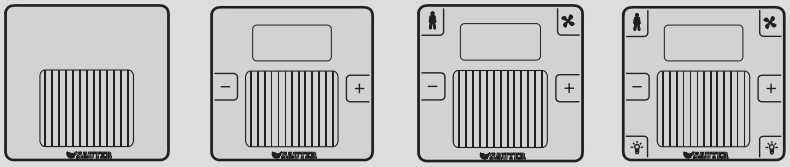
Room operating unit ecoUnit110...146 uni-directional **en** **Quick reference** **SAUTER EY-RU 141...146**

Contents:



EY-RU110 EY-RU141 EY-RU144 EY-RU146

1 General information

This document is not a comprehensive technical data sheet; rather, it describes the main steps to be taken in order to operate a Sauter ecoUnit1 room operating unit as a uni-directional unit.
The profile in this operating mode is EPP*: A5 -10 -01
In addition, two PTM buttons are available on the EY-RU146 (EEP*: F6 -02 -01).

*EEP V2.61

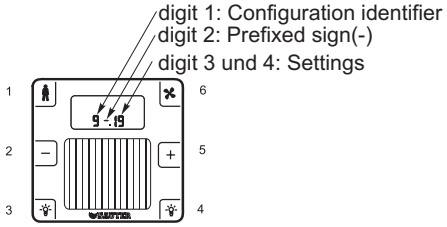
The ecoUint110 room sensor is pre-set to uni-directional operating mode and the default values cannot be changed because there is no LCD.

2 First steps

2.1 Uni-directional operating mode

The ecoUnit1 room operating unit has to be configured appropriately to set it to uni-directional operating mode, i.e. configuration identifier 5 must be set to a value of 01...04.

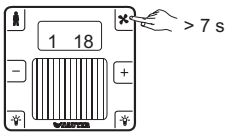
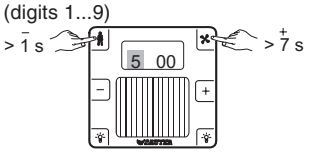
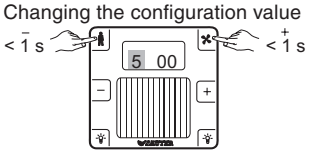
Configuration display

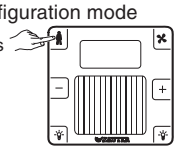


The following table indicates the meanings of the possible configurations. The identifiers (6-9) shown in this table are valid only for the uni-directional mode.

5	Select/block function(s) for buttons 1 to 6 (only ecoUnit144 and ecoUnit146)	00 (bi-directional mode) default ecoUnit14x Uni-directional modes: 01 only dXs (default for ecoUnit110) 02 dXs + occupancy function 03 dXs + fan function 04 dXs + occupancy + fan
6	Select display for actual value °C or °F	00 = °C (default) 01 = °F
7	Display and setting range for setpoint correction (max ± 9.9 K) Display without °C or °F (- 9.9 °...+ 9.9 °)	00...99 ± 9.9 K 20: - 2.0 °...0.0 °...2.0 ° (default)
8	Resolution of setpoint correction range (number of stages based on 0...max. value) Transmission of setpoint correction is defined as unsigned number 0...255. The set resolution changes in value each time the button is pressed: Value = 255/ (2x resolution)	00...99 Default 04 = 255 / (2 x 04) = 32 Example of default setting (configuration identifiers 7 + 8) Displayed range 20: -2.0°...2.0° Resolution 04: The range 0...2.0°C is divided into 4 stages Display: -2/-1.5/-1/-0.5/0/0.5/1/1.5/2 Value transmission (approx.): 0/32/64/128/160/192/224/256
9	Correction value: Calibrate displayed value (Xi); the correction value is added to the measured actual value. The device sends Xi plus measured correction value.	00...99 0.0...9.9 K Digit 2 = prefixed sign (–) Default 0: 0 K
A	Show setpoint correction with or without unit	00 Display with unit Setpoint correction is displayed with the unit °C or °F 01 Display without unit Setpoint correction is displayed without unit. Only the numerical value is shown. Default 0: Display with unit
F	Room operating unit firmware version	Show setpoint correction value without unit

The following table describes the procedure for changing the configuration:

	Step	Action
1.	Switching to configuration mode 	• Press and hold down button 6 for at least 7-10 seconds; it then changes to the configuration mode. During this time, the display is turned on for approx. 5 seconds, then it remains off for 2 - 5 seconds before switching to configuration mode. • Digits “XXX” are shown (1. Position = configuration identifier, positions 2+3 = set value). • Starting from now, button 1 or 6 must be pressed within 10 seconds, otherwise the device will automatically switch back to the operating mode.
2.	Selecting a configuration (digits 1...9) 	• You can now select the required configuration identifier using button 6 (= increment), button 1 (= decrement). The buttons should be pressed for longer than one second. • After the highest configuration identifier is reached, the display automatically switches back to identifier 0. • If identifier 0 is shown and you switch back to the preceding identifier, the highest identifier is shown. • To switch to the uni-directional operating mode, configuration identifier 5 must be selected.
3.	Changing the configuration value 	• You can change the current value with button 6 (= increment) and button 1 (= decrement); to do this, press the buttons briefly, i.e. for less than one second. • Press button 1 or 6 for approx. 2 seconds to switch to the next or previous configuration identifier. • The function selection 01...04 can now be set for the uni-directional mode.

4.	Saving the configuration and exiting the configuration mode > 5 s 	• Press button 1 for approx. 5 seconds. The previous configuration identifier is displayed for approx. 2 seconds. The display is then switched off. The data has now been saved and you can release the button.
5.	Exiting from configuration mode without saving data	• If no button is pressed for approx. 10 seconds, the system switches to operating mode automatically. Any changed data will not be saved.

2.2 Description of EEP radio telegram: A5-10-01

DATA BYTES:

Type = 01
Temperature sensor; setpoint, fan speed and occupancy mode

Data byte	Contents	Value range
DB_3	Fan	
	Auto speed	210...255
	Speed 0	190...209
	Speed 1	165...189
	Speed 2	145...164
	Speed 3	0...144
DB_2	Setpoint	min. –... max. +, linear n = 0...255
DB_1	Temperature	0...40 °C, linear n = 255...0
DB_0.BIT_3	Learn button	0 = Teach-in telegram
		1 = Data telegram
DB_0.BIT_0	Occupancy button	0 = Button pressed

Im Surinam 55
CH-4016 Basle
Tel.: +41 61 695 55 55
Fax: +41 61 695 55 10
www.sauter-controls.com
info@sauter-controls.com

Printed in Switzerland
Subject to change.