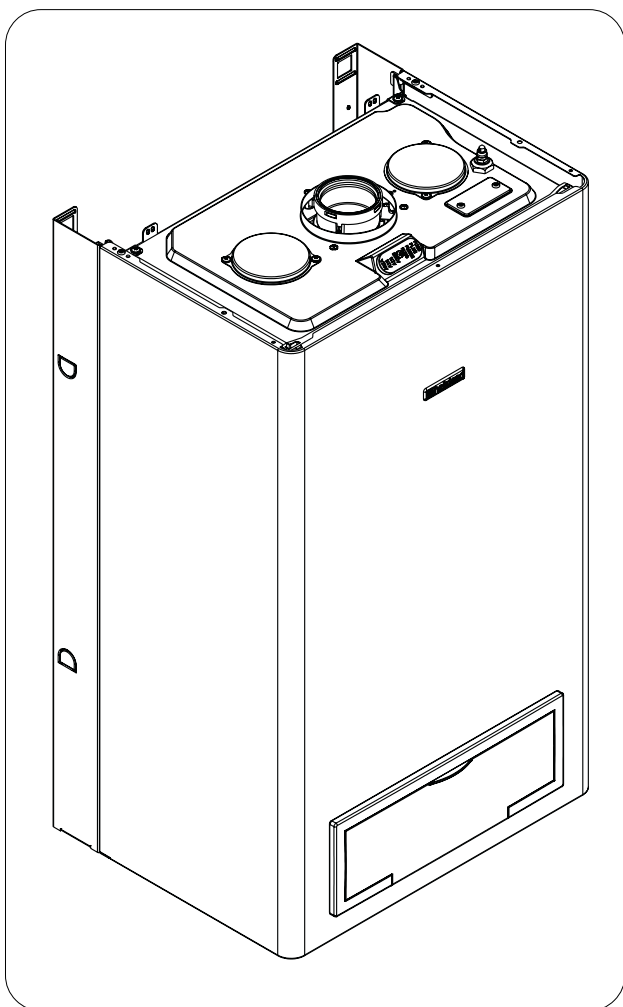


# iHeat 20

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## Open Vent Condensing Boiler



### User Instructions

G.C. NUMBER  
iHeat 20 N° 41-260-25

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These instructions should be left with the user

## Contents

Introduction	Page
Dear customer	2
Do's and don't's	2
Things you should know	Page
1.1 Gas appliances	2
1.2 Electrical supply	2
1.3 Guarantee registration card	2
1.4 Appliance log book	2
1.5 How does it work?	2
1.6 Dimensions	3
1.7 Clearances required	3
1.8 Frost protection system	3
1.9 Status indicators	3
1.10 Digital display	3
Getting started	Page
2.1 Before switching on	4
2.2 Appliance controls	4
2.3 Lighting the boiler	4
2.4 Adjusting the heating temperature	4

How to...	Page
3.1 Reset the appliance	4
3.2 Shut down the system for short periods	4
3.3 Shut down the system for long periods	4
3.4 Care for the appliance	4
What if...	Page
4.1 I suspect a gas leak	5
4.2 The fault light is on	5
4.3 The appliance is due its annual service	5
4.4 The display shows ..	5
4.5 I need to call an engineer	5
4.6 I need to extend the warranty	5
Setting	Page
5.1 Mechanical clock	6
5.2 Digital programmer	6-7

## Introduction

Dear Customer

Your boiler has been designed to meet and exceed the very latest standards in gas central heating technology, and if cared for, will give years of reliable use and efficiency.

Please therefore take some time to read these instructions carefully.

Do's and Don't's

- **Do** ensure that the System is periodically checked
- **Do** ensure that you know how to isolate the appliance in an emergency
- **Do** ensure that you are familiar with the appliance controls
- **Do** ensure that your installer has completed the appliance log book section
- **Do not** attempt to remove the appliance casing or gain internal access
- **Do not** hang clothes etc. over the appliance
- **Do not** forget to have the appliance serviced annually.

This booklet is an integral part of the appliance. It is therefore necessary to ensure that the booklet is handed to the person responsible for the property in which the appliance is located/installed. A replacement copy can be obtained from the customer services.

## 1.0 Things you should know

### 1.1 Gas appliances

Gas Safety (Installations and Use) Regulations (UK). In the interests of your safety and that of others it is a legal requirement that all gas appliances are installed and correctly maintained by a competent person and in accordance with the latest regulations.

### 1.2 Electrical supply

Please ensure that this appliance has been properly connected to the electrical supply by means of a double pole isolator or un-switched socket, and that the correct size of fuse (3 AMP) has been fitted.

Warning: this appliance must be earthed!

### 1.3 Guarantee registration card

Please take the time to fill out your guarantee registration card. The completed warranty card should be posted within 30 days of installation.

### 1.4 Appliance Benchmark Logbook

See rear of booklet for full terms and conditions of your **iHeat** lifetime guarantee.

A logbook section can be found at the rear of the appliance installation booklet. This important document must be completed during the installation/commissioning of your boiler. All CORGI registered installers carry a CORGI ID card, and have a registration number. These details should be recorded in the Benchmark logbook section within the installation booklet. You can check your installers details by calling CORGI direct on 01256 372300. Failure to install and commission the appliance in accordance with the manufacturers instructions may invalidate the warranty. This does not affect your statutory rights.

### 1.5 How does it work?

Your **iHeat** boiler supplies heated water to your radiators and hot water tank.

## 1.0 Things you should know

The central heating and hot water is controlled via a time clock or programmer and any thermostats that your installer may have fitted. The boiler will light when it receives a request from the time clock or programmer via any thermostat that may also be installed.

Your boiler lights electronically and does not have a pilot light. In the unlikely event of a fault developing with your boiler, the supply of gas to the burner will be terminated automatically.

## 1.6 Dimensions

iHeat20s	
HEIGHT	740mm
WIDTH	400mm
DEPTH	340mm

## 1.7 Clearances required

ABOVE	150 mm
BELOW	150 mm
LEFT SIDE	50 mm
RIGHT SIDE	12mm
FRONT	600 mm



fig. 1

## 1.8 Frost protection system

The iHeat is equipped with a built-in frost protection system, this enables the boiler to over-ride the time controls – even if switched off – and operate the burner and/or pump, should the temperature drop below 5°C.

**Please note that the frost protection system is designed to protect the appliance only, should frost protection be required for the heating system, additional controls may be required.**

When the frost protection system has been activated, 'AF' is displayed on the appliance LED display (fig.1).

### NOTE

The frost protection system is reliant on the appliance having a permanent electrical supply, and being in a non-fault condition.

## 1.9 Appliance status indicators

Your boiler is equipped with 2 status LED indicators, the Green LED indicates that the appliance is working normally, whilst the Red LED indicates the appliance has detected a fault.

## 1.10 Digital display (fig. 2)

The 2-digit digital display will normally show the current working (outlet) temperature of the boiler, however in certain circumstances a fault code or specific characters will be displayed to indicate that the appliance is performing a specific function.

1. Green LED indicator
2. 2-digit display
3. Red LED indicator
4. Heating temperature selector
5. Mode selector switch

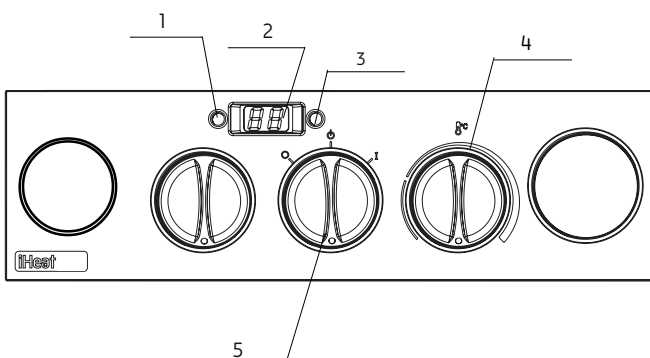


fig. 2

## 2.0 Getting started

### 2.1 Before switching on

Before switching the appliance on please familiarise yourself with:




- how to isolate the appliance from the gas, and electricity supplies;
- any external thermostats and their functions;
- the appliance controls.

### 2.2 Appliance controls (fig. 2)

The appliance controls are situated on the lower front of the appliance. The appliance controls include:

- appliance mode selector;
- temperature selector;
- 2-digit LED display;
- status indicator (green);
- fault indicator (red);

The appliance mode selector is used to switch the boiler to the various operating modes:

- RESET 
- OFF 
- ON 

#### NOTE

The appliance frost protection is active in all of the above modes.

The **temperature selector** can be used to vary the temperature of the water that circulates around your radiators and/or hot water tank. The temperature range is adjustable between 40°C and 76°C.

The **2-digit LED display normally** shows the operating temperature of the appliance, however it can also display additional characters or flashing numbers to signify specific operating modes or fault codes.

When the **status indicator (Green) is lit** it indicates that the appliance is in operation.

When the **fault indicator (Red) is lit** it indicates that the appliance has identified a possible fault and performed a safety shutdown.

### 2.3 Lighting the boiler

**Ensure the gas and electrical supply to the boiler are turned on.**

Turn the mode selector switch to the **ON** position.

When there is a request for heating or hot water via the time clock or programmer, the boiler will begin an ignition sequence. When the appliance reaches the set temperature, the burner will go off for a minimum period of approximately 5 minutes.

When the programmer/time clock or external thermostats heating request has been satisfied, the appliance will switch off automatically.

### 2.4 Adjusting the heating temperature

Rotate the temperature selector – clockwise to increase, counter-clockwise to decrease – to the desired temperature setting. The temperature can be set from a minimum of 40°C to a maximum of 80°C (if standard CH mode is selected).

#### NOTE

If the appliance fails to ignite during the ignition sequence, it will enter a lockout condition. Should this occur, please allow a period of at least two minutes before re-setting the appliance.

## 3.0 How to ...

### 3.1 How to reset the appliance

When the red fault LED is illuminated, the appliance will require to be reset manually. Before resetting the boiler, check what action is required to be taken, using the information on the fault code table below. Allow a period of two minutes to elapse before pressing the reset button.

#### IMPORTANT

If the appliance requires to be reset frequently, it may be indicative of a fault, please contact your installer or the Customer Services for further advice.

### 3.2 How to shut down the system for short periods

The system and boiler can be shut down for short periods by simply turning the time clock to the off position. It is also advisable to turn off the main water supply to the house.

### 3.3 How to shut down the system for long periods

If the house is to be left unoccupied for any length of time – especially during the winter – the system should be thoroughly drained of all water. The gas, water, and electricity supply to the house should also be turned off. For more detailed advice contact your installer.

### 3.4 How to care for the appliance

To clean the outer casing use only a clean damp cloth. Do not use any scourers or abrasive cleaners.

## APPLIANCE FAULT CODES

### CODE ACTION REQUIRED

AL10	Reset appliance. Call engineer if fault re-occurs
AL20	Reset appliance. Call engineer if fault re-occurs
AL21	Reset appliance. Call engineer if fault re-occurs
AL26	Reset appliance. Call engineer if fault re-occurs
AL28	Reset appliance. Call engineer if fault re-occurs
AL34	Reset appliance. Call engineer if fault re-occurs
AL52	Call engineer
AL55	Call engineer
AL60	Call engineer
AL71	Reset appliance. Call engineer if fault re-occurs
AL73	Reset appliance. Call engineer if fault re-occurs
AL74	Reset appliance. Call engineer if fault re-occurs
AL79	Reset appliance. Call engineer if fault re-occurs

## 4.0 What if

### 4.1 I suspect a gas leak

If you suspect a gas leak, turn off the gas supply at the gas meter, and contact your installer or local gas supplier. If you require further advice please contact your nearest Service & Technical Helpline (0844 371 1111).

### 4.2 The fault light is on

If the Red LED light is illuminated, it indicates that the boiler has failed to ignite or has detected a possible fault. When this happens the boiler automatically shuts down and requires to be reset manually (see 3.1).

### 4.3 The appliance is due its annual service

Please contact the Service & Technical Helpline (0844 371 1111) if you would prefer an authorised engineer or agent to service your appliance. Alternatively your local CORGI registered engineer may be able to service the appliance for you. If you are a tenant your landlord will arrange for servicing.

### 4.4 What if the display shows an unusual code or number

The boiler may show an unusual code or character to signify that a special function is in operation or that the boiler requires attention (see 3.1). Whilst some functions are automatically enabled/disabled, others require manual intervention and you may therefore need to contact your engineer or landlord.

### 4.5 I need to call an engineer

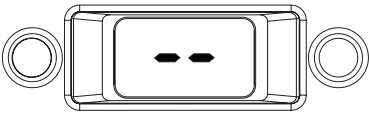
If you think your boiler may have developed a fault, please contact your installer or the Service & Technical Helpline (0844 371 1111). Have all your details to hand including full address and postcode, relevant contact numbers and your appliance logbook.

### 4.6 I want to extend the warranty

You can if you wish, extend the warranty on your iHeat boiler. Simply contact our Service & Technical Helpline (0844 371 1111) for further information.

The 2-digit display can show several different modes of operation:

Standby/OFF mode



Frost protection mode active



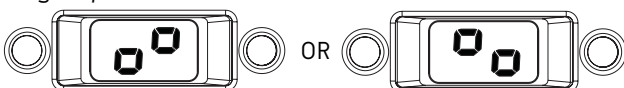
Combustion analysis mode active



Normal heating request (example 60°C).



Purge cycle mode



- The OFF mode will be displayed when the selector switch is in the OFF position.
- The frost protection mode becomes active automatically if the temperature inside the boiler drops below an acceptable level. This function will be enabled and disabled automatically and no user intervention is necessary.
- Your engineer uses the combustion analysis mode when checking and/or adjusting your boiler. This function requires to be enabled by the engineer.
- The normal heating request or outlet temperature will be displayed when you adjust the temperature selector or when the boiler is in operation.

The purge cycle mode function is enabled if the electrical supply to the boiler has been switched off or interrupted. This mode will be active for 2-minutes once the electrical power has been restored to the boiler.

## 5.0 Setting the clock

### 5.1 Setting the mechanical clock

If your boiler has been installed with the mechanical clock, it can be used and adjusted as follows:

#### Setting the time

The time of day can be set by grasping the outer edge of the black dial and turning it in a clockwise direction until the correct time is in line with the white pointer.

#### Setting the "switching times"

The "ON" periods are set by sliding the black tappets, adjacent to the time periods required, to the outer edge of the dial.

The tappets that remain at the centre of the dial will be the "OFF" periods.

The smallest switching time (ON or OFF) is 15 minutes.

To select "AUTO" mode move the selector switch in central position.

To select "ON" mode move the selector switch in the bottom position.

To select "OFF" mode move the selector switch in the upper position.





### 5.2 Digital programmer

If your boiler has been installed with the twin channel programmer, it can be used and adjusted as follows:

#### FEATURES

- Backlight display
- Built-in standard programme
- 7-day battery back-up
- Manual over-ride
- 2-ON/2-OFF periods for each channel (Heating/Hot water).

#### 5.2.1 SETTING THE DAY & TIME

- Press and hold the  button for 4-seconds or until the clock display flashes.
- Press either the + or - button to increase or decrease the displayed value of minutes to the correct (actual) time and press  to confirm.
- Press either the + or - button to increase or decrease the displayed value of hours to the correct (actual) time and press  to confirm.
- Press either the + or - button to increase or decrease the displayed day to the correct (actual) day of the week and press  to confirm.

#### 5.2.2 CLOCK CHANGE

To accommodate any change from summer time to winter time, simply press and hold either the + or - button to advance or retard the hours value by one hour.

#### 5.2.3 SETTING THE MECHANICAL CLOCK

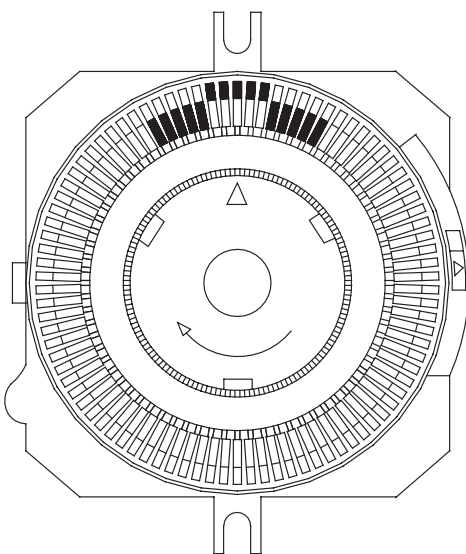
The programmer is supplied with a built-in default programme that can be stored/used for convenience.

To store the default programme, simply press and hold both the + and - buttons for 3-seconds.

#### 5.2.4 PROGRAMMING PROCEDURE

For each channel (C1 & C2) there are 2 timed ON settings, and 2 timed OFF settings for each day of the week. The programming sequence for each channel is as follows:

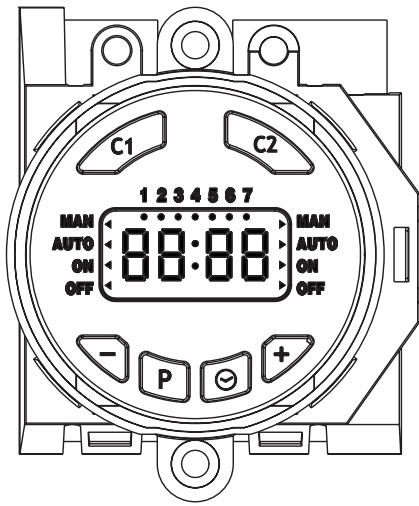
- programme the C1 channel (heating) 1<sup>st</sup> ON then 1<sup>st</sup> OFF, then 2<sup>nd</sup> ON and then 2<sup>nd</sup> OFF for each day of the week starting from day 1 (Monday). The same procedure will be carried out for the remaining subsequent days (day 2 till day 7)



OFF

AUTO

ON



## 5.0 Setting the clock

- after the final OFF (2<sup>nd</sup> OFF, day-7) setting has been programmed on C1, the display will move to show the programming icons on channel C2 (hot water). C2 can then be programmed in the same sequence as detailed for C1. To adjust or re-programme the default programme, please proceed as follows:
- Press and hold the **P** button for 3-seconds, the display will show **PRO** for 1-second to signal that the programmer is now ready to be re-programmed/adjusted (programming mode).
- The first day of the week will blink on the display, followed by the HTG 'ON' icon, then followed by the stored value (time).
- To adjust the current – stored – value, press either the + or - button to increase or decrease the displayed value to the desired setting.
- Press **P** to confirm and store the new value.
- Use the same (above) sequence for the subsequent ON/OFF settings and subsequent days.
- Once the programming of C1 (heating) channel has been completed, the programmer sequence will automatically move on to C2 (hot water).

### NOTE

If no buttons are pressed within a 10-second period, the programmer will exit the programming mode and revert to the normal display.

To review the current stored programmes, press and release the **P** button whereby the display will scroll through the current stored programmes. To exit and return to the current operating mode, press and release the **P** button.

## DEFAULT PROGRAMME

Day 1	HTG	HW
ON1	6:30	6:30
OFF1	8:30	8:30
ON2	16:30	16:30
OFF2	22:30	22:30
Day 2	HTG	HW
ON1	6:30	6:30
OFF1	8:30	8:30
ON2	16:30	16:30
OFF2	22:30	22:30
Day 3	HTG	HW
ON1	6:30	6:30
OFF1	8:30	8:30
ON2	16:30	16:30
OFF2	22:30	22:30
Day 4	HTG	HW
ON1	6:30	6:30
OFF1	8:30	8:30
ON2	16:30	16:30
OFF2	22:30	22:30
Day 5	HTG	HW
ON1	6:30	6:30
OFF1	8:30	8:30
ON2	16:30	16:30
OFF2	22:30	22:30
Day 6	HTG	HW
ON1	6:30	6:30
OFF1	9:00	9:00
ON2	16:00	16:00
OFF2	22:30	22:30
Day 7	HTG	HW
ON1	6:30	6:30
OFF1	9:00	9:00
ON2	16:00	16:00
OFF2	22:30	22:30

## 5.2.5 OPERATING MODES

Each channel (C1 & C2) has 3-different modes of operation:

- Automatic: using the stored ON/OFF settings
- ON: 24-hours each day
- OFF: 24-hours each day.

To change the operating mode, press either C1 or C2 (depending on your preference) and select the desired mode of operation.

### Manual operation - OFF

1 2 3 4 5 6 7



### Manual operation - ON

1 2 3 4 5 6 7



### Automatic (programmed settings)

1 2 3 4 5 6 7



1 2 3 4 5 6 7





**WARRANTY TERMS & CONDITIONS + LIFETIME WARRANTY**

1. Registration must be completed within 30 days of installation. Failure to return within 30 days will invalidate your warranty. Registration if effected by returning the enclosed registration card to the commercial center of Halstead Glen Dimplex at 5 Spartan Close, Tachbrook Park, Leamington Spa, CV34 6RR. Proof of postage should be obtained.
2. The Benchmark document must be completed by installer/householder at the time of installation and must be presented to our engineer at subsequent visits.
3. The boiler must be serviced annually, at the householders expenses in accordance with manufacturer's instructions, and this service must be booked through Halstead Glen-Dimplex by calling 0844 371 1111.
4. The service must be carried out by a Halstead approved central heating engineer. Any work carried out by a non-Halstead approved engineer will invalidate this warranty.
5. Appropriate system cleaning (e.g. power flush) and the correct use of additives must be carried out at the time of installation. Failure to cleanse the system will invalidate this warranty. Evidence of cleansing should be presented to our engineer upon request.
6. Based on a typical boiler lifespan, Halstead deem the life of a boiler to be 10 years from the date of installation. At the end of 10 years, the owner can choose to continue to use the boiler (un-warranted), or Halstead will offer to install a replacement at a preferential price.
7. This warranty applies only to manufacturing problems with the boiler; damage caused through misuse, incorrect operation, foreign bodies in the heating system, system faults and failures are not covered.
8. This warranty applies only if the boiler is installed and used in accordance with the manufacturer's instructions, in normal domestic applications.
9. Providing all the above Terms and Conditions are met, this warranty covers functional parts and labour. Functional parts are detailed in the attached appendix, together with specific exclusions.
10. Halstead Glen Dimplex offer the opportunity for a system audit and commissioning check within 30 days of registration. This is chargeable at the same rate as an annual service and if taken up then the first annual service will be provided free of charge. Failure to take up this offer may invalidate the full warranty which will revert to a standard 1 year warranty
11. Failure to meet any of the above Terms and Conditions will invalidate this warranty.

**APPENDIX**

Problem attributable to failure of:	Exclusions
Main heat exchanger	Premature corrosion caused by pollutants and chemicals in the gas and air
Fan	Problems caused by pollutants or incorrect wiring (e.g by installer), failure caused by water spillages
Gas Valve	Problems caused by pollutants and chemicals in the air and gas
Pump	Problems attributable to dry-firing, limescale and magnetite
PCB	Failure attributable to incorrect wiring (e.g. by installer), failure caused by water spillages
Any part of hydroblock	Problems attributable to incorrect components positioning (e.g by installer)
Electrodes	Premature corrosion caused by pollutants and chemicals in the gas and air



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 Part of the Glen Dimplex Group

Email: sales@halsteadboilers.co.uk or service@halsteadboilers.co.uk or training@halsteadboilers.co.uk  
 Website: www.halsteadboilers.co.uk

Halstead Boilers is continuously improving its products and may therefore change specifications without prior notice.  
 The statutory rights of the consumer are not affected.08/07

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