

FLUE KIT INSTALLATION INSTRUCTIONS

CF ADAPTER KIT

GREENSTAR OILFIT

CONVENTIONAL FLUE

For use with the following oil-fired appliances:

Greenstar Utility 18/25

Greenstar Danesmoor 18/25

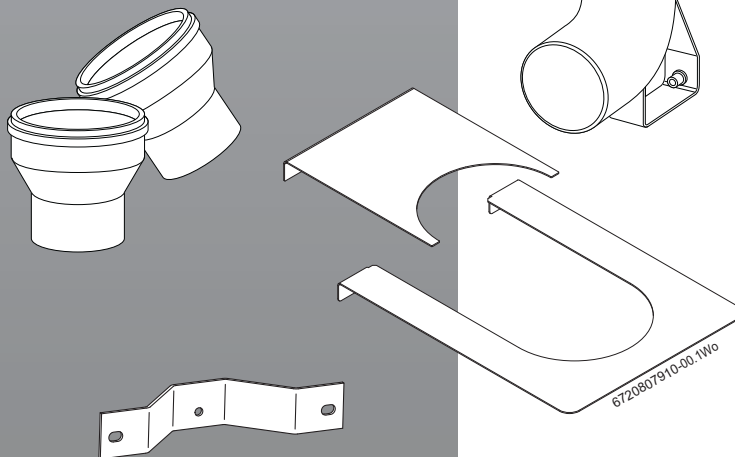
Greenstar Heatslave 12/18, 18/25, 25/32

Greenstar Camray Kitchen 12/18, 18/25, 25/32

Greenstar Camray Utility and System 12/18, 18/25, 25/32

Greenstar Heatslave II 12/18, 18/25, 25/32

Greenstar Danesmoor 2013 (cross-firing) 12/18, 18/25, 25/32



UK

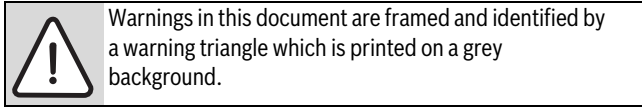
CONTENTS

1	Key to symbols and safety instructions	3
1.1	Key to symbols	3
1.2	Safety precautions	3
<hr/>		
2	Product Information	4
2.1	Conventional vertical flue components	4
<hr/>		
3	Pre-Installation	5
3.1	Conventional flue	5
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4	Installation	6
4.1	Conventional flue	6

1 KEY TO SYMBOLS AND SAFETY INSTRUCTIONS

1.1 KEY TO SYMBOLS

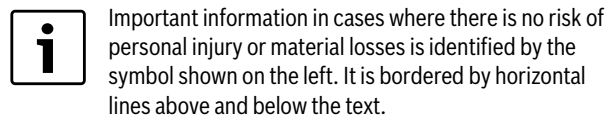
WARNINGS



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

- **NOTICE** indicates that material damage may occur.
- **CAUTION** indicates that minor to medium injury may occur.
- **WARNING** indicates that serious injury may occur.
- **DANGER** indicates possible risk to life.

IMPORTANT INFORMATION



ADDITIONAL SYMBOLS

Symbol	Meaning
▶	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)

ABBREVIATIONS

∅	Diameter
CF	Conventional Flue

1.2 SAFETY PRECAUTIONS

IN THE EVENT OF ANY OIL SMELLS, LEAKS OR FUMES FROM THE APPLIANCE:

- ▶ PUT OUT NAKED FLAMES
- ▶ OPEN DOORS AND WINDOWS
- ▶ ISOLATE THE ELECTRICAL SUPPLY
- ▶ ISOLATE THE FUEL SUPPLY AT THE BOILER
- ▶ RECTIFY THE FAULT

BOILER OPERATION:

This boiler must only be operated by a responsible adult who has been instructed in, understands, and is aware of the boiler's operating conditions and effects.

HEALTH AND SAFETY

The appliance contains no asbestos and no substances have been used in the construction process that contravene the COSHH Regulations (Control of Substances Hazardous to Health Regulations 1988).

COMBUSTION AND CORROSIVE MATERIALS

Do not store or use any combustible materials (paper, thinners, paints etc.) inside or within the vicinity of the appliance.

The combustion air must be free from chemically aggressive substances which can corrode the appliance and invalidate any warranty.

FITTING AND MODIFICATIONS

Fitting the appliance and any controls to the appliance may only be carried out by a competent engineer in accordance with these instructions and the relevant Installation Regulations.

Flue systems must not be modified in any way other than as described in the fitting instructions. Any misuse or unauthorised modifications to the appliance, flue or associated components and systems could invalidate the warranty. The manufacturer accepts no liability arising from any such actions, excluding statutory rights.

IMPORTANT

The service engineer must complete the Service Record at the back of the manual after each service.

SERVICING:

Advise the user to have the system regularly serviced by a competent, qualified engineer (such as OFTEC registered personnel) using approved spares, to help maintain the economy, safety and reliability of the appliance.

INSTALLATION REGULATIONS

Failure to install appliances correctly could lead to prosecution.

COMPLYING WITH THE BUILDING REGULATIONS:

The boiler and flue form part of the controlled services for the building. It is law that all controlled services for buildings must comply with building regulations. You must be able to satisfy your Local Authority Building Control Body (LABC) that the work carried out concerning the installation and commissioning of the heating appliances has been carried out to a satisfactory standard.

OFTEC operate a competent persons scheme and registered installers are able to certify that their work complies with building regulations.

Under the scheme:

- OFTEC must be informed about every installation.
- OFTEC will issue a building regulations compliance certificate to the householder and will notify LABC.

OFTEC provide controlled document forms CD10 and CD11 for use during installation and commissioning respectively.

Other organisations operate self-certification schemes e.g. NAPIT and BESCA Ltd. and it may be possible for installers who are members of these organisations to self certify their work.

Alternatively you must submit a building control notice to the LABC before installing any boiler.

The LABC will then arrange regular inspection visits during the work to ensure that the installation complies with the regulations.

The appliance must be installed by a competent person. The person installing the appliance should be aware of the Health and Safety at Work Act and take appropriate action to ensure that the regulations are adhered to. In order to give optimum efficiency and trouble free operation the appliance must be commissioned by a qualified OFTEC engineer. The compliance with a British Standard does not, in itself, confer immunity from legal obligations. In particular the installation of this appliance must be in accordance with the relevant requirements of the following British Standards and regulations in respect of the safe installation of equipment.

BS 5410: Part 1: Code of practice for Oil Fired Boilers. The Building Regulations Part J and L1 England and Wales; Part F and Part J Section III Scotland;

Part L and Part F Northern Ireland.

Local water company bye-laws. The Control of Pollution (Oil) Regulations.

OFTEC Standards.

Where no specific instruction is given, reference should be made to the relevant codes of practice.

2 PRODUCT INFORMATION

2.1 CONVENTIONAL VERTICAL FLUE COMPONENTS

CF VERTICAL FLUE KIT

Part number: 7 716 190 036 comprising:

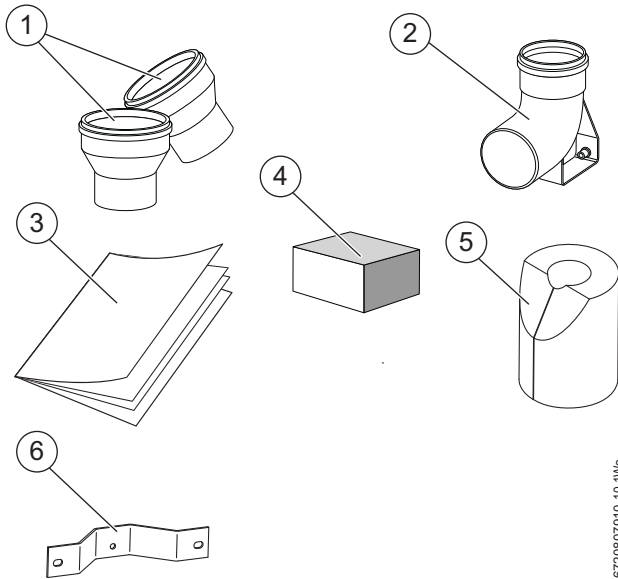


Fig. 1 Flue kit

- [1] Adapter 80 to 100mmØ
Adapter 80 to 103mmØ
- [2] Elbow
- [3] Flue kit installation instructions
- [4] Bolts and solvent free grease
- [5] Air inlet silencer (Camray only)
- [6] Support bracket

CF VERTICAL ADDITIONAL PART FOR 100mm FLUE

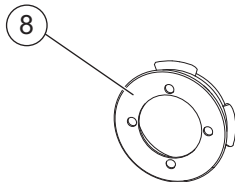


Fig. 2 Restrictor

- [8] Flue restrictor assembly for use on
Greenstar Camray 18/25 and 25/32 only.
CF flues over six metres only
Part number 8 716 681 414

2.2 CONVENTIONAL VERTICAL FLUE COMPONENTS

CF VERTICAL FLUE KIT

USE WITH HEATSLAVE II AND DANESMOOR (2013) MODELS

Part number: 7 716 190 104 comprising:

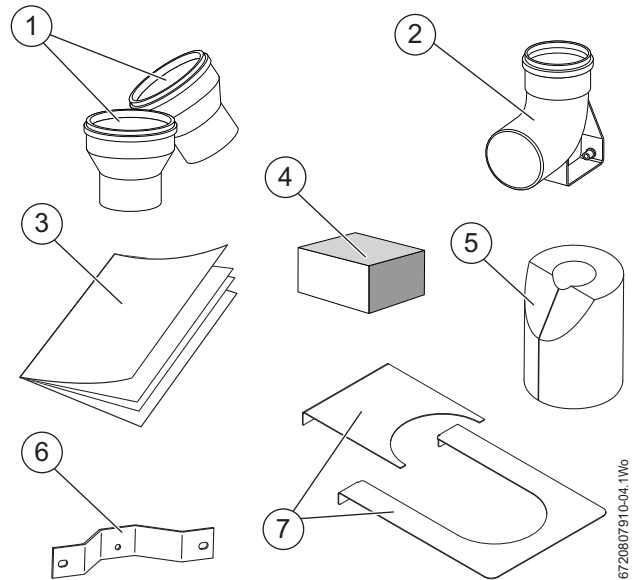


Fig. 3 Flue kit (2013)

- [1] Adapter 80 to 100mmØ
Adapter 80 to 103mmØ
- [2] Elbow
- [3] Flue kit installation instructions
- [4] Bolts and solvent free grease
- [5] Air inlet silencer (Camray only)
- [6] Support bracket
- [7] In-fill plates

3 PRE-INSTALLATION

3.1 CONVENTIONAL FLUE



NOTICE: Exposed flue pipes
▶ Any exposed CF flue pipe must be rigid stainless steel

- Open (conventional) flued (CF) appliances must not be installed in a bedroom, bathroom or bed-sitting room.
- The flue system must be in accordance with BS 5410: Part 1 and the current Building Regulations.
- The flue must be constructed of a material suitable for the use with condensing combustion products.
- External flue systems must be of the insulated type.
- Brick and masonry chimneys must be lined with a suitable non-combustible material and properly jointed to withstand the effects of the working temperature (minimum rating of material 120°C) of the appliance and any condensate which may form.
- All flue joints must be sealed to prevent the leakage of condensate and combustion products.
- Ensure that joints are made so that the condensate runs away and is not collected within the joint.



NOTICE:
▶ The flue can be increased in size from the boiler take off point, providing the joint is correctly sealed. Never reduce the flue diameter from the boiler take off point.

Because the flue operates at a lower temperature on a condensing boiler compared to that of a conventional appliance, the flue draught will be lower. Typically the draught will be between 0.5mmwg and 4.5mmwg, measured with the flue warm but the burner not firing. The actual figure will vary depending on weather conditions, flue height and position.

- The first section of the flue from the appliance must be vertical and minimum of 600mm long.
- The flue should be vertical and contain as few bends as possible, a maximum of two 135° bends can be used.
- The flue outlet must be extended beyond the eaves of the building and where possible above the apex.
- Fit a suitable anti down-draught terminal where down draughts are expected.

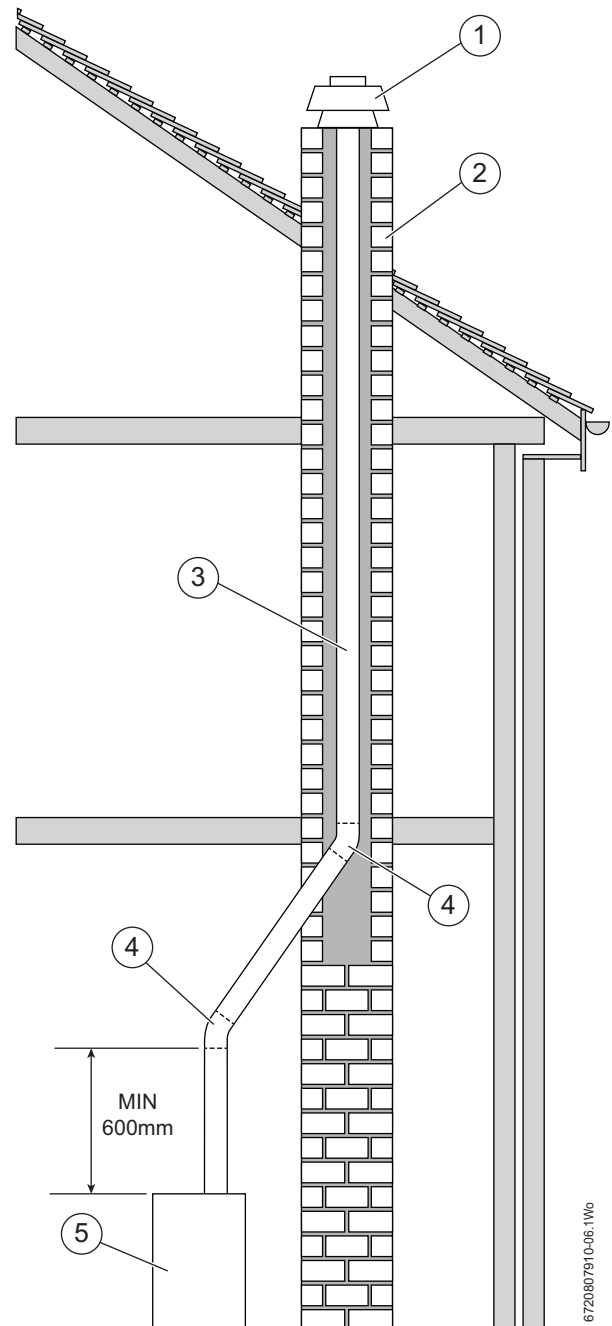


Fig. 4 Conventional flue

- [1] Anti down-draught terminal
- [2] Chimney
- [3] Flue
- [4] Maximum two bends at 135°
- [5] Appliance

4 INSTALLATION

4.1 CONVENTIONAL FLUE

WARNING: Flue joints

- ▶ All flue joints must be sealed to prevent leakage of condensate and flue products.

NOTICE: Flue system

The appliance is not designed to support the weight of the flue system.

- ▶ The flue system must be supported externally to the appliance

NOTICE: Exposed flue pipes

- ▶ Any exposed CF flue pipe must be rigid stainless steel

i To ease assembly of the components, grease the seals lightly with the solvent free grease supplied. Check all the seals are seated properly in the grooves provided and are in good condition.

- ▶ Check that the seal [2] is located in the groove of the flue outlet [3]
1. Fit the spacer bracket [1] to the rear of the heat exchanger using the bolts supplied, Camray model shown
 2. Rotate the flue elbow [4] to 45° and slide into position in the manifold, rotate back to vertical

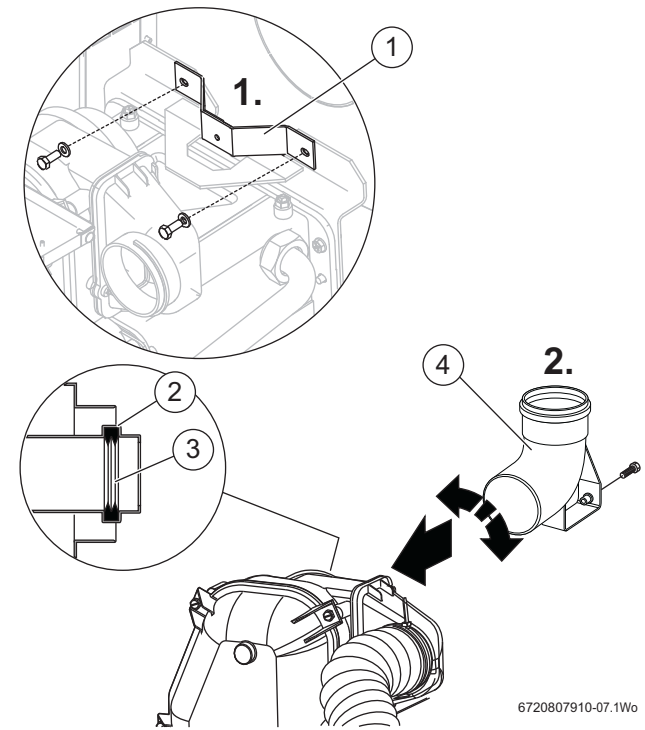


Fig. 5 Fitting flue elbow

- [1] Spacer bracket
- [2] Seal
- [3] Flue outlet groove
- [4] Elbow

3. Select the correct adaptor (F) to suit the flue diameter (100mmØ or 103mmØ adaptors supplied) Incorrect matching of the adaptor to the flue diameter could result in the escape of flue gases.
 - ▶ Push fit the vertical flue adaptor (F) into flue elbow (B) ensuring a good seal.

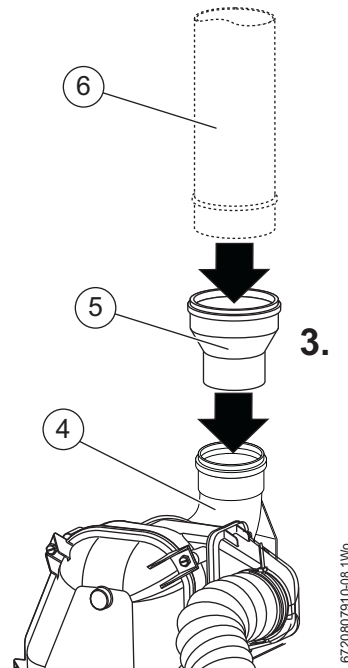


Fig. 6 Vertical flue adapter

- [5] Vertical flue adapter
- [6] Flue extension

4. For maximum conventional flue lengths on all appliances, see the table below:

Appliance variant	Model	Flue Ø	Max flue length (m)	Flue restrictor (over 6m)
Greenstar Camray Kitchen	12/18	100	15	N
	18/25	100	15	Y
	25/32	100	15	Y
Greenstar Camray Utility	12/18	100	15	N
	18/25	100	15	Y
	25/32	100	15	Y
Greenstar Camray Utility System	12/18	100	15	N
	18/25	100	15	Y
	25/32	100	15	Y
Greenstar Danesmoor (pre 2011)	18/25	100	15	N
Greenstar Utility	18/25	100	15	N
Greenstar Heatslave	12/18	100	15	N
	18/25	100	15	N
	25/32	100	15	N
Greenstar Danesmoor (2013)	12/18	100	12	N
	18/25	100	12	N
	25/32	100	12	N
Greenstar Heatslave II	12/18	100	12	N
	18/25	100	12	N
	25/32	100	12	N

Table 1 Maximum flue length

5. If required, insert the flue restrictor behind the flue stat pocket and push firmly onto the protruding stainless steel elbow

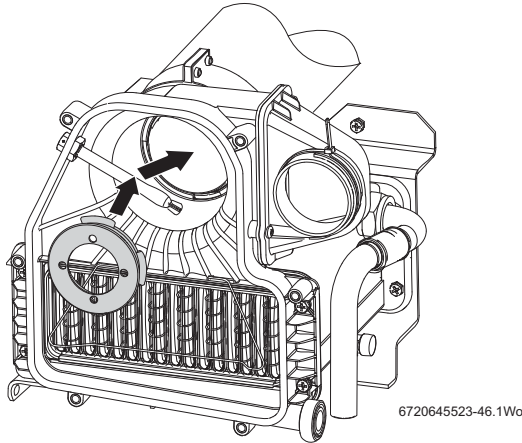


Fig. 7 Fit the flue restrictor

6. For the Camray appliances remove the air inlet duct from the burner and fit the air inlet silencer into the burner air inlet. Refit the air inlet duct to the burner air inlet.

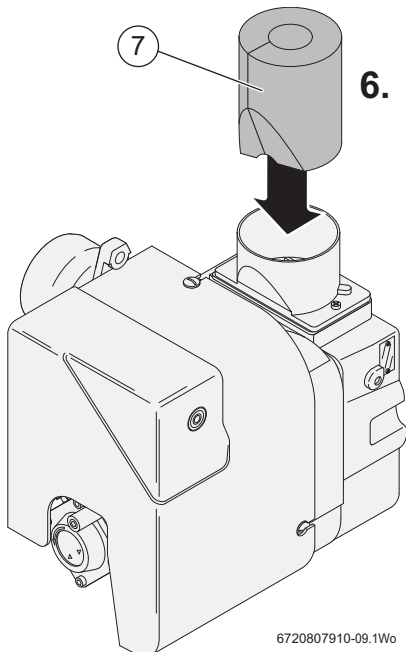


Fig. 8 Fit the air inlet silencer

[7] Air inlet silencer

Because the flue operates at a lower temperature on a condensing boiler compared to that of a conventional appliance, the flue draught will be lower.

FLUE DRAUGHT

Typically the draught will be between 0.5mmwg and 4.5mmwg, measured with the flue warm but the burner not firing. The actual figure will vary depending on weather conditions, flue height and position.

4.2 FITTING THE FLUE IN-FILL PLATE

When installing the flue vertically, the top panel must have the in-fill panel fitted after the "cut out" section is removed.

► To release the boiler top panel from the case, pull up the front edge of the panel and slide towards you

1. Remove the "cut out" panel [1] and file smooth the tags left behind

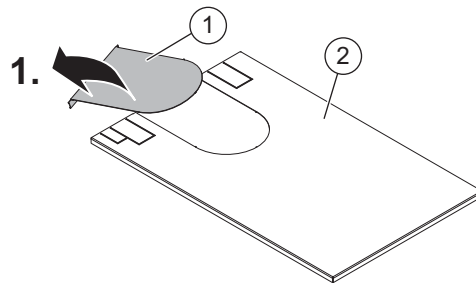


Fig. 9 Removing the cut-out

[1] Vertical flue cut-out panel
[2] Boiler top panel

2. Slide the in-fill adapter panel [3] onto the top panel [2] so that the top panel engages with the slots on the underside of the adapter panel [3]

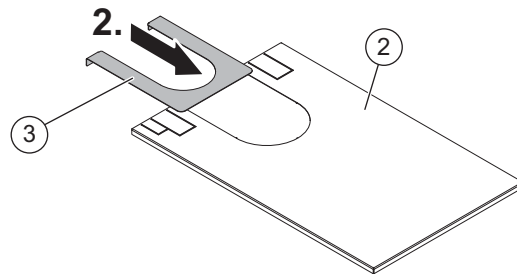


Fig. 10 Fitting the In-fill adapter panel

[3] In-fill adapter panel

3. If the back of the boiler is mounted close the wall, position the in-fill panel [3] behind the flue as shown in the figure below

4. Slide the boiler top panel [2] back onto the top of boiler case so that the in-fill panel [4] engages with the slot on the underside of the In-fill flue adapter panel [3]

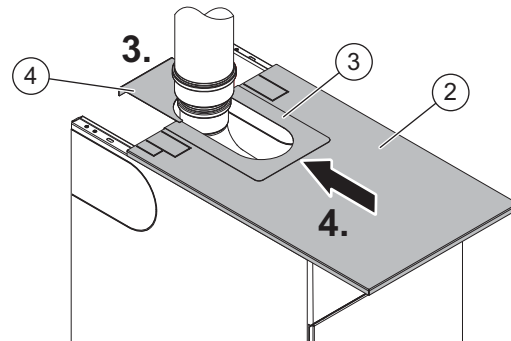


Fig. 11 Fitting the in-fill panel

[4] In-fill panel

► Push the top panel back onto the case to locate the tags on either side of the case with the slots in the back of the top panel.

► Push down at the front edge of the panel to engage the ball catches into case

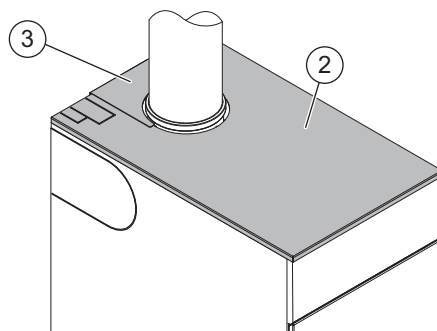


Fig. 12 Fitting the top panel

Worcester, Bosch Group
Cotswold Way, Warndon, Worcester WR4 9SW.
Tel. 0844 892 9900

Worcester, Bosch Group is a brand name of Bosch Thermotechnology Ltd.
worcester-bosch.co.uk

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