# XTREME



### **OPERATION INSTRUCTIONS**

High Efficiency Wall-Mounted Gas Boilers

#### For domestic use only

Installation of the appliance may only be carried out by an installer/competent person. Please ask your installer to instruct you on how to fill and bleed the appliance and the installation and on their operation. Strictly abide by all the instructions and warnings. Always use the appliance in accordance with the Operating Instructions. It is forbidden to interfere with a sealed component.

Carefully save these operating instructions, preferably near the boiler.

#### TABLE OF CONTENTS

<b>1</b> 1.1 1.2	<b>Operation of the boiler</b> Operation of central heating Operation of domestic hot water facility	<b>2</b> 3 3
<b>2</b> 2.1 2.2 2.3	<b>Control panel and readout</b> Using the control panel Operational modes Changing settings	<b>4</b> 5 6
<b>3</b> 3.1	<b>Filling and bleeding the boiler and installation</b> Filling and venting the central heating system	<b>8</b> 8
4	Frost protection	9
5	Maintenance	9
6	Faults and resetting	10

#### INTERGAS



Intergas Heating Ltd is a licensed member of the Benchmark Scheme which aims to improve the standards of installation and commissioning of domestic heating and hot water systems in the UK and to encourage regular servicing to optimise safety, efficiency and performance. Benchmark is managed and promoted by the Heating and Hotwater Industry Council. For more information visit www.centralheating.co.uk. Please ensure that the installer has fully completed the Benchmark Checklist on the inside back pages of the installation instructions supplied with the product and that you have signed it to say that you have received a full and clear explanation of its operation. The installer is legally required to complete a commissioning checklist as a means of complying with the appropriate Building Regulations (England and Wales). All Installations must be notified to Local Aerea Building Control either directly or through a Competent Persons Scheme. A Building Regulations Compliance Certificate will then be issued to the customer who should, on receipt, write the Notification Number on the Benchmark Checklist. This product should be serviced regularly to optimise its safety, efficiency and performance. The service engineer should complete the relevant Service Record on the Benchmark Checklist after each service. The Benchmark cheklist may be required in the event of any warrranty work and as supporting documentation relating to home improvements in the optional documents section of the Home Information Pack.

#### **1** OPERATION OF THE BOILER

The Intergas Xtreme series are modulating high efficiency boilers. This means that the capacity is adjusted according to the desired heating capacity. Two separate copper circuits are integrated in the aluminium heat exchanger.

The Intergas Xtreme series have a second heat exchanger (heat recovery unit). This second heat exchanger is integrated in the flue of the boiler so that the efficiency of domestic hot water is increased further. The residual heat of the flue gases of the central heating use is also used to preheat the domestic hot water.

By applying this technology, less energy is required to bring the water to the correct temperature and an extremely high efficiency is achieved.

The boiler has a burner controller which, with each heat demand of the heater or the domestic hot water facility, controls the pump (only during heat demand of the heater) and the fan, opens the gas valve, ignites the burner and continuously monitors and regulates the flame, depending on the requested capacity.



#### 1.1 **Operation of central heating**

The central heating system water flows through the heat exchanger and is heated by the burner. The boiler adjusts the power required to heat the central heating system water to the required heat demand. The following settings for the heating are possible:

#### On/Off control:

The load between the minimum and the maximum value varies according to the flow temperature set at the boiler. An on/off thermostat can be connected to the boiler.

#### Modulation control:

The load between the minimum and the maximum value varies based on the flow temperature set by the modulating controller. The boiler power can be modulated with a suitable controller, such as an OpenTherm thermostat or an RF thermostat.

The boiler will receive a notification from the room thermostat once the desired room temperature has been reached. The burner controller then turns off the fan, the gas valve is closed and the burner will be switched off (provided the DHW comfort function is on "eco" or "off"). The circulation pump continues to run and has a 1-minute overrun time. The overrun time can be modified if desired. The pump automatically runs once per 24 hours for  $\pm 10$  seconds to prevent becoming stuck.

#### 1.2 **Operation of domestic hot water facility**

The domestic hot water facility is automatically activated as soon as more than 2 litres/minute of hot water is tapped. For the quick supply of domestic hot water, the boiler is equipped with a DHW comfort function. When the DHW comfort function is activated, the heat exchanger is kept at a set temperature.

The DHW comfort function has the following settings:

#### ▶ P-On<sup>1</sup>:

The DHW comfort function is switched on within the chosen time blocks. The heat exchanger will maintain temperature during these time blocks.

Note: This option only to be used in conduction with a W-plan (Intergas cylinder sensor and 3-port valve) directly wired to the boiler.

#### On:

The DHW comfort function is continuously switched on. The boiler always supplies domestic hot water immediately.

#### ► Eco:

The DHW comfort function of the boiler is self learning. The boiler will adapt itself to the pattern of use of domestic hot water. This means that the heat exchanger will not maintain temperature during the night or with long absences.

#### Off:

The heat exchanger is not kept warm, as a result of which the supply of domestic hot water is somewhat delayed. If there is no need for a quick supply of domestic hot water, the DHW comfort function can be switched off



• See instruction manual before setting temperature at water heater.

- Feel water before bathing or showering.
- Temperature limiting valves are available, see manual.

<sup>1</sup> Only available if clock program is active.

#### To activate the clock program please contact your installer.

#### 2 CONTROL PANEL AND READOUT

The boiler has a fully integrated touch screen control panel and displays information about the operational mode of the boiler. Symbols (buttons), numbers, points and/or letters are displayed.



The buttons on the display will light up as soon as they are operable and the lights will be extinguished when the buttons are no longer available. Use only your fingers to operate the touch screen.

<b>8.8.8.8</b> :	Left display / Desired temperature in °C / Central heating pressure / Fault code / Time
—:	- (Minus) button
+:	+ (Plus) button
0:	In operation (burner is switched on)
•:	Power LED
: ۱	DHW operation / DHW comfort setting /
	Temperature domestic hot water setting
IIIII :	Central heating demand / Adjusting
	maximum central heating temperature
¶ :	Service button
₽:	Enter button
<b>8.</b> :	Right display / operational code



#### 2.1 Using the control panel

#### Touching



#### Touching and holding for 2 seconds



#### 2.2 Operational modes

The boiler has a number of operational modes:

#### The boiler is switched off.

The boiler is switched off but is connected to the mains voltage. In this mode, the display view is characterized by:

- ▶ Showing the power LED [•].
- ► Showing the pressure in the central heating system (in bar) on the left display [*IB*].
- ► Showing a line on the right display [ ].

#### The boiler is switched on and is ready for a heat demand.

The boiler is switched on and is ready to answer a request for either domestic hot water or hot central heating water. In this mode, the display view is characterized by:

 Showing the power LED. All other symbols and values are not displayed [•].

### The boiler is switched on and is supplying domestic hot water.

The boiler is in operation and is supplying domestic hot water to one of the tap points. The display view is characterized by:

- ▶ Showing the power LED [•].
- ▶ Showing the flame. The burner is switched on [♠].
- ► Showing the tap symbol [∩].

### The boiler is switched on and is supplying central heating water.

The boiler is in operation and is supplying heat to the central heating system. The display view is characterized by:

- ▶ Showing the power LED [•].
- ▶ Showing the flame. The burner is switched on [♠].
- ► Showing the radiator symbol [III].

#### 2.2.1 Switching boiler on and off

The boiler can be switched on by touching the control panel just above the power LED and holding this for 2 seconds.

Image: Boiler is switched off (mains voltage is present, however)

Boiler is switched on (ready for heat demand)

Boiler is in operation (domestic hot water)

Boiler is in operation (central heating water)



When the boiler is on, it can be switched off by touching the control panel just above the power LED and holding this for 2 seconds.



#### 2.3 Changing settings

When the boiler is wired to a fuse spur and the mains voltage is present, the display will be turned on. From here, several settings can be set and/or modified. Switch the boiler on, if needed. However, to make/change these settings, it is not necessary to turn on the boiler.

The structure of the settings is built up from various menus that are accessible via certain buttons (of button combinations). The following menus are available:

#### Main menu

Higher-level menu from which all other menus are accessible.

#### Domestic hot water menu Menu in which several domestic hot water-related settings can be set and/or modified.

#### Central heating menu Menu in which several central heating-related settings can be set and/or modified.

#### 2.3.1 Main menu

The main menu is accessible by touching the control panel just above the power LED. The main menu can be requested in a boiler that is switched on as well as one that is switched off.

The following buttons will light up:

- ► The domestic hot water symbol 🎧
- The central heating symbol IIIII
- ▶ The Service symbol ¶



#### 2.3.2 Domestic hot water menu

The domestic hot water menu has 2 settings and is accessible by touching the Domestic Hot Water symbol **A** from the main menu.

Via the domestic hot water menu:

- the domestic hot water temperature can be modified (40°C - 65°C, default setting 55°C)
- ► the DHW comfort function can be modified

The following buttons will light up:

- The Minus symbol —
- The Plus symbol +
- ▶ The Enter symbol ⊋

The Central Heating symbol IIIII will be extinguished. The left display will light up and will display the current domestic hot water temperature by tapping on the Domestic Hot Water symbol  $\bigcap_{a}$ . By touching the Domestic Hot Water symbol  $\bigcap_{a}$  again, it alternates between 'modify domestic hot water temperature' and 'modify DHW comfort function'.

#### To modify the domestic hot water temperature:

- 1. Touch the Domestic Hot Water button **()**. The set temperature is shown on the left display.
- 2. Using the Plus + and Minus buttons, set the desired temperature (for example, 60°C).
- 3. Touch the Enter button → to confirm (or wait 30 seconds). A **P** appears on the right display (all other buttons are extinguished), which means the setting has been stored.
- 4. The display returns to the main menu.



For the quick supply of domestic hot water, a DHW comfort function has been built in. This has the following settings:

#### ▶ P-On<sup>1</sup>:

The DHW comfort function is switched on within the chosen time blocks. The heat exchanger will maintain temperature during these time blocks.

#### On:

The DHW comfort function is continuously switched on. The boiler always supplies domestic hot water immediately.

#### Eco:

The DHW comfort function of the boiler is self learning. The boiler will adapt itself to the pattern of use of domestic hot water. This means that the heat exchanger will not maintain temperature during the night or with long absences.

#### ► Off:

The heat exchanger is not kept warm, as a result of which the supply of domestic hot water is somewhat delayed. If there is no need for a quick supply of domestic hot water, the DHW comfort function can be switched off.

#### To modify the DHW comfort function:

- 1. Touch the Domestic Hot Water button 2x 🔓. The set DHW comfort setting is shown on the left display.
- 2. Using the Plus + and Minus buttons, set the desired DHW comfort setting (for example, ECO).
- 3. Touch the Enter button  $\rightarrow$  to confirm (or wait 30 seconds). A **P** appears on the right display (all other buttons are extinguished), which means the setting has been stored.
- 4. The display returns to the main menu.



#### 2.3.3 **Central heating menu**

The central heating menu has 2 settings and is accessible by touching the Central Heating symbol III from the main menu. Via the central heating menu:

- the maximum temperature of the central heating water can be modified (30°C - 90°C, default setting 80°C)
- the clock program can be set<sup>1</sup>

The following buttons will light up:

- The Minus symbol —
- The Plus symbol +
- The Enter symbol  $\mathbf{P}$

The Domestic Hot Water symbol 🚺 and the Service symbol 🕅 will be extinguished.

The left display will light up and the current temperature of the central heating water will be displayed.

#### To modify the temperature of the central heating water:

- 1. Touch the Central Heating button IIII. The set temperature of the central heating water is shown on the left display.
- 2. Using the Plus + and Minus buttons, set the desired temperature (for example, 55°C).
- 3. Touch the Enter button  $\triangleright$  to confirm (or wait 30 seconds). A **P** appears on the right display (all other buttons are extinguished), which means the setting has been stored.
- 4. The display returns to the main menu.



Only available if clock program is active.

#### To apply the clock program<sup>1</sup>

- From a boiler that is in standby or in operational mode touch the control panel just above the power LED to access the main menu.
- ► Touch the Central Heating |||||| button. The current temperature of the central heating water is displayed in the left display. Touch the Central Heating |||||| button again to switch to the clock program setting.
- Using the Plus + and Minus buttons, set the desired program setting:

#### P-on (Program on):

The boiler will respond only on CH demands within the chosen time blocks. If the clock program does not contain any valid switching points, the boiler will respond on any CH demand. The actual time is shown on the left display indicating that the clock program is active.

#### T-on (Temporary on):

The clock program will be temporary overruled. The boiler will respond to every CH demand until the next "on" switching point. On the left display **t-ON** will be shown.

#### On (Continuous on):

The boiler will respond to every CH demand without any time limit.

#### ► Off:

The boiler will not respond to any CH demand.

► Touch the Enter → button to confirm. The chosen program setting will be saved in the boiler controller. After 2 minutes of inactivity changes made will also be saved.

A **P** appears in the right display and the display returns to the Central Heating menu.

<u>Note:</u> By touching the control panel just above the power LED instead of the Enter → button the display returns to the Central Heating menu without storing any changes.

#### 3 FILLING AND BLEEDING THE BOILER AND INSTALLATION

#### 3.1 Filling and venting the central heating system

To ensure correct operation of the central heating system, the pressure in the (cold) installation must be between 1 and 1.5 bar. The pressure can be read on the left display if the boiler is switched off (see **§2.2**). If the pressure during central heating demand is lower than 0.5 bar, this will flash on the display and the operation of the boiler will be limited to prevent damage to the boiler. If the pressure is too low, the system must be refilled.

Do this as follows:

- Connect the filling loop and fill the installation with water to a maximum pressure of 1.5 bar in the case of a cold installation (Indicated on left display.)
- Bleed the appliance with the manual bleed vent located on the top left of the boiler.
- Bleed the air in the installation with the manual bleed vents on the radiators.
- ► Top up the CH installation if the pressure has dropped too low as a result of the bleeding air from the system.
- Switch on the boiler by touching the control panel just above the power LED and holding this for 2 seconds.



#### In the event that the system must be replenished several times a year, please alert your installer. In that case, there may be leakage.



#### 4 FROST PROTECTION

To prevent freezing of the condensation pipe, the boiler must be installed in a frost-free area. Where possible the condensate pipe must be installed internally in the property. The boiler is equipped with a frost protection which, as long as the mains voltage and gas supply are present, switches on the central heating pump and, if needed, the burner if the temperature of the heat exchanger drops too much.

**Comment:** If an (external) frost thermostat is used in the installation and it is connected to the boiler, it is not active when the boiler has been switched off on the control display (see **§2.2**).

#### 5 MAINTENANCE

The boiler can be cleaned with a damp cloth. Do not use aggressive or scrubbing cleaning agents or solvents. The boiler and the system must be inspected annually by an authorised installer and cleaned if necessary. This also applies to the flue and air supply duct pipe.

#### 6 FAULTS AND RESETTING

If the following simple faults occur on the boiler, they can be solved as follows.

### The central heating system does not become hot or hot enough:

- ▶ Increase the set temperature of the room thermostat.
- ▶ Open the radiator valves.
- ▶ Set the central heating flow temperature higher; see **§2.3.3**.
- ► Vent the system and check the central heating pressure.

### The domestic hot water does not become hot or hot enough:

- ► The central heating pressure is too low (this is shown flashing on the display).
- ► Set the domestic hot water temperature higher; see **§2.3.2**.

#### 'F004' appears in the left display (service symbol 위 flashes):

The burner does not ignite. Check whether the gas valve has been opened and if there is gas at the gas valve. If so, reset the boiler. If the fault persists, contact your installer.



## Always contact your installer for repeated occurrence of these or other faults.

#### **Requesting fault code**

If the burner controller detects a fault, this is shown by a flashing service symbol  $\mathfrak{P}$  on the display. A fault code, such as **FOO4**, is shown on the left display for 30 seconds. Then the left display will be extinguished. The service symbol  $\mathfrak{P}$  remains flashing.

The fault code can be requested by touching the flashing service symbol  $\, \P \,$  .

#### **Resetting the boiler**

The boiler can be reset by touching the flashing Service button  $\, \P \,$  and holding it for 2 seconds. The boiler will then be restarted.






#### **Intergas Heating Ltd**

Intergas Heating Limited Unit 2 Easter Park Worcester Road Kidderminster DY11 7AR Tel: 01527 888000 Fax: 01384 279480 info@intergasheating.co.uk www.intergasheating.co.uk



2018 Intergas Heating Ltd.

#### All rights reserved.

The information provided applies to the standard version of the product. Intergas Heating Ltd can therefore not be held liable for any damage ensuing from specifications that deviate from the standard version of the product. Although the available information has been composed with all possible care, Intergas Heating Ltd cannot be held liable for any errors in the information or for the consequences of such. Intergas Heating Ltd cannot be held liable for damage ensuing from activities that are performed by third parties.

Subject to modifications.



