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# SALUS<sup>®</sup> CONTROLS

## Digital Thermostats Model: AHTR3024



INSTALLER MANUAL

### 14. Technical Data

Model:	AHTR3024
Voltage	24 VAC, +/-10%, 50/60 Hz
Operating performance	24 V, 18 W
Temperature setback	Adjustable
Temperature range	5°C – 35°C (41°F - 95°F)
Span	+/-0.5°C (32.9°F) OR +/-0.25°C (32.45°F)
Storage temperature	-20°C to +60°C (-4°F to +140°F)
Ambient temperature	0°C up to 45°C (32°F up to 113°F)
Degree of protection	IP 30
Conformity according to	FCC and IC
Housing material	PC, V2
Color	RAL 9010 pure white
Connection	Screw terminal
Weight	125 g net / 170 g gross (4.40oz/5.99oz)
Puls-wide-modulation (PWM)	Yes
Profile Modes	3 (Sun, Moon, Automatic)
Heating and Cooling	Yes, automatically Change Over on the Wiring Centre
Parameter adjustment	Yes, in Installer Mode
Dimensions	85mm*85mm*25mm( 3.34in*3.34in*0.98in)

### Warranty

SALUS NA warrants that this product (AHTR3024) will be free from any defect in materials or workmanship, and shall perform in accordance with its specification, for a period of five years from the date of installation. SALUS NA sole liability for breach of this warranty will be (at its option) to repair or replace the defective product.

Customer Name: .....

Customer Address: .....

..... Post Code: .....

Tel No: ..... Email: .....

Engineers Company: .....

Tel No: ..... Email: .....

Installation Date: .....

Engineers Name: .....

Engineers Signature: .....

### 11. Factory Reset

Press the indicated keys together for 3 seconds.

Select P47 if you want to reset to factory settings.

Press ✓ to confirm

Press ✓ to confirm

Select P47 if you want to reset to factory settings.

Press ✓ to confirm

Note: In order to quickly reach 47 you can hold down ↑ key. The display will fast forward in steps of 5.

### 12. Heating/Cooling Mode

Heating Mode

Cooling Mode

Temperature Mode	Heating	Cooling
Sunny	20.0 °C / 68.0 °F	20.0 °C / 68.0 °F
Moon	17.0 °C / 62.6 °F	26.0 °C / 78.8 °F
Frost (heat system)	5.0 °C / 41 °F	--

### 13. Temperature Offset (TemperatureCalibration)

Long press in order to enter the Settings Mode.

Select OF 5

Press ✓ or ↵ in order to set the Temperature Offset.

The Temperature Offset can be set at any value between -3°C(26.6°F) and +3°C(37.4°F). Press OK to confirm.

### 8. Setting the Thermostat

Device No	Function	Valves	Definition	Default Value
d00	Select °C/°F	0 1	°C °F	0
d01	Heating Control	0 1 2	PWM On-Off: 0.5 °C (+_0.25 °C) On-Off: 32.9 °F (+_ 32.45 °F) On-Off: 1.0 °C (+_0.5 °C) On-Off: 33.8 °C (+_ 32.9 °F)	0
d02	Room temp offset	-3.0°C to +3.0°C -26.6°F to +37.4°F	Offset room temp measuring error (in 0.5 °C / 32.9 °F)	0.0°C / 32 °F
d05	Cooling Control	1 2	On-Off: 0.5 °C (+_0.25 °C) On-Off: 32.9 °F(+_ 32.45 °F) On-Off: 1.0 °C (+_0.5 °C) On-Off: 33.8 °C (+_32.9 °F)	2
d07	Valve Protection	0 1	Disable Enable	1
d08	Frost Setpoint	5.0 - 17.0 °C 41 - 62.6 °F		5.0°C / 41 °F
d12	Max. Heating Setpoint	5.0 - 35.0 °C 41 - 95 °F		35°C / 95 °F
d13	Min. Cooling Setpoint	5.0 - 40.0 °C 41 - 104 °F		5.0°C / 41 °F
d18	Heating/Cooling Mode	0 1	No Connection Connection	0
d19	Cooling Blocked	0 1	Cooling Allowed Cooling Disabled	0
d20	Selecting the number of actuators	0	1 to 5 actuators loading	0

### 9. Setting the Thermostat

Note: The d20 will help you to reduce the power outlet on the thermostat.

**Setting the hysteresis**  
You can set the hysteresis by entering the Installer Mode, accessing d01 and after that selecting the desired value ( PWM / 0.5°C or 32.9°F / 1.0°C or 33.8°F). If your device controls the UFH we recommend to use the PWM algorithm.

#### Heating and Cooling Selection

**Manually**  
This mode will be indicated by the flashing icons .  
Press or to change between modes.



**Auto**  
The CO terminal needs to be connected using the same phase as the power supply. After that the heating and cooling functions will be done automatically In Installer Mode, d18 has to be set on 1 (default is 0), when CO wire is connected.

### 10. Setting the Thermostat

**Cooling blocked**  
When the thermostat is set on Cooling Disabled (d19-->1) it will block the cooling function for single rooms until the device receives the heating command. During the periods of Cooling Blocked no special indicator will be displayed on the LCD screen. Cooling mode indicator will also be turned off.

**Protection**  
When room temperature is over the limit of 36°C(96.8°F), all heating outputs will be turned off regardless of the control pattern and delay timers. When room temperature is under the limit of 4°C(39.2°F), all cooling outputs will be turned off regardless of the control pattern and delay timers.

# Contents of the box

- Manual Contents:**  
 Box Contents  
 Introduction  
 Product Compliance and Safety Information  
 Installation  
 User Interface  
 Status/LED indication  
 Installers notes  
 Warranty



**Icons used in this manual:**

- Safety
- Important info
- Your benefit

**Product Description**

Thank you for purchasing the SALUS AHTR3024 Thermostat. This thermostat is a device that lets you customise the heating and cooling of your home as needed.

The AHTR3024 device from SALUS Controls is a stylish and accurate digital room thermostat that is fitted with a large easy to read LCD screen and one touch buttons. You can now simply adjust your home temperature as desired in order to create a comfortable home environment.

**We hope you enjoy our product.**

# Product Compliance & Safety Information

**FCC Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.  
 Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

**Safety Information**

Use in compliance with safety regulations. The unit is to be used for the control of room temperature inside the house.

**Installation**

This accessory must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the city, country or state where the product is installed. Failure to comply with the relevant standards could lead to prosecution.

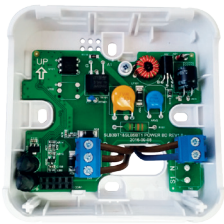
**Note:** For changing the temperature display from °C to °F, go to Installer Mode Menu and change d00 to 1.

# 1. Mounting the Thermostat

Install the AHTR3024 digital room thermostat at roughly 1.5m or 4.92ft above floor level. It should be mounted in a location where the thermostat is easily accessible and away from direct sunlight. You can mount the thermostat directly on the wall or you can install it on top of a wall-box.



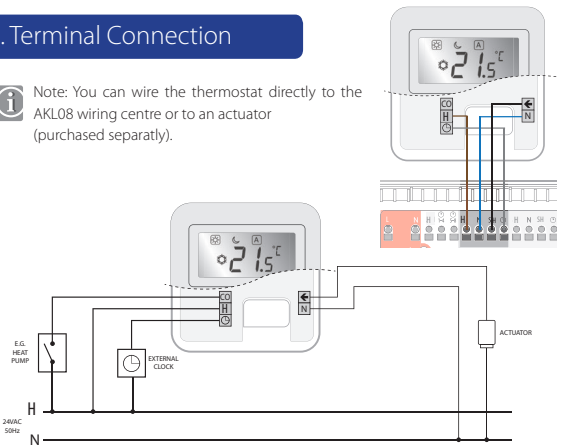
Gently remove front housing and make the wiring connections.



**Wall mounting**  
 For wall mounting, mark the correct position on the wall and mount the rear case to the wall.

# 2. Terminal Connection

**Note:** You can wire the thermostat directly to the AKL08 wiring centre or to an actuator (purchased separately).



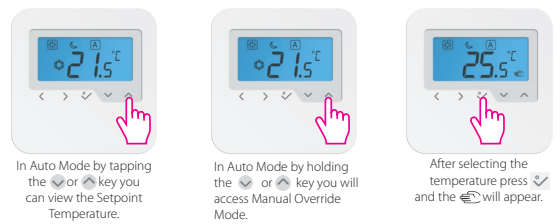
# 3. Thermostat Icons

	BOX means to select mode. e.g. ☀ means Hi temp is selected ❄ means the Hi temp is not selected.
	Sunny: Hi comfortable temperature
	Moon: Low comfortable temperature
	Indicates AUTO ON or AUTO OFF
	Frost Protection Indicator: Frost protection is active, not available in cooling mode.
	Temporary override indicator: If the set temperature is changed when in program mode, the hand will appear until the next programs starting time.
	Heat Mode indicator: Indicates heating is running
	Cool Mode indicator: The icon is flashing when cooling mode active
	Temperature indicator • Display the room temperature • Display the set temp

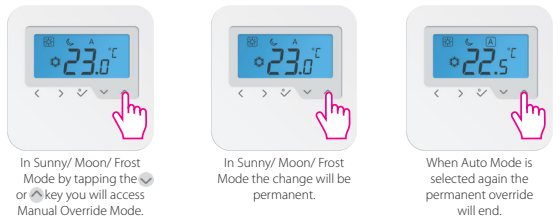
# 4. Button Functions

	Mode selection. Long press to return home without saving.
	OK key. Short press to confirm selection. Long press to save and return home. Long press to enter Temperature offset Heat/Cool.
OR	Decrease or increase Setpoint Temperature.

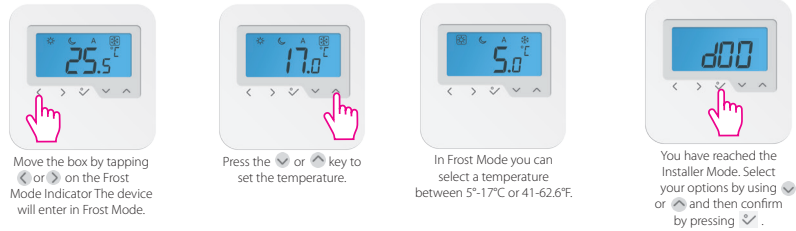
**Note:** You can change the Modes by tapping or and position the box on the desired one.



**Note:** In Auto Mode the change in Manual Override Mode is temporary. This is indicated by the icon. When used as a stand alone, the change is permanent.



# 5. Frost Protection



**Note:** During the set-up, press at any time to return to the previous screen or long press to return to Home display.

# 6. Night Setback Function (NSB)

NSB Mode depends on the NSB wired connection.

0V=NSB OFF  
 24V=NSB ON

This function will be activated only when the device is running in Auto Mode.



If the thermostat receives a NSB signal then it will switch to . If the NSB is turned off, the unit will function in and . You can manually set the thermostat on NSB by moving the box on the .

**Note:** The NSB function will be available only when you also have another device that can send a NSB signal (AHTR3024 thermostat, external clock, NSB switch or another clock thermostat).

# 7. Installer Mode

**Note:** LCD backlight is activated by pressing any key.



**Note:** This function allows you to customise your thermostat as you desire. To select the device level use to to the next one d0 > d1 > d2 > d5. On the desired level press then you can choose your preferences by using or .

**Note:** All electrical installation work should be carried out by a suitable qualified electrician or other competent person.