MANUAL

DOMOTESTA RDO300A

Operating instructions

Electronic heating controller:

The controller serves to automatically adapt the water temperature in the heating system to the climatic conditions, the heating needs and the time of day.

Heating is switched off by the controller as soon as the climatic conditions permit it, and is switched on again automaticly when necessary.

Apparatus data:

Supply voltage:	230VAC +10-15%; 50Hz
Power consumption:	9VA
Relay contacts:	4(4)A 250V~
per terminal max.	6(6)A 250V~
Approval:	EN60730
operation	Type 1C
protection class	II
sealing	IP40 (front)
Operating environment	normal
Ambient temperature	0..50°C
Ambient humidity	class F acc. DIN40040

163774/04.05
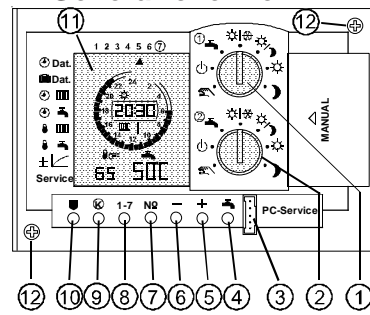Specifications are subject to change
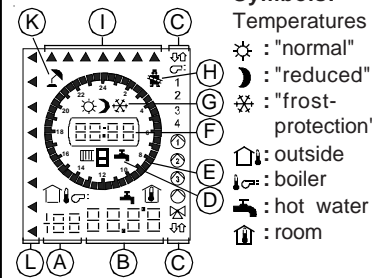
Table of contents

Page 1

Page 2

1. General overview

1 Mode switch 1
2 Room setpoint correction or mode switch 2
3 Service interface
4 Key : Hot water charging (🚰)
5 Key : Increase value (+)
6 Key : Decrease value (—)
7 Key : Parameter number (Nº)
8 Key : Day of week (1-7)
9 Key : Circuit selection [▥/🚰] (K)
10 Key : Function selection field (☰)
11 Display (LCD)
12 Fastening screws

2. Display overview

Fictitious illustration!

Symbols:
Temperatures
☼ : "normal"
☽ : "reduced"
❄ : "frost-protection"
🏠 : outside
🔥 : boiler
🚰 : hot water
🏠 : room

A Display 1 (temperature 1)
B Display 2 (temperature 2)
C Status displays if released (burner, pumps, mixing valves)
D Operating mode (switch clock) ▥: heating circuit/🚰: hot water
E Switch clock program
F Time
G Active temperature setpoint (☼☽❄)
H Indicator of chimney-sweep function (🧹)
I Day of the week (▲)
K Automatic summer operation (☂)
L Function selection display (◄)

Special displays on LCD:

Following flashing symbols are showing a superimposed program: (e.g. by remote control, external switches, below specified functions)
▥ : on the heating circuit
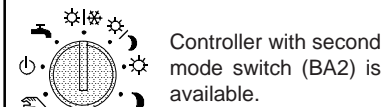🚰 : on the charging of hot water
🔥 : on the burner

On display 1 and 2:
EC 6h : Economy-function "☽/❄" active for the displayed time
PA 3h : Party-function "☼" active for the displayed time
HO15.02 : The holiday program is activated. Heating will be resumed on the morning of the displayed date.

3. Initial operation

Place mode switch (1 and 2) in position ☼☽ or ☼❄.

Heating is now operating according to the standard switch clock program. Enter time, date and year. (See time/date)

4. Mode switch

Controller with second mode switch (BA2) is available.

🖐 Manual operation and chimney-sweep function (🧹): Burner and heating circuit pump are in operation (BA2 only manual operation). The mixing output is dead. Hot water charging is permanently released.

(Emergency operation)

⏻ Standby: Heating and hot water charging OFF, (frost protection is active).

🚰 Summer operation: Heating OFF, (frost protection active). Hot water charging is released according to the switch clock program.

☼❄ Automatic heating operation ("normal"/"frost protection") according to the set switch clock program. Hot water charging is released according to the switch clock program. Select switch position ☼☽ in case of cold weather (danger of frost).

☼☽ Automatic heating operation ("normal"/"reduced") according to the set switch clock program. Hot water charging is released according to the switch clock program.

☼ Permanent heating operation with room setpoint "normal". The switch clock is not active. Hot water charging is released according to the switch clock program.

☽ Permanent heating operation with room setpoint "reduced". The switch clock is not active. Hot water charging is released according to the switch clock program.

5. Room setpoint correction

This rotary knob (if present on controller) permits the room setpoint temperature, to be altered "☼=normal" and "☽=reduced".
Range: set values ±3°C.
With room remote control (RFB5..):
The correction of the room setpoint changes the value programed on the controller (overlay of both settings).

6. Unique hot water charging

A unique hot water charging is allowed, independant of the hot water switch clock programm.

○🚰 : switch on hot water charging
🚰 : symbol flashes on the LCD
○🚰 : switch off hot water function

7. Nº (number) key

The type of controller and the software version number are displayed as long as key "Nº" is pressed.

10. Operation level 2

○☰ : **Key for function selection**

Operation level 2 is activated with the function selection key and the cursor "◄" is moved downwards each time the key is pressed. (Left cursor "◄" is lit -> operation level 2 active).

Fields when selecting functions:

⏱ Dat. : time, date, year
📅 Dat. : holiday program
⏱ ▥ : switch clock heating circuit
⏱ 🚰 : switch clock hot water
🌡 ▥ : heating circuit temp. setpoints
🌡 🚰 : hot water temp. setpoints
±∠ : heating characteristic line correction
Service : display temperatures and service data

○K : **Key for unit selection**

Circuit selection and corresp. display
▥2 : heating circuit with number
🚰 : hot water circuit
3 : energy circuit (i.e. boiler)

○№ : **number key**
1 20.30 : left parameter number "**1**"
○—/+ : **minus/plus key**
1 20.30 : right value "**20.30**"
value flashes -> is changeable!
value lit -> not changeable!

11. Setting the time/date

Time, date and year must be correctly entered!

○☰ : select field "⊕ Dat."
○№ : select the next value

○—/+ : alter the value

Parameter number and value:
1 20.30 : time of day (h.min)
2 20.01 : date (day.month)
3 1997 : year

12. Holiday program

Three holiday blocks are possible. The absence starting date (1, 3, 5=first day with room temperature setpoint "☀=frost protection") and the returning date (2, 4, 6=first day with room

temperature setpoint "☀=normal") are entered. Hot water charging is blocked.

Attention: If necessary increase the room temperature setpoint "☀=frost protection" to prevent excessive cooling down of the rooms.

○☰ : select field "▥ Dat."
○K : select heating circuit [▥2]

Activating holiday program:
1 - -.- - : holiday program not active
○+ : activate the current date

1 29.01 ☀ : first day of absence
○—/+ : alter date (day.month)
○№ : activate date of return
2 30.01 ☀ : date of return from holiday
○—/+ : alter date

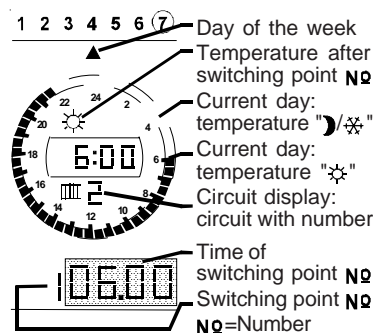**Switching off holiday program:**
○№ : activate date of return
2 15.02 ☀ : date of return from holiday
○— : press key until display shows
1 - -.- - : holiday program not active

Clearing holiday program:
○🚰 : press "🚰" for 5 seconds

13. Setting the switch clock

1 2 3 4 5 6 ⑦ — Day of the week
▲ — Temperature after switching point №
— Current day: temperature ")/☀"
6:00 — Current day: temperature "☀"
— Circuit display: circuit with number
— Time of switching point №
06.00 — Switching point №
№=Number

Display of switch clock program:
○☰ : field "⊕ ▥" heating circuit or field "⊕ 🚰" hot water
○K : select heating circuit [▥2]
○ 1-7 : select day of the week
1234567 : 1=Monday; 7=Sunday
▲ (triangle moves)
○№ : select number of switching point

1 06.00 : after 06:00 temp. "normal"
2 22.00) : after 22:00 temp. "reduced"
3 - -.- - : free switching point (6 switching points are possible)

Altering switching points:
2 22.00) : after 22:00 temp. "reduced"
○—/+ : set desired time

Adding switching points:
3 - -.- - : select free switching point
○+ : set desired time
3 16.00 ☀ : after 16:00 temp. "normal"
○№ : select next switching point
○+ : set desired time
4 22.00) : after 22:00 temp. "reduced"

Clearing switching points:
4 22.00) : select switching point to be altered (even No.)
○— : shorten time until time display
3 - -.- - : shows switching point cleared

Copying of switch clock-days:
○ 1-7 : select day to be copied
○🚰 : activate copy function
COPY : "COPY" is displayed
○ 1-7 : select day of week
▲ : day to be copied is lit
▲ : selected day of week flashes
○+ : copy data to day of week
○ 1-7 : select day of week, ...
○🚰 : switch off copy function

Loading the standard switch clock:
The initial operation data can be loaded.

○☰ : select field "⊕ ▥"/"⊕ 🚰"
○K : select heating circuit [▥2]

○🚰 : press "🚰" for 5 seconds
COPY : "COPY" is displayed

S-UH : factory switch clock [▥2]
S-Ub : factory switch clock 🚰 is loaded

Days	1-5 (MO-FR)	6-7 (SA-SU)
▥	7:00☀-23:00	8:00☀-23:00
🚰	6:30☀-20:00	7:30☀-21:00

14. Changing temperatures

○☰ : field "▤ ▥" heating circuit or field "▤ 🚰" hot water
○K : select heating circuit [▥2]
○№ : select parameter
○—/+ : change the temperatures

"Standard" room temperatures: ⌂
1 5.0°C ☀ ▥ : "frost protection"
2 15.0°C) ▥ : "reduced"
3 20.0°C ☀ ▥ : "normal"

"Standard" hot water temp.: 🚰
1 5°C ☀ 🚰 : "frost protection"
2 5°C) 🚰 : "reduced"
3 55°C ☀ 🚰 : "normal"
4 65°C ☀ 🚰 : "legionaire" (☀flash)

15. Correcting the temperature deviation

If, after several hours of operation, the temperature measured in the room deviates from the desired setpoint, this can be corrected as follows:

○☰ : select field "± ↙"
○K : select heating circuit [▥2]

1 20.3°C ⌂ : the actual temp. is displayed
○—/+ : enter the measured temp.

Load standard line for heating:
○🚰 : press "🚰" for 5 seconds
S--H : factory characteristic line for heating [▥2] is loaded

16. Display of service data

The different values can be displayed if the sensors are connected.

○☰ : select field "**Service**"
○№ : select parameter
○K #: select heating circuit [▥2] #
" : select energy circuit (boiler) "
○1-7 * : setpoint is displayed *

Parameter with temperature:
¯¯¯°C : temp. sensor short circuit
‗‗‗°C : temp. sensor interruption

1	55°C 🚰	: hot water *
2	53°C 🚰	: hot water 2 *
10#	-5°C ⌂̸	: outside temperature
12#	19.5°C ⌂	: room temperature *
14#	52°C	: flow temperature *
20	45°C	: return temperature
21"	60°C ⌸	: boiler temperature *
23	95°C	: flue gas temperature

Burner operating hours:
30" 1675 : stage 1 (in hours)
31" 347 : stage 2

Number of burner start ups:
40" 630 : stage 1 (display x 10)
41" 150 : stage 2 (display x 10)

Error memory:
90 YYXX : error with number
.... (max. to 99)
clear -> press "🚰" for 5 seconds

17. Display of controller errors

Detected errors are displayed (on the remote control if present). (Sensors: XX=1..23 same as temp. display)
Er YYXX: YY=1..9 : heating circuit
flashes YY=11..19 : energy circuit
XX : error number

Error acknowledgment if possible:
Press key (№, 1-7) on the controller

---

18. Operation disturbances

Please check the following items before reporting to the installation or service expert:

- Is an "**Er YYXX**" error displayed by the controller? (-> acknowledge!)
- Is the mode switch in the correct position? (☀❘ / ☀❘☀)
- Are time and date correct?
- Is the controller working in the heating mode? The valid room setpoint is indicated by the symbols ☀) ☀.

If the ▥/🚰/�interrupt heating depending on the temperature circumstances. (↗= indication of automatic summer operation)

- Is the remote control (if present) correctly set?
- Is the burner not working correctly? (->press the burner clearance key)
- Are all necessary switches switched on?
- Are all electrical fuses OK? (main switch?)

If you do not succeed in tracing and eliminating the cause of the disturbance, **inform your heating expert**! Emergency operation if necessary: If the heating generator and pump are still working, place the controller's mode switch on manual operation "✍". Adapt the boiler (-thermostat) to the required flow temperature. Open the mixing valve as far as necessary by

hand (with mixer).

19. General remarks

Energy consumption:
1°C higher room temperature may cause up to 6% higher energy consumption.
For fresh air in the rooms, briefly air for several times per day.

For your health's sake:
Make sure there is sufficient fresh air and humidity in the rooms.