GT 220 A

Oil-Gas Fired Hot Water Boiler

English
11/03/09

Installation & Operating Manual

Please Read & Save this Manual for Future Reference

Warning:
Before putting the boiler into operation read this manual carefully.

Warning:
The operating manual is part of the documentation that is delivered to the installation's operator. Go through the information in this manual with the owner/operator and make sure that he or she is familiar with all the necessary operating instructions.

Notice:
This manual must be retained for future reference. Improper installation, adjustment, alteration, service or maintenance can cause injury, loss of life or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the fuel supplier.

De Dietrich

8227-4096-F

Guideline of Notices

Warning:
indicates presence of hazards that can cause, if not avoided, severe personal injury, death or substantial property damage.

Caution:
indicates presence of hazards that will or can cause, if not avoided, minor personal injury or property damage.

Notice:
Application comment for optimum use of equipment and adjustment as well as useful information.

Reference to an other instruction book.

Observe the following symbols

DANGER
due to explosion of gas.

- Work only on gas components when you have a license to do so.
- Note that the assembly of gas and vent connections, the initial start-up, the electrical connections, the maintenance and service can only be performed by a licensed service contractor or technician.

DANGER
due to electricity.

- Prior to doing any work on the heating system, disconnect all electrical power to the boiler at the emergency switch.
- It is NOT sufficient to shut off only the boiler control!

CAUTION!
SYSTEM DAMAGE
due to improper installation.

- Observe local and state codes as well as common industry practices during the installation and operation of the heating appliance.

CAUTION!
SYSTEM DAMAGE
due to inadequate cleaning and maintenance.

- A boiler cleaning and maintenance should be performed annually. Verify complete system operation at the same time.
- Correct the problem immediately to prevent damage to the system!

Caution:
Refer to User's Manual regarding the carcinogenic hazard of crystalline silica that may be found during installation, servicing and removal of this boiler.

Safety Considerations

Please observe the following safety instructions.

Read this manual carefully.

Correct installation and adjustment of the burner and the control panel is a precondition for safe, efficient operation of the boiler.

Read this manual and the specifications on the safety label carefully before attempting to put the burner into operation.

Do not store or use gasoline or other flammable liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:
- Do not try to light any appliance.
- Do not touch any electric switch, do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the Fire Department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

Warning:
Improper installation, adjustment, and/or operation could cause carbon monoxide poisoning resulting in injury or death.
This product must be installed and serviced by a professional service technician who is experienced and qualified in hot water boiler installation and gas combustion.

Caution: Strict compliance with these instructions is a precondition for the correct operation of the boiler.

IMPORTANT
Service on this boiler should be undertaken only by trained and skilled personnel.
Keep boiler area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
Do not place any obstruction in the boiler room that will hinder the flow of combustion and ventilating air.
Read these instructions carefully before proceeding with the installation of boiler. Post instructions near boiler for reference by owner and serviceman.
Maintain instructions in legible condition.

"Installation of this equipment must be in accordance to all local and national codes or authorities having jurisdiction"

[Canadian Installations]

- CSA B149 for gas fired boilers
- CSA B139 for oil fired boilers

[USA Installations]

- NFPA 54/ANSI Z223.1 for gas fired boiler
- NFPA 31 for oil fired boilers.

ATTENTION-WARNING:

The boiler must be connected to a venting system that will safely discharge all flue gas to the outside in a safe and effective manner.

Do not use gasoline, crankcase draining, or any other oil containing gasoline.

The boiler is certified to burn fuels as listed on the boiler rating plate. Never burn garbage or paper in the unit, and never leave combustible materials in the vicinity of the boiler.

Contents

Regulations and guidelines

The installation must conform to the requirements of the authority having jurisdiction or, in the absence of such requirements, to the National Fuel Gas Code, **ANSI Z 223.1 / NFPA 54**. In Canada, installation must be in accordance with the requirements of CAN/CGA B149.1 or 2 Installation Code for Gas Burning Appliances and Equipment. Where required by the authority having jurisdiction, the installation must conform to the Standard for Controls and Safety Devices for Automatically Fired Boilers, **ANSI/ASME CSD-1**.

Install CO detectors per local regulations. Boiler requires yearly maintenance, see "Connecting the burner", page 24.

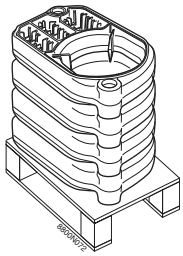
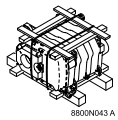
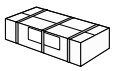
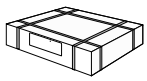
Only a qualified installing contractor may carry out the installation, the initial start-up, the connection for fixed gas and vent gas, and conversion to another type of gas. The hot water distribution system must comply with the applicable codes and regulations. When replacing an existing boiler, it is important to check the entire hot water distribution system to insure safe operation. Maintenance and cleaning must be carried out at least once a year by a trained service technician. The entire installation must be tested for proper operation. Any defects detected must be fixed immediately.

General

The GT220A series is a cast iron sectional boiler designed for space and domestic and hot water heating requirements, the boiler is automatically fired and controlled by the boiler control panel. The boiler is certified to burn all the fuels as listed on the rating plate by separate burner. The boiler must always be connected to a vent system that will discharge all flue gases to the outside in a safe and effective manner. Refer to the specific sections in the manual for further details.

1 Uncrating

Upon arrival, check shipment to ensure all parts have been shipped. Inspect all items for delivery damage. Report all damage and shortages to the delivery carrier. Report any damage and shortages to the Distributor.

Boiler	GT 224 A	GT 225 A	GT 226 A	GT 227 A	GT 228 A	
• Unassembled boiler body						
- front section	1	1	1	1	1	
- intermediate section	2	3	4	5	6	
- rear section	1	1	1	1	1	
- set of assembly rods	-	-	1	1	1	
- accessory package	DR 64	DR 65	DR 66	DR 67	DR 68	
• Assembled boiler body with accessories	DR 84	DR 85	DR 86	DR 87	DR 88	
Control panel	DR 90	DR 90	DR 90	DR 90	DR 90	 8800N075A
Casing	DR 74	DR 75	DR 76	DR 77	DR 78	 8800N073A

Requirements for installation in the state of Massachusetts

Boiler Installations within the Commonwealth of Massachusetts must conform to the following requirements:

• Boiler must be installed by a plumber or a gas fitter who is licensed within the Commonwealth of Massachusetts.
• Prior to unit operation, the complete gas train and all connections must be leak tested using a non-corrosive soap.
• The vent termination must be located a minimum of 4 feet above grade level. If side-wall venting is used, the installation must conform to the following requirements **extracted from 248 CMR 5.08 (2):**

(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:
1. INSTALLATION OF CARBON MONOXIDE DETECTORS: At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gasfitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gasfitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.
b. In the event that the requirements of this subdivision cannot be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. APPROVED CARBON MONOXIDE DETECTORS: *Each carbon monoxide detector as required in* accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.
3. SIGNAGE: A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, **"GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS". (Continued)**

Requirements for installation in the state of Massachusetts (continued)

4. INSPECTION: The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.
(b) EXEMPTIONS: The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Section 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED. When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

1. Detailed instructions for the installation of the venting system design or the venting system components; and
2. A complete parts list for the venting system design or venting system.

(d) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED. When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

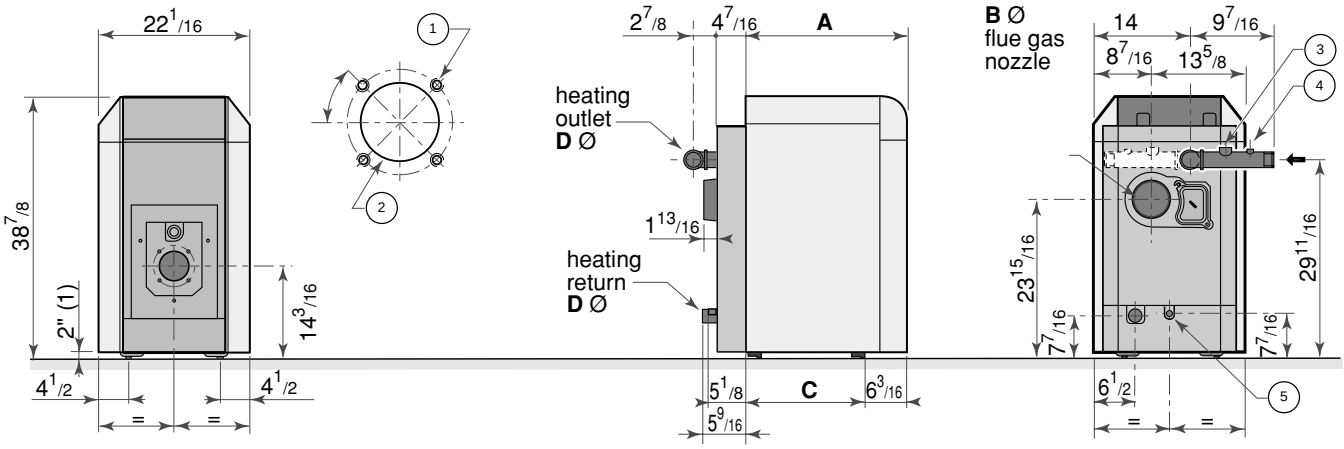
(e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

…….[End of Extracted Information From 248 CMR 5.08 (2)]……

2 Technical specifications of boilers

Item		Unit	GT 224 A	GT 225 A	GT 226 A	GT 227 A	GT 228 A
Firing Sequence			Consult Burner Technical Data				
[CSA] - Gas Input		MBH	173	224	274	324	361
		kW	50.7	65.7	80.3	95.0	105.8
[CSA] - # 2 Fuel Oil Input		US GPH	1.20	1.55	1.90	2.25	2.50
[CSA] - Output [Gas-Oil]		MBH	147	190	233	276	306
		kW	43.1	55.7	68.3	80.8	89.8
[NET] - Output [Gas-Oil]		MBH	128	165	203	240	266
Cast Iron sections		#	4	5	6	7	8
Flue-way baffles		#	3	2	2	2	2
Water capacity		US Gal	9.5	11.4	13.2	15.1	16.9
		Liter	36	43	50	57	64
Water resistance [Δt = °F]	18° F	Ft. H_2O	0.82	1.34	1.99	2.77	3.4
	27° F	Ft. H_2O	0.365	0.596	0.887	1.23	1.51
	36° F	Ft. H_2O	0.204	0.335	0.498	0.693	0.85
Combustion chamber Dimensions	Diameter [equivalent]	Inch	12.17				
		mm	309				
	Depth	Inch	17.6	22.6	27.6	32.6	37.6
		mm	446	573	700	827	954
	Volume	ft^3	1.1653	1.4831	1.8009	2.1188	2.4366
		m^3	0.033	0.042	0.051	0.060	0.069
MAWP [Water]		PSI	ASME IV Rating Class 30 - (60 PSI) [See Canadian Provincial CRN approvals]				
Min. Safety Relief Capacity		MBH	147	190	233	276	306
DR 90 Panel	Electrical connection	V/P/H	120/1/60				
	Max. Water Temp. Safety Limit [MR]	°F	230				
		°C	110				
	Operating Water Temperature Range	°F	86 - 185				
		°C	30 - 85				
Chamber resistance		Inch w.c.	0.08 - 0.16	0.20 - 0.24	0.08 - 0.24	0.16 - 0.24	0.24 - 0.32
		mbar	0.2 - 0.4	0.5 - 0.6	0.2 - 0.6	0.4 - 0.6	0.6 - 0.8
Gas-Vent Category		#	I, II - III or IV				
Boiler Vent connection		Inch	6	6	7	7	7
Weight (dry)		lb	481	567	655	741	827
		kg	218	257	297	336	375

3 Main Dimensions (less applied burner)



Model	A*	B = ø	C	D
GT 224A	23 5/16 in.	6	16 11/16 in.	1¼ in.
GT 225A	28 5/16 in.	6	21 11/16 in.	1 ¼ in.
GT 226A	33 5/16 in.	7	26 11/16 in.	1 ½ in.
GT 227A	38 5/16 in.	7	31 11/16 in.	1 ½ in.
GT 228A	43 5/16 in.	7	36 11/16 in.	1 ½ in.

1. Bolt Ø = 5 15/16 inch M8 x 1.25 Bolt diameter threading predrilled, additional marking @ 6 ¾ inch for larger mounting requirements.
2. Combustion head Ø = 4 7/16 inch precut, additional marking @ 5 1/8 inch for larger combustion heads.
3. Supply manifold ¾" port for safety relief valve
4. Supply manifold ¼ inch port for temperature and pressure gauge
5. Drain port ¾ inch.

A* = Dimension will increase with applied burner, consult supplied burner documentation for dimensions and clearances for service/ combustibles.

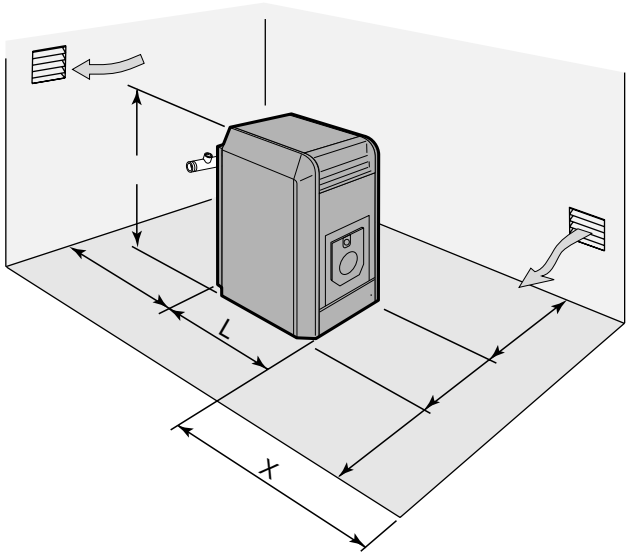
D** = OD Dimension will for breeching connection only actual vent diameter sizing will depend on specific vent application and code requirements.

(1) = Adjustable hot water tank feet for leveling, minimum height =1 3/16 inch, adjustable from 1 3/16 to 2 1/2 inch.

1 Installing the boiler

The boiler does not require any special housekeeping pad as it has been provided with a study frame and leveling bolts for the final installation, but a non combustible pad is suggested to keep occasional water away from the boiler. The boiler requires clearance for combustibles and for servicing, the recommended clearance as shown in the table below. Do not install the boiler on combustible flooring or carpet.

Proper combustion air and ventilation are required for the boiler, inadequate combustion air or makeup air provisions may result in foul boiler room odors, incomplete combustion resulting in carbon monoxide (CO) development or creation of negative building pressure.

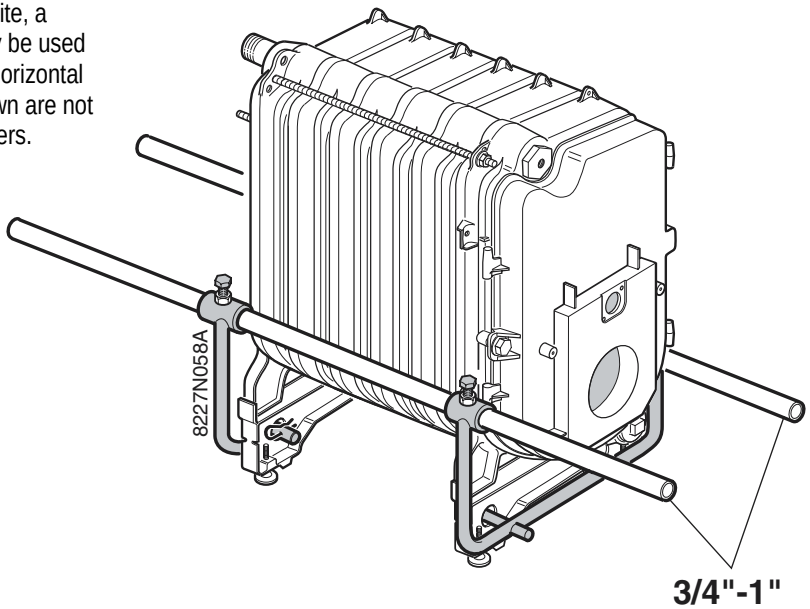


Combustible & Service Clearances						
Model	L = overall length	Sides	Rear	X = Front burner	Top	Vent
GT224A	29 11/16 [754mm]	20 inches [500mm]	20 inches [500mm]	24 inches [600mm] in front of burner	34 inches [800mm]	GAS = 6 inches [150mm]
GT225A	34 11/16 [881mm]					
GT226A	39 11/16 [1008mm]					OIL = 9 inches [230mm]
GT227A	32 11/16 [1135mm]					
GT228	33 11/16 [1262mm]					

⚠ Particular attention must be observed if the boiler is operating near or within vicinity of beauty shops, paint shops or industrial plant where known pollutants, corrosive element may containment affect the quality of combustion air supply, failure to observe this warnings will result in void of warranty of the boiler and any responsibility of De Dietrich.

Consult local codes for combustion air and ventilation requirements, each installation must comply with all local and national codes having jurisdiction.

To facilitate boiler transportation into the final installation site, a special handling tool (package BG 45, no.8218-7723) may be used as shown to transport the boiler or the boiler on the MLS horizontal domestic hot water tank. The two 3/4" or 1" pipes are shown are not supplied with the package BG45, they are supplied by others.



2 Combustion Air Supply

The location of air inlets in relation to the high ventilation openings shall ensure that the air is renewed in the entire volume of the boiler room. The ventilation shall comply with any applicable national or local regulations.

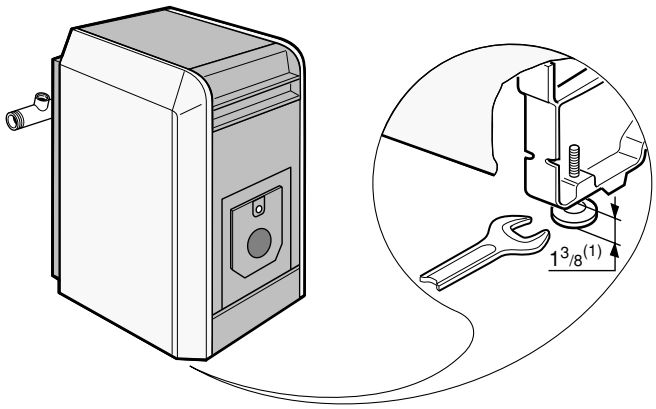
Please note that boilers installed in or close to rooms in which the atmosphere is polluted with chlorine or fluorine compounds may be subject to high corrosion. For example: hairdressing salons, industrial premises (solvents), cooling equipment etc. Boilers installed in such locations shall not be covered by the warranty.

3 Levelling

Level as shown in the drawing by means of the four adjustable feet (supplied in the bag of fasteners of the casing) put in place while assembling the boiler.

(1) basic height 1 3/8,

adjustment range: 1 3/8 - 2 1/2



4 Water connection

Chimney connection

1 Venting the boiler

The boiler must be connected to a venting system that will safely and effectively discharge all flue gases to the outside in an effective manner.

Do not Co-Vent a Direct Vent or Sidewall vent system boiler, these venting options are specifically designed for single boiler venting, follow all local and national codes. The sidewall or direct vent termination must be installed in a location which avoid accumulation of snow or debris that could block the vent terminal. Consult local codes regarding other requirements for the location and installation of the vent terminal.

Co-Venting with other appliances, must be sized and installed according to CSA B149 & ANSI Z223.1, Any improper operation of venting system must be corrected and resized according to the tables in part II of national fuel code Z223.1 & CAN CSA B149 installation codes.

2 Connecting the Venting to the Boiler

Consult local and national codes regarding the sizing of the boiler breeching and chimney venting. See venting section of manual regarding typical venting systems and requirements.

Connecting the burner

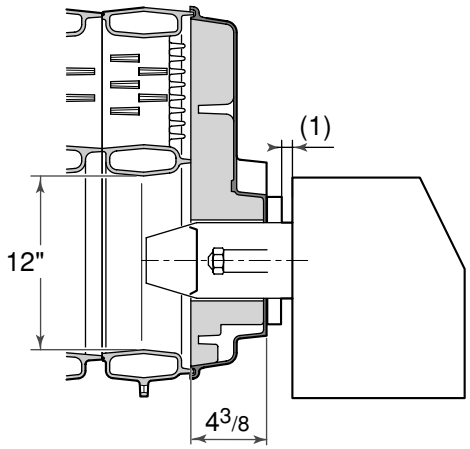
Important: the position of the head of the burner in relation to the door insulating material must be as shown opposite, particularly if the burner is not a De Dietrich burner.

Note:

Refer to the instructions supplied with the burner for information relating to the connections, adjustment, commissioning and maintenance of the burner.

(**1**) See burner instructions as supplied

The fuel tank and supply lines to the burner must be installed according all applicable National and local codes

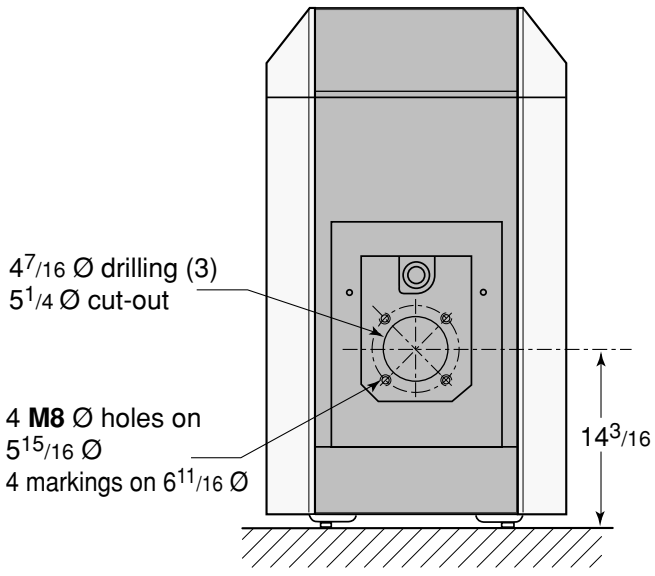


Consult the documentation of the boiler control and the burner documentation as supplied regarding setup, wiring and startup.

Do not attempt to start the burner, until all service and clean-out doors are closed and venting is properly connected to the boiler.

Consult the burner documentation regarding the required maintenance required for the burner, filters and nozzle.

The entire system should be cleaned and check at least once each heating season.



3. Boiler Venting & Chimney General

Caution & Warning:

It is advised and recommended that the heating contractor-professional apply vent materials that are approved and agency listed. Installation of any venting must follow all local codes in conjunction with vent manufacturer instructions and appliance manufacturer instructions.

All De Dietrich GT series oil-gas fired cast iron boilers are high performance boilers that could operate under all 4 vent categories as established by ANSI Z21.13/CSA 4.9 Standard. To assist with application where the vent category is unknown a graph below has been provided to assist you in determining the vent category and what venting materials would be acceptable. Although the gas vent categories were developed specifically for gas fired appliances, using this information is helpful for oil fired boilers. It is very important the venting be selected according to the conditions that the boiler will operate under, minimum and maximum firing conditions of the boiler must be respected. The venting installed must comply and be certified to all applicable codes and standards for each jurisdiction.

Gas-Vent Category [4] Definitions:

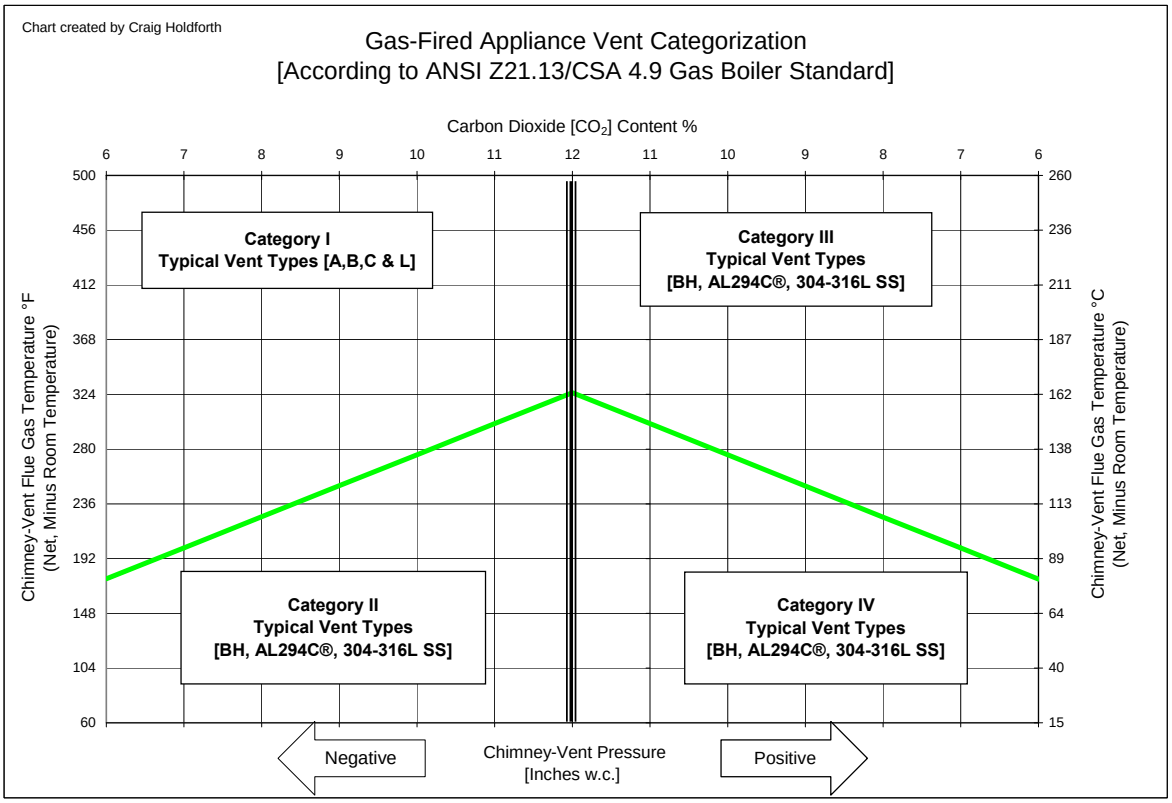
Cat. I
A Boiler, which operates with a non-positive vent (breech) pressure and flue gas temperatures which avoids excessive condensation production in the chamber and venting.

Cat. II
A Boiler, which operates with a non-positive vent (breech) pressure and flue gas temperatures produce condensation production in the chamber and venting.

Cat. III
A Boiler, which operates with a positive vent (breech) pressure and flue gas temperatures which avoids excessive condensation production in the chamber and venting.

Cat. IV
A Boiler, which operates with a positive vent (breech) pressure and flue gas temperatures produces condensation production in the chamber and venting.

Chart A



3.1 Boiler Venting – Category I & II Typical Layouts and Requirements.

Caution & Warning:
Improperly sealed venting system could result in carbon monoxide [CO] poisoning; ensure adequate support and fastening of the system. Ensure venting can safely exhaust all flue gases outside in an effective manner. These systems must operate under a negative vent pressure condition that is stable.

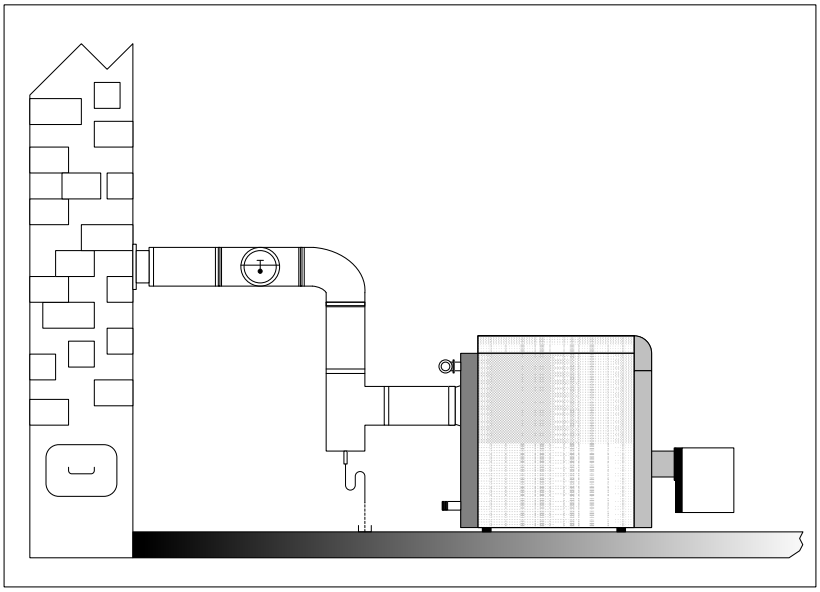
Warning & Cautions for Co-Venting:
Co-venting with other appliances shall conform latest ANSI Z223.1 & CAN/CGA 149 installation codes, any improper operation shall be corrected, the common venting shall be sized according to the appropriate tables in Part II of the above mentioned codes.

Category I Vent Systems Requirements:

1. Flue gas temperatures above the green line shown in chart A.
2. Approved type of venting for category I appliances.
3. A barometric draft control maybe employed as required, but is not necessary for correct boiler operation. Consult a chimney-vent specialist for correct application and usage.
4. Breeching and chimney vent sized in accordance to local and national codes or by good engineering methods.
5. Vent safety device equipped on the venting or as equipped on burner.
6. Condensate TEE fitting supplied on the boiler breeching as close as possible and be orientated to avoid accumulation of flue gas condensation in the boiler or venting is also used to determine flue gas emissions.

Category II Vent Systems Requirements:

1. Flue gas temperatures below the green line shown in chart A.
2. Approved type of venting for category II appliances.
3. A barometric draft control maybe employed as required, but is not necessary for correct boiler operation. Consult a chimney-vent specialist for correct application and usage.
4. Breeching and chimney vent sized in accordance to local and national codes or by good engineering methods.
5. Vent safety device equipped on the venting or as equipped on burner.
6. Condensate TEE fitting supplied on the boiler breeching as close as possible and be orientated to avoid accumulation of flue gas condensation in the boiler or venting is also used to determine flue gas emissions.



Caution-Warning:

Flue gas condensation is very aggressive and corrosive which could lead to failure of the venting system or drains, consult local and national codes regarding flue gas condensation disposal. The P-trap assembly must be properly filled with water to avoid escape of flue gas emissions. The flue gas condensation may require neutralization prior to entering the drain.

3.2 Boiler Venting – Category III & IV Vent Systems Typical Layouts and Requirements.

Caution & Warning:
Improperly sealed venting system could result in carbon monoxide [CO] poisoning; ensure adequate support and fastening of the system. Ensure venting can safely exhaust all flue gases outside in an effective manner. These systems must operate under a positive vent pressure condition that is stable.

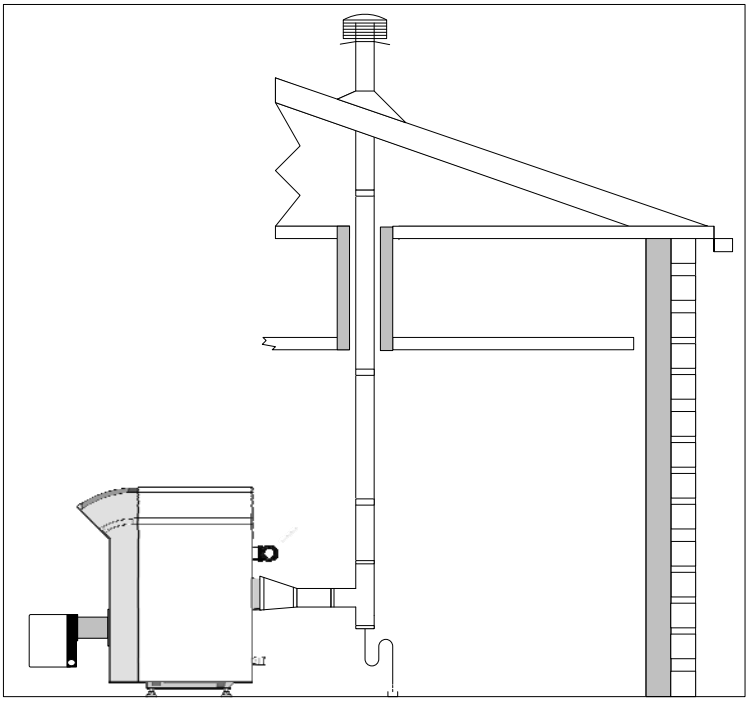
Warning & Cautions for Co-Venting:
Co-venting with other appliances shall conform latest ANSI Z223.1 & CAN/CGA 149 installation codes, any improper operation shall be corrected, the common venting shall be sized according to the appropriate tables in Part II of the above mentioned codes.

Category III Vent Systems Requirements:

1. Flue gas temperatures above the green line shown in chart A.
2. Approved type of venting for category III appliances
3. Breeching and chimney diameter sized in accordance to national & local codes or by good engineering methods.
4. Vent safety device equipped on burner [MR]
5. Condensate TEE fitting supplied on the boiler breeching as close as possible and be orientated to avoid accumulation of flue gas condensation in the boiler or venting.

Category IV Vent Systems Requirements:

1. Flue gas temperatures below the green line shown in chart A.
2. Approved type of venting for category IV appliances
3. Breeching and chimney diameter sized in accordance to national & local codes or by good engineering methods.
4. Vent safety device equipped on burner [MR]
5. Condensate TEE fitting supplied on the boiler breeching as close as possible and be orientated to avoid accumulation of flue gas condensation in the boiler or venting.



Caution-Warning:

Flue gas condensation is very aggressive and corrosive which could lead to failure of the venting system or drains, consult local and national codes regarding flue gas condensation disposal. The P-trap assembly must be properly filled with water to avoid escape of flue gas emissions. The flue gas condensation may require neutralization prior to entering the drain.

3.3 Boiler Venting – Side-Wall or Direct Vent Systems Typical Layouts and Requirements.

Caution & Warning:

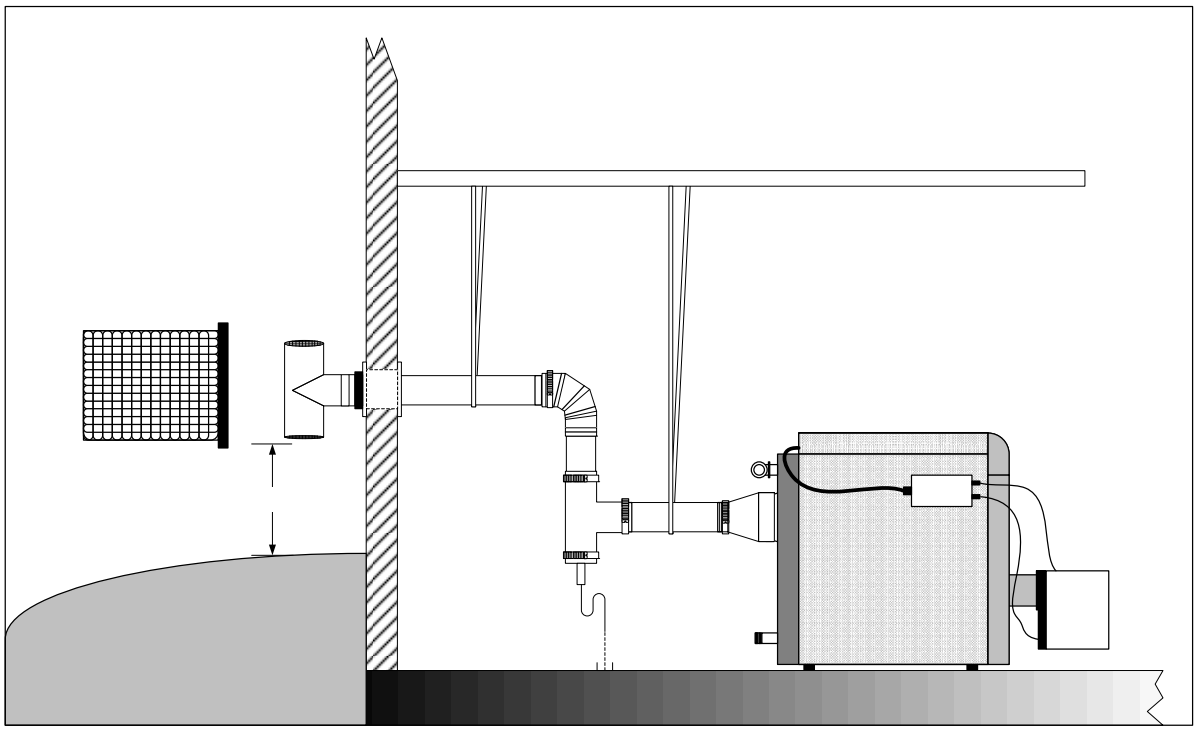
Improperly sealed venting system could result in carbon monoxide [CO] poisoning; ensure adequate support and fastening of the system. Ensure venting can safely exhaust all flue gases outside in an effective manner. These systems must operate under a positive vent pressure condition that is stable. Do not Co-Vent with any other appliance, the venting system was designed for single appliance venting only.

Side-wall & Direct Vent Systems:

These systems do not fall under any of the gas vent categories, these systems are pre-engineered. These applications of this venting system must be followed exactly, for safe, efficient and trouble free operation.

System Requirements:

1. Venting sized accordance to direct vent table
2. Type “BH” [AL294C®] vent material
3. Condensate TEE fitting supplied on the boiler breeching as close as possible and be orientated to avoid accumulation of flue gas condensation in the boiler or venting is also used for determining flue gas emissions.
4. Vent termination TEE
5. Vent safety device equipped on burner [MR]



Vent Termination Locations & Warning – See Section 5.5

Caution-Warning:

Flue gas condensation is very aggressive and corrosive which could lead to failure of the venting system or drains, consult local and national codes regarding flue gas condensation disposal. The P-trap assembly must be properly filled with water to avoid escape of flue gas emissions. The flue gas condensation may require neutralization prior to entering the drain.

5.4 Boiler Venting – Side-wall or Direct Vent Systems Sizing Tables & Vent Safety Device

- All venting lengths must be calculated to equivalent lengths, all application must include at least one 90° elbow
- Venting must be a type 'BH" [AL294C® material]
- Maximum vent length [equivalent] = 30 ft. [9m]
- Minimum vent length [equivalent] 5 ft. [1.5m]
- Maximum number of 90° elbows = 2 or 3 45° elbows, each 90° e bow is equivalent to 10 ft. or straight pipe, the 45° elbow is equivalent = 5 ft.
- Condensate TEE must be provided [equivalent length = 7 ft.]
- Appliance reducing adapter [equivalent length 3 ft.]
- Sealed combustion, combustion air intake sizing, must be sized according to the burner manufacturers instructions
- Vent [breeching] pressure shall not exceed 0.20 inches w.c. [0.50 mbar]
- Vent termination must be a TEE type, follow warning regarding termination locations. Do not include the termination TEE length in the vent length calculation.
- Venting shall be sloped, so any condensation developed will drain through the condensate TEE fitting
- Vent safety device, differential air pressure switch [manual reset] NC switch opens on rise of pressure.
- Optional function of power burners which can employ an post purge function to exhaust flue gases for a fixed time [1 minute to 4 minutes maximum]
- Burner employing a standby air damper closed position, the closed position should be slightly opened to allow hot flue gases to escape upward through venting and not be entrapped in the combustion head. Important note, that in negative building pressures, the observation and odor of flue gases may enter the boiler room.

Determining vent length [equivalent] Example:

Appliance reducing adapter	[x1] = 3 ft.
Condensate TEE	[x1] = 7 ft.
12" vent straight vent pipe	[x3] = 3 ft.
E bow 90°	[x1] = 10 ft.
Termination TEE	[x1] = 0 ft.
Length [equivalent] =	23 ft.

GT 210 A Series

Model	Boiler Connection ø	Oil-Gas Vent ø	[Δp] Pressure switch Setting [inches w.c.]
GT 214 A	6 inch	4 inch	Set Switch @ 150% above gas burner gas manifold or oil burner head pressure
GT 215 A	6 inch	4 inch	
GT 216 A	7 inch	5 inch	
GT 217 A	7 inch	5 inch	
GT 218 A	7 inch	5 inch	

3.5 All Side-wall and direct Vent termination locations installation precautions:

Warning/Caution:
In all cases avoid potential vent termination locations where excess debris or snow could accumulate and bock the vent termination to any degree.

Minimum clearance of 4 ft. [1.22m] horizontally from, and in no case above or below, unless a 4 foot [1.22m] horizontal distance is maintained, from electric meters, gas meters, regulators & relief equipment.

Do Not Co-Vent Any Direct Vent or Sidewall Venting System

B149.1
(GAS INSTALLATIONS CANADA)

A VENT SHALL NOT TERMINATE…..

Directly above a paved sidewalk or driveway which serves 2 buildings.
Less than 7 ft. any paved sidewalk or drive way
Less than 6 ft. of a combustion air inlet to any building
Less than 4 ft. above a meter/regulator assembly [horizontally] of the vertical center-line of the regulator vent outlet to a maximum vertical distance of 15 ft.
Less than 4 ft. of any gas service regulator vent outlet
Less than 1 ft. above grade or normal anticipated snow level for the area
Less than 3 ft. from windows, doors [that can be opened], combustion air supply or any appliance or building.
Underneath a veranda, porch or deck unless:

1. The veranda, porch or deck is fully open on a minimum of 2 sides beneath the floor
&
2. The distance between the top of the vent termination and the underside of the veranda, porch or deck is greater than 1 ft.

B139-00
(OIL INSTALLATIONS CANADA)

A VENT SHALL NOT TERMINATE…..

Directly above a paved sidewalk or driveway which serves 2 buildings.
Less than 7 ft. any paved sidewalk or drive way
Less than 6 ft. from an open-able window, door or mechanical combustion air supply
Less than 6 ft. of any combustion air inlet
Less than 3 ft. of the vertical centerline of the meter/regulator assembly on a horizontal plane perpendicular to the regulator
Less than 6 ft. of gas service regulator vent outlet
Less than 4 ft. of oil tank vent or oil tank fill inlet
Less than 1 ft. above grade or normal anticipated snow level for the area.
Within 6 ft. of a property line
Underneath a veranda, porch or deck
Flue gases are within 6 ft. of combust ble material or any openings of surrounding buildings.
Less than 3 ft. from an inside corner or L-shaped structure
Where flue gases may be directed towards brickwork, siding or other construction that may cause damaged from heat or condensate from the flue gases.

NFPA 54 / ANSI Z223
(GAS INSTALLATIONS USA)

A VENT SHALL NOT TERMINATE…..

Less than 3 ft. of any combustion air inlet source located wi hin 10 ft.
Less than 1 ft. from any obstructions
Less than 1 ft. above grade or normal anticipated snow level for the area.
Over public walkways, driveways or other areas where condensate or vapor could create nuisance or hazard or could be detrimental to the operation of regulators, relief's, valves or other equipment

NFPA 31
(OIL INSTALLATIONS USA)

A VENT SHALL NOT TERMINATE…..

Less than 5 ft. from vent outlet of the supply tank
Less than 7 ft. above walkways
Less than 1 ft. from any door, window or air inlet source
Less than 1 ft. from grade or snow level.
Less than 3 ft. from a air intake that is within 10 ft
Less than 1 ft. from soffit of the roof
Less than 3 ft. from any building corner or L shape structure

WARNING-CAUTION
Consult Local Codes & Authorities for other Requirements not mentioned

Electrical connections

See the specific instructions supplied with the control panel of the boiler.

Warning
Label all wires prior to disconnecting when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.

Maintenance

1 Boiler

Draining

We advise you against draining the installation, unless it is absolutely necessary. Check the water level in the installation regularly and top up if required, making sure you do not suddenly add cold water into a hot boiler.

Cleaning

Please note that an efficient boiler is a boiler with clean exchange surfaces.

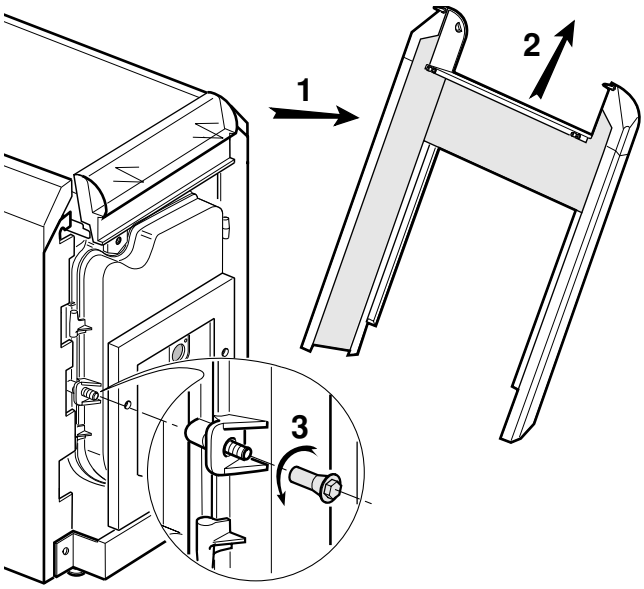
The boiler should be cleaned as and when required, **at least once a year**, depending upon applicable regulations and specific needs.

The operation should not be required more than a few times each season and should not involve large quantities of water. Otherwise, look for the leak and repair it immediately.

The operations described below shall only be performed with the boiler and power supply off.

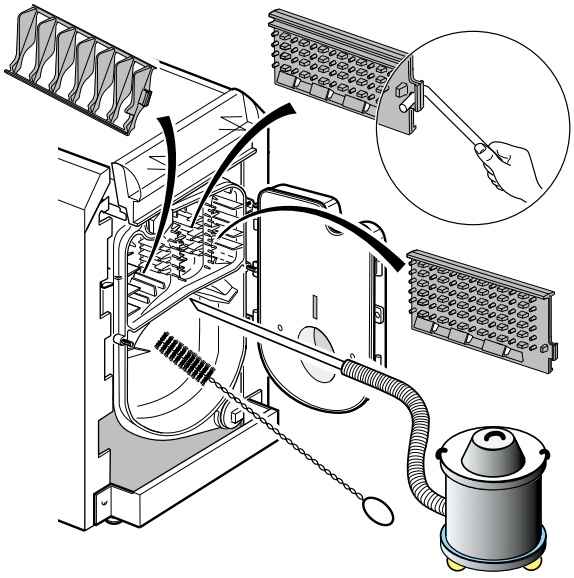
To have access to the exchange surfaces:

- take off the front of the casing,
- open the door by unscrewing the two flanged nuts (17 mm wrench).



- remove the convection accelerators in the flues of the boiler with the supplied removal hook
- carefully sweep the flues with the brush supplied for that purpose
- brush out the furnace as well
- vacuum the soot from beneath the flues and in the furnace with a sweeping brush or a vacuum cleaner with a tube diameter less than 11/2
- put back the convection accelerators
- close the door and put back the front panel.

Refer to the instructions supplied with the burner for burner maintenance.



2 Domestic hot water (GT 2100)

See the instructions supplied with the MLS 150 or 250 tank.

3 Precautions required in the case of long boiler stops (one or more years)

The boiler and the chimney must be swept carefully. Close the door of the boiler to prevent air from circulating inside the boiler.

We also recommend removing the pipe connecting the boiler to the chimney and plugging the flue gas nozzle.

The fuel main shutoff valve should be turned off if the burner is shutdown for an extended period of time.

4 Precautions required if the heating is stopped when there is a risk of freezing

We recommend the use of a correctly dosed antifreeze agent to prevent to the heating circuit from freezing.

If this cannot be done, drain the system completely.

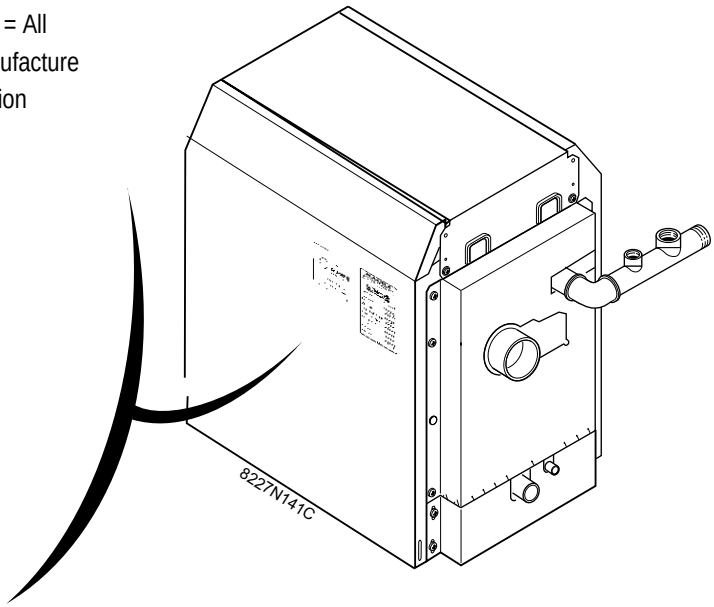
Drain the hot water tank and piping as well.

5 Boiler Rating & Approval Label

The identification plate fixed on the side of the boiler during installation is used to identify the boiler correctly. It also provides the main specifications of the boiler.

The serial number breakdown

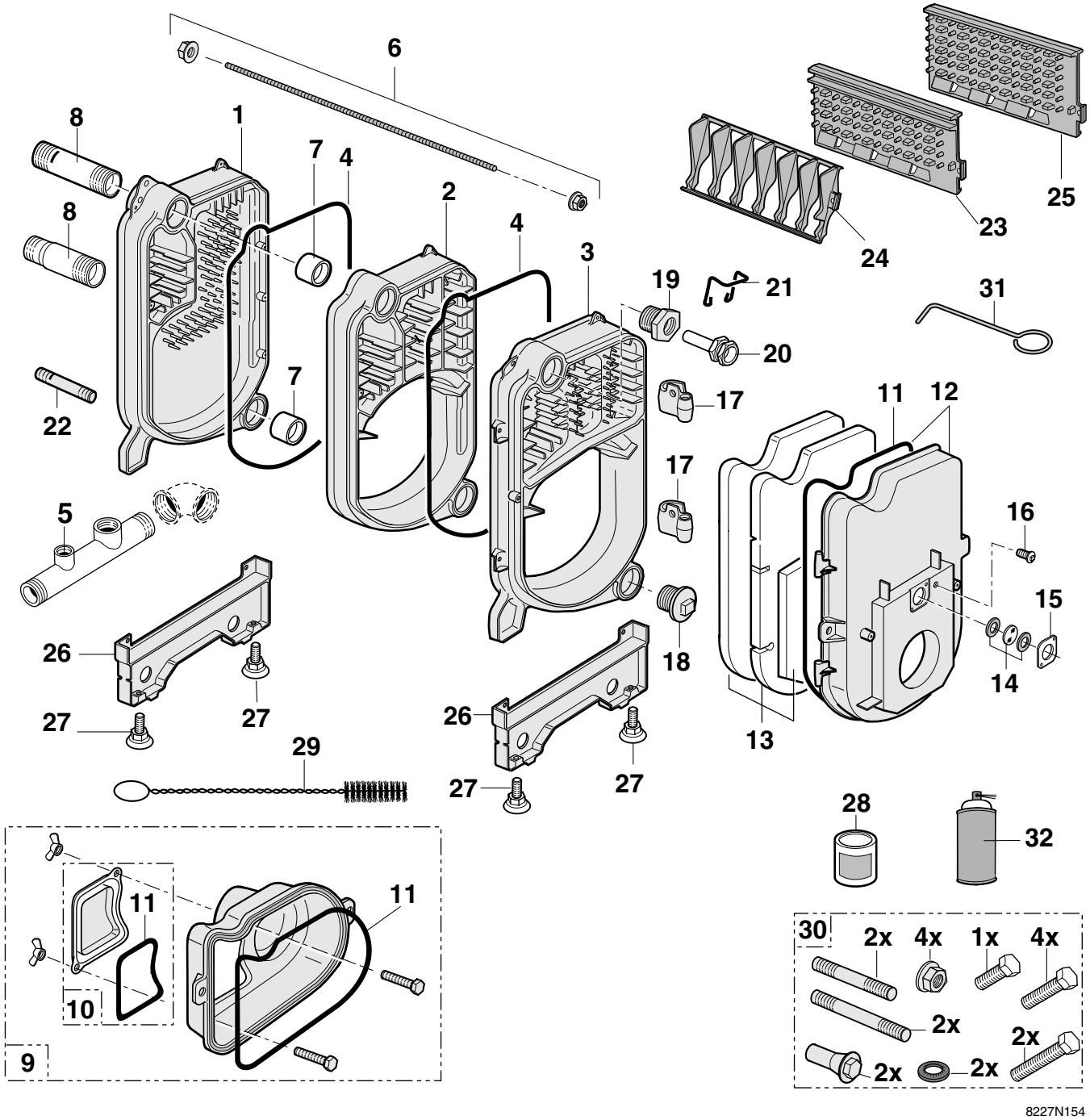
Example X XXXX XXXX XX XX XXXXXX
First digit = Approved packed boiler = A or Unapproved packaged boiler = U
4 digits = boiler series
4 digits = boiler model and control
2 digits = fuel type 03 = All
2 digits = year of manufacture
last 6 digits = production



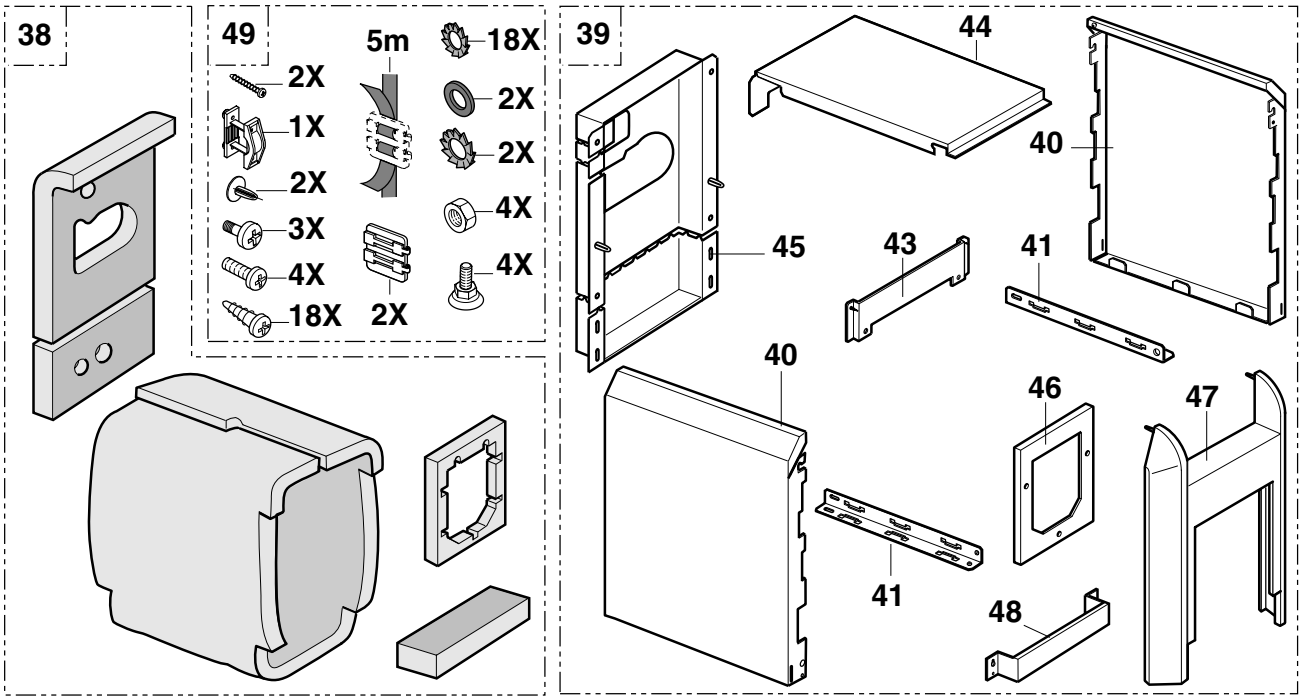
PR82274096E

When ordering spare parts, do not forget to state **the code number given opposite the description of the required part in the liste**.

BOILER BODY



CASING + INSULATION



8227N062A

Ref.	Code no.	DESCRIPTION
		BOILER BODY
1	8227-0033	Rear section, GT 220
2	8227-0031	Intermediate section, GT 220
3	8227-0032	Front section, GT 220
4	9508-6036	8 ø silicone seal
5	9754-9101	Flow pipe 4, 5 sections
5	9754-9151	Flow pipe 6 to 8 sections
6	8227-5506	M 8-440 assembly rod, 4 sections
6	8227-5507	M 8-580 assembly rod, 5 sections
6	8227-5508	M 8-700 assembly rod, 6 sections
6	8227-5509	M 8-820 assembly rod, 7 sections
6	8227-5510	M 8-1000 assembly rod, 8 sections
7	8336-0507	Painted nipple
8	9754-9150	1"1/4 outlet/return tube, 4 or 5 sections
8	9754-9149	1"1/2 outlet/return tube, 6-7 sections
8	300001330	1"1/2 outlet/return tube, 8 sections
9	8227-8503	150 ø painted nozzle, 4 or 5 sections
9	8227-8504	180 ø painted nozzle, 4 or 5 sections
10	8227-5511	Sweeping trap + seal
11	9508-6032	10 ø silicone fibreglass seal
12	8227-8531	Complete burner door, 4 or 5 sections
12	8227-8532	Burner door, 6-8 sections
13	8227-5504	Complete burner door insulation, 4 or 5 sections
13	8227-5505	Complete burner door insulation, 6 or 8 sections
14	8015-7700	Sight glass + seals
15	9757-0027	Sight glass flange
16	9495-0050	1/4" no. 290 plug
17	8227-0201	Adjustable painted hinge
18	9495-0249	1 1/2" plug NR 290
19	9494-8312	1 1/2" plug with 1/2" tapping
20	8500-0027	Thimble tube
21	9758-1286	Thimble tube spring
22	9754-9152	Draining tube
23	8227-0011	$14^{12/16}$ long central baffle
23	8227-0017	$11^{13/16}$ long central baffle
24	8227-0012	Left-hand baffle
24	8227-0020	Left-hand baffle, 7 or 8 sections
25	8227-0018	$14^{12/16}$ long right-hand baffle
25	8227-0019	$11^{13/16}$ long right-hand baffle
26	8227-0202	GT 210 painted height converter
27	9786-0646	Adjustable foot
28	9430-5027	Coating material for nipple (300 g)
29	9696-0225	$30^{5/16}$ long brush
29	9696-0226	$47^{1/4}$ long brush

Ref.	Code no.	DESCRIPTION
30	8227-8502	Bag of fasteners for body
31	9602-0671	Hook for baffles
32	9434-5102	Retouching spray paint - anthracite grey
32	9434-5104	Retouching spray paint - ivory
		INSULATING MATERIAL
38	8227-5512	Complete body insulation, 4 sections
38	8227-5513	Complete body insulation, 5 sections
38	8227-5514	Complete body insulation, 6 sections
38	8227-5515	Complete body insulation, 7 sections
38	8227-5516	Complete body insulation, 8 sections
		BOILER CASING
39	8227-8514	Complete casing, 4 sections
39	8227-8515	Complete casing, 5 sections
39	8227-8516	Complete casing, 6 sections
39	8227-8517	Complete casing, 7 sections
39	8227-8518	Complete casing, 8 sections
40	8227-8524	Complete side panel, 4 sections
40	8227-8525	Complete side panel, 5 sections
40	8227-8526	Complete side panel, 6 sections
40	8227-8527	Complete side panel, 7 sections
40	8227-8528	Complete side panel, 8 sections
41	8227-8005	Lower side piece, 4 sections
41	8227-8014	Lower side piece, 5 sections
41	8227-8015	Lower side piece, 6 sections
41	8227-8016	Lower side piece, 7 sections
41	8227-8017	Lower side piece, 8 sections
43	8227-8543	Complete rear upper crossbar
44	8199-8830	Complete cover, 4 sections
44	8199-8831	Complete cover, 5 sections
44	8199-8841	Complete cover, 6 sections
44	8227-8529	Complete cover, 7 sections
44	8227-8530	Complete cover, 8 sections
45	8227-8558	Single-piece rear panel
46	8227-0504	Painted furnace door panel
47	8227-8512	Complete GT 210 front panel
48	8227-8544	Painted lower front panel
49	8227-8513	Bag of fasteners for casing
		CONTROL PANEL (DR 90)
60	8199-8777	Complete control panel
61	8227-8580	Complete component support
62	9750-9009	Electromechanical front plate
63	9532-5027	Two-pole green On/Off switch
64	8500-0034	STB Test switch
65	9532-5103	Reversing switch
66	9654-7019	10 A fuse

Ref.	Code no.	DESCRIPTION
67	9655-0069	Clip-in fuse-holder (4.8 x 0.5)
68	8500-0032	110° C safety thermostat
69	8500-0002	30 - 90° C setting thermostat
70	8218-8973	Setting buttons + pins
71	8536-5155	GM flat thermometer
72	8199-4906	CP electrical circuit
73	8227-4908	Sensor wiring
74	8199-8984	Fasteners + accessories for control panel
75	9536-2632	Hour run meter 100/130V

GT 220 - GT 2200

Fuel oil/gas-fired boilers

English
22/02/06

Installation instructions

CE 1312

EX 300008288-001-A

De Dietrich

www.dedietrich.com

Contents

The various models:

GT 220

GT 2200

Symbols used

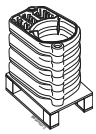
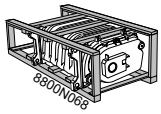
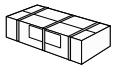
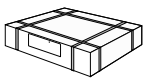
	Caution danger	Risk of injury and damage to equipment. Attention must be paid to the warnings on safety of persons and equipment
	Specific information	Information must be kept in mind to maintain comfort
	Reference	Refer to another manual or other pages in this instruction manual

Package list

1 GT 220

The following table gives the package numbers which make up the boiler to be installed.

The packages are presented in the order in which they should be opened for assembly.

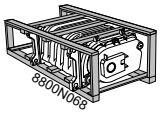
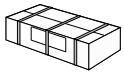
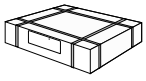
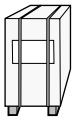
Boiler	GT 224	GT 225	GT 226	GT 227	GT 228	
Boilers supplied with an unassembled body:						
- Front section	1	1	1	1	1	
- Intermediate section	2	3	4	5	6	
- Rear section	1	1	1	1	1	Contains the boiler instructions
- Set of assembly rods	-	-	1	1	1	
- Accessories	ME6	ME7	ME8	ME9	ME10	
Assembled boiler body	ME1	ME2	ME3	ME4	ME5	 Contains the boiler instructions
Control panel						 8800N075A
- B/TA (basic)	FM126	FM126	FM126	FM126	FM126	Contains the control panel instructions
or	or	or	or	or	or	
- B2/TA (basic, 2-stage)	FM159	FM159	FM159	FM159	FM159	
or	or	or	or	or	or	
- E/TA (Easymatic)	FM127	FM127	FM127	FM127	FM127	
or	or	or	or	or	or	
- E1/TA (Easymatic)	FM128	FM128	FM128	FM128	FM128	
or	or	or	or	or	or	
- ER/TA (Easyradio)	FM130	FM130	FM130	FM130	FM130	
or	or	or	or	or	or	
- E1R/TA (Easyradio 1)	FM134	FM134	FM134	FM134	FM134	
or	or	or	or	or	or	
- D/TA (Diematic 3)	FM129	FM129	FM129	FM129	FM129	
or	or	or	or	or	or	
- X	FM19	FM19	FM19	FM19	FM19	
PCB 2-stage burner / modulating burner / 3-way valve - for: Boiler with D control panel			AD217	AD217	AD217	
Cladding	ME11	ME12	ME13	ME14	ME15	 8800N073A

The assembly of any optional equipment delivered with the boiler is covered in the instructions which accompany it.
The range of optional equipment available is given in the current price list.

2 GT 2200/L 160 and GT 2200/L 250

The following table gives the package numbers which make up the boiler to be installed.

The packages are presented in the order in which they should be opened for assembly.

Boiler	GT 2204 L 160	GT 2205 L 160	GT 2204 L 250	GT 2205 L 250	
Boilers supplied with an unassembled body:					
- Front section	1	1	1	1	
- Intermediate section	2	3	2	3	
- Rear section	1	1	1	1	Contains the boiler instructions
- Accessories	ME6	ME7	ME6	ME7	
Assembled boiler body	ME1	ME2	ME1	ME2	 Contains the boiler instructions
Control panel					
- B/TA (basic)	FM126	FM126	FM126	FM126	
or	or	or	or	or	
- B2/TA (basic, 2-stage)	FM159	FM159	FM159	FM159	Contains the control panel instructions
or	or	or	or	or	
- E/TA (Easymatic)	FM127	FM127	FM127	FM127	
or	or	or	or	or	
- E1/TA (Easymatic)	FM128	FM128	FM128	FM128	
or	or	or	or	or	
- ER/TA (Easyradio)	FM130	FM130	FM130	FM130	
or	or	or	or	or	
- E1R/TA (Easyradio 1)	FM134	FM134	FM134	FM134	
or	or	or	or	or	
- D/TA (Diematic 3)	FM129	FM129	FM129	FM129	
Cladding	ME11	ME12	ME13	ME14	
Domestic hot water tank					
- L 160/TA	BH103	BH103			
or					
- L 250/TA	-	-	BH104	BH104	Contains the tank instructions and the DHW sensor
Hydraulic boiler/tank connection unit	BH93	BH93	BH93	BH93	 Contains the instructions on the pipes

The assembly of any optional equipment delivered with the boiler is covered in the instructions which accompany it.
The range of optional equipment available is given in the current price list.

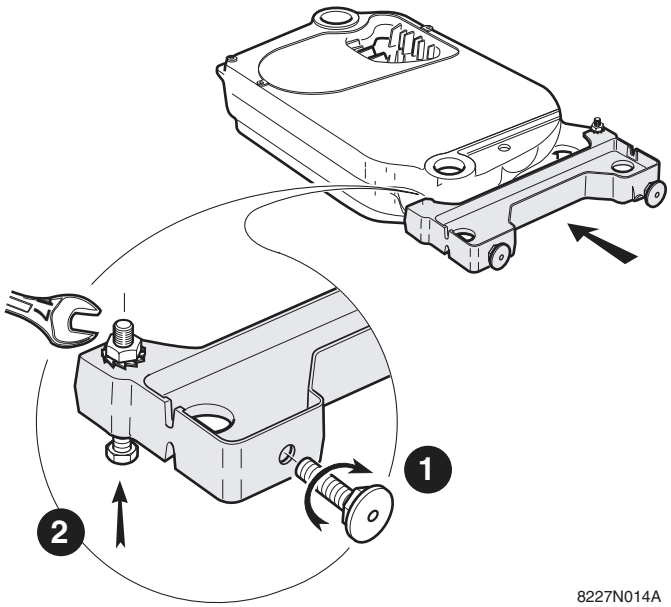
Tools required:

- 1 Phillips screwdriver,
- 1 broad flat screwdriver,
- 1 13 mm spanner,
- 1 17 mm spanner,
- 1 hammer
- Silicone filler
- Assembly tool: JDTE Plus
- Assembly tool: simplified JD

1

Boiler body assembly

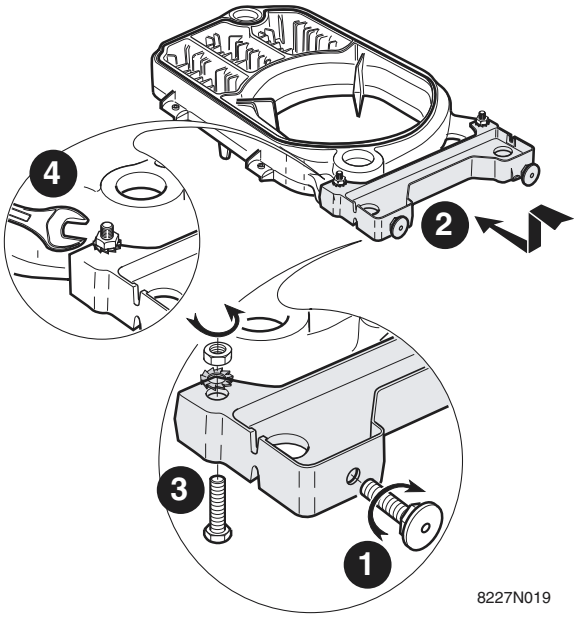
Package ME6, ME7, ME8, ME9, ME10



8227N014A

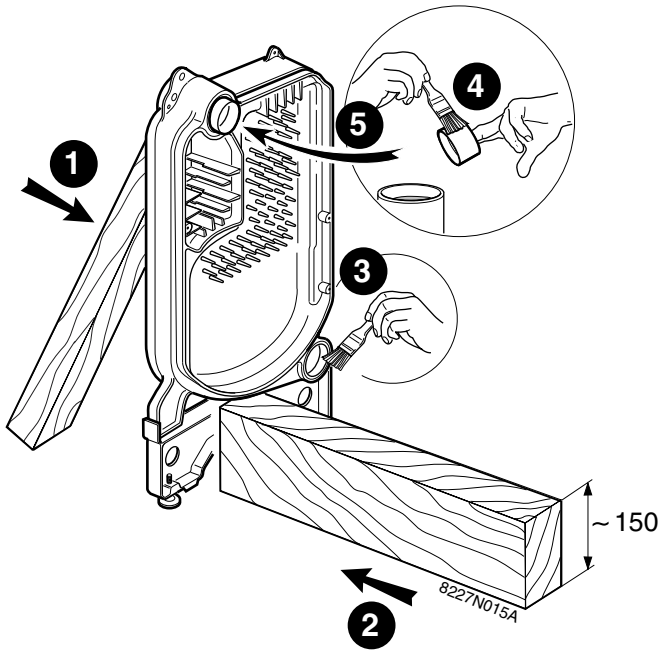
1. Fit the adjustable feet to the height converter (The feet are delivered with the screw bag in the cladding package).
2. Fit the height converter to the rear section positioned on the floor (2 screws HM10 x 25 + 2 serrated washers + nuts) - 17 spanner.

2



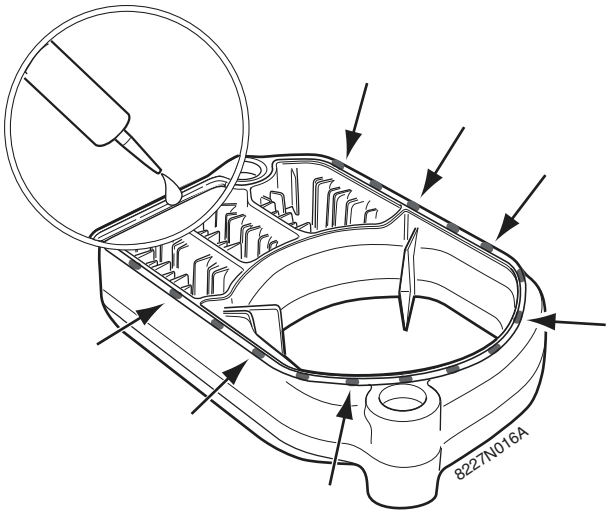
1. Fit the adjustable feet to the height converter
2. Fit the height converter to the front section positioned on the floor, with the groove facing upwards.

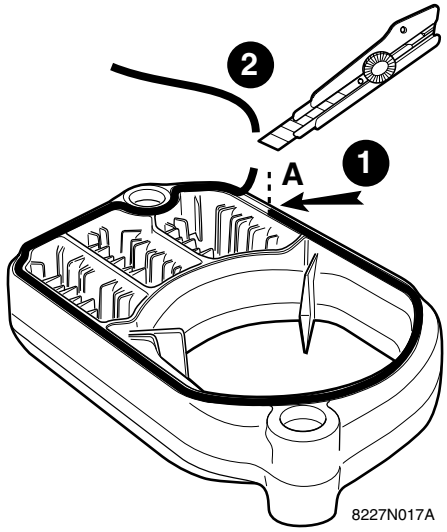
3



1. Support the section with a wooden block.
2. Position the side section on a rectangular wooden block around 150 mm in height(Length variable, depending on the number of sections) : 320 to 820 mm (not supplied).
3. Clean the bores and nipples with diluent
4. Smear the nipples with the greasing product provided
5. Gently push in the 2 nipples

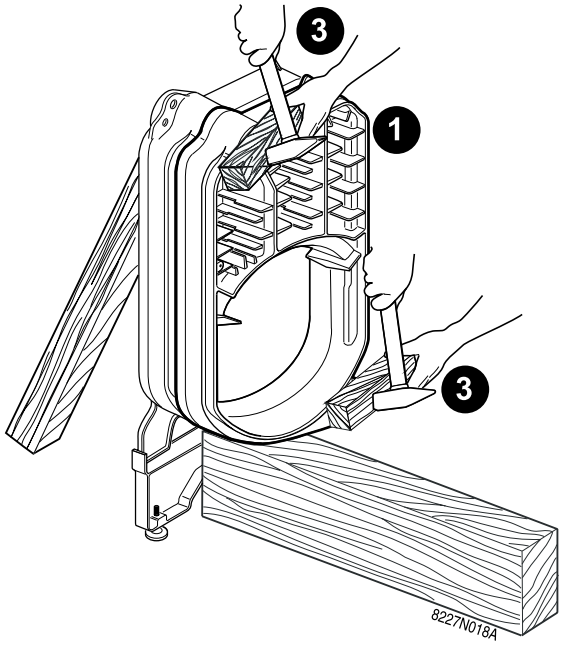
4





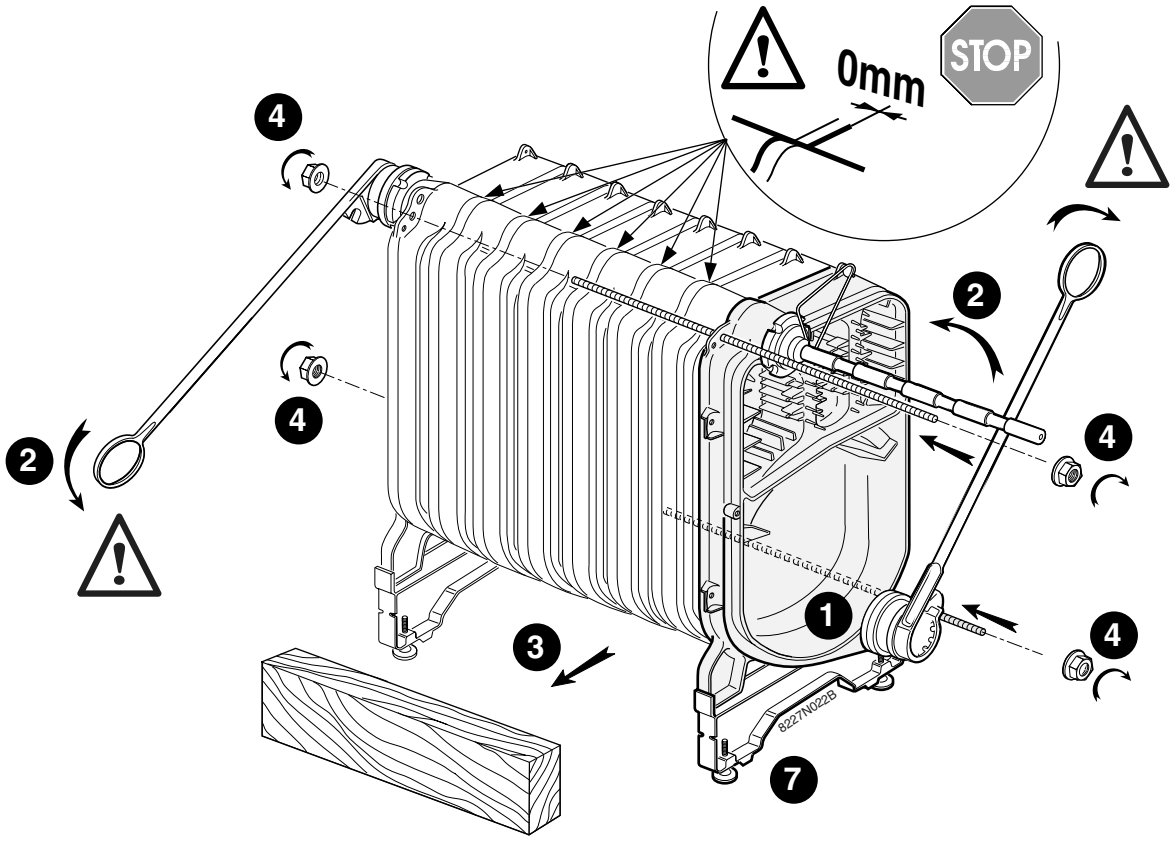
- Position the intermediate and front sections on the floor, with the groove facing upwards,
- Prepare the silicon mastic cartridge,
- Place a dab of silicon around every 200 mm in the groove on the intermediate and front sections.
- Start at point A located as shown in the illustration: Put the silicon braid provided in place in the groove on the intermediate and front sections.
- Cut the braid to the correct length.

5



1. Position the intermediate section on the wooden block.
2. Engage the connections in the nipples on the rear section,
3. Push the section gently and simultaneously on the 2 nipples of the rear section with a hammer and a piece of wood positioned in line with the bores.
4. Proceed in the same way for the other intermediate sections.

6



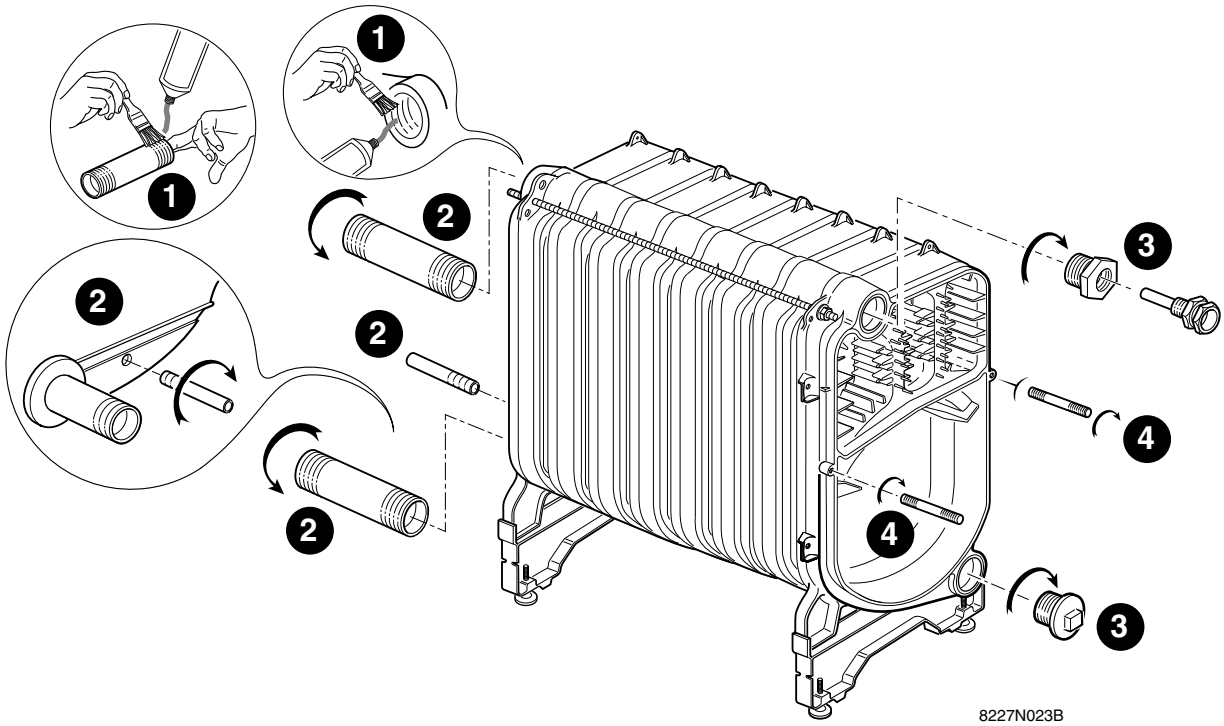
1. Complete assembly with the front section.
2. Put the assembly tool in position. Tighten gradually so as to bring together the upper and lower connections evenly and simultaneously.

Do not overtighten. Correct tightening is achieved when the cast iron sections come into contact.

3. Remove the wooden block.
4. Put the 2 threaded assembly rods in place without loosening the assembly tool.Tighten with the 2 H 8 flanged nuts provided.
5. Clean off the surplus silicon.
6. Remove the assembly tool.
7. Level the boiler by turning the adjustable feet.

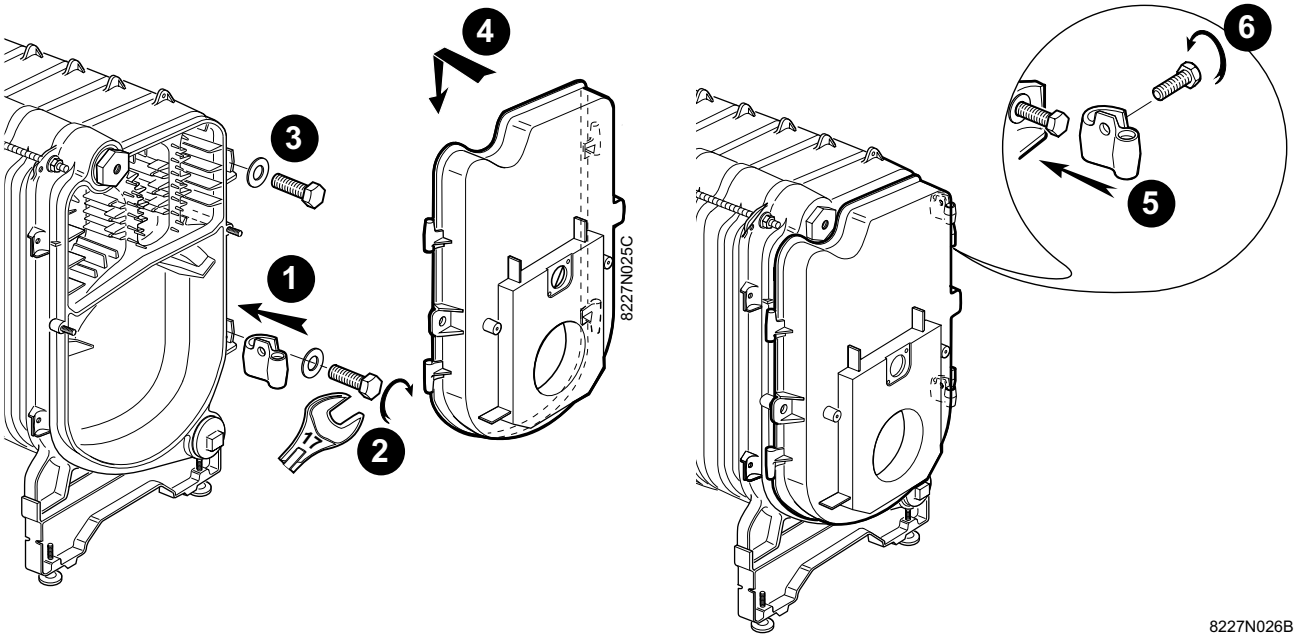
7

Mounting: Outlet pipe - Return pipe - Drainage pipe



1. Grease the threads and tapped connections on the sections, pipes, plugs and thimble tube with the usual sealing product (not supplied).
2. To be fitted to the rear section:
   - Outlet pipe
   - Return pipe
   - Drainage pipe
3. Put in place the lower plug and the upper plug with the thimble tube (boiler body accessories package).
4. To the front: Put the 2 M10 pins in place in the holes provided for this purpose.

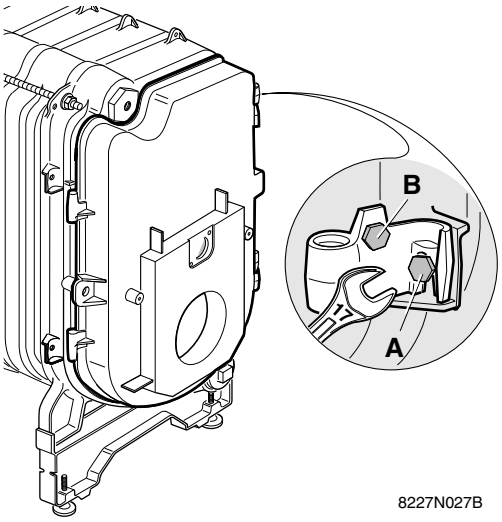
Fitting the furnace door: Opening to the right:



Opening to the left: Position the hinges to the left and proceed in the same way.

1. Put the lower hinge in place against the front section,
2. Secure the lower hinge: 1 screws HM 10x50 + CL 10-20 wide conical washer.
3. To be prefitted to the front section, in the upper hinge position: 1 screws HM 10x50 + CL 10-20 wide conical washer.
4. Hang on the furnace door
5. Put the upper hinge in place and tighten the screw.
6. Fit the H10x20 adjustment screw to the upper hinge.

Adjusting the furnace door

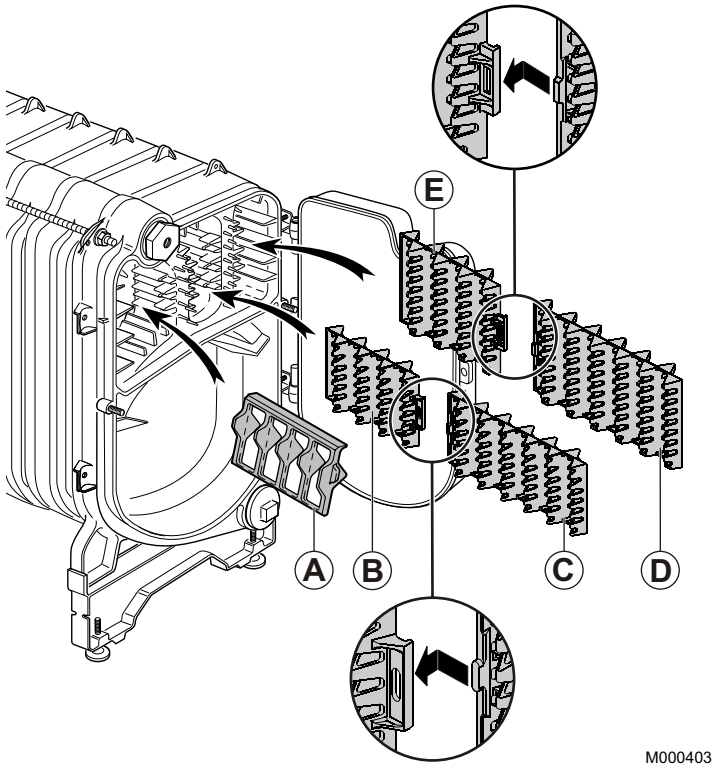


To adjust the furnace door, adjust the top hinge:

- Untighten screw **A**
- turn the screw **B** to position the door,
- Tighten screw **A**.

10

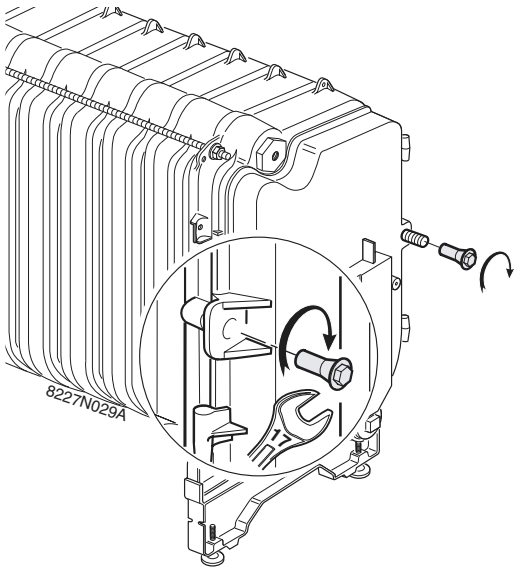
Baffles



▶Put the baffles in place. Align the convection accelerators with the first fins.

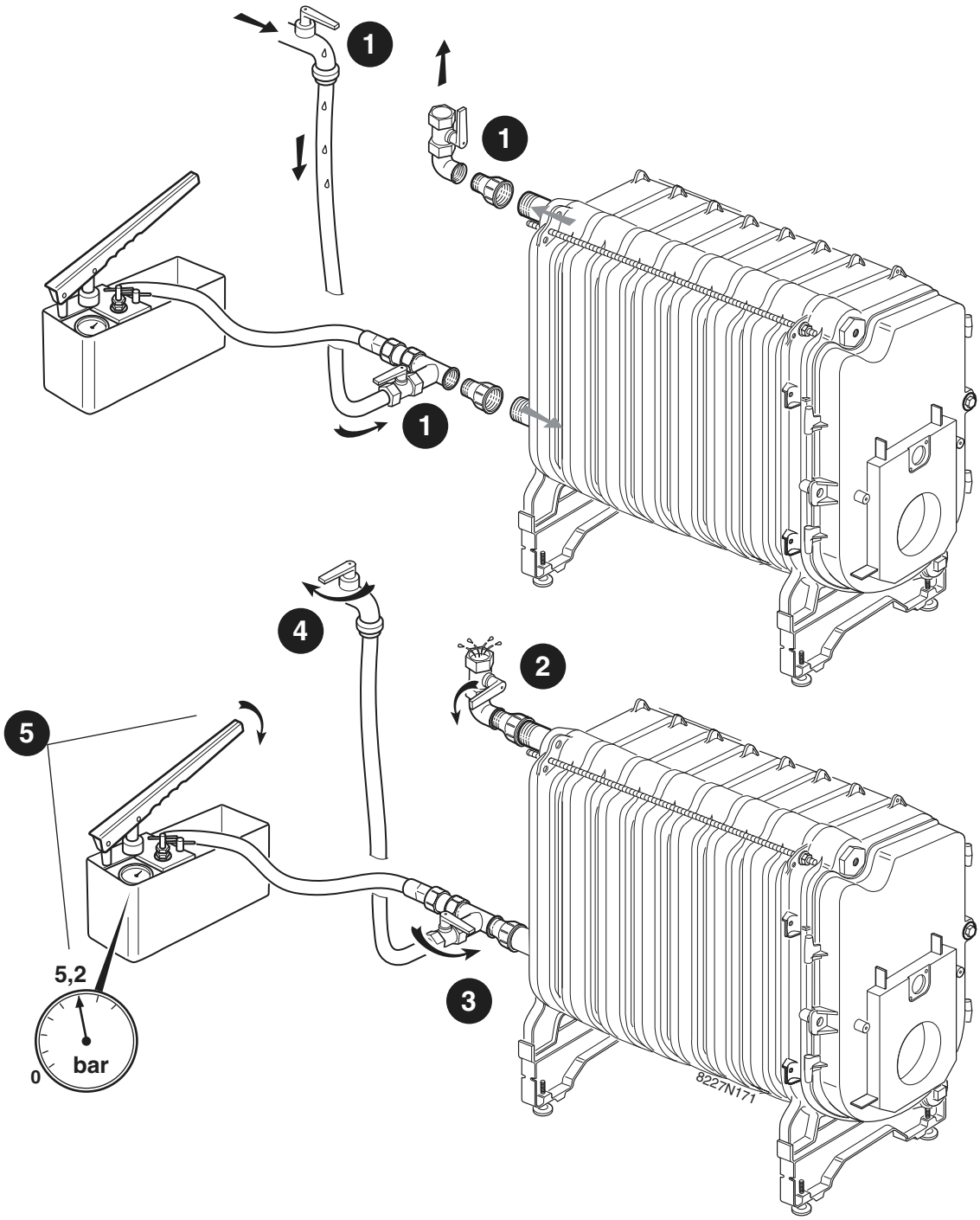
	A	B	C	D	E
GT 224	X		X	X	
GT 225	X		X	X	
GT 226	X	X	X	X	X
GT 227	X	X	X	X	X
GT 228		X	X	X	X

11



▶Close the furnace doors and tighten using the 2 special nuts.

12 Hydraulic test

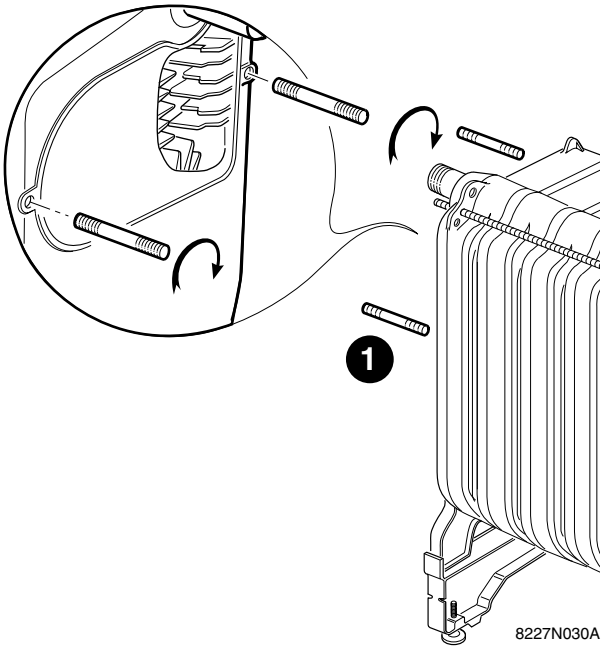


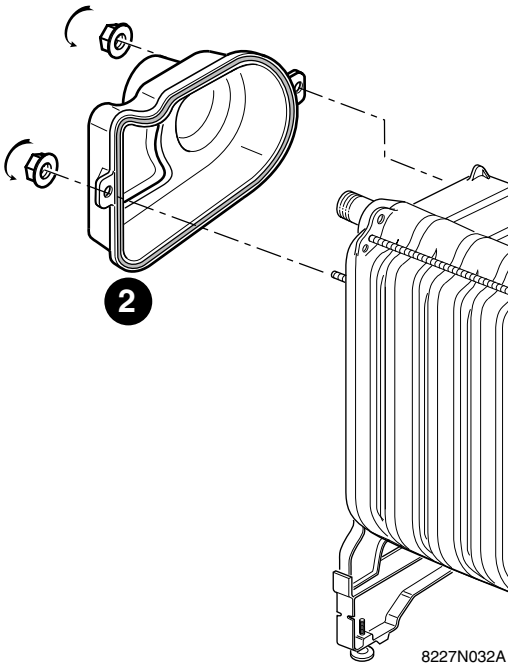
❷ Ensure that all the air in the boiler is vented to avoid any bursting of the body.

❺ After assembling the boiler body, the installer must carry out a water tightness test at a pressure equal to 1.3 times the operating pressure (that is 5.2 bar mini) for 10 minutes at least. The test must be done at room temperature.

i Any drop in pressure indicates a leakage in the boiler body.

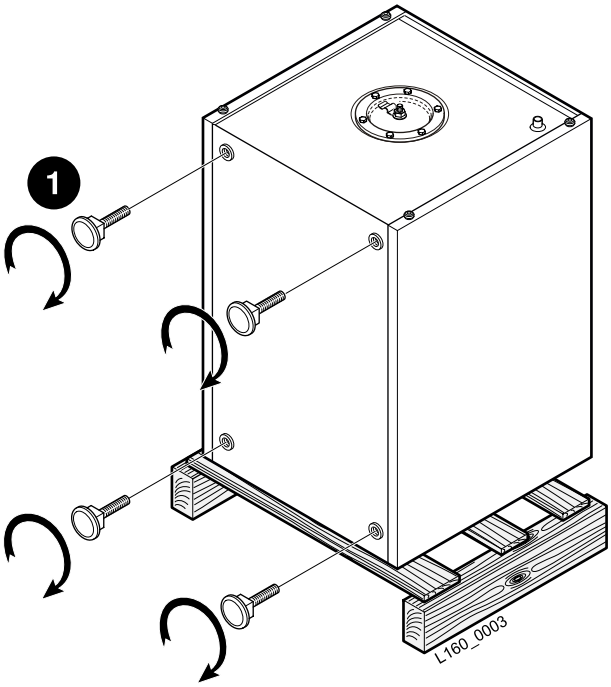
Fitting the flue nozzle

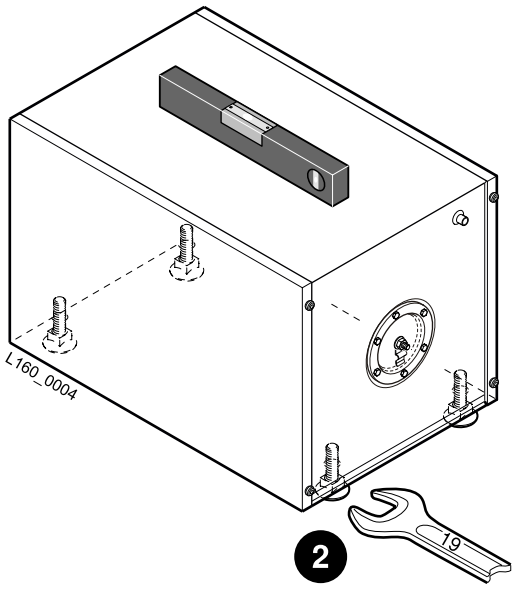




14 (GT 2200 only)

Fitting the boiler to the tank





1 Screw the 4 adjustable feet onto the bottom of the tank (the feet can be found in the tank instructions bag).

2 Level the tank by turning the adjstable feet.

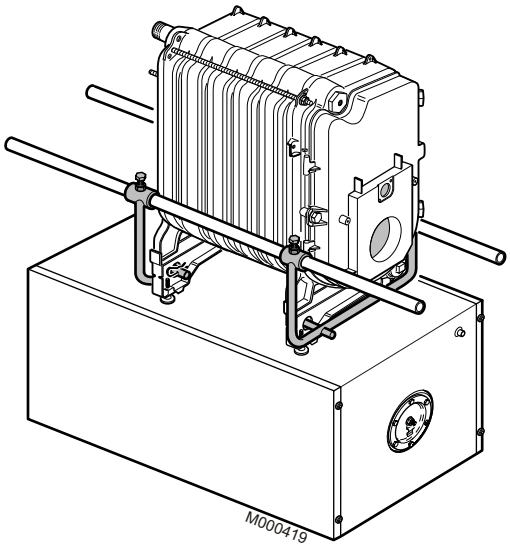
Basic dimension 35 mm. Can be adjusted from 35 mm to 40 mm.

3 Position the boiler on the calorifier.

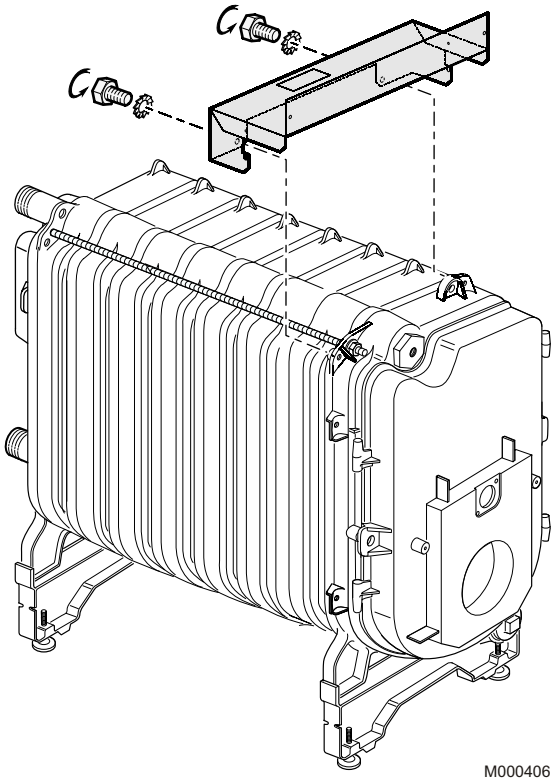
Handle the boiler wearing gloves.

The boiler can be lifted by using 2 tubes ø 3/4" placed as shown in the view. The boiler can also be lifted using the 2 handgrips located low down on each side.

Do not handle the boiler with the heating outlet and return pipes.

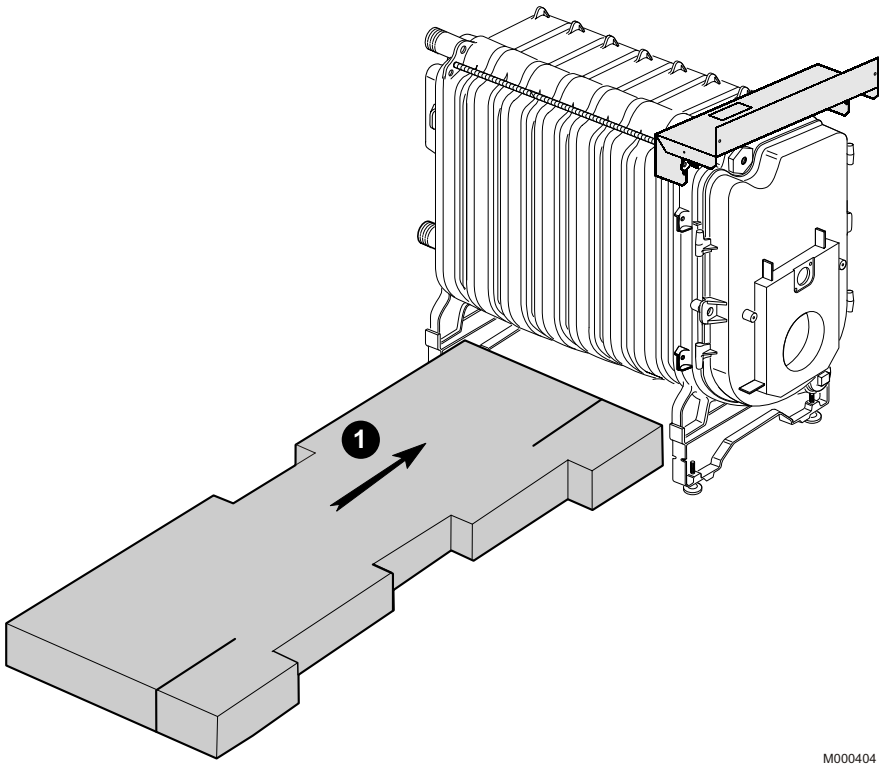


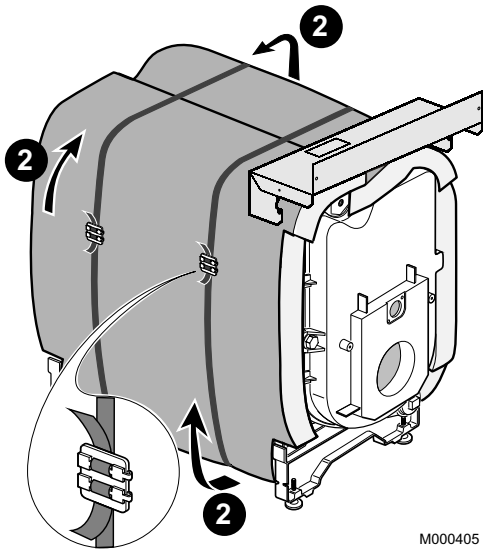
Mounting: Front crosspiece

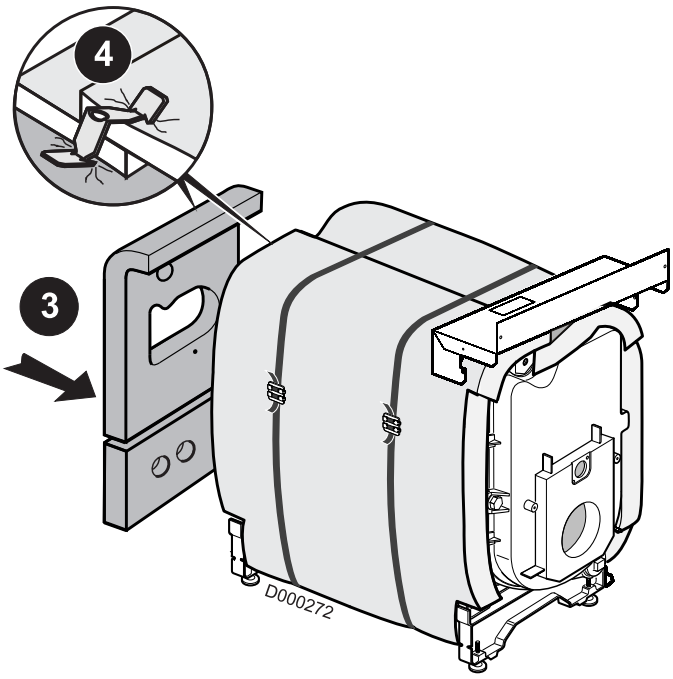


16

Fitting the body insulation

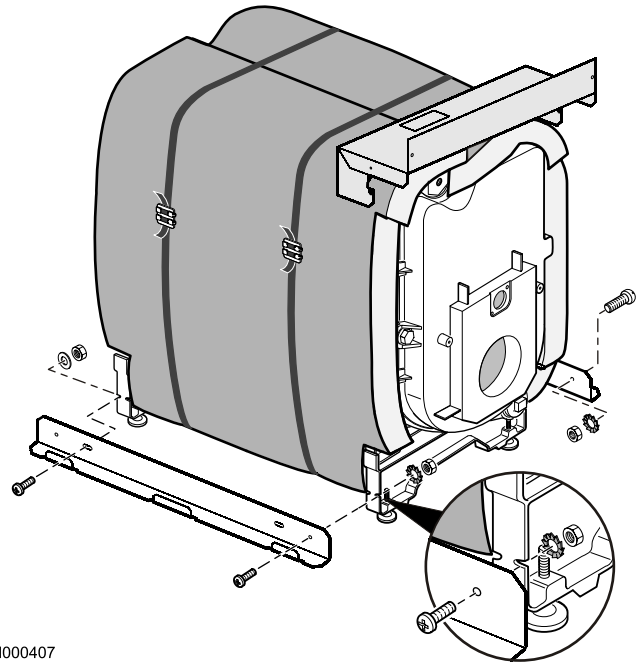






17

Cladding assembly



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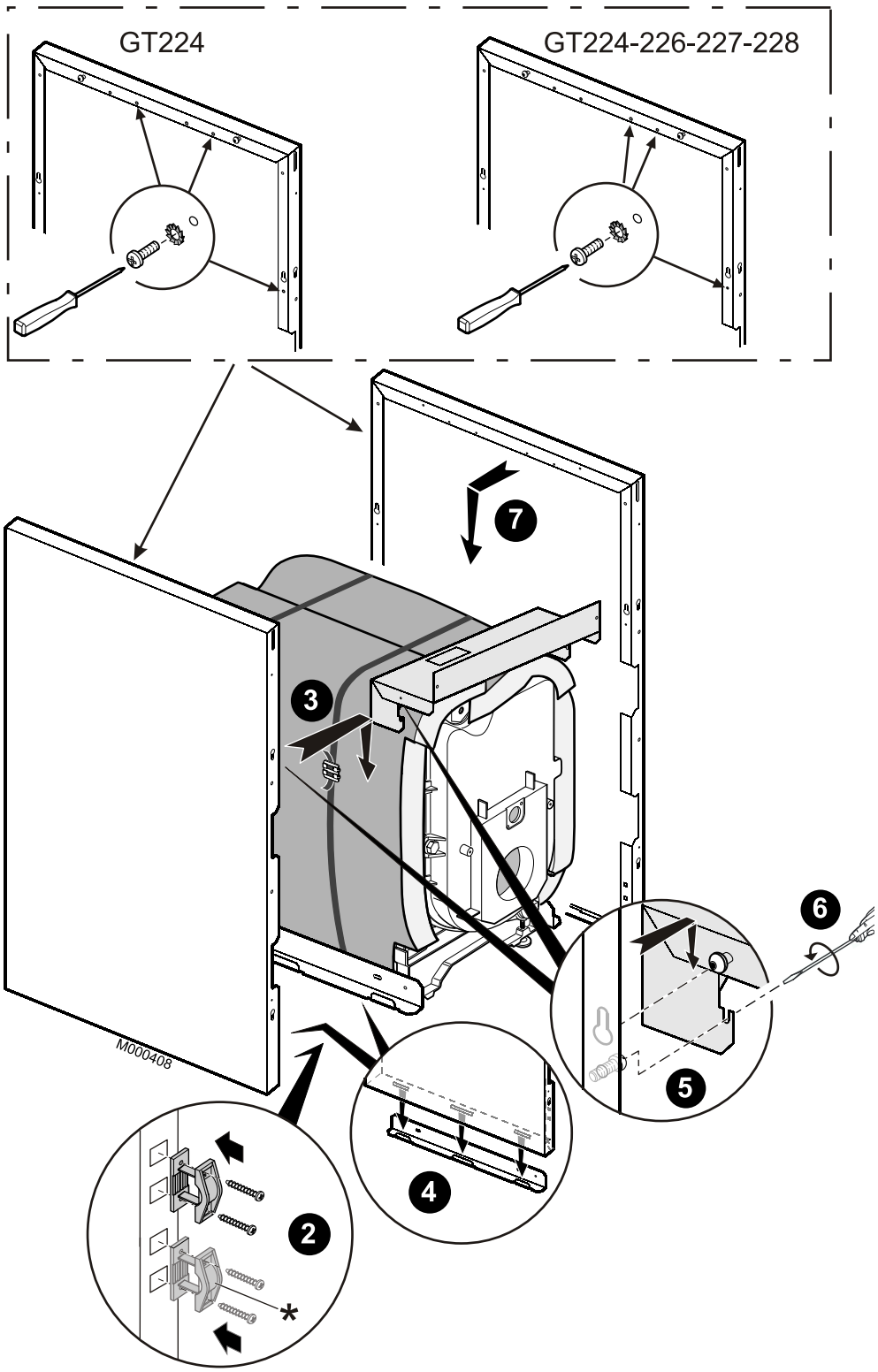
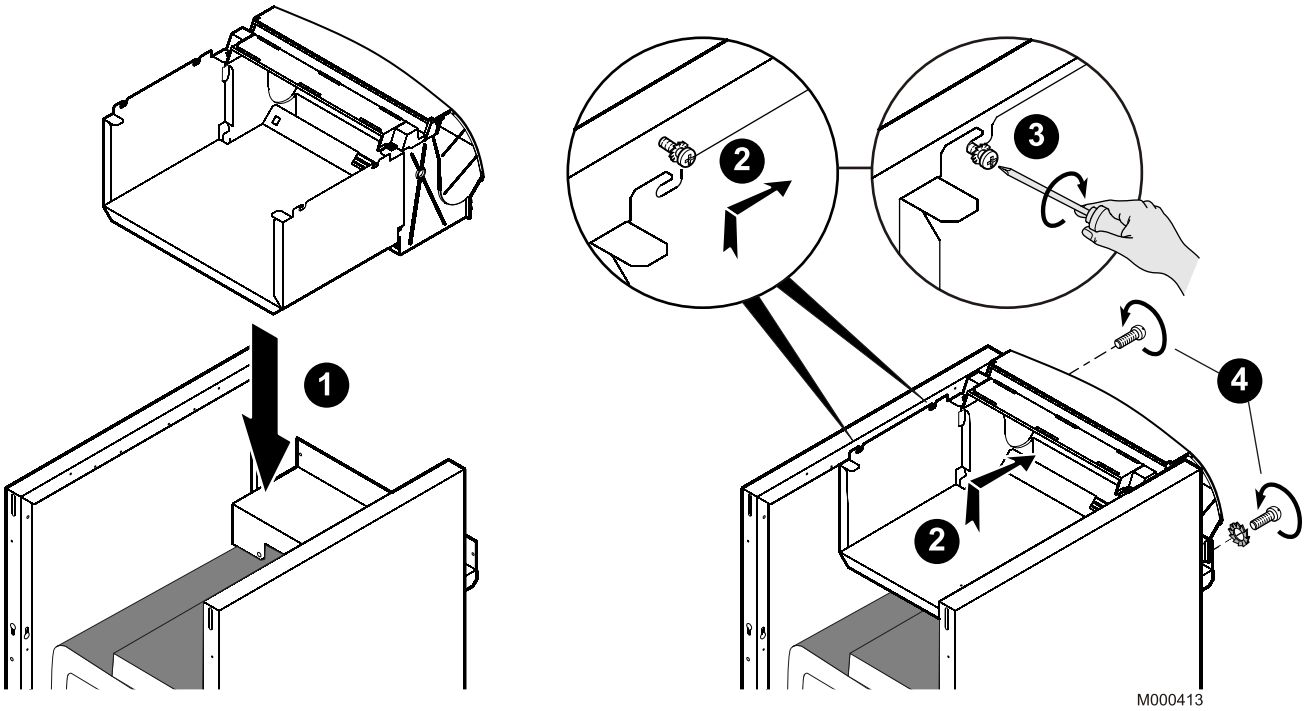


▸Fit the cable clip on the opposite side to the furnace door hinges (in compliance with the requirements of European safety standards).

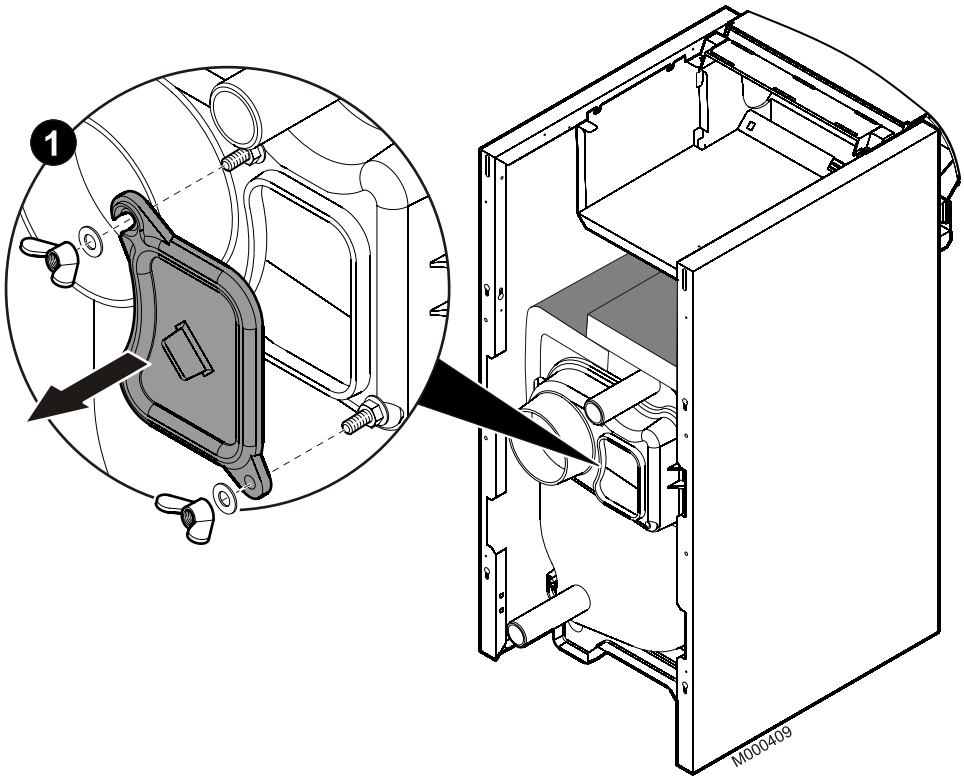
* Only for control panel **B2** : Fit the 2 cable clips. The second cable clip is delivered in package **FM159** (Panel **B2**).

19

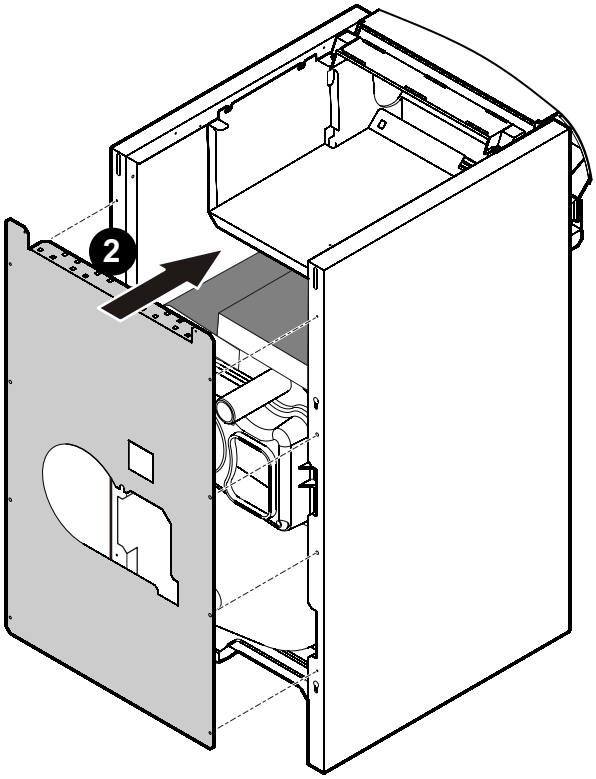


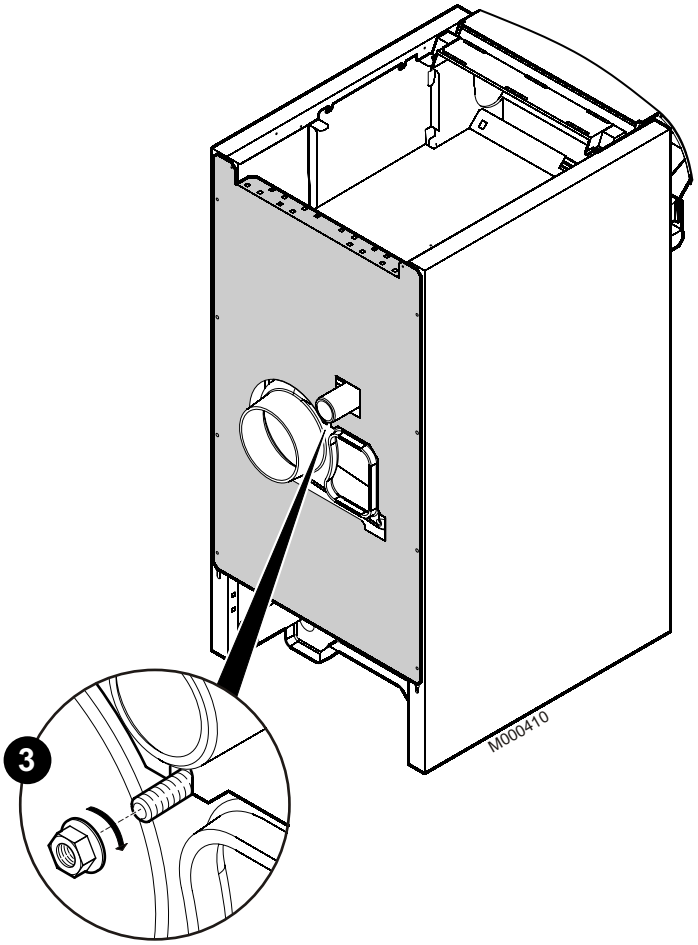
20

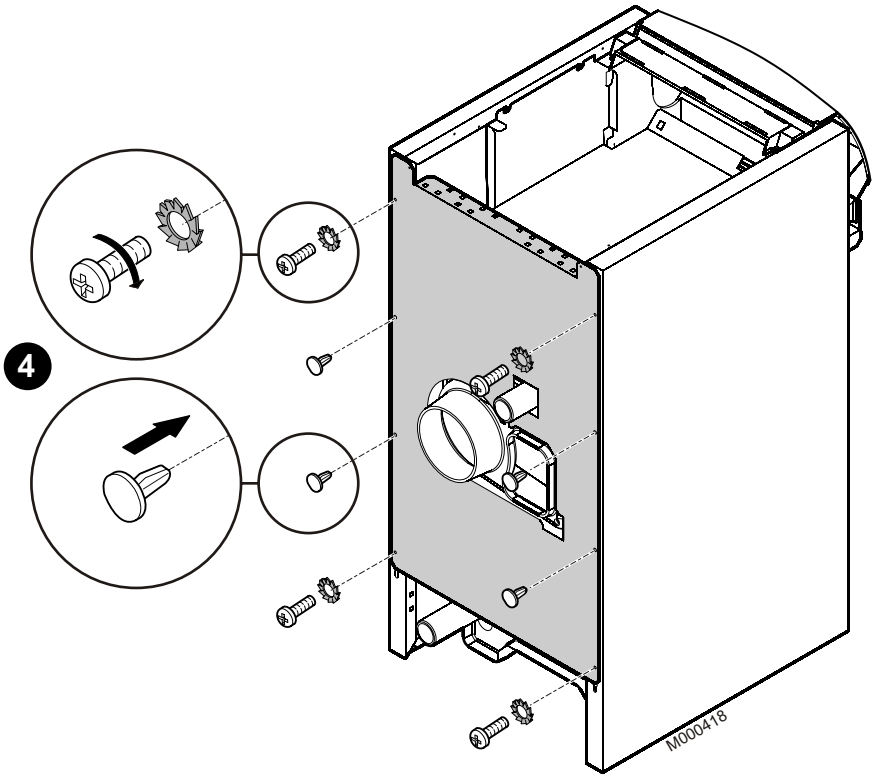
Fitting the rear panel



▸Remove the sweeping trap.

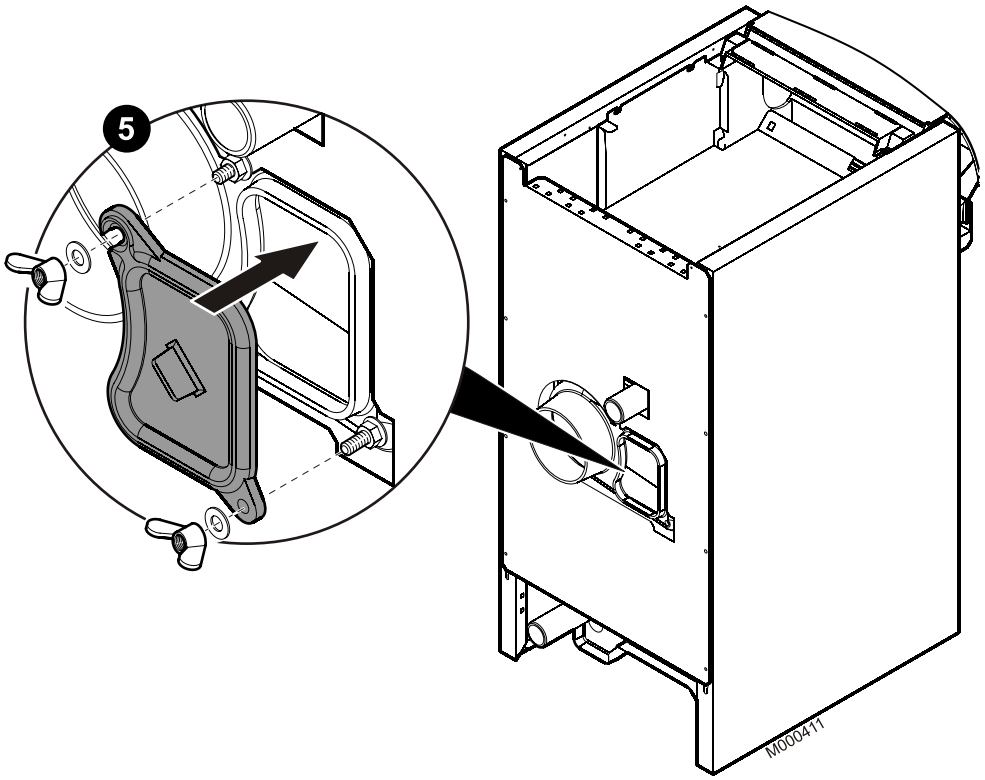




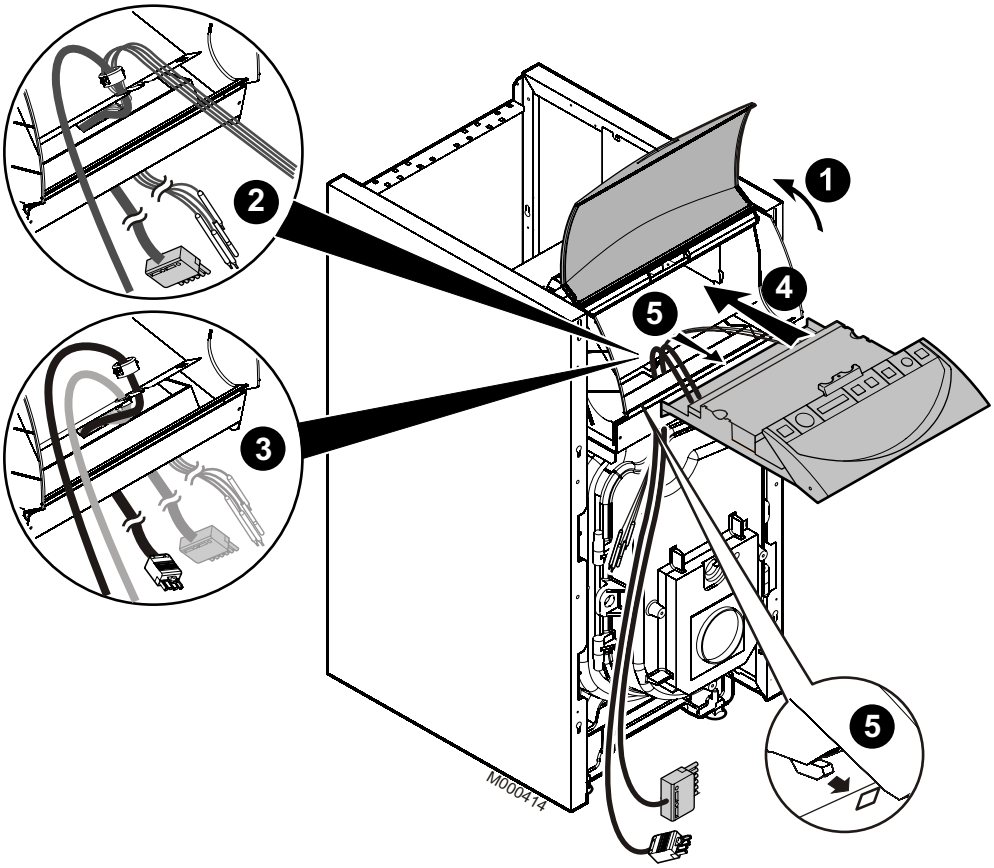


▸Fit the rear panel

▶Replace the visit trap



Control panel assembly - Installing the bulbs



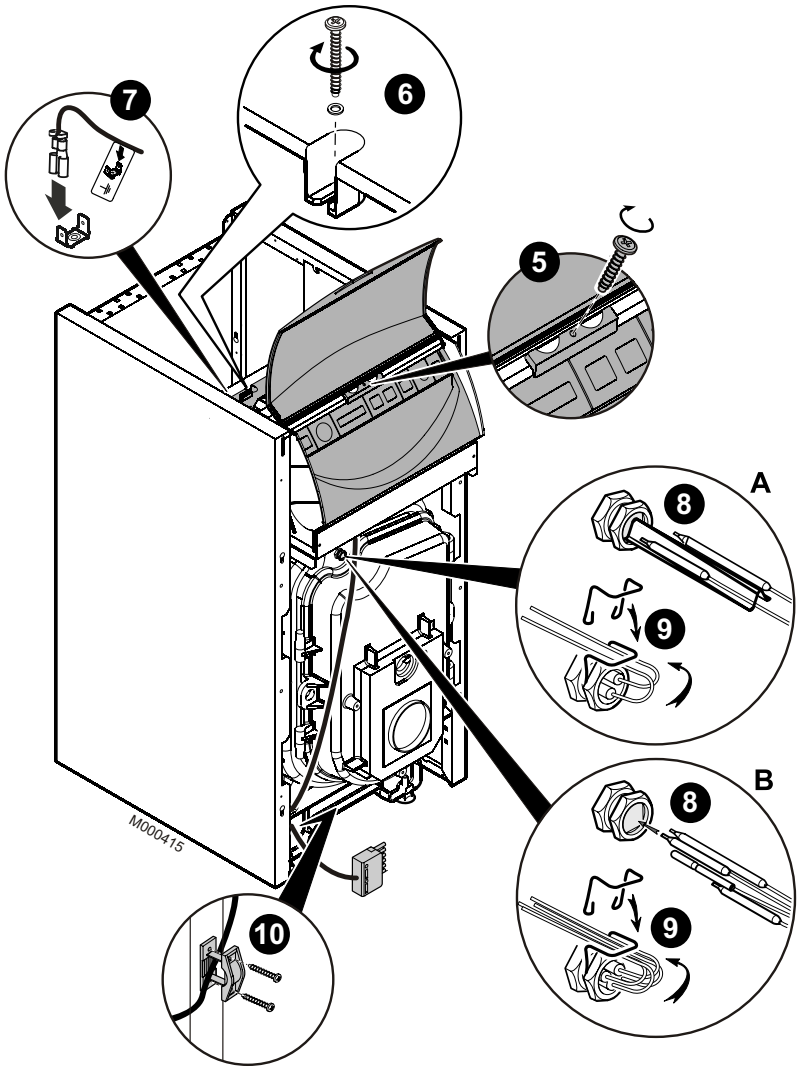
2 Fit the grommet. Introduce the sensor cables and the burner cable into the opening.

3 **Only for control panel B2:**

- Fit the second grommet.
- Thread the second burner cable into the grommet.

4 Put the control panel in place.

5 Pull the control panel to the front to block it.



❺-❻ Secure the control panel

❼ Earthing

❽-❾ Then, insert the bulbs inside the pocket and maintain them with the spring

Detail A: Control panels B, B2 and X

- Boiler sensor
- Safety thermostat
- Thermometer (X panel only)
- Contact spring (can be found in the boiler instructions bag)

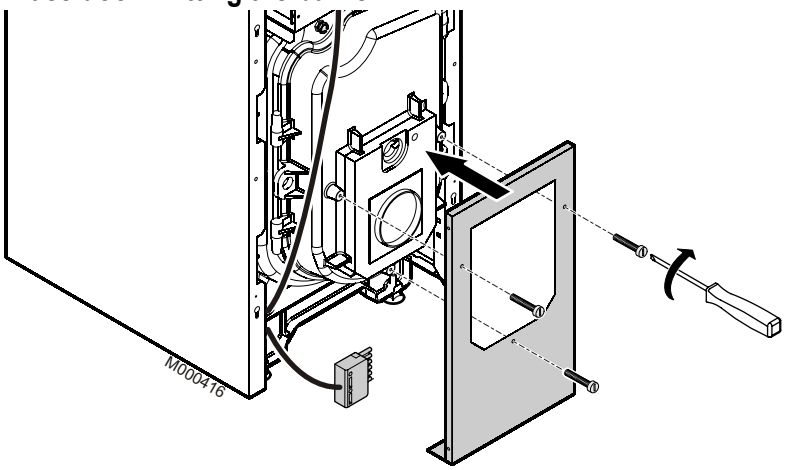
- **Detail B: Control panels E/TA, E1/TA, ER/TA, E1R/TA and D/TA** Thermometer
- Boiler thermostat
- Boiler sensor
- Safety thermostat
- No contact spring

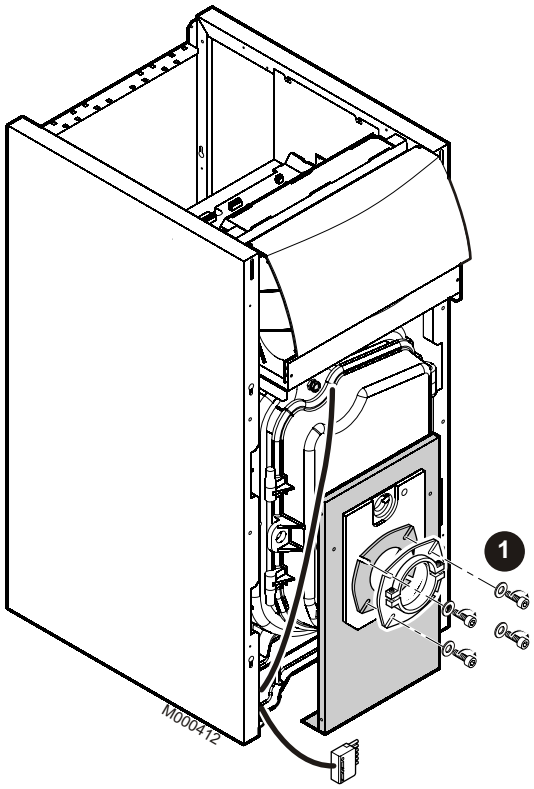
❿ Put the burner cable in place in the cable clip: Adjust the length of the cable so that it is necessary to disconnect the burner cable to open the door of the combustion chamber.

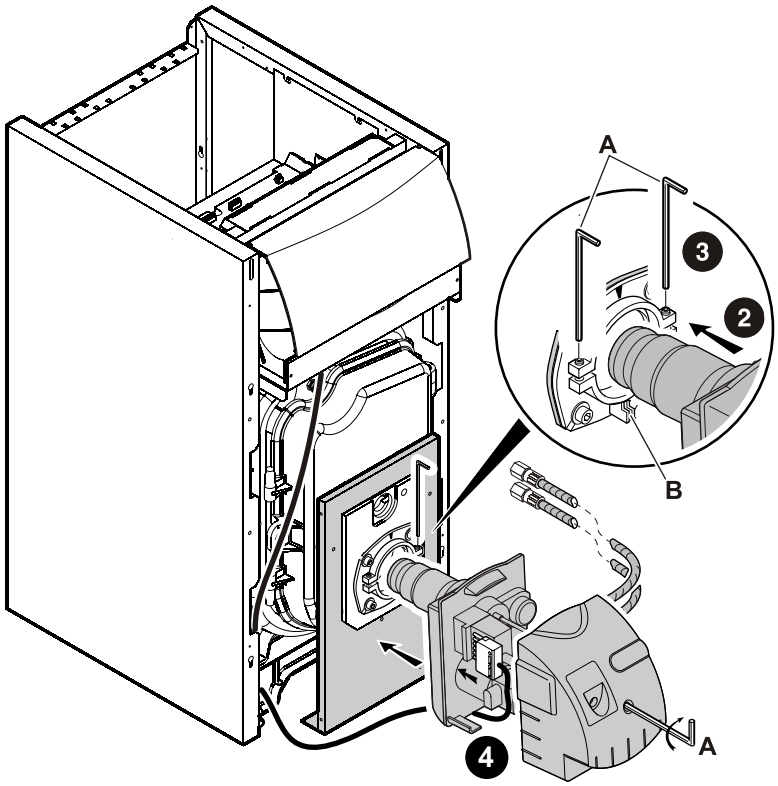
Only for control panel B2: Put the 2 burner cables in place in the cable clips.

Slide the surplus cable between the insulation and the side panel.

Fitting the front panel of the furnace door - Fitting the burner







A: 4 allen key (delivered with the burner).

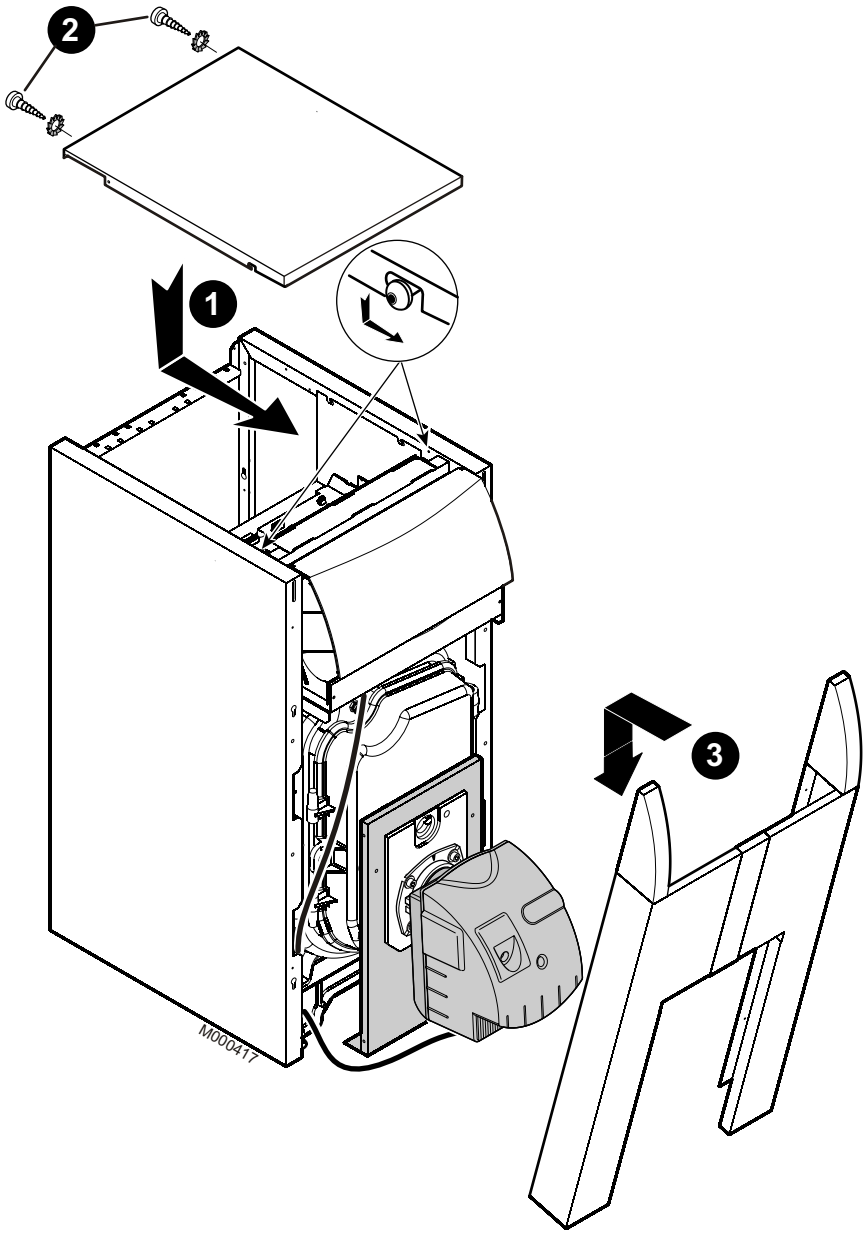
1. Affix the flange and its gasket.
2. Push the burner fully into place. Position it in the lower notch **B**.
3. Secure the burner.
4. Remove the cover. Connect the connector to the burner socket.

i **Only for control panel B2:** Connect the second connector to the burner connector**.**

Replace the burner cover.

23

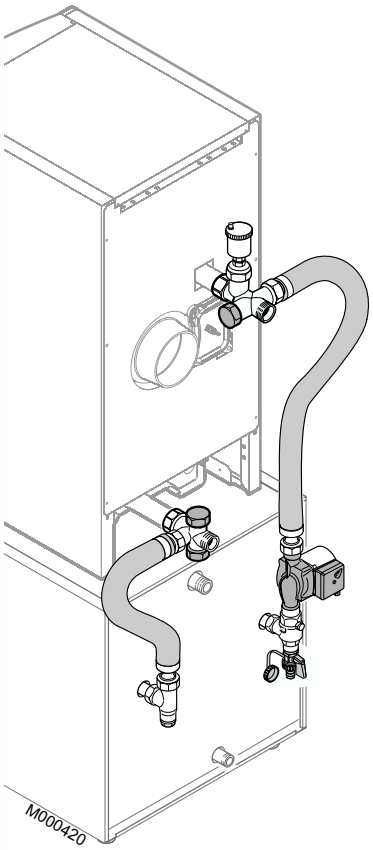
Fitting the front panel - Fitting the top panel



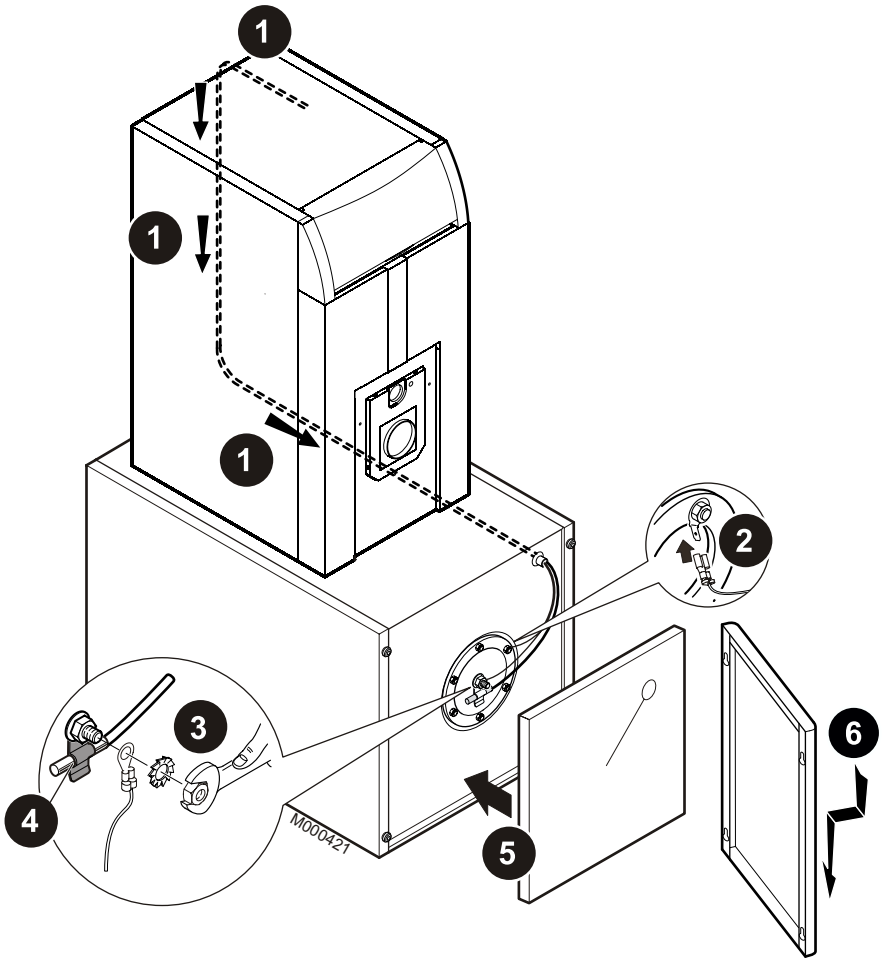
24 (GT 2200 only)

Fitting the boiler/DHW tank connection pipes

See: Fitting instructions for the connecting kit (Package BH93)



25 (GT 2200 only)



Fitting the DHW sensor and electrical connection of the TAS

i The power supply cable is fitted with a foolproof system (clip and round pin) to prevent incorrect connection which would damage the TAS.

1 Pass the sensor cable and the TAS anode cable into the sheath on the DHW tank.

2 Connect the clip to the pin on the trap.

3 Fit the round pin directly onto the threaded section of the TAS anode. Hold the pin in place using the serrated washer and the nut.

4 Introduce the DHW sensor into the holding lug on the tank inspection trap. Make the electrical connection in compliance with the control panel instructions.

5 Fit the thermal insulation.

6 Hook on the front panel of the hot water tank.

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