

# *User's Instructions*

## **Alpha CD24/32**

**Range of Wall Mounted, Fan Assisted, Room Sealed,  
Gas Fired, High Efficiency Condensing Boilers**

For Technical help or for Service call ...

**ALPHA HELPLINE**

**Tel: (01322) 669443**

*Alpha*  
BOILERS

Goldsel Road,  
Swanley, Kent BR8 8EX  
Fax: (01322) 615017

**British Gas**  
*Service Listed*



Alpha CD24C	G.C. No. 47 532 19
Alpha CD24S	G.C. No. 41 532 02
Alpha CD32C	G.C. No. 47 532 21



**For use with Natural Gas only**  
**Leave these instructions with the User**

# 1 DESCRIPTION

The Alpha CD range of high efficiency condensing boilers are wall mounted, fan assisted room-sealed boilers.

The CD24C and CD32C are combination boilers providing both central heating and domestic hot water at mains pressure. The CD24S is a system boiler providing heating only for sealed central heating systems.

The CD24C and CD24S boilers are suitable for central heating loads of between 4.9 and 25.4 kW (16 700 and 86 700 Btu/h).

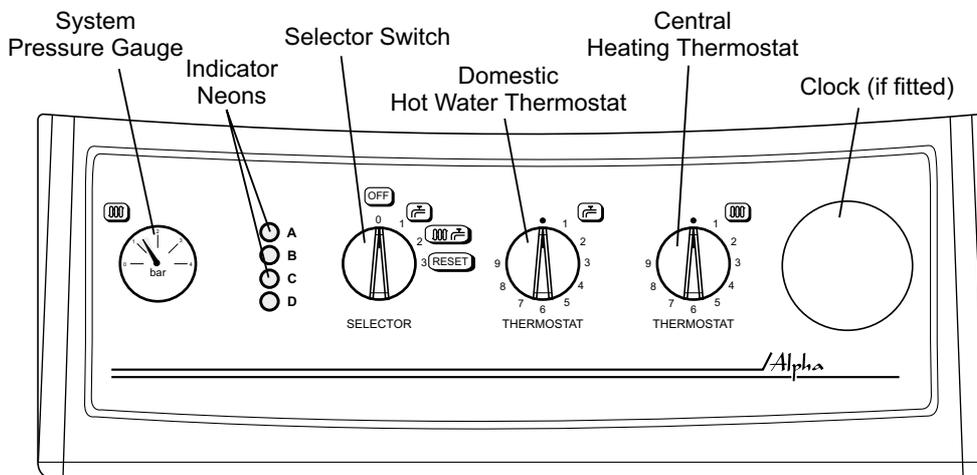
The CD32C boiler is suitable for central heating loads between 6.5 and 29.8 kW (22 200 and 101 700 Btu/h).

The boilers will provide central heating (as required) during the 'on' times set on your clock (if fitted). Hot water is always available from the Alpha CD24C and CD32C boilers whenever a hot tap is opened and takes priority over the central heating.

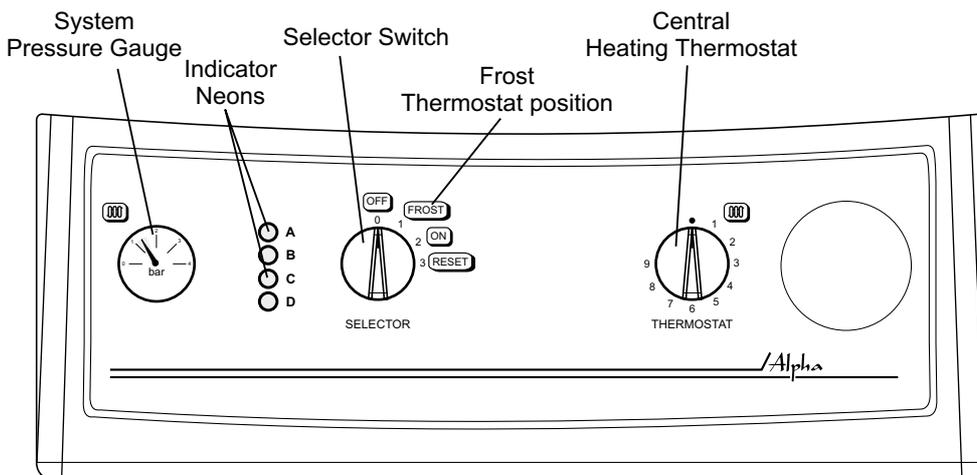
The burner is lit electronically.

# 2 USER CONTROLS

If applicable, pull the controls panel cover forward and down to gain access to the controls.



**Fig. 1 - Alpha CD24C and CD32C**



**Fig. 1 - Alpha CD24S**

## 3 BOILER CONTROLS

### 1. CENTRAL HEATING THERMOSTAT

This thermostat controls the temperature of the water leaving the boiler for the heating system. For maximum output from the radiators the thermostat should be left at maximum i.e. fully clockwise. If lower heating temperatures are required, turn the thermostat anti-clockwise.

### 2. DOMESTIC HOT WATER THERMOSTAT - CD24C and CD32C only

This thermostat controls the temperature of the domestic hot water leaving the boiler. For maximum hot water temperatures the thermostat should be left at maximum i.e. fully clockwise. If lower temperatures are required, turn the thermostat anti-clockwise.

### 3. SELECTOR SWITCH

This control allows the boiler to provide central heating and, if applicable (CD24C and CD32C), hot water **or** hot water **only**. **CD24C and CD32C only - Note:** The internal clock and frost thermostat will not operate when the switch is in the vertical position, i.e. 'Off' position (0).

### 4. PRESSURE GAUGE

This indicates the central heating system pressure. It should always be within the green band when cold, increasing slightly when hot.

If the pressure falls below the green band, i.e. lower red area, refer to the label on the inside of the hinged control panel cover (not applicable for CD24S) for guidance on re-pressurising the system. Or contact your Installer to have the system checked and pressurised.

### 5. INDICATOR NEONS

When neons A (red), B (red), C (yellow), D (green) are illuminated, the following conditions apply:-

#### Neon

- D** Illuminated continuously - Electricity supply to the boiler is on.
- C** Illuminated continuously - Burner is alight.
- A** Flashing on and off - Temperature sensor fault, contact your Service Engineer.
- B** Flashing on and off - Overheat thermostat has operated. Rotate selector switch to the reset position (3) to reset. If this continues to happen, contact your Service Engineer.
- B** Illuminated continuously - Burner has failed to light. Rotate selector switch to the reset position (3) and the ignition sequence will restart after a delay of about 30 seconds.
- A and B** Flashing on and off at the same time - Blocked flue or fan fault, contact your Service Engineer.
- A and B** Flashing on and off alternatively - System pressure is very low and re-pressurisation is required.

### 6. OVERHEAT THERMOSTAT

This thermostat automatically switches the boiler off in the unlikely event of the boiler overheating. When the thermostat operates, the red neon (B) flashes on and off. Rotate the selector switch to the reset position (3) and the boiler will relight. If this continually happens, contact your Service Engineer.

### 7. PRESSURE RELIEF VALVE

If the central heating system overheats and steam or water is discharged from the pipe connected to this valve, turn the boiler off and contact your Service Engineer. Your Installer should have shown you where this pipe terminates, usually outside your dwelling.

### 8. FROST THERMOSTAT

The boiler has a built-in frost thermostat, which automatically operates the boiler if the water temperature falls below 4°C, providing the electrical supply is on and the selector switch is set to position (1) or position (2).

## 4 LIGHTING INSTRUCTIONS

Refer to Figs. 1 and 2 for boiler controls.

1. Ensure the following:-
  - a. Electrical supply to the boiler is off.
  - b. All heating controls and thermostats are set to OFF or minimum position.
  - c. All isolation valves at the bottom of the boiler are in the open position (slot on the spindle in line with the valves i.e. ).
  - d. The gas and water supplies are on at the mains.
  - e. The heating system pressure is within the green band as shown by the pressure gauge.
2. Switch on the electrical supply to the boiler.
3. Set any room thermostats to maximum and ensure that any clock is in an 'on' position. Refer to section 8, if a clock is fitted in the boiler control panel.
4. **CD24C and CD32C only** - Set the selector switch to  (hot water only).
5. **CD24C and CD32C only** - Turn the hot water thermostat fully clockwise. Open a hot water tap, the main burner will light and the boiler will provide hot water. Close the tap and the burner will go out.
6. Set the selector switch to position (2) and turn the heating thermostat fully clockwise. The main burner will light and the boiler will provide central heating.
7. Set the boiler thermostats, clock, external controls i.e. room thermostat to your chosen settings and the boiler is ready to operate.

**To turn the central heating off i.e. in Summer:-** Set the selector switch to position (1).

**To turn the boiler off for short periods:-** Set the selector switch to position (1).

**Note:** In this position the pump will automatically operate for 5 minutes in every 24 hours. If the water temperature falls below 4°C the built-in frost thermostat will operate the boiler automatically until the temperature of the water in the heating system has been raised.

**To turn the boiler off for longer periods:-** Switch off the electrical supply to the boiler. If required, all supplies i.e. gas, water and electricity may be turned off at the mains. If there is any possibility of the boiler being left during frost conditions, then the boiler and system should be drained and a label attached to the boiler drawing attention that the system has been drained. If this is required, contact your Service Engineer.

## 5 BOILER OPERATION

The operating sequence of the boiler is controlled by the selector switch on the control panel. In the case of the Alpha CD24C and CD32C, with the switch set to  (hot water only) the boiler will only operate to provide domestic hot water, ideal for Summer use when central heating is not required.

Setting the selector switch to position (2) the boiler will operate to provide central heating and, in the case of the CD24C and CD32C, hot water.

**CD24C and CD32C only** - If the boiler is operating to provide central heating and a hot water tap is opened, the boiler will automatically switch over to provide hot water. Such an interruption in the central heating should not generally be noticed by any reduction in room temperature.

**CD24C and CD32C only - Note:** If a clock is fitted to the boiler, it will only control the operating times of the central heating. Hot water will always be available when a tap is opened.

When the selector is set to central heating and hot water, it will respond to a demand for heat in the following sequence:-

- a. The pump will start, the fan will operate and the main burner will light.
- b. The output of the burner is automatically controlled to suit the system demand.
- c. When the temperature of the system water in the boiler reaches that set by the thermostat or the room thermostat is satisfied, the main burner is turned off and the fan stops after 50 seconds. The pump will continue to run to remove any residual heat from the boiler.
- d. **CD24C and CD32C only** - When a hot tap is opened, the boiler automatically senses a flow of water. The pump will start, the fan will operate and the main burner will light.
- e. **CD24C and CD32C only** - The boiler will continue to supply hot water at the temperature set by the thermostat until the tap is closed.

## 6 HOT WATER USE - CD24C and CD32C Only

The supply of hot water is almost instantaneous at the boiler, but the time taken to reach a tap and the temperature at which it leaves the tap will depend on the rate at which the water is drawn off and the length of the pipe between the tap and the boiler.

Fully opening a hot tap may not always provide the maximum temperature as the flow rate may be too high, try closing it slightly until the maximum temperature is achieved.

Depending on your mains water pressure, it may not be possible to operate several hot taps at the same time.

## 7 USING A SHOWER - CD24C and CD32C Only

**Thermostatic or pressure equalising type** - When using these types of shower set the boiler domestic hot water thermostat to maximum. The shower should then maintain a relatively constant temperature.

**Manual bath mixer type shower** - When using this type of shower set the boiler domestic hot water thermostat to setting 7, This should avoid excessive temperatures at the shower.

**Note:** If you get unacceptable temperature variations with this type of shower, then a thermostatic or pressure equalising type should be used.

## 8 IMPORTANT NOTES

### 1. BOILER LOCATION

Always ensure the following clearances are available around the casing of the boiler (not including the bottom tray):-

Top: 220 mm, Bottom: 250 mm, Each side: 5 mm, Front: 450 mm

Do not store any other articles in the cupboard containing the boiler and never place any clothing or combustible material on or near the boiler or flue pipe.

### 2. FLUE TERMINAL

The terminal on the outside wall must not be allowed to be obstructed. If it is damaged, in any way, turn the boiler off and contact your Service Engineer.

**Note:** The Alpha CD boilers are high efficiency condensing boilers and when operating vapour will be emitted from the terminal. This is safe and quite normal.

### 3. MAINS FAILURE

In the event of an electrical supply failure the boiler will not operate. When the supply is restored, the boiler will return to normal operation. Remember to reset the clock, if fitted, when the supply is restored.

CD24C - If the mains water supply fails, there will be no hot water from the taps. The boiler will continue to provide central heating.

### 4. ADDITIONAL BATHROOM FITTINGS - CD24C and CD32C only

Any equipment such as mixing valves, showers, bidets etc. must be designed to operate at mains water pressure. Contact your plumbing merchant or installer for advice when considering purchasing such items.

### 5. CLEANING

Use only a damp cloth and mild detergent to clean the boiler outer casing. Do not use abrasive cleaners.

### 6. SERVICING

To maintain efficient and safe operation of your boiler, routine annual servicing is essential.

For advice on servicing contact:- The Alpha Helpline: 01322 669443.

### 7. GAS LEAK

If a fault or gas leak is suspected, turn off the gas supply. Do not touch any electrical switches, do not smoke and extinguish all naked flames. Contact your local Gas Region immediately.

### 8. ELECTRICAL SUPPLY

The boiler requires a 230/240 V ~ 50 Hz supply, fused at 3 A if a 13 A 3-pin plug is used or a 5 A fuse if any other type of plug is used.

**To connect a plug:-**

The colour of the wires in the mains lead of the boiler may not correspond with the coloured markings identifying the terminals in your plug. In this case proceed as follows:-

The wire coloured green and yellow must be connected to the terminal in the plug that is marked with the letter **E**, or by the earth symbol  $\perp$ , or coloured green or green and yellow.

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

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

**THE APPLIANCE MUST BE EARTHED.**

## 9 GAS SAFETY REGULATIONS

Current Gas Safety (Installation and Use) Regulations:-

It is the law that all gas appliances are installed and serviced by a competent person, i.e. CORGI registered personnel. Failure to install or service appliances correctly could lead to prosecution. It is in your interest and that of safety to ensure compliance with the law. The manufacturer's instructions must not be taken in any way as over-riding statutory obligations.

The Benchmark Log Book must be fully completed by the installer on installation of the boiler. All CORGI registered installers carry a CORGI ID card and have a registration number. Both should be recorded in your central heating Log Book. You can check your installer is CORGI registered by calling CORGI on 01256 372300.

## 10 CLOCK (if fitted) - CD24C and CD32C Only

The clock allows you to set the times at which the boiler will operate to provide central heating. It does not affect the supply of domestic hot water, which is always available whatever the setting of the clock.

### 1. TO SET THE TIME

Turn the outer dial clockwise to set the clock hands to the correct time.

(Ensure the time indicator corresponds with the correct time on the 24hr dial as shown in Fig. 3, e.g. 3.00pm = 15 not 3).

**NOTE: Do not rotate the dial anti-clockwise**

### 2. TO SET THE ON/OFF PERIODS

Select the ON times by pushing the tappets out.

Select the OFF times by pushing the tappets in.

Fig. 2 shows the clock set as follows:-

ON	3.00pm	to	10.00pm (15 - 22)
OFF	10.00pm	to	5.00am (22 - 5)
ON	5.00am	to	8.00am (5 - 8)
OFF	8.00am	to	3.00pm (8 - 15)

### 3. MANUAL SWITCH

The clock has a manual On/Off switch which operates as follows:-

Mid position	Heating On/Off as set by the tappets
Position I (right)	Heating On continuously
Position 0 (left)	Heating Off continuously

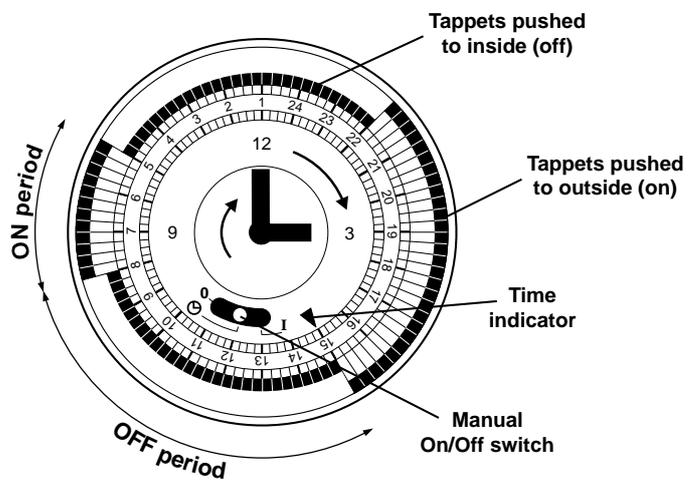


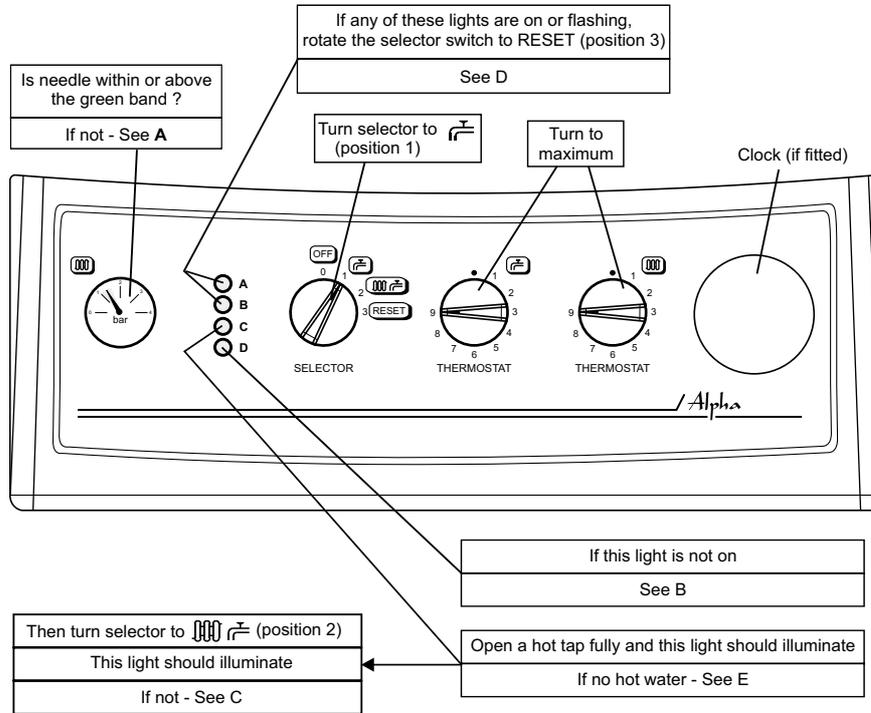
Fig. 3

# 11 FAULT FINDING FOR THE USER

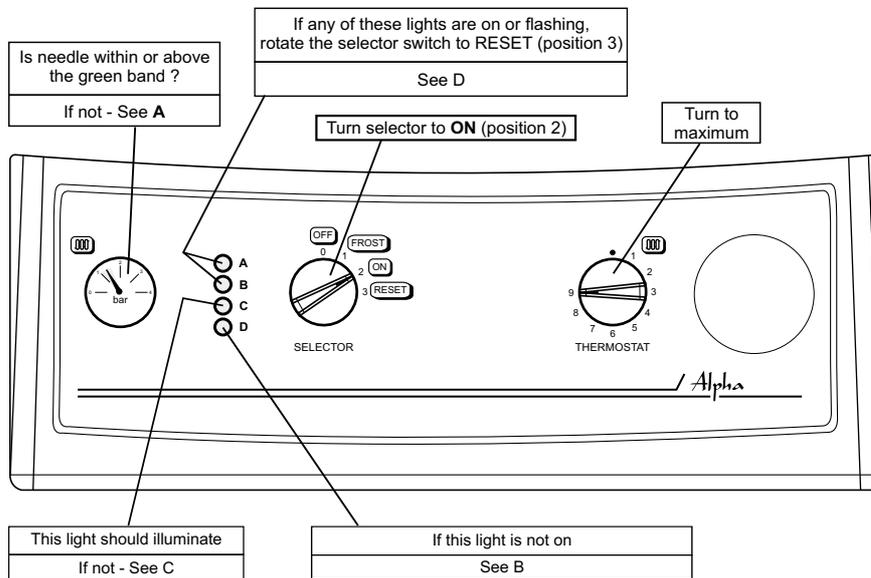
If you experience a problem of no heating and, if applicable, no hot water, try to solve the problem by following the simple checks below before calling out a service engineer.

If applicable, pull the controls panel cover forward and down to gain access to the controls.

Alpha CD24C and CD32C



Alpha CD24S



- A - Where applicable, refer to the label on the inside of the hinged cover for guidance on repressurising the system. Or contact your installer. Or
- B - Check that the electrical supply to the boiler is on. If so
- C - Check that all controls are calling for heat, i.e. room thermostat, clock. If so
- D - Check that the gas supply is on. If the light continues to come on after resetting
- E - Contact the Alpha Helpline

**Ring the Alpha Helpline Service  
Tel: 01322 669443**

You will be asked the Serial No. of your boiler when you ring.

The Serial No. of the boiler is on the inside of the hinged cover, or underneath the control panel



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*These instructions have been carefully prepared but we reserve the right to alter the specification at any time in the interest of product improvement.  
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