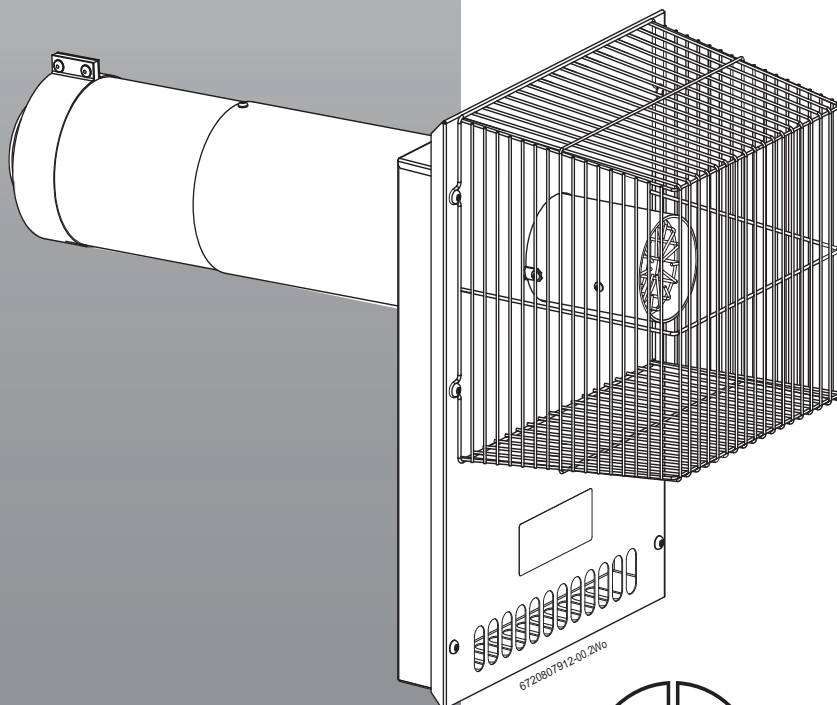


EXTERNAL FLUE KIT INSTALLATION INSTRUCTIONS

LOW LEVEL HORIZONTAL BALANCED FLUE

GREENSTAR OILFIT FLUE EXTERNAL

THIS MANUAL COVERS FLUE INSTALLATION FOR ALL VERSIONS OF THE GREENSTAR CAMRAY,
GREENSTAR DANESMOOR AND GREENSTAR HEATSLAVE BOILERS



GreenstarTM
Oilfit
EXTERNAL

CONTENTS

1	Key to symbols and safety instructions	3
1.1	Key to symbols	3
1.2	Safety precautions	3
2	Product information	4
2.1	Balanced low level discharge flue components	4
3	Pre-Installation	4
3.1	Balanced Low Level Discharge Flue options	4
4	Installation	5
4.1	Balanced Low level Discharge Flue	5
4.1.1	Flue Components	5
4.2	Rear flue options - Greenstar - all models	5
4.3	Side flue option - all Greenstar variants: Danesmoor and Heatslave II	6
4.4	Side flue option: all Greenstar variants: Camray and Heatslave	7
4.5	All flue options, final assembly	8
4.6	Terminal guard	9



Greenstar Heatslave and Heatslave II:


For Greenstar Heatslave side flue option refer to section 4.4 on page 7

For Greenstar Heatslave II side flue option refer to section 4.3 on page 6

1 KEY TO SYMBOLS AND SAFETY INSTRUCTIONS

1.1 KEY TO SYMBOLS


WARNINGS

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

	Important information in cases where there is no risk of personal injury or material losses is identified by the symbol shown on the left. It is bordered by horizontal lines above and below the text.
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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
RS	Room Sealed

1.2 SAFETY PRECAUTIONS

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

- ▶ PUT OUT NAKED FLAMES
- ▶ 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).

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 Installation, Commissioning, and Servicing instructions 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 BALANCED LOW LEVEL DISCHARGE FLUE COMPONENTS

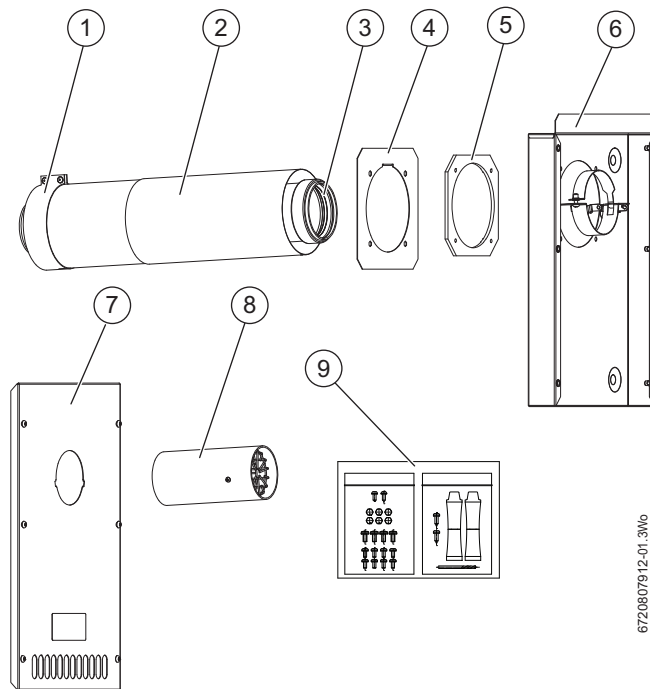


Fig. 1 Balanced flue components

- [1] Air inlet clamp
- [2] Telescopic air inlet section & acoustic insulation
- [3] 80mm Ø flue pipe (including seal)
- [4] Air box mounting bracket
- [5] Air box gasket
- [6] Air box
- [7] Air box cover
- [8] Flue terminal
- [9] Accessory pack

ADDITIONAL COMPONENTS

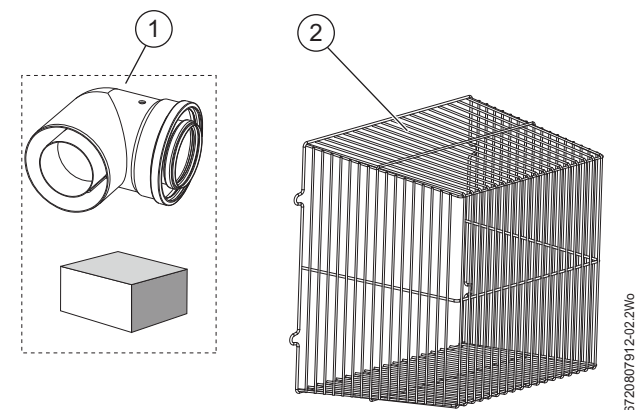


Fig. 2 Additional components

- [1] **80/125mm - 90° elbow kit (Swept) - (for side flue options) and solvent free grease pack:**
containing two no. 8 screws and grease sachet
Part number: 7 716 190 034
- [2] **Terminal guard:**
Part number: 7 716 190 050

3 PRE-INSTALLATION

3.1 BALANCED LOW LEVEL DISCHARGE FLUE OPTIONS

NOTICE:

- ▶ It is recommended that the flue terminal faces away from walls to minimise wetting
- ▶ Flue gases have a tendency to plume and in certain weather conditions a white plume of condensate will be produced. The flue terminal should be positioned in such a way that the plume does not cause a nuisance.

i The balanced flue can be fitted to the rear or either side of the cabinet. Refer to figure 3.

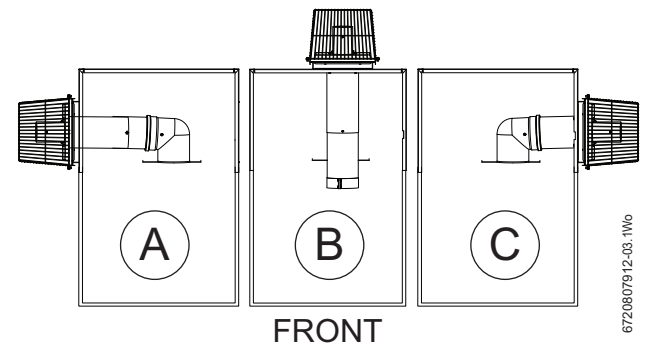


Fig. 3 Flue outlet options

- [A] **Left hand flue outlet**, using items 1+2+3 from figure 4
- [B] **Rear flue outlet**, using items 1+3 from figure 4
- [C] **Right hand flue outlet**, using items 1+2+3 from figure 4

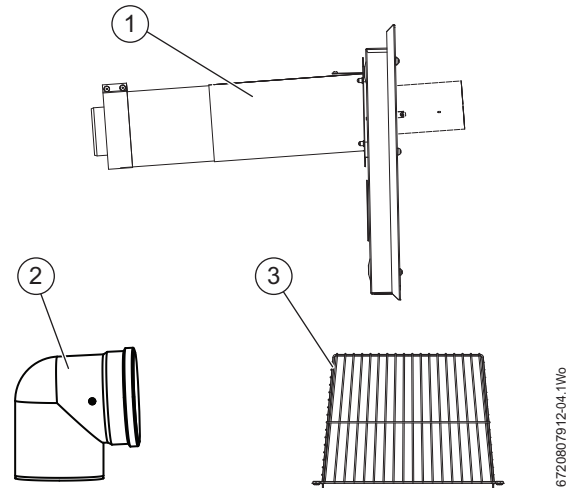


Fig. 4 Flue components

- [1] **External horizontal flue kit:**
Part number 7 716 190 084
- [2] **80/125mm - 90° elbow kit (Swept)**
Part number 7 716 190 034
- [3] **Terminal guard:**
Part number 7 716 190 050

4 INSTALLATION

NOTICE:

- ▶ Ensure all seals are in good condition and seated properly.
- ▶ To ease assembly of the flue components, lightly grease the seals with the solvent free grease supplied.
- ▶ A terminal guard must be fitted if the terminal is 2 m or less above a surface that is accessible by people.

4.1 BALANCED LOW LEVEL DISCHARGE FLUE

4.1.1 FLUE COMPONENTS

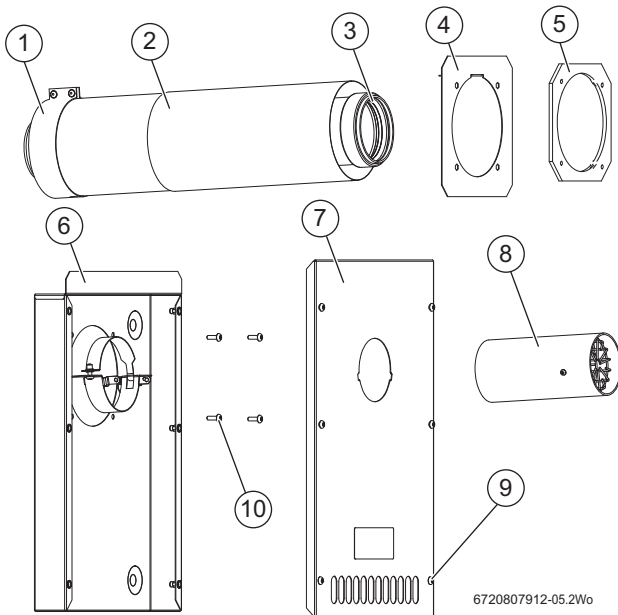


Fig. 5 Flue components

- [1] Air inlet clamp
- [2] Telescopic air inlet section & acoustic insulation
- [3] 80mm Ø flue pipe (including seal)
- [4] Air box mounting bracket
- [5] Air box gasket
- [6] Air box
- [7] Air box cover
- [8] Flue terminal
- [9] Air box cover screws x 6
- [10] Mounting screws x 4 (Accessory pack)

4.2 REAR FLUE OPTIONS - GREENSTAR - ALL MODELS

NOTICE:

- ▶ Ensure inner flue is cut to the correct length as specified in Table 1 before fitting.

80mmØ flue pipe length L in mm				
Greenstar Boilers				
Flue outlet	Danesmoor	Heatslave II	Camray	Heatslave
Rear	450	465	465	420

Table 1 Flue pipe lengths

- ▶ Fit the air inlet telescopic sections [2 & 3] to the boiler flue cowl and secure the inner section with the clamp [1].
- ▶ Push the air inlet outer section [3] (see figure 11) through the rear panel opening until the end of the tube is against the stops [4] on the clamp assembly [5].

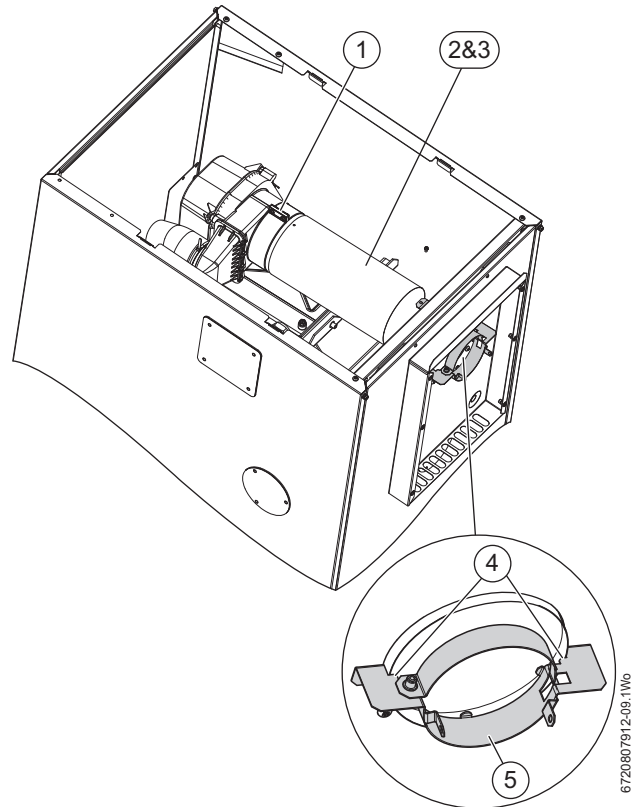


Fig. 6 Rear flue

- [1] Flue clamp
- [2] Telescopic inner section
- [3] Telescopic outer section
- [4] Clamp stops
- [5] Clamp assembly

- ▶ Drill through the two sections of the flue inlet [2 & 3] with the 3.3mm drill bit and secure the two sections with the self-tapping screw.
- ▶ Drill through the tab [6] with the 3.3mm drill bit, into the flue inlet outer section [3] and secure with the self-tapping screw.

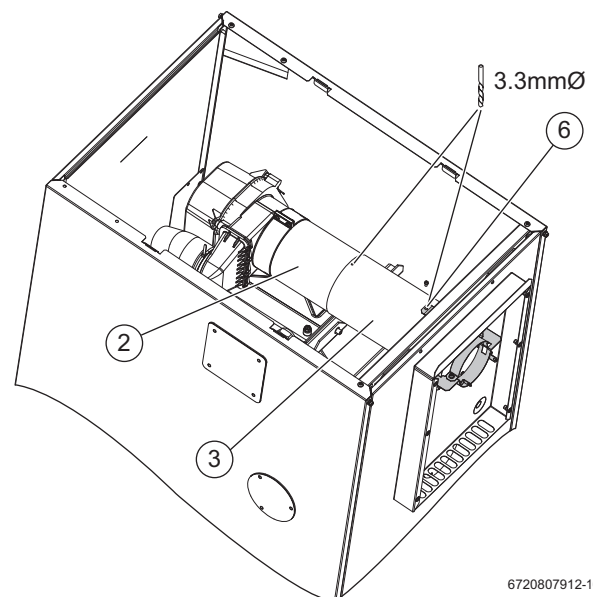


Fig. 7 Drilling detail

- [2] Telescopic inner section
- [3] Telescopic outer section
- [6] Clamp tab

**4.3 SIDE FLUE OPTION - GREENSTAR VARIANTS:
DANESMOOR AND HEATSLAVE II**



To use the right hand or left hand flue options a 90° swept flue elbow is required (part no. 7 716 190 034) Lightly grease the 90° flue elbow seals with the solvent free grease.

**FLUE OPTIONS - GREENSTAR VARIANTS -
DANESMOOR AND HEATSLAVE II**

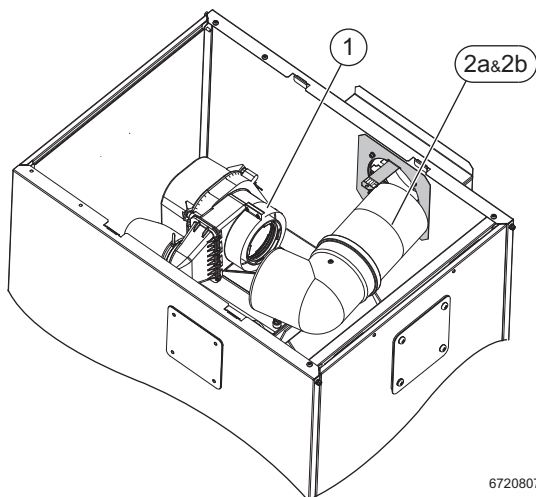
80mmØ flue pipe length L in mm		
Greenstar Boilers		
Flue outlet	Danesmoor	Heatslave II
Right hand	240*	230*
Left hand	255*	340**

Table 2 Flue pipe lengths

[*] Danesmoor and Heatslave II right-hand flue: the 125mm air inlet outer section is not needed for these outlet position and so there will be one screw spare.

[**] Heatslave II left-hand flue: Use both inner and outer air inlet sections, but cut the outer section down to 150mm.

- ▶ Cut the 80mm flue pipe as required, see table 2
- ▶ Fit the air inlet section [2] to the elbow [3].
- ▶ Fit the clamp [1] to the flue cowl.

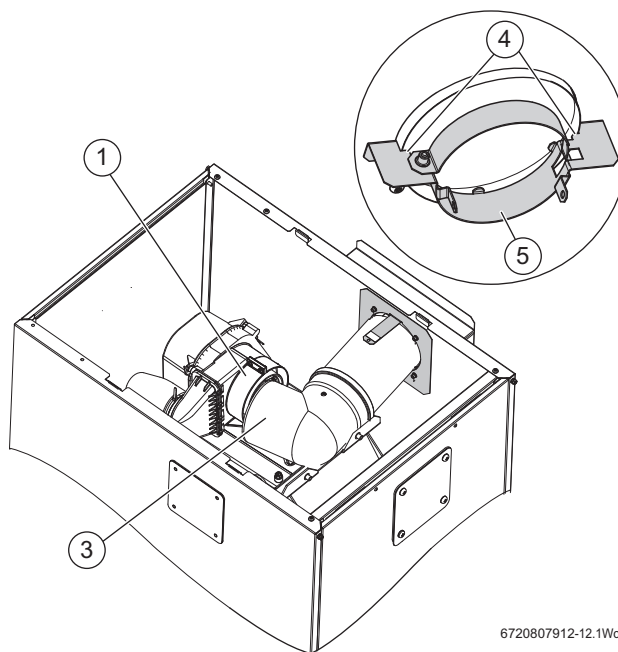


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Fig. 8

- [1] Flue clamp
- [2a & 2b] Flue section

- ▶ Push the air inlet section through the side panel opening into the air box until it meets the stops [4] on the clamp assembly
- ▶ Centralise the inner elbow pipe within the elbow.
- ▶ Fit the elbow [3] onto the flue cowl.
- ▶ Tighten the clamp [1] onto the flue elbow.

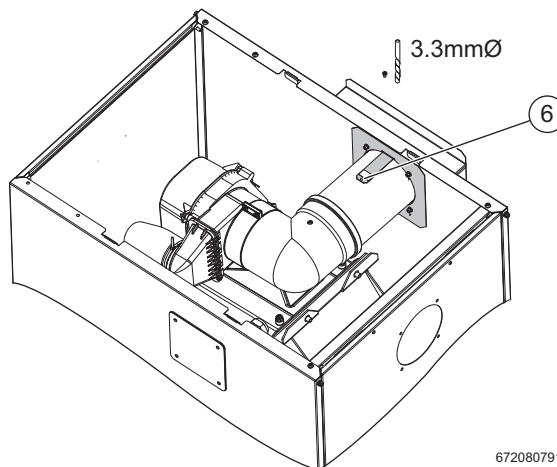


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Fig. 9

- [3] Elbow
- [4] Clamp stops
- [5] Clamp

- ▶ Drill through the tab [6] on the mounting bracket, with the 3.3mm drill bit into the air inlet outer section and secure with a self-tapping screw.



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Fig. 10 Tab detail

4.4 SIDE FLUE OPTION: GREENSTAR VARIANTS: CAMRAY AND HEATSLAVE



To use the right hand or left hand flue options a 90° swept flue elbow is required (part no. 7 716 190 034) Lightly grease the 90° flue elbow seals with the solvent free grease supplied.

GREENSTAR CAMRAY LEFT HAND OPTION & GREENSTAR HEATSLAVE RIGHT HAND OPTION

80mmØ flue pipe length L in mm		
Flue outlet	Greenstar Boilers	
	Camray	Heatslave
Right hand	265**	230*
Left hand	230*	345

Table 3 Flue pipe lengths

- [*] The air inlet outer section is not needed for this outlet position and there will be one screw spare.
- [**] Camray: for the right hand flue option reduce the air inlet outer section by 130mm. Ensure that the cut is square and remove burrs after cutting.

- ▶ Cut the flue as required, see table 3
- ▶ Fit the air inlet inner section [2] to the elbow.
- ▶ Fit the clamp [1] to the flue cowl.

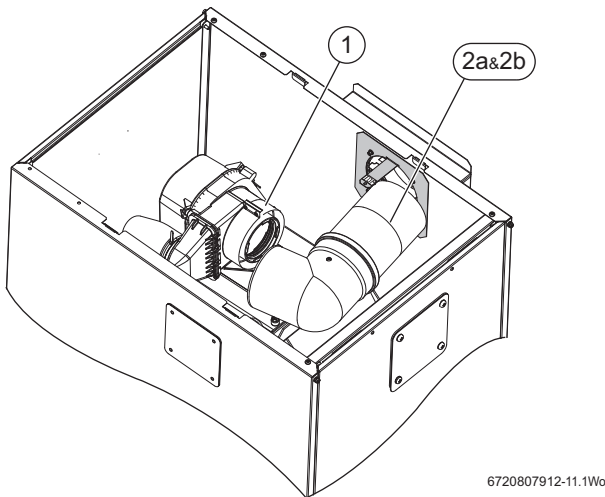


Fig. 11

- [1] Flue clamp
- [2a & 2b] Flue section

- ▶ Push the air inlet inner section through the side panel opening into the air box until it meets the stops [4] on the clamp assembly
- ▶ Centralise the inner elbow pipe within the elbow.
- ▶ Fit the elbow [3] onto the flue cowl.
- ▶ Tighten the clamp [1] onto the flue elbow.

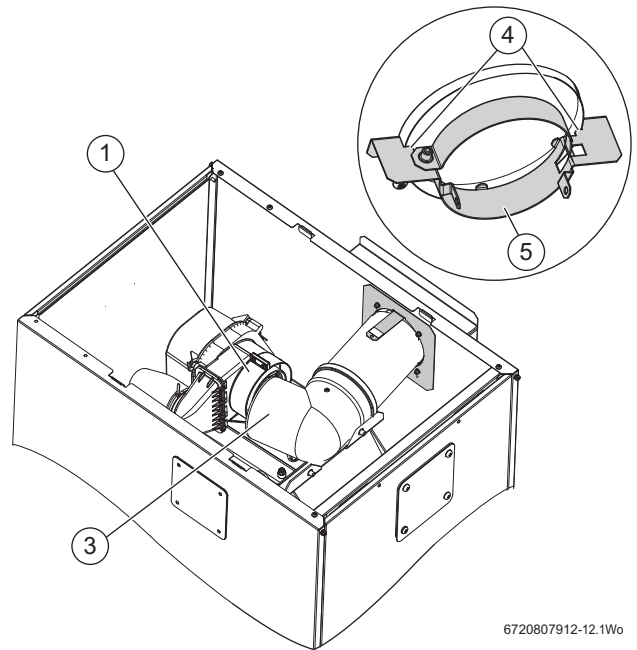


Fig. 12

- [3] Elbow
- [4] Clamp stops
- [5] Clamp

- ▶ Drill through the clamp tab [6] on the mounting bracket, with the 3.3mm drill bit, into the air inlet outer section and secure with a self-tapping screw.

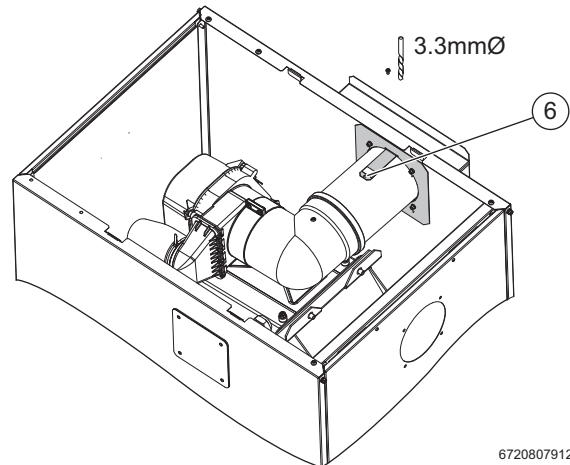


Fig. 13

- [6] Clamp tab

GREENSTAR CAMRAY RIGHT HAND AND GREENSTAR HEATSLAVE LEFT HAND OPTION

80mmØ flue pipe length L in mm		
Flue outlet	Greenstar Boilers	
	Camray	Heatslave
Right hand	265**	230*
Left hand	230*	345

Table 4 Flue pipe lengths

- [*] The air inlet outer section is not needed for this outlet position and there will be one screw spare.
- [**] Camray: for the right hand flue option reduce the air inlet outer section by 130mm. Ensure that the cut is square and remove burrs after cutting.

- ▶ Cut the flue as required, see table 4
- ▶ Fit the air inlet inner section [2] to the elbow.
- ▶ Fit the clamp [1] to the flue cowl.

- ▶ Push the air inlet inner section through the side panel opening into the air box until it meets the stops [4] on the clamp assembly
- ▶ Centralise the inner elbow pipe within the elbow.
- ▶ Fit the elbow onto the flue cowl.
- ▶ Tighten the clamp [1] onto the flue elbow.

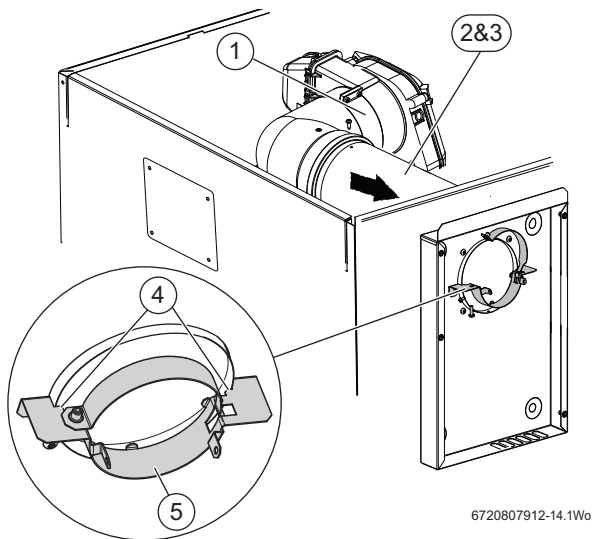


Fig. 14

- [1] Clamp, flue elbow
- [2] Air inlet inner section
- [3] Air inlet outer section
- [4] Clamp stops
- [5] Clamp bracket

- ▶ Drill through the air inlet outer section [3], with the 3.3mm drill bit, into the inner section [2] and secure the two sections with the self tapping screw.

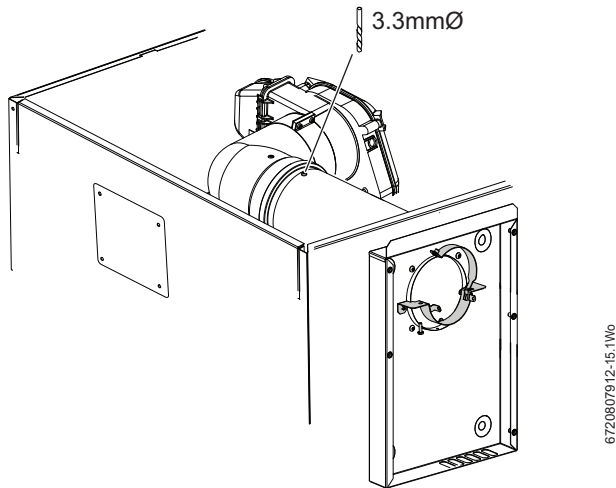


Fig. 15

- ▶ Drill through the clamp tab [6] on the mounting bracket, with the 3.3mm drill bit, into the air inlet outer section and secure with a self-tapping screw.

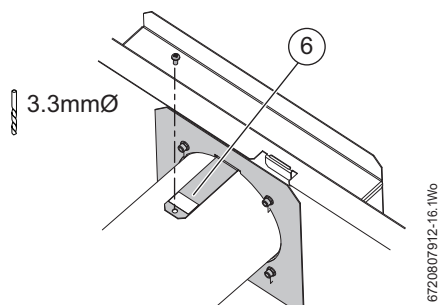


Fig. 16 Tab detail

4.5 ALL FLUE OPTIONS, FINAL ASSEMBLY

- ▶ Lightly grease the flue pipe seal with the solvent free grease supplied.
- ▶ Remove the screw from the clamp bracket [1] and open the clamp.
- ▶ Insert the terminal [3] fully into the 80mmØ flue pipe.
- ▶ Pass the flue pipe [2] through the clamp bracket [1] and push into the flue cowl or elbow.

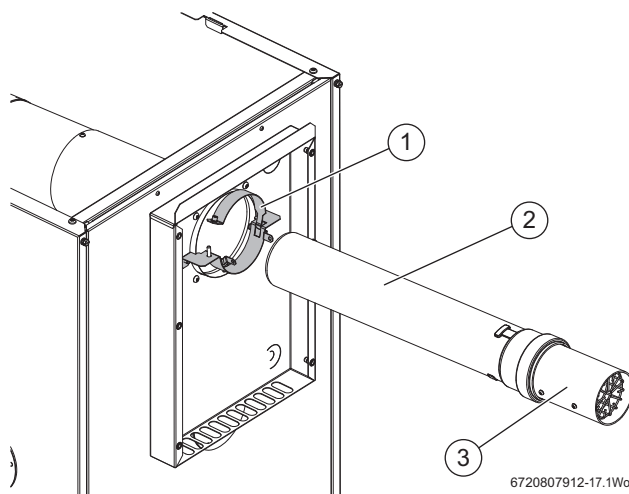


Fig. 17 Final assembly

- [1] Clamp bracket
- [2] Flue pipe
- [3] Terminal

- ▶ Drill two holes into the terminal [3] through the tabs [5], with the 3.3mm drill bit, one either side, and secure the terminal [3] to the tabs [5] using the two self tapping screws.
- ▶ Fit the air box cover [4] over the lip on the top of the air box and secure the bottom two screws removed earlier.

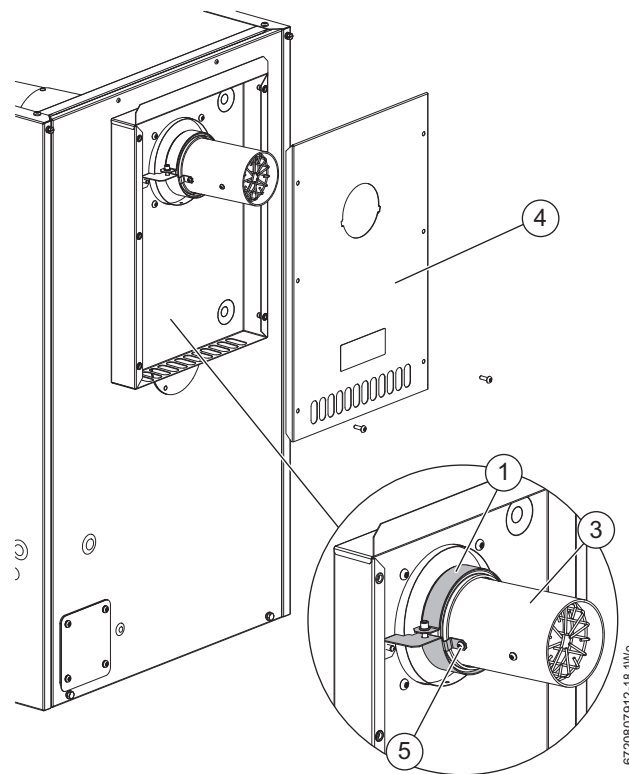


Fig. 18

- [4] Air box cover
- [5] Tab

4.6 TERMINAL GUARD

- ▶ To fit the terminal guard [1] not supplied:
Hold the terminal guard [1] in place and secure with the four screws [2] removed from the air box earlier.

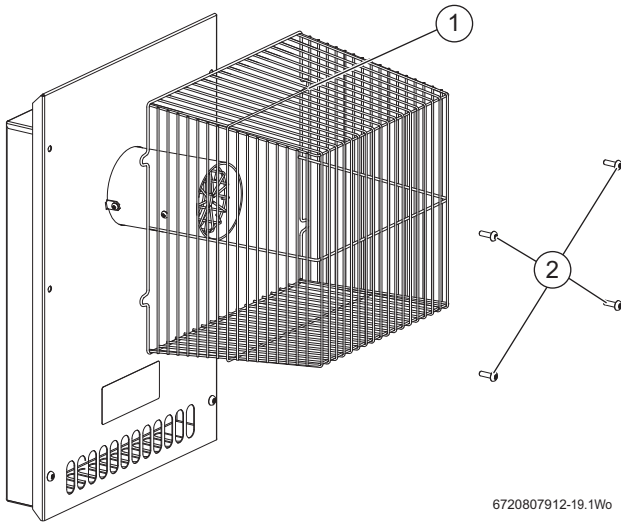


Fig. 19

- [1] Terminal guard
- [2] Screws

NOTES

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Tel. 0330 123 9559

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

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SPARES: 0330 123 9779

LITERATURE: 0330 123 9119

TRAINING: 0330 123 0166

SALES: 0330 123 9669

