Energy-efficient heating with the RVD23... district heating controller

en Operating Instructions

You want to switch the heating on

1. Is the plant ready to operate? Check the mains isolator.
2. Check the time of day and the weekday (for readjustments, refer to section "You want to set the clock").
3. Press button Auto.

You want to heat in automatic mode

Automatic mode controls the room temperature according to the heating program entered.

1. Press button Auto (will light up).

You want to heat in continuous mode

In continuous mode, the room temperature is maintained at the level set with the setting knob.

1. Press button (will light up).
2. Adjust the required room temperature with setting knob.

You want to leave your home for a certain period of time

Set the plant to standby. It is then shut down, but will remain protected against frost.

1. Press button (will light up).

Meaning of info given on the display

Bar under ... is lit	*Meaning*
	Nominal room temperature is maintained (adjustment made with the setting knob)
	Reduced room temperature is maintained

Display shows ...	*Meaning*
	Frost protection temperature is maintained
ECO	Presently no heating required
⌈ or ⌋	One of the limitation functions is active
BUS	Controller is connected to the data bus

You want to provide d.h.w.

First, adjust the required temperatures. You are given the choice of a normal and a reduced d.h.w. temperature.

Press ...	*Display*	*Press ...*	*... to adjust the required temperature*
Prog	41	− +	NORMAL d.h.w. temperature setpoint
Prog	42	− +	REDUCED d.h.w. temperature setpoint

For d.h.w. heating, you have the two choices:

Automatically:

Press button (button light steady on). The d.h.w. is heated up according to the time program.

Manually:

Press button for 3 seconds (as a confirmation, the button flashes for 3 seconds.). The d.h.w. is immediately heated up.

You want to readjust the temperature required for your rooms

1. Adjust the required nominal room temperature with the setting knob. The setting is active:
   - In automatic mode during the heating periods entered in the heating program
   - Always in continuous mode
2. Adjust the other temperatures and the heating curve using the buttons:

Press ...	*Display*	*Press ...*	*... to adjust the required temperature*
Prog	01	***Non-adjustable***	Display of adjusted setting knob temp.
Prog	02	− +	Room temperature for reduced heating
Prog	03	− +	Room temp. for holidays/frost protection
Prog	05	− +	Heating curve slope

Your rooms are too cold or too warm

Especially in mild weather:

Readjust the room temperature with setting knob.

Especially in cold weather:

Readjust the heating curve slope on operating line 05:

- Room temperature too high: reduce slope by about 0.5
- Room temperature too low: raise slope by about 0.5

Especially in the night:

Readjust the temperature for reduced heating on operating line 02.

Each time you make a room temperature readjustment, wait two days. The controlled system requires time to adapt!

You want to set the clock

Press ...	*Display*	*Press ...*	*...to set the time of day and the weekday*
Prog	13	− +	Time of day
Prog	14	− +	Weekday
Prog	15	− +	Date (e.g. **02.12** = 2nd December)
Prog	16	− +	Year

You want to change the heating periods

1. Select weekday whose heating periods you want to change:

Press ...	*Display*	*Press ...*	*...to select the weekday or the entire week*
Prog	06	− +	1 = Monday 2 = Tuesday, etc. 1-7 = entire week

2. For the selected weekday, enter the times required for the heating periods:

Press ...	*Display*	*Press ...*	*...to adjust the start and the end*
Prog	07	− +	Start of first heating period
Prog	08	− +	End of first heating period
Prog	09	− +	Start of second heating period
Prog	10	− +	End of second heating period
Prog	11	− +	Start of third heating period
Prog	12	− +	End of third heating period

You want to change the d.h.w. program

Your controller has a second time program.

If it is assigned to d.h.w. heating (contact your heating engineer), you can change it on operating lines 17 to 23:

1. Select weekday whose program you want to change:

Press ...	*Display*	*Press ...*	*... to select the weekday or the entire week*
Prog	17	- +	1 = Monday 2 = Tuesday, etc. 1-7 = entire week

2. For the selected weekday, enter the times required for enabling d.h.w. heating:

Press ...	*Display*	*Press ...*	*...to set the start and the end of the enabling periods*
Prog	18	- +	Start of first period
Prog	19	- +	End of first period
Prog	20	- +	Start of second period
Prog	21	- +	End of second period
Prog	22	- +	Start of third period
Prog	23	- +	End of third period

During the enable phases, the d.h.w. is heated up to the normal temperature (set on operating line 41), between the phases to the reduced temperature (set on operating line 42).

You want to read the temperatures

Press ...	*Display*	*... to read the temperature in °C*
Prog	24	Room temperature
Prog	25	Outside temperature
Prog	26	D.h.w. temperature
Prog	27	Heating flow temperature

Which input has which number?

1. Press operating mode button lit.
2. Select the individual numbers by pressing - +.

Number	*Input*	*Number*	*Input*
0	B9	***7***	B72
1	B1	***8***	B31
2	B3	***9***	B32
3	A6	***10***	B12
5	B7	***11***	DC 0...10 V
6	B71		

Contact your heating engineer.

You want to go on holiday

You can enter the dates of maximum 8 holiday periods per year:

Press ...	*Display*	*Press ...*	*... to select the holiday number and the associated dates*
Prog	31	- +	**1** for the first holiday period of the current year
Prog	32	- +	Date of the first day of the first holiday period
Prog	33	- +	Date of the last day of the first holiday period
Prog	31	- +	**2** for the second holiday period of the current year
Etc.	Etc.	Etc.	Etc.

During your holidays,

- the room temperature will be maintained at the holiday setpoint level entered on operating line 03
- the d.h.w. will not be heated up

Your heating system does not operate as required

- Check the fault messages.
  Should faults occur, the display shows Er (error) and an error code. Contact your heating engineer and give him the error code displayed.

Press ...	*Display*	*... to read the error code*
Prog	50	10 = error outside sensor 30 = error flow sensor heating circuit 40 = error return sensor (primary side) 42 = error return sensor 1 43 = error return sensor 2 50 = error storage tank sensor 1 52 = error storage tank sensor 2 54 = error flow sensor d.h.w. circuit 61 = error room unit 81 = short-circuit on bus 121 = flow temperature heating circuit not reached 123 = flow temperature d.h.w. circuit not reached
Other errors are possible, depending on the type of plant, configuration, etc.		

- Does the operating mode button flash? If yes, the controller's operating mode is overridden by remote operation
- Are all fuses of the plant in order?
- Have controller settings been changed?
- Has the valve been disengaged from the actuator? If yes, engage it again

The controlled system has become defective

If the proper functioning of your heating control system is no longer ensured, press button (manual operation, button will light up). Now, you can manually regulate the supply of heat via the heating circuit valve by pressing buttons - +.

Inform your heating engineer.

Energy savings tips

- During the day, do not allow room temperatures to exceed 21 °C
- Air rooms for short periods of time only, but with the windows fully open
- In unoccupied rooms, set the thermostatic radiator valves to their frost protection position
- Make certain there are no curtains, furniture, etc., in front of the radiators
- Close shutters and blinds whenever possible
- Check heat consumption at regular intervals