

# POWRMATIC®

# MC200/300

User, Instruction Manual

Issue 5.5 Apr 2026



YouTube

Set up instructional videos now available on  
[www.youtube.com/user/PowrmaticVideos](http://www.youtube.com/user/PowrmaticVideos)

# Certificate Of Guarantee

## **POWRMATIC®** **Certificate of Guarantee**

This is to certify that this controller is guaranteed for one year from the date of original installation.

### **To make a claim**

In the first instance you must contact your appliance supplier, or installer and provide:-

1. The appliance type and serial number.
2. The original commissioning documentation. As much detail as possible on the fault.
3. Your supplier, or installer, will then contact Powrmatic to make a guarantee claim on your behalf.

### **Conditions of Guarantee**

1. The controller must have been installed by a competent recognised installer, and in accordance with the manufacturer's instructions, I.E.E. regulations and local regulations.
2. The controller has been used in accordance with the manufactures instructions.
3. No unauthorised repairs or modifications have been made. Powrmatic 'General Conditions of Sales' have been observed.
4. Except for the obligation of Powrmatic Ltd to perform warranty repairs during the guarantee period Powrmatic will not be liable in respect of any claim for direct or indirect consequential losses, including loss of profits or increased cost arising from loss of use of the heater, or any event arising there from.

-----  
Powrmatic Ltd, Hort Bridge, Ilminster, Somerset, TA19 9PS  
Tel: 01460 53535 Fax: 01460 52341  
Web: [www.powrmatic.co.uk](http://www.powrmatic.co.uk) e-mail: [warranty@powrmatic.co.uk](mailto:warranty@powrmatic.co.uk)

**Important: This certificate  
must be kept with the appliance**

**Failure to provide a copy of the commissioning sheet invalidates the heater warranty**

## Users, Installation and Servicing Instructions

# CONTENTS

<b>Contents</b>	<b>Page</b>
Introduction	4
Technical data	5
Dimensions	5
User Instructions	6
General Identification of Items	8
Output Operating Sequences	12
Fault Displays and Fault Finding	14

# 1.1 Introduction

requested temperature will be set by the most recent timer to switch On. When an overlapping timer switches Off, the requested temperature will be set by the remaining timer(s).



**Important: No timer can be programmed to run past midnight, because it is assigned to a day of the week. If timed heating is required across midnight, it must be provided by two timers, one ending at 23:55 and the other starting at 00:05. At midnight, all manual over-rides and extensions are cleared.**

## 1.1.4 Optimum Start

*A control system which starts plant operation at the latest possible time such that internal conditions will be up to required limits at the start of the occupancy period.*

- The MC200/V3 achieves Optimum start by keeping a moving record of how many minutes it takes to increase the temperature per degree in each 3° band of temperature from 5°C to 20°C. The current overnight temperature is referenced and the MC200/V3 can estimate how many minutes are required to bring the temperature to the required level.

When Optimum Start is enabled the switch-on time for the heater is then advanced accordingly to achieve the required temperature by the Heat On time i.e. the warmer the night time temperature the closer the switch on time will be to the Heat On time.



**NOTE:** Max 2Hrs before start time. If optimum start is selected, no program time should be selected to start before 2:00am.

## 1.1.5 Optimum Stop

*A control system which stops plant operation at the earliest possible time such that internal conditions will not deteriorate beyond preset limits by the end of the occupancy period.*

- The MC200/V3 keeps a note of how many minutes are taken for the temperature to drop the number of degrees entered against this parameter when the heating period ends. When Optimum Stop is enabled, the MC200/V3 switches off the heating that number of minutes early.

## 1.1.6 Temperature Sensors

The MC200 has an in-built temperature sensor by default. This can be removed and replaced with a remote sensor if the controller is outside the area to be heated.



**Important: Optional sensors are available from Powrmatic Ltd. Alternative types must not be used.**

The remote sensor may be either a room (warm air), black bulb (for radiant) or duct type.

The MC200 internal sensor can also be used in conjunction with an additional remote sensor which will give an average of the two temperature readings.

Options are:

- Default internal sensor only
- Remote sensor only
- Internal sensor plus remote sensor
- Remote sensor plus remote sensor

The remote sensor should be sited no further than 100m from the main unit. Siting of the sensor is important in that it must be fitted where the temperature will be generally representative of the area to be heated, installed 1.7m above floor level and away from draughty areas or areas subjected to direct heat from sunlight, radiators etc.

The second 'sensor' input can also accept a volt free switch input i.e. a volt free switch is connected across Terminals Com & In2 to facilitate a remote on (BMS) or remote off.

Heating will be overridden by the switch operation during programmed heating times. Heating control returns to normal when the switch reverts, or when the programmed control period ends.

The switched control does not occur while heating is turned on due to manual override in non-programmed times, and does not occur during the manually-selected extension time at the end of a programmed control period.

If heating has been manually overridden to be off during a programmed heating period, the switched control cannot bring on the heating.

The 'Heat on' option means that heat will be turned fully on by the switch. For high-low burners, the high and low relays will be on, and for modulating burners, the control output will be 10v.

Cost logging operates as usual. During these switch control periods the burn time is recorded at the maximum rate.

If the sensor goes open-circuit (or either of the sensors where two are fitted), the Fault LED will flash.

The LCD display will show "sensor fault".

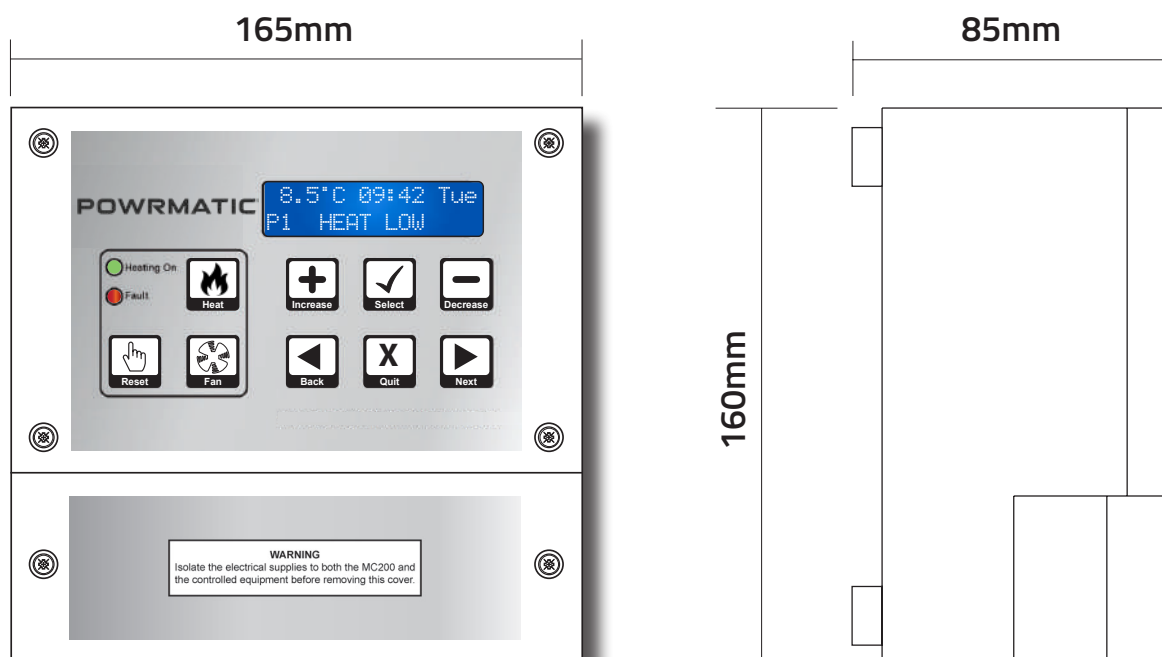


**Important: The earlier MC100 sensor cannot be used with the MC200/V3 and visa versa.**

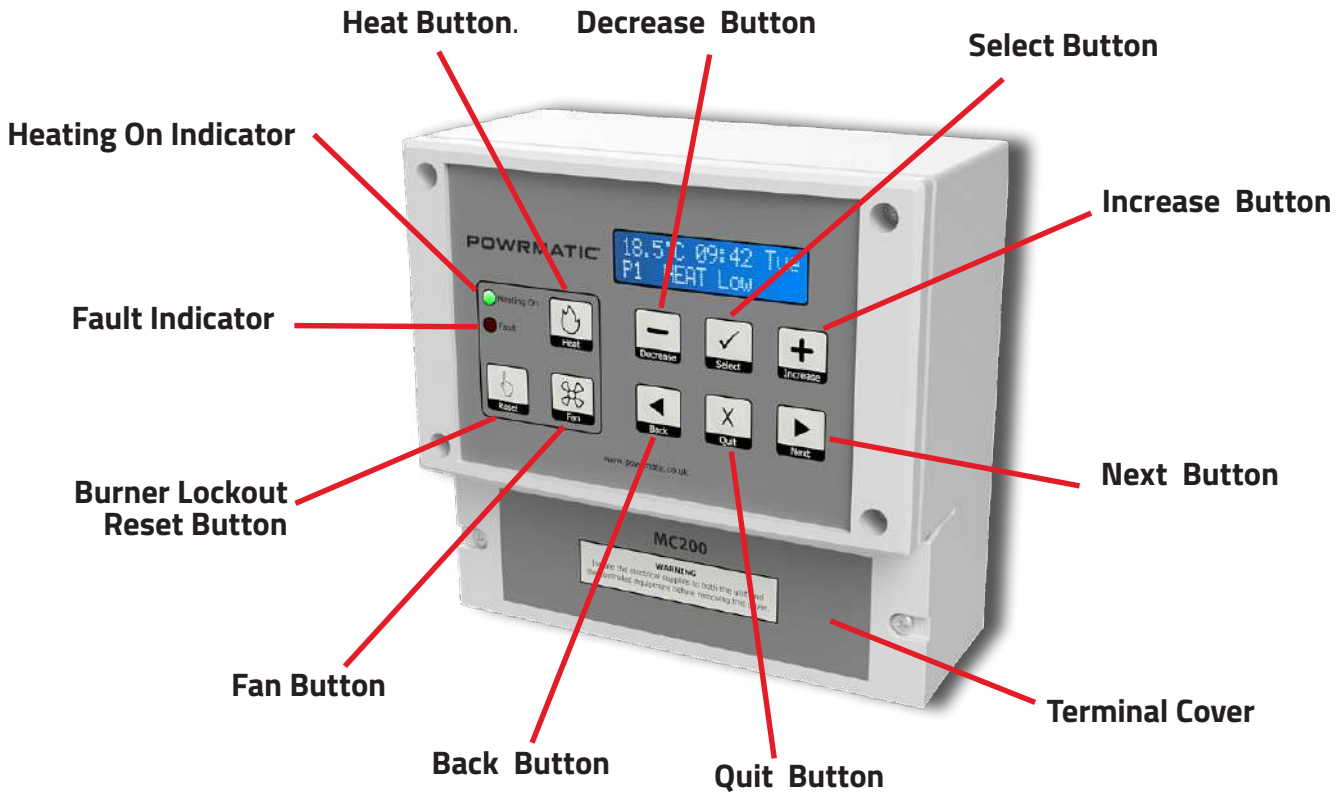
## 1.2 Technical Data

<b>Electricity supply</b>	230V 50Hz Fused at 6A.
<b>Internal Fuses</b>	F1 20mm 6.3A 230V.(HRC).
<b>Display</b>	2 line 5mm Backlit L.C.D.
<b>Day set point range</b>	10 - 60°C.
<b>Night set point range</b>	1 - 15°C.
<b>Temperature accuracy</b>	0.5 °C.
<b>Overall switching differential</b>	Adjustable 0.5 - 10.0°C for Hi/Lo burner types.
<b>Sensing Element</b>	Internal or remotely mounted up to 100m from control.
<b>Switching contacts ratings</b>	12A. 230V.ac. (resistive). All Volt Free
<b>Modulating Control</b>	0-10V dc
<b>Heating ON Indicator</b>	Yellow when the burner is a Modulating type, Green L.E.D. when the heater is a single-stage burner, Red when the heater is either in Hi-Low burn or a Radiant mode. Red will also flash in radiant mode when fan in a delay on or delay off.
<b>Fault (Lockout) Indicator</b>	Orange L.E.D.
<b>Protection Rating</b>	IP20
<b>Software versions</b>	H.08

## Dimensions



# User Instructions



**Heat Button** - (Note: this facility may be limited or disabled by the User).

## If heating is ON (via programme)

Pressing the Heat button for **less than 2 seconds** overrides the programme to **OFF**. Any extension time that has been set is canceled.

Pressing the heat button for **more than 3 seconds** determines that heat will remain on for an extension time after the programmed off time. The extension timer will increase in 30 minute steps, up to the maximum allowed period, and then revert to 0 minutes.

Release the button when the required extension period is showing.

## If heating is OFF (via override)

Pressing the Heat button removes override and reverts to the current programme. If heating is OFF (via programme)

Pressing the Heat button for less than 2 seconds brings on heating for 30 minutes.

Pressing the heat button for more than 3 seconds will increase the on time in 30 minute steps, up to the maximum allowed period, and then revert to 0 minutes.

Release the button when the required heating period is showing.



**Fan Button** - (Note: this facility may be limited or disabled by the User).

In **WINTER** and **OFF** mode and **RADIANT** burner type, the Fan button has no control over the heater fan.

In **SUMMER** mode, the Fan button switches on the fan for air circulation, and another press switches it off. If the fan is left on, it will be automatically switched off at midnight.

If the fan is running because the heating is on and the fan is in **AUTO** or **CONST** mode, the Fan button cannot switch it off.

If the fan is in an **ON** mode, it always runs, in **WINTER**, **SUMMER** and **OFF**. The Fan button cannot switch it off.



**Reset Button** - Press to reset the burner controls from lockout, (when this facility is available on the heater).



**Select Button** - Press to accept changes.



**Decrease Button** - Press to decrease values.

# User Instructions



**Increase Button** - Press to increase values.



**Quit Button** - Press to exit without saving changed values.



**Back Button** - Press to enter User Menu, go back to previous screen.



**Next Button** - Press to enter User Menu, go forward to next screen.



## Indicators

**Heating On LED** - Is illuminated when the MC200 is indicating a mode function (It does not confirm that the heating is actually working).

- Solid **Amber** - when the heater has a **Modulating mode**. **Amber** will also flash in **ErP mode** when any heat relay is switched on turning **Amber** when steady.
- Solid **Red** - when the heater is either in **Hi-Low mode** or a **Radiant mode**. **Red** will also flash in **Radiant mode** when fan in a 'delay on' or 'delay off' also in **ErP mode** when any heat relay is switched off.
- Solid **Green** - when the heater is an **On/Off mode**.

**Fault LED** - flashes when the burner control is at lockout, solid light when a service call is due (if this has been set) or when there is a sensor fault. The bottom line of the display will alternate between normal display and type of fault.

## B) Display

The first display normally shows:

- the current air temperature as measured by the internal sensor, an external sensor or the average temperature if two sensors are fitted.



- the time of day using 24-hr notation. The colon flashes once per second to confirm that the clock is running.



- the day of the week. Programmes are associated with individual days of the week or day-groups such as weekday or weekend.



- Programme number - Px n (where x represents the active programme number.)



- the current setting of the heater: ON or OFF, as determined by the internal programmes (the display will say ON even if the MC200 is not currently calling for heat because the thermostat is satisfied)



or for High/Low an indication of the heat demand. HEAT HI or HEAT LO,



or for Modulating burners a simple bar-graph display for modulating control heaters where 1 bar is low fire and 10 bars is high fire.



- "Frost Guard" is displayed when Frost/setback is set to ON and the space temperature is lower than the Frost/setback temperature setting.



## C) Direct Control

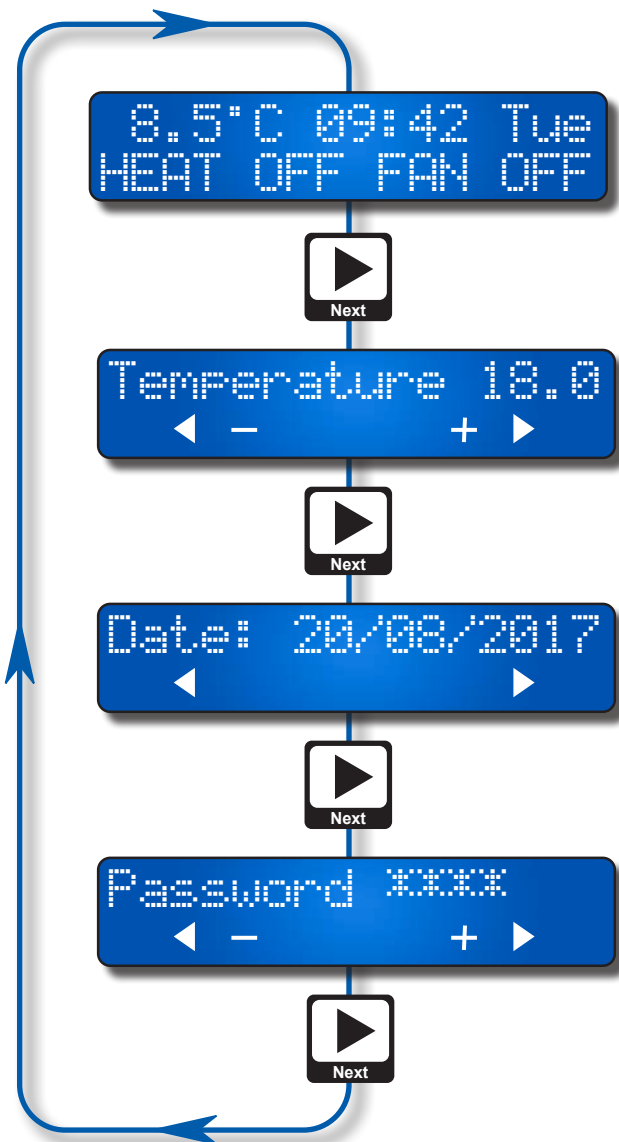


**Note:** If configured during the commissioning stage the User has the following direct control of the heater without using the settings menu.

- If the Fault LED is on because the heater is at lockout, the user can reset the heater by pressing the Reset button.
- The user can switch the heating ON or OFF by pressing the Heat button.
- The user can start or cancel extension time by pressing the Heat button longer than 3 seconds.
- The user can run the fan without heating, by pressing the Fan button.

# User Instructions

- Pressing of the next button will scroll through the screen displays available to the user



The top line will show which setting or which part of the programmes you are viewing.

The second line of the display shows which keypad buttons are active ( ◀ - ✓ X + ▶ ).

After changing any setting, press the ✓ button to save the new setting.

To return to the normal display, press the X button or do not touch any buttons for 15 or more seconds.

Keys ◀, ▶, - and + will auto-repeat if held down longer than approximately half a second.

The + button will automatically wrap round from the maximum value to the minimum value and the - button will wrap the other way.

## D) User Settings

### Temperature



This shows the temperature set by the currently active programme, and it is the target temperature for thermostatic control. The user can increase or decrease the value to adjust comfort. This will not alter the set temperature associated with the programme, but it will temporarily alter the target temperature for thermostatic control.

The effect of altering the temperature lasts until the current programme expires or until another programme changes the set temperature requirement.



**Note:** the range of adjustment permitted may be limited during commissioning. Temperature adjustment can be disabled by a setting within the user menu.

- Press the + or - button to increase or decrease the day temperature set point.
- Press the ✓ button to save changes, press the X button to exit without saving, press the ▶ button to move to the next setting.

### Clock Set



Sets the current date and the time of day. The correct date allows the MC200 to know the day of the week, allows for automatic BST-GMT changeovers, carries out the holiday shutdown function and permits override password entry.

- Press the ✓ button to alter date and/or time.
- Press the ◀ or ▶ button to select digit to change (digit chosen will flash).
- Press the + or - button to change the digit.
- Press the ◀ or ▶ button to select next digit to change or until 'Set clock?' appears on screen
- Press the ✓ button to save changes, press the X button to exit without saving, press the ▶ button to move to the next setting.

## Programme Settings



The MC200 has 14 programmes, each of which can be assigned to any day of the week. Each programme can be given an ON time, an OFF time and a set temperature. The user may organize the programmes in any way that suits. The simplest would be one programme ON in the morning, OFF at the end of the afternoon, active Monday to Friday.

If two or more programmes are active at the same time, for instance one is ON all day and another is ON between 11:00 and 13:00, then the set temperature of the second programme will apply between 11:00 and 13:00, and the set temperature of the first programme will apply during the rest of the working day.

Programme times increment in 5 minute steps.

Extension time (if set) applies when all programmes have reached the end of their set period for that day.

Optimum start applies at the beginning of the first programme to switch on and optimum stop applies at the end of the last programme to switch off.

- Press the ✓ button to set/alter programme.
- Press the ✓ button to alter programme P1 or the + or - button to select specific programme number then press the ✓ button to accept.
- Press the + or - button to alter/set the HEAT ON time.
- Press the ► button to move to the HEAT OFF time
- Press the + or - button to alter/set the HEAT OFF time.
- Press the ► button to move to the temperature
- Press the + or - button to change the temperature.
- Press the ► button to move to the Programmed days
- Press the + or - button to alter between: Mon-Fri; Sat/Sun; 7 days; Off or individual days.
- Press the ► button to and 'Save Prog x?' will appear.
- Press the ✓ button to save changes, press the X button to exit without saving, press the ► button to move to the next setting.

## Holiday Date



A future date can be set so that the heating will not operate on that date, and remains "OFF" for a consecutive number of days from that date. The date includes the year number, ensuring that the holiday shutdown date is not automatically repeated the following year.

During the holiday period the heater will only operate if the temperature falls below the frost temperature and if frost temperature operation is selected "ON" in the engineer menu. The night temperature setting is ignored during holidays. During the holiday period, manual operation of the fan or heater is permitted. Any manual operation still on at midnight will be automatically cancelled.

- Press the ✓ button to add a holiday period.
- Press the + or - button to set the start date.
- Press the ► button to select the month to change.
- Press the + or - button to set the month.
- Press the ► button to select the year to change.
- Press the + or - button to set the year.
- Press the ► button to select the number of days.
- Press the + or - button to enter the number of days.
- Press the ► button to and 'Holiday save?' will appear.
- Press the ✓ button to save changes, press the X button to exit without saving, press the ► button to move to the next setting.

## Run Mode



The MC200 has three Run modes: **WINTER**, **SUMMER** and **OFF**.

**Winter** - the heating operates when any programme is in a "HEAT ON" period. The heating also operates to maintain the Night Temperature if this has been set. The heating also operates when the temperature drops below the frost temperature.



**NOTE:** Summer/Winter mode has no connection with the clock change from GMT to BST.

**Summer** - the fan operates to circulate air when switched on manually. With certain types of heater or certain types of installation, Fan-only operation may not be appropriate and the fan control circuit should not be used.

In SUMMER the heating never operates unless the temperature drops below the frost temperature. During commissioning the frost temperature operation will be set to be ON or OFF. If the frost setting is OFF, the heater will not operate under frost conditions in any User mode.

**OFF** - the heater never operates unless the temperature drops below the frost temperature (see above)

- Press the + or - button to change between WINTER, SUMMER & OFF.
- Press the ✓ button to save changes, press the X button to exit without saving, press the ► button to move to the next setting.

# User Instructions

## User Button Permission



This menu option facilitates the user to enable or disable the following controls separately if it is required to restrict unauthorised access to user controls.



**NOTE:** User permissions are only effective when User access to the menu is protected by a password.

- **Reset** - Allows operation of the reset button
  - **Change temperature** - Allows temporary adjustment of the current set temperature
  - **Heat Override** - Allows switching ON/OFF and extension of Heat ON time
  - **Fan override** - Allows switching ON/OFF of the fan
- Press the ✓ button to alter the permissions.
  - Press the + or - button to toggle between YES & NO..
  - Press the ► button to select next digit to change or until 'Save??' appears on screen
  - Press the ✓ button to save changes, press the X button to exit without saving, press the ► button to move to the next setting.

## Set Password



The user may enter a 4-digit password here. Once set, the password must be given before selected user controls may be accessed or changed. "Set password" cannot be entered unless the password has been given.

As delivered, the MC200 has no User password restrictions.

- Press the + or - button to set the first digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the second digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the third digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the last digit.
- Press the ✓ button to save changes - 'SET OK' will appear briefly, press the X button to exit without saving, press the ► button to move to the next setting.

## Extension Time



A user can extend the heating to operate beyond the switch-off time of the last programme of the day, in 30minute increments, by pressing the Heat button. This menu option allows a maximum extension period to be set, in units of 30minutes.

If set to 0 minutes, extension is not permitted.

Factory default setting: 1hour. Maximum setting 3hours.

- Press the + or - button to set the appropriate extended time.
- Press the ✓ button to save changes - 'Setting saved' will appear briefly, press the X button to exit without saving, press the ► button to move to the next setting.

## Cost Log



This option shows the total hours run and the total cost of running since the log was last cleared. The display will show the date when it was last cleared. For this option to function it is necessary to enter the fuel cost and heater rating (see Engineer Menu for the latter). The cost log should be cleared whenever the heater type is changed.

For Hi/Lo heaters, there are two heater power entries and the MC200 will calculate the run cost according to the level of heat requested.

In the case of modulating control heaters, the cost is an estimate based on half the full heater power.

- Press the ✓ button to enter the submenu. Display shows Start Date.
- Press the ► button to select next screen 'Total Hours'.
- Press the ► button to select next screen 'Total Cost'.
- Press the ► button to select next screen 'Clear Log?'.
- Press the ✓ button to clear log. This will reset the start date to the current date.
- Press the ► button to select next screen 'costs per kWh'
- Press the + or - button to change the cost per kWh.
- Press the ✓ button to save changes, press the X button to exit without saving, press the ► button to move to the next setting.

## Password



Once a password has been set, the password must be entered at this menu option to allow access to selected user controls.

Once entered the password gives access to the User menu functions for 60 minutes.

To re-apply the restrictions before the end of the 60 minute period, select the 'Enter password' option and press the ✓ button without entering any digits. The display will show 'Password CLOSED'.

- Press the + or - button to set the first digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the second digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the third digit.
- Press the ► button to select the next digit.
- Press the + or - button to set the last digit.
- Press the ✓ button to save changes - VALID will appear briefly, press the X button to exit without saving, press the ► button to move to the next setting. If 'FAIL' appears on the screen, the incorrect password has been entered. Repeat entry sequence.

## E) Additional notifications

### Service Date

When the MC200 is installed the Commissioning Engineer may have entered a date for when the heating equipment requires servicing.

When this date is reached the MC200 fault indicator will be illuminated and the display will alternate between the normal display and "Service due, call engineer".



The Service Engineer can clear this display by entering a new service date when the heating equipment has been serviced.

# Operating Output Sequences

## Mode Types:

### Modulating

The 0-10Vdc output stays at zero and the Low heat relay (Terminals Heat In Lo and Heat Out Lo) will remain de-energised while the sensor temperature is at or above the set temperature.

Below the set temperature, the Low heat relay (Terminals Heat In Lo and Heat Out Lo) will operate and the modulating output voltage (Terminals 0-10v+ and 0-10v-) increases, reaching 10v when the sensor temperature falls to the threshold set i.e 0V at low fire, 10V at High Fire.

### Radiant

When configured for Radiant, the Low heat relay (Terminals Heat In Lo and Heat Out Lo) operates when the sensor temperature is below the set temperature (as per ON/OFF mode).

The High heat relay (Terminals Heat In Hi and Heat Out Hi) operates when the sensor temperature is below the set temperature by more than the number of degrees set in the Hi/Lo differential parameter to switch from low fire to high fire. The Low Level relay remains operated while the High heat relay is operated.

When the heat relay(s) are energised, power will be applied to the burner(s). The fan relay\* (Terminals Fan In and Fan Out) will be delayed for a period of 30 seconds (indicated by a flashing red LED) after which time, the fan relay will become active and the red LED will go solid.

When the heat relay(s) are disabled, the fan relay will remain active for a period of 180 seconds (indicated by a flashing red LED) after which time, the fan relay will become deactive.

If heat relays are required during the post purge 180 second period, these are delayed for a period of 30 seconds before being made active.

### RadiantC

When configured for RadiantC (Continuous Radiant Heaters), the menu option for Sensor 2 will be hidden, as Sensor 2 contacts will be used only as a normally-open volt-free contact input for a system pressure switch.

**\*\*NOTE:** *If the pressure switch is already closed (faulty) the Heat LED will not start flashing and this will be treated as a lockout fault.*

The fan relay\* (Terminals Fan In and Fan Out) will be delayed for a few seconds (indicated by a flashing red LED) after which time, the fan relay will become active.

The Low heat relay (Terminals Heat In Lo and Heat Out Lo) operates when the sensor temperature is below the set temperature (as per ON/OFF mode). This is indicated by a solid red LED.

The High heat relay (Terminals Heat In Hi and Heat Out Hi) operates when the sensor temperature is below the set temperature by more than the number of degrees set in the Hi/Lo differential parameter to switch from low fire to high fire. This is indicated by a solid red LED. The Low Level relay remains operated while the High heat relay is operated.

When the heat relay(s) are energised, power will be applied to the burner(s).

When the set point has been reached, the low heat relay is disabled, the fan relay will remain active for a period of 180 seconds (indicated by a flashing red LED) after which time, the fan relay will become deactive.

If the heat demand is re-established during this post purge period, the fan will turn off. A delay of 30 seconds allows the normally-open volt-free contact input for the system pressure switch to go open circuit after which delay, the fan will restart.

**\*\*** If for any reason the pressure switch opens whilst the unit is demanding heat, this will be treated as a lockout fault as follows:

- The heat demand will be stopped.
- The fan will continue to be driven for the 180-second purge time.
- The display will show "Heater lockout". Both LED's will initially flash, changing over to just the Fault LED flashing.
- After the purge time has elapsed, the Reset button may be used to clear the lockout fault.
- If required, the existing Auto Reset feature in Engineer Settings may be enabled to attempt unattended lockout reset.
- The unit will wait for 30 seconds with the fan off (Red LED flashing).
- Normal standby mode is resumed.

# Operating Output Sequences

## ErP Comp

When configured for ErP Comp, the controller will give three stages of control signal.

- Low power: The Low Fire relay will pulse on/off. ON time of 3 minutes (default), followed by a delay off time of 1½ minutes (default), repeating during this configuration.
- Medium power: Low Fire relay on continually.
- High power: Low and High fire relays both on.

Mod Off set (default 2°C)

When this mode of operation is selected the user display will be shown (which mimics the 0 to 10V control output). Using the bar graph as a reference, the following sets out power outputs via the bar-graph :- 0 to 2 bars output = OFF; 2 to 4 bars output = Low power (pulsing Low Fire); > 4 bars output = Medium power (Low fire on steady); > 7 bars output = High power (High fire on (+low fire))

In the ERP mode the fan control will operate as below:- once a heat demand is produced, the fan relay will be energised after a 30 second delay. When the heat "demand" (not low power pulsing) is stopped the fan will continue to run for a further 2½ minutes.

When any heat relay is turned OFF the Heating On LED will flash RED (for the duration of the OFF time). When any heat relay is turned ON then the LED will flash amber (for the duration of the ON time). When the heat demand is steady the LED will also be a steady amber.

## On/Off

When configured for a single burner heater, the Low heat relay (Terminals Heat In Lo and Heat Out Lo) operates when the sensor temperature is below the set temperature.

## High/Low

When configured for a two-stage burner heater, the Low heat relay (Terminals Heat In Lo and Heat Out Lo) operates when the sensor temperature is below the set temperature (as per ON/OFF mode).

The High heat relay (Terminals Heat In Hi and Heat Out Hi) operates when the sensor temperature is below the set temperature by more than the number of degrees set in the Hi/Lo differential parameter to switch from low fire to high fire e.g. If the set temperatures is 18°C and the Hi/Lo differential is set to 4°C the high heat relay will operate at <14°C. The Low Level relay remains operated while the High heat relay is operated.

# Fault displays and Fault Finding

## Heater Lockout

'Heater lockout' appears on the display if the MC200 receives a fault voltage onto terminal 7. The Fault LED will also be illuminated.



The lockout can be cleared by pressing the reset button on the front of the controller. This will send a pulse of neutral back up to the heater to remove the lockout condition.

If the lockout continues to display once the reset has been pressed, it may mean the interconnecting reset cable to the heater is not wired correctly or the heater has developed a permanent fault that requires a service engineer to identify.

## Sensor Fault

'Sensor fault' appears when there is a break in the circuit between terminals 'SEN1' and 'COM' or if fitted, 'IN2' and 'COM'.



This could be either a faulty sensor bead, an incorrect terminal connection or a break in a cable.

## Clock Fault

'Clock failure' will appear on the screen if the in-built battery has gone flat. This specially occurs if the power has been turned off to the controller for a long period.



Leave the power connected for at least 48hrs to re-charge the battery (one whole week is more realistic dependent on the age of the battery itself)

Also check the ribbon cable between the two pcb's is making good contact

## Service Date

When the MC200 is installed the Commissioning Engineer may have entered a date for when the heating equipment requires servicing.

When this date is reached the MC200 fault indicator will be illuminated and the display will alternate between the normal display and "Service due, call engineer".



The Service Engineer can clear this display by entering a new service date when the heating equipment has been serviced.

## Blank Screen

A blank screen is present on the display but the backlit light is still on.



Before replacing the MC200 ensure the controller has been powered up for more than 10-15 minutes.

If the screen is still blank, isolate the power and remove the controller fascia pad. Ensure the ribbon cable is connected between the two p.c.b's.

\*For a complete Hard Reset - With the power back on check the display. If still blank, push the power reset button on the rear of the pcb.



*\*only be undertaken by a competent person.*

If the screen remains blank, contact Powrmatic technical department.

# Fault displays and Fault Finding

## No Supply to Heat In/Fan In

If there is voltage at the mains terminals (L,N & E) and there is no mains supply on the Heat In or Fan IN terminals and you are utilising terminal 14 (L Out) to energise these terminals, then the 6.3A fuse requires replacing.



Isolate the power and remove the controller fascia pad. Pull off the clear plastic fuse cover and replace with new fuse.

## No Heat

If the display shows 'HEAT ON' but no heat output, then the room temperature may be greater than set point.



Follow the 'PROGRAMMING' procedure and raise the programme temperature. Also check above.

## No Heat On LED

Pressing the Heat Button has no effect - no heating on LED.

1. The room temperature may be greater than the set point.



Navigate to the 'Temperature' setting and increase the day set point using the + button.

If the temperature wont adjust, check the permissions setting as above.

If the temperature doesn't increase past a particular point, the range could be limited within the engineers setting.



Increase the max available temperature.

2. The heat button may be turned off within the permissions settings



# Getting In Touch

Powrmatic Limited  
Hort Bridge, Ilminster  
Somerset  
TA19 9PS  
tel: **+44 (0) 1460 53535**  
fax: **+44 (0) 1460 52341**  
e-mail: **info@powrmatic.co.uk**  
web: **www.powrmatic.co.uk**



Powrmatic Ireland  
45 Broomhill Close  
Tallaght  
Dublin 24  
tel: **+353 (0) 1452 1533**  
fax: **+353 (0) 1452 1764**  
e-mail: **info@powrmatic.ie**  
web: **www.powrmatic.ie**

More information is available from our website by scanning the following QR code.



Powrmatic pursues a policy of continuous improvement in both design and performance of its products and therefore reserves the right to change, amend or vary specifications without notice. Whilst the details contained herein are believed to be correct they do not form the basis of any contract and interested parties should contact the Company to confirm whether any material alterations have been made since publication of this brochure.