RAVENHEAT
MANUFACTURING LIMITED

CONDENSING SYSTEM INNOVATION SUPER HIGH EFFICIENTY AUTOMATIC MODULATING COMBINATION BOILER FOR CENTRAL HEATING AND DOMESTIC HOT WATER

USER'S GUIDE
HE 85 AAA(T) - 780 SERIES

WITH OR WITHOUT BUILT IN TIMER

It is the law that all gas appliances are installed by a competent person, in accordance with the gas safety installation and use current regulations. To the current Gas Safety (Installation and Use) Regulations B.S. 5440:2 - (2000).

All CORGI registered installers carry a CORGI I.D. card and have a registration number. Both should be recorded in your boiler log book. You can check your installer by the gas safe register.

benchmark
The code of practice for the installation, commissioning & servicing of central heating systems

Escape of gas

Should a gas leak be suspected, contact your gas supplier without delay.
Do NOT search for gas leaks with a naked flame.

WARNING: This appliance must be earthed.
Do not touch or tamper with this sealed unit or its components.

1 INTRODUCTION

1.1 Please carefully read information given in the booklet to help you gain maximum control from your appliance with minimum trouble and cost.

1.1.1 Your Ravenheat Condensing Combination Boiler has been designed to supply your Central Heating and Domestic Hot Water directly from one unit. When central Heating is operating, the circulation will be interrupted when domestic hot water is being drawn off. This will normally not affect the level of heating.

1.2 CLEARANCES AROUND THE BOILER

Above 125mm   (5 inches)
Below 150mm   (6 inches)
Front 450mm   (18 inches)
Sides 5mm   (0.2 inches)
25mm (1 inch) in front when installed in a cupboard.

PLEASE NOTE

Due to the high efficiency and resulting low flue gas exhaust temperature a white plume of condensation vapour (cool steam) will be emitted from the flue outlet terminal, this is quite normal. It will be particularly evident during periods of low outdoor temperatures or when the boiler is working at its optimum performance.

1.2.1 Minimum clearances are required for safety and maintenance.
Do not obstruct any purpose made ventilation opening if boiler has been fitted in a compartment. Never hang clothes, etc., over the appliance.

1.3 USER CONTROLS
(See Fig. 1)

1.3.1 This appliance is designed to operate with the minimum of attention by the user.
All controls are to be found on the control panel.

1.4 OPERATING SAFETY CHECKS TO PROTECT YOUR APPLIANCE

1.4.1 Before lighting the appliance check central heating system pressure ((7) is not less than 1 bar gauge. If it is below this do not light but consult your installer about refilling your system as you may have a leak in the system.
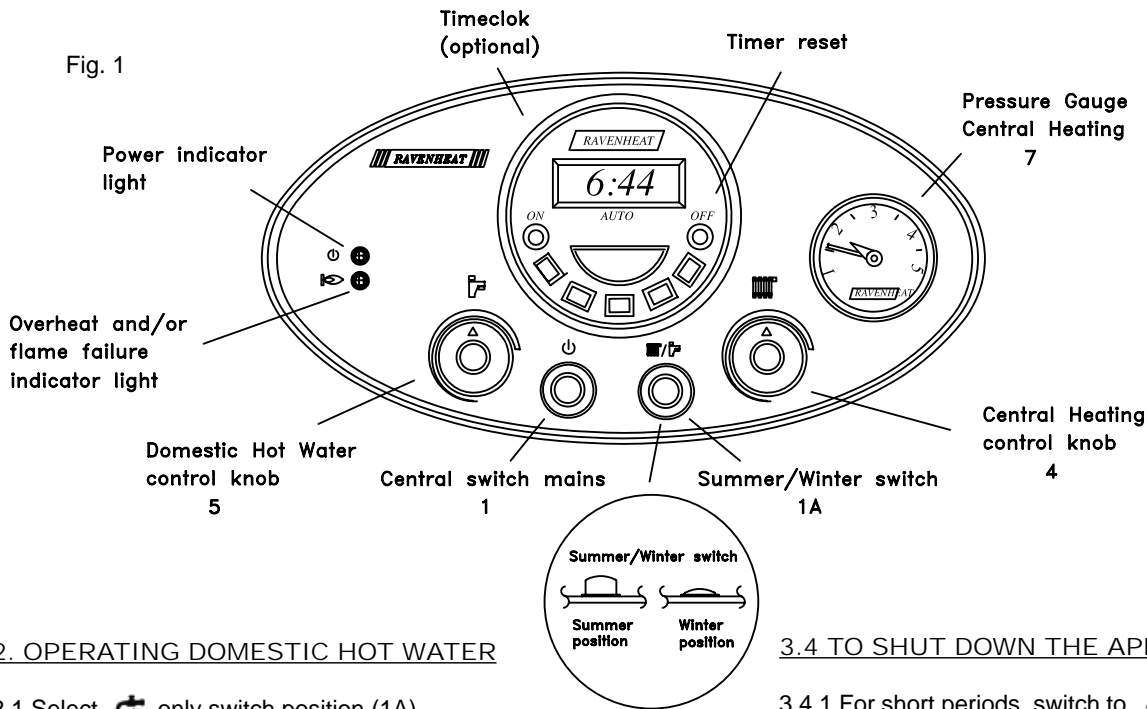
1.4.2 A RED warning light on the control panel (8) warns of a flame failure of the burner. This can be reset manually by pressing mains boiler on/off switch (1).

1.4.3 A RED warning intermittence light on the control panel (8) warns of a high temperature lockout on the overheat thermostat. This could occur due to air or poor circulation in the boiler/heating circuit. This can be reset manually by pressing mains boiler on/off switch (1). If lockout should persist leave the appliance shut down and consult your installer/service engineer immediately.

1.4.4 The HE 85 AAA - 780series condensing boiler is fitted with a condensate outlet which must be connected by the installer to a suitable discharge point as specified in the installation manual.
On no account should this discharge pipe be blocked or modified.

Fig. 1

Timeclok (optional)

Timer reset

Pressure Gauge Central Heating 7

Power indicator light

RAVENHEAT

6:44

ON   AUTO   OFF

Overheat and/or flame failure indicator light

Summer/Winter switch

Summer position   Winter position

Domestic Hot Water control knob 5

Central switch mains 1

Summer/Winter switch 1A

Central Heating control knob 4

2. OPERATING DOMESTIC HOT WATER

2.1 Select ⌁ only switch position (1A).

2.2 Open hot water tap.
After about 3 seconds burner will always operate.

2.3 Temperature of domestic hot water can be varied by adjusting the water flow rate at the tap.
Domestic thermostat (5) will control maximum temperature leaving the appliance.
The knob can be set between minimum and maximum.
approximately 35 °C to 65 °C (95F to 1 49F).
For maximum temperature of domestic hot water leave in maximum position.

3. OPERATING HEATING & HOT WATER

TO SET AND ADJUST BUILT-IN TIMER MODEL SEE OPPOSITE PAGE 3.

3.1 Select switch (1A) position.

3.2 Switch on time clock, adjust room stat and/or thermostatic radiator valves to high settings.

3.3 Burner will operate. Temperature output of central heating can be adjusted by central heating thermostat (4).
The knob can be set between minimum and maximum approximately 40 °C to 85 °C (140°F to 185°F).
While the appliance is being used to provide domestic hot water, the central heating will not operate.
When hot water is no longer required the appliance will automatically revert to central heating and should not noticeably affect the level of central heating.
Adjust external controls to required settings.
NOTE: An anti-cycling device is fitted to the heating function.
When the boiler reaches its set maximum temperature it will not operate on heating for about 4 minutes but the domestic hot water function will always operate on demand.

3.4 TO SHUT DOWN THE APPLIANCE

3.4.1 For short periods, switch to ⌁ only and turn off all hot taps. For long periods switch of the on/off switch (1).
If the appliance is to be shut down for long periods when there is a risk of freezing, then appliance should be drained.
Similar refilling must be done by a competent person following approved procedures.

4. CLEANING OF APPLIANCE OUTER CASING

4.1 Use a clean damp cloth.
Do not use any abrasive cleaners end with a dry cloth lightly polish to protect painted surfaces.
Control panel and fixtures can be wiped with damp cloth and dried. Spray polishes must not be used on control panel surfaces or switches.
Care must be taken in preventing any liquids entering the appliance.

4.2 CARE OF YOUR APPLIANCE AND SYSTEM

4.2.1 Annual servicing of your appliance is required to maintain safety and efficiency of its operation.
Therefore it is recommended that the appliance is serviced at least once a year and that the whole of the heating system be checked at the same time by a qualified installer.
If it is known or suspected that a fault exists on the boiler then it MUST NOT be used until the fault has been corrected by a COMPETENT PERSON.
It is essential that the instructions in this booklet are strictly followed for safe and economic operation of the boiler.

SERVICING SHOULD BE CARRIED OUT BY A QUALIFIED INSTALLER.

Ravenheat Manufacturing Ltd.,
Chartists Way, Morley, Leeds LS27 9ET.

PROGRAMMABLE TIMECLOCK
INSTRUCTIONS FOR USE

Your Ravenheat boiler comes complete with (optional) digital programmer.
The timeclock is supplied with a cover to prevent accidental loss of programme, or children tampering with pre-set programmes.

5. TO PROGRAMME TIMECLOCK

To access programming buttons remove clear cover. Press reset key with a pencil before setting or reprogramming times.

5.1.1 TO SET TIME AND DAY OF THE WEEK:

5.1.1.1 SET DAY OF WEEK:
- Press clock button and hold in.
  Press day button to desired day.
- Release both buttons.
  The day of the week will be set.

5.1.1.2 SET HOUR:
- Press clock button and hold in.
Press hour button to desired time.
- Release both buttons.
The hour will be set.

5.1.1.3 SET MINUTE:
- Press clock button and hold in.
  Press minute button to desired time.
- Release both buttons.
  The minute will be set.

NOTE: When, setting time holding in the hour/minute button this will rapidly advance the display.

5.1.2 TO SET PROGRAMMES:

5.1.2.1 Press timer button and release to enter into programme mode.

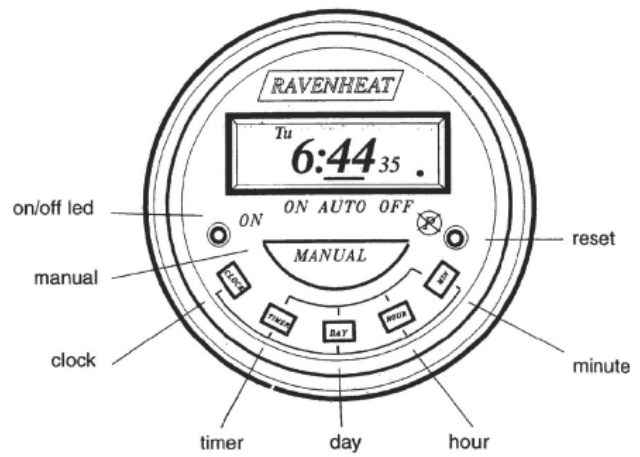5.1.2.2 Programme "1 ON" will show in lower left hand corner.

5.1.2.3 Press **DAY** key to select the programme period. There are 10 day settings for your choice.
(1) Mo to Su (2) Mo (3) Tu (4) We (5) Th (6) Fr (7) Sa (8) Su (9) Mo+Tu+We+Th+Fr (10) Sa+Su.

You now have a choice of 6 programmes.

5.1.2.4 Press hour button to set the required hour'on'

5.1.2.5 Press minute button to set minute.

5.1.2.6 After setting the programme press **TIMER** key again "1 OFF" will appear.
Repeat procedure 5.1.2.3 through to 5.1.2.5 to set programme "1 OFF"TIME.

For each programme days `off' setting must be input the same as the `on' setting.

5.1.2.7 After setting programme 1 ON/OFF TIME repeat step 2.1 to 2.7 to set programmes 2 through to 6 if required.

5.1.2.8 Your timer gives you up to 6 different ONE and 6 different OFF settings per programme period. Note you have a choice of 6 ON-6 OFF programmes max.

5.1.2.8.1 REVIEW YOUR PROGRAMMES:
- Press the TIMER key to advance display to eache subsequent ON or OFF setting.
- Check days and times displayed.
- To make a change, follow instructions under "TO SET PROGRAMMES".
Note on completion of programming operations press the clock button to show current time/day and replace the clear tamper proof cover.

5.1.2.8.2 MANUAL KEY
- Press MANUAL key to select ON / AUTO / OFF mode.
- ON mode is to turn on the timer, OFF mode is to turn off the timer.
- AUTO mode is to set the timer to programme mode. It will turn on or turn off according to the programmes you set.
- From ON to AUTO mode it will turn on until next OFF programme.
- From OFF to AUTO mode it will turn off until next ON programme.

5.1.2.8.3 LED INDICATOR
LED light is on when the boiler is operating in heating mode.
5.1.3 TO RESET TIMER:
Press reset button to reset the timer unit.

NOTE:
Once the reset button is pressed, the stored time and programme will be cleared to initial state.

N. B.: When the clock is either "programmed" on, or is on constant, the red indicator will illuminate.

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improvements in our products which may affect the accuracy
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