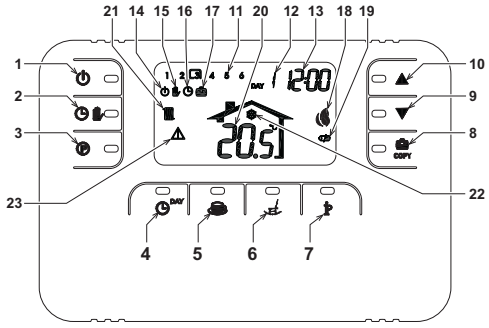
CHRONOTHERMOSTAT (PROGRAMMABLE THERMOSTAT) OVERVIEW



1 Heating On/Off button
2 Heating automatic/manual mode button
3 Heating programming button
4 Time and day setting button
5 Party function button
6 Holiday function button
7 Information/user settings button
8 Vacation function/copy heating programme day button
9 Manual room temperature decrease button
10 Manual room temperature increase button
11 Heating programme time bands
12 Day of the week indication
13 Hours and minutes indication
14 Heating turning off indication
15 Heating manual mode indication
16 Heating automatic mode indication
17 Vacation function indication
18 Boiler lighting request indication
19 Batteries low indication
20 Room temperature indication
21 Heating mode indication
22 Room antifreeze operation indication
23 Fault indication

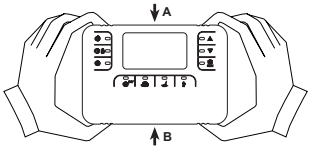
CHRONOTHERMOSTAT CONFIGURATION AND ACTIVATION IN 4 EASY STEPS

Step 1. Installing the batteries

Note: Follow the instructions in this section only if the Chronothermostat display activates the symbol or if the display is off (symbols or numbers do not appear). Otherwise go straight to Step 2 : Correct setting of time and day.

To install the batteries:

1. With the Chronothermostat fixed to the wall: to access the batteries remove the front by prising with a screwdriver at points A and B, as shown in the figure.



If the batteries are not completely flat, the chronothermostat will activate all the symbols of the display.

2. Insert the two AA LR6 type 1.5 V alkaline batteries supplied with the Chronothermostat, making sure to fit them in the right direction (as shown on the inside of the front).
3. Refit the front part of the Chronothermostat. (Make sure to centre the front on the rear part to ensure correct insertion of the contacts)

Step 2. Correct setting of time and day

1. Press the button DAY. The day indication starts flashing: press the buttons ▲/▼ to set the correct day, considering that DAY 1 is Monday and DAY 7 is Sunday.
2. Press the button DAY. The hour indication starts flashing: press the buttons ▲/▼ to set the correct hour from 00 to 23.
3. Press the button DAY. The minutes indication starts flashing: press the buttons ▲/▼ to set the correct minutes from 00 to 59.
4. Press the button DAY.

Step 3. Setting the weekly automatic programme

After setting the time and day, the chronothermostat will carry out the preset automatic programme.

The heating programme provides for 6 daily temperature time bands, numbered 1 to 6. The bands can be set between 00:00h and 24:00h, adjusting them by increments of 10 minutes. Each temperature level can be set between 7°C and 32.5°C, adjusting it by increments of 0.1°C. Any combination of time and temperature during the day can be programmed, and each day of the week can be different from the others.

The preset automatic programme is as follows:

From Monday to Friday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time	06:30	08:00	12:00	14:00	18:00	22:30
Temperature level	21°C	18°C	21°C	18°C	21°C	16°C

From Saturday to Sunday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time	08:00	10:00	12:00	14:00	18:00	22:30
Temperature level	21°C	21°C	21°C	21°C	21°C	16°C

Carry out the following instructions to modify the preset automatic programme.

1. Press the button P. The 6 daily time bands flash and the number 1 of DAY 1 in a box indicates that the time band 1 of Monday can be modified.
2. Press the button . The hour and minutes indication starts flashing: press the buttons ▲/▼ to modify the time band start hour by increments of 10 minutes. Keep the button pressed and the hours and minutes will change quickly.
3. Press the button . The indication of room temperature inside the home starts flashing: press the buttons ▲/▼ to modify the temperature level by increments of 0.1°C. Keep the button pressed and the temperature will change quickly.
4. Press the button . The 6 daily time bands flash.
5. Then press the button ▲ to display time band 2 of Monday, which can be modified by repeating points 2 to 4.
6. The other time bands can be displayed by selecting bands 3, 4, 5 or 6 with the buttons ▲/▼, repeating point 5.
7. The programme setting for the next day can now be selected:
   a. Press the button DAY to display DAY 2. The programme for Tuesday can be modified by repeating points 2 to 6.
   b. Press the button COPY to copy Monday's programme in Tuesday. To copy the same programme even on the next days of the week, press the button COPY repeatedly.

Important! Set the programme, making sure that each band has a different start time.

Personal programme note

Monday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Tuesday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Wednesday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Thursday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Friday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Saturday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Sunday	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Start time						
Temperature level						

Step 4. Operation mode selection

Heating automatic mode

Press the button , displaying the symbol . The chronothermostat will work according to the weekly automatic programme, displaying the 6 time bands: the one in a box will be active at that moment. If the display does not show the box, it means that the current time is between 00:00h and the start of time band 1.

Exclusion of set temperature level

During automatic mode, press the buttons ▲/▼ to temporarily change the room temperature value by increments of 0.1°C. Keep the button pressed and the temperature will change quickly. The exclusion function, indicated on the display by flashing of the symbol , will be cancelled at the first change of time band.

Heating manual mode

To use the chronothermostat with a fixed room temperature level press the button , displaying the symbol (the 6 time bands are not displayed). Then press the buttons ▲/▼ to set the room temperature value, by increments of 0.1°C. Keep the button pressed and the temperature will change quickly. Manual mode will be maintained until another operation mode is selected.

Turning off heating

In case of a prolonged absence from the home (also see Vacation Function) or simply to turn the heating off, press the button , displaying the symbol (the symbol is not displayed). Heating is turned off, and activated only if the room temperature falls below 5°C: function for protection against freezing in the home. To reactivate heating and return to the previously set operation mode, press the button again.

SPECIAL FUNCTIONS

Vacation Function

This function turns the heating off for a fixed period of time, from 1 hour to 45 days, adjusting it by increments of 1 hour. This offers savings in energy and related costs when away from home, whereas the previously set operation mode resumes when the Vacation function ends. Heating is activated only if the room temperature falls below 5°C: function for protection against freezing in the home.

Carry out the following instructions to activate and set the Vacation function.

1. Press the button COPY . The symbol starts flashing and the hour and minutes indication becomes –00:01, which is the time remaining until the end of the Vacation function.
2. Press the buttons ▲/▼ to prolong the time remaining until the end of the Vacation function, by increments of 1 hour (-00:01 means 1 hour; -45:00 means 45 days). Keep the button pressed and the time and days will change quickly.
3. During the Vacation function, the display will continue to indicate the time remaining until the function ends.

To cancel the Vacation function, press the button COPY or any other button associated with a different operation mode.

Party Function

This function adjusts the heating to a room temperature level, which can be set between 7°C and 32.5°C, adjusting it by increments of 0.1°C, for a fixed time period of 1 hour to 24 hours, adjusted by increments of 1 hour. This is useful especially for maintaining or increasing the temperature during a special occasion, such as a party or when there are guests. The function can also be used to lower the temperature when away from the home for a short time (e.g. for shopping, visiting friends, etc.), saving energy and money; the previously set operation mode resumes when the Party function ends.

Carry out the following instructions to activate and set the Party function.

1. Press the button . The symbol starts flashing and the hour and minutes indication becomes –01:00, which is the time remaining until the Party function ends.

   Press the buttons ▲/▼ to modify the temperature level by increments of 0.1°C. Keep the button pressed and the temperature will change quickly.
3. Press the button DAY to prolong the time remaining until the end of the Party function by increments of 1 hour (-01:00 means 1 hour; -24:00 means 24 hours).
4. During the Party function, the display will continue to indicate the time remaining until the functions ends.

To cancel the Party function, press the button or any other button associated with a different operation mode.

Holiday Function

This function temporarily carries out the Sunday heating automatic programme, for the current day or the next day. It is useful when there is a holiday during the week or when staying home on a work day in case of sickness, etc.; the previously set operation mode resumes when the Holiday function ends.

Carry out the following instructions to activate and set the Holiday function.

1. Press the button . The symbol starts flashing together with the current day of the week and the DAY symbol, indicating that heating will be controlled according to the Sunday heating automatic programme until 23:59 on the current day.
2. Press the button again. The symbol flashes together with the next day of the week and the DAY symbol, indicating that heating will be controlled according to the Sunday heating automatic programme from 00:00h until 23:59h on the next day.

To cancel the Holiday function, press the button or any other button associated with a different operation mode.

USER PARAMETER EDITING

Duration of On/Off cycle

When the room temperature tends to approach the programmed room temperature, the Chronothermostat starts controlling, activating and deactivating heating in a cyclic way. The sum of activation and deactivation times is constant within a cycle. If the activation time increases, that of deactivation decreases and vice versa, proportionally. Cycle duration can be modified from 5 to 60 minutes, adjusting it by increments of 1 minute.

1. Press the button P for 3 seconds
2. The display shows parameter P1

   Press the buttons ▲/▼ to modify the cycle duration by increments of 1 minute. Keep the button pressed and the time will change quickly.
3. Press any other button to exit the menu.

Control of Heating/Cooling

Carry out the following instructions to use the Chronothermostat for controlling heating or cooling.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P.
4. The display shows parameter P2.

   Set to 0 using the buttons ▲/▼ to control heating.

   Set to 1 using the buttons ▲/▼ to control cooling.
5. Press any other button to exit the menu.

Pump antiblocking function

When the function is enabled, the Chronothermostat relay is powered for 5 seconds near 12:00h every day, if it was not activated in the previous 24 hours.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P twice.
4. The display shows parameter P3.

   Set to 0 using the buttons ▲/▼ to deactivate pump antiblocking. Set to 1 using the buttons ▲/▼ to activate pump antiblocking.
5. Press any other button to exit the menu.

Pre-heating function

The function is active only if heating automatic mode was selected.

When set to Automatic, the function anticipates the heating system start time (not before 00:00h on the same day) so that the room temperature set by the user is reached at the start of the programmed band. The Chronothermostat calculates a first hypothetical Pre-activation time: if the programmed room temperature is reached sooner than the calculated time, the Pre-heating time is decreased and vice versa. In this way a self-learning process is created to determine the shortest necessary pre-heating time.

The Chronothermostat also offers the possibility of setting a fixed Pre-heating slope: in this case, the room temperature will be increased by 3°C an hour.

Therefore the heating automatic programme must be programmed according to the time heating is required, and not that of starting of the heating system.
Carry out the following instructions to activate or deactivate the function.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P 3 times.
4. The display shows parameter P4.

   Set to 0 using the buttons ▲/▼ to deactivate Pre-heating. Set to 1 using the buttons ▲/▼ to activate Automatic Pre-heating. Set to 2 using the buttons ▲/▼ to activate Pre-preheating with a fixed slope of 3°C an hour.
5. Press any other button to exit the menu.

During the pre-heating function the room temperature °C symbol flashes.

The pre-heating function ends when the difference between the programmed room temperature and the actual temperature is less than 0.5 °C.

Maximum number of daily time bands

The heating programme provides for 6 daily temperature level time bands numbered 1 to 6. If necessary they can be reduced to a minimum of 2.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P 4 times.
4. The display shows parameter P5.

   Press the buttons ▲/▼ to modify the number of daily time bands between 2 and 6.
5. Press any other button to exit the menu.

Temperature measurement unit selection

Carry out the following instructions to use the Chronothermostat in °C or in °F.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P 5 times.
4. The display shows parameter P6.

   Set to 0 using the buttons ▲/▼ to select °C.

   Set to 1 using the buttons ▲/▼ to select °F.
5. Press any other button to exit the menu.

Correction of room temperature reading

Carry out the following instructions to correct the room temperature reading between −2°C and + 2°C by steps of 0.1°C.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P 6 times
4. The display shows parameter P7.

   Use the buttons ▲/▼ to adjust the parameter by increments of 0.1°C.
5. Press any other button to exit the menu.

Telephone contact input

Normal Chronothermostat operation is guaranteed as long as the telephone contact remains open. Closing of this contact, indicated on the display with the symbols (), can be used to force the Chronothermostat to turn off the heating or to adjust the room temperature to a preset fixed value.
Carry out the following instructions to set the two functions.

1. Press the button P for 3 seconds
2. The display shows parameter P1
3. Press the button P 7 times
4. The display shows parameter P8.

   Set to 0 using the buttons ▲/▼ to turn off heating on closing of the contact. Set to 1 using the buttons ▲/▼ to adjust the room temperature to a preset fixed value (through the next parameter P9) on closing of the contact.
5. Press the button P.
6. The display shows parameter P9.

   Set the room temperature value that the Chronothermostat will adjust on closing of the contact (if parameter P8 was set to 1), pressing the buttons ▲/▼ by increments of 0.1°C. Keep the button pressed and the temperature will change quickly.
7. Press any other button to exit the menu.

Modification of Chronothermostat operation mode on opening or closing of the telephone contact can occur with a maximum time of 60 seconds.

OTHER FUNCTIONS

Chronothermostat information

1. Press the button P.
2. The display shows parameter t1 which indicates the activation time (in minutes) inside the On/Off cycle calculated by the Chronothermostat.
3. Press the button P.
4. The display shows the parameter v which indicates the Chronothermostat software version.
5. Press any other button to exit the menu.

Room temperature probe fault

In case of a Chronothermostat room temperature probe fault, the display activates fault E92 and the symbol ⚠ . Heating is turned off.

Restoring factory settings

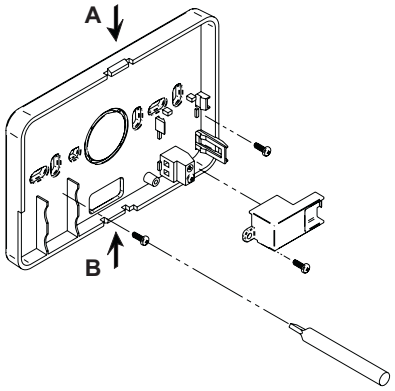
Important! With this procedure all the Chronothermostat parameters will be restored to the factory-set value, except for the time and day setting. Therefore it will be necessary to repeat the procedure for the weekly automatic programme and reset the user parameters.

Press the buttons ▲/▼ together for 10 seconds: only the message RE flashing is displayed. The procedure is interrupted on releasing the buttons at any time before the 10 seconds are up. Whereas once reset, the chronothermostat activates all the symbols on the display.

INSTALLATION

The Chronothermostat must be fixed to the wall at a height of approx. 1.5 m from the floor, in a place away from doors, windows or heat sources that can affect the room temperature. Disconnect the power to the boiler before carrying out installation. Remove the front of the Chronothermostat by prising with a screwdriver at points A and B. Then fix the back of the Chronothermostat to the wall with the set of screws supplied, making sure to pass the 2 wires inside the middle hole: remove the cover protecting the relay contact and make the electrical connection. If necessary, connect the telephone contact (voltage-free contact) using the terminals on the back of Chronothermostat near the batteries.

Refit the front of the Chronothermostat.



TECHNICAL CHARACTERISTICS AND DEFAULT SETTINGS

Setting the time		12:00
Setting the day		Day 1=Monday
Operation mode		Automatic
Heating manual temperature		20°C
Room antifreeze temperature		5°C
P1	Duration of On/Off cycle	20 minutes
P2	Heating/Cooling control	0=Heating
P3	Pump antiblocking function	0=Deactivated
P4	Pre-heating function	0=Deactivated
P5	Maximum number of daily time bands	6
P6	Temperature measurement unit selection	0=°C
P7	Correction of room temperature reading	0
P8	Telephone contact input operation selection	0=Turning off heating
P9	Manual temperature on closing of telephone contact input	20°C
Relay contacts rating		24... 230 Vac 5A resistive load
Wiring		Terminal block for receiving wires of up to 2.5 mm
Guaranteed average battery life		1 year