



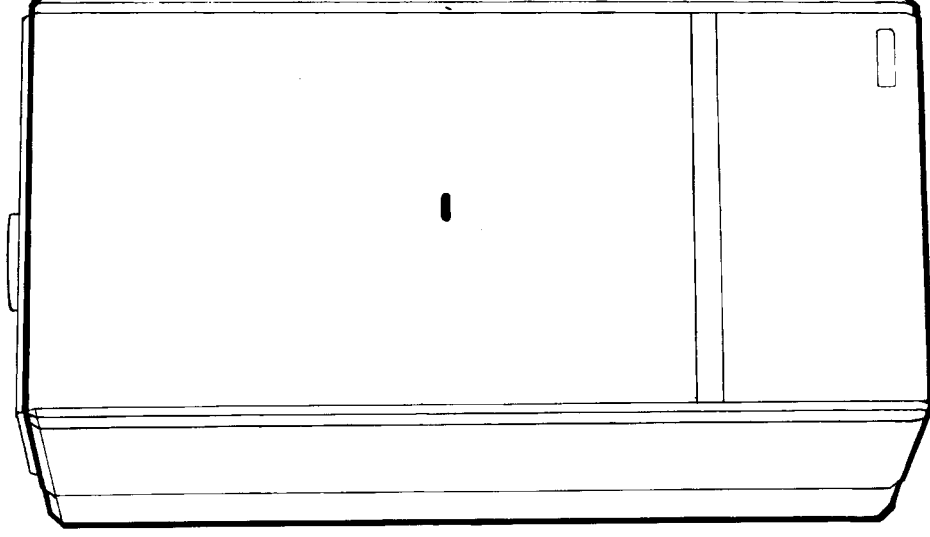
## 20/80 CF and 24/96 CF Flowmatic

# Users Instructions

20-80 CF G.C. No. 47 094 10  
24-96 CF G.C. No. 47 094 09

British Gas Tested and Certified  
NWC No. 89 11 061

HAND THESE  
INSTRUCTIONS  
TO THE USER.



**BEFORE ATTEMPTING TO LIGHT APPLIANCE PLEASE MAKE SURE THAT IT IS CHARGED UP WITH WATER WITH THE NEEDLE POINTING BETWEEN 1bar AND 1.5bar ON THE PRESSURE GAUGE (8)**

Gas Safety (Installation and Use) Regulations 1984

In your own interests and that of safety, it is the law that all gas appliances are installed and serviced by a competent person in accordance with the regulation.

**Gas Leak or Fault**

IF A FAULT OR GAS LEAK IS SUSPECTED, TURN OFF THE APPLIANCE AND CONTACT YOUR LOCAL GAS REGION OR SERVICE ENGINEER.

**INTRODUCTION**

Your Vokera Flowmatic is a combination boiler supplying central heating and instantaneous domestic hot water only. In the winter when both Central Heating and Hot Water are needed the central heating circulation stops when hot water is being drawn off. This normally will not affect the level of heating.

**Appliance Location**

**Clearances**

- Minimum - above 50mm (2in) (from casing)
- Minimum - below 300mm (12in) (from casing)
- Minimum - in front 600mm (24in)
- Minimum - At sides 75mm (3in)

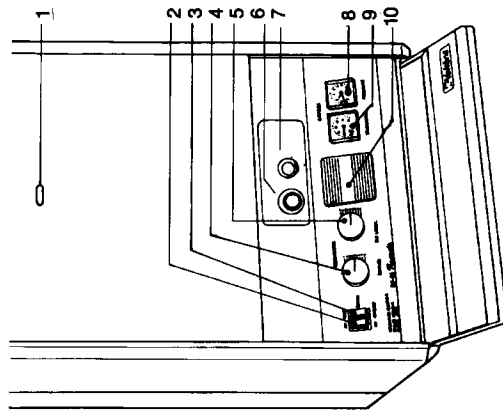
Any purpose provided ventilation openings must not be blocked, and should be checked periodically to ensure this. Any compartment should not be used as a storage cupboard (e.g. for food).

**NEVER HANG CLOTHES ETC. OVER THE APPLIANCE.**

- 1 Pilot Sight Glass
- 2 On/Off Switch
- 3 Timed/Summer/Constant Switch
- 4 Heating Thermostat
- 5 DHW Thermostat
- 6 Gas Control Knob
- 7 Piezo Ignitor Button
- 8 Pressure Gauge
- 9 Temperature Gauge
- 10 Time Clock Aperture

The Internal Time Clock is an optional extra

Note: Timed/Summer/Constant Switch (3). If the appliance is not fitted with a Vokera Time Clock (in position 10 on diagram) the switch must always remain in the Constant position when Central Heating is required.



**ELECTRICITY SUPPLY**

**WARNING: THIS APPLIANCE MUST BE EARTHED**

Connection should be made to a 240v~ 50Hz supply. The appliance must be protected by a 3amp fuse if a 13amp (BS 1363) plug is used. If any other type of plug is used a 5amp fuse in the circuit is necessary.

**To connect a plug:**

As the colour of the wires in the mains lead to this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:-

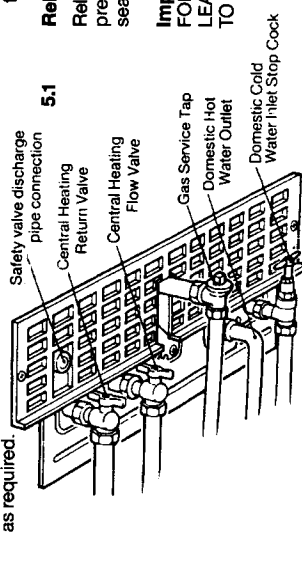
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Lower the controls fascia cover at base of appliance.

- 1.0 LIGHTING THE PILOT**  
**1.1** Switch on the electricity supply at the mains isolating point, but ensure that the ON/OFF switch (2) is in the OFF position.  
**1.2** Select 'Summer' position on switch (3)  
**1.3** Ensure that the gas supply to the appliance is 'ON'.  
**1.4** Press the gas control knob (6) and hold it in whilst pressing the ignitor button (7) until a pilot flame is seen through the viewing window (1). Continue to press the gas control knob for 15 seconds, then slowly release. The pilot should remain alight. If the pilot does not remain alight or goes out on any occasion, wait 3 minutes and repeat the procedure as above.  
**1.5** Switch the ON/OFF switch (2) to ON.  
**2.0 Hot Water Only**  
**2.1** With the ON/OFF switch (2) ON, the pilot lit and the selector switch (3) in the summer position, the main burner will ignite whenever water is drawn from the tap.  
**2.2** The temperature of water at the tap can be varied by adjusting the water flow rate at the tap. The hot water thermostat (5) will govern the maximum temperature.  
 Setting 1 approx 60°C Setting 9 approx 80°C. The temperature gauge (9) indicates the temperature of the central heating water, not the tap water.  
**3.0 Heating and Hot Water**  
**3.1** With the appliance ON/OFF switch 'ON' and the pilot lit. Turn the appliance Timed/Summer/Constant switch (3) to constant (if external controls are fitted e.g. timeclock and/or room thermostat ensure they call for heat) the main burner will light.  
**3.2** Adjust the thermostat knob (4) to suit the weather; 1 is the lowest setting 9 is the highest.  
 N.B. (i) For the quickest heat up of the premises the highest setting is needed at first, turning down later.  
 (ii) When Room Thermostats are used it may be best to leave the appliance thermostat at a high setting and set the room thermostat as required.



- 4.0 Safety Limits**  
**4.1** System pressure  
 The water pressure gauge (8) must read between 1bar and 1.5 bar when the system is cold. Leaks or radiator venting will reduce this. Call in your service engineer or installer if excessive topping up of the system to restore pressure is necessary. A built-in safety valve operates if boiler pressure exceeds 3bar whether hot or cold. If the safety valve operates (water/steam discharges to drain) switch off and call in the Installer or Service Engineer.  
**4.2** If the appliance water temperature rises too high, a safety cut-out operates to extinguish the burner and pilot flame. Relight by following section 1.0. If pilot cuts out again, the appliance must be checked by a competent person, before relighting.  
 N.B. The central heating flow and return valves have a red handle which is vertical when open and horizontal when closed. Leave in the vertical (open) position.  
**5.0 Shutting Down the system**  
 (i) **Short Term**  
 Turn off at 'on/off' switch (2). The pilot will remain alight.  
 (ii) **Longer Term**  
 Turn off at 'on/off' switch (2). Extinguish pilot by turning gas knob (6) clockwise.  
 (iii) **Long Term e.g. holidays**  
 As (ii) but turn off gas, cold water inlet stopcock and main electricity supply. However, if the building is vacated when there is risk of freezing shut down the boiler as described and drain the system: Open all heating radiator valves and drain through the cocks usually provided at the lowest point of the system. To ensure draining of radiators open radiator air cocks **remembering to close them** when the operation is complete.  
 Alternatively, install a Frost Stat and leave the mains electricity supply turned on.  
 N.B. Refilling a sealed system must be undertaken by a competent person following approved procedures.  
**Relighting the Boiler**  
 Relight by following section 1.0 given previously, after ensuring that refilling of the sealed system has been carried out.  
**Important. IF THE PILOT IS EXTINGUISHED FOR ANY REASON, ALWAYS WAIT AT LEAST 3 MINUTES BEFORE ATTEMPTING TO RELIGHT.**

- 6.0 Cleaning the Outer Case**  
 Use a clean damp cloth. Do not use abrasive cleaners.  
**7.0 Spare Parts and Servicing**  
 Your Vokera Flowmatic should be serviced annually. Please contact your local Vokera Service Department, your local Gas Region or a competent Installer.  
**8.0 Vokera Time Clock**  
 24 hour version and digital 7 day version  
**8.1** When a Vokera Time Switch is fitted in the fascia it can be used to programme the central heating ON and OFF times.  
**8.2** Timed/Summer/Constant Switch  
 For the time clock programme to operate the switch (3) must be in the Timed position. The central heating will operate regardless of the Time Clock programme if the Switch (3) is in the Constant position.  
**9.0 Setting the Time Clock (24 hour version)**  
**Setting the Time**  
 The time of day can be set by grasping the outer edge of the black dial and turning it in a clockwise direction until the correct time is in line with the white pointer.  
**Setting 'Switching Times'**  
 The 'on' periods are set by sliding the tappets adjacent to the time periods required to the outer edge of the dial. The tappets which remain at the centre of the dial will be the 'off' periods.  
 N.B. The smallest switching time (ON or OFF) is 15 minutes.  
**10.0 Vokera Time Clock (Digital 7 day version)**  
 The Vokera digital clock has the normal individual daily setting facility and a group timing feature.  
 Group timing allows for any single time slot of the 16 available to be repeated over one of the following three periods:-  
 MONDAY TO SUNDAY  
 MONDAY TO FRIDAY  
 SATURDAY AND SUNDAY  
 N.B. The display will not show until the clock has been connected to mains power for approximately two minutes.

- USE OF THE TIMER**  
**Setting the time**  
 1. Press and hold ( ) button whilst carrying out steps 2, 3 and 4.  
 2. Set hour of day using h+ button.  
 3. Set minute of day using m+ button.  
 4. Set day of week by repeatedly pressing button marked 'Day'.  
 5. Releasing ( ) button starts time switch running.  
**ATTENTION!** If keys h+ or m+ are kept depressed for longer than 2 seconds, a rapid advance of figures will result.  
 Before entering any programme draw up a chart to arrange the settings required and enter in a chronological order, as on read back the programme displays in the order of entry.  
**TO PROGRAMME 'SWITCHING ON' TIMES**  
 (a) Press button marked 'CH1' once. The time of day - as set - disappears from the display.  
 (b) Press button marked 'Day' until the day or group of days requiring setting are displayed.  
 (c) Set the 'ON' time of programme required by using 'h+' and 'm+', buttons for hours and minutes. Please read the notes at the end of these instructions if you wish this switching time to be carried out on several days.  
 Again press button marked 'CH1', so that the command will be incorporated in the programme storage compartment.  
 ---.--- will appear.  
**CH1 OFF**  
**TO PROGRAMME 'SWITCHING OFF' TIMES**  
 Now insert the 'OFF' time of the programme required using 'h+' and 'm+', buttons for hours and minutes.  
 (b) Press button marked 'Day' until the day or group of days requiring setting are displayed.  
 (c) In order to insert further switching times 'ON or OFF' - press 'CH1' button once or several times respectively. The display shows a vacant storage space; for instance, ---.--- will appear.  
**CH1 ON**  
 Input of 'ON/OFF' times as described above may be carried out. Eight 'ON/OFF' programmes can be set. Press the button marked ( ) on completion of programme settings.

#### **NOTES: MULTIPLE WEEK-DAY SWITCHING GROUPS**

It is possible to combine switching commands within the switching time programme if they are to be executed at the same time on different days of this week. For this purpose your instrument offers the following possibilities.

Constant daily repetition:

Monday - Sunday (Mo-Su)

Week-days only:

Monday-Friday (Mo-Fr)

Week-ends only:

Saturday + Sunday (Sa-Su)

These weekday combinations can be called up with key 'Day' (for instance Mo,Tu,We,Th,Fr) during the programming operation of switching times. Thus switching time carried out for instance Monday - Friday at 13.00 hrs requires only one storage space.

Alterations are carried out by 'overwriting' of the individual command. To achieve this, follow the procedure for 'SWITCHING ON AND OFF' (Programming of switching times).

#### **CANCELLATION OF SWITCHING COMMANDS**

If keys 'h+' and 'm+' are used to overwrite a switching command in such a way that the hour and/or minute area in the display shows the symbol "--", the input is no longer effective, but it remains in the storage compartment as an inactive part.

#### **SWITCHING CONDITION INDICATION**

The actual switching condition is shown in the displays as 'ON' or 'OFF' together with the time of day.

#### **PRE-SELECTION SWITCH (Hand Symbol)**

The programming key has 4 functions

Press once:

Advancement of next switching command:  
ON and OFF respectively

Press again:

Constant switching-on - closing contacts  
Indication in display: FIX ON

Press again

Constant switching-off - opening contacts  
Indication in display: FIX OFF

Press again

Return to automatic operation

#### **SUMMER TIME / WINTER TIME CHANGE-OVER**

From winter time to summer time:

Depress key 1 h briefly once (Display shows symbol + 1 h)

From summer time to winter time:

Depress key 1 h briefly once (Symbol +1 h disappears from display)

#### **RUNNING RESERVE**

In the case of mains electricity failure, the internal battery ensures that the actual time of day continues to operate and that the automatic switching programme remains intact. The instrument can be programmed completely even without mains supply, provided the back-up battery is fully charged (charging time 70 hours).



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