



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

USER'S GUIDE

CSI 120/ 150 (T) Low Nox (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 ID card and have a registration number. Both should be recorded in your boiler Log book. You can check your installer by calling CORGI direct on 01256 732300.



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 again maximum control from your appliance with minimum trouble and cost.

1.1.1 Your Ravenheat Condensing Low Nox 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.

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 temperature or when the boiler is working at its optimum performance (Plume Management kit is available on request)
IMPORTANT : In the event of overheat of flue gas exhaust temperature, for to prevent malfunction of the appliance, boiler will be stop to operate.

1.2 CLEARANCES AROUND THE BOILER

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

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, ect, over the appliance

1.3 USER CONTROLS (Fig.1)

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

1.4 OPERATING SAFETY CHECKS TO PROTECT YOUR APPLIANCE

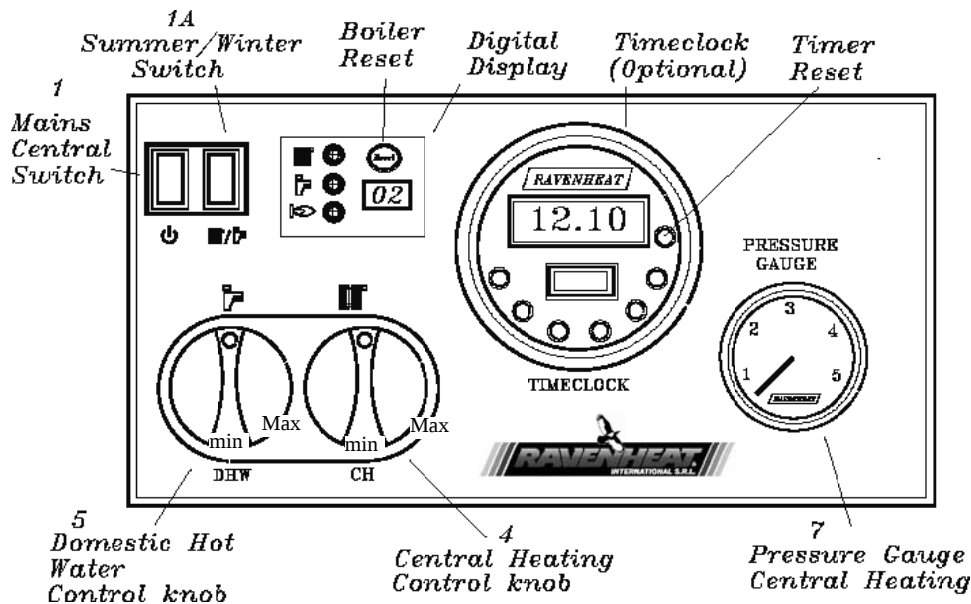
1.4.1 Before lighting the Appliance check Central Heating system pressure (Fig.1 item 7) is not less than 1 bar. If it is below this do not light but consult your installer about refilling your system as you may have a leak .

1.4.2 In the event of malfunction of the appliance will be indicate by the relevant error code (Table1) on Digital Display of the control panel (Fig.50). These can be Reset by press a RESET button .
If lockout code persist leave the appliance shut down and consult your installer/service

Table 1

01: Lock out from the Flame Control Unit
02: Flue System obstruction
04: Overheat Lockout
06: Open or short circuit on Sanitary probe
12: Open or short circuit on Heating probe
14: Flame simulation on Flame Control Unit
17: Fault on Fan Control
28: Water Flow Switch Fault or low pressure in the heating system
30: Flue temperature fault

Fig.1



2. OPERATING DOMESTIC HOT WATER

- 2.1 Select summer / Winter switch on Summer position
- 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 Domestic Hot water. The temperature can be set between minimum (40°C) and Maximum (60°C).
For maximum temperature of Domestic Hot Water leave the control Knob on Maximum position.

3. OPERATING HEATING AND HOT WATER

- 3.1 TO SET AND ADJUST BUILT-IN TIMER MODEL SEE OPPOSITE PAGE 3
- 3.2 Select Summer/Winter Switch on Winter position
- 3.3 Switch on timeclock, adjust room stat and/or thermostatic radiator valves to high settings
- 3.4 Burner will operate, temperature output of Central Heating can be adjusted by Central Heating Control Knob (Fig.1). The Knob can be set between minimum (40°C) and Maximum (85°C). While the appliance is being used to provide Domestic Hot water, the Central Heating will not operate. When Domestic Hot Water is not longer required the appliance will automatically revert to Central Heating and should not noticeably affect the level of central heating. Adjust external controls 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 10 minutes , but if the heating temperature return goes 20°C below the set point, the burner will restarts immediately. The domestic Hot Water Function will always operate on demand.

3.3 TO SHUT DOWN THE APPLIANCE

- 3.3.1 For short periods, switch Summer/Winter switch to Summer and turn off all hot taps.
For long periods switch of the on/off switch (Fig.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 procedure.

4. CLEANING OF APPLIANCE OUTER CASING

- 4.1 Use a clean damp cloth. Do not use any abrasive cleaners and with a dry cloth lightly polish to protect painted surfaces.
Control Panel and fixture 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.

5. CARE OF YOUR APPLIANCE AND SYSTEM

- 5.1 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 know 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
LS 27 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.

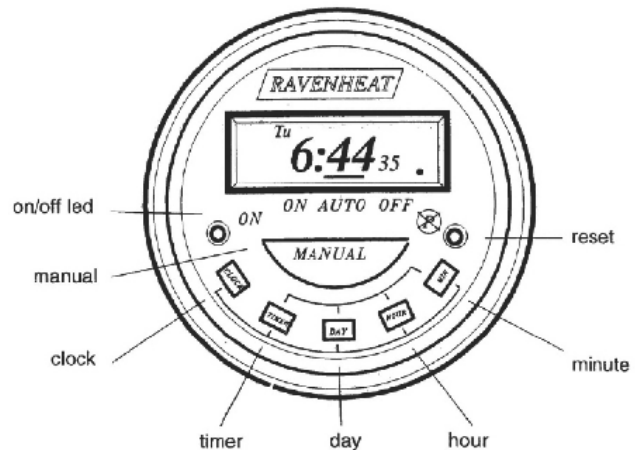
5.1.2.3 Press **DAY** key to select the programme period. There are 10 day settings for your choice.
(1) Mo to Su (2) Mo (3) Tu (4) We (5) Th (6) Fr (7) Sa (8) Su (9) Mo+Tu+We+Th+Fr (10) Sa+Su.

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 each 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.



Chartists Way, Morley, Leeds, LS27 9ET

Telephone : 0044(0)113 252 7007

Tfax : 0044(0)113 238 0229

Website : www.ravenheat.co.uk E-mail : sales@ravenheat.co.uk

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