



Device complying with the requirements of
directives 2004/108/CE(ElectroMagnetic
Compatibility)



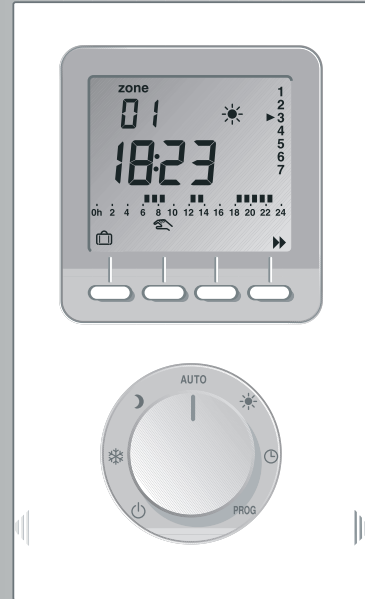
Manufacturers of Advanced Electric Heating Systems

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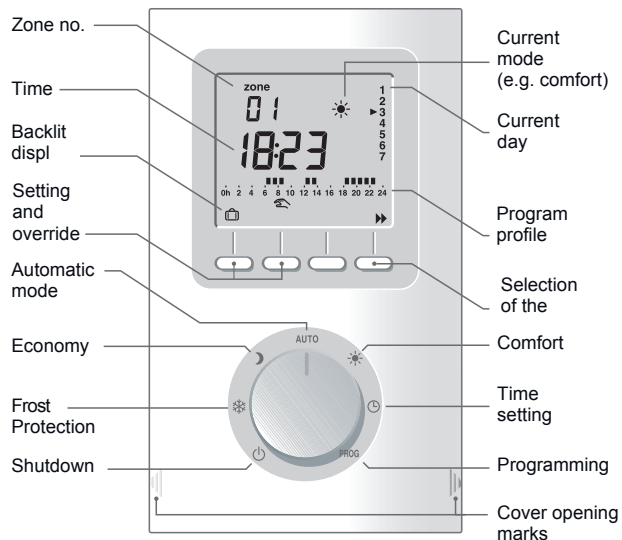
Because of changes in standards and equipment, the characteristics given in the text and the illustrations of this document are not binding unless confirmed by our services.

ZoneRay[©]

4 Zone Pilot Wire Programmer



Description



Contents

INSTALLATION

Presentation	5
Location	7
Mounting	8
Connection	9
Starting up	11
Checking the pilot wire connections	12

USE

Time Setting	13
Programming	14
Automatic Mode	17
Absence mode	18
Manual mode	19
Continuous mode	20
Shutdown mode	20
Return to the initial settings	21
Mains failure	22
Characteristics	23

Warning

Carefully read these instructions prior to installation.

The unit must be installed in compliance with currently applicable standards.

Always switch off the mains before installing or servicing the unit.

Do not attempt to repair the unit yourself; after-sales service is available.

Check that the fastenings are suited to the surface that the unit will be attached to (sheet of plaster, brick, etc.).

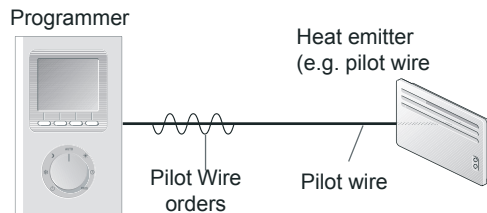
The diagrams provided are simplified for greater clarity. The protective units and other accessories required by the standards are not illustrated. Standard UTE NF C15-100 and good practice must be adhered to. Connected or nearby equipment must not generate excessive interference (directive 2004/108/CE).

Presentation

This device lets you set your heating to Comfort or Economy mode in 4 separate zones.

To control the heat emitters, the programmer uses the Pilot Wire.

Independent from the power supply of the heat emitter, the Pilot Wire is used to send the Comfort ☀, Economy 🌙, Frost Protection 📁 or Shutdown ⏻ orders requested by the programmer.



The required temperature is set on the thermostat of each heat emitter (convectors, panel heaters, underfloor heating or radiant ceiling heating, towel warmer radiators, storage heaters, etc.).

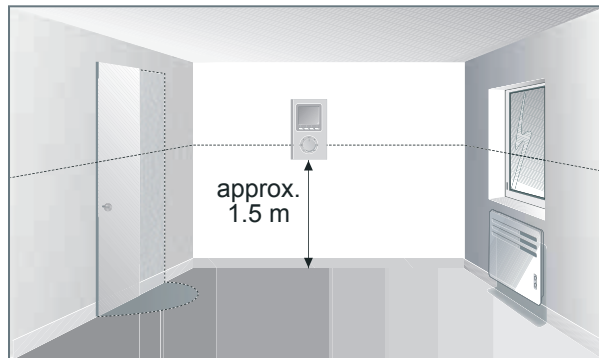
IMPORTANT: The heat emitter must be in automatic mode (PROG, AUTO, ☺, etc. depending on model) to receive orders from the programmer.

Pilot Wire order (mode)	Setting on the heat emitter	Room temperature
Comfort ☀	Comfort setting (thermostat knob) example: 19°C	19°C
Economy ☾	Economy setting (thermostat knob) example: 16°C or Comfort -X°C (depending on heat emitter model)	16°C
Absence 👛	Frost protection set to 7°C or 8°C (depending on model)	7°C or 8°C
Shutdown 🔌	Heating shutdown	No heating

Location

It is advisable to install your device:

- where there is easy access, such as a corridor, living room or entrance hall
- close to a power supply and pilot wire entry point(s)
- on a wall at a height of approximately 1.5 m

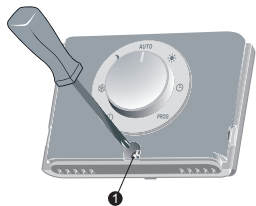


Mounting

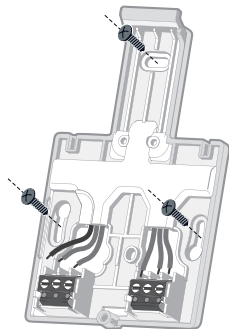
Switch off the mains power before handling the device.

Lift off the cover by using a screwdriver.

Separate the programmer from its base by loosening the clamp screw (captive screw).



Secure the base using three screws and pegs or fit onto a flush-mounted box (distance between centres 60



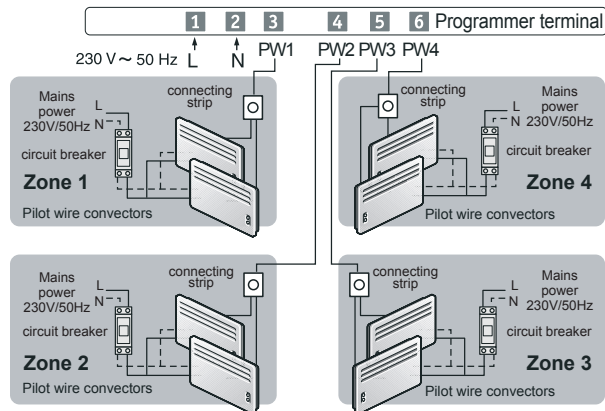
Note: The base must be secured using 3 screws.

Note: To protect the power supply to the **programmer**, you must use a 10 A circuit breaker at least (do not use a 2 A circuit breaker).

Connection

To connect the programmer, you will need:

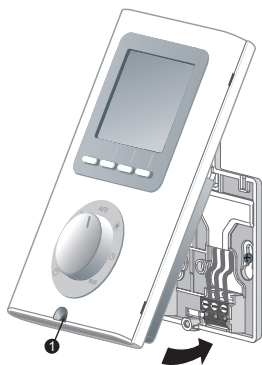
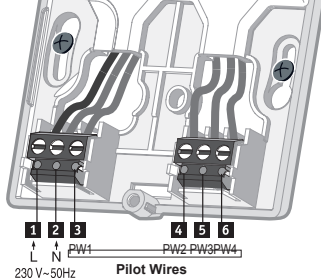
- a 230 V mains power supply (live and neutral)
- entry point(s) behind the unit for the pilot wire(s) controlling one or more convectors
- if you want to connect more than one pilot wire to the programmer, you must use a connecting strip (terminal block) so that the pilot wires are not all directly connected to the terminal
- circuit breakers (not supplied) fitted in the electrical switchboard



Connect the two power leads to terminals 1 and 2

Connect the control wires:

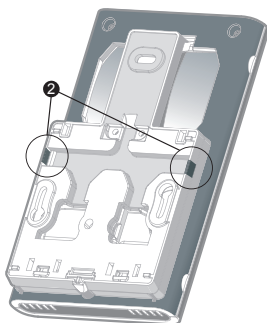
- PW 1 zone = terminal 3
- PW 2 zone = terminal 4
- PW 3 zone = terminal 5



Fit the programmer onto the tab of the base and secure it with the clamp screw

Place the cover back on the programmer

The programmer is ready to be used.



Partitions () that can be removed by pliers are provided for passing the connection wires if required.

Starting up

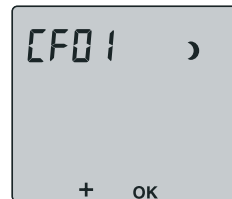
Turn the knob to and press the right-hand button for 5 seconds until P540 is displayed (maintenance menu reserved for the installer).



Press **OK**.

CF01 - Select AUTO mode operation

Selection of 3 modes.
Press **+** to make your choice, **OK** to confirm it and exit the maintenance menu.



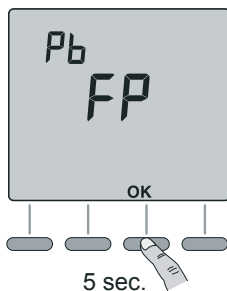
CF01 Operating mode selection	Comfort / Economy (default) Mode
	Comfort / Frost protection Mode
	Comfort / Shutdown Mode

Checking the pilot wire connections

When the unit is first switched on, place all the installation's convectors on Comfort (with the set-point on its maximum setting).

If the display remains "normal", this means that no problem has been detected.

If the programmer detects a problem, it displays:



Check the connection of the pilot wires to the heat emitters and find a solution to any problems.

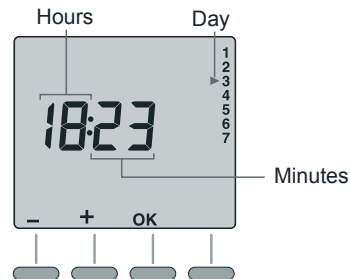
When the check has been carried out, test the pilot wire again by pressing **OK** for 5 seconds (time for the test: approx. 1 minute 30 sec.).

Time setting

Turn the knob to ⌚.

The days flash.

Press **+** or **-** to make your choice, **OK** to confirm it and go to the next setting.



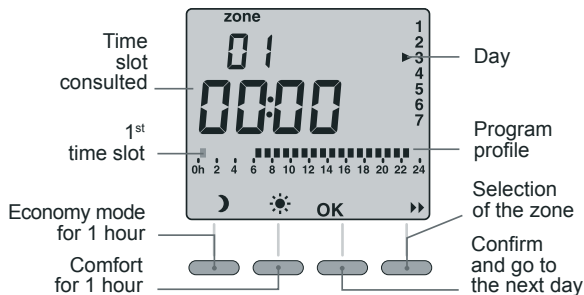
Repeat the operations to set the hours and minutes.

Turn the knob to exit the setting mode.

Programming

When starting up, the “Comfort mode from 6am to 11pm” program is applied to all the days of the week and all the zones.

Turn the knob to PROG to change the programming.
The 1st time slot of zone 1 flashes.



1. Select the zone to program

Press the ►► button.

2. Create your program

Programming starts on day 1 at midnight.

Press buttons ☾ or ☀ to set your different Comfort or Economy periods (depending on the settings made at the CF01 menu).

3. Confirm the program

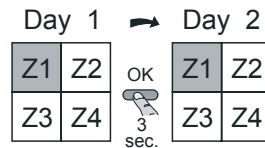
Press the OK button to confirm and continue on to the next day to program it separately. Turn the knob to exit the programming mode.

OR

4. Confirm and copy the program

On the same zone for the next day

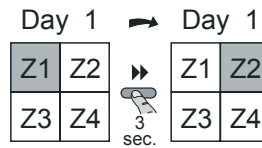
Press and hold the **OK** button for 3 seconds.
Example:



OR

On the next zone for the same day

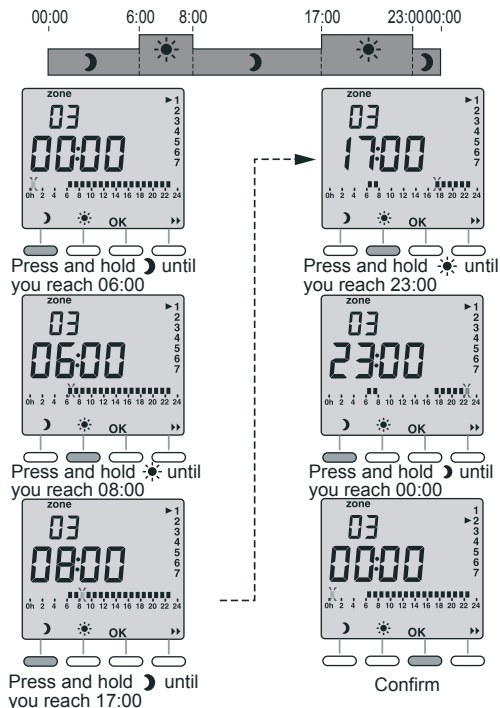
Press and hold the ►► button for 3 seconds.
Example:



Press the OK button to confirm.

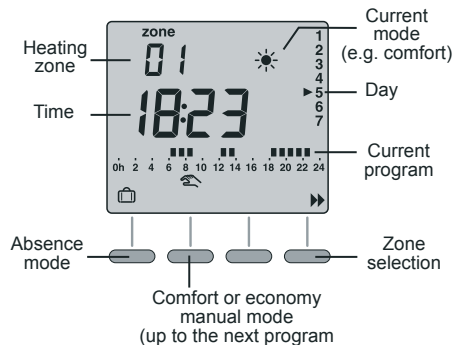
Example: Comfort from 6:00 to 8:00
and from 17:00 to 23:00 in zone 3

Press the ►► button to change the zone



Automatic mode

Turn the knob to **AUTO**.




The device follows the program.

Press the ►► button to select the zone to

Absence mode

This mode is used to set all the heating zones to Frost protection mode for an adjustable period of 1 to 365 days.

From the automatic mode (**AUTO**), press the  button. *The number of days flash on and off.*

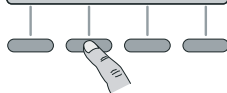
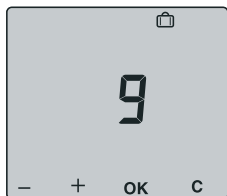
Press **+** or **-** to set the number of days.

Example:

leaving on 10 January, returning on 19 January, indicate 9 days. Automatic operation will restart on 19 January at 00.00 h.

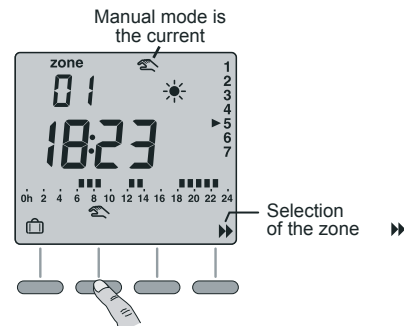
Press **OK** to confirm.



To cancel the absence mode (e.g. when returning early), press the **C** button or turn the knob.




Manual mode


This mode is used to go from Comfort to Economy mode (depending on the setting in menu CF01) or conversely until the next program change for the



Press the  button to select the zone and press the .

Example:

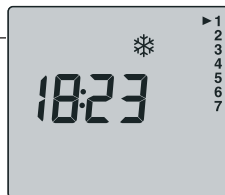
when in economy mode (depending on the setting in menu CF01), pressing the  button allows you to go to comfort mode.

To cancel the manual mode, press the  button again or turn the knob.

Continuous mode

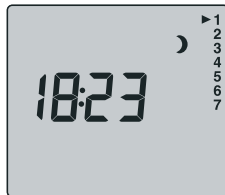
To set the heating to Frost Protection mode for an indefinite duration.

Turn the knob to ❄️.



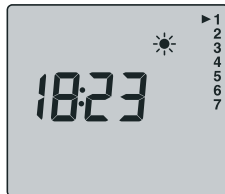
To set the heating to Economy mode for an indefinite duration.

Turn the knob to 🌙.



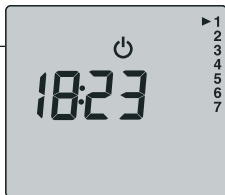
To set the heating to Comfort mode for an indefinite duration.

Turn the knob to ☀️.



Shutdown mode

To shut down the heating (in summer, for example).

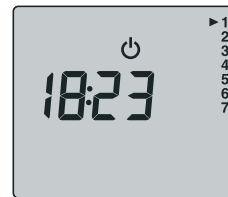


Return to the initial settings

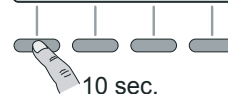
You can carry out a general reset to return to the factory settings:

- Return to the default program.

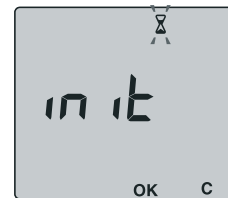
Turn the knob to 🔌 then press the left-hand button for 5 seconds until **init** is displayed.



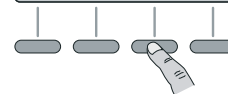
To cancel the reset, press **C**.



Press **OK** to confirm, an hourglass is displayed during the time needed for the reset operation (approx. 15 seconds).



Return to the shutdown mode display.



Mains failure

You must reset the time after a lengthy mains outage.

When the power is restored, the time and date will flash.

Reset the time.

Turn the knob to .

The days flash.

Press **+** or **-** to make your choice, **OK** to confirm it and go to the next setting.

Repeat the operations to set the hours and minutes.

Turn the knob to exit the setting mode.



Note: All other settings are unchanged.

Characteristics

230 V, 50 Hz power supply, +/- 10%

Clock back-up in event of mains

outage: 4 hours (by capacitor)

Permanent back-up of the programming

Power consumption: 2 VA

Class II insulation

Dimensions

Without base: 134 x 80 x 25 mm

Protection index: IP 30

Wall-mounted or on base

Install in an environment with normal pollution

levels Storage temperature: -10°C to +70°C

Operating temperature: 0°C to +40°C

4 pilot wire outputs max. 40 mA, 230 V
(GIFAM standard)

Max. cable length 50