

Operating instructions for RAMSES 811 top2_812 top2 and RAMSES 831 top2_832 top2

Dear client,
if you have the newer device, please use page 1 to 33

theben309358 06


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RAMSES

RAMSES 811 top2 8119132	RAMSES 831 top2 8319132
RAMSES 812 top2 8120132	RAMSES 832 top2 8320132

**Montage- und
Bedienungsanleitung**
Raumthermostat

D	GB	F
E	I	NL



RAMSES 832 top2

and if you have the older one, please use page 34 to 65 of this pdf.

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RAMSES

RAMSES 811 top2 811 9 132	RAMSES 831 top2 831 9 132
RAMSES 812 top2 812 0 132	RAMSES 832 top2 832 0 132

**Montage- und
Bedienungsanleitung**
Raumthermostat

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RAMSES 832 top2

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RAMSES

RAMSES 811 top2
8119132

RAMSES 831 top2
8319132

RAMSES 812 top2
8120132

RAMSES 832 top2
8320132

Installation and operating instructions

Room thermostat



GB



RAMSES 832 top2

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Basic safety instructions



WARNING

Danger of death through electric shock or fire!

➤ Installation should only be carried out by a qualified electrician!

- The device is designed for wall installation
- Corresponds to type 1 B in accordance with IEC/EN 60730-1

Designated use

- The room thermostat controls the room temperature in houses, offices etc.
- It is used in dry rooms with normal levels of domestic cleanliness

Disposal

Dispose of device and batteries in an environmentally sound manner

Screen and keys

Display programmed switching times

Text line

Time display

Temperature display

Days of the week from 1-7

Function keys:
 - MENU - INFO
 - T°/H - 6°C

➤ **EXIT** — Leave menu

➤ **OK** — Store selection
— Confirm selection

➤ **-/+**
 Scroll through menu
 or change values

Operating instructions

- 1. Read text line**
 Flashing text/symbol represents query
- 2. Make a decision**

<p>YES Confirmation</p> <p>Press OK</p>	<p>NO Amend/change</p> <p>◀ ▶ press</p>
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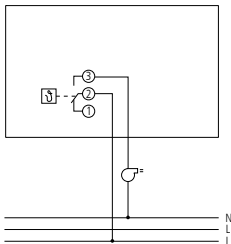
Connection/installation

 **WARNING**

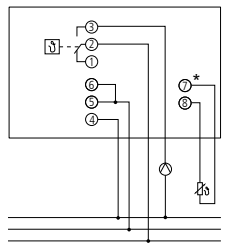


Warning, danger of death through electric shock!

- Must be installed by qualified electrician!
- Disconnect power source.
- Cover or shield any adjacent live components.
- Ensure device cannot be switched on!
- Check power supply is disconnected.
- Earth and bypass.



controlling burners or gas water heaters



* external input, only with
RAMSES 831_832 top2

controlling circulation pump or actuator

Installation

- Fix plate to wall and attach device.
- Ensure installation height of approx. 1.5 m.

Dismantling

- Insert screwdriver from below, push detent hooks up and open device.



Insert batteries

- Only be carried out by a qualified electrician.
- Only use alkaline 1.5 V AA batteries.
- Ensure correct polarity when fitting batteries.
- Dispose of batteries in an environmentally sound manner.

Reset

- Press a pointed object into the opening on the left hand side of the device.

Replace batteries

1. Battery symbol flashes on display, controller remains active. The batteries should be replaced.
2. If the display flashes, the controller is no longer active; the relay remains permanently switched on. The batteries must be replaced immediately.



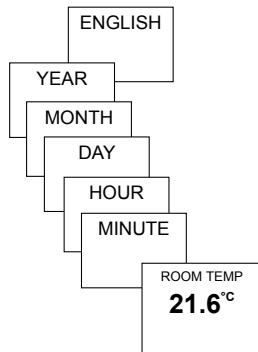
Initial start-up

- With mains devices, after connecting mains lead or with battery devices, after inserting batteries, press the right key for more than 3 s and follow on-screen instructions (see fig.).

Date, time and summer/winter rule can be set via **MENU** menu under **TIME/DATE**.

Date and time have to be set with the RAMSES 811 top2 and RAMSES 812 top2 models, RAMSES 831 top2 and RAMSES 832 top2 are factory-set.

RAMSES 811 top2 and RAMSES 831 top2 are battery devices; RAMSES 812 top2 and RAMSES 832 top2 are mains devices.





User information

GB

Note:

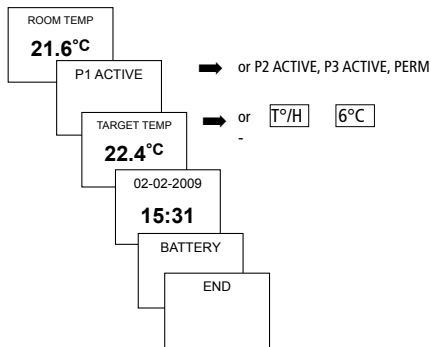
The whole screen, except for temperature and time, is faded out after 5 seconds. Press the **INFO** key to restore screen.

This setting can be changed under **USER SETTINGS/DISPLAY**.

INFO key – View settings

The **INFO** key allows you to access current room temperature, temperature program, target temperature, date/time or battery status.

- Press **INFO** key repeatedly.



T°/H key – Setting the timer function

- Press **T°/H** key. **REQUIRED TEMPERATURE** (6 °C–30 °C) appears.
- Use the + or – keys on the rotary control to set the value.
- Confirm with **OK**. **DURATION** appears.
- Use the + or – buttons on the rotary control to set duration (from 0:30 – 24:00).
- Confirm with **OK**. **COUNTDOWN** appears.

Provided the whole screen is shown, the **T°/H** button flashes to display the set countdown. The set temperature is maintained for the selected period.

Delete **T°/H** function

- Press **EXIT** key.
RETURN TO PROGRAM appears.

6°C key – Set fixed temperature

- Press **6°C** key. **REQUIRED TEMPERATURE** (6 °C–30 °C) appears.
- Use the + or – buttons on the rotary control to set the value.
- Confirm with **OK**. **QUIT PROGRAM** appears.

Provided the whole screen is shown, the **6°C** button flashes to display the current function. The set temperature is maintained until the function is switched off manually

- Press **EXIT** key. **RETURN TO PROGRAM** appears.

Change target temperature

Use rotary control to make changes

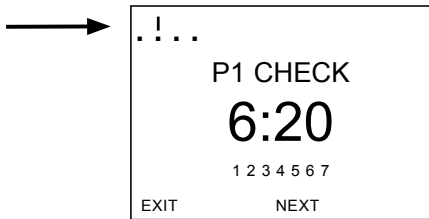
In standard operation mode, you can temporarily change current target temperature via the rotary control. It is not stored in the program and is replaced by the set value at the next programmed switching time.



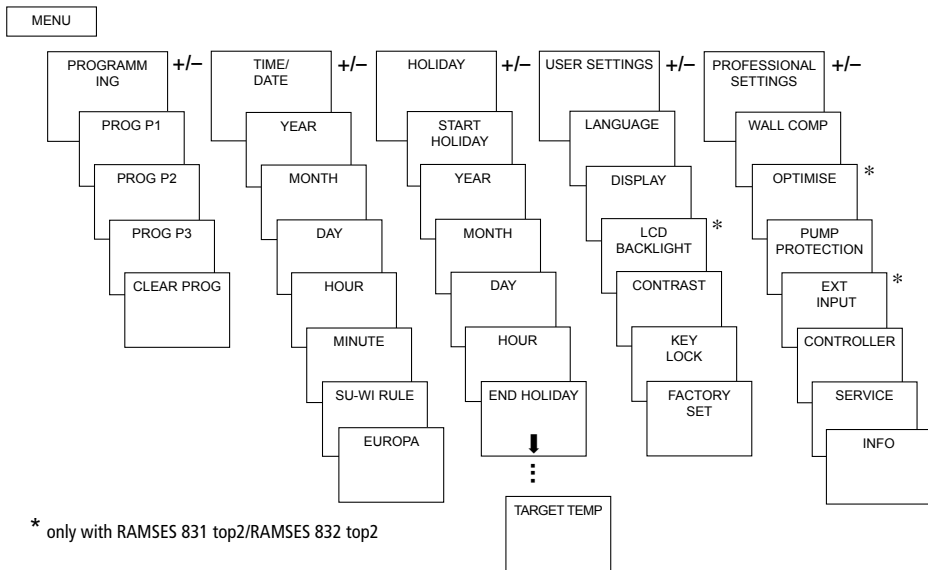
- Turn rotary control up or down to change temperature setting (in 0.2 °C increments).

The following applies to all programs:

The broken bar in the top left of the display shows the number of menu points in the relevant menu. The flashing cursor indicates the point in the menu that you are currently in.



MENU – Overview

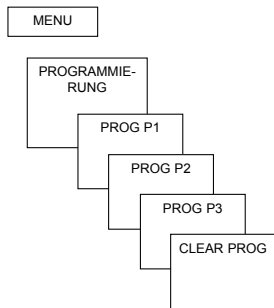


* only with RAMSES 831 top2/RAMSES 832 top2

PROGRAMMING

Programs P1–P3 are preset but they can be amended or deleted.

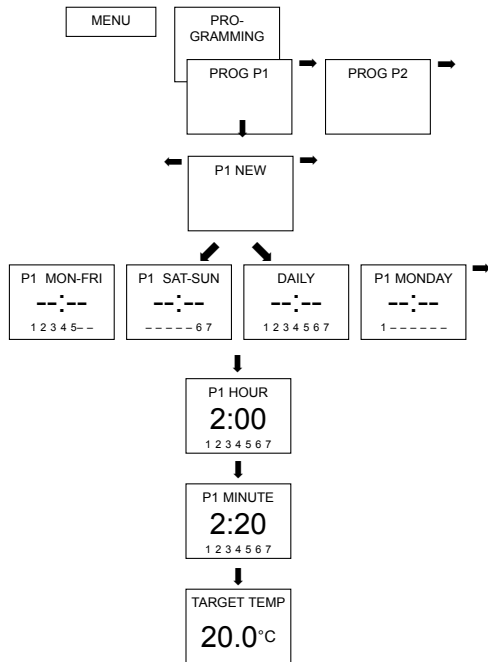
A maximum of 24 switching times can be set per program, up to a total of 42.



Program P1 (preset)		
Mon–Fri	21 °C	6.00–22.00
	otherwise	17 °C
Sat–Sun	21 °C	7.00–23.00
Program P2 (preset)		
Mon–Fri	21 °C	6.00–8.00
		16.00–22.00
	otherwise	17 °C
Sat–Sun	21 °C	7.00–23.00
Program P3 (preset)		
Mon–Fri	21 °C	12.00–20.00
	otherwise	17 °C
Sat–Sun	21 °C	7.00–22.00

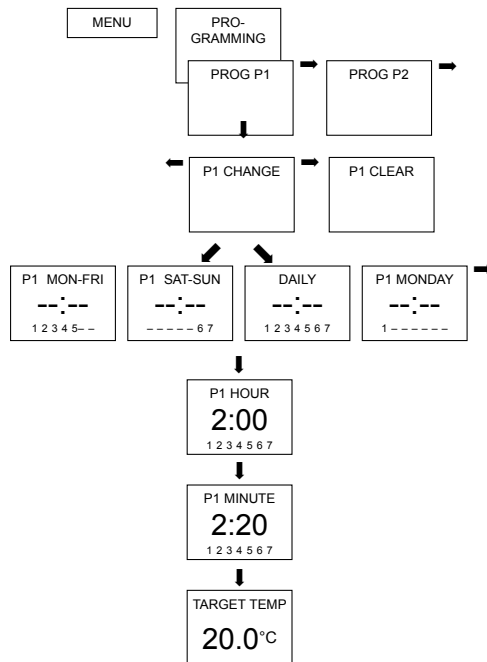
Reset switching time

- Press **MENU** key. The display shows **PROGRAMMING**.
- Confirm by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm by pressing **OK**.
The display shows, for example, **PROG P2**.
- Selected **P1 NEW** using the + or – keys or the rotary control.
- Confirm by pressing **OK**.
- Selected desired days using the + or – keys or the rotary control (e.g. Mon–Fri, Sat–Sun, individual days or daily).
- Confirm by pressing **OK**.
- Enter switching time in hours, minutes and target temperature using the + or – keys or the rotary control.
- Confirm by pressing **OK**.



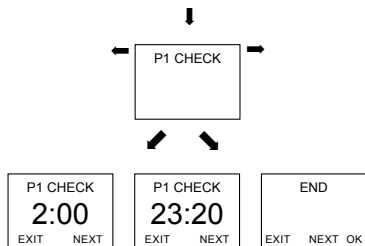
Change or clear switching time

- Press **MENU** key. The display shows **PROGRAMMING**.
- Confirm by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm by pressing **OK**.
- Selected **P1 CHANGE** or **P1 CLEAR** using the + or – or the rotary control.
- Confirm **P1 CHANGE** by pressing **OK**.
- Select switching time for desired days using the + or – keys or the rotary control (e.g. Mon–Fri, Sat–Sun, individual days or daily).
- Confirm by pressing **OK**.
- Enter switching time in hours and minutes using the + or – keys or rotary control and confirm by pressing **OK**.



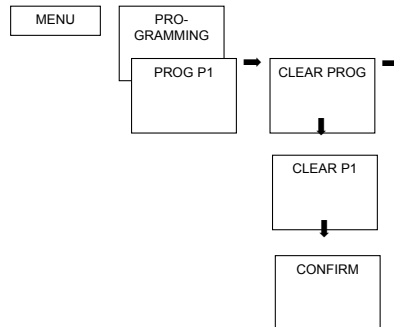
Check switching time

- Press **MENU** key. The display shows **PROGRAMMING**.
- Confirm by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm by pressing **OK**. The display shows **P1 CHECK**.
- Confirm by pressing **OK**.
- Press **NEXT** key. All programmed switching times can be viewed in succession.



Delete program

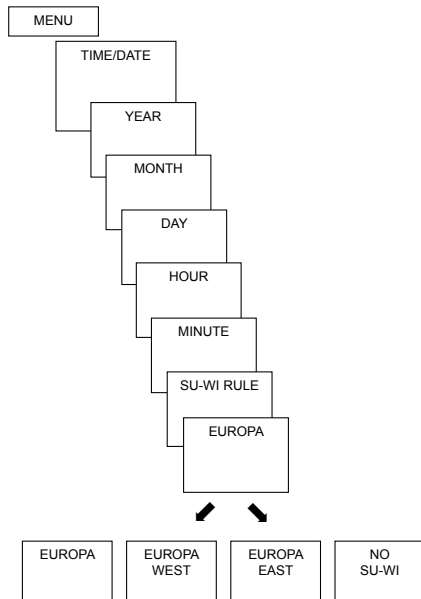
- Confirm **PROGRAMMING** by pressing **OK**.
- Select **CLEAR PROG** using the + or – keys.
- Confirm by pressing **OK**. The display shows **CLEAR P1**.
- Confirm by pressing **OK**. The display shows **CONFIRM**.
- Confirm by pressing **OK**.



TIME/DATE

Set date, time and summer/winter rule

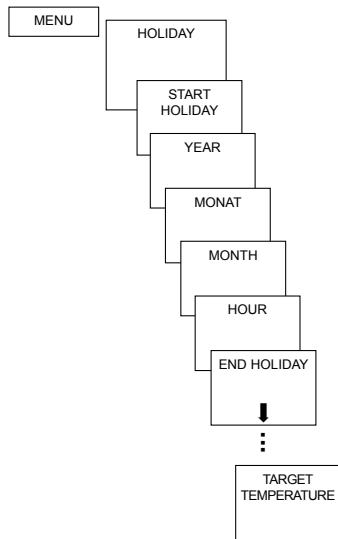
- Press **MENU** key. The display shows **PROGRAMMING**.
- Selected **TIME/DATE** using the + or – keys or the rotary control.
- Confirm by pressing **OK**. The display shows **YEAR**.
- Change hours, minutes etc. in succession using the + or – keys or the rotary control. The display shows **SU-WI RULE**.
- Confirm by pressing **OK**. The display shows **EUROPA**, **EUROPA WEST**, **EUROPA EAST** or **NO SU-WI**.
- Select summer winter rule by pressing **OK**.



HOLIDAY

Set Holiday program

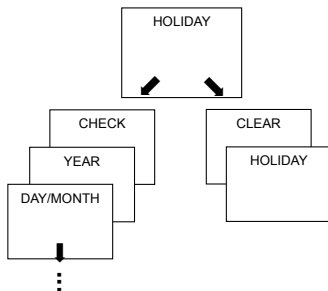
- Press **MENU** key. The display shows **PROGRAMMING**.
- Selected **TIME/DATE** using the + or – keys or the rotary control.
- Confirm by pressing **OK**. The display shows **START HOLIDAY**.
- Select year, month, day etc. in succession.
- Use + or – keys or rotary control to change value.
- Confirm each setting by pressing **OK**.
- Finally, enter **END HOLIDAY** in same way as **START HOLIDAY HOLIDAY** entry.
- Set desired temperature for the holiday period using the + or – keys and confirm with **OK**.



A maximum of one holiday period can be entered.

Check/clear holiday program

(only possible with a programmed holiday period)

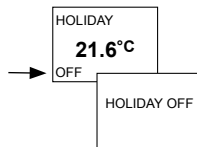


Switch off holiday program

HOLIDAY is displayed on screen during the programmed holiday period. The controller can only be operated once the holiday mode has been switched off.

- Confirm **HOLIDAY** on display with **OFF**.

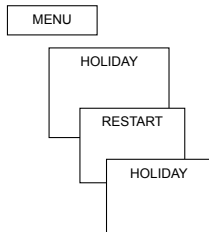
The display shows **HOLIDAY OFF**.



Briefly interrupt holiday program and restart

The program can be interrupted during the holiday period and restarted with the available data.

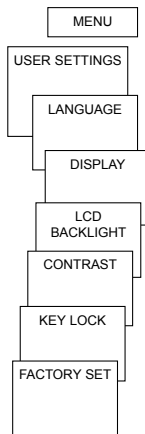
- Confirm **HOLIDAY** on screen by pressing **OK**.
The display shows **RESTART**.
- Confirm by pressing **OK**.
The display shows **HOLIDAY**.



USER SETTINGS

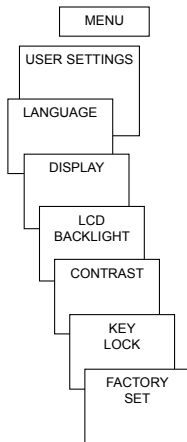
Set language

- Press **MENU** key. The display shows **PROGRAMMING**.
- Selected **USER SETTINGS** using the + or – keys or the rotary control.
- Confirm by pressing **OK**. The display shows **LANGUAGE**.
- Confirm by pressing **OK**. The display shows, for example, **ENGLISH**.
- Use + or – keys or rotary control to select language.
- Confirm by pressing **OK**.



Set display

- Confirm **DISPLAY** by pressing **OK**.
- Use + or – keys or rotary control to select values **1–4**.
- Confirm by pressing **OK**.



12:00
21.3°C

1 = Standard display: after 5 seconds all display content except for temperature and time are faded out (factory setting)

18.3°
12:00

2 = Standard display as in 1, but time and temperature are swapped round

12:00
ROOM TEMPERATURE
21.3°C

3 = complete display

18.0°
12:00

4 = complete display as in 3, but time and temperature are swapped round

Set LCD backlight

(only with RAMSES 831 top2/
RAMSES 832 top2)

The brightness of the backlighting can be set at different levels.

- Confirm **LCD BACKLIGHT** by pressing **OK**.
The display shows, for example, **3**.
- Use + or – keys or the rotary control to select 0-3.
- Confirm by pressing **OK**.

Set contrast

Screen contrast can be set at different levels.

- Confirm **CONTRAST** by pressing **OK**.
The display shows, for example, **8**.
- Use + or – keys or the rotary control to select 0-15.
- Confirm by pressing **OK**.

Keypad lock

The device is fitted with a keypad lock that is switched on or off via software program. When the keypad lock is switched on, a key symbol appears on the display and pressing a key shows **KEY LOCK** on the display.

Set key lock

- Confirm **KEY LOCK** by pressing **OK**.
The display shows **WITH** or **NO KEY LOCK**.
- Confirm selection by pressing **OK**.

Briefly interrupt keypad lock

The keypad lock can be interrupted to allow programming etc. The keypad lock is reactivated once changes are completed and the standard operating mode is returned to.

- Press **INFO** key for more than 3 seconds.

Set factory settings

The factory settings return all controller settings to delivery status.

- Confirm **FACTORY SET** by pressing **OK**.
The display shows **CONFIRM**.
- Confirm by pressing **OK**.

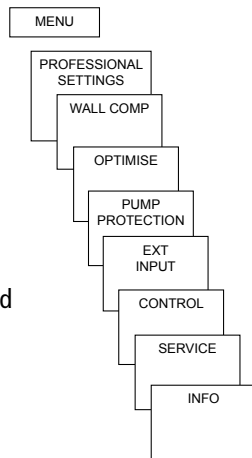
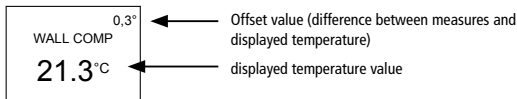


Operating level for specialist personnel

PROFESSIONAL SETTINGS – Set wall compensation

If the installation site is not in a good place, this may lead to a variation in temperature between the detected and actual room temperature. This can be corrected by using wall compensation.

- Press **MENU** key. The display shows **PROGRAMMING**.
- Selected **PROFESSIONAL SETTINGS** using the + or – keys or the rotary control.
- Confirm by pressing **OK**. The display shows **WALL COMP**.
- Confirm by pressing **OK**.
- Use + or – keys or rotary control to change the temperature setting and confirm by pressing **OK**.



Set optimisation

(only with RAMSES 831 top2/RAMSES 832 top2)

The optimisation function allows you to achieve a certain room temperature at a desired switching point. The display shows how many minutes earlier the heating has to be started. This time applies per K of temperature difference between actual temperature and the desired setpoint temperature.

Example:

In the bathroom at 06.00 a change is programmed from reduction (17 °C) to comfort temperature (23 °C).

Without the optimisation function, the room thermostat stops heating request for bathroom at 06.00. Depending on the size of the room and heating system used, the bathroom reaches the desired 23 °C at 06.30, for example.

With a set optimisation of 5 min/K, the thermostat requests the heating requirement earlier as follows:

- Target temperature at 06.00 --> 23 °C
- Actual temperature --> 17 °C
- i. e. Delta T = 6 K
- $6 \text{ K} * 5 \text{ min/K} = 30 \text{ min}$

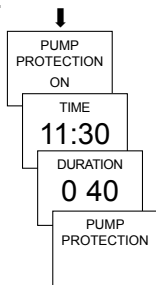
The controller starts the heating 30 mins earlier and reaches the target temperature at 06.00. The optimisation value depends on spatial and heating setup.

- Confirm **OPTIMISE** by pressing **OK**.
- Use the + or – keys or rotary control to set the value (of 1–60) and confirm by pressing **OK**.

Set pump protection

Pump protection is not activated in the factory. But it can be set in the **PROFESSIONAL SETTINGS** menu.

- Confirm **PUMP PROTECTION** by pressing **OK**.
- Use the + or – keys or the rotary control to select **ON** or **OFF** and confirm by pressing **OK**.
- Set **TIME** and **DURATION** using the + or – keys or the rotary control and confirm by pressing **OK**.



Set external input

The external input on the RAMSES 831 top2/ RAMSES 832 top2 can be configured for various external sensors.

⚠ CAUTION! Input is active, therefore do not use external voltage. The connected contact must be floating and electrically isolated.

- Confirm **EXT INPUT** by pressing **OK**.
- You can choose from **UNUSED INPUT, FLOOR SENSOR, ROOM SENSOR, WINDOW SWITCH, PHONE SWITCH, PRESENCE DETECTOR**.
- Confirm desired sensor/contact by pressing **OK**. Select available options and confirm by pressing **OK**.

The following options are available with the individual sensors/contacts

Floor sensor:	Mode 1	no options, floor temperature control, floor temperature is shown on screen
	Mode 2	Floor temperature control, floor temperature level can be set between 20 °C and 30 °C, room temperature is shown on display; floor sensor (907 0 321)
Room sensor:	no options,	internal temperature sensor is switched off; external temperature sensor (IP 65) (907 0 459)
Presence detector:	Temperature selection	this temperature is controlled when the HVAC output on the presence detector is switched on. If no presence is detected, the set program is used.
Window switch:	no options, provided the window switch is switched on, the thermostat controls to frost protection temperature level; WINDOW SWITCH is shown in display.	

Phone switch:	Temperature selection	Select temperature level for controller when the phone switch is switched on.
	Time selection	Select time until phone switch turns off automatically.
<p>PHONE SWITCH is shown on screen if the phone switch is switched on. The switched contact must be switched off manually to allow the control to be used again. A safety shutdown switches the contact off again automatically at the preset time. The telephone remote switch used should have a pulse output.</p>		

Set controller

Controller characteristics of pulse duration controller

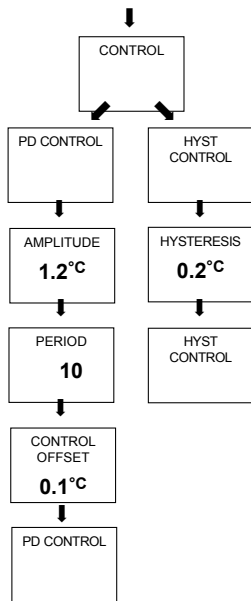
With adapted heating systems, a PD controller is noted for its short transient time, minimal overshoot and therefore high control, accuracy.

Controller characteristics of a hysteresis-/on/off controller

With over or undersized heating systems, hysteresis controllers are noted for their minimal switching frequency and low temperature variations.

- Confirm **CONTROL** by pressing **OK**.
- You can choose between **PD CONTROL** or **HYST CONTROL**.

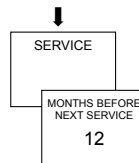
- Use + or – keys or rotary control to implement settings and confirm by pressing **OK**.



Set maintenance period

With maintenance, it is a question of a "reminder function".

- Confirm **SERVICE** by pressing **OK**.
The display shows
MONTHS BEFORE NEXT SERVICE.
- Use the + or – keys or the rotary control to enter the value and confirm by pressing **OK**.



Technical data

Mains device:

Nominal voltage:	230–240 V~, +10 %/–15 %
Frequency:	50–60 Hz
Power reserve:	4 hours
Power consumption:	typically 0.5 VA capacitive
Contact:	Two-way switch, switching of choice of external wires is permitted max. 6 A (1) /250 V~ min. 1 mA/5 V DC (SELV/PELV switching is not permitted)

Battery-operated device:

Batteries:	2 x alkaline batteries 1.5 V, AA type
Power reserve during battery change:	10 minutes
Mode of operation:	Type 1 B in accordance with EN 60730-1
Contact:	Two-way switch, floating max. 6 (1) A/250 V~ min. 1 mA/5 V DC

Contact material:	AgSnO ₂
Temperature range:	+4 °C to +30 °C in increments of 0.2 °C
Permissible ambient temperature:	0 °C ... +55 °C
Control period:	5–30 min. (PD controller)
Control capture range:	±0.2 K to 5 K (PD controller)
Switching hysteresis:	±0.2 K to ±1.0 K (hysteresis controller)
Memory locations:	42
Protection class:	II in accordance with EN 60730-1 for designated installation
Protection rating:	IP 20 in accordance with EN 60529
Time accuracy:	≤ 1 s/day at 20 °C
Pollution level:	2
Load current:	max. 5 A internal NTC max. 6 A external NTC

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Installation and operating instructions

Room thermostat



RAMSES 832 top2

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Basic safety instructions



WARNING

Danger of death through electric shock or fire!

➤ Installation should only be carried out by a qualified electrician!

- The device is designed for wall installation
- Corresponds to type 1 B in accordance with IEC/EN 60730-1

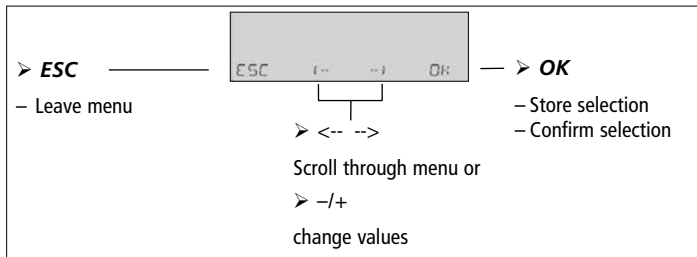
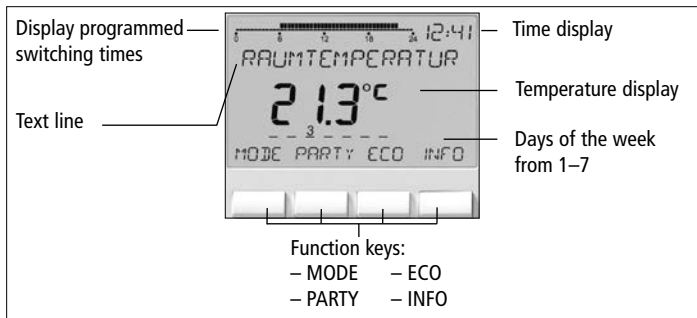
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- The room thermostat controls the room temperature in houses, offices etc.
- It is used in dry rooms with normal levels of domestic cleanliness

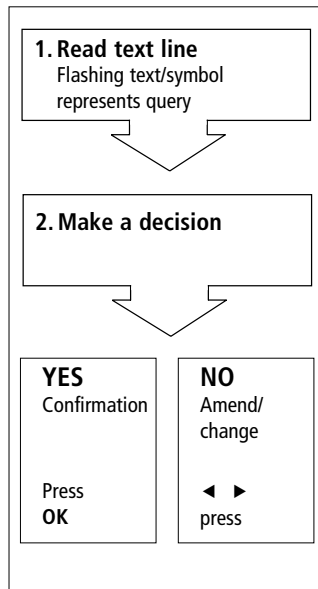
Disposal

Dispose of device and batteries in an environmentally sound manner

Screen and keys



Operating instructions



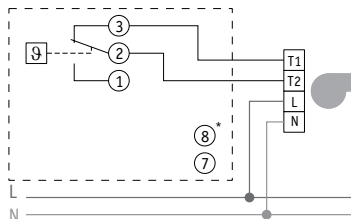
Connection/installation

⚠ WARNING



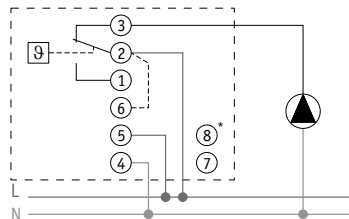
Warning, danger of death through electric shock!

- Must be installed by qualified electrician!
- Disconnect power source.
- Cover or shield any adjacent live components.
- Ensure device cannot be switched on!
- Check power supply is disconnected.
- Earth and bypass.



controlling burners or gas water heaters

* external input, only with RAMSES 831_832 top2



controlling circulation pump or actuator

Installation

- Fix plate to wall and attach device.
- Ensure installation height of approx. 1.5 m.

Dismantling

- Insert screwdriver from below, push detent hooks up and open device.



Insert batteries

- Only be carried out by a qualified electrician.
- Only use alkaline 1.5 V AA batteries.
- Ensure correct polarity when fitting batteries.
- Dispose of batteries in an environmentally sound manner.

Reset

- Press a pointed object into the opening on the left hand side of the device.

Replace batteries

1. Battery symbol flashes on display, controller remains active. The batteries should be replaced.
2. If the display flashes, the controller is no longer active; the relay remains permanently switched on. The batteries must be replaced immediately.



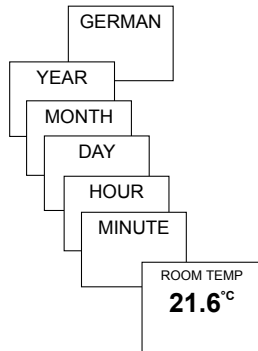
Initial start-up

- With mains devices, after connecting mains lead or with battery devices, after inserting batteries, press the right key for more than 3 s and follow on-screen instructions (see fig.).

Date, time and summer/winter rule can be set via **MODE** menu under **TIME/DATE**.

Date and time have to be set with the RAMSES 811 top2 and RAMSES 812 top2 models, RAMSES 831 top2 and RAMSES 832 top2 are factory-set.

RAMSES 811 top2 and RAMSES 831 top2 are battery devices; RAMSES 812 top2 and RAMSES 832 top2 are mains devices.





User information

GB

Note:

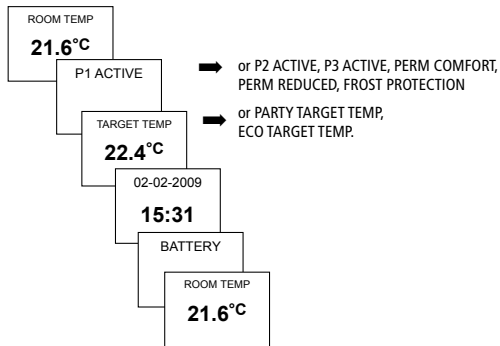
The whole screen, except for temperature and time, is faded out after 5 seconds. Press the **INFO** key to restore screen.

This setting can be changed under **OPTIONS/DISPLAY**.

INFO key – View settings

The **INFO** key allows you to access current room temperature, temperature program, setpoint temperature, date/time or battery status.

- Press **INFO** key repeatedly.



PARTY key – Set PARTY function

- Press **PARTY** key.
The display shows **PARTY TARGET TEMP**
23.0 °C.

Provided the whole screen is shown, the PARTY key flashes to display the set party mode. The INFO key plus the PARTY key appear once the contents of the screen are faded out.

Delete PARTY function

- Press **PARTY** key.
The display shows **PARTY OFF.**

Change PARTY TARGET TEMP

- The rotary control adjusts the **PARTY TARGET TEMP** up or down.

ECO key – Set ECO function

- Press **ECO** key.
The display shows **ECO TARGET TEMP**
17.0 °C.

Provided the whole screen is shown, the ECO key flashes to display the set party mode. The INFO key plus the ECO key appear once the contents of the display are faded out.

Clear ECO function

- Press **ECO** key.
The display shows **ECO OFF.**

Change ECO TARGET TEMP

- The rotary control adjusts the **ECO TARGET TEMP** up or down.

Temperature programs

RAMSES top2 devices have several preset programs.

- P1
- P2
- P3
- PERM COMFORT
- PERM REDUCED
- FROST PROTECTION

Use the **MODE** key to access selection of active temperature program.

Change temperature programs (P1, P2, P3)

The programs are adjusted using the **MODE**, key in the **SETTINGS** menu (see page 13ff.)

Use rotary control to make changes

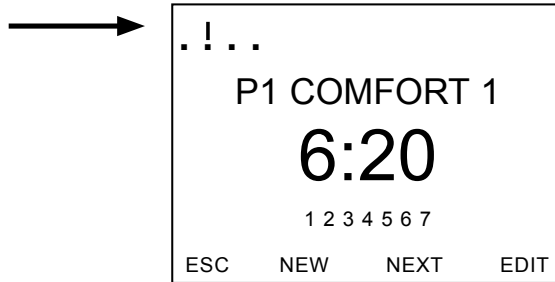
In standard operation mode, you can temporarily change current setpoint temperature via the rotary control. It is not stored in the program and is replaced by the set value at the next programmed switching time.



- Turn rotary control up or down to change temperature setting (in 0.2 °C increments).

The following applies to all programs:

The broken bar in the top left of the display shows the number of menu points in the relevant menu. The flashing cursor indicates the point in the menu that you are currently in.

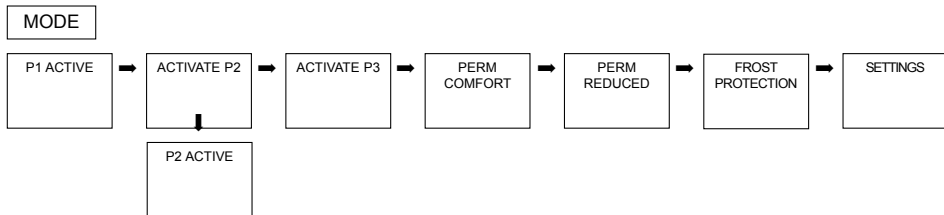


MODE key – Change/program settings

Using the **MODE** key and selecting the **SETTINGS** menu point brings up the programming and setting mode.

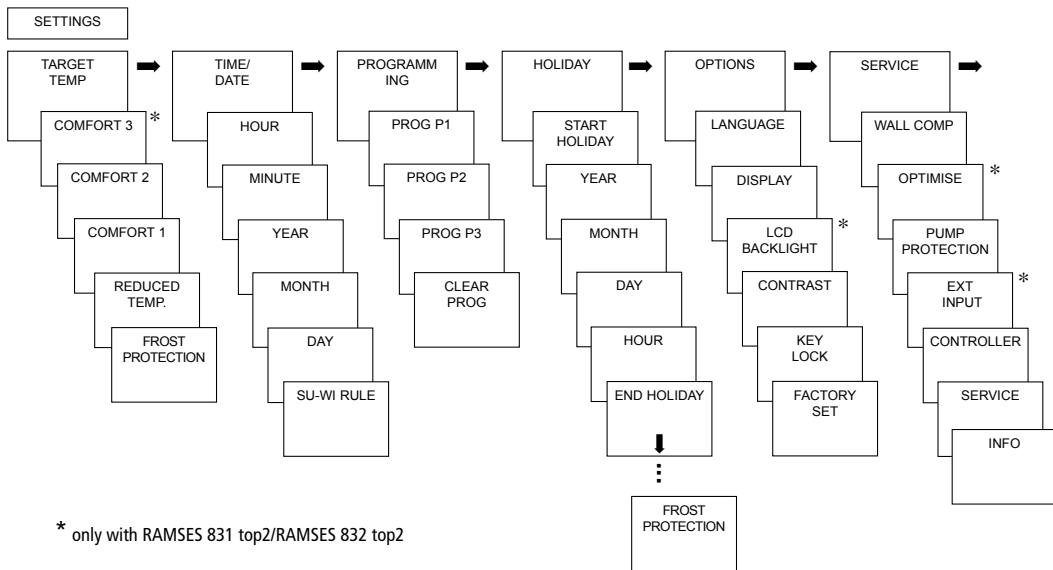
Select preset program

- Press **MODE** key.



- Use **<-** or **->** to scroll through menu points, select desired program and confirm by pressing **OK**.

MODE – Settings– Overview



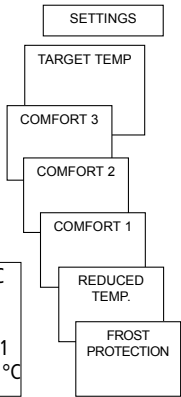
Change setpoint temperature

- Confirm **TARGET TEMP** by pressing **OK**.
The display shows **COMFORT 3**.
- Use **+** or **-** keys or rotary control to change value.
- Confirm by pressing **OK**.

The other setpoint values (for comfort 2, frost protection etc.) are set accordingly.

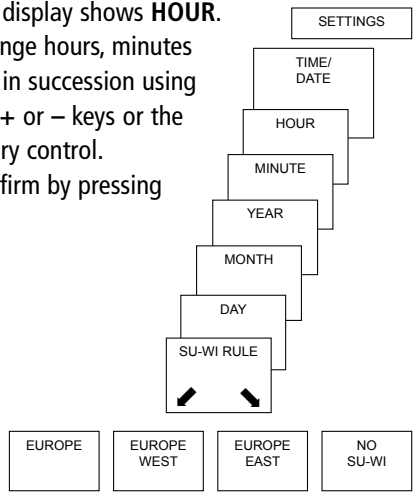
All 3 comfort temperatures are available as required:

- Comfort 1-3:	10.2 °C...30 °C
- Reduced temperature:	min. 10 °C, max. 0.2 K under Comfort 1
- Frost protection:	from 4 °C...10 °C



Set date, time and summer/winter time

- Confirm **TIME/DATE** by pressing **OK**.
The display shows **HOUR**.
- Change hours, minutes etc. in succession using the **+** or **-** keys or the rotary control.
- Confirm by pressing **OK**.

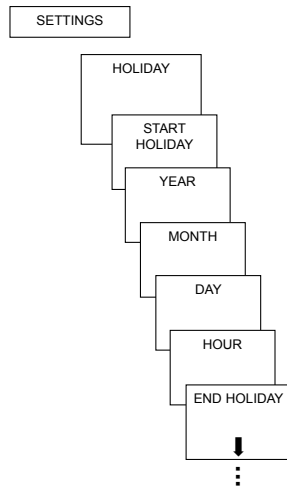


Set Holiday program

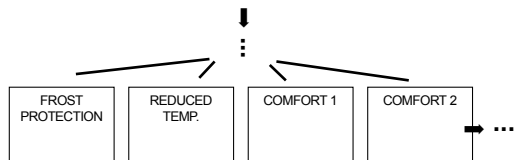
- Confirm **HOLIDAY** by pressing **OK**.
The display shows **START HOLIDAY**.
- Select year, month, day etc.
in succession.
- Use + or – keys or
rotary control to change value.
- Confirm each setting by pressing **OK**.

- Finally, enter **END HOLIDAY** in same way
as **START HOLIDAY** entry.
- Set desired temperature for the holiday
period using the + or – keys and
confirm with **OK**.

A maximum of one holiday period can be entered.

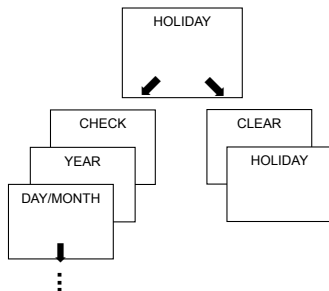


Set temperature preselection



View/clear holiday program

(only possible with a programmed holiday period)

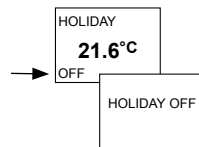


Switch off holiday program

HOLIDAY is displayed on screen during the programmed holiday period. The controller can only be operated once the holiday mode has been switched off.

- Confirm **HOLIDAY** on display with **OFF**.

The display shows **HOLIDAY OFF**.



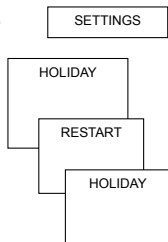
Briefly interrupt holiday program and restart

The program can be interrupted during the holiday period and restarted with the available data.

- Confirm **HOLIDAY** on screen by pressing **OK**.

The display shows **RESTART**.

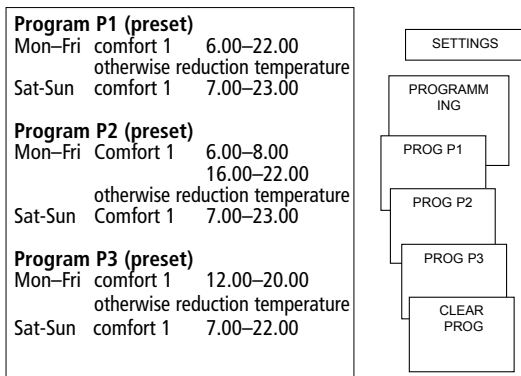
- Confirm by pressing **OK**. The display shows **HOLIDAY**.



Programming

Programs P1–P3 are preset but they can be amended or deleted.

A maximum of 24 switching times can be set per program, up to a total of 42.

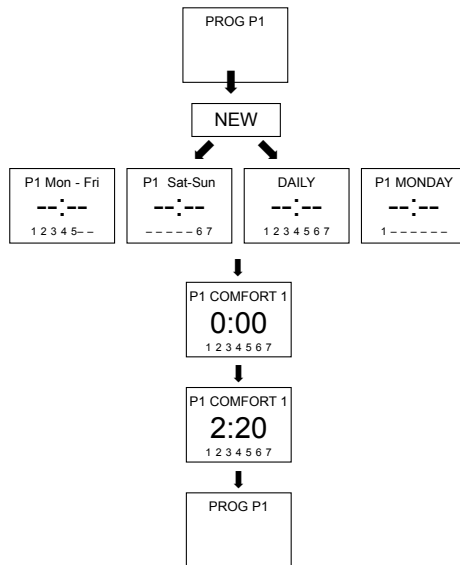


Reset switching time

MODE – SETTINGS– PROGRAMMING

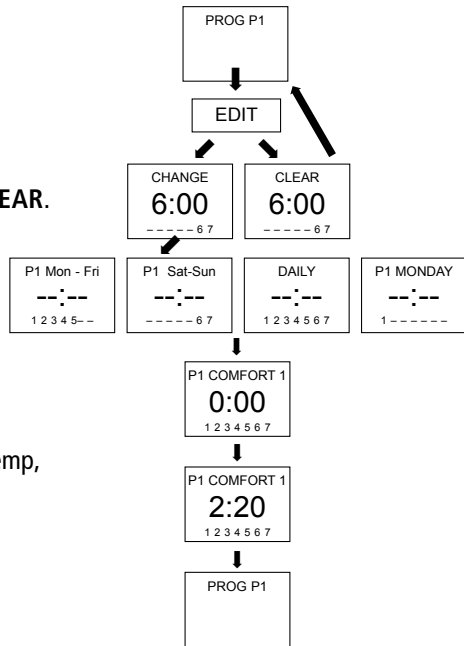
- Confirm **PROGRAMMING** by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm **PROG P1** by pressing **OK**.
- Press **NEW** key.
- Selected desired days using the + or – or the rotary control (e.g. Mon–Fri, Sat–Sun, individual days or daily).
- Confirm by pressing **OK**.
- Select desired temperature using the + or – keys or the rotary control (comfort 1–3, reduced temp, frost protection).
- Confirm by pressing **OK**.
- Enter switching time in hours and minutes using the + or – keys or the rotary control.

- Confirm by pressing **OK**.



Change or delete switching time

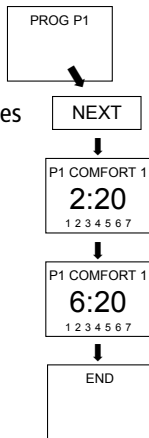
- Confirm **PROGRAMMING** by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm **PROG P1** by pressing **OK**.
- Press **EDIT** key. The display shows **CHANGE** or **CLEAR**.
- Confirm **CHANGE** by pressing **OK**.
- Select switching time for desired days using the + or – keys or the rotary control (e. g. Mon–Fri, Sat–Sun, individual days or daily).
- Confirm by pressing **OK**.
- Select temperature using the + or – keys or the rotary control (comfort 1–3, reduced temp, frost protection) and confirm by pressing **OK**.
- Enter switching time in hours and minutes using the + or – keys or rotary control and confirm by pressing **OK**.



View switching time

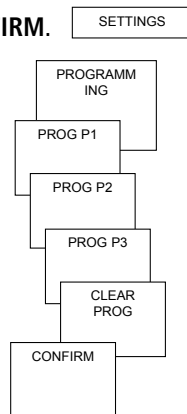
- Confirm **PROGRAMMING** by pressing **OK**.
The display shows, for example, **PROG P1**.
- Confirm **PROG P1** by pressing **OK**.
- Press **NEXT** key repeatedly.

All programmed switching times can be viewed in succession.



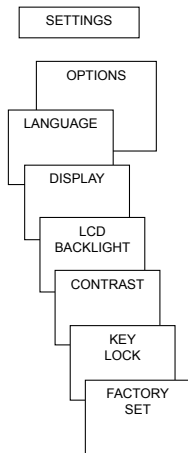
Delete program

- Confirm **PROGRAMMING** by pressing **OK**.
- Select **CLEAR PROG** using the + or – keys.
- Confirm by pressing **OK**.
The display shows **CONFIRM**.
- Confirm by pressing **OK**.



Set language

- Confirm **LANGUAGE** by pressing **OK**.
The display shows, for example, **GERMAN**.
- Use + or – keys or rotary control to select language.
- Confirm by pressing **OK**.

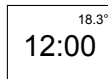


Set display

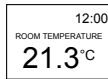
- Confirm **DISPLAY** by pressing **OK**.
- Use + or – keys or rotary control to select values **1–3**.
- Confirm by pressing **OK**.



1 = Standard display: after 5 seconds all display content except for temperature and time are faded out.



2 = Standard display: Time and temperature are swapped round



3 = complete display

Set LCD backlight

(only with RAMSES 831 top2/RAMSES 832 top2)

The brightness of the backlighting can be set at different levels.

- Confirm **LCD BACKLIGHT** by pressing **OK**.
The display shows, for example, **3**.
- Use + or – keys or the rotary control to select 0-3.
- Confirm by pressing **OK**.

Set contrast

Screen contrast can be set at different levels.

- Confirm **CONTRAST** by pressing **OK**.
The display shows, for example, **8**.
- Use + or – keys or the rotary control to select 0-15.
- Confirm by pressing **OK**.

Keypad lock

The device is fitted with a keypad lock that is switched on or off via software program. When the keypad lock is switched on, a key symbol appears on the display and pressing a key shows **KEY LOCK** on the display.

Set key lock

- Confirm **KEY LOCK** by pressing **OK**.
The display shows **WITH** or **NO KEY LOCK**.
- Confirm selection by pressing **OK**.

Briefly interrupt keypad lock

The keypad lock can be interrupted to allow programming etc. The keypad lock is reactivated once changes are completed and the standard operating mode is returned to. Press **INFO** key for more than 3 seconds.

Set factory settings

The factory settings return all controller settings to delivery status.

- Confirm **FACTORY SET** by pressing **OK**.
The display shows **CONFIRM**.
- Confirm by pressing **OK**.



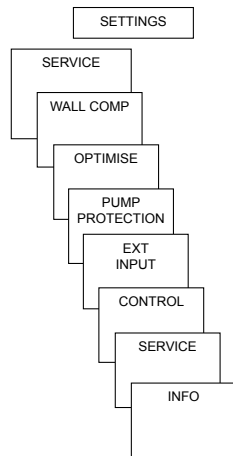
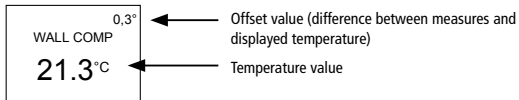
Operating level for specialist personnel

GB

Set wall compensation

If the installation site is not in a good place, this may lead to a variation in temperature between the detected and actual room temperature. This can be corrected by using wall compensation.

- Confirm **SERVICE** by pressing **OK**.
The display shows **WALL COMP**.
- Confirm **WALL COMP** by pressing **OK**.
- Use **+** or **-** keys or rotary control to change the temperature setting and confirm by pressing **OK**.



Set optimisation

(only with RAMSES 831 top2/RAMSES 832 top2)

The optimisation function allows you to achieve a certain room temperature at a desired switching point. The display shows how many minutes earlier the heating has to be started. This time applies per K of temperature difference between actual temperature and the desired setpoint temperature.

Example:

In the bathroom at 06.00 a change is programmed from reduction (17 °C) to comfort temperature (23 °C).

Without the optimisation function, the room thermostat stops heating request for bathroom at 06.00. Depending on the size of the room and heating system used, the bathroom reaches the desired 23 °C at 06.30, for example.

With a set optimisation of 5 min/K, the thermostat requests the heating requirement earlier as follows:

- Setpoint temperature at 06.00 --> 23 °C
- Actual temperature --> 17 °C
- i. e. $\Delta T = 6 \text{ K}$
- $6 \text{ K} * 5 \text{ min/K} = 30 \text{ min}$

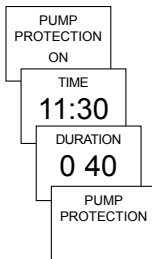
The controller starts the heating 30 mins earlier and reaches the setpoint temperature at 06.00. The optimisation value depends on spatial and heating setup.

- Confirm **OPTIMISE** by pressing **OK**.
- Use the + or – keys or rotary control to set the value (of 1–60) and confirm by pressing **OK**.

Set pump protection

Pump protection is not activated in the factory. But it can be set in the **SERVICE** menu.

- Confirm **PUMP PROTECTION** by pressing **OK**.
- Use the + or – keys or the rotary control to **select ON or OFF** and confirm by pressing **OK**.
- Set **TIME** and **DURATION** using the + or – keys or the rotary control and confirm by pressing **OK**.



Set external input

The external input on the RAMSES 831 top2/ RAMSES 832 top2 can be configured for various external sensors.

⚠ CAUTION! Input is active, therefore do not use external voltage. The connected contact must be floating and electrically isolated.

- Confirm **EXT INPUT** by pressing **OK**.
- You can choose from **UNUSED INPUT, FLOOR SENSOR, ROOM SENSOR, WINDOW SWITCH, PHONE SWITCH, PRESENCE DETECTOR**.
- Confirm desired **sensor/contact** by pressing **OK**. Select available options and confirm by pressing **OK**.

The following options are available with the individual sensors/contacts

Floor sensor:	Mode 1	no options, floor temperature control, floor temperature is shown on screen
	Mode 2	Floor temperature control, floor temperature level can be set between 20 °C and 30 °C, room temperature is shown on display; floor sensor (907 0 321)
Room sensor:	no options,	internal temperature sensor is switched off; external temperature sensor (IP 65) (907 0 459)
Presence detector:	Temperature selection	this temperature is controlled when the HVAC output on the presence detector is switched on. If no presence is detected, the set program is used.
Window switch:	no options,	provided the window switch is switched on, the thermostat controls to frost protection temperature level; WINDOW SWITCH is shown in display.

Phone switch:	Temperature selection	Select temperature level for controller when the phone switch is switched on.
	Time selection	Select time until phone switch turns off automatically.

TELEPHONE SWITCH is shown on screen if the phone switch is switched on. The switched contact must be switched off manually to allow the control to be used again. A safety shutdown switches the contact off again automatically at the preset time. The telephone remote switch used should have a pulse output.

Set controller

Controller characteristics of pulse duration controller

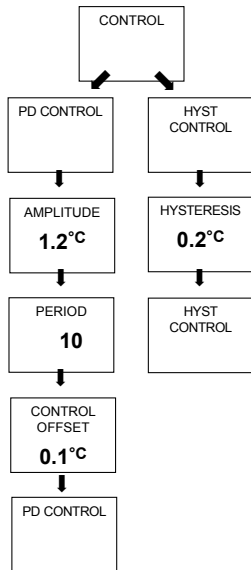
With adapted heating systems, a PD controller is noted for its short transient time, minimal overshoot and therefore high control, accuracy.

Controller characteristics of a hysteresis-/on/off controller

With over or undersized heating systems, hysteresis controllers are noted for their minimal switching frequency and low temperature variations.

- Confirm **CONTROL** by pressing **OK**.
- You can choose between **PD CONTROL** or **HYST CONTROL**.

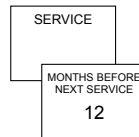
- Use + or – keys or rotary control to implement settings and confirm by pressing **OK**.



Set maintenance period

With maintenance, it is a question of a "reminder function".

- Confirm **SERVICE** by pressing **OK**.
The display shows
MONTHS BEFORE NEXT SERVICE.
- Use the + or – keys or the rotary control to enter the value and confirm by pressing **OK**.



Technical data

Mains device:

Nominal voltage:	230–240 V~, +10 %/–15 %
Frequency:	50–60 Hz
Power reserve:	4 hours
Power consumption:	typically 0.5 VA capacitive
Contact:	Two-way switch, switching of choice of external wires is permitted max. 6 A (1) /250 V~ min. 1 mA/5 V DC (SELV/PELV switching is not permitted)

Battery-operated device:

Batteries:	2 x alkaline batteries 1.5 V, AA type
Power reserve during battery change:	10 minutes
Mode of operation:	Type 1 B in accordance with EN 60730-1
Contact:	Two-way switch, floating max. 6 (1) A/250 V~ min. 1 mA/5 V DC

Contact material:	AgSnO ₂
Temperature range:	+4 °C to +30 °C in increments of 0.2 °C
Permissible ambient temperature:	0 °C ... +55 °C
Control period:	5–30 min. (PD controller)
Control capture range:	±0.2 K to 5 K (PD controller)
Switching hysteresis:	±0.2 K to ±1.0 K (hysteresis controller)
Memory locations:	42
Protection class:	II in accordance with EN 60730-1 for designated installation
Protection rating:	IP 20 in accordance with EN 60529
Time accuracy:	≤ 1 s/day at 20 °C
Pollution level:	2
Load current:	max. 5 A internal NTC max. 6 A external NTC