

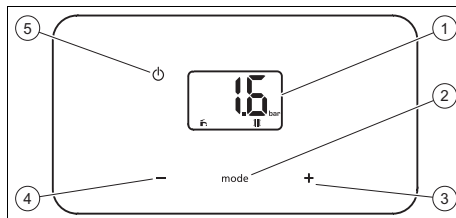


3 Product description

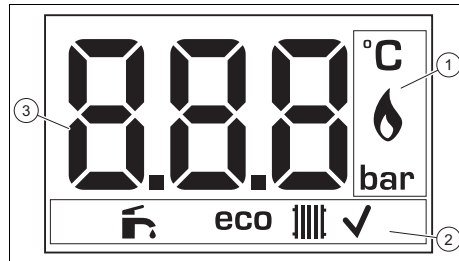
Information on the identification plate	Meaning
Type: Xx3(x)	Approved flue gas connections
PMS	Maximum water pressure in heating mode
PMW	Maximum water pressure in hot water handling mode
V/Hz	Electric connection
W	Max. electrical power consumption
IP	Level of protection
	Heating mode
	Hot water generation
Pn	Nominal heat output range in heating mode
Pnc	Nominal heat output range in heating mode (condensing technology)
P	Nominal heat output range in hot water handling mode
Qn	Nominal heating load range in heating mode
Qnw	Nominal heating load range in hot water handling mode
T _{max.}	Max. flow temperature
NOx	NOx class for the product
Code (DSN)	Specific product code
GC no.	Gas council number

3.4 Overview of the operator control elements



- | | | | |
|---|-------------|---|--------------|
| 1 | Display | 4 | - button |
| 2 | mode button | 5 | power button |
| 3 | + button | | |

3.5 Description of the display



- | | | | |
|---|--|---|--|
| 1 | Operating information | 3 | Display showing the current heating flow temperature, the filling pressure in the heating installation, the operating mode or a fault code |
| 2 | Active operating mode, selecting and confirming the operating mode | | |

3.6 Description of button functions

Button	Meaning
mode	<ul style="list-style-type: none"> - Selecting the operating mode - Confirm the operating mode - Confirm setting - Increase the display contrast
- or +	<ul style="list-style-type: none"> - Setting the hot water temperature - Setting the heating flow temperature - Increase or decrease the selected setting - Increase the display contrast
power	<ul style="list-style-type: none"> - Activate the product: On/off (standby) - Reset the product

Adjustable values flash on the display. You must confirm any change to a value. Only then is the new setting saved.

If you do not press any buttons for five seconds, the displays switches back to the basic display.

If you do not press any buttons for one minute, the display contrast decreases.

3.7 Timer

You can control the heating mode using the timer.

Position for the selection switch	Functionality
0	Heating mode permanently switched off
⏪	Heating mode intervals in accordance with the timer
I	Heating mode permanently switched on

► Set the timer. (→ Page 11)

3.8 Operating levels

The product has two operating levels:

- The operator level shows the most important information and offers set-up options which do not require any special prior knowledge.
- Specialised knowledge is required in order to use the installer level (access for competent persons). This is therefore protected by an access code.

Operator level – overview (→ Page 14)

4 Operation

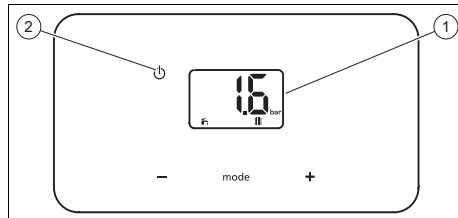
4.1 Starting up the product

4.1.1 Opening the isolator devices

Conditions: The competent person who installed the unit will explain where the isolator devices are and how to handle them.

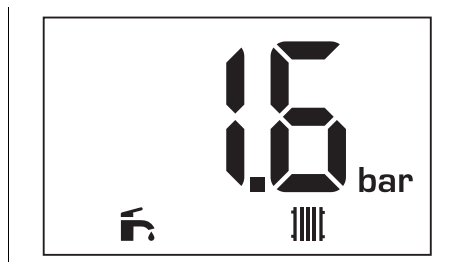
- Ensure that the gas isolator cock is fully open.
- Ensure that the stop cocks in the heating installation's flow and return are open.
- Ensure that the cold water stop cock is open.

4.1.2 Starting up the product



- Press the (2) button.
 - ◁ When the unit is switched on, the "Basic display" is shown in the display (1).

4.2 Basic display



The filling pressure in the heating installation and the operating mode are shown in the display's basic display.

To return to the basic display:

- Wait more than five seconds without pressing any buttons.

If a fault message is present, the basic display switches to the fault code.

4.3 Checking the heating system pressure

1. Once a month, check that the pressure in the central heating system, which is displayed on the user interface, is between 0.1 MPa and 0.15 MPa (1.0 bar and 1.5 bar).
 - ◁ If the filling pressure is correct, no action needs to be taken.
 - ▽ If the filling pressure is too low, add more water to the heating installation.

4 Operation



Note

If the heating flow temperature is shown in the display, press and hold the and buttons at the same time for longer than five seconds, or temporarily deactivate heating mode in order to display the pressure.

2. Fill the heating installation. (→ Page 10)

4.4 Filling the heating installation



Caution.

Risk of material damage due to heating water that is extremely calciferous or corrosive or contaminated by chemicals.

Unsuitable tap water damages the seals and diaphragms, blocks components in the product and heating installation through which the water flows and causes noise.

- ▶ Only fill the heating installation with suitable heating water.
- ▶ In case of doubt, ask a competent person for details.



Note

The competent person is responsible for filling the heating installation the first time, any subsequent top-ups and the water quality. The operator alone is responsible for topping up the water in the heating installation.

1. Open all radiator valves (thermostatic radiator valves) of the heating installation.

2. Slowly open the filling cock, as shown to you by the competent person.
3. Fill with water until the required filling pressure is reached.
4. Check the filling pressure in the display.
5. Close the filling cock after filling.

4.5 Selecting the operating mode



Note

The unit is always activated with the preselected operating mode.

- ▶ Press repeatedly until the display shows the required operating mode.

Symbol	Operating mode
	Heating + hot water
	Heating only
	Hot water only
–	No requirement

4.6 Setting the hot water temperature

Conditions: The temperature is controlled by the boiler

- ▶ Set the hot water temperature on the boiler (→ Page 11).

Conditions: The temperature is controlled by the controller

- ▶ Set the hot water temperature on the controller.



Note

If you press the or button, the display shows the symbol.

4.7 Setting the heating flow temperature

Conditions: Temperature controlled by the boiler, with heating mode activated

- ▶ Set the heating flow temperature on the boiler (→ Page 11).



Note

The competent person may have adjusted the maximum possible temperature.

Conditions: Temperature controlled by the controller, with heating mode activated

- ▶ Set the maximum heating flow temperature on the boiler (→ Page 11).
- ▶ Set the room temperature on the controller.
 - ◁ The actual heating flow temperature is set automatically by the controller.

Conditions: Outside temperature sensor connected to the boiler, with heating mode activated

- ▶ When you press the **mode**, **←** or **→** button.
 - ◁ The display shows the heating flow temperature calculated by the boiler.
 - ◁ The actual heating flow temperature is set automatically by the boiler.

4.8 Product settings



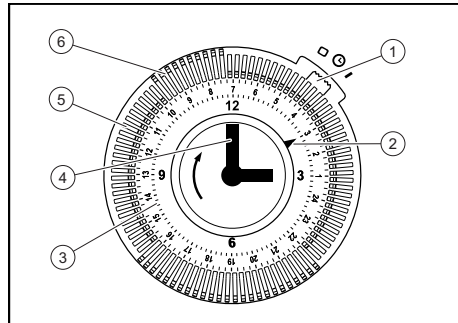
Note

The sequence in which the available settings are shown depends on the operating mode selected. If the **Domestic hot water + Heating** operating mode is selected, the hot water temperature must be confirmed in order to set the flow temperature of the heating.

1. Press the **←** or **→** button to set the temperature.
2. Press the **mode** button to confirm.

4.9 Setting the timer

Applicability: Timer, Great Britain



1. Turn the minute hand **(4)** clockwise until the arrow **(2)** points to the current time on the 24-hour dial **(3)**.
2. Slide the pin for the time interval, in which the heating mode should be switched on, outwards **(6)**.
3. Slide the pin for the time interval, in which the heating mode should be switched off, inwards **(5)**.
4. Set the selection switch **(1)** to the mid-position **(↻)**.

4.10 Switching the product to standby mode

- ▶ Press the **⏻** button for less than three seconds.
 - ◁ Once the requirement currently in use has finished, the display will show **OFF** and go out.
 - ◁ The product is now in standby mode.
 - ◁ The product's frost protection function is activated.
 - ◁ The main power supply is not interrupted. The product continues to be supplied with power.

5 Troubleshooting

4.11 Frost protection

4.11.1 The product's frost protection function

The frost protection function switches on the boiler and the pump as soon as the protection temperature in the heating circuit is reached.

- Protection temperature: 12 °C

The pump stops once the minimum water temperature in the heating circuit is reached.

- Minimum water temperature: 15 °C

If the burner ignition temperature in the heating circuit is reached, the burner switch is switched on and continues to operate until the burner anti-cycling temperature is reached.

- Burner ignition temperature: 7 °C
- Burner anti-cycling temperature: 35 °C

The hot water circuit (cold and hot water) is not protected by the boiler.

Frost protection for the system can only be guaranteed by the boiler.

A controller is required to control the temperature of the system.

4.11.2 Frost protection for the system



Note

Ensure that the product's power and gas supply are working correctly.

Conditions: If you are away from home for several days, Without controller

- ▶ Switch the product to standby mode. (→ Page 11)

Conditions: If you are away from home for several days, With controller

- ▶ Program the number of days you will be away in the controller to activate the frost protection devices.

Conditions: If you are away from home for a prolonged period

- ▶ Contact a qualified competent person, who can completely drain the system or protect the heating circuit by adding a special frost protection agent for heating installations.

5 Troubleshooting

5.1 Detecting and rectifying faults

- ▶ If problems occur whilst operating the product, you can carry out certain self-checks with the aid of the table in the appendix.
Troubleshooting (→ Page 14)
- ▶ If the product still does not function without problems after the checks have been carried out using the table, contact your competent person to rectify the problem.

5.2 Fault codes in the display

Fault codes have priority over all other displays. If several faults occur at the same time, the corresponding codes are displayed alternately for two seconds each.

- ▶ If your product displays a fault code (F.xx), contact a competent person.

6 Care and maintenance

6.1 Maintenance

An annual inspection of the product carried out by a competent person is a prerequisite for ensuring that the product is permanently ready and safe for operation, reliable, and has a long working life.

Decommissioning 7

6.2 Caring for the product



Caution.

Risk of material damage caused by unsuitable cleaning agents.

- ▶ Do not use sprays, scouring agents, detergents, solvents or cleaning agents that contain chlorine.

- ▶ Clean the casing with a damp cloth and a little solvent-free soap.

6.3 Checking the condensate drain pipework and tundish

The condensate drain pipework and tundish must always be penetrable.

- ▶ Regularly check the condensate drain pipework and tundish for faults and, particularly, for blockages.

You must not be able to see or feel any obstructions in the condensate drain pipework and tundish.

- ▶ If you notice a fault, have it rectified by a competent person.

7 Decommissioning

7.1 Temporarily decommissioning the product

- ▶ Temporarily decommission the product only if there is no risk of frost.
- ▶ Switch off the product via the main switch provided on-site.
 - ◁ The display goes out.
- ▶ When decommissioning for an extended period (e.g. holiday), you should also close the gas isolator cock and the cold water stop cock.

7.2 Permanently decommissioning the product

- ▶ Have a competent person permanently decommission the product.

8 Recycling and disposal

- ▶ The competent person who installed your product is responsible for the disposal of the packaging.



If the product is identified with this symbol:

- ▶ In this case, do not dispose of the product with the household waste.
- ▶ Instead, hand in the product to a collection centre for old electrical or electronic appliances.



If the product contains batteries that are marked with this symbol, these batteries may contain substances that are hazardous to human health and the environment.

- ▶ In this case, dispose of the batteries at a collection point for batteries.

9 Guarantee and customer service

9.1 Guarantee

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page.

9.2 Customer service

For contact details for our customer service department, you can write to the address that is provided on the back page, or you can visit www.glow-worm.co.uk.

Appendix

Appendix

A Operator level – overview

Setting level	Values		Unit	Increment, select	Default setting
	Min.	Max.			
Heating installation					
Pressure in the heating installation	Current value		bar	0.1	
	1	1.5			
Heating flow temperature	Current value		°C	1	60
	10	Preset in the system			
Hot water generation					
Hot water temperature	Current value		°C	1	55
	35	60			
Eco hot water temperature	Current value		°C	1	
	35	50			

B Troubleshooting

Fault	Cause	Measure
Product does not start up: – No hot water – Heating does not heat up	The gas isolator cock installed on-site and/or the gas isolator cock on the product is closed.	Open both gas isolator cocks.
	The cold water stop cock is closed.	Open the cold water stop cock.
	The power supply in the building is disconnected.	Check the fuse in the building. The product automatically switches on after the power supply is restored.
	The product is switched off.	Switch on the product (→ "Switching on the product" section).
	The heating flow temperature or hot water temperature has been set too low.	Set the heating flow temperature and hot water temperature (→ "Setting the heating flow temperature" section/→ "Setting the hot water temperature" section).
	The system pressure is insufficient. Low water pressure in the heating installation (fault code: F.22).	Fill the heating installation (→ "Filling the heating installation" section). If the pressure drops frequently, contact your competent person about this.
	The system pressure is too high.	Purge a radiator in order to reduce the pressure in the heating installation, or contact your competent person about this.

Appendix

Fault	Cause	Measure
Product does not start up: – No hot water – Heating does not heat up	There is air in the heating installation.	Purging the radiators If the problem occurs again: Inform the competent person
	After three successive failed ignition attempts, the system switches to fault mode (fault code: F.28).	Press the ϕ button. The product carries out a new ignition attempt. If the ignition problem is not rectified after three fault clearance attempts, contact a competent person.
Hot water generation functioning correctly; heating does not start up.	The external controller is not set correctly.	Set the external controller correctly (→ Controller operating instructions).

Publisher/manufacturer

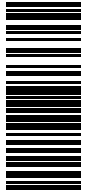
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The energy you need