



# Glow•worm

## Operating instructions

MicraCom

24c-AS/1

28c-AS/1



GB, IE

# Contents

## Contents

<b>1</b>	<b>Safety</b> .....	<b>3</b>	<b>11</b>	<b>Guarantee and customer service</b> .....	<b>11</b>
1.1	Intended use .....	3	11.1	Guarantee .....	11
1.2	Qualification .....	3	11.2	Customer service .....	11
1.3	General safety information .....	3	<b>Appendix</b> .....	<b>12</b>	
<b>2</b>	<b>Notes on the documentation</b> .....	<b>6</b>	<b>A</b>	<b>Eliminating faults</b> .....	<b>12</b>
2.1	Benchmark .....	6	<b>B</b>	<b>Troubleshooting</b> .....	<b>12</b>
<b>3</b>	<b>Notes on the documentation</b> .....	<b>6</b>			
<b>4</b>	<b>Product description</b> .....	<b>6</b>			
4.1	Display and control elements .....	6			
4.2	Displayed symbols .....	7			
4.3	Data plate .....	7			
4.4	Serial number .....	7			
4.5	CE marking .....	7			
<b>5</b>	<b>Function</b> .....	<b>7</b>			
5.1	Operating concept .....	7			
5.2	Setting the heating flow temperature .....	8			
5.3	Setting the domestic hot water temperature .....	8			
5.4	Switching off heating mode (Summer mode) .....	8			
<b>6</b>	<b>Care and maintenance</b> .....	<b>9</b>			
6.1	Caring for the product .....	9			
6.2	Maintenance .....	9			
6.3	Guaranteeing the filling pressure of the heating installation .....	9			
6.4	Checking the condensate discharge pipe and tundish .....	10			
<b>7</b>	<b>Troubleshooting</b> .....	<b>10</b>			
7.1	Eliminating faults .....	10			
7.2	Clearing faults on the product .....	10			
<b>8</b>	<b>Decommissioning</b> .....	<b>11</b>			
8.1	Temporarily decommissioning the product .....	11			
8.2	Permanently decommissioning the product .....	11			
<b>9</b>	<b>Restarting</b> .....	<b>11</b>			
<b>10</b>	<b>Recycling and disposal</b> .....	<b>11</b>			

## 1 Safety

### 1.1 Intended use

The product is intended as a heat generator for sealed heating installations and for domestic hot water generation.

Intended use also includes the following:

- Using the product while observing the operating instructions included for the product and any other installation components
- Observing all inspection and maintenance intervals listed in the instructions

Any other use that is not specified in these instructions, or use beyond that specified in this document, shall be considered improper use.

Improper use of any kind is prohibited.

### 1.2 Qualification

- ▶ Employ only a qualified competent person to install, convert and set the product.

As the end user, you may carry out all of the work that is described in these instructions.

Exception: This product can be used by children aged from 8 years and above and persons with reduced physical, sensory

or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the product in a safe way and understand the hazards involved. Children must not play with the product. Cleaning and user maintenance work must not be carried out by children unless they are supervised. Work that is described in other instructions must only be carried out by persons who meet the requirements described therein.

### 1.3 General safety information

The following sections convey important safety information. It is essential to read and observe this information in order to prevent risk of death, risk of injury, material damage or environmental damage.

#### 1.3.1 Risk of death from escaping gas

What to do if you smell gas in the building:

- ▶ Avoid rooms that smell of gas.
- ▶ If possible, open doors and windows fully and ensure adequate ventilation.

# 1 Safety

- ▶ Do not use naked flames (e.g. lighters, matches).
- ▶ Do not smoke.
- ▶ Do not use any electrical switches, mains plugs, door-bells, telephones or other communication systems in the building.
- ▶ If it is safe to do so, close the emergency control valve or the main isolator.
- ▶ If possible, close the gas stopcock on the product.
- ▶ Warn other occupants in the building by yelling or banging on doors or walls.
- ▶ Leave the building immediately and ensure that others do not enter the building.
- ▶ Notify the gas supply company or the Emergency Service Provider +44 (0) 800 111999 by telephone once you are outside of the building.
- ▶ Do not tamper with any of the safety devices.
- ▶ Do not damage or remove any tamper-proof seals on components.
- ▶ Do not make any changes:
  - The product itself
  - to the gas, supply air, water and electricity supply lines
  - to the entire flue system
  - to the entire condensate discharge system
  - to the expansion relief valve
  - to the drain pipework
  - to constructional conditions that may affect the operational reliability of the product
- ▶ Ensure that there is an evenly sufficient combustion air supply.

## 1.3.2 Flue gas

If you smell flue gas:


- ▶ Open all accessible doors and windows fully to provide ventilation.
- ▶ Switch off the product.
- ▶ Contact a competent person.

## 1.3.3 Retroactive changes

- ▶ Never remove, bridge or block the safety devices.

## 1.3.4 Material damage

- ▶ Ensure that the combustion air supply is always free of fluorine, chlorine, sulphur, dust, etc.
- ▶ Ensure that no chemical substances are stored at the installation site.
- ▶ Ensure that the heating installation always remains in operation during freezing conditions and that all rooms are sufficiently heated.
- ▶ If you cannot ensure the operation, have a competent per-



son drain the heating installation.

- ▶ Only fill the heating installation with suitable heating water and, in cases of doubt, ask a competent person about this.

## 2 Notes on the documentation

### 2 Notes on the documentation

#### 2.1 Benchmark



Glow-worm 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.benchmark.org.uk](http://www.benchmark.org.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 Area 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 Checklist will be required in the event of any warranty.

### 3 Notes on the documentation

- ▶ Always observe all operating instructions enclosed with the installation components.
- ▶ Store these instructions and all other applicable documents for further use.

These instructions apply for the following products only:

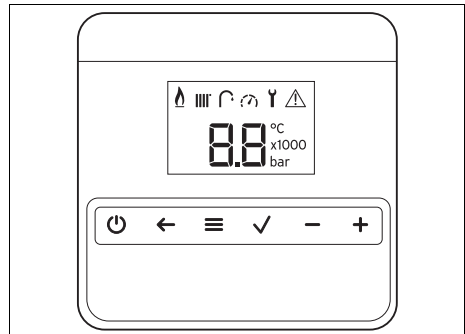
#### Product article number

	Article number	Gas Council Number
<b>MicraCom 24c-AS/1 (H-GB)</b>	0010026136	47-019-58
<b>MicraCom 28c-AS/1 (H-GB)</b>	0010026137	47-019-59






## 4 Product description

This product is a gas-fired wall-hung condensing boiler.







### 4.1 Display and control elements



Control element	Operation
	<ul style="list-style-type: none"><li>- Switch the product on/off</li><li>- Activate/deactivate standby mode</li></ul>

Control element	Operation
	- Go back one level
	- Calling up the menu
	- Confirming the selection
	- Reducing or increasing the set value
	- Scrolling through menu entries

## 4.2 Displayed symbols

Sym- bol	Meaning
	Burner in operation
	Heating mode active: - Permanently on: Target heating flow temperature - Flashing: Current heat demand + target heating flow temperature displayed
	Domestic hot water generation active: - Permanently on: Target domestic hot water temperature - Flashing: Current domestic hot water demand + target domestic hot water temperature displayed
	Installer level active
	Current system pressure: - Flashing: Current filling pressure
	Warning if a fault occurs

## 4.3 Data plate

The data plate is mounted on the rear of the electronics box and on the upper side of the product at the factory.

## 4.4 Serial number

You can find the serial number on the data plate and on the sticker on the upper side of the product.

The serial number and the product designation can also be found on a sticker under the product's front casing.

## 4.5 CE marking






The CE marking shows that the products comply with the basic requirements of the applicable directives as stated on the declaration of conformity.

The declaration of conformity can be viewed at the manufacturer's site.

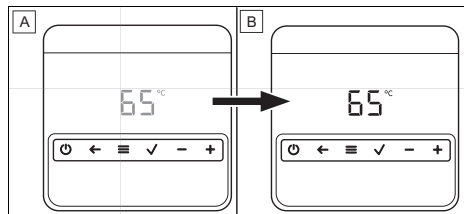
# 5 Function

## 5.1 Operating concept

The adjustable values and menu items can be changed using the  and  buttons.

Each value change must be confirmed using . The new setting is only implemented once it has been confirmed.

### 5.1.1 Basic display



A Screensaver

B Basic display


The screensaver (A) appears if no operating procedure is carried out on the product for longer than two minutes. The display either shows the target flow temperature

# 5 Function

(if no control is connected) or the message **on** and/or **oF** (if a control is connected).

The basic display (**B**) shows the current product status. If you press a selection button, the activated function is displayed in the display.

The functions that are available depend on whether a control is connected to the product.

To return to the basic display, press .






## 5.1.2 Operating levels

The product has two operating levels:



- The end user level shows the information and offers setting 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.



## 5.2 Setting the heating flow temperature

**Condition:** No control connected



- ▶ In the basic display, press  once to ensure that the  symbol flashes.
  - ◀ The set heating flow temperature appears in the display.
- ▶ Press  or  to set the required heating flow temperature.
- ▶ Confirm by pressing .
  - ◀ The set temperature flashes twice rapidly.

**Condition:** Control connected




- ▶ In the basic display, press  once to ensure that the  symbol flashes.
  - ◀ **on** or **oF** appears in the display.
    - **on** indicates that heating mode is switched on.
    - **oF** indicates that heating mode is switched off.

- ▶ If **oF** is shown in the display, press the  button to switch on heating mode.
- ▶ Confirm by pressing .
  - ◀ **on** flashes twice rapidly.
- ▶ Set the required heating flow temperature on the control (→ Control operating instructions).

## 5.3 Setting the domestic hot water temperature

1. Press  twice in the basic display to ensure that the  symbol flashes.
  - ◀ The set domestic hot water temperature appears in the display.

**Condition:** No control connected





- ▶ Press  or  to set the required water temperature.
- ▶ Confirm by pressing .
  - ◀ The set temperature flashes twice rapidly.

**Condition:** Control connected

- ▶ Set the required domestic hot water temperature on the control (→ Control operating instructions).

## 5.4 Switching off heating mode (Summer mode)

**Condition:** No control connected

- ▶ To switch off heating mode, press .
  - ◀ The value of the heating flow temperature appears in the display.
- ▶ Press  to reduce the heating flow temperature and set it to **oF**.
- ▶ Confirm by pressing .
  - ◀ **oF** flashes twice rapidly, heating mode is deactivated.
  - ◀ The  symbol is no longer shown in the display.



- ◁ The target domestic hot water temperature is displayed.

**Condition:** Control connected

- ▶ Switch off heating mode on the control (→ Control operating instructions).

## 6 Care and maintenance

### 6.1 Caring for the product



- ▶ Clean the casing with a damp cloth and a little solvent-free soap.
- ▶ Do not use sprays, scouring agents, detergents, solvents or cleaning agents that contain chlorine.

### 6.2 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.

### 6.3 Guaranteeing the filling pressure of the heating installation

#### 6.3.1 Checking the filling pressure of the heating installation

1. In the basic display, press  three times.
  - ◁ The display shows the current filling pressure value.
  - ◁ The  symbol flashes in the display.
2. Check the filling pressure in the display.
3. If the filling pressure is lower than 0.5 bar (0.05 MPa), top up the heating installation. (→ Page 9)



#### Note

If the heating installation extends over several storeys, a higher filling pressure may be required for the heating installation. Ask a competent person for details.

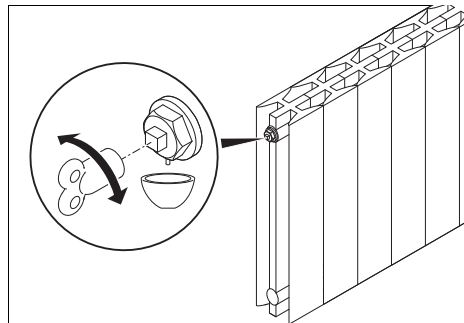
#### 6.3.2 Topping up the heating installation



#### Note

Filling the heating installation depends on the actual installation configuration. If the following steps are not suitable for the installation, contact a competent person.

1. Use a hose to connect the filling tap to a cold water pipe.
2. Open all thermostatic radiator valves in the heating installation.
3. Open the cold water pipe's water tap.
4. Turn the installation's filling tap on slowly, fill with water until the required system pressure is reached, and then close the filling tap again.
  - Required system pressure: 1.0 to 1.4 bar (0.10 to 0.14 MPa)
5. Close the cold water pipe's water tap.



6. Purge all of the radiators at the connection provided (top left or right on the radiator).

# 7 Troubleshooting



## Note

A purging key can be used for the purging.

7. Check the system pressure after purging. (→ Page 9)
8. If required, repeat the work steps for filling and purging.
9. Disconnect the filling tap from the cold water pipe.

## 6.4 Checking the condensate discharge pipe and tundish

The condensate discharge pipe and tundish must always be penetrable.

- ▶ Regularly check the condensate discharge pipe and tundish for faults and, particularly, for blockages.

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

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

# 7 Troubleshooting



## Danger!

### Risk of death caused by improper repair work

- ▶ If the power supply cable is damaged, never replace this yourself.
- ▶ Contact the manufacturer, customer service or a similarly qualified person.

- ▶ If faults occur, proceed in accordance with the "Troubleshooting" table in the appendix.

## Troubleshooting

- ▶ If you have been unable to eliminate the fault using the specified measures, consult a competent person.

### 7.1 Eliminating faults

- If one or more faults occur, the basic display switches between the active fault code(s) and the target heating flow temperature.

**F.** → **XX** → **XX °C**

- If fault **F.22** (system pressure too low) occurs, the basic display switches between the active fault code(s), the current water pressure and the target heating flow temperature.


**F.** → **22** → **X,X bar** → **XX °C**

- ▶ If a fault code (**F.xx**) occurs, proceed in accordance with the fault code table in the appendix.

#### Eliminating faults


- ▶ If you have been unable to eliminate the fault using the specified measures, consult a competent person.

### 7.2 Clearing faults on the product

- ▶ Press and hold the  on/off button in the basic display for longer than three seconds to reset the product (maximum five times).


◁ **rE** is shown in the display.

▽ **rE** flashes rapidly after five reset attempts.

- ▶ Press  to stop the flashing and to restart the product.

## 8 Decommissioning


### 8.1 Temporarily decommissioning the product

1. In the basic display, press the on/off button .  
◀ The display goes out.
2. Only close the gas stopcock on the product if no frost is expected.
3. Close the cold-water isolation valve.

### 8.2 Permanently decommissioning the product

- ▶ Have a competent person permanently decommission the product.

## 9 Restarting

1. Open the gas stopcock on the product if the gas stopcock is closed.
2. Press .  
◀ The display shows the basic display.
3. Open the cold-water isolation valve.

## 10 Recycling and disposal

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



■ If the product is labelled with this mark:

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



■ If the product contains batteries that are labelled with this mark, 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.

## 11 Guarantee and customer service

### 11.1 Guarantee

For information on the manufacturer's guarantee, you can write to the contact address that is provided on the back page or by visiting <https://self-service.glow-worm.co.uk/warranty-registration/step-one/>.

### 11.2 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](http://www.glow-worm.co.uk).

## Appendix

### A Eliminating faults

Message	Possible cause	Measure
<b>F.22</b> System pressure too low	Water deficiency in the heating installation	<ol style="list-style-type: none"> <li>1. Check the filling pressure of the heating installation. (→ Page 9)</li> <li>2. Fill the heating installation. (→ Page 9)</li> </ol>
<b>F.28</b> Ignition unsuccessful	After three unsuccessful ignition attempts, the product has switched to fault mode.	<ol style="list-style-type: none"> <li>1. Check whether the gas stopcock is open.</li> <li>2. Eliminate faults in the product. (→ Page 10)</li> <li>3. Check at the gas meter that gas is still being supplied to the product. <ul style="list-style-type: none"> <li>◁ If you have not topped up your payment recently, the gas supply could be cut off by the meter.</li> </ul> </li> <li>4. If you are unable to eliminate the ignition fault, contact a competent person.</li> </ol>

### B Troubleshooting

Symptom	Possible cause	Measure
Product does not start up (no hot water, heating remains cold)	The installation's gas stopcock and/or the gas stopcock on the product is closed.	► Open both gas stopcocks.
	The gas supply is interrupted.	► Arrange payment by the appropriate means to ensure that your gas supply is restored.
	The power supply in the building is disconnected.	► Check the fuse in the building. The product automatically switches back on when the power supply is restored.
	The cold-water stopcock is closed.	► Open the cold-water stopcock.
	The product is switched off.	► Eliminate faults in the product. (→ Page 10)
	The room temperature/domestic hot water temperature has been set too low and/or heating mode/domestic hot water mode has been switched off.	<ol style="list-style-type: none"> <li>1. Set the room temperature.</li> <li>2. Set the domestic hot water temperature. (→ Page 8)</li> </ol>
	There is air in the heating installation.	► Inform a competent person in order to have the heating installation purged.
Heating will not start (hot water generation OK)	The external control has not been parametrised correctly.	► Set the external control correctly (→Control operating instructions).









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