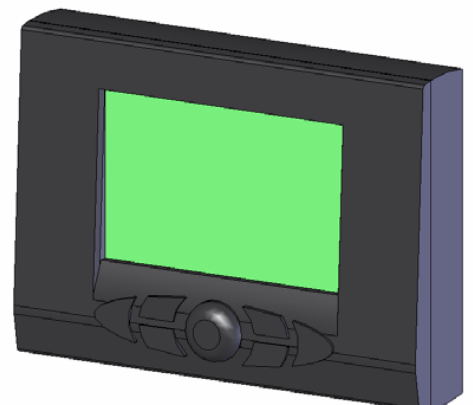**ROBUR**®

caring for the environment

Installation and operation manual

Remote control

for Caldaria

DISPOSAL
The appliance and all its accessories must be disposed of separately in accordance with the regulations in force.

Use of the WEEE symbol (Waste Electrical and Electronic Equipment) indicates that this product cannot be disposed of as household waste. Proper disposal of this product helps to prevent potential negative consequences for the environment and human health.

Revision: A

Code: D-LBR718EN

INDEX OF CONTENTS

1   HOW TO USE THIS INSTRUCTION MANUAL

This manual is intended for:

► Installer: provides information on the correct installation and configuration of the remote control.
► User: provides detailed information on the steps to be taken to customize the operation of the remote control.

Suggestions:

► When a numerical value is displayed flashing, you can change it by turning the ⬚ knob.
► The value modified by the ⬚ knob must be saved by pressing the ⬚ knob before the timeout, otherwise it will not be saved.

2   MAIN FEATURES

The remote control for Caldaria has been designed to ensure ideal temperature conditions at all times of the day, allowing any remote boiler setting to be made.

The remote control can be programmed with extreme ease: a large LCD display makes this operation easier, allowing you to check the settings you have made and to change them at any time.

The remote control is electrically connected to the boiler by means of two non-polarized conductors through which it receives the power supply necessary for its operation and carries out communication between the two devices.

Once installed it is ready to work with its standard stored program. The program can be modified according to the user's needs.

Figure 2.1 *Display and controls*
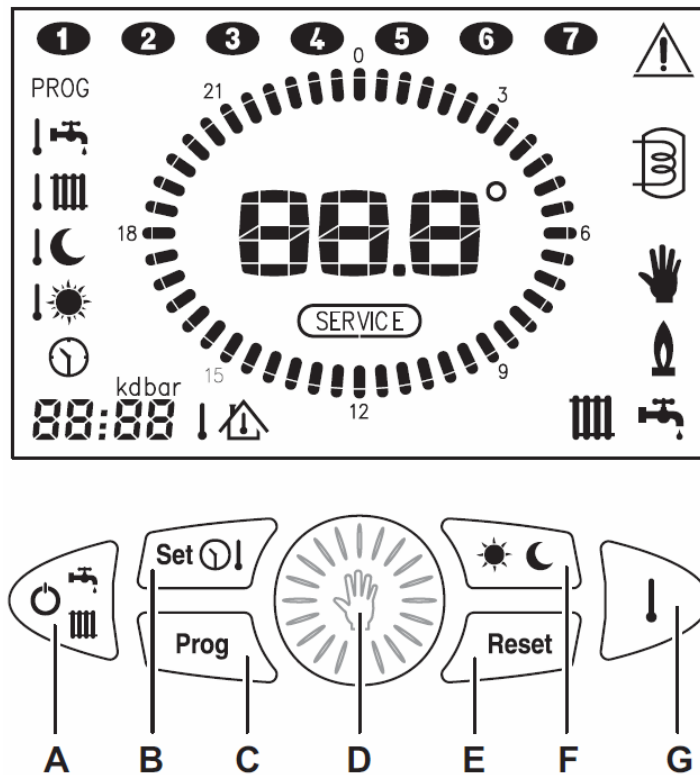
A	⬚	Operating status selection
B	Set⏱↓	Clock and temperature setting
C	Prog	Weekly program
D	⬚	Change displayed value (turn) - Auto/manual selection (press)
E	Reset	Alarm reset
F	☀☾	Temperature level selection (day/night)
G	↓	Temperatures display
C	Prog + E Reset	remote control parameters
B	Set⏱↓ + F ☀☾	Boiler parameters

Table 2.1 *LCD symbols*

Icon	Fixed	Flashing
88.8°	Current temperature display	Fault code display
88:88	Time/temperature display	
❶...❼	Current day of the week	Change the day of the week
🚰	DHW enabled/ventilation only	DHW request in progress/ventilation only
ⅢⅢ	Heating enabled	Heating request in progress
✋	Manual operation	
🔥	Burner on	
PROG	Heating program display	Change heating program
PROG+📄	Function inactive	Function inactive
⚠	Current room setpoint display	Temporary change of the room setpoint
↓⌂	Outdoor temperature display	
bar	System pressure display	
🕐		Setting the time and the day of yhe week
↓☀		Day temperature setting
↓☾		Night temperature setting
↓ⅢⅢ	Heating temperature display	Heating temperature setting
↓🚰	Function inactive	Function inactive
kd		Kd value setting
☀	Current temperature level = day	
☾	Current temperature level = night	
⚠	Fault with no available reset attempts	Fault with available reset attempts
SERVICE	Fault requiring technical service	
..᠄°᠄..	Night level	
ᛀᛀᛀ°	Day level	

3   INSTALLATION

ℹ️ For installation of the remote control on the Caldaria Plus refer to the Installation, use and maintenance manual supplied with the Caldaria Plus.

ℹ️ The installation of the remote control must be carried out by qualified personnel.

⚙️ **How to install the remote control**

1. Disconnect the boiler power supply.
2. Using a screwdriver, slide the remote control interface out of the rear fixing box, applying slight pressure on the two lower

tabs (Figure 3.1 *p. 6*).

3. Insert the two ends of the connection cable into the slot in the fixing box. Install the remote control, through the holes provided, directly on the wall or on a flush-mounting box, using the screws provided and taking care to follow the instructions "↑ UP" (Figure 3.2 *p. 6*).

ℹ️ It is recommended to position the remote control at about 1,5 m from the floor, away from draughts, direct exposure to sunlight, influence by direct heating sources (lamps, hot air flows of the appliance itself, etc..) and possibly on walls not bordering the outside, so as not to distort the measured temperature and therefore the

operation of the system. In this way, unwanted starts and stops of the system will be avoided and optimal comfort in the environment will be guaranteed.
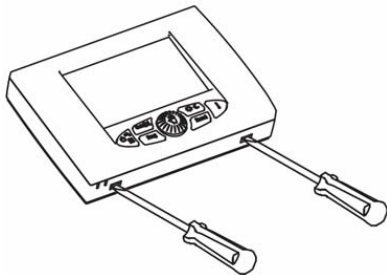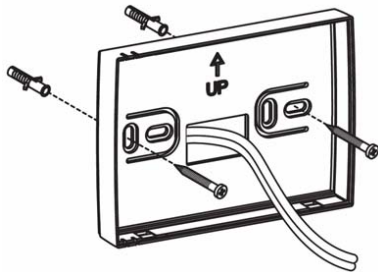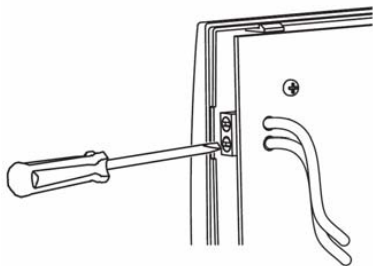
Figure 3.1 *Accessing the remote control*

Figure 3.2 *Installation of the remote control*

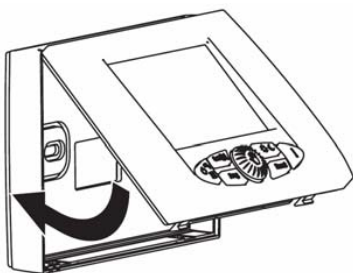**4.** Perform electrical connection to the terminal block (Figure 3.3 *p. 6*).

ℹ️ The connection is not polarized.

Figure 3.3 *Electrical connection of the remote control*


5. Fix the remote control to the fixing box by first inserting the upper part and pivoting on it until it is completely closed (Figure 3.4 *p. 6*).

Figure 3.4 *Closing the remote control*

6. Power the boiler.
7. The installation is now complete. If the remote control has been correctly installed, it will be powered up and the connection message will appear on the LCD display for a few seconds (Figure 3.5 *p. 6*).

Figure 3.5 *Remote control connected*
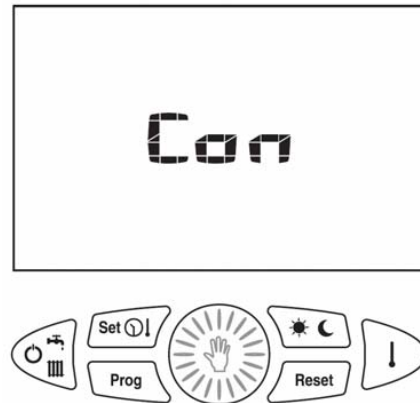
8. Once the connection has been established, the normal operating condition will be presented (Figure 3.6 *p. 6*).

Figure 3.6 *Operative remote control*
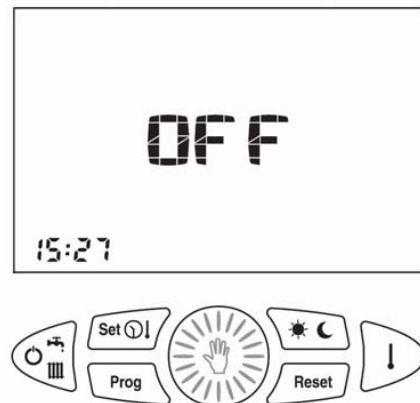
4 CONFIGURATION OF THE OPERATING PARAMETERS

i **This Paragraph is reserved exclusively for the authorised Robur Technical Assistance Centre.**

i Incorrect configuration of the remote control may cause the system to malfunction.

This operation is used to configure the remote control in such a way that it is compatible with the boiler and the relative system to which it is connected.

⚙ How to configure the operating parameters

1. Set the remote control to the OFF mode.
2. Press and hold down the ⌨Prog and ⌨Reset keys until PAr appears on the display.
3. To confirm access, press the 🔘 key. The display shows the parameter number instead of the time and the value associated with the parameter instead of the temperature. The parameter number flashes (Figure 4.1 *p. 7*).

Figure 4.1 *Selection of the parameter to be modified*
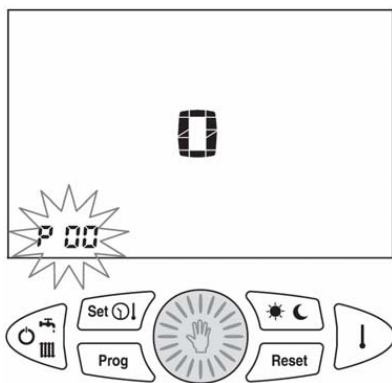
4. Turn the 🔘 knob to select the parameter number to be displayed. The display shows the value associated with the parameter.
5. To change the value press the 🔘 knob: the value associated with the parameter starts flashing (Figure 4.2 *p. 7*).
6. Turn the 🔘 knob to change the displayed value.

i If no key is pressed for a period of 30 seconds, the change made is aborted and normal operation is restored.
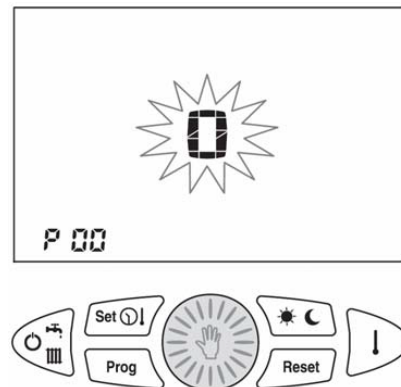
7. Press the 🔘 key to save the value.
8. To exit the configuration mode, press ⌨Reset .

Figure 4.2 *Changing the selected value (flashing)*

The editable parameters are as follows:
► P00 Room temperature probe correction
   Value to add/subtract (-5.0 °C ÷ +5.0 °C) to the displayed room temperature to compensate for any errors.
► P01 Trip temperature for the room antifreeze function
   Trip temperature for the room antifreeze function (0,1 ÷ 10,0 °C).

i Setting parameter P01 to 0,0 disables the room antifreeze function.

► P02 Thermal differential (OFF)
   Value to be added to the set room setpoint that determines the end of the heating request.
   Example:
   $T_{setpoint}$ = 20,0 °C
   P02 = 0,5 °C
   $T_{setpoint}$ + P02 = 20,0 + 0.5 = 20,5 °C
   The heat demand ends when the T_{room} is greater than 20,5 °C.
► P03 Thermal differential (ON)
   Value to be subtracted from the set room setpoint that determines the start of the heating request.
   Example:
   $T_{setpoint}$ = 20,0 °C
   P03 = 0,5 °C
   $T_{setpoint}$ - P03 = 20,0 - 0,5 = 19,5 °C
   The heat demand starts when the T_{room} is less than 19,5 °C.
► P04 Thermoregulation type
   0 = On / Off
   1 = Modulating on room temperature probe
   2 = Modulating on outdoor temperature probe
   3 = Modulating on outdoor and room temperature probes
   4 = Disabled

Table 4.1 *Operating parameters*

Parameter	Description	Value	Default
P00	Room temperature probe correction	-5 / +5 °C	0 °C
P01	Trip temperature for the room antifreeze function	0,1 / 10 °C 0,0 °C = OFF	5 °C
P02	Thermal differential OFF	0,0 / +1 °C	+ 0,3 °C
P03	Thermal differential ON	-1,0 / 0,1 °C	- 0,3 °C
P04	Thermoregulation type	0 - 4	0

5 DISABLING THERMOREGULATION

If the remote control is installed in an environment where the temperature is not to be controlled (technical room, office, other room than the boiler heated one), it is possible to disable the request for heat from the remote control itself. To do this, set parameter P04 = 4 (see Paragraph 4 *p. 7*). Instead of the room temperature, the display shows dIS (Figure 5.1 *p. 8*).

Figure 5.1 *Room temperature control from remote control: disabled*
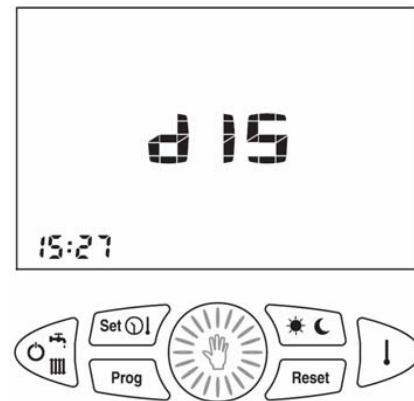
6 CONFIGURATION OF BOILER-RELATED PARAMETERS (TRANSPARENT PARAMETERS - TSP)

ℹ **This Paragraph is reserved exclusively for the authorised Robur Technical Assistance Centre.**

The remote control does not know the meaning of the items it displays but simply acts as a graphical interface to the boiler board.
The number of parameters to be set is transmitted via Open-Therm protocol.

⚙ **How to configure transparent parameters (TSP)**

1. Set the remote control to the OFF mode.
2. Press and hold down the [Set⚙] and [☀☾] keys for longer than 10 seconds. The display will show the flashing word tSP.
3. Release the [Set⚙] and [☀☾] keys and, to enable the configuration, press the 🖐 knob within 10 seconds.
4. The display shows the flashing number of the parameter instead of the time and the value associated with the parameter instead of the temperature.
5. Turn the 🖐 knob to select the parameter number to be displayed. The temperature display shows the values associated with the various parameters. Once the desired parameter has been selected, press the 🖐 knob again: the parameter number stops flashing and the value associated with the parameter starts flashing to indicate that the value can be changed.
6. Turn the 🖐 knob to change the displayed value. To save the value, press the 🖐 knob again.

ℹ If no key is pressed for a period of 10 seconds, the change made is aborted and normal operation is restored.

7. To exit the configuration mode before the timer expires, press the [Reset] key.

7 OPERATION MODE SELECTION

ℹ Depending on the boiler to which it is connected, some of the operating modes described may not be available.

The operating mode of the boiler is selected by pressing the 🚰 key several times. The available operating modes are those shown in Table 7.1 *p. 8*.

▶ OFF: all boiler operation requests are disabled (Figure 7.1 *p. 9*).

Table 7.1 *Identification icon of the selected state*

Selected status	Identification icon
OFF	OFF
summer	disabled
heating	disabled
heating only	▥

Figure 7.1 *Operating status OFF*
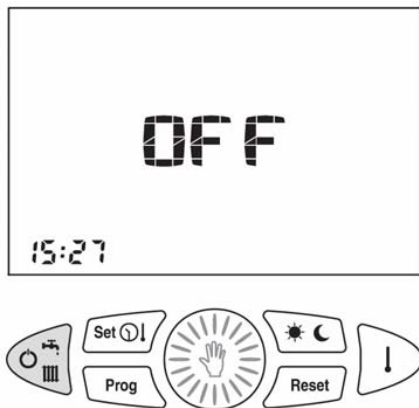
► heating only: only operation in heating mode is enabled for the production of hot water to the internal modules.
  In this mode the boiler will produce hot water at the set temperature, modulating the heat output as the set-point temperature approaches.

8 CLOCK AND TEMPERATURE SETTING

The setting of the clock and of the temperature setpoints of the remote control and of the boiler is done by pressing the ⌨ key several times according to the menu shown in Table 8.1 *p. 9*.

Table 8.1 *Identification icon of the selected state*

Selected status	Identification icon
clock	
day temperature	
night temperature	

The value of the item is displayed in the lower-left corner, instead of the time, together with the flashing of its identification icon. To end the setting operation, press the ⌨ key repeatedly until all the identification icons are off.

8.1 CLOCK SETTING

1. Press the ⌨ key: the time flashes (Figure 8.1 *p. 9*).

Figure 8.1 *Hour setting*
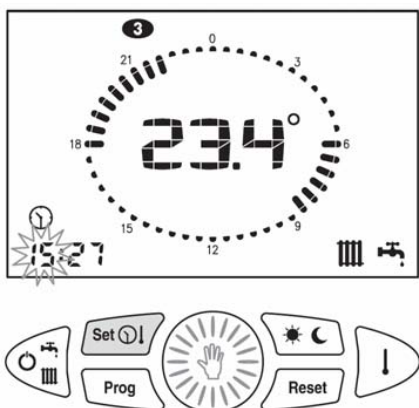
2. Turn the ⌥ knob to set the desired value.

3. Press the ⌥ knob to confirm the value entered. The hour stops flashing and the minutes start flashing (Figure 8.2 *p. 9*).

Figure 8.2 *Minutes setting*
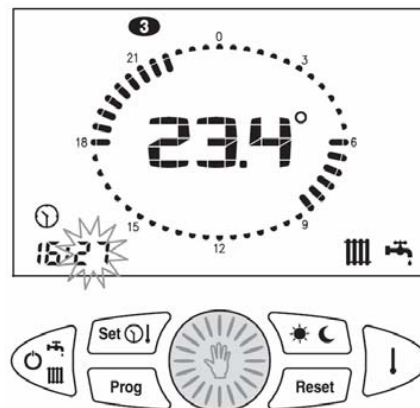
4. Turn the ⌥ knob to set the desired value.

5. Press the ⌥ knob to confirm the value entered. The minutes stop flashing and the day of the week starts flashing (Figure 8.3 *p. 9*).

Figure 8.3 *Day setting*
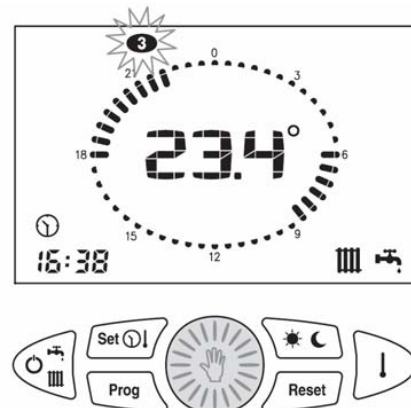
6. Turn the ⊚ knob to set the desired value.

7. Press the ⊚ knob to confirm the value entered. The day stops flashing and the 🕐 icon disappears.
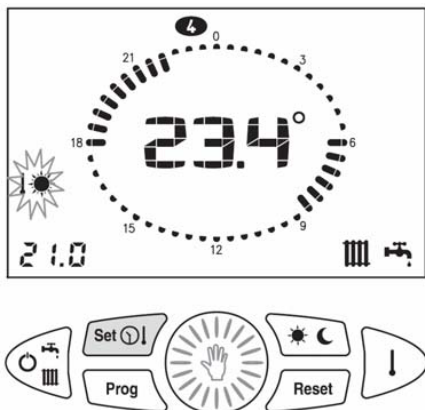
8.2 DAY ROOM TEMPERATURE SETTING

1. Press the [Set⊙/] key until the ↓☀ icon starts flashing (Figure 8.4 p. 10).

2. Turn the ⊚ knob to set the desired value.

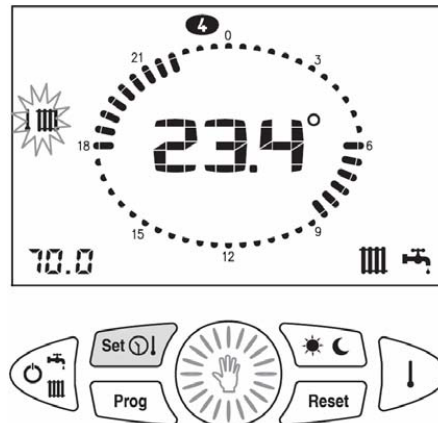**Figure 8.4** *Day room temperature setting*

8.3 NIGHT ROOM TEMPERATURE SETTING

1. Press the [Set⊙/] key until the ↓☾ icon starts flashing (Figure 8.5 p. 10).

2. Turn the ⊚ knob to set the desired value.

Figure 8.5 *Night room temperature setting*

8.4 HEATING TEMPERATURE SETTING

1. Press the [Set⊙/] key until the ↓▥ icon starts flashing (Figure 8.6 p. 10).

2. Turn the ⊚ knob to set the desired value.

Figure 8.6 *Heating temperature setting*

ℹ This temperature value for models of the Caldaria family must be set to 80 °C. The change of this value will be operative on the boiler until the remote control is connected to it.
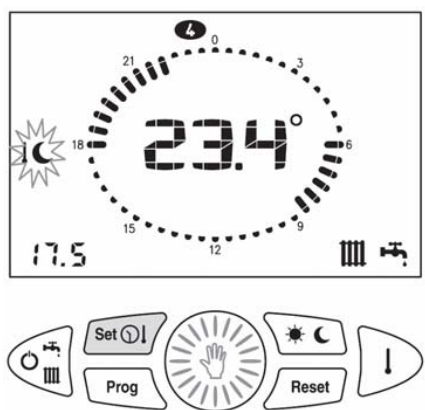
8.5 DHW TEMPERATURE SETTING (NOT APPLICABLE)

8.6 OUTDOOR PROBE KD VALUE SETTING (NOT APPLICABLE)

9 SETTING MANUAL/AUTOMATIC OPERATION

The remote control provides the possibility to manage the room temperature in two ways: manual or automatic.
- ► In manual mode, the user selects the desired room temperature, which will be maintained until a new change is made.
- ► In automatic mode, the room temperature setpoint is determined by the time and day corresponding to the weekly program set.

9.1 MANUAL OPERATION

1. Press the ⊚ key until the ✋ icon appears. The display shows the set temperature value flashing (Figure 9.1 p. 11).

2. Turn the ⊚ knob to set the desired temperature.

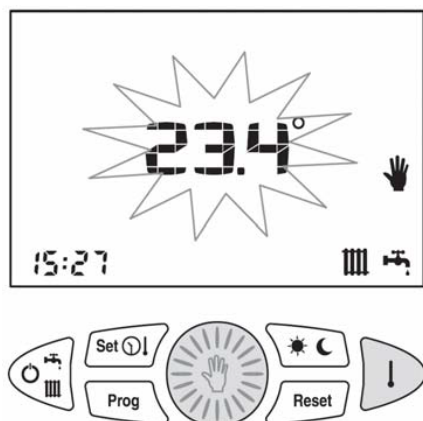3. After the 30-second time delay, the central display returns to the current temperature.

4. The set temperature can be changed at any time by turning the 🖐 knob.

5. You can display the set temperature by pressing the ⬗ key.

· ·

Figure 9.1 *Manual operation: setting the desired temperature*

9.2 AUTOMATIC OPERATION

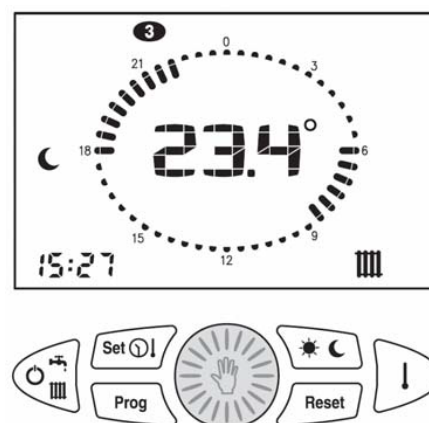**1.** Press the 🖐 key until the heating clock face is displayed.

2. The ☀ or 🌙 icon is lit to indicate which temperature level is currently set.

· ·

Figure 9.2 *Heating clock display and night temperature icon*

10 WEEKLY HEATING PROGRAM

The room temperature can be set to two independent levels: day (☀) and night (🌙) whose distribution throughout the day is managed by the weekly heating program.
The remote control contains a standard room temperature management program that can be viewed and freely modified by the user.
The display/modification mode of the heating program is activated by pressing the ⬗Prog key and is identified by the activation of the PROG icon at the top left of the display.

Table 10.1 *Identification icon of the heating program operation*

Function	Identification icon
heating program display	PROG not flashing
change heating program	PROG flashing

ℹ Once the changes have been made, press the ⬗Prog key again to exit the programming mode.

10.1 HEATING PROGRAM DISPLAY

1. Press the ⬗Prog key.

2. The display shows the PROG and ❶ icons to indicate the first day of the week. The ☀ / 🌙 and time switch icons are on ıııı or off ····· at the day/night level associated with the displayed time (Figure 10.1 *p. 11*).

3. Turn the 🖐 knob to scroll through the times of the day and switch between the days.

· ·

Figure 10.1 *Heating program selection*

10.2 CHANGE HEATING PROGRAM

1. Press the ⬗Prog key.

2. The display shows the PROG and ❶ icons to indicate the first day of the week. The ☀ / 🌙 and time switch icons are on ıııı or off ····· at the day/night level associated with the displayed time (Figure 10.1 *p. 11*).

3. Press the 🖐 key to switch to the program editing mode: the PROG icon and the day of the week flash.

4. Turn the 🖐 knob to select the desired day.

5. Press the 🖐 knob to confirm the selected day and move to the time. The day of the week stops flashing and the time starts flashing.

6. Turn the 🖐 knob to select the desired time.

7. Press the ⌨ key to change the day/night temperature level associated with the current time.

8. Turn the ⊛ knob until the time you want to keep the current level.

9. Press the ⌨ button to change the level and proceed in the same way for the other changes.

10. To change the day, repeat operations from step 3.

11. To exit the heating programming, press the ⎙ key.

11   TEMPORARY CHANGE OF THE ROOM SETPOINT

In the case of automatic operation, the room setpoint for the day (☀) or night (☾) can be temporarily raised or lowered. The change is valid until the next day/night change, after which it is lost.

1. Press the ⎘ key to display the set room temperature.

2. Turn the ⊛ knob to select the value. The ⚠ icon will flash for the duration of the change to indicate the setpoint change made (Figure 11.1 *p. 12*).

3. To deactivate the function before it expires, press the ⎙ key.

Figure 11.1 *Temporary change of the room setpoint*

12   FAULT SIGNALS

Any faults are displayed by the remote control with the Exx code flashing.

> For more details about the fault refer to the Installation, use and maintenance manual of the specific Caldaria appliance used.

The faults can be of two types: resettable by the user and not resettable.

12.1   RESETTABLE FAULTS

These errors are identified by the flashing ⚠ icon and can be reset by pressing the ⎙ key.

> **i** If there are no more available attempts to reset the fault, the ⚠ icon is lit with no flashing. In this case, please contact the TAC.

Figure 12.1 *Resettable fault*
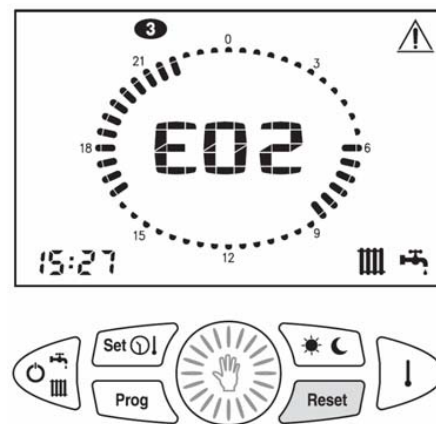
12.2   NON RESETTABLE FAULTS

These faults are identified by the ⎙ icon and cannot be reset by the user but require the intervention of the TAC.
Also part of this error group is the code E06 (remote control room temperature probe fault) (Figure 12.2 *p. 13*).

ROBUR

Figure 12.2 *Non resettable fault*

13 TEMPERATURE VALUES DISPLAY

By pressing the ⬭ key several times, the remote control is able to display the values of the items shown in Table 13.1 *p. 13*.

Table 13.1 *Identification icon of the selected item*

Selected item	Identification icon
set room temperature	⚠
DHW probe temperature*	�ǀ⛲
delivery probe temperature	ǀ▥
outdoor temperature*	ǀ⌂

* Not applicable to this model

► Set room temperature display: corresponds to the set temperature for the active temperature level (day/night/manual) (Figure 13.1 *p. 13*).

Figure 13.1 *Set room temperature display*
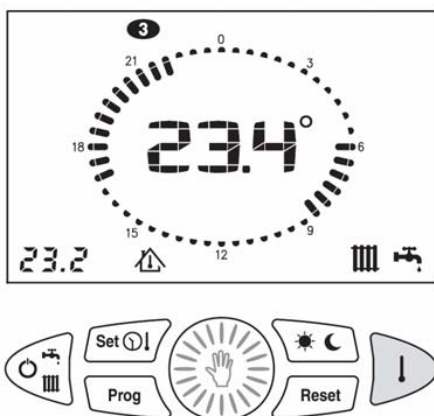
► Delivery probe temperature display: corresponds to the temperature read by the delivery water probe in the boiler (Figure 13.2 *p. 13*).

Figure 13.2 *Delivery water probe temperature display*
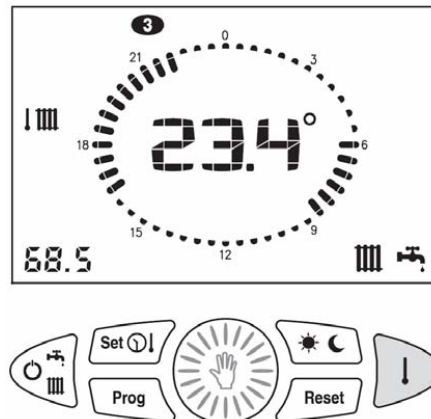
14 ROOM ANTIFREEZE FUNCTION

The remote control is equipped with the room antifreeze function (which can be excluded if necessary) which, regardless of the selected operating mode, controls the boiler activation when the temperature detected by the room probe is lower than the value set in parameter P01, thus providing protection of the system from the danger of freezing.

15 ERROR CODES

For information about the error codes that may appear on the remote control display during operation, refer to the Installation, use and maintenance manual of the specific Caldaria appliance used.

16 RESTORE DEFAULT VALUES

You can reset the settings of the remote control to their factory settings.
The default values of the temperatures are:
► Day temperature: 20 °C

► Night temperature: 16 °C
► Manual temperature: 20 °C
The factory-set weekly heating program is shown in Table 16.1 *p. 14*.

Table 16.1 *Weekly heating program*

Days of the week	Night	Day
Monday - Friday	00.00 ÷ 06.00 08.00 ÷ 16.30 22.00 ÷ 00.00	06.00 ÷ 08.00 16.30 ÷ 22.00
Saturday - Sunday	00.00 ÷ 07.00 23.00 ÷ 00.00	07.00 ÷ 23.00

How to reset default values

1. Set the remote control to the OFF mode.
2. Press and hold down the ⟨✱☾⟩ and ⟨Reset⟩ keys for longer than 5 s.
3. The operation success will be confirmed by the word dEF on the display (Figure 13.2 *p. 13*).

Figure 16.1 *Restore default values*
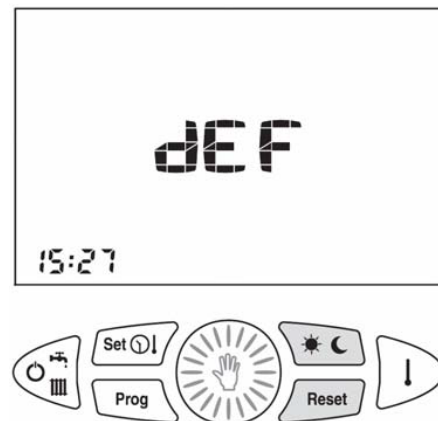
17 COMPLETE RESET

Faults or other technical reasons may require a total reset of the remote control.

How to perform a complete reset

1. Using a screwdriver, slide the remote control interface out of the rear fixing box, applying slight pressure on the two lower tabs (Figure 17.1 *p. 14*).
2. Press button 1 (Figure 17.2 *p. 15*).
3. After a complete reset, the time and day of the week must be set again (Paragraph 8.1 *p. 9*).

Figure 17.1 *Complete reset*

ROBUR®

Figure 17.2 *Complete reset*

18 TECHNICAL SPECIFICATIONS

Table 18.1 *Technical specifications*

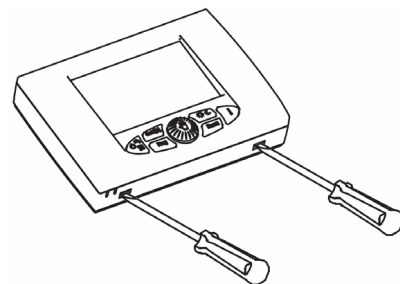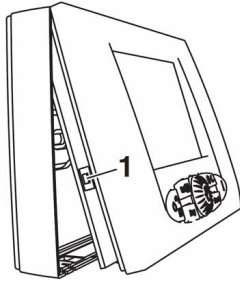| Description	Value
Power supply	via communication bus
Number of temperature levels	2 (day / night)
Day temperature setting range	5 ÷ 30 ℃
Night temperature setting range	5 ÷ 30 ℃
Manual temperature setting range	5 ÷ 30 ℃
Setting range of the thermal differential (OFF)	0,0 ÷ 1,0 ℃
Setting range of the thermal differential (ON)	-1,0 ÷ -0,1 ℃
Correct operating range of the room temperature probe	-40 ÷ 50 ℃
Temperature resolution	0,1 ℃
Room temperature range for antifreeze function (0,0 ℃ = OFF)	0,1 ÷ 10,0 ℃
Stop temperature for the room antifreeze function	set value + 0,6 ℃
Heating time programming resolution	30 minutes
Maximum number of daily on/off	48
Number of standard heating programs	1
Number of standard DHW programs	1
Backup battery life in case of power failure	1 hour
Operating temperature range	0 ÷ 50 ℃
Storage temperature	-10 ÷ 50 ℃
Dimensions (WxHxD)	118×85×30 mm
Maximum boiler connection cable length	50 m
Boiler connection cables section	0,5 ÷ 1,5 mm^2

19 PRODUCT FICHE

Table 19.1 *Commission delegated regulation (EU) n. 811/2013 - Temperature controls*

Supplier	Model	Class of the temperature control	Contribution of the temperature control to seasonal space heating energy efficiency in %, rounded to one decimal place
Robur	OCDS006	V	0,03

Robur mission

Robur is dedicated to dynamic progression
in research, development and promotion
of safe, environmentally-friendly, energy-efficiency products,
through the commitment and caring
of its employees and partners.

ROBUR®

caring for the environment

afaq
ISO 9001
ISO 14001
Quality
Environment
AFNOR CERTIFICATION