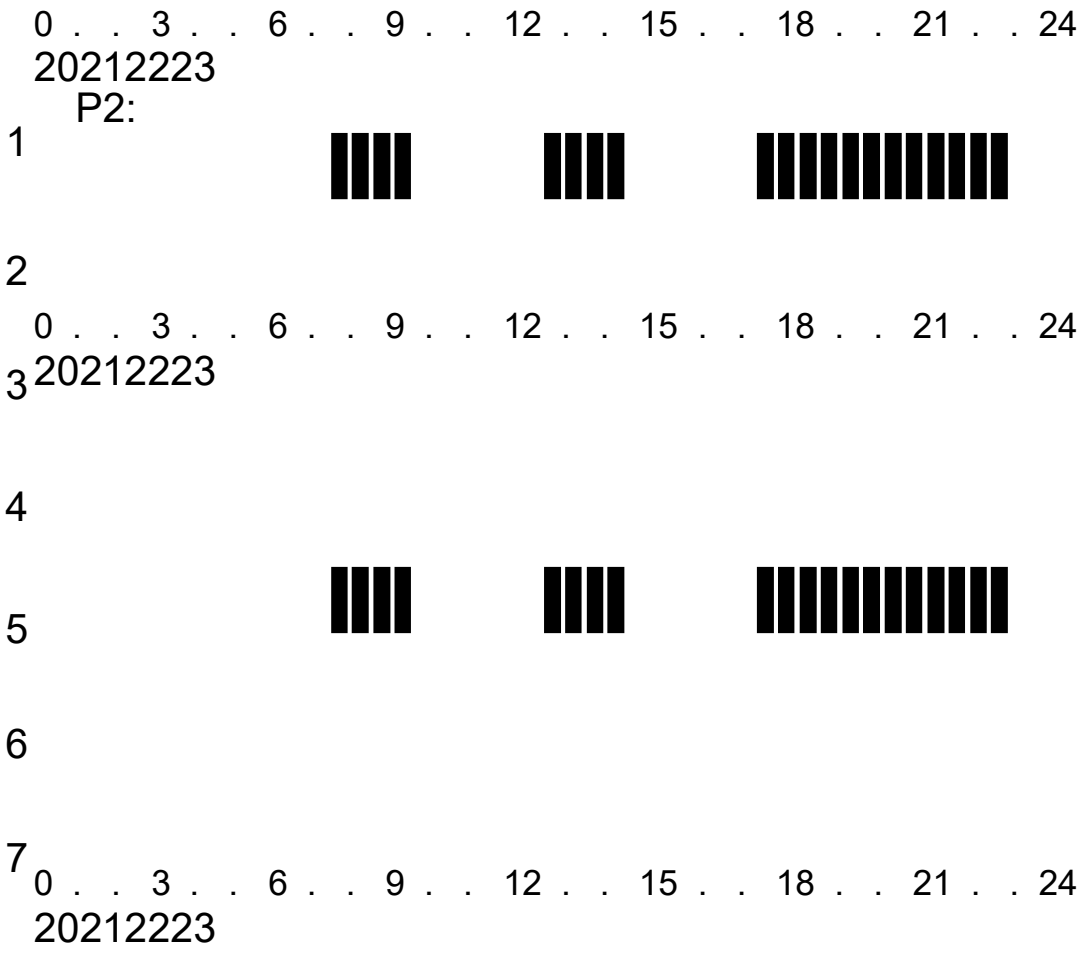
0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223


0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223
P2:
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2
0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
3 20212223
4
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6
7
0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223

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0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223
P3:

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0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24
20212223

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20212223

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3 P4:

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0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

0 . . 3 . . 6 . . 9 . . 12 . . 15 . . 18 . . 21 . . 24

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