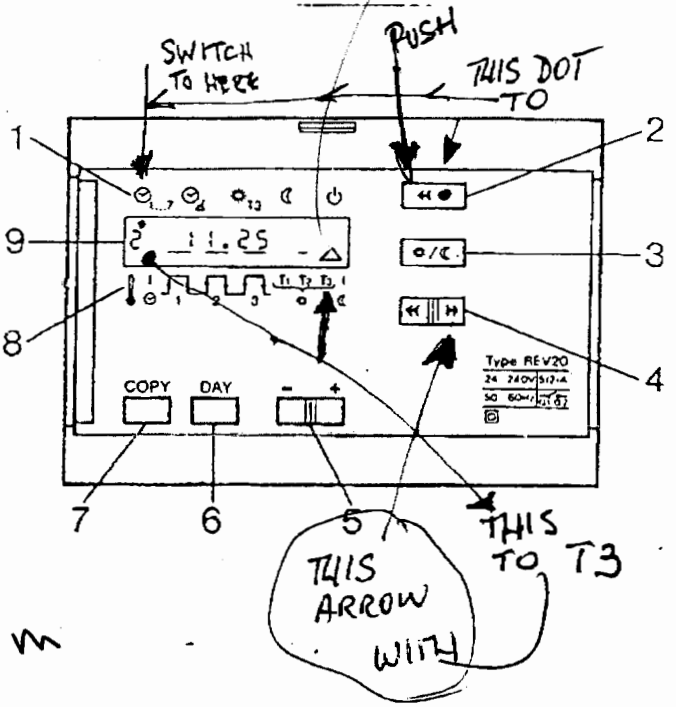
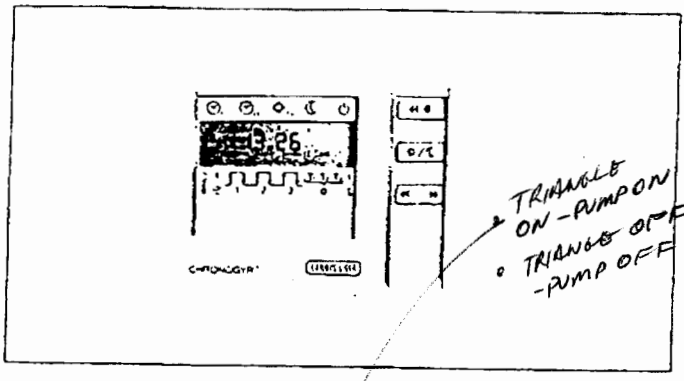


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# CHRONOGRYR® REV20

## Instruction Manual



### General

Your CHRONOGRYR® controls the room temperature: that is, it maintains the room temperature constant, at all times, at the value set by you.

Normally your rooms do not always need to be kept at the same temperature. On the contrary, different temperatures are desirable depending on the occupation of the rooms and the time of day in order to achieve maximum comfort and a maximum saving of energy. With the CHRONOGRYR® you are therefore able to set three different comfort temperatures, as well as an energy saving temperature.

The built-in clock - thus the name CHRONOGRYR® - enables you to have the right temperature at the right time. The comfort periods are switched on and off according to the times entered by you; if no comfort period is switched on, the temperature is controlled at the energy saving level.

You can enter your own switching programme with a maximum of 3 comfort periods for each day of the week. In addition, another daily switching programme can be entered for an "8th day of the week" - this is an exception programme for, say, work-free days, holidays, etc. This obviates the necessity of changing the weekly switching programme for these particular days.

- 1 Mode of operation
- 2 Mode-of-operation selector button
- 3 Override button
- 4 Function selector button
- 5 Change button
- 6 Day selector button
- 7 Copy button
- 8 Display and setting symbols
- 9 Display

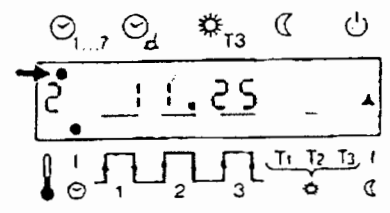
### Modes of Operation

- ☉ Automatic operation. The comfort periods and designated temperatures are switched on and off according to the selected weekly programme (daily programme 1 to 7)
- ☉ Automatic operation. The comfort periods and designated temperatures are switched on and off according to the selected exception programme (daily programme d)
- ☉ Continuous control at comfort temperature (temperature T<sub>3</sub>)
- ☉ Continuous control at energy saving temperature (temperature C)
- ☉ Control switched off (frost protection function in operation in case the room temperature falls below 5 °C)

### Pushbuttons

☉ Mode-of-operation selector button. Press the button till the upper dot in the display is below the desired mode of operation.

Display example for automatic operation according to weekly programme:



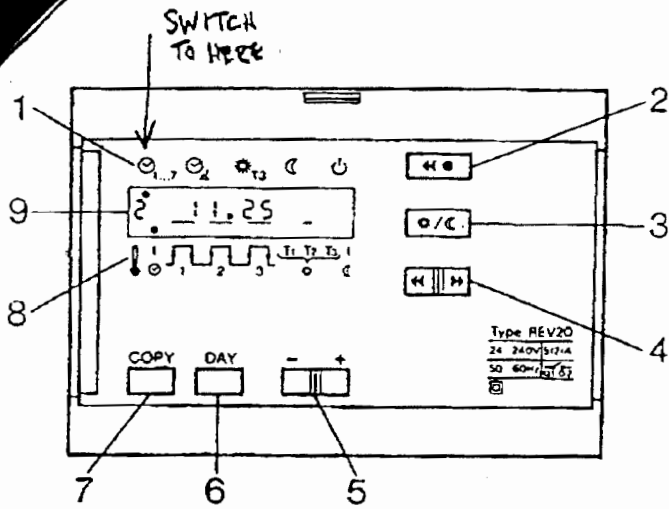
☉ Override button for overriding periods in the switching programme. Pressing the button initiates the following:

- An energy saving period is interposed during a comfort period and the temperature is controlled at the C level
- A comfort period is interposed during an energy saving period and the temperature is controlled at the T<sub>3</sub> level.

When the interposed period elapses the originally entered switching programme takes over.

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- 1 Mode of operation
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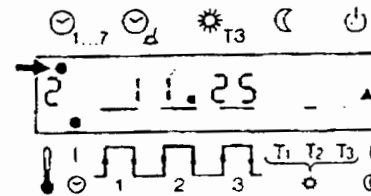
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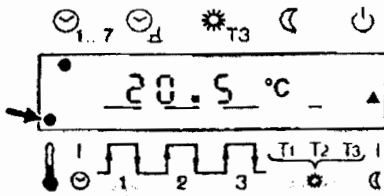
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- An energy saving period is interposed during a comfort period and the temperature is controlled at the C level
- A comfort period is interposed during an energy saving period and the temperature is controlled at the T<sub>3</sub> level.

When the interposed period elapses the originally entered switching programme takes over.

Button for selecting the desired indication or the controlled variable to be adjusted. Press the button till the lower dot is above the symbol for the desired function.

Display example for room temperature:



Change button for changing the indicated numerical values. It is a toggle switch. When pushed to left the value decreases, when pushed to the right the value increases.

Day selector button for selecting the day of the week when entering the time of day and the switching programme.

Copy button for simplifying the entry of the switching programme. Further details are given under "Entering the Switching Times".

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## Settings

### Factory settings

The following data are entered at the factory:

- Mode of Operation
  - Continuous control at comfort temperature (temperature  $T_3$ )
- Switching Programme
  - From 06.00 to 22.00 control at  $T_1$  level
  - From 22.00 to 06.00 control at  $C$  level
  - The other switching times are set at 24.00, i.e. the other comfort periods are inoperative
- Temperatures:
  - $T_1 = 19.0\text{ }^\circ\text{C}$
  - $T_2 = 20.0\text{ }^\circ\text{C}$
  - $T_3 = 21.0\text{ }^\circ\text{C}$
  - $C = 10.0\text{ }^\circ\text{C}$

The works entered values become operative after each operating voltage failure and after each battery change.

### Entering the Day and Time

Use button  $\text{DAY}$  to set the day of the week (1 = Monday, 2 = Tuesday, etc.) and button  $\text{E}$  to set the time. The lower dot in the display must be below the symbol  $\text{C}$ .

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Example of a daily programme with three comfort periods  
 From 00:00 to 05:30: Bedtime,  $C = 13\text{ }^\circ\text{C}$   
 From 05:30 to 08:00: Waking up time,  $T_1 = 21\text{ }^\circ\text{C}$   
 From 08:00 to 11:00: Nobody at home,  $C = 13\text{ }^\circ\text{C}$   
 From 11:00 to 14:00: Cooking and lunch time,  $T_2 = 19\text{ }^\circ\text{C}$   
 From 14:00 to 16:30: Nobody at home,  $C = 13\text{ }^\circ\text{C}$   
 From 16:30 to 22:30: Cooking, diner, evening,  $T_3 = 20\text{ }^\circ\text{C}$   
 From 22:30 to 24:00: Bedtime,  $C = 13\text{ }^\circ\text{C}$

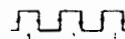
The settings are entered as follows:

1. Press button  $\text{E}$  till the dot is above the desired switch-on point
2. Set the day with the  $\text{DAY}$  button
3. Set the switching time with the  $\text{E}$  button
4. Press button  $\text{E}$  till the dot is above the desired switch-off point
5. Set the switching time with the  $\text{E}$  button
6. Enter all the other switching times for this day in the same manner (steps 1 to 5).  
Note the following instructions!
7. Enter the functions for all the other days in the same manner (steps 1 to 6). Day sequence: 1 - 2 - 3 - 4 - 5 - 6 - 7 - d).  
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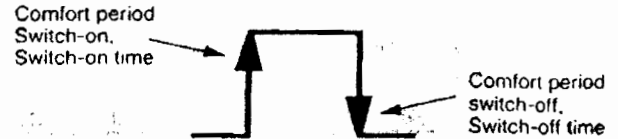
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## Indications and Setting Symbols

- Room temperature indication
- Day and time indication



Switch-on and switch-off times for the comfort periods:



Each day of the week can have its own switching programme: an exception programme can also be entered additionally. Up to three comfort periods can be entered per day.

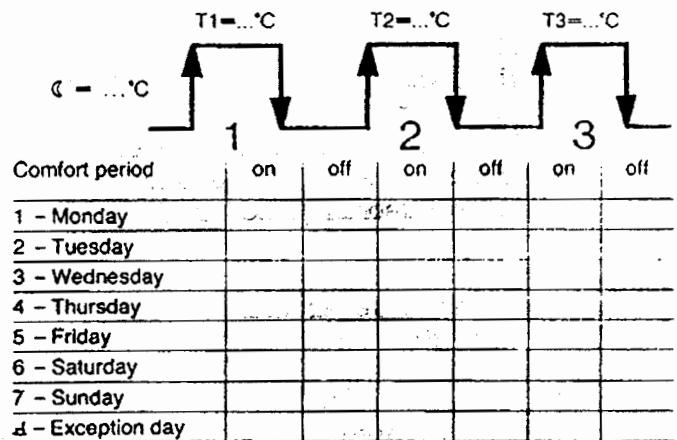
- $T_1$  Temperature for the first comfort period
- $T_2$  Temperature for the second comfort period
- $T_3$  Temperature for the third comfort period
- $C$  Temperature for the energy saving period

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### Entering the Switching Times

Recommendation: Before entering, note down the times and temperatures.

Example:



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Instructions:

If a switch-off time is the same as a switch-on time, this comfort period is inoperative. In this way, unnecessary comfort periods can be avoided.

If one comfort period must immediately follow a previous one without an intervening energy saving period, the same time must be entered for the end of the first and the beginning of the next comfort periods.

If an entered switching programme must be valid on the following day too, it can be carried over to the next day by pressing the  $\text{COPY}$  button (and also the day after, etc.).

The lower dot in the display must in this case, be above any switching time.

If the indication PUSH appears in the display when altering switching times, it means that the subsequent, already entered switching time will also be altered.

The entered comfort periods are indicated by a dash — above the appropriate symbol.

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## Entering the Temperature Values

- 1 Press button  $\leftarrow \rightarrow$  till the dot in the display is above the temperature to be set ( $T_1$ ,  $T_2$ ,  $T_3$ ,  $\text{C}$ ).
- 2 Use the  $- +$  button to enter the desired temperature
- 3 Enter the other temperatures in the same way.

The set temperatures are valid for all 8 daily switching programmes; it is not possible to set different temperatures for different days.

## Change from Heating to Cooling and Vice Versa

If the controller controls only the heating, this section can be ignored.

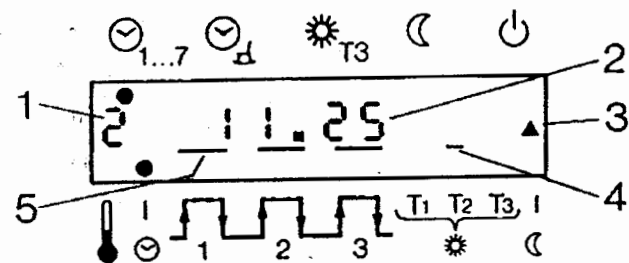
If the controller operation is to be changed from heating to cooling, proceed as follows:

- 1 Press button  $\leftarrow \rightarrow$  till the set energy saving temperature  $\text{C}$  is displayed.
- 2 Use button  $- +$  to set the energy saving temperature to 29.0 °C.
- 3 Press button  $\rightarrow \leftarrow$ . The word COOLING appears in the display.
- 4 Enter the new energy saving temperature and, if necessary the temperatures  $T_1$ ,  $T_2$  and  $T_3$ , as well as the switching times.

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## During operation

Indications:



- 1 Day of the week
- 2 Time
- 3 Switch-on symbol
- 4 Current set temperature
- 5 Entered comfort periods

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## Changing the Battery

If the indication on the display is weak or extinguishes, the batteries must be changed:

1. Loosen the fixing screw on the controller (fig. A)
2. Swing out the unit and remove it from the base (fig. B)
3. Remove the old batteries (do not throw away, dispose of according to environmental regulations)
4. Replace with new batteries, observing the correct polarity (check the battery symbol in the battery case, fig. C)
5. Attach the unit to the base and snap it in.
6. Tighten the fixing screw.
7. Re-enter the switching times, temperatures, day and time.  
**ATTENTION!** If the controller operates in the cooling mode it must be reprogrammed for cooling.

Suitable batteries: Varta Energy 2000 Alkaline, type 4006  
Ucar Alkaline, type E 91  
Duracell Alkaline, type MN 1500 LR 6  
Mallory alkaline, type MN 1500

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If the controller operation is to be changed from cooling to heating, proceed as follows:

- 1 Press button  $\leftarrow \rightarrow$  till the energy saving temperature is displayed
- 2 Use button  $- +$  to set the energy saving temperature to 3.0 °C.
- 3 Press button  $\rightarrow \leftarrow$ . The word COOLING vanishes from the display.
4. Enter the new energy saving temperature and, if necessary, the temperatures  $T_1$ ,  $T_2$  and  $T_3$ , as well as the switching times.

## Selecting the Mode of Operation

Select the mode with the  $\leftarrow \rightarrow$  button. The selected modes become operative immediately after switch-on.

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Use button  $\leftarrow \rightarrow$  to select the desired indication, i.e. room temperature or day and time.

If the indication of a switching time or a set temperature is left in the display, it changes automatically to show the day and time.

The currently valid temperature is indicated by a dash — above the appropriate symbol ( $T_1$ ,  $T_2$ ,  $T_3$ ,  $\text{C}$ ).

The symbol  $\blacktriangle$  indicates that the controller has switched on the heating (or cooling) apparatus.

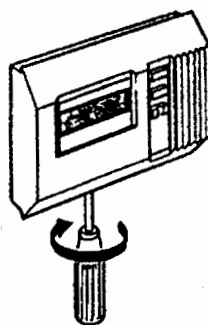
## Controllers with Remote Operating Units

Your controller can have a remote operating unit. If this actuated, your CHRONOGR<sup>®</sup> will control continuously at the energy saving temperature  $\text{C}$ , irrespective of the currently entered mode of operation and the switching programme.

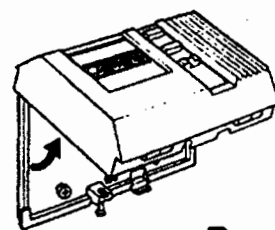
## Replacing the Cover

To free the cover, remove the two hinge bolts. No tools are necessary. After replacing the cover, push the bolts in again, they will snap in by themselves.

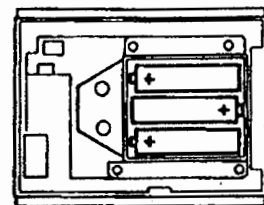
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A



B



C

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