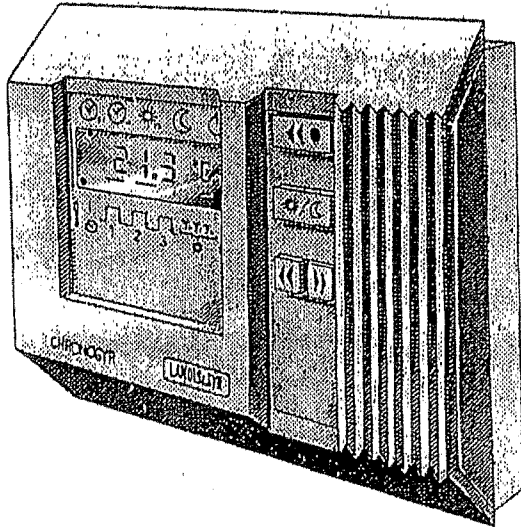


CHRONOGRYR® REV20

Instruction Manual



Thank you for purchasing the CHRONOGRYR REV20.

Your CHRONOGRYR is an electronic heating controller that will switch your heating on or off at the times you set and maintain the temperatures you programme into its memory by 'sensing' changes and adjusting boiler firing accordingly.

You may wish to set varying temperatures for different times of day and whether or not rooms are occupied, thereby ensuring that you achieve maximum comfort with the minimum of energy waste. These are your comfort periods. With CHRONOGRYR you are able to set 3 different comfort periods and an additional energy saving temperature.

The built-in clock enables you to have the right temperature at the right time. The comfort periods are controlled by the switching times you set; if a comfort programme isn't running, the temperature is maintained at the set energy saving level.

In the event of work-free days or holidays etc, an 'eighth' daily (exception) programme can be selected.

CHRONOGRYR will keep your comfort levels up and your fuel bills down 24 hours a day, 7 days a week.

CHRONOGRYR COMFORT FUNCTIONS

Function Symbols



The comfort periods and temperatures you select are switched on and off by the weekly programme you set (daily programme 1 to 7).



By selecting this function the switching times and temperatures you have programmed into the CHRONOGRYR are switched off and an exception programme is introduced to cope with demand changes.



Continuous control at comfort temperature (temperature T3)



Continuous control at energy saving temperature (temperature C)



Control switched off (automatic frost protection activated to prevent room temperature falling below 5°C).

PUSHBUTTONS



Function selector button. Press the button until the upper dot in the display is below the function symbol you wish to select.



Override button. By pushing this button you will override the time periods in the preset programme, turning an ON period OFF or an OFF period ON. Quite simply this allows you to cope with unexpected short increases or decreases in heating demand.



Setting selector button. Press the button until the lower dot is above the time or temperature symbol you wish to select.



Change button. Ensure that upper or lower dots are in the required function/setting position before pushing - or + to lower or raise set temperature or to alter programme start/finish times.

DAY



Day selector button. This button enables you to select a full day's comfort schedule.



COPY



Copy Button. Rather than repeating the same programme commands for different days of the week, pushing this button will duplicate the comfort and/or switching programme entered as desired.





SETTING THE TIME PERIODS

Entering the Day and Time

Use the  button to select the day of the week (1 = Monday, 2 = Tuesday, etc.) and the  button to set the time. The lower dot in the display must be above the ☺ symbol.

Programming the Switching Times

Setting Instructions

1. Press  button until the lower dot is above desired switch-on point.
2. Set the switching time with the  button.
3. Press  button until lower dot is above desired switch-off point.
4. Set the switching time with the  button.
5. Repeating steps 1 to 4 enter all other switching times for this day.
6. Enter the functions for all other days in the same manner (steps 1 to 6).

Please note that:

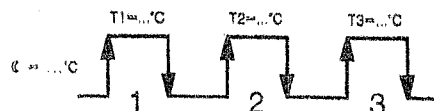
If a switch-off time is the same as a switch-on time, this comfort period will not function. You may use this facility to cancel unnecessary comfort periods.

To continue straight from one comfort period to another (eg. to go directly from T₁ to T₂ without an intervening energy saving period ☾ ensure that the switching-off time of the first period is the same as the switching-on time of the second period.

To repeat a day's programme on any other day that you may require, position the lower dot over the required switching time and push the copy button.

If the word 'PUSH' appears in the display when altering switching times, all subsequent switching times will be altered.

Programmed comfort periods are indicated by a dash above the appropriate symbol.



STATUS AND SETTING SYMBOLS



Room temperature indication



Day and time indication





Switch on/off times for comfort periods:

Each day of the week can have its own switching programme, with an exception programme to cover changed daily demand. Up to 3 comfort periods can be entered each day.

- T₁ Temperature for the first comfort period
- ☀ T₂ Temperature for the second comfort period
- T₃ Temperature for the third comfort period
- ☾ Temperature for the energy saving period

SETTING THE TEMPERATURE

Press the  button until the lower dot is above the temperature programme T₁ T₂ T₃ (you wish to set.

Press the  button to enter the desired temperature.




Repeat this process on all remaining temperature programmes.

The set temperatures will remain the same 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 your CHRONOGRYR is to be used only as a heating controller, this section can be ignored.

If the controller operation is to be used for cooling:

1. Press  button till the set energy saving temperature (is displayed.
2. Using  button set energy saving temperature at 29.0°C.
3. Press the  button. the word 'COOLING' appears in the display.
4. Enter the new energy saving temperature and, if necessary, the temperatures T₁ T₂ and T₃, as well as the switching times.


If the controller operation is to be changed back from cooling to heating:

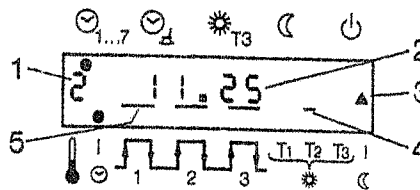
1. Press  button till the set energy saving temperature (is displayed.
2. Using  button set energy saving temperature at 3.0°C.
3. Press the  button. the word 'COOLING' vanishes from the display.
4. Enter the new energy saving temperature and, if necessary, the temperatures T₁ T₂ and T₃, as well as the switching times.

OPERATING YOUR CHRONOGRYR

Now that you have programmed your weekly comfort schedule into your CHRONOGRYR, you can select the mode-of-operation best suited to your comfort needs.

Selecting the Function

Using the  button select the function you require. Once switched on the selected modes are immediately operative.

Information shown on the Display

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

Use the  to select the desired indication (room temperature, or day and time etc).

The current time and date will automatically replace any indications left in the display, such as switching time or set temperature, after a set period.

The programmed temperature is indicated by a dash above the appropriate symbol (T₁, T₂, T₃, C).

▲ indicates that the controller has switched on the heating (or cooling) apparatus.

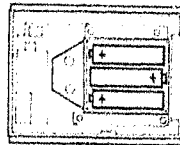
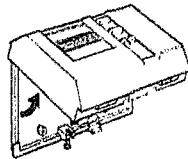
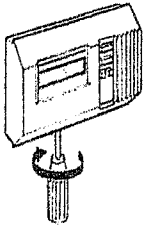
Removing the Cover

To free the cover, remove the 2 hinge bolts. No tools are necessary. After replacing cover, push the bolts in again. They will snap back into position by themselves.

Changing the Batteries

If display appears weak or extinguishes, the batteries need to be replaced:

1. Loosen the fixing screw on the controller.
2. Swing out the unit and remove it from the base.
3. Discard old batteries.
4. Replace with new batteries, taking care to insert them as shown by diagram on battery case.
5. Position the unit on base and snap it in.
6. Tighten the fixing screw.
7. Re-enter the date, time, switching times and temperatures. Reprogramme for cooling if used in this mode.

Recommended Batteries:

Varta Energy 2000 Alkaline, type 4006
 Ucar Alkaline, type E 91
 Duracell Alkaline, type MN 1500 LR6
 Mallory Alkaline, type MN 1500

Factory settings

The following switching times and temperatures are set at the factory. These should be reset to comply with your own comfort requirements.

Temperatures:

T₁ = 19°C
 T₂ = 20°C
 T₃ = 21°C
 C = 10°C

Continuous control at comfort temperature (T₃).

Switching Programmes:

From 06.00 to 22.00 at T₁ level
 From 22.00 to 06.00 at C level

The remaining switching times have not been factory set.

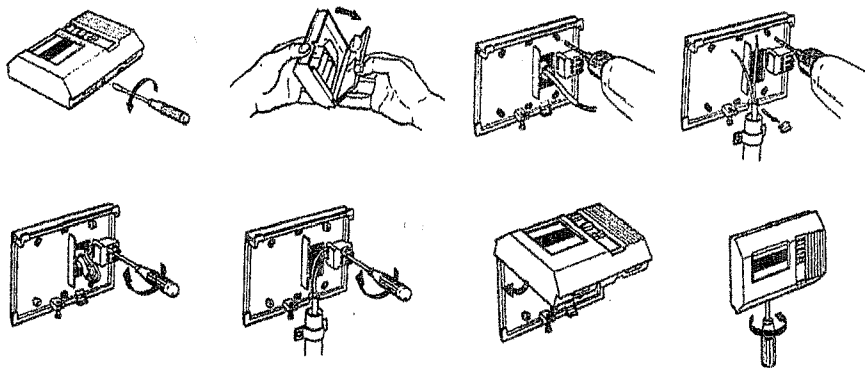
The programmes entered by us at the factory will automatically run following operating voltage disruption and after each battery change.

GENERAL INSTALLATION AND TESTING INSTRUCTIONS

Local regulations for electrical installations must be observed.

Electrical Installation

1. Loosen fixing screw, swing out unit and remove from base.
2. Wire up according to plant connection diagram.
3. Remove battery contact insulating paper from the rear side of the unit.
4. Install recommended batteries in correct position as indicated on unit diagram.
5. The clock display will now function. If no display appears, check battery position.
6. Reposition unit on base.
 - A) For fast control plants (used in large room applications), where the running time is less than 2 minutes, the time for one switching cycle can be halved by breaking the wire link on the rear side of the unit. The wire link is accessible after the batteries have been removed.

Heating Function Check

- a) Press the button until the upper dot is below the symbol.
- b) Press the button until the lower dot is above the symbol. The display will read 21°C.
- c) Press the button until the display reads 29°C.
- d) The relay will switch on and the actuator will cause heat to flow after a maximum of 1 minute. If not, check that the wiring conforms to diagram.
- e) Using the button, return temperature to factory setting of 21°C.

The heating function check is now complete.

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Cooling Function Check

- a) Press the button until the upper dot is below the symbol.
- b) Press the button until the lower dot is above the symbol. The display will read 10°C.
- c) Press the button until the display reads 29°C.
- d) Press the button. The display will now read 20°C COOLING.
- e) Press the button until the lower dot in the display is above the symbol. The display will read 21°C COOLING.
- f) Press the button until the display reads 3°C COOLING.
- g) The relay will switch on and the actuator will cause cooling to occur after a maximum of 1 minute. If not, check that the wiring conforms to diagram.
- e) Using the button, return temperature to factory setting of 21°C COOLING.

The cooling function check is now complete.

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