Friendly Combination Boilers
user instructions
GAS SAFETY (INSTALLATION AND USE) REGULATIONS 1984. It is the law that all gas appliances are installed by a competent person, in accordance with the above regulations. Failure to install appliances correctly could lead to prosecution. It is in your own interest, and that of safety, to ensure that the law is complied with. It is essential that the appliance is correctly earthed. An electricity supply of 240 V - 50 Hz fused at 3 A is required. Read these instructions carefully before attempting to operate the appliance.

1.1 INTRODUCTION

The Sime “FRIENDLY” is a wall mounted, fan assisted balanced flue combination boiler. When operating in winter mode, the appliance provides central heating as required and produces instantaneous hot water upon demand up to a maximum output of 24.0 kW (82,000 Btu/h). When operating in summer mode, the central heating is not operational however the appliance continues to supply hot water whenever it is required. The heat output is automatically controlled by the fully modulating gas valve (within its preset limits), and there are user adjustable thermostats to control the temperature of both central heating and domestic hot water. Pressure gauge is fitted and an overheat thermostat is incorporated to protect against fault conditions.

1.2 APPLIANCE OPERATION

A demand of hot water will be sensed by the appliance detecting water flow (providing that the flow rate is above 2.8 l/m - 0.62 gal/min). The fan will start and the main burner will light at full output. If the draw off rate is near the maximum design flow rate the appliance will run continuously at full output until a tap is either turned off or the flow rate is reduced in which case the heat output will reduce accordingly to maintain a steady temperature. Hot water is made available almost immediately at the appliance outlet, but the final temperature and time taken for the hot water to reach a tap depends upon the thermostat setting, the rate at which water is drawn off, and the length of the pipe between the boiler and the tap. When the tap is turned off, the appliance will revert to C.H. mode (if set on winter position). Otherwise the burner will be extinguished pending the next demand for hot water.

1.3 OPERATING INSTRUCTIONS

1.3.1 To light the appliance (see fig. 1)

- Check that the electricity supply is off and that the D.H.W. isolation valve (J) is in the open position. Check that the gas supply is on.
- Turn the Summer/Winter switch (B) to SUMMER (water only) position “ ”.
- For “FRIENDLY” model switch on the electricity supply. Fully depress the gas valve control knob (H) and hold in. After approximately 15 secs. a spark will light the pilot. After a further 20 secs. release the button and the pilot should remain alight (check through the viewing window). Fully open any D.H.W. tap and the burner will light. Turn off the tap.
- For “FRIENDLY E” model switch on the electricity supply and full open any D.H.W. tap. The burner will light. Check that the burner has lit by looking through the viewing window (G). If the burner fails to light, press the overheat thermostat reset button (I) once and the burner should now light. Turn off the tap.
- Check that the room thermostat (if fitted) is calling for heat and turn the clock overriding switch (A) to the ON position “ ● ”. Turn the heating thermostat (C) to maximum (fully clockwise).
- Turn the Summer/Winter switch to the WINTER position “ ● ” and the burner will light to serve the heating load.
- Set the Summer/Winter switch (and the room thermostat if fitted), to the desired position and set the required temperature for the C.H. and D.H.W. by rotating the thermostats (C - D) clockwise to increase or anticlockwise to decrease the temperature.

NOTE: when operating in winter mode, priority is automatically given to providing hot water when the demand arises.

1.3.2 To turn the appliance off (see fig. 1)

- For short periods:
  Set the Summer/Winter switch (B) to SUMMER position “ ”. When required - restore the switch to the WINTER position “ ● ”.

- For longer periods:
  Set the Summer/Winter switch (B) to SUMMER position “ ● ”. For “FRIENDLY” model turn the gas control knob clockwise to extinguish the pilot. Isolate the gas service cock (K).

Fig. 1

KEY
A Clock overriding switch
B Summer/Winter switch
C C.H. thermostat
D D.H.W. thermostat
E Time clock
F Pressure gauge
G Viewing window
H Gas valve control knob (“FRIENDLY” model)
I Overheat thermostat reset button (“FRIENDLY E” model)
K Gas service cock
J D.H.W. inlet valve
cock (K). When required - restore the switch to the WINTER position “d” and turn on the gas service cock. For “FRIENDLY E” model follow the procedure for lighting the pilot.

NOTE: when gas and electrical supplies must be turned off, the entire system should be drained, including the domestic water system.

### 1.4 Minimum Clearances

The following MINIMUM CLEARANCES must be available for servicing the appliance:

<table>
<thead>
<tr>
<th></th>
<th>mm</th>
<th>in</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOVE THE APPLIANCE CASING</td>
<td>200</td>
<td>8</td>
</tr>
<tr>
<td>AT THE R.H.S.</td>
<td>90</td>
<td>3 1/2</td>
</tr>
<tr>
<td>AT THE L.H.S.</td>
<td>5</td>
<td>1/4</td>
</tr>
<tr>
<td>BELOW THE APPLIANCE CASING</td>
<td>200</td>
<td>8</td>
</tr>
<tr>
<td>IN FRONT OF THE APPLIANCE</td>
<td>450</td>
<td>18</td>
</tr>
</tbody>
</table>

### 1.5 Routine Servicing

To ensure continued efficient operation of the appliance, it is recommended that it is checked and serviced as necessary at regular intervals. The frequency of servicing will depend upon the particular installation conditions and usage but in general once a year should be adequate. It is the law that any service work must be carried out by a competent person such as British Gas or other Corgi registered personnel.

### 1.6 General Information

#### 1.6.1 Appliance Overheat Thermostat

The appliance is fitted with a safety cut-out thermostat. In the event of overheating this will operate and interrupt the pilot thus preventing the appliance functioning. If this occurs allow the appliance to cool and then follow the procedure for lighting the pilot.

For “FRIENDLY E” model before lighting the boiler press the overheat reset button (I).

If the cut-out condition is repeated, turn off the electrical supply and consult your installer or service engineer.

#### 1.6.2 Pressure Gauge

The gauge (F fig. 1) on the facia panel indicates the approximate system pressure. If the normal running pressure is seen to decrease over a period of time there is a water leak and you should consult your installer or service engineer.

#### 1.6.3 Electrical Supply

The appliance MUST be connected to the supply via a fused, double pole switch, having 3 mm (1/8 in) contact separation in both poles, serving only the boiler and system controls. The fuse rating should be as per the original instructions. A competent, qualified electrician MUST be consulted.

### 1.6.4 Setting the heating programmer

To set the heating timeswitch proceed as follows:

- the heating timeswitch is surrounded by 96 teeth, when pushed in, each one switches on the boiler for 15 minutes;
- push down the teeth corresponding to the HEATING ON requirements;
- set the clock to the correct time by rotating the dial clockwise until the arrow corresponds to the current time;

#### 1.6.5 Ventilation

If the appliance is installed in a cabinet, the latter MUST NOT be used for storage purposes. Any ventilation provided for the appliance during installation MUST NOT be blocked and a periodic check must be made to ensure that the vents are free from obstructions.

#### 1.6.6 Cleaning

Use only a damp cloth and mild detergent to clean the appliance outer casing. DO NOT use abrasive cleaners.

### 1.7 Safety

It is essential that the instructions in this booklet are strictly followed for the safe and economical operation of this appliance. The appliance functions as a fan assisted balanced flue unit. The flue terminal MUST NOT BE OBSTRUCTED under any circumstances. If damaged, turn off the appliance and consult the installer, service engineer, or Local Gas Region. If it is known or suspected that a fault exists on the appliance it MUST NOT be used until the fault has been rectified by a competent person.

WARNING: IF A GAS LEAK IS SUSPECTED OR EXISTS, TURN OFF THE GAS SUPPLY TO THE APPLIANCE AT THE GAS SERVICE COCK. DO NOT OPERATE ANY ELECTRICAL SWITCHES. DO NOT OPERATE ANY ELECTRICAL APPLIANCE. OPEN ALL WINDOWS AND DOORS. DO NOT SMOKE. EXTINGUISH ALL NAKED LIGHTS. CONTACT THE LOCAL GAS REGION IMMEDIATELY.