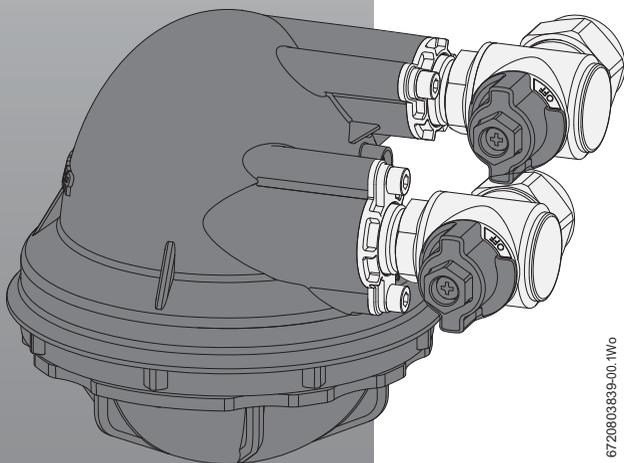


Installation & Servicing Instructions

# Greenstar System Filter

For sealed & open vent central heating systems with 22mm central heating pipes



67208103839-00\_11w0

UK/IE

6720803839(2014/03)

**WORCESTER**  
Bosch Group

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**1 Symbols and safety precautions**

**1.1 Explanation of symbols**

**Warning symbol**



Safety instructions in this document are framed and identified by a warning triangle which is printed on a grey background.



Electrical hazards are identified by a lightning symbol surrounded by a warning triangle.

Signal words indicate the seriousness of the hazard in terms of the consequences of not following the safety instructions.

- **NOTICE:** indicates possible damage to property or equipment, but where there is no risk of personal injury.
- **CAUTION:** indicates possible personal injury.
- **WARNING:** indicates possible severe personal injury.
- **DANGER:** indicates possible risk to life.

**Important information**



Notes contain important information in cases where there is no risk of personal injury or material losses and are identified by the symbol shown on the left. They are bordered by horizontal lines above and below the text.

**Additional symbols**

Symbol	Meaning
①	a reference number to identify/refer to a part or item
1.	a numbered step in an action sequence
▶	a step in an action sequence
→	a reference to a related part in the document or to other related documents
•	a list entry
-	a list entry (second level)

Table 1

## 1.2 Safety precautions

### Fitting and modification

The unit must not be fitted in any way other than described in the Installation Instructions and any misuse or unauthorised modifications to the unit or associated components and systems could invalidate the warranty. The manufacturer accepts no liability arising from any such actions. This does not affect your statutory rights.

### Health and safety

The appliance contains no substances that contravene the COSHH Regulations (Control of Substances Hazardous to Health regulations 1988).



**CAUTION:**

The system filter contains a strong magnet.

Table 2

### Spare Parts

Pre plumbing kit	8 718 689 373 0
Air vent assembly	8 718 686 888 0
Valve assembly	8 718 689 372 0
System filter instructions	6 720 803 839 0
O ring main body seal	8 718 686 329 0
O ring valve	8 718 686 337 0
O ring air vent assembly	8 718 686 333 0
O ring air vent screw	8 718 687 916 0
WB sheath assembly	8 718 686 316 0
Valve screw	8 718 686 889 0
Tool for body	8 718 684 947 0
Tool for cap	8 718 684 950 0

Table 3

## 2 Standard package

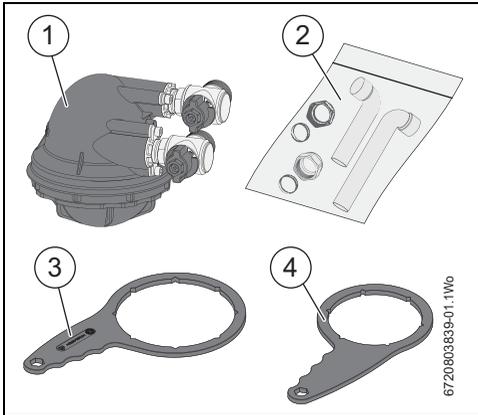


Fig. 1 Standard package

- [1] Greenstar system filter
- [2] Copper tails and fittings (22mm)
- [3] Tool for body
- [4] Tool for cap

### General information

The Greenstar System Filter is suitable for 22mm pipe central heating systems and can be fitted anywhere on the main heating circuit, except between the boiler and the feed and expansion on an open vent system. The system should be flushed and a suitable inhibitor added in accordance with BS7593 before installing the Greenstar System Filter. Failure to comply with the guidance will limit the effectiveness of the Greenstar System Filter in protecting your boiler and central heating system. However, in order to achieve the best protection for the boiler, Worcester, Bosch recommend that the filter is fitted between the last radiator and the boiler on a vertical run of pipework. In determining a suitable location for installation, it is important to ensure you allow adequate access for servicing.

### 2.1 Installation location within system pipework

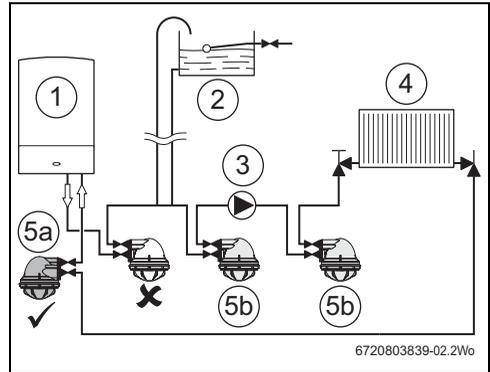


Fig. 2 Open vented system

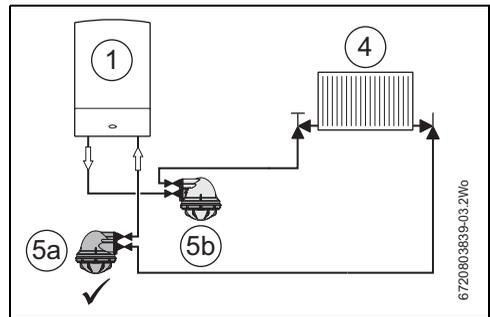


Fig. 3 Combi/sealed system

- [1] Boiler
- [2] Open vent tank
- [3] Pump
- [4] Radiator
- [5a] System filter (best location)
- [5b] System filter (acceptable location)

The following instructions are designed to assist engineers in the safe and effective installation and servicing of the Greenstar System Filter and should be followed at all times. Any queries arising from either the installation or servicing should be directed to Worcester, Bosch Technical Support.



Greenstar system filter should only be installed by a competent person. If in any doubt, consult a qualified heating engineer.

### 2.1.1 Pipework orientation

There are various orientations for the pipework to allow for multiple installation situations. See figure 4 for our advised installation position when installing under a boiler.

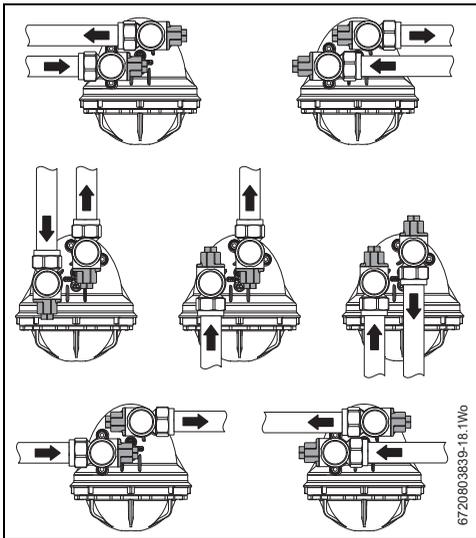


Fig. 4 Pipework orientation

### 2.1.2 Dimensions

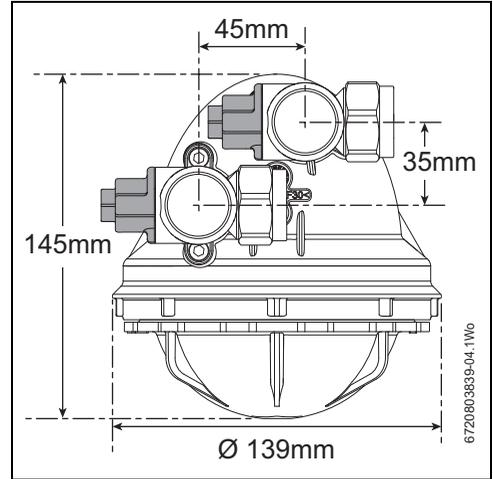


Fig. 5 Dimensions

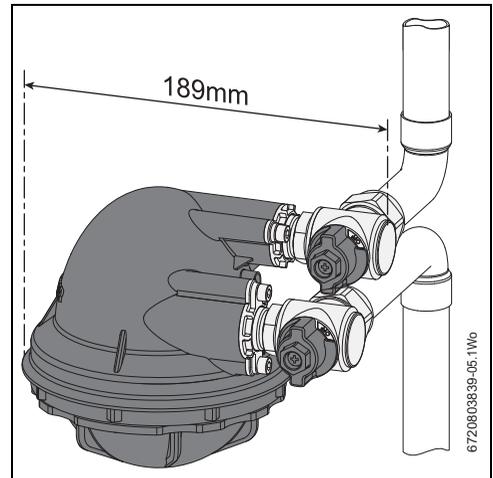


Fig. 6 Dimensions continued

### 3 Installation

- ▶ Drain the central heating or isolate the feed and expansion tank and release the system pressure.
- ▶ Measure, mark and cut out a 70mm section of pipe.
- ▶ The two copper elbows are different, the shorter elbow is fitted on the pipe that returns to the boiler. Prepare the elbows supplied and solder onto the ends of the pipes as shown in figure 6.

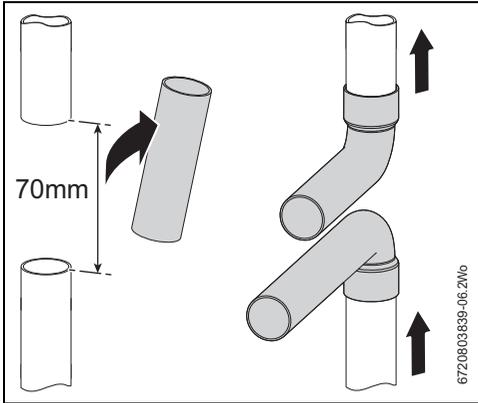


Fig. 7 Pipework preparation

- ▶ Slide the system filter onto the pipework and hand tighten, following the flow direction indicated on the isolation valves.

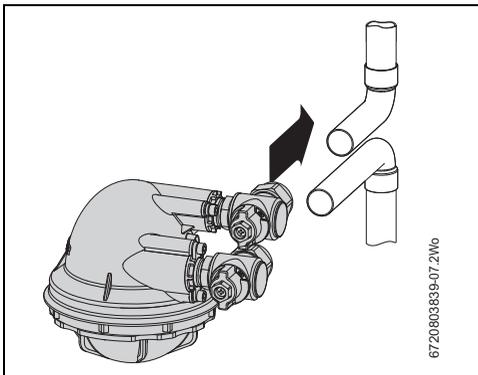


Fig. 8 System filter installation

- ▶ Tighten the compression fittings firmly, but do not over tighten.

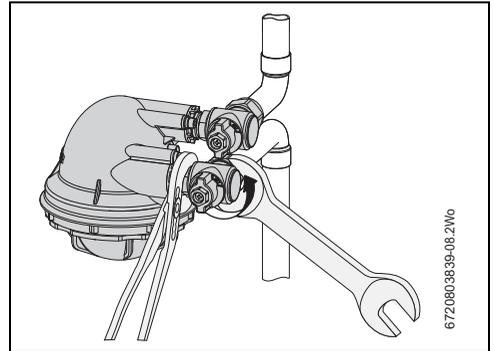


Fig. 9 Securing system filter

- ▶ Using a suitable spanner, open the isolation valves.

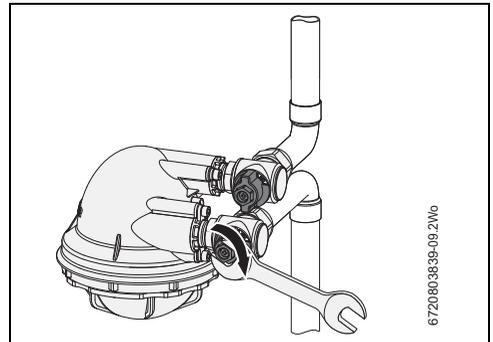


Fig. 10 Open isolation valves

- ▶ Refill the heating system.
- ▶ Run the central heating system and check for leaks.
- ▶ Attach the self-adhesive label to the boiler in a prominent position.



Always service the filter before leaving the premises. The two large spanners should be left with the customer.

## 4 Servicing



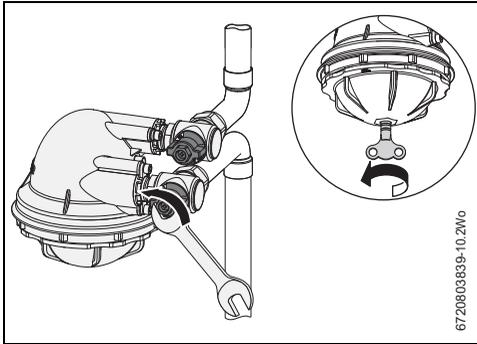
**NOTICE:** Before commencing any servicing work, turn off the electrical supply to the boiler.

- ▶ Turn both isolation valves to the marked OFF position.



Protect the surface below the system filter with a suitable container to capture water.

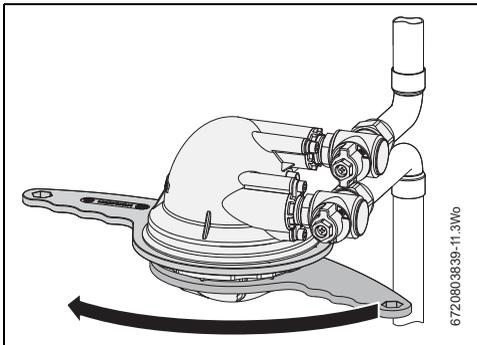
- ▶ Loosen the air vent to release the internal pressure.
  - Then re-tighten the air vent.



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Fig. 11 Close isolating valves

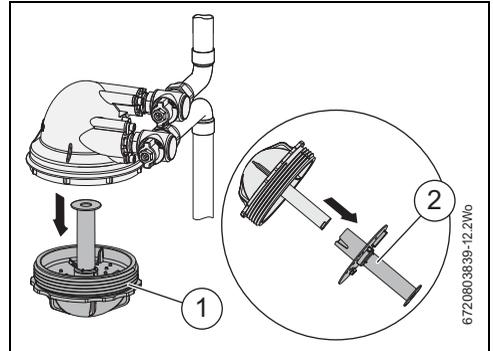
- ▶ Using the tool for body (larger of the two) steady the system filter.
- ▶ With the tool for the cap gripping the base, loosen the base and carefully unscrew. Collect the filter contents in a container placed underneath the filter.



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Fig. 12

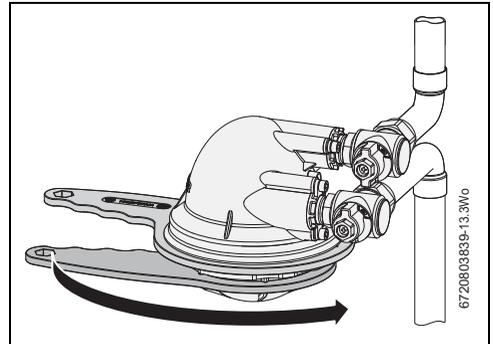
- ▶ Remove the base [1] from the system filter, ensuring that any water or debris is caught within the container.
- ▶ Slide the magnetic cap sheath off the base [2].
- ▶ Wipe clean the magnetic cap sheath [2] and base [1].
- ▶ Reassemble the magnetic cap sheath onto the base section and carefully screw the base section back into the canister.



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Fig. 13

- ▶ Using the tool for body (larger of the two) steady the system filter.
- ▶ Using the tool for cap, grip the base and tighten until sealed, do not over tighten.



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Fig. 14

- ▶ Using a suitable spanner open the isolation valves (If the filter is used on a sealed system, recharge the system to correct working pressure).

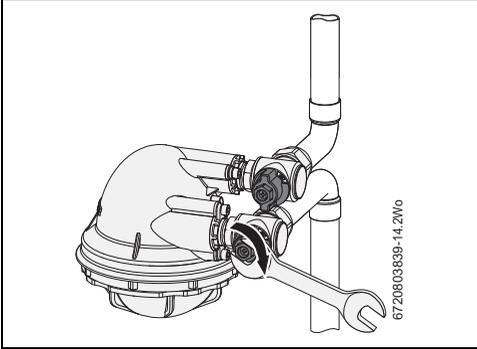


Fig. 15

- ▶ Attach the chemical adaptor and feed in the chemical.
- ▶ Wait five seconds before removing the adaptor.

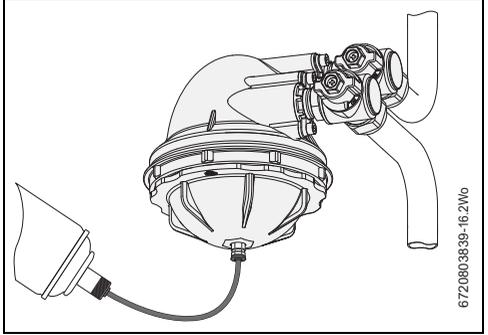


Fig. 17

## 5 Chemical dosing



The adaptor on market leading chemical additives, either liquid or concentrate form, will fit onto the "quick dose" air vent.

- ▶ Remove the "quick dose" air vent with a standard radiator key. The built-in, one-way valve will prevent water from escaping.

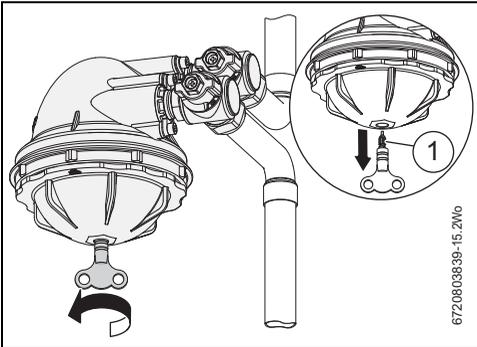


Fig. 16

- ▶ Replace the quick dose air vent [1].
- ▶ Allow the system to circulate for 30 seconds.

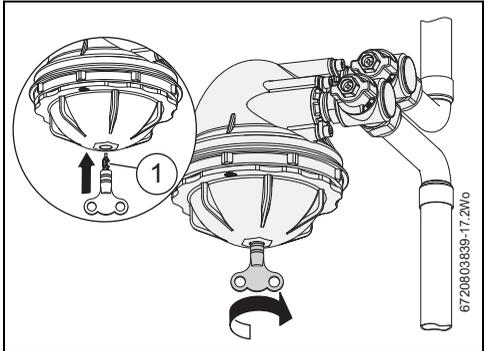


Fig. 18

## 6 Service record

It is recommended that your system filter is serviced regularly and that the appropriate Service Interval Record is completed.

### Service Provider

Before completing the appropriate Service Record Below, please ensure you have carried out the service as described in the servicing section of the manual.

Always use Worcester approved spare parts.

<b>Service 1</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 2</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 3</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 4</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 5</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 6</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 7</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 8</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 9</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

<b>Service 10</b>	Date:
Engineer Name:	
Company Name:	
Telephone No.	
Comments:	
Signature:	

## Notes

## Notes

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Worcester, Bosch Group is a brand name of  
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