

# CENTROLLER 3000+

## INSTRUCTIONS FOR USE

### Introduction

The Centroller 3000 is a micro-processor based controller for domestic Hot Water and Central heating Systems which allows the user to programme four consecutive periods in 24 hours.

During each of these periods a different room temperature can be set.

One hot water temperature can also be set and controlled during the selected periods.

In addition a separate 'Hot water Boost' control allows the user to heat a thankful of water to the programmed temperature, independent of any other programme that might be set.

### A. Programming

For the Centroller to be fully operational, it is necessary to programme it with the following information:

- The 'actual time'; see section B
- The four times at which the room temperature changes are to take place; see section B
- The room temperature required during each of the four time periods; see section C.
- The hot water temperature; see section D.

After setting the time and temperature information into the programme the HEATING and HOT WATER selectors may be used to give variations to the programme; see section E and F.

For example, the heating may be limited to day time only and water heating switched on only during the morning and evening periods. Full use of the programme can give 16 variations.

Completely independent of any programme that might be set, a 'Hot Water Boost' button is provided. This boosts the hot water temperature until one thankful at the demanded temperature is available, when the boost is disengaged; see section H.

### B. Programming times

Notes:

- Unless a programme setting entry has been made within the last 15 seconds, the display indicates the time of day in hours and minutes and in the 24 hour notation (00.00 – 23.59).
- A four figure time must always be keyed in before the Centroller accepts it as a new time. If less than four figures are keyed in, the figures entered will be displayed for 15 seconds and then the display will revert to show 'actual time'. The Centroller will continue to operate at the previous time setting.
- Impossible entries are ignored by the Centroller and the display will remain Unchanged after such an entry. Examples of Impossible time entries are:
  - Keying in a first digit greater than 2 or
  - A minute entry greater than 59If an impossible entry has been attempted, press the correct key and carry on with the time setting
- Before any programme changes are made ensure that the Heating and Hot Water selector are set to the 'on continuous' position.

### Setting 'Actual Time'

- Press the 'actual time' push button.
- Key in the time to the nearest minute. If the time is 9.37 am, press the setting keys in the following sequence 0-9-3-7 or for 9.37 pm, key 2-1-3-7. As each number is keyed, it will be shown in the display.
- The clock has now been set and will update the time display every minute.

### Setting Programme Times

#### Note:

Programme times can only be defined in ten minute steps. The fourth digit will always be entered and displayed as 'O' irrespective of which digit key is pressed.

### Morning on time

This is the end of the 'night temperature' period and the start of the 'morning temperature' period.

Press the 'morning on time' push button. The display will show the present programmed 'morning on time' for approximately 15 seconds when it will revert to displaying 'actual time'.

If you wish to change the 'morning on time' key in the new time you require before the display reverts to 'actual time'.

The new 'morning on time' will be retained in the Centroller's memory.

### Morning Off Time

This is the end of the 'morning temperature' period and the start of the 'mid-day temperature' period.

Press the 'morning off time' push button and follow the same procedure as the 'morning on time'.

### Evening on Time

This is the end of the 'mid-day temperature' period and the start of the 'evening temperature' period.

press the 'evening on time' push button and follow the same procedure as for 'morning On time'.

### Evening Off Time

This is the end of the 'evening temperature' period and the start of the 'night temperature' period.

Press the 'evening off time' push button and follow the same procedure as for 'morning on time'.

### C. PROGRAMMING ROOM TEMPERATURES

#### Notes:

- Temperatures should be set according to the location of the temperature sensor (senstat). If the senstat is in the living room then Temperatures appropriate to that be set. If it is located in the hall temperatures should be set. Similarly any other location would require the appropriate temperatures to be set. Your heating engineer should have ensured that when one area controlled to the appropriate temperature the living area will be controlled to the correct comfort temperature. The Centroller will allow you to reduce the temperature during periods when maximum comfort is not required. For example, a two degree reduction in the hall temperature would generally ensure that other heated areas were reduced by a similar amount.

British Standards suggest the following temperatures for maximum comfort:-

Living area	21 C
Hall	16 C
Kitchen	16 C
Bedroom	18 C

ii) Before any programme changes are made ensure that the HEATING and HOT WATER selectors are set to the 'on continuous' position.

(iii) A two digit temperature must always be keyed in otherwise the Centroller will ignore the entry. Room temperatures can be set from 06 C to 26 C.

### Morning Temperature

This is the temperature you require between the 'morning on time' and the 'morning off time'.

Press the 'morning temperature' push button. The current programmed morning temperature will be shown on the display for approximately 15 seconds when it will revert to actual time.

If you wish to change the 'morning temperature' key in the new temperature before the display reverts to actual time. The new 'morning temperature' will be retained in the Centroller's memory.

### Mid-day Temperature

This is the temperature you require between the 'morning off time' and the 'evening on time'.

Press the 'mid-day temperature' push button and follow the same procedure as for 'morning temperature'.

### Evening temperature

This is the temperature you require between the 'evening on time' and the 'evening off time'.

Press the 'evening temperature' push button and follow the same procedure as for the 'morning temperature'.

### Night Temperature

This is the temperature that you require between the 'evening off time' and the 'morning on time'.

Press the 'night temperature' push button and follow the same procedure as for 'morning temperature'.

### D. PROGRAMMING HOT WATER TEMPERATURE

Note:

Before any programme changes are made ensure that the HEATING and HOT WATER selectors are set to the 'on continuous' positions.

A single hot water temperature may be selected between 52 C and 75 C. Press the 'hot water temperature' push button. The current programmed hot water temperature will be shown on the display for approximately 15 seconds when it will revert to actual time.

If you wish to change the 'hot water temperature', key in the new temperature before the display reverts to actual time. The new 'hot water temperature' will be retained in the Centroller's memory.

### E. CENTRAL HEATING PROGRAMME SELECTION

To select one of the four Central Heating options, move the HEATING selector to the Required position

The four positions allow the following options:

**(1) On Morning and Evening.**

The heating is switched on during the period between the programmed 'morning on time' and morning off time' and again between the programmed 'evening on time' and evening off time'. During these periods the room temperature will be controlled to the 'morning temperature' and the 'evening temperature' respectively. At all other times the heating is switched off completely.

**(2) On all Day**

The heating is on from the 'morning on time' to the 'evening off time'. During this period the temperature will be controlled to the 'morning temperature' until the 'morning off time'. It will then change to the 'mid-day temperature' until the 'evening on time' when it will change to the 'evening temperature'. From 'evening off time' to 'morning on time' the heating is switched off completely.

**(3) On Continuous**

The heating is switched on during the whole of the 24 hour period to the programmed 'morning', 'mid-day', 'evening' and 'night temperatures'. The heating is never switched off although if the 'night temperature' is set low, the boiler will only fire during the most severe weather as a protection against condensation.

**(4) Off**

The heating is switched off completely.

**F. HOT WATER PROGRAMME SELECTION**

To select one of the four hot water options move the slider of the HOT WATER selector to the required position.

The four switch positions allow the following Options:

**(1) On Morning and Evening**

The hot water is heated to the programmed temperature during the periods between the 'morning on' and 'morning off' times and between the 'evening on' and evening off' times.

**(2) On all Day**

The hot water is heated to the programmed temperature during the periods between the 'morning on' and the 'evening off' times.

**(3) On Continuous**

The hot water is maintained at the programmed temperature throughout the full 24 hours.

**(4) Off**

The hot water heating is switched off completely.

**G. TEMPERATURE OVER-RIDE**

During the period when the heating is switched on, the room temperature can be increased or decreased for the remainder of that period by the use of the 'TEMPERATURE OVER-RIDE' push buttons. At the end of the period the room temperature reverts to the level set in the temperature programme. Press the 'UP' push button to increase the room temperature and the 'DOWN' push button to decrease the room temperature. The display will change to indicate your new programmed temperature.

Note:

If an attempt is made to increase or decrease the room temperature at a time when the central heating is switched off, the word 'OFF' will be shown.

**H. HOT WATER BOOST**

This control allows one tankful of water to be heated to the programmed temperature completely independent of any other programme (including OFF) set up on the HOT WATER selector.

Press the 'Hot Water Boost' button. The button top will be illuminated to indicate the boost facility has been selected.

The boiler will be switched to heat the hot water and when a tankful is available the boost will cease automatically and the button light will go out.

If you wish to stop the boost before a complete tankful has been heated, it can be cancelled by pressing the button a second time. The button light will go out.

If, when you press the button, there is already a tankful of hot water the boost command will be accepted by the Centroller and the button top will be illuminated. However, the command will not be exercised until the water temperature has dropped to below the programmed temperature. The boost will bring the temperature back to that programmed and Will then disengage. This operation ensures that the tank is always left full of hot water even though most of the hot water may have been used at the end of the normal heating period.

**1. CHECKING TIMES AND TEMPERATURE SETTINGS.**

To check a programmed time or temperature press appropriate 'time' or 'temperature' button and the time or temperature setting will be shown on the display.

**Note:**

Temperature settings can only be checked when the central heating is switched on. Pressing a 'temperature' push button during a central heating off period will produce 'OFF' on the display. Temperature settings can be checked at any time, however, by Switching the HEATING selector to the 'on continuous' position and then pressing the appropriate 'temperature' push button. After checking the temperature, return the HEATING selector to the required programme option.

**J STANDBY BATTERY**

A standby battery is provided to maintain the Centroller during short periods when the poser has to be switched off, such as when changing a light bulb or a fuse and for short power cuts.

During these times the display is switched off to conserve battery power, but the programmed times and temperatures are maintained as is the time of day.

When the mains supply is restored, the Centroller automatically switches back to the mains power and the battery is recharged.

After a disconnection the times and temperature programmes should be checked to ensure that the delay has not been so long that the battery has been completely discharged.

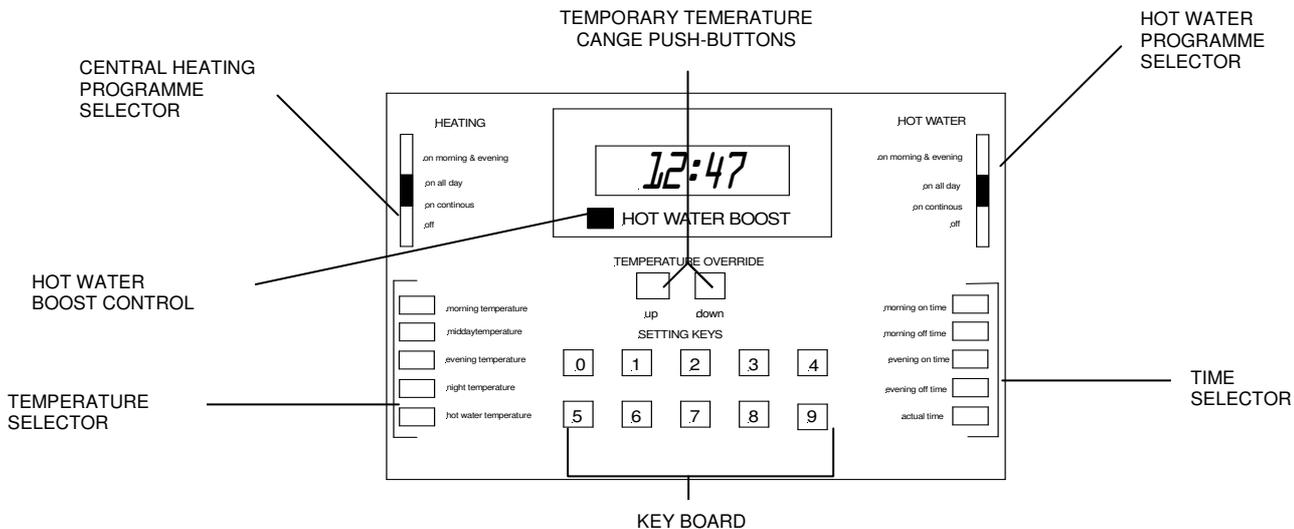
If this has happened, the times and temperatures will automatically revert to the factory pre-set programme shown below and the required programme and actual time must be re-entered.

Full reserve power is not available for approximately 7 days if the battery has been completely depleted.

- Morning On 0700
- Morning Off 0930
- Evening on 1730
- Evening Off 2230
- Morning Temperature 18 C
- Mid-day Temperature 15 C
- Evening Temperature 20 C
- Night Temperature 09 C
- Hot Water 55 C
- Actual Time 0000

**Further Information:**

If further information or details are required please contact your Registered Installer.



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