S

en **Operating Instructions**   **RDE100.1RFS**
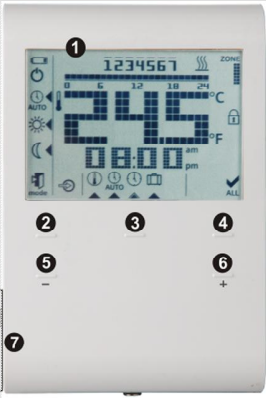
The RDE100.1RFS consists of a wireless room thermostat RDE100.1RF and an RCR100RF receiver.
The units allow you to set the ideal room temperature at the time you want.
There are several switching patterns available that can be set to meet your individual needs.

RDE100.1RF

1 Display

▭	Indicates that batteries need to be replaced	**08:00** Time of day	
⏻	Frost protection (heating) active	am	Morning: 12-hour format
		pm	Afternoon: 12-hour format
⏱ AUTO	Auto Timer mode	✔ ALL	Confirmation
	View and set Auto Timer	°F	Room temperature in degrees Fahrenheit
☼	Comfort mode	°C	Room temperature in degrees Celsius
☾	Economy mode	🔒	Button lock activated
mode	Escape	245	Room temperature, setpoint, etc.
⊸	External input enabled	ZONE	Display of zone (default = 1)
①	Permanent setpoint setting	≋	Heating On
🕐	Weekday and time of day setting	1234567	Weekday 1 = Monday Weekday 7 = Sunday
⬚	Holiday mode setting	▬▬	Timer bar
		🌡	Current room temperature

2 Change operating mode

3 Set

4 Ok

5 Decrease value

6 Increase value

7 Battery holder

RCR100RF

8 Indication of data transmission and operating state (LED)

9 Initialization of wireless communication with transmitter (LEARN button)

Do you want to set the time of day and the weekday?

Set	Proceed as follows:
Ok	• Press **Set** and select 🕐
+	• Press **Ok** and the time of day flashes for setting
−	• Press **+** or **−** to adjust the time of day
Mode	• Press **Ok** to confirm
	• The weekday flashes; press **+** or **−** to select the desired day
	• Press **Ok** to save the setting
	• Press **Mode** to exit or wait for the program to exit automatically

Are your rooms too warm/too cold?

+ **−** **Ok** **Set** **Mode**	Press **+** or **−** to increase or decrease the room temperature setpoint in increments of 0.5 °C/1 °F. Proceed as follows: • Press **+** or **−** to change the setpoint temporarily. This readjustment is reset as soon as the operating mode changes • Press **Ok**, **Set** or **Mode** to save the setting or wait for the program to exit automatically • To lock the setpoints, use parameters P06 and P08

Do you want to change the operating mode?

mode	The thermostat provides Comfort, Economy and automatic mode. Changeover between the operating modes can be made manually by pressing **Mode**. ☼ **Comfort** mode is the permanent (24 h) selection of Comfort. Select this operating mode to maintain Comfort temperature permanently without any time switch. It is used during occupancy periods, for example. ☾ **Economy** mode is the permanent (24 h) selection of Economy. Select this operating mode to maintain the Economy temperature permanently without any time switch. It is used during non-occupancy periods (e.g. at night). 🕐 In **Auto Timer mode**, the operating modes (Comfort, Economy) are changed automatically according to the time switch settings. **!** **Note:** **Frost protection** is a function always active in the background. As soon the room temperature falls below 5 ºC, the unit automatically activates heating 〰.

Do you want to set permanent temperature setpoints?

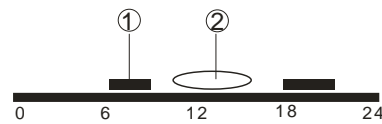|	
Set **Ok** **+** **−** **Mode**	• Press **Set** and select 🎱 • Press **Ok** to confirm • Press **Mode** to select the operating mode (Comfort or Economy) • Press **+** or **−** to adjust the setpoint permanently • Press **Ok** to confirm • Press **Mode** to exit or wait for a timeout to exit automatically **!** **Note:** This permanent setpoint is used during Auto Timer mode.

✎ Energy saving tips without loss of comfort

• Select Auto Timer mode for the heating period, and set the time switch according to your normal habits at home
• Select Economy or Holiday mode for longer periods of non-occupancy and the summer period

Do you want to set your Holiday mode?

Set **Ok** **+** **−** **Mode**	Use the Holiday mode to set the thermostat to a constant room temperature while absent**.** • Press **Set** and select [🛏] • Press **Ok** to confirm • Press **+** or **−** to adjust the temperature setpoint • Press **Ok** to confirm • Press **+** or **−** to set the number of days for holidays (0 = Holiday mode Off) • Press **Ok** to save the setting • When Holiday mode is activated, the remaining days are displayed **!** **Note:** If you press **Mode** while Holiday mode is active, the function is turned off and symbol [🛏] disappears. If the Comfort and Economy setpoints are both locked, the lowest locked setpoint is the Holiday mode setpoint. You can adjust the setpoint from 5 ºC up to the lowest locked setpoint.

Do you want to enter your own time switch?

Option 1: Time switch with individual day settings (P11=0)

Set **Ok** **+** **−** **Mode**	You can select Comfort or Economy mode in steps of 15 minutes throughout the day. The 0:00 to 24:00 hour time bar allows you to set the operating mode for the selected day(s). Example: ① Visible bars: Control to Comfort temperature ② Invisible bars: Control to Economy temperature When Auto Timer mode is enabled, changeover between the operating modes is automatic after the settings are saved. Proceed as follows: 1) Press **Set** and select 🕐. 2) Press **Ok** to confirm. 3) Time switch for Mon (1) is displayed. 4) Press **+** or **−** to select the weekday, from Mon (1) to Sun (7). 5) Press **Ok** to confirm the selection and initiate time programming. **During programming**: 6) Press **Mode** to select the operating mode (Comfort or Economy) **or** 7) Press **+** or **−** to set the time in steps of 15 minutes for the selected mode. 8) Press **Ok** to save the time switch. 9) Repeat steps 4-8 for all remaining days (if required) **or** 10) Press **Mode** or wait for the program to exit automatically.

Option 2: Time switch with the same 7-day settings (P11=1)

Set Ok + − Mode	You can set the time switch so that all settings apply to the 7 weekdays. Example: ① ② 0 6 12 18 24 ① Visible bars: Control to Comfort temperature ② Invisible bars: Control to Economy temperature Proceed as follows: 1) Set the parameter (P11=1). Please refer to section "Do you want to change parameters". 2) Press **Set** and select ⏰AUTO. 3) Press **Ok** to confirm. 4) Time switch for Mon (1) - Sun (7) is displayed. 5) Press **Ok** to initiate time programming. **During programming**: 6) Press **Mode** to select the operating mode (Comfort or Economy) **or** 7) Press **+** or **−** to set the time in steps of 15 minutes for the selected operating mode. 8) Press **Ok** to save the time switch. 9) Press **Mode** or wait for the program to exit automatically.

Option 3: Time switch with 5-2-day settings (P11=2)

set ok + − mode	You can set Monday - Friday and Saturday - Sunday at the same time. Example: ① ② 0 6 12 18 24 ① Visible bars: Control to Comfort temperature ② Invisible bars: Control to Economy temperature Proceed as follows: 1) Set the parameter (P11=2). Please refer to section "Do you want to change parameters". 2) Press **Set** and select ⏰AUTO. 3) Press **Ok** to confirm. 4) Time switch for Mon (1) – Fri (5) is displayed. 5) Press **+** or **−** to select Mon (1) – Fri (5) or Sat (6) - Sun (7). 6) Press **Ok** to confirm the selected period and initiate time programming. **During programming**: 7) Press **Mode** to select the operating mode (Comfort or Economy) **or** 8) Press **+** or **−** to set the time in steps of 15 minutes for the selected mode. 9) Press **Ok** to save the time switch. 10) Repeat steps 5-9 for the other period if necessary **or** 11) Press **Mode** or wait for the program to exit automatically.

Factory default of 7-day time switch

Default value	Day/s	Comfort mode	Economy mode
	Mo (1) – Fr (5)	6:00 – 8:00 hr 17:00 – 22:00 hr	22:00 – 6:00 hr 8:00 – 17:00 hr
	Sa (6) – Su (7)	7:00 – 22:00 hr	22:00 – 7:00 hr

Do you want to pair transmitter and receiver?

| + − Learn Mode	The RDE100.1RF communicates with the RCR100RF at a frequency of 433 MHz. To pair transmitter and receiver, proceed as follows: **RCR100RF receiver setting:** 1) Press and hold the **LEARN** button on the RCR100RF for at least 3 seconds and then release it. 2) Red and green LEDs flash alternately to indicate receiver is in learning mode. **RDE100.1/RF transmitter setting:** 3) On the transmitter, set the parameters (refer to section "Do you want to change parameters?"). 4) Check to ensure that parameter P19 is not 0, because this would mean that the wireless function is disabled. By default, parameter P19 is 1. 5) Proceed to parameter P20. Press **Mode** and parameter P20=0 (OFF) flashes. Adjust the value by pressing **+** to change to P20=1 (ON), then press **Mode** to confirm. 6) During the stages of wireless learning, the LCD displays "rF" and "Lrn". Wait for time out, and the transmitter exits the parameter setting mode. **Successful wireless learning:** 7) The green LED on the RCR100RF flashes for 10 minutes to indicate that the receiver has successfully completed wireless learning. **Recommendation:** 8) *Additional test to ensure the wireless signal is fine:* On the RDE100.1/RF, change the operating mode by pressing **Mode** or change the setpoint by pressing **+** or **−**. On the RCR100RF, the green LED should flash for 3 seconds before changing to constantly green. At the same time, observe your radiator, boiler or heater indication (if it has one) to ensure that it changed the operating mode. 9) If step 7 or 8 is working fine, this means you have successfully paired the units. **Unsuccessful wireless learning:** 10) If the RCR100RF fails to receive wireless data, the red LED starts to flash **. Repeat steps 1 to 8 until pairing is successful. **!** **Note:** Always start receiver learning before starting pairing with the transmitter. The units must be placed such that transmitter and received signals have limited external wireless interference. **In normal operation, if a drop in wireless communication occurs due to unforeseeable noise, just leave the receiver and it will recover automatically. The pairs are saved even if there is a power shut down. Communication restarts automatically after several minutes without any user action.

Does symbol 🔲 appear on the display?

Symbol 🔲 is displayed when the batteries are low. Replace them with 2 new alkaline batteries type AAA. Proceed as follows:

- Get 2 new alkaline batteries type AAA
- Remove the battery holder and then the batteries. Insert the new batteries and, within 1.5 minutes, replace the battery holder
- Ensure the exhausted batteries are disposed of correctly, in compliance with environmental requirements

Do you want to lock the keypad?

Mode	Press and hold **Mode** for at least 7 seconds to activate a button lock. Repeat to unlock. The unit operates normally when the buttons are locked, but changes cannot be made.

Receiver's LED indication

State of receiver	State of LED
Power up (or reset)	The red and green LEDs flash alternately for 5 seconds, then change to constantly red. Note: If the receiver was previously programmed, it shows immediately constantly red.
Learning mode	The red and green LEDs flash alternatively.
Successful learning mode	If RCR100RF learning is successful, the green LED will flash for 10 minutes.
Signal ok and output status change	The green LED is constantly lit, and if the output status changes, the green LED flashes for 3 seconds, then changes back to constantly green.
Fail to receive wireless data	If the RCR100RF fails to receive wireless data, the red LED will start to flash after 125 minutes. If the RCR100RF signal is recovered, it will return to the previous LED state.

Do you want to change parameters?

+ − Ok Mode	If you want to change control parameters, proceed as follows:
	- Press **+** and **−** simultaneously for 5 seconds
	- Release the buttons and parameter P01 is displayed on the bottom segment
	- Press **+** or **−** to scroll to the parameter that needs to be changed
	- Press **Ok** to select the parameter
	- Press **+** or **−** to change the value
	- Press **Ok** to confirm the changed value
	- Press **Mode** to exit the parameters without saving or wait for the program to exit automatically

Parameter list

Parameter no.	Description	Setting range (default)
P01	Time format	1 = 24:00 hours (default) 2 = 12:00 am/pm
P02	Selection of °C or °F	1 = °C (default) 2 = °F
P03	Standard temperature display	1 = room temperature (default) 2 = setpoint
P04	Temperature sensor calibration	-3...3 °C Step 0.5 °C (-6...6 °F, step 1 °F) Default: 0 °C
P06	Comfort setpoint lock	0 = OFF (default) 1 = ON → locked according to setting in permanent temperature setpoint
P08	Economy setpoint lock	0 = OFF (default) 1 = ON → locked according to setting in permanent temperature setpoint
P09	Buzzer	0 = OFF 1 = ON (default)
P10	Show frost protection icon	0 = OFF (default) 1 = ON
P11	Time switch type for Auto Timer	0 = individual days (default) 1= all 7 days 2= 5-2 days
P12	Periodic pump run	0 = OFF (default) 1 = ON
P14	X1 external input	0 = no input (default) 1 = external sensor 2 = digital input
P15	Temperature limitation	0 = OFF (default) 1 = ON
P16	Max. limitation temperature for floor heating	35...60 °C, step 1 °C or 95...140 °F, step 1 °F Default: 55 °C
P17	Window contact features	0 = normally open contact (default) 1 = normally closed contact
P19	Sequential number of room unit	0 = no display of zone (RF off) 1 = zone number 1 (for standard RF) (default) 6 = zone number 6
P20	RF learn	0 = OFF (default) 1 = ON
P21	Scanning rate for the capacitive buttons Note: Shorter scanning rate means shorter battery life	0.2 = 0.25 s 0.5 = 0.5 s 1.0 = 1.0 s (default) 1.5 = 1.5 s
P22	Reload factory settings	0 = OFF (default) 1 = reload
P23	Software version information	No adjustment possible