



## User manual

Ver. 1  
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Power supply: 230V

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In accordance with the product development policy, SALUS Controls plc reserves the right to change specifications, design, and materials used in production, presented in this manual, without prior notice.

## Introduction

The HTRS230V(30) from SALUS Controls is a digital, wired and surface-mounted (or on a flush-box) non programmable room thermostat, dedicated for surface heating / cooling control, characterized by high thermal inertia. It is connected to the wiring centre. The thermostat does not have the function of creating schedules - it lowers the set temperature via wiring centre after receiving the NSB signal from the weekly thermostat. Thanks to the built-in algorithms, it offers much better temperature control accuracy than traditional mechanical thermostats. The thermostat is characterized by silent operation. The controller is characterised by silent operation.

## Product compliance

The product complies with the following EU directives: 2014/30/EU, 2014/35/EU, 2011/65/EU. Full information is available at www.saluslegal.com

## Note!

This document is a quick guide to the installation and operation of the product and indicates its main features and functions. Detailed informations are in the full manual, which is available at www.salus-controls.eu and which must be used for proper installation and operation of the product.

## Safety informations:

Use in accordance with national and EU regulations. Use the device as intended and keep it dry. Product for indoor use only. Please read the entire manual before starting the installation and using the product.

## Installation:

Installation must be carried out by a qualified person, with appropriate electrical authorisations, in accordance with national and EU standards and regulations. The manufacturer shall not be liable for failure to comply with the manual.

## NOTE:

There may be additional protection requirements for the entire installation. The installer shall be responsible for compliance with such requirements.

## Package content



Front housing of the thermostat



Back housing of the thermostat

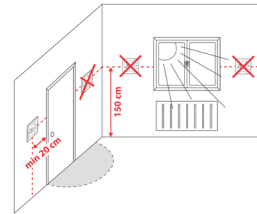


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Mounting screws

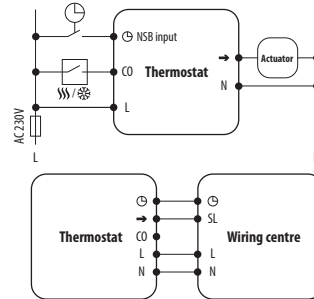
## Proper thermostat location



The ideal position to thermostat mounting is about 1,5m under floor level far from heating or cooling sources. In addition, the thermostat should not be installed behind curtains or other obstacles or in places with high humidity, as this will prevent accurate measurements of room temperature. The thermostat must not be exposed to sunlight. Do not place the thermostat on an outer wall.

## Connection description

**Note:** The thermostat is compatible with the following Salus wiring centre models: KL06 230V, KL08NSB 230V, KL04NSB 230V or directly to the actuator.

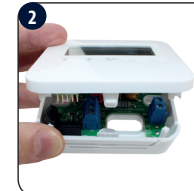
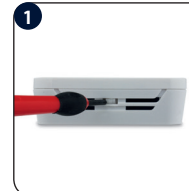


## Symbols explanation

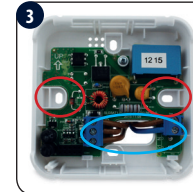
Terminal	Description
L, N	Power supply (230V AC)
⊖ NSB	Night temperature reduction (230V output)
→ SL	230 V AC output signal 230V AC
CO	Switching jumper between heating and cooling (input 230V AC)

**Note:** The following designations are used interchangeably for products:  
→ = SL  
⊖ = NSB

## Montage



Make sure that the thermostat is not connected to the 230V AC. Then open the front housing using a screwdriver as shown above.



Connect the thermostat properly. Please refer to the "Connection description" section. Mount the thermostat using the designed screw holes.

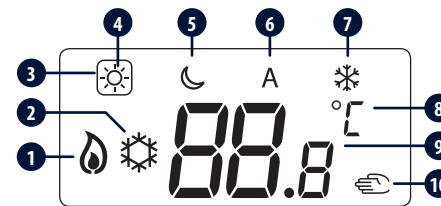


Slide the thermostat on the back cover. The thermostat is configured for operation. Use buttons to set the temperature setpoint.

## Button functions

↑	Increase /or decrease setpoint temperature setpoint or value
↓	Mode selection
↵	Short press to confirm selection Press and hold – enter / exit the menu

## LCD icon description



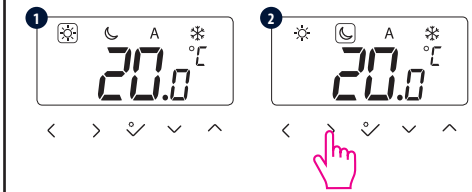
1. Heating mode
2. Cooling mode
3. ☐ Active work mode
4. Comfort temperature mode
5. Economic temperature mode
6. AUTO mode
7. Frost protection mode
8. Temperature unit
9. Current / set temperature
10. Manual mode / temp. override

## Manual mode – temperature setpoints

3 temperature levels are available. In manual mode, only one temperature level is maintained for the entire day. Icon in the frame ☐ indicates which mode is currently active. A different temperature can be set for each level.

- ☀ - Comfort temperature mode
- 🌙 - Economic temperature mode
- ❄ - Frost protection mode. Usually used during the period of longer absence, or during the holidays (only available in HEATING mode).

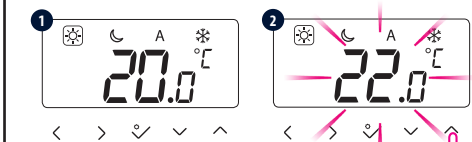
Press any button to highlight the screen, then follow the steps below:



Select the temperature mode using < or > buttons.

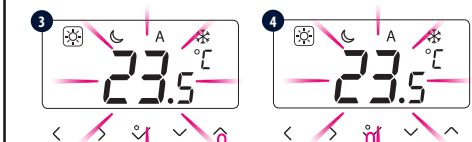
## Temperature setpoint

Press any button to highlight the screen, then follow the steps below:



Current temperature.

Temperature setpoint in the selected work mode.



Set the temperature using ↑ or ↓ buttons.

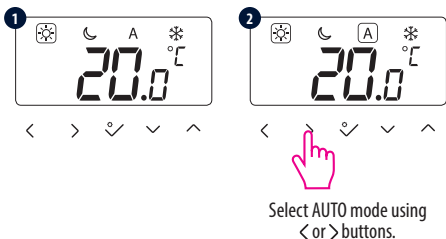
Confirm selection by ↵ button.

## AUTO mode – NSB function

The ☾ NSB (Night Setback) function enables automatic reduction of the temperature setpoint on the HTRS230(30) SLAVE thermostat, via the HTRP230(50) programmable MASTER thermostat connected to the wiring centre (or other external clock). The temperature change takes place between the comfort temperature mode ☀ and economic ☾ temperature mode.

To activate AUTO mode, select the (A) icon. Together with the (A) icon, the thermostat shows the active temperature mode on the display: ☀ or ☾.

Press any button to highlight the screen, then follow the steps below:

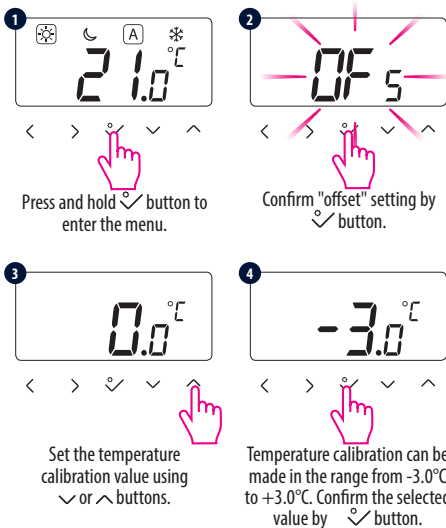


**Note:**For the proper NSB function work, an appropriate cable connection is required. The connection description is on the previous page.

## Calibration of displayed temperature – "offset" function

The thermostat allows to correct the displayed temperature by  $\pm 3.0^{\circ}\text{C}$ . Follow the steps below:

Press any button to highlight the screen, then follow the steps below:



**Note:**Calibration of the temperature can also be set in the installer parameters (parameter d02).

## Heating / Cooling mode

**Manual change:**  
Modes are indicated by ☀☾ symbols.

Press and hold < or > button to enter the menu, then use > button to select the Heating / Cooling mode change setting. Confirm changes using < or > button. Now use < or > buttons to set the heating or cooling mode. Confirm by < or > button.

**Automatic change (via CO terminal):**

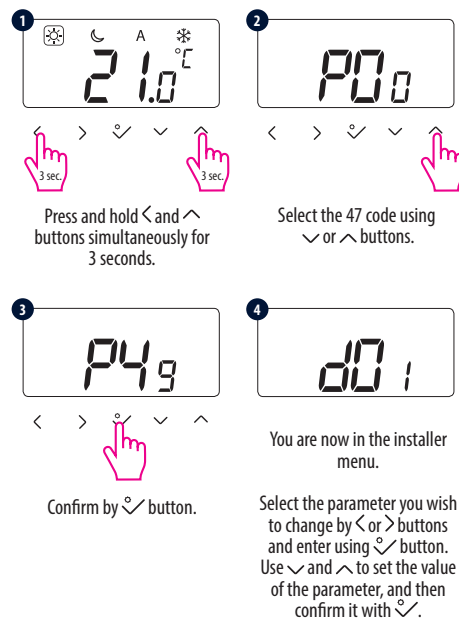
The heating/cooling mode can be changed automatically via the CO terminal in the thermostat. If 230 V AC power supply is connected to the CO terminal – then thermostat automatically switches to cooling mode. If you want to use this function, then you have to change the value of the d18 parameter to "1".

**Cooling blocking:**

When D19 thermostat parameter is set to "1", then cooling is blocked for a single room. When the cooling function is blocked, no message is displayed.

## Installer mode

Press any button to highlight the screen, then follow the steps below:



## Installer parameters

	Function	Parameter Values	Description	Default Values
d01	Heating Control	0	According to the PWM algorithm	0
		1	Hysteresis: 0.5 °C ( $\pm 0.25^{\circ}\text{C}$ )	
		2	Hysteresis: 1.0 °C ( $\pm 0.5^{\circ}\text{C}$ )	
d02	Displayed temperature correction	from $-3.0^{\circ}\text{C}$ to $+3.0^{\circ}\text{C}$	If the thermostat indicates an incorrect temperature, then it can be corrected $\pm 3.0^{\circ}\text{C}$	0.0 °C
d05	Cooling Control	1	Hysteresis: 0.5 °C ( $\pm 0.25^{\circ}\text{C}$ )	2
		2	Hysteresis: 1.0 °C ( $\pm 0.5^{\circ}\text{C}$ )	
d07	Valve Protection	0	Disabled	1
		1	Enabled	
d08	Frost protection setpoint	5.0 – 17.0 °C	The frost protection temperature is maintained for example during active holiday mode.	5.0 °C
d12	Heating setpoint limits	5.0 – 35.0 °C	Maximum temperature which can be set for heating	35.0 °C
d13	Cooling setpoint limits	5.0 – 40.0 °C	Minimum temperature which can be set for cooling	5.0 °C
d18	Heat/Cool Mode Selection	0	Manual by buttons use	0
		1	Automatic by the CO terminal	
d19	Cooling Blocking function	0	Cooling allowed	0
		1	Cooling disabled	
d20	Actuators loading selection for different temperature compensation	0 – 5	Numbers 1 to 5 are the numbers of actuators connected to the thermostat.	0

## Factory reset

If you made a mistake, want to change the thermostat parameters or return to factory settings, follow the steps below.

**Note:**This action will permanently delete all current settings.

Press any button to highlight the screen, then follow the steps below:

