



Remote-adjustable Radiator Controller

HR 10 F

Mounting and Operation

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Overview

For Your Information

Technical terms are explained in the glossary (Page 32). They are identified in the text by an *.

Application

The Roomtronic HR10 F controls the setpoint temperature* of a room. It consists of a drive unit and an operating unit and offers a number of comfortable functions:

- A separate time program can be entered for each weekday.
- The manual adjusting ring at the operating unit allows simple changing of the room temperature **at any time** – also in automatic mode*.

i The manual adjusting ring of the drive unit does not have any function.

- Self-monitoring properties offer protection against calcification, unintentional setpoint adjustment and frost.
- A flashing display *bATT* draws the user's attention to the fact that the batteries have to be changed.
- The Roomtronic changes automatically between summer and winter times.
- Various valve adapters and a window contact are furthermore available.

Scope of supply

1. Operating unit
2. Connecting cable
3. Drive unit
4. Valve lantern
5. Batteries



Mounting

Selecting the mounting site

- ▶ When selecting the mounting site take into consideration that the temperature measurement is influenced if the operating unit is mounted on an outer wall or near heat sources.

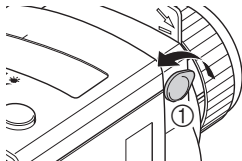
Mounting the drive unit

- ▶ Turn the radiator on before mounting. The radiator valve must be open.

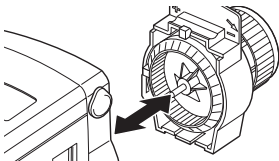
HINT: The correct setting of the valve is best checked with the central heating switched on. If the valve is correctly mounted, the radiator will become warm.

Separating the drive unit from the valve lantern

- ▶ Remove the old radiator controller, if necessary.
- ▶ To open the retainer bracket, turn the control knob (1) so the tip points upwards.



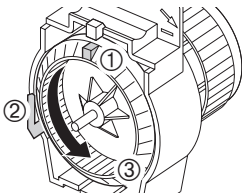
- ▶ Separate the drive unit and valve lantern.



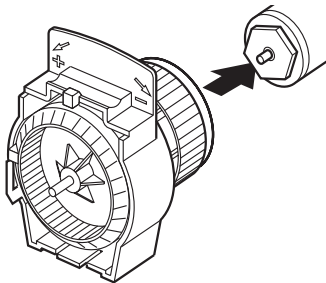
Mounting the valve lantern on the radiator valve

i The Honeywell-Braukmann, MNG, Heimeier, Junkers, Landis & Gyr 'Duogyr' valves do not require an adapter. For adapters for Oventrop-, Danfoss-, Herz- and Vaillant valves please refer to Page 29.

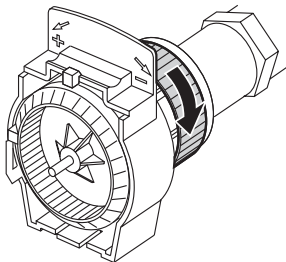
- ▶ Turn the adjusting ring (3) of the valve lantern to the left, until the nose (1) of the adjusting ring is positioned at the stop (2) of the housing.



- ▶ Slide the valve lantern onto the heating valve.



- ▶ Slide the metal knurled nut onto the thread of the heating valve.
- ▶ Tighten the metal knurled nut without using a tool.

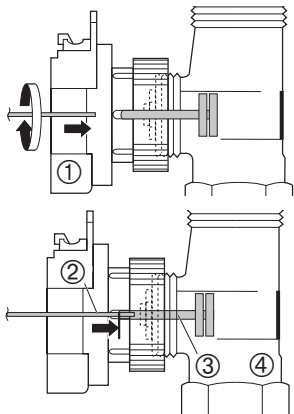


Checking the valve lift

i The nose of the adjusting ring is positioned at the stop of the housing (Page 6).

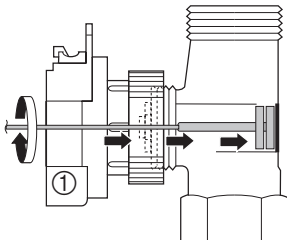
- ▶ Turn the adjusting ring of the valve lantern (1) to the right until some resistance is felt.

The spindle (2) of the valve lantern is now touching the valve pin (3) of the radiator valve (4).



- ▶ Turn the adjusting ring of the valve lantern (1) further to the right until the final stop is reached.

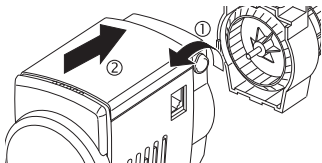
The radiator valve is closed. With the central heating switched on, the radiator cools down.



- i** The valve lift between the left-hand stop (open) and the right-hand stop (closed) has to amount to at least $\frac{3}{4}$ of a rotation.

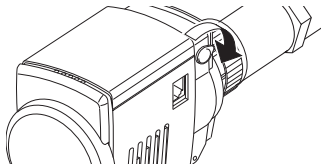
Connecting the drive unit and the valve lantern

- ▶ To open the retainer bracket, turn the control knob (1) so the tip points upwards.
- ▶ Slide the housing onto the valve lantern (2).



- ▶ To close the retainer bracket, turn the control knob so the tip points sideways.

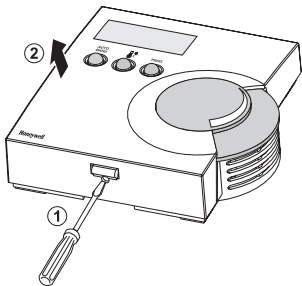
The housing of the drive unit and the valve lantern are connected firmly.



- After removing the valve lantern, each time you remount the lantern, you must carry out a manual or automatic adaptation (please refer to Page 25).

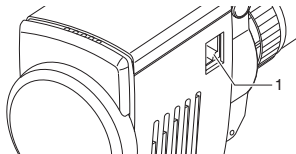
Mounting the operating unit

- ▶ Open the housing of the operating unit by pressing the concealed latching nose on the bottom (1) with a screwdriver while lifting the cover at the same time (2).
- ▶ Draw and drill the fastening holes in accordance with the drilling scheme on Page 28.
- ▶ Screw on the operating unit.



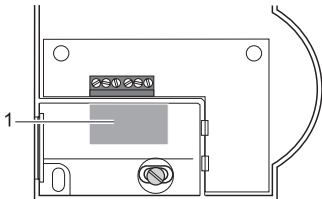
Connecting the operating unit and the drive unit

- ▶ Insert the plug of the connecting cable into the socket (1) of the drive unit housing.
- ▶ Cut the connecting cable to length so that it reaches from the drive unit to the operating unit.



Mounting

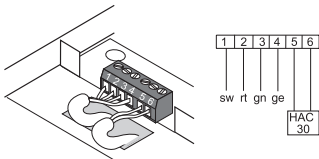
- ▶ Insert the open end of the cable through the recess (1) in the bottom panel of the operating unit.



- ▶ Connect the cable in accordance with the adjacent scheme.

Assignment and conductor colors of the cables:

- 1 = Black
- 2 = Red
- 3 = Green
- 4 = Yellow



Connection of the window contact HAC 30 is optional (please also refer to Page 3).

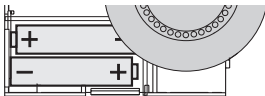
Inserting batteries into the operating unit

i The battery unit of the drive unit does not have any function.

- ▶ If necessary, remove any discharged batteries from the operating unit (please also refer to Setting the date and time, Page 14).

i Batteries should not be disposed of in the household garbage. You may be required by local law to dispose of discharged batteries in a certain manner. Always replace both batteries. Only use 1.5 V mignon batteries of the type LR06. Ensure that the polarity is correct.

- ▶ Insert the batteries into the battery compartment.
- ▶ Position the housing cover correctly at the top and latch it into the latching nose on the housing bottom.






The mounting has been completed.

The automatic adaptation is activated.*

- ▶ Set the date and time once automatic adaptation is complete.




Setting the date and time

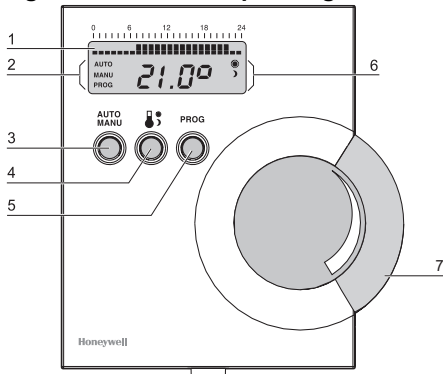
i The date and time must be set when first configuring the controller and after each battery change (please also refer to Page 13).

- ▶ Keep the  button pressed for at least 2 seconds.
A four-digit number – the year – flashes in the display.
- ▶ Turn the adjusting ring until the current year is displayed.
- ▶ Press the  button.
Two digits flash in the display for the month.
- ▶ Turn the adjusting ring until the current month is displayed.
- ▶ Press the  button.
- ▶ Adapt the day, hour and minute by the same method until the current setpoint temperature is displayed.
The date and time are set.

Operation

Display and operating elements at the operating unit

1. Display of the set heating and economy period
2. Display of the operating mode: AUTO, MANUAL or PROG
3.  button for changing between AUTO and MANUAL mode
4.  button for setting the comfort and economy temperature
5.  button for changing to programming mode
6. Display of comfort or economy temperature
7. Adjusting ring for setting the setpoint temperature or the date/time



- A rectangle symbolizes one hour of a heating period. A rectangle is displayed above a heating period of half an hour.

The setpoint temperature* at the Roomtronic can be modified as follows:

- Manually at the adjusting ring of the operating unit
- By a setpoint modification of the time program at the operating unit

Changing the setpoint temperature at the adjusting ring

- ▶ Turn the adjusting ring of the operating unit until the desired setpoint temperature is displayed.

Values between 8 °C and 28 °C can be set. The adjusting ring does not have a stop.

Opening or closing the heating valve completely

- ▶ Turn the adjusting ring of the operating unit until "OFF" (closed) or "ON" (opened) is displayed.

- Every change in the setpoint temperature remains valid until it is overwritten by the time program in automatic mode.

Changing the operating modes


The Roomtronic disposes of 3 operating modes:

- Automatic mode* (AUTO)
- Manual mode* (MANU)
- Programming mode* (PROG)

The automatic mode is the standard mode of the Roomtronic. Temperatures and heating periods are controlled by the time program. "AUTO" is displayed.


Changing to the manual operating mode

Changes to the setpoint temperature can be carried out at the adjusting ring of the operating unit in manual mode. The time program is not active.

- ▶ Press the  button at the operating unit.
"MANU" is displayed.

Changing to the programming mode

You can adjust the time program to your own requirements in programming mode. For further information please refer to Chapter "Adapting" from Page 20 onwards.

- ▶ Press the  button at the operating unit.
"PROG" is displayed.

Automatic functions

Window function

If you open a window so that the temperature drops strongly, the radiator controller closes the radiator valve in order to save energy.

The message *OPEN* is then displayed in the operating unit display.

When the temperature rises again the radiator controller returns to normal operation, however at the latest after 30 minutes. The optional window contact HAC 30 allows you to couple the closing of the heating valve directly to the opening of a window.

Protection against lime

Once a week the drive unit opens and closes the radiator valve automatically and thus protects it against lime deposits. The message *AdAP* or *AdP* is then displayed.

Anti-freeze

If the temperature drops below 6 °C, the drive unit opens the heating valve until the temperature rises above 8 °C again. The symbol ✱ flashes in the display. The anti-freeze function cannot be de-activated.

Emergency operation when the batteries are flat

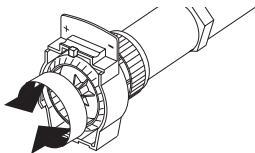
- ▶ Separate the housing of the drive unit from the valve lantern (please refer to Page 5).

In order to open the radiator valve:

- ▶ Turn the blue adjusting ring at the valve lantern towards the plus sign.



In order to close the radiator valve:

- ▶ Turn the blue adjusting ring at the valve lantern towards the minus sign.





Disabling the Roomtronic (child-proofing)

Disabling the Roomtronic

- ▶ Keep the  and  buttons pressed simultaneously for at least 2 seconds.


"b10c" is displayed. The setpoint cannot be changed by turning the adjusting ring of the operating unit.

Reversing disabling at the Roomtronic

- ▶ Keep the  and  buttons pressed simultaneously for at least 2 seconds.

The Roomtronic can be operated again.

Adapting

- i** You can abort the settings carried out at any time by pressing the  button. The Roomtronic then returns to automatic mode. The last changes are rejected.

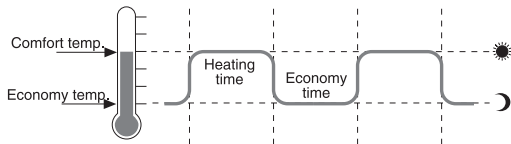
Temperatures and control periods

The Roomtronic changes between 2 setpoint temperatures ...

- **Comfort temperature**  Normal living temperature
- **Economy temperature**  During absence or at night

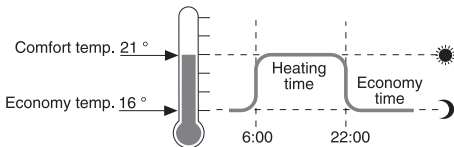
... and 2 periods:

- **Heating period** Heating up to the comfort temperature
- **Economy period** Lowering to the economy temperature






Time program with two heating and economy periods

Works settings



Adapting the comfort and economy temperatures

- ▶ Press the  button.
The current comfort temperature is displayed flashing.
- ▶ Turn the adjusting ring until the desired comfort temperature is displayed.
- ▶ Press the  button again.
The current economy temperature is displayed flashing.
Turn the adjusting ring until the desired economy temperature is displayed.
- ▶ Press the  button again.
The comfort and economy temperatures have been changed.





Adapting the heating and economy periods

You can set a first heating and economy period and, if required, a second one for each weekday.


- i** Each heating period must also have an economy period assigned to it.


HINT: First adapt the heating and economy periods for all the weekdays simultaneously. If necessary, change the heating and economy periods of individual days in the next step.

Changing the heating and economy periods for all the weekdays simultaneously

- ▶ Press the  button.
The following text is displayed: 1-7.
- ▶ Press the  button again.
The current first heating period is displayed (e.g. 6.00).
- ▶ Turn the adjusting ring until the desired heating period is displayed.
- ▶ Press the  button again.
- ▶ Turn the adjusting ring until the desired economy period is displayed.
- ▶ Press the  button again.



If you do not want to set a second heating and economy period:

- ▶ Turn the adjusting ring until --:-- is displayed.
- ▶ Press the  button.

-
- ▶ Turn the adjusting ring until --:-- is displayed.
 - ▶ Press the  button.


The new heating and economy periods are effective for all the weekdays.

If you want to set a second heating and economy period:

- ▶ Turn the adjusting ring until the desired second heating period is displayed.
- ▶ Press the  button again.
- ▶ Turn the adjusting ring until the desired second economy period is displayed.
- ▶ Press the  button again.

The second heating and economy periods are effective for all the weekdays.

Changing the heating and economy periods for a single weekday

- ▶ Press the  button.
- ▶ Turn the adjusting ring until the desired weekday is displayed.



The values have the following meaning: 1 Monday, 2 Tuesday, etc. until 7 Sunday.

- ▶ Press the  button.



The desired weekday is selected.

- ▶ Turn the adjusting ring until the desired first heating period is displayed.

Adapting



- ▶ Press the  button again.
- ▶ Turn the adjusting ring until the desired first economy period is displayed.
- ▶ Press the  button again.

If you do not want to set a second heating and economy period:

- ▶ Turn the adjusting ring until --:-- is displayed.
- ▶ Press the  button.
- ▶ Turn the adjusting ring until --:-- is displayed.
- ▶ Press the  button.

The new first heating and economy periods are effective for the desired weekday.

If you want to set a second heating and economy period:

- ▶ Turn the adjusting ring until the desired second heating period is displayed.
- ▶ Press the  button again.
- ▶ Turn the adjusting ring until the desired second economy period is displayed.
- ▶ Press the  button again.

The new heating and economy periods are effective for the desired weekday.

Deleting the heating and economy periods

i Whenever a heating period is deleted, the corresponding economy period has to be deleted too, and vice versa.

- ▶ Proceed as described in the above sections on "Changing heating and economy periods". Turn the adjusting ring respectively to the right until --:-- is displayed.

Adaptation at the radiator valve

Activating automatic adaptation

The **automatic** adaptation has to be activated after you have replaced the radiator valve, e.g. after you have moved or have replaced the radiator.

- ▶ Remove the batteries from the battery compartment.
- ▶ Press the **PROG** button and re-insert the batteries with the **PROG** button depressed.



AUTO *AdAP* is displayed. *Ad_2* to *Ad_A* are displayed consecutively. The radiator controller carries out the automatic adaptation.

Activating manual adaptation

The **manual** adaptation can be used to solve various problems:

- If the radiator does not turn cold (valve does not close completely).
 - If the $E1$ symbol is displayed (no adaptation possible).
 - If the $E3$ symbol is displayed (valve lift too short or motor cannot be moved).
- ▶ Remove the batteries from the battery compartment.
 - ▶ Separate the housing of the drive unit from the valve lantern, as described on Page 5.
 - ▶ Turn the blue adjusting ring towards the minus sign until the radiator valve is closed (please also refer to Page 8).

The radiator turns cold.

- ▶ Place the drive unit back onto the valve lantern.
- ▶ Insert the batteries again while pressing the  button until  $R_{--}P$ is displayed.

$R_{--}P$ to $R_{--}3$ are displayed consecutively.

The radiator controller carries out the manual adaptation.

If you want to activate automatic adaptation again:

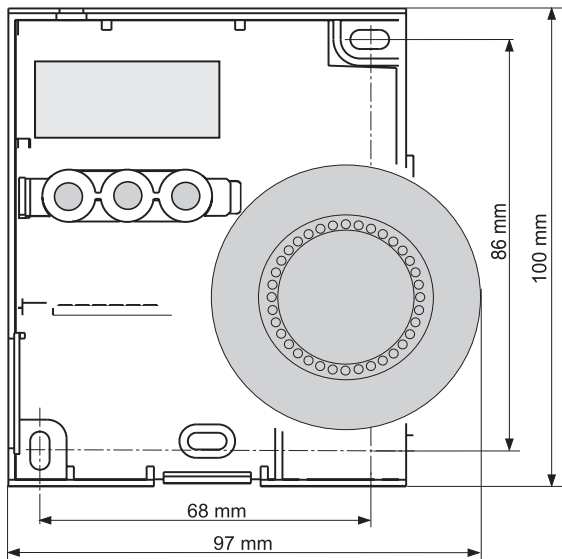
- ▶ Repeat the above operating step.

Appendix








Technical data

Operating range	0 °C ... +40 °C
Mounting	Wall mounting
Max. ambient temperature / humidity	0 °C ... 50 °C / 5 % ... 90 % rel. humidity
Max. storage temperature / humidity	-20 °C ... +65 °C / 5 % ... 90 % rel. humidity
Voltage supply	2 Mignon batteries LR 06 AA AM3
Degree of protection	IP 30 DIN 40 050 / IEC 144
Time program	1 week program, 4 switching points per day
Setpoints	1 day and 1 night setpoint selectable
Setting precision	0.5 K
Responsiveness	0.15 K

Dimensions and drilling scheme operating unit



Adapters for the drive unit

	Adapter make/type	Order No.		
	Oventrop HU 01 (knurled nut M30x1)	073341076		
	Herz HU 02 (knurled nut M28)	073341725		
	Danfoss adapter set EVA 1-Danfoss	072031201		
				
				
	Vaillant adapter EHA 1VAI	072031082		

- ▶ Select the required adapter or change the valve lantern (Herz, Oventrop).
- ▶ Expand the adapter, if necessary and slide it onto the valve until the stop is reached. Turn it in the process until it latches perceptibly.
- ▶ If required, tighten the adapter with a screw or mount the adapter pin.

Help with problems

Problem/Display	Cause	Remedy
<i>bloc</i>	Operating unit is disabled, operation is not possible	► Reverse disabling as described on Page 19.
<i>AdAP</i> to <i>Ad_A</i>	Display during the automatic adaptation, lasts approx. 2 min	► Wait until the end of adaptation.
<i>A__P</i> to <i>A__3</i>	Display during the manual adaptation	
Radiator does not turn cold	Valve does not close completely	► Check the mounting. ► If necessary, carry out the manual adaptation as described on Page 26.
<i>E1</i>	No adaptation possible	
<i>bATT</i> flashes	Batteries are not powerful enough	► Change the batteries as soon as possible.
<i>bATT</i> (no valve movement possible)	Batteries are empty	► Change the batteries immediately.

E3	Motor cannot be moved/ valve lift too short	<ul style="list-style-type: none">▶ Check the mounting.▶ Check the cable connection between the operating unit and the drive unit.▶ Remove the dirt from the radiator valve, if necessary.▶ Carry out the manual adaptation as described on Page 26.
E4	Device defective	<ul style="list-style-type: none">▶ Contact your dealer.
* flashes	Anti-freeze function is active	<ul style="list-style-type: none">▶ Please refer to Page 18.

Glossary

Adaptation

The radiator controller adapts itself to the lift of the radiator valve.

Automatic mode

Standard operating mode of the operating unit. The time program controls the room temperature.

Comfort temperature

Set temperature which the time program accesses. Refer to economy temperature.

Economy period

Period in which the economy temperature is effective.

Economy temperature

Set temperature which the time program accesses. Advisable at night or during absence. Refer to comfort temperature.

Heating period

Period in which the comfort temperature is effective.

Manual mode

No time program active. Setpoint adjustment via adjusting ring.

Programming mode

Operating mode for adapting the settings such as the date and time, heating and economy period, etc.

Setpoint temperature

The room temperature which is to be reached.

Time program

Combination of setpoints and switching points.

Honeywell AG

Böblinger Straße 17

D – 71101 Schönaich

Tel. (++49) (0) 1801 466390

www.honeywell.de

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