



# **C24/C28 Condensing Wall Mounted Combination Boiler**

User Instructions



**Natural Gas**

Heat Line™ C24/C28 Condensing Combination Boilers

British Gas Service Listing  
C24 Condensing Combination Boiler G.C.No 47-157-06  
C28 Condensing Combination Boiler G.C.No 47-157-07

The Heat Line™ range of heating boilers are manufactured from high quality materials, enabling reliability and optimum performance.

Heat Line™ are committed to the continual development of their appliances to ensure their customers benefit from the latest advances in combustion technology and energy savings.



Type test for purpose of Regulation 5 certified by:

Notified Body IMQ	<b>51BP2727</b>	CE directives 90/396/CEE
	<b>51BP2728DR</b>	CE directives 92/42/CEE

Product/Production certified by:

Notified Body IMQ	<b>51BP2727</b>	CE directives 90/396/CEE
	<b>51BP2728DR</b>	CE directives 92/42/CEE

The manufacturer, in the continuous process to improve his products, reserves the right to modify the data expressed in the present documentation at any time and without prior notice.  
The present documentation is an informative support and it cannot be considered as a contract towards third parties.

**'Benchmark' Log Book**

As part of the industry-wide initiative the C24/C28 comes complete with an Installation, Commissioning and Service Record Log Book. Please read the Log book carefully and complete all sections relevant to the appliance and installation. The details within the Log Book will be required in the event of any warranty work.

On completion the Log Book must be left with the end user and the relevant sections completed on each subsequent Service visit.

## IMPORTANT INFORMATION.

The Heat Line™ C24/C28 is a high efficiency gas fired boiler and represents the highest level of technology found in today's gas boiler market.

In order to maintain your peak efficiency and performance your boiler must be serviced annually. This should be undertaken by a competent C.O.R.G.I. registered engineer. Failure to undertake this service work may invalidate your warranty.

All C.O.R.G.I. Registered Installers carry a C.O.R.G.I. ID card and have a registration number, which should be recorded and entered on your benchmark log book. You can check your Installer registration by contacting C.O.R.G.I. on 0870 401 2300

The boiler's '**Log Book**' must be completed at each Service visit.

## GAS SAFETY (INSTALLATION AND USE) REGULATIONS

It is a legal requirement that all gas appliances must be installed and serviced by a competent person in accordance with the above regulations. Failure to install or service gas appliances correctly could lead to prosecution. It is in your interest and that of safety to ensure compliance with the law.

For electrical safety the boiler must be earthed and protected by a **3.15-amp fuse**.

**Note.** In the event of a fault the appliance should not be used until a competent person has corrected the fault.

## VENTILATION.

For maintenance and safety purposes, the boiler has been installed with a minimum space of 200mm above, 300mm below, 600mm to the front and 50mm to either side of the boiler case. It is essential that this space is not restricted by the addition of shelves etc. fitted above or below the boiler, or to the boiler sides.

## GENERAL DESCRIPTION OF BOILER

The C24/C28 is a combined domestic hot water and central heating appliance. Its internal control unit electronically provides direct burner ignition and combustion supervision along with continuous modulation of the burner's gas supply.

By means of a manual switch the C24/C28 can be set to operate in one of two operating modes, domestic hot water only or domestic hot water and central heating.

## DOMESTIC HOT WATER MODE:

When hot water demand is requested the boiler will fire automatically. An integral pump is then energised and hot water from the boilers primary circuit is circulated through the secondary heat exchanger, allowing the instantaneous transferral of heat to the incoming cold water. The secondary heat exchanger is protected against an internal build up of lime scale by limiting the hot water temperature at the tap to a maximum 64°C. Hot water will continue to flow through the tap until no longer required. When the demand for hot water ceases the integral pump may continue to run for a short while to dissipate any excess heat within the boiler.

## DOMESTIC HOT WATER AND CENTRAL HEATING MODE:

When heating demand is requested the boiler will fire automatically. An integral pump is then energised and hot water from the boiler's primary circuit is circulated around the heating system's pipework and radiators. The heat output from the boiler is automatically adjusted by the boiler's internal control unit to match the heating demand. As the water temperature of the heating system increases the gas input to the burner decreases, conserving energy and increasing efficiency. When the demand for heating no longer exists the burner will shut down and the boiler will revert to stand-by, waiting to respond to the next heating demand. The integral pump may continue to run after shut down for a short while to dissipate any excess heat within the boiler.

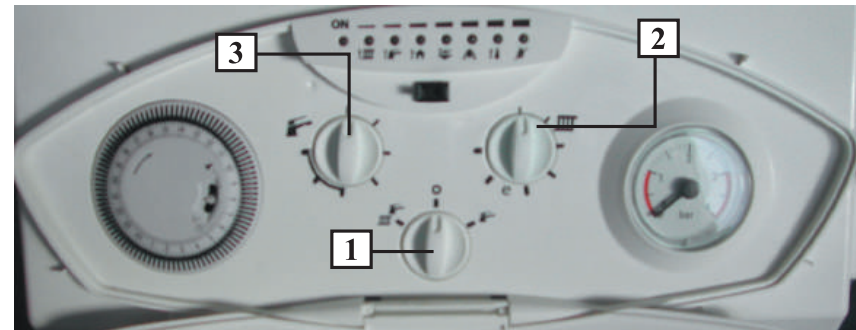
**Please Note.** When domestic hot water is called for during the heating mode, the boiler will automatically revert to domestic hot water mode until the demand for hot water ceases.



## ACCESS TO THE BOILER CONTROLS.

The C24/C28 boiler controls are sited at the bottom of the boiler's front case. (*fig.1*)




*Fig 1*





*Fig 2*

## BOILER CONTROLS



The function and operation of the main controls located on the control panel fascia (*fig.2*) is as follows:

1. **(Function switch.)** This is the boiler's main operating switch. In the  position the boiler is in stand-by mode and power supply is ON. For the boiler to operate the switch must be in the  or  position.

When switched to the  position the boiler will operate only to supply domestic hot water. (Summer use) For the boiler to operate to give both central heating and domestic hot water the switch must be in the  position. (Winter use)

2. **(Central Heating temperature control.)** The position of this control dial will determine the temperature of the water delivered to the radiators. The water temperature can be set from a minimum of 30°C (anticlockwise stop position) to a maximum of 85°C (clockwise stop position.)
3. **(D.H.W. temperature control)** The position of this control dial will determine the temperature of the domestic hot water delivered to the taps or shower unit. The water temperature can be set from a minimum of 35° C (anticlockwise stop position) to a maximum of 64°C (clockwise stop position.)



4. **(Boiler On)** The boiler 'Stand by' indicator (green) lights when power is supplied to PCB.
5. **(Water Temperature)** The temperature of the water leaving the boiler is given by the red light indicators situated alongside the burner 'Stand by' indicator light.
6. **(Fault Indicator)** The C24/C28 control unit has an in-built fault diagnostic function. When a fault occurs the type of fault is indicated by appropriately 'flashing' the red light indicator. A listing of the display lights and meanings can be found in Section 13 (4) of the Installation and Servicing Instructions.
7. **(Boiler Lockout)** When the first red light indicator from right lights (flame or gas fault) the boiler will need to be put back into operation. To put the boiler back into operation, the function switch must be switched to  position and after a few seconds back to its previous (summer or winter) position.  
If the second red light indicator from right lights (overheat fault) the boiler will need to be put back into operation. To put the boiler back into operation, the reset button on the overheat safety thermostat must be pressed into position and the function switch must be switched to  position and after a few seconds back to its previous (summer or winter) position.

**8. (Pressure gauge)** The pointer on the gauge indicates the pressure within the boiler and central heating system and should, when the water is cold, read between 1 and 2 bar.

If the pressure gauge falls below 1 bar the system and boiler must be re-pressurised.

**Note.** A Service Engineer must be contacted if boiler shutdown continues to occur



**9. (Clock)** A time clock to allow the automatic switching 'On' and 'Off' for central heating operating periods is available for the C24/C28 as standard.

**The operational time periods may be set as follows:**

- ☐ Rotate the clock actuator mechanisms clockwise, by hand, until the arrow indicates the current time, see *figure 3*. In *figure 4*, current time is 21:05.
- ☐ The time is set in 24 hour format, e.g. the time for 1pm would be 13



*Fig 3*

- ☐ Select the 'On' times by pushing the black tappets to the outside.
- ☐ Select the 'Off' times by pushing the black tappets towards the centre of the clock.

The clock shown in diagram 2 is set as follows:

The clock operation can be set by a selection switch. The switch has 3 positions:

1 (Up) position: The boiler is controlled by the function switch (Item 1 in *Figure 3*) independent from clock tappets.

⊕ (Mid) position: The boiler is controlled by both function switch and clock tappets.

0 (Down) position: The boiler is off independent from function switch.



## FROST PROTECTION

The C24/C28 has a built in frost protection device that protects the boiler from freezing. If the boiler is to be left and there is a risk of frost, ensure that the gas and electrical supplies are left connected. The frost protection device will light the boiler when the temperature of the boiler water falls below 6°C. When the temperature reaches 15°C, the boiler stops.

**Note:** This device works irrespective of any room thermostat setting and will protect the boiler.


## SYSTEM PRESSURE.

On installation your installer will have filled the boiler and system to its effective working pressure. The boiler's pressure gauge should be regularly checked to ensure that this pressure is maintained between 1 and 2 bar. If there is a significant or frequent drop in pressure then your installer should be consulted.

## OPERATING THE BOILER

Prior to operating the boiler check that the pointer on the boiler's pressure gauge is showing a pressure of between 1 and 2bar.

Set the boiler's 'Central Heating' and 'Domestic Hot Water' temperature controls to maximum by turning fully clockwise and set the external 'Room Thermostat' (if fitted) to maximum. (To set the room thermostat refer to its manufacturer's supplied user instructions.)

Switch the boiler's functional switch to the  position. The boiler's integral control unit will now automatically carry out pre-ignition safety checks before finally igniting the burner.

The 'Central Heating' and 'Domestic Hot Water' temperature controls and 'Room Thermostat' can now be set to the desired temperature settings.

When a demand for heat no longer exists, the burner will automatically shut down and the green 'Boiler Stand by' indicator will still light.

The boiler will be ready for a new heating demand.

## CLEANING

The boiler casing may be cleaned with a damp cloth followed by a dry cloth to polish. **Do not use** abrasive or solvent cleaners.

## FURTHER ADVICE

For further advice or information contact Heat Line <sup>TM</sup> Service Enquiries by telephone on **0870 609 2091** or e-mail at our web site [www.heatline.co.uk](http://www.heatline.co.uk)

For technical information, please contact Heat Line <sup>TM</sup> Technical on **0870 777 8318**.