

Operating Manual

Please read carefully prior
to installation and servicing.

SAVE THESE INSTRUCTIONS



PELLET BOILER PES 12–56

CMP 06.2B – US_VA610

ENGLISH — USA

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Author:

MAINE ENERGY SYSTEMS LLC

8 Airport Road – P.O. Box 547 Bethel
Maine 04217

e-mail: info@maineenergysystems.com
web: www.maineenergysystems.com

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Subject to modifications

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1 Dear Customer

We are specialist in pellet heating, licensed by ÖkoFEN

Expertise, innovation and quality from a single source. It is based on our tradition that we take on future challenges. We are delighted that also you have decided to purchase our product.

- This instruction manual is intended to help you operate the product safely, properly and economically.
- Please read this instruction manual right through and take note of the safety warnings.
- Keep all documentation supplied with this unit in a safe place for future reference. Please pass on the documentation to the new user if you decide to part with the unit at a later date.
- During installation and/or first start up the service engineer must carry out the following work.
- The installation has to be performed by a qualified installer.
- Please contact your authorised dealer if you have any questions.



We place great importance on the development of new products. Our R&D department continues to question accepted solutions and works continually on new improvements. That is how we maintain our technological lead. We have already received several awards for our products in Austria and abroad.

Our products fulfil European and USA requirements regarding quality, efficiency and emissions.



2 Use only for the purpose intended

The pellet boiler is designed to heat water for central or other indirect heating systems and hot water supply for buildings. It is not permissible to use the pellet boiler for any other purpose. Reasonable foreseeable inadvertent uses for the pellet boiler are not known.

The boiler fulfils the requirements of UL 391, "Standard for Safety for Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces," 2006, and CAN/CSA-B366.1-M91, "Solid-Fuel-Fired Central Heating Appliances"

OMNI Certificate:


Models: Pellematic PES 12-20, 25-32, 36-56
Pellet Fuel-Fired Boiler

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Products listed to:


- UL 391, "Standard for Safety for Solid-Fuel and Combination-Fuel Central and Supplementary Furnaces," 2006.
- CAN/CSA-B366.1-M91, "Solid-Fuel-Fired Central Heating Appliances."

The models listed above are eligible to bear the mark shown.

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OMNI-Test Laboratories, Inc.

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Paul E. Tiegs, President

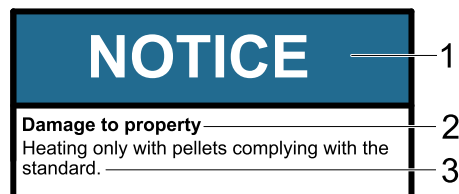

Gerald Coles, Accreditation Manager

3 Types of safety warning sign

The warning signs use the following symbols and text.

Types of safety warning sign

1. Risk of injury
2. Consequences of risk
3. Avoiding risk



1. Risk of injury:

Danger - indicates a situation that could lead to death or life-threatening injury.



Warning - indicates a situation that could lead to life-threatening or serious injury.



Caution - indicates a situation that could lead to injury.



Note - indicates a situation that could lead to property damage.



2. Consequences of risk

Effects and consequences resulting from incorrect operation.

3. Avoiding risk

Observing safety instructions ensures that the heating system is operated safely.

4 Warnings and safety instructions

Observing safety instructions ensures that the heating system is operated safely.

4.1 Basic safety instructions

- Never get yourself into danger; give your own safety the utmost priority.
- Keep children away from the boiler room and storage room.
- Observe all safety warnings on the boiler and in this user manual.
- Observe all instructions relating to maintenance, servicing and cleaning.
- The pellet heating system may only be installed and started up for the first time by an authorised installer. Professional installation and start up is the prerequisite for safe and economical operation.
- Never make any changes to the heating system or flue gas system.
- Never close or remove safety valves.

4.2 Warning signs



DANGER

Risk of poisoning

Make sure that the pellet boiler is supplied with sufficient combustion air.

The openings in the combustion air inlet must never be partially or completely closed.

Ventilation systems, central vacuum cleaning systems, extractor fans, air conditioning systems, flue gas blowers, dryers or similar equipment must never be allowed to draw air from the boiler room and cause a drop in pressure.

The boiler must be connected tight to the chimney using a flue gas tube.

Clean the chimney and the flue gas tube at regular intervals.

The boiler room and pellet storage room must be sufficiently supplied with air and ventilated.

Before entering the storage room it must be ventilated with sufficient air and the heating system switched off.



DANGER

Risk of electric shock

Switch off the system before performing work on the boiler.



DANGER

Risk of explosion

DO NOT BURN GARBAGE, GASOLINE, NAPHTHA, ENGINE OIL, OR OTHER INAPPROPRIATE MATERIALS. DO NOT USE CHEMICALS OR FLUIDS TO START THE FIRE.

Switch off the heating system before filling the storage room.



DANGER

Risk of fire

Do not store any flammable materials in the boiler room.
Do not hang out any washing in the boiler room.
Do not operate with fuel loading or ash removal doors open.



WARNING

Risk of burns

Do not touch the flue spigot or the flue gas tube.
Do not reach into the ash chamber.
Use gloves to empty the ash box.
Do not clean the boiler before it cooled down.

CAUTION

HOT SURFACES

Keep children away.
Do not touch during operation.
Maximum draft marked on nameplate.

CAUTION

Risk of cut injuries due to sharp edges.

Use gloves for performing all work on the boiler.

NOTICE

Damage to property

Heat the Auto pellet heating system using pellets that comply with PFI premium specifications only.

NOTICE

Damage to property

Do not use the heating system if it, or any of its components, come into contact with water.
If water damage occurs, check the heating system by an authorized service technician and replace damaged parts.

4.3 What to do in an emergency



DANGER

Exhaust gas cause asphyxiation and endanger life

Never get yourself into danger; give own safety utmost priority.

What to do in the event of a fire	What to do if you smell smoke
Exit the building	Switch off the heating system.
Call the fire brigade	Close the doors leading to living areas.
Switch off the heating system.	Ventilate the boiler room.
Use approved fire extinguishers (fire protection class ABC).	

5 Prerequisites for installing a pellet boiler

You must fulfil the following conditions before operating a fully automatic pellet boiler.

5.1 Guidelines and standards for installing a pellet boiler


Overview of standards and guidelines applying to the installation of a pellet boiler.

Check whether you need to obtain planning permission or approval from the authorities for installing a new heating system or changing your existing system. Legislation in your country must be observed.

5.2 Boiler room

The pellet boiler is installed in the boiler room.

1. Safety instructions for the boiler room

	<h2 style="margin: 0;">DANGER</h2>
<p>Risk of fire Do not store flammable materials or liquids in the vicinity of the pellet boiler. Do not permit unauthorised persons to enter the boiler room - Keep children away. Do not operate with fuel loading or ash removal doors open.</p>	

2. Air supply and ventilation of boiler room

The boiler room must be fitted with air supply and ventilation openings (at least 31 inch²/200cm²). In any case you must comply with the state and local regulations

3. Combustion air supply

The pellet boiler needs a supply of combustion air. The supply of combustion air can:

- a. take place using one or more air supply and ventilation openings in total min. 31 inch²/200 cm²
- b. **or** through a special air supply line directly from outside, where the diameter of the air supply line must be at least 4 inch/ 100mm in for type PE(S) 12 – PE(S) 32. Ambient air independent operation of PES 36-56 types is also available on request.

Never operate the pellet boiler if the air intake openings are partially or completely closed.

Contaminated combustion air can cause damage to the pellet boiler. Never store or use cleaning detergents containing chlorine, nitrobenzene or halogen in the room where the heating system is installed, if combustion air is drawn directly from the room. It is recommended that no washing or drying of laundry is done in the boiler room or where the boiler may draw air from.

Do not hang out washing in the boiler room.

Prevent dust from collecting at the combustion air intake to the pellet boiler.

4. Damage due to frost and humid air

The boiler room must be frost-proof to ensure trouble-free operation of the heating system. The temperature of the boiler room must not fall below 37°F and must not exceed 90°F. The air humidity in the boiler room must not exceed 70%.

5. Danger for animals

Make sure that household pets and other small animals cannot enter the boiler room. Fit mesh over any openings.

6. Flooding

If there is a risk of flooding, switch off the pellet boiler in good time and disconnect from the power supply before water enters the boiler room. You must have all components that come into contact with water replaced, before you start up the pellet boiler again.

5.3 Flue gas system

The flue gas system consists of a chimney and a flue gas tube. The flue gas tube connects the pellet heating system to the chimney. The chimney leads the flue gas from the pellet heating system out into the open.

1. Design of the chimney

The dimensions and design of the chimney is very important. The chimney must be able to ensure sufficient draft to safely draw away the flue gas regardless of the status of the boiler. Low flue gas temperatures can cause sooting and moisture damage on chimneys that are not insulated. For this reason **moisture-resistant chimneys** (stainless steel or ceramic) should be used. An existing chimney that is not damp-resistant needs to be renovated before use. Follow guidelines below:

Boiler size		PE(S) 12 – 20	PE(S) 25 – 32	PE(S) 36 – 56
Flue gas tube diameter (at boiler)	inch/mm	5/130	6/150	7/180
Flue gas temp. / rated power	°F	320	320	360
Flue gas temp. / partial load	°F	212	212	230
Min. draft – full load/part load	in/wc	0.03/0.01		

Chimney size	Min. Height
6in/150mm x 6in/150mm	17ft/5,2m
7in/180mm x 7in/180mm	16ft/4,8m
8in/200mm x 8in/200mm	16ft/4,8m
6in/150mm round	19ft/5,8m
7in/180mm round	17ft/5,2m

Recommended and UL-103HT approved chimney materials are:

- Selkirk sure temp
- Supervent (JSC)
- Security chimneys (secure temp ASHT)

Use heavy gauge (26ga or better) black smoke pipe to connect to existing chimney

CAUTION

Unregulated combustion

Please observe that combustion air openings and flue pipes are not reduced in size or closed. Make end user aware of these guidelines and their potential danger.

Clean the chimney and the flue gas tube at regular intervals.
Check if the draft inducer is clean and in a good condition.

2. Flue gas temperature

The flue gas temperatures are the same for all boiler types:

The dewpoint of flue gas with wood pellets (max. 10% water content) is approx. 120°F.

It is possible to increase the flue gas temperature to prevent condensation inside the chimney and avoid damage due to damp. Only authorised specialist personnel may increase the flue gas temperature.

Note

The increase in flue gas temperature results in reduced efficiency and thus increases fuel consumption.

3. Negative pressure of the chimney

The boiler must be connected to a chimney or a vertical venting system that is capable of handling and producing a negative breeching pressure of -0.020 "WC (-5Pa). Use a draft gauge to verify the indicated draft value, adjust barometric damper as required. Drill a small hole in the connection pipe at about 2in/ 50mm from the boiler flue outlet and use this hole as your measuring point.

Chimney draft

The suction effect of the chimney draft must extend as far as the pellet boiler. The maximum flow rate that can be drawn through the chimney limits the maximum performance of the pellet boiler. The boiler performance must be reduced if the chimney does not possess the necessary cross-section. This may only be performed by authorised personnel.



NOTICE

Too strong a chimney draft increases heat loss while idling and reduces the efficiency of the heating system.

We recommend installing a chimney draft regulator (barometric damper). Chimney draft regulators are installed directly into the flue gas tube or chimney.

Your state and local regulations must be observed.

4. Power venter

AutoPellet boilers are approved by the manufacturer for installation with the Field Controls SWGAF power venter which is approved for wood pellet burning appliances. Boiler installed with SWGAF power venters must follow all manufacturer's installations and must comply with all applicable codes from agencies having authority over the installation.



5. Cleaning

Clean the flue gas tube and chimney regularly.



DANGER

Risk of chimney fire

Creosote-formation and need for removal: Low gas flue temperature can cause creosote. The creosote condense in the relatively cool chimney. As a result, creosote residue accumulates on the flue lining. When ignited, this creosote makes a hot fire. The chimney and the chimney connector should be inspected at least twice monthly during the heating season to determine if a creosote buildup has occurred. If creosote has accumulated it should be removed to reduce the risk of a chimney fire.

NOTICE

Oxidation of chimney

Do not use metal brushes to clean chimneys made of stainless steel.

Your state and local regulations must be observed.

5.4 Safety systems

The following safety measures are the prerequisite for safe operation of your system.

Emergency stop switch

Every heating system must be able to be switched off with an Emergency Stop switch. The Emergency Stop switch must be outside of the boiler room.



Safety valve

The hydraulic system must be equipped with a safety valve. This valve opens before the pressure inside the heating system increases to max. 43 P.S.I.. The safety valve must be installed at the highest point of the boiler, must not be locked and must be within 3.28 ft / 39.37 inch/ 1m of the boiler. A 30 lb/sq in relief value is supplied with each boiler.



Safety temperature sensor

The pellet boiler is equipped with a safety temperature sensor. This is located on the pellet boiler. If the boiler temperature exceeds 203°F then the heating system switches off.



Low water cut off

The hydraulic system must be equipped with a low water cut off. Falls the water level below a certain level, the low water cut off switches off the heating system.



NOTICE

Starting up

Starting up for the first time has to be performed only by an authorized service technician.

6 Fuel

Wood pellets are natural wood (dried sawdust or waste from machining) that has been formed into pellets under high pressure. They have a very low moisture content and very high calorific value.

6.1 Specification for high quality pellets as PFI (Pellet Fuel Institut)

Calorific value	min. 7200 BTU/lbs
Bulk density	min. 40 Lb/cft
Water content	max. 10%
Ash content	max. 1.0%
Ash melting point	at least 2192°F
Length	max. 1.5 inch / 40 mm
Diameter	1/4" – 5/16" / 6 – 8mm
Fine material	max. 0.5 %
Contents	100% untreated natural wood

NOTICE

The pellet boiler is suitable only for pellets of natural wood that comply with PFI premium specifications. Using non-pelletised fuels or pellets that are not manufactured from natural wood will lead to the warranty becoming void and will cause damage to the pellet boiler and the chimney.

6.2 Storing the pellets

1. Pellets are to be stored in a place where they are kept dry all year.
2. Refer to our planning hints for pellet storage rooms and warning signs.
3. Legislation in your country must be observed regarding building specifications for storage rooms.

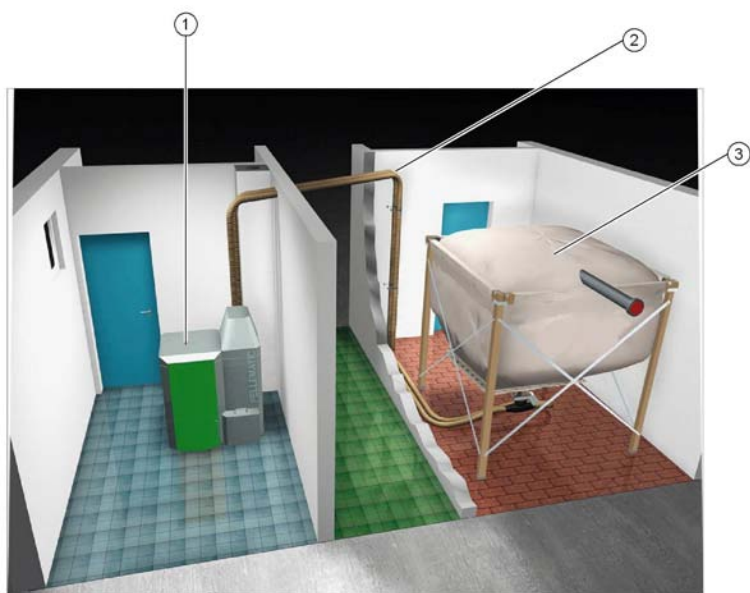
7 Product description

The description of the product is intended to provide an overview of the components that make up a pellet heating system, the parts of the pellet boiler and advice on where you can find more information.

The pellet heating system consists of 3 components

1	Pellet boiler
2	Conveyor system
3	Storage system – textile tank

Pellet boiler with textile tank



The concept features different sizes of design and type for each component. These are compatible and designed to match.

7.1 The pellet boiler

The pellet boiler is equipped with an automatic cleaning system, an ash box with ash compression system and an integrated return water temperature control. The installed programmable logic controller system enables fully automatic operation and highest efficiency. We offer an optional automatic de-ashing system for the highest level of cleanliness and comfort.

Pellematic types and power ratings

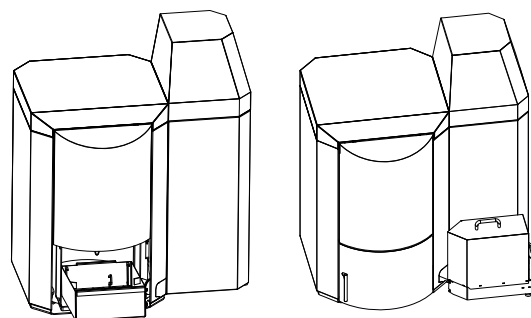
We offer the Pellet boiler with the following power ratings:

Suction-feed systems: 41,000; 51,000; 68,300; 85,300; 109,500; 123,000; 164,000 and 191,000 BTU/hr

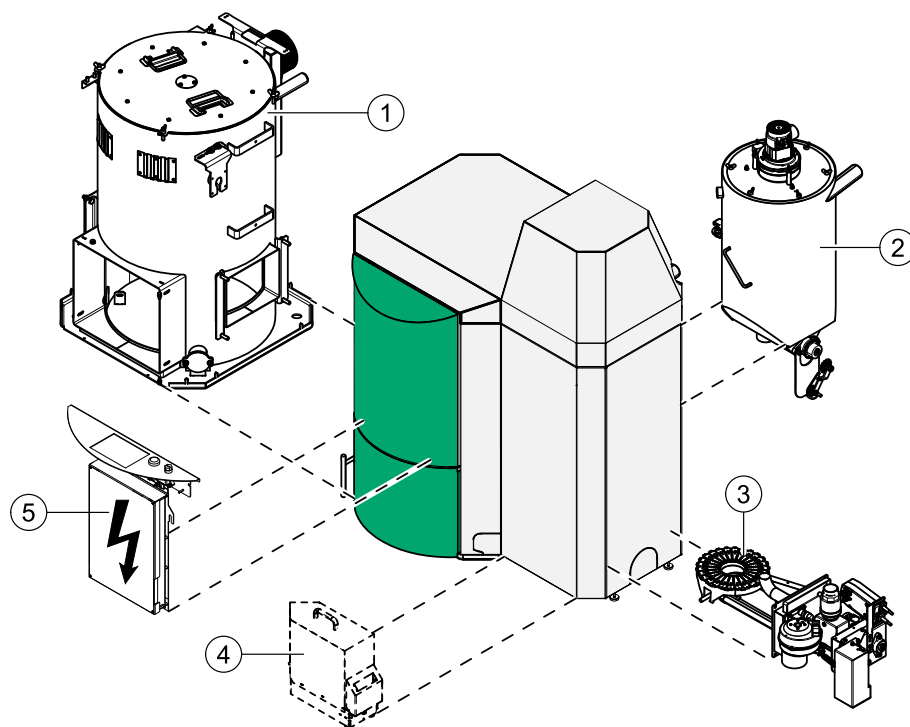
All power rating types are available with an external ash box with automatic de-ashing system.

Note

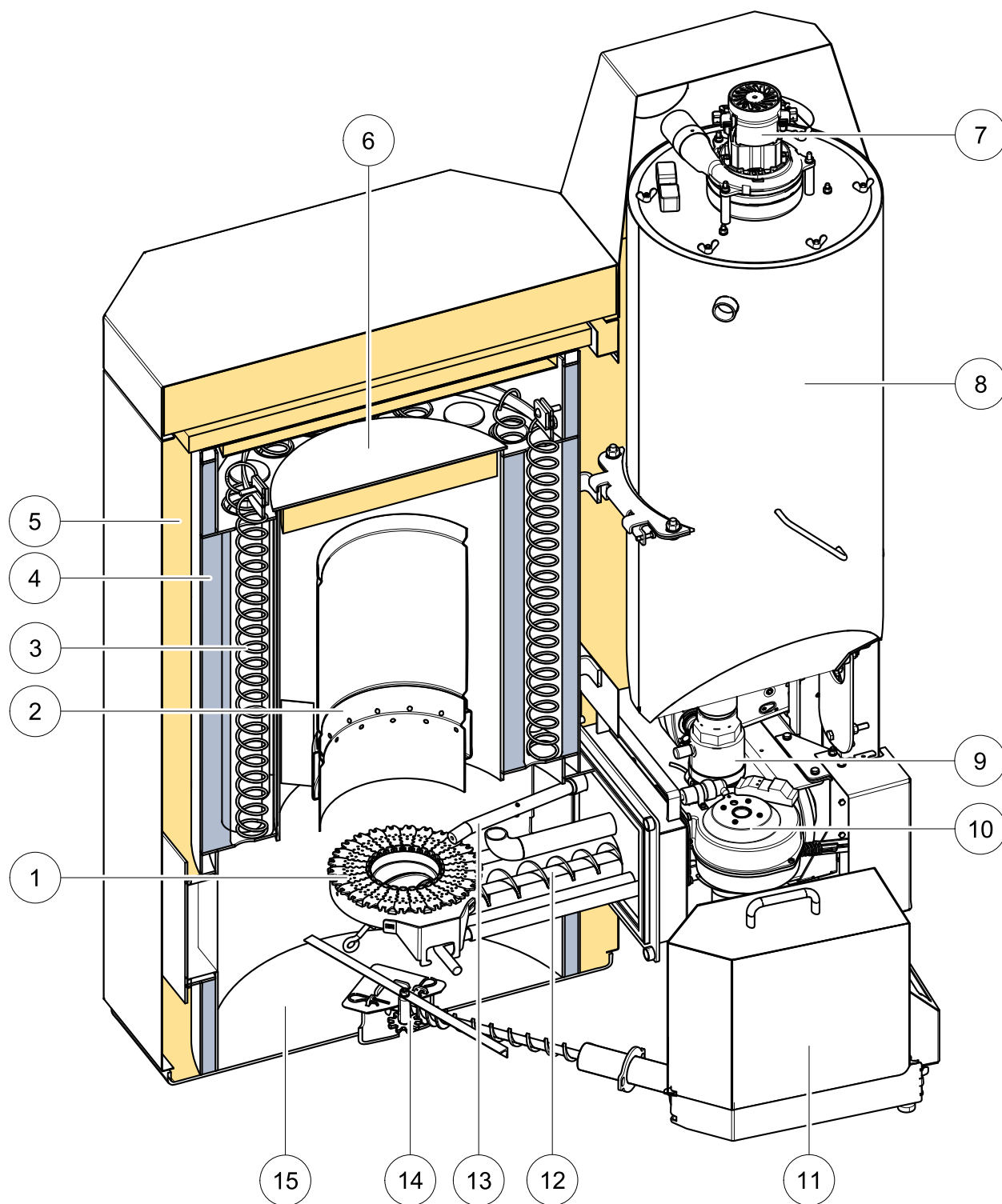
Refer to the data plate for the power rating of your Pellematic. The data plate is located on the rear side of the Pellematic. Here you will find the type designation, manufacturer's serial number and year of build.



Key components of the Pellematic



1	Boiler (heat exchanger)
2	Hopper
3	Burner
4	External ash box
5	Boiler controller



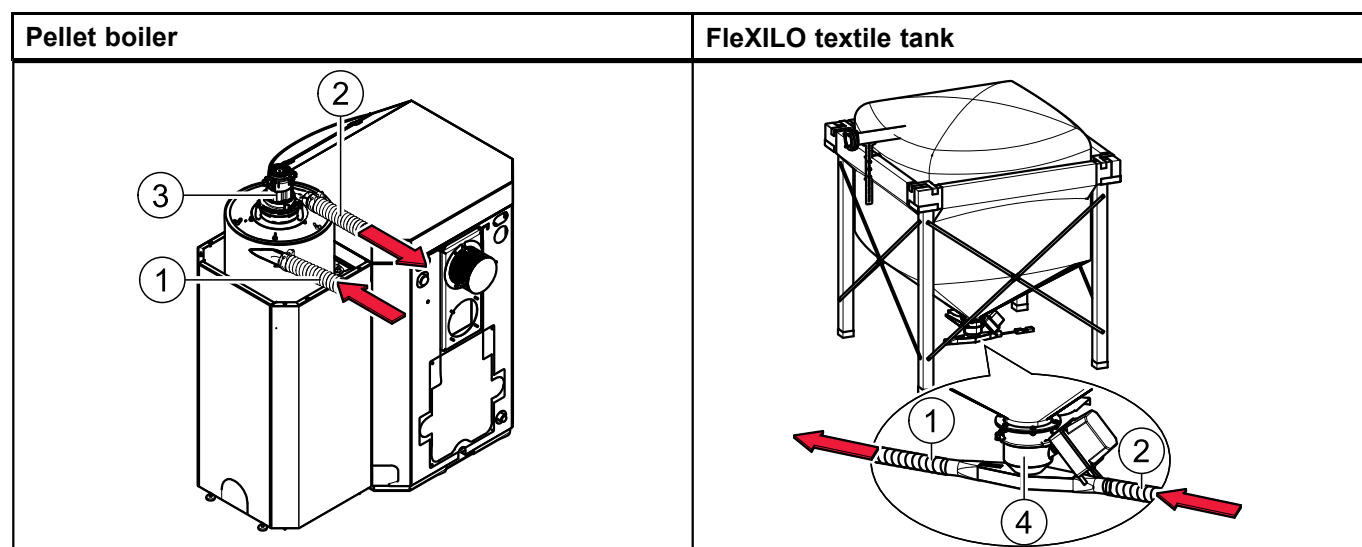
1	Multi segmented brazier	9	Fire protection – ball valve
2	Flame tube	10	Burner fan
3	Heat exchanger	11	External ash box
4	Boiler water	12	Burner auger
5	Boiler insulation	13	Electronic ignition
6	Combustion chamber cover	14	De-ashing system
7	Suction turbine	15	Ash chamber
8	Hopper		

7.2 Pellet suction system

The pellet suction system consists of a pellet line, an air line and a suction turbine. The suction turbine in the hopper conveys pellets in the pellet line from the storage room or textile tank to the hopper.

Key components of pellet suction system

1	Pellet hose	Hose from textile tank to the hopper.
2	Air hose	Hose from the suction turbine to the textile tank.
3	Suction turbine	Located above the hopper underneath the Pellematic burner casing.
4	Suction switch	Located underneath the textile tank.



7.3 Storage systems

For storing pellets we offer a FleXILO textile tank. FleXILO textile tanks can be located inside the boiler room, storage room or protected from wet and sun outside.

NOTICE

Damage to property and loss of warranty

The combination of an pellet boiler with a storage and conveyor system from another manufacturer has to be permitted by our company.

7.3.1 FleXILO textile tank

The whole textile tank system is included in the scope of supply. We offer various sizes and types. The textile tank supplied may vary from the example shown above.

Please refer to the installation instructions supplied for the textile tank. Note also the instructions on setting up and filling.

8 Operating the pellet boiler

The pellet heating system is an automatic heating system. All pellet feed system and combustion system sequences are regulated automatically using an electronic boiler controller and heating controller.

8.1 Operating the heating system

NOTICE

Damage caused due to incorrect operation or incorrect settings.

Only trained operators may use the heating system.
Make sure no unauthorised persons enter the central heating room. Keep children away from the central heating room and storage room.

NOTICE

Property damage

The allowed temperature of the boiler controller is 40 to 122°F.



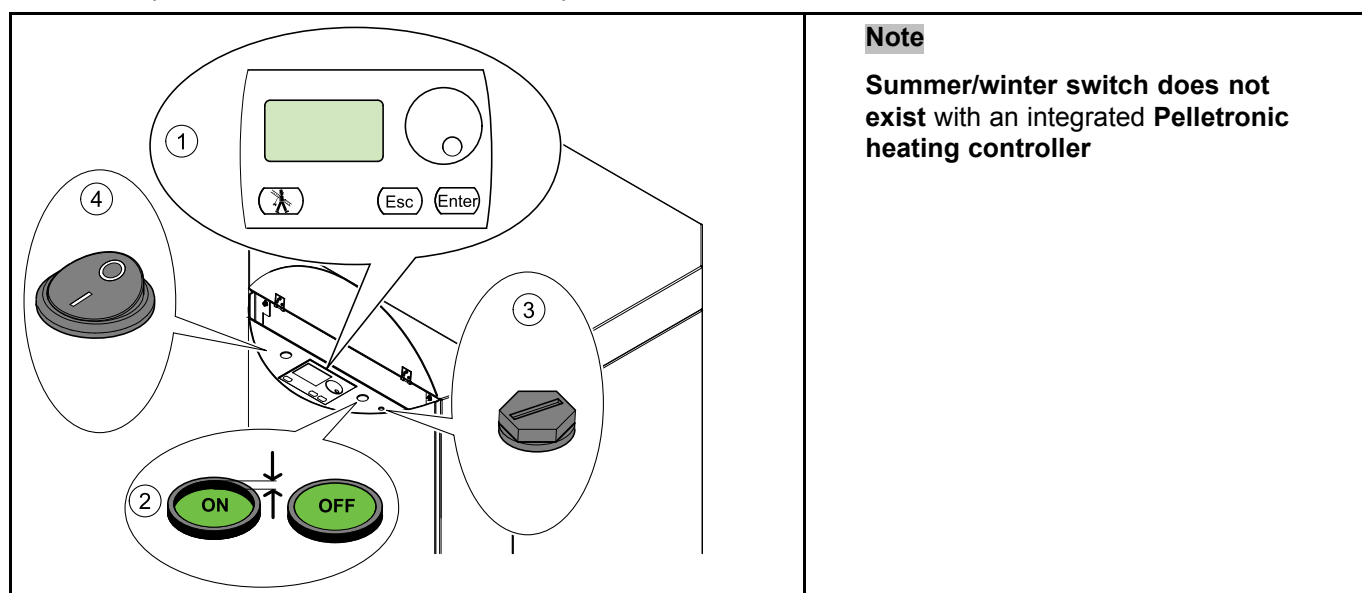
DANGER

Fire risk

Keep the ash removal door closed while the boiler is in operation.

8.2 Description of the control panel

The control panel is located underneath the flap above the door of the boiler.



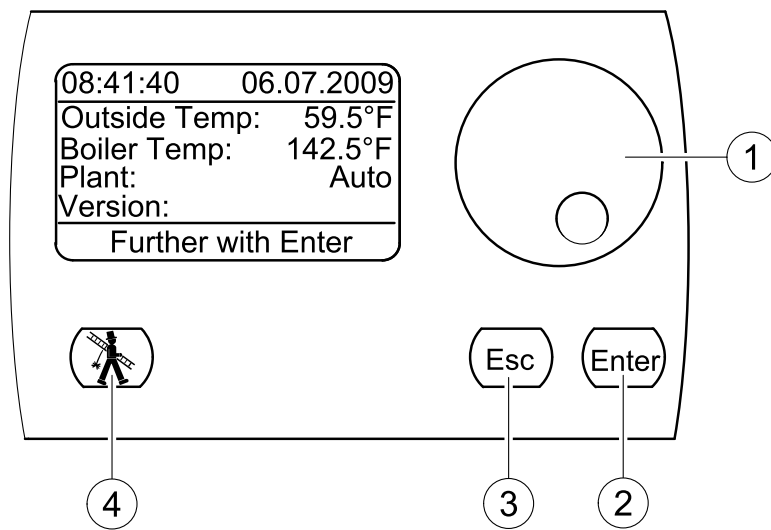
Note

Summer/winter switch does not exist with an integrated Pelletronic heating controller

1	Operating device	Operates the boiler controller and the heating controller.
2	Main switch	Switches off the heating system including the power supply to the control panel.
3	Safety temperature sensor	Switches the heating system off if the boiler temperature reaches 203°F. The heating controller remains active.
4	Summer/winter switch	0 – Summer: boiler operates if the connected domestic hot water thermostat is closed. 1 – Winter: boiler operates on the adjusted boiler temperature.

8.3 Description operating device

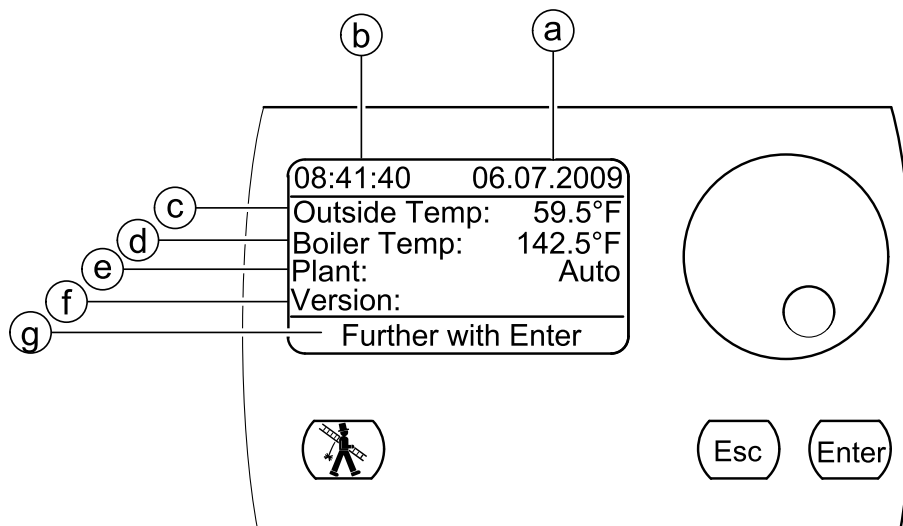
The operating device operates the heating controller and the boiler controller.



1	Thumbwheel	Select and change values
2	Enter	Confirm
3	ESC	Return
4	Chimney sweep	Used to monitor flue gas

Start screen:

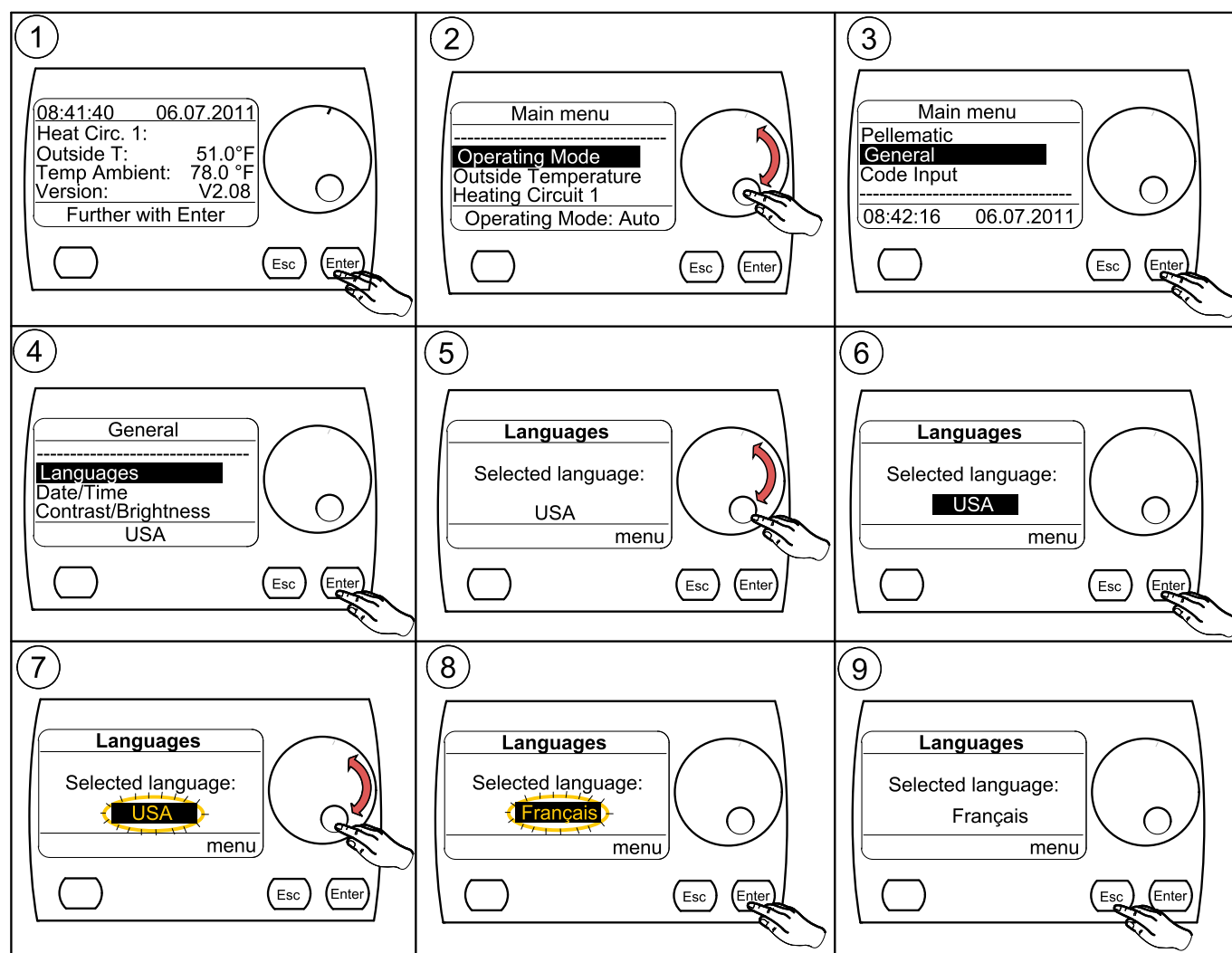
The display shows the following data during operation:



a	Date	b	Time
c	Temperature outside	d	Boiler temperature
e	Heating system mode	f	Software version
g	Command line		

8.4 Setting language, date and time

Setting the language (The factory setting for the language is USA)



Note

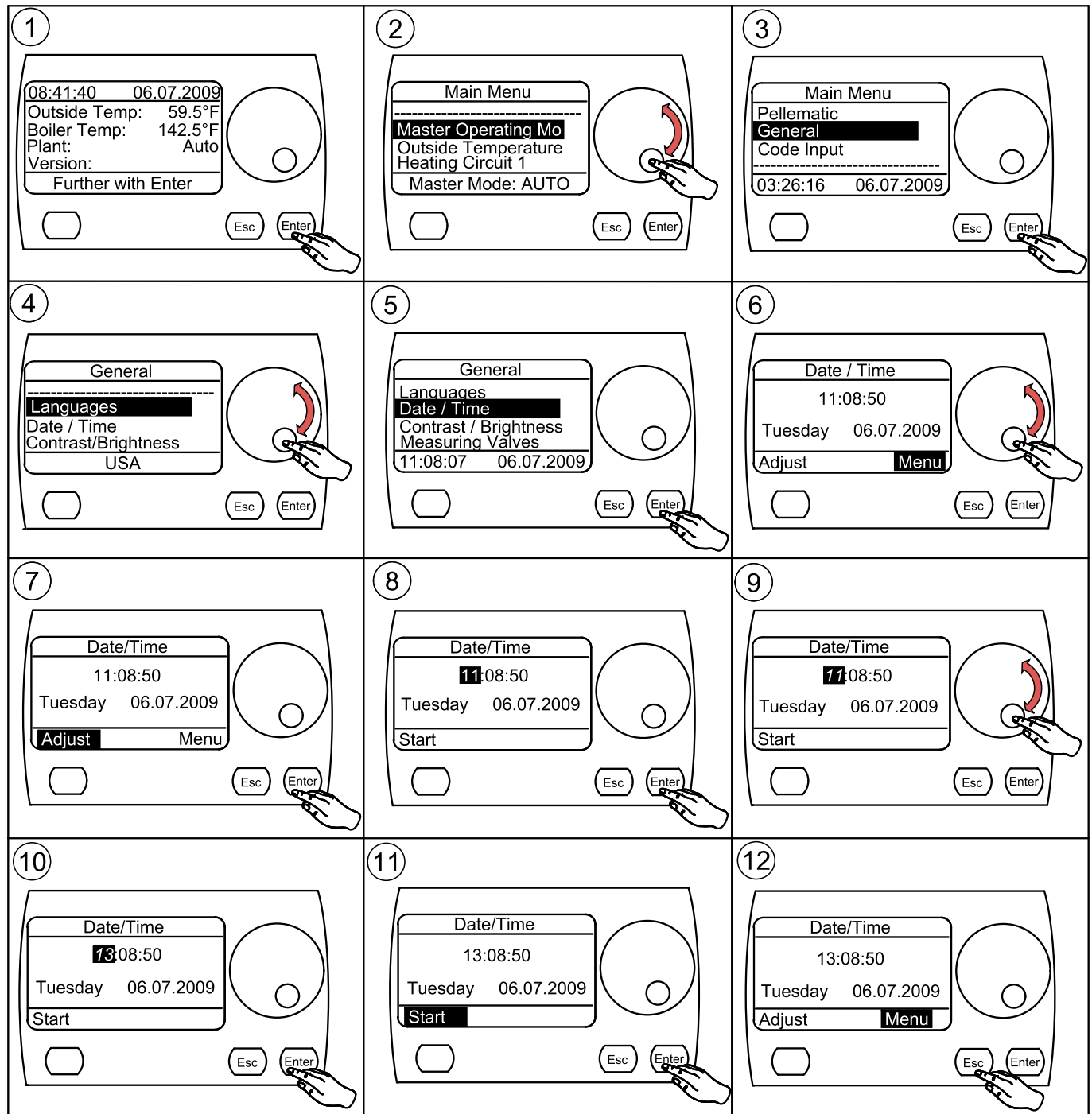
By selecting the language USA & Canada the imperial unit system is used automatically.

For all other languages the metric unit system is valid.

After each change of the language settings:

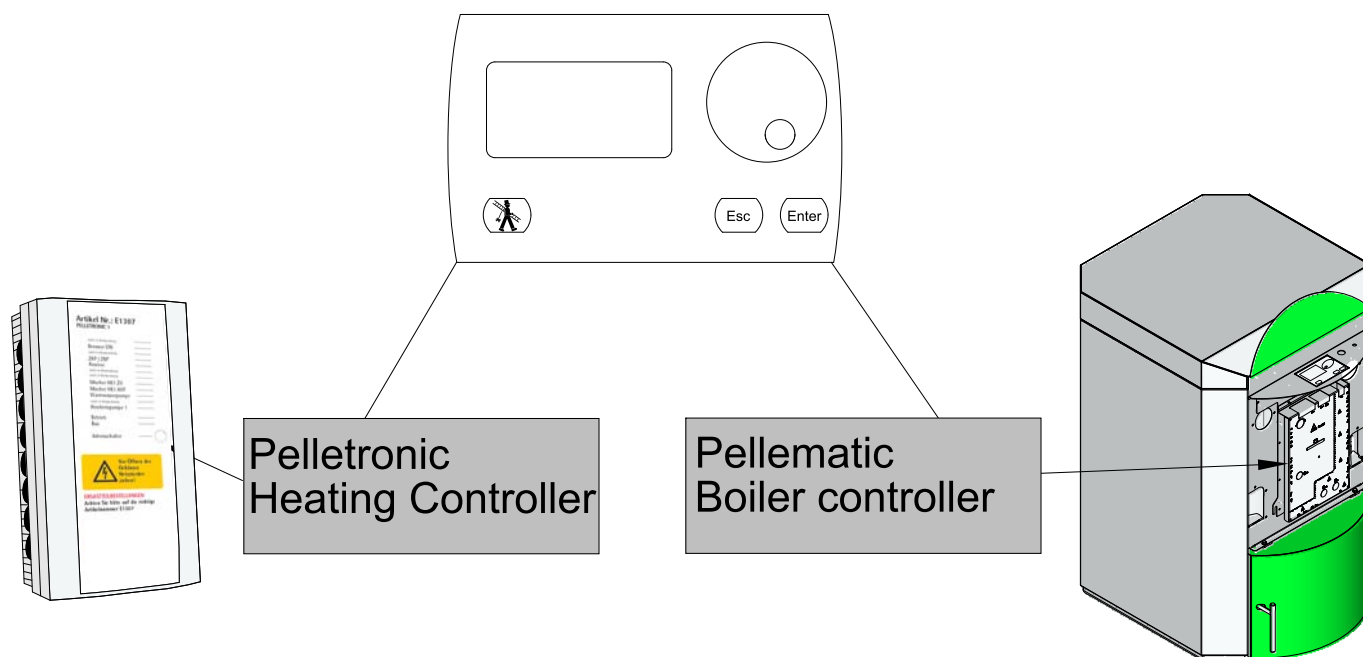
Go to **standard parameter P298**, set up the number from **0 to 1** and push the button **Enter**.

Setting date and time



8.5 Menu configuration

The operating device is used to operate the boiler controller **and** the heating controller



Note

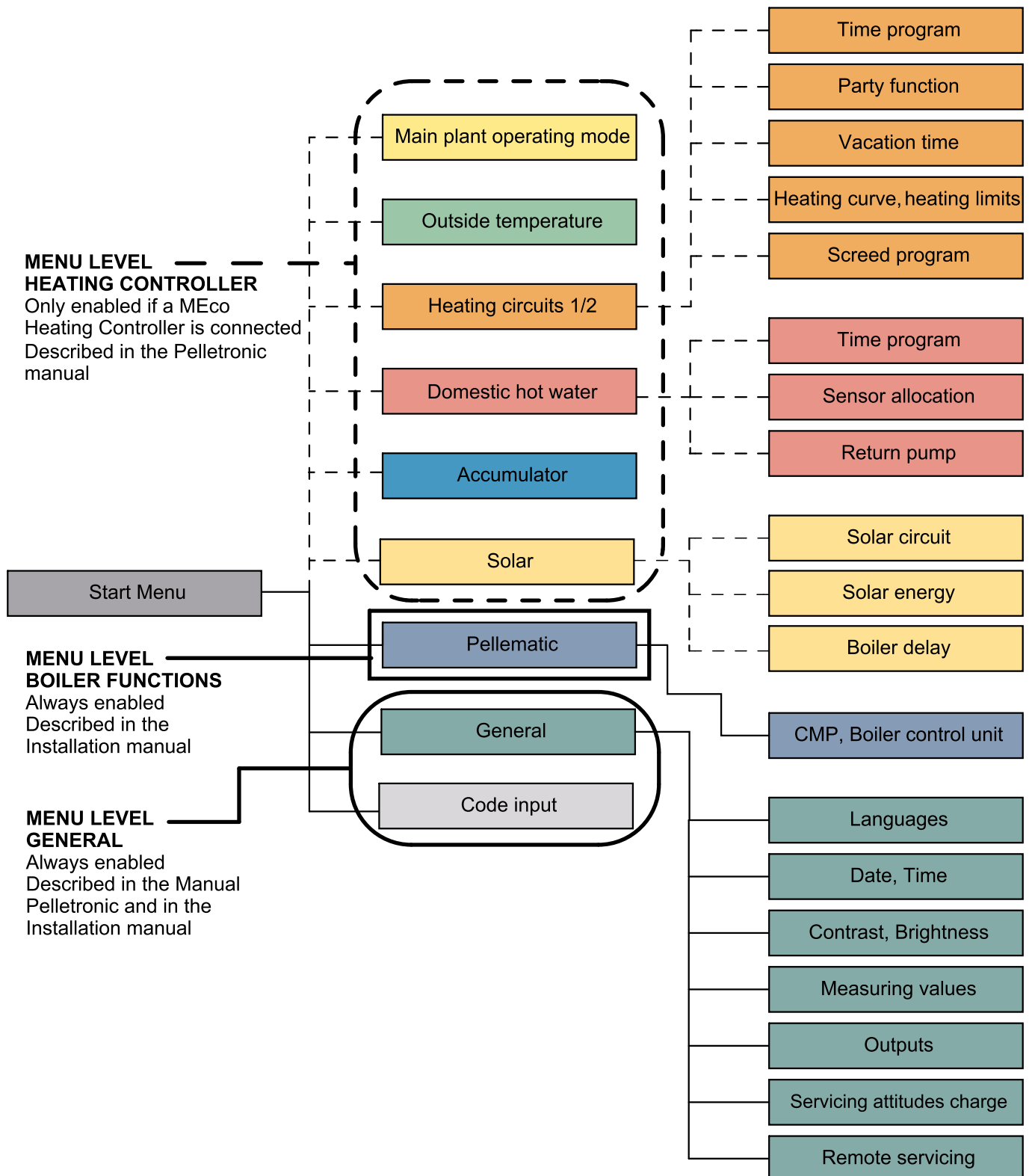
The heating controller menu levels are only enabled if a Pelletronic heating controller is installed. They are displayed until after Learn periphery has been run.

NOTICE

Damage to property and loss of warranty

Do not change any of the factory settings or settings in the protected parameter level

Menu configuration



Note

The heating controller functions are described in the **Pelletronic Plus** instruction manual.

8.6 Emptying the ash pan

CAUTION

Risk of burns

Do not touch the boiler vessel. Use gloves.



DANGER

Risk of fire

Bring out the ash pan immediately.

Do not dispose ash until it has completely cooled down.

Empty ash only into a not flammable steel container.

Do not use ash container to store waste or other material.

Do not empty ash onto flammable floors or materials.

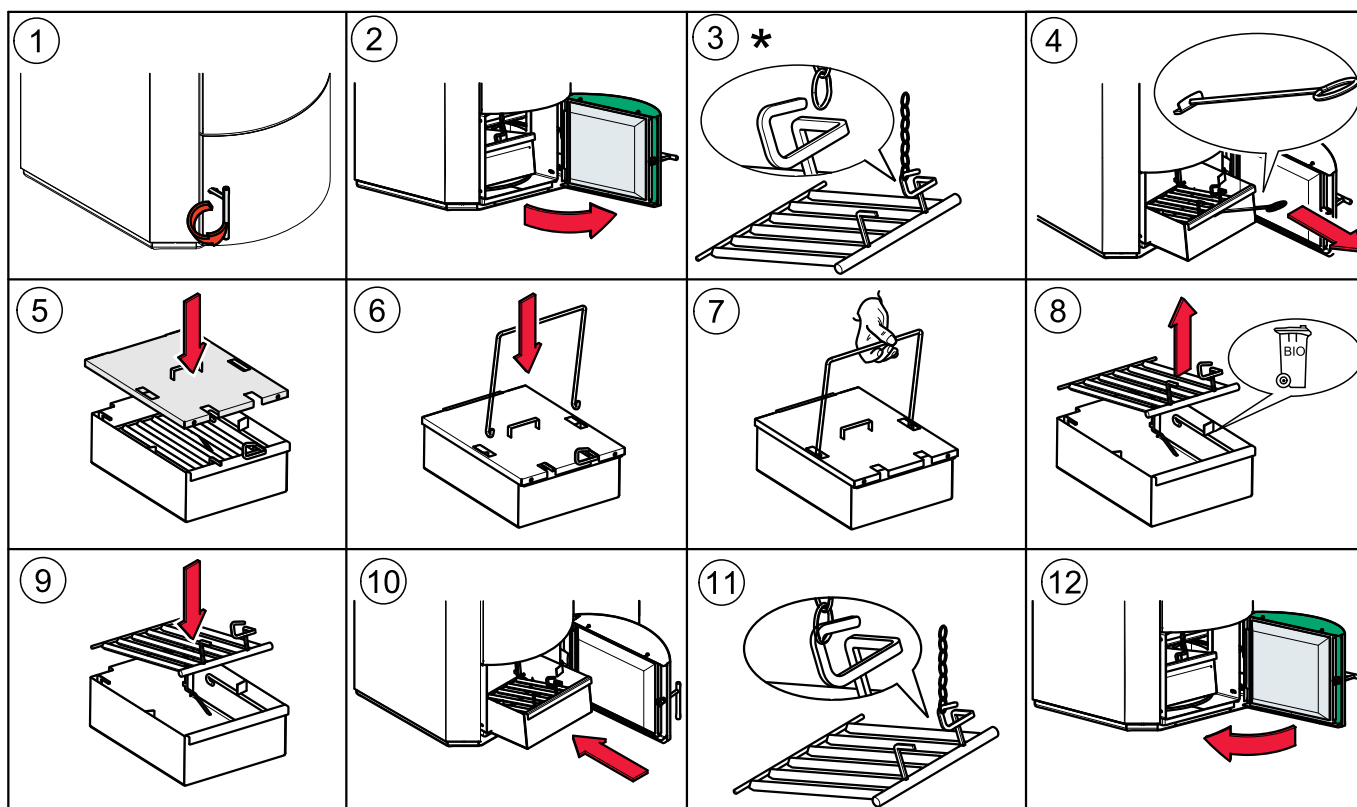
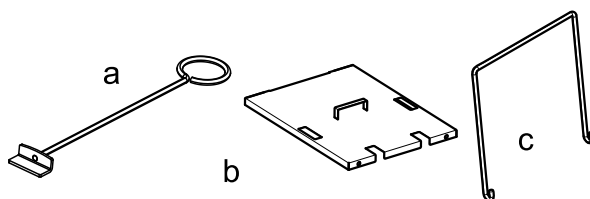
Emptying the ash pan

Note

Check the level of the ash pan and empty it at regularly intervals (at least every 2 weeks). No warning is displayed indicating that ash pan needs to be emptied when it is full (unlike external ash box)

You need:

- a) Poker
- b) Cover
- c) Bracket



* No riddle grate for systems with burner plate cleaning system.

8.7 Emptying the ash box

Only on boilers with external ash box. We also offer an optional automatic external ash box. This compresses the ash and reduces the frequency at which it needs to be emptied. It enables the ash to be disposed off without creating dust. Installation is performed by the service technician when the pellet boiler is installed. An external ash box can also be retrofitted.

NOTICE

Damage to property

Empty the ash box before a longer off-time of the boiler.
Otherwise the auger and the opening mechanism can be blocked through firmly bonded ash.



DANGER

Risk of fire

Bring out the ash box immediatly.
Do not dispose ash until it has completely cooled down.
Empty ash only into a not flammable steel container.
Do not use the ash container to store waste or other material.
Do not empty ash onto flammable floors or materials.

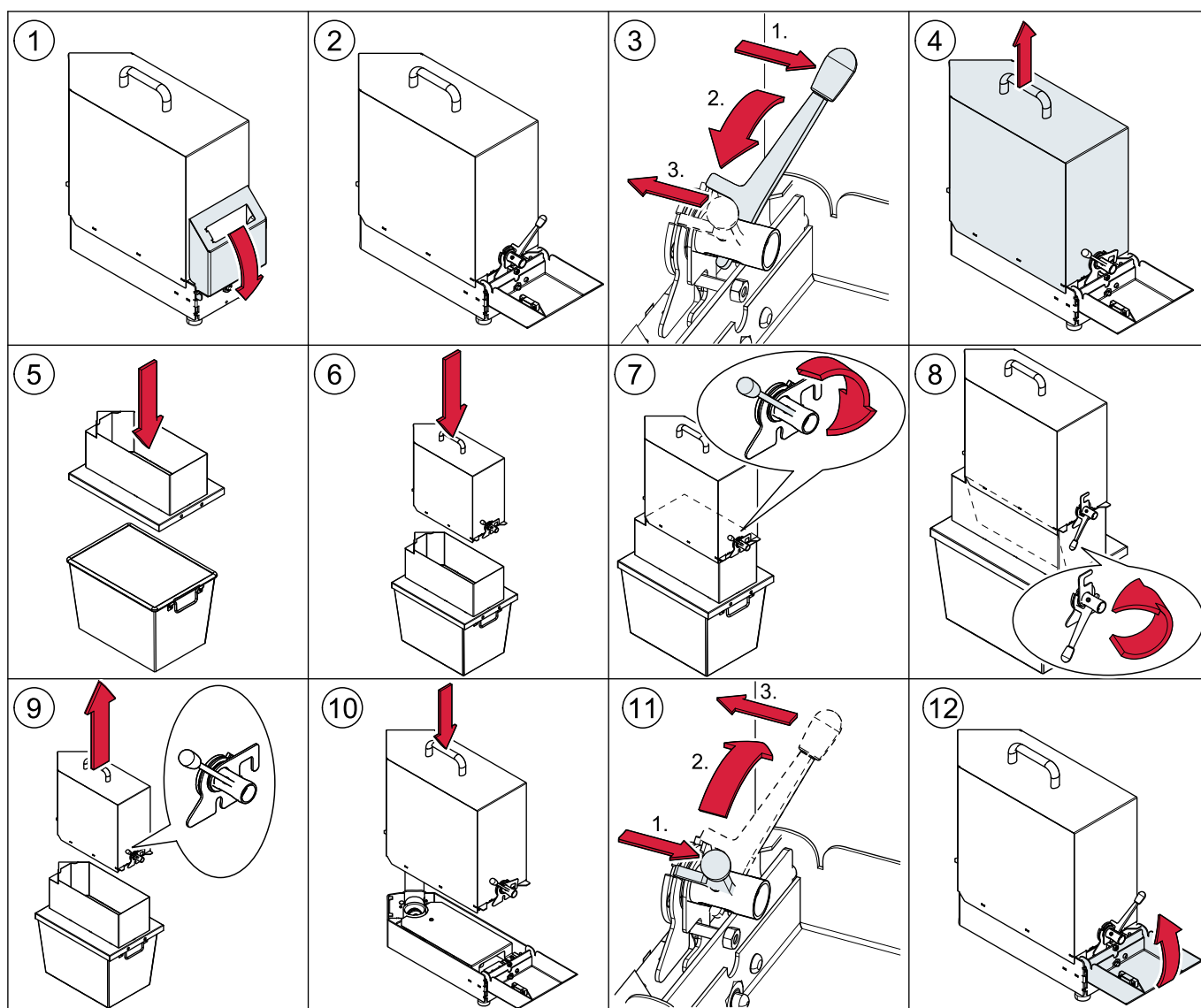
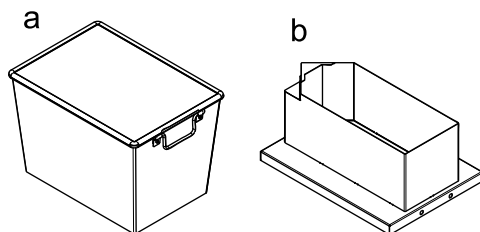
Emptying the ash box

Note

When the ashbox is full then **Ash!!!** appears on the display with the alarm text **Ash box full**. After emptying and restarting the ash box the alarm text disappears automatically.

You need:

- a) Ash container
- b) Base

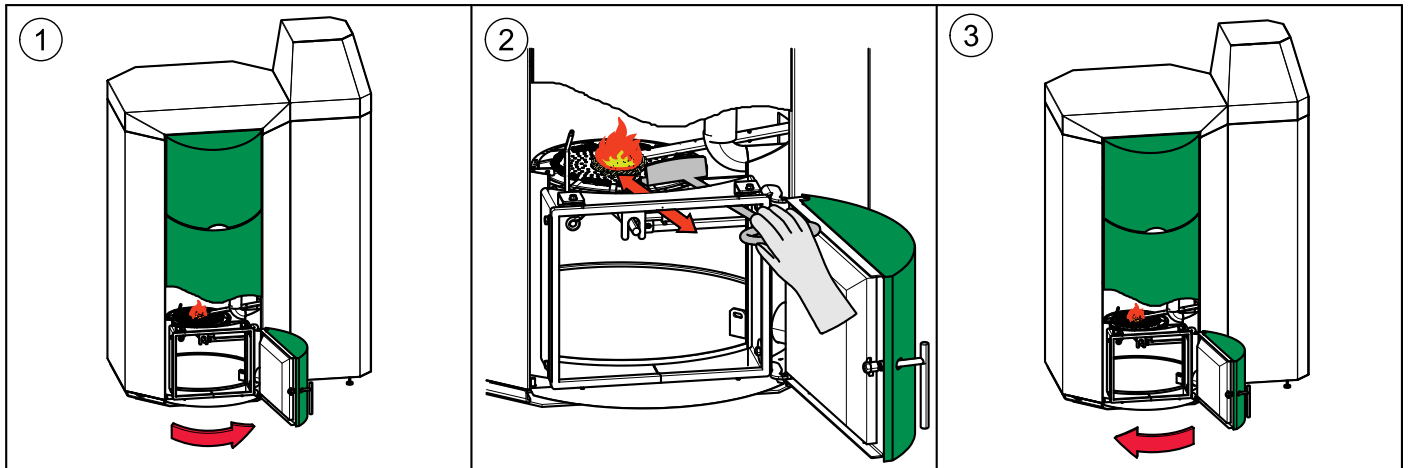


9 Maintenance and servicing

Regular checks of the pellet heating system are a prerequisite for reliable, efficient and environment-friendly operation.

9.1 Maintenance

The maintenance, boiler cleaning and cleaning of flue gas connection it is necessary at least once a year. For PE(S) 36-56 it is necessary in any case at least every 2000 operating hours. Pellets which produces tendentially more slagging (ash melting point $<1300^{\circ}\text{C}$) and pellets with higher bulk density ($> 650\text{kg}$) leads to additional cleaning of the burner plate at regular intervals.



9.2 Cleaning the boiler every year

NOTICE

The pellet boiler is equipped with an automatic cleaning system that cleans the heat exchanger every day. In addition, you need to clean the boiler manually once a year before the start of the heating season.

NOTICE

Cleaning of the pellet boiler has to be performed from a authorized service technician at least every third year.



WARNING

Risk of burns

Do not clean the boiler until it has been allowed to cool down.

Switch off the heating system at least 6 hours before opening the boiler.

Switch off the main switch before starting any maintenance work on the system.

CAUTION

Risk of cut injuries due to sharp edges

Use gloves.

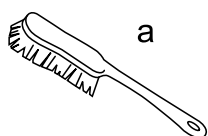
Note

Check first of all, if all seals are in a good condition and the doors closes tightly.

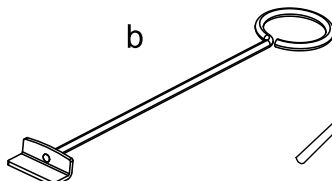
Procedure for cleaning the boiler

You need:

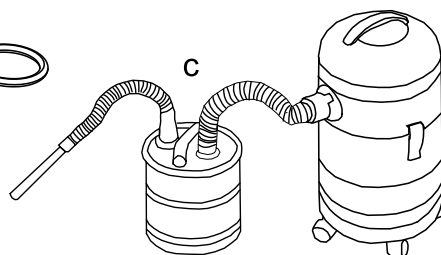
- a) Brush
- b) Poker
- c) Vacuum cleaner with ash filter



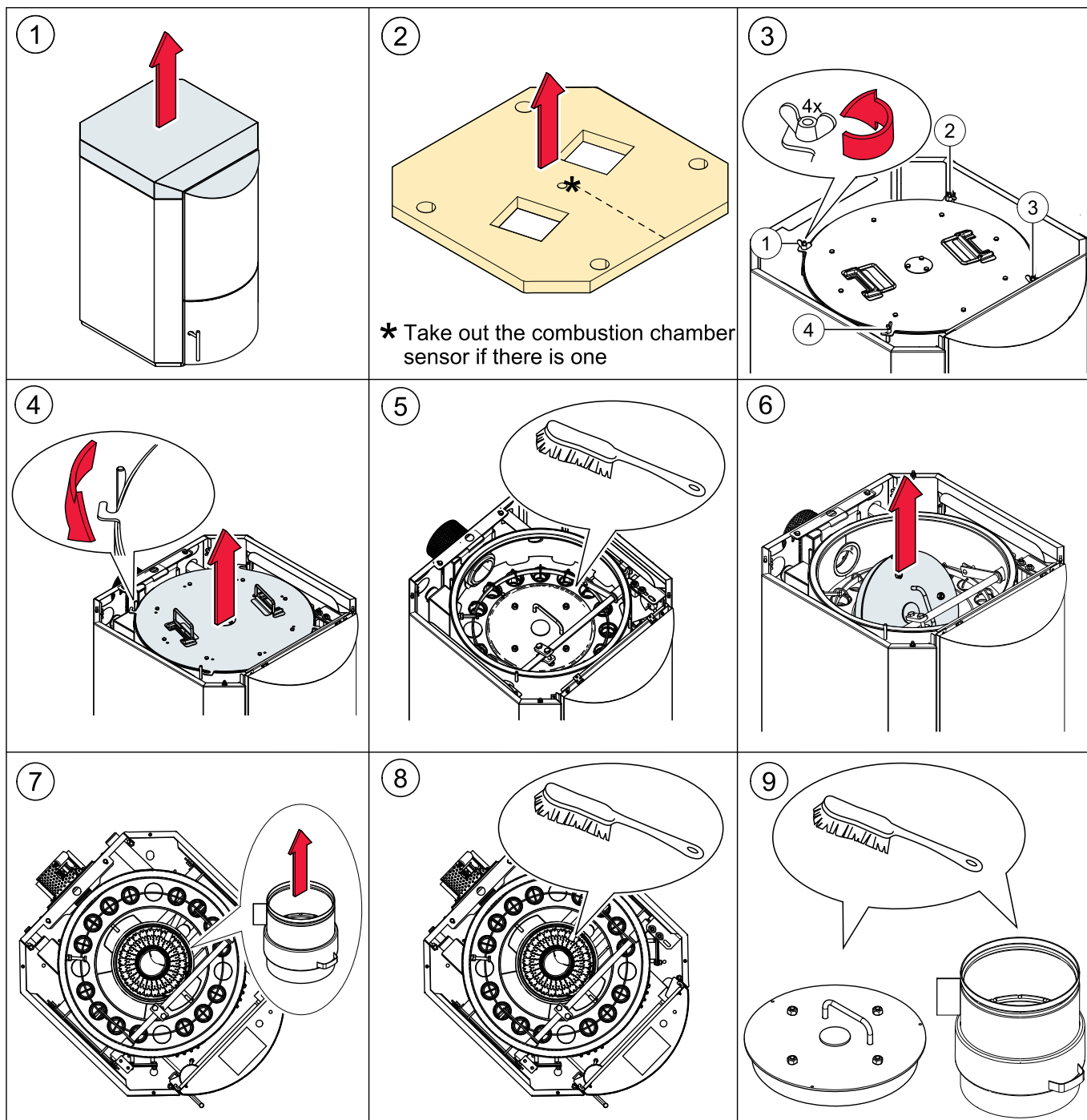
a



b



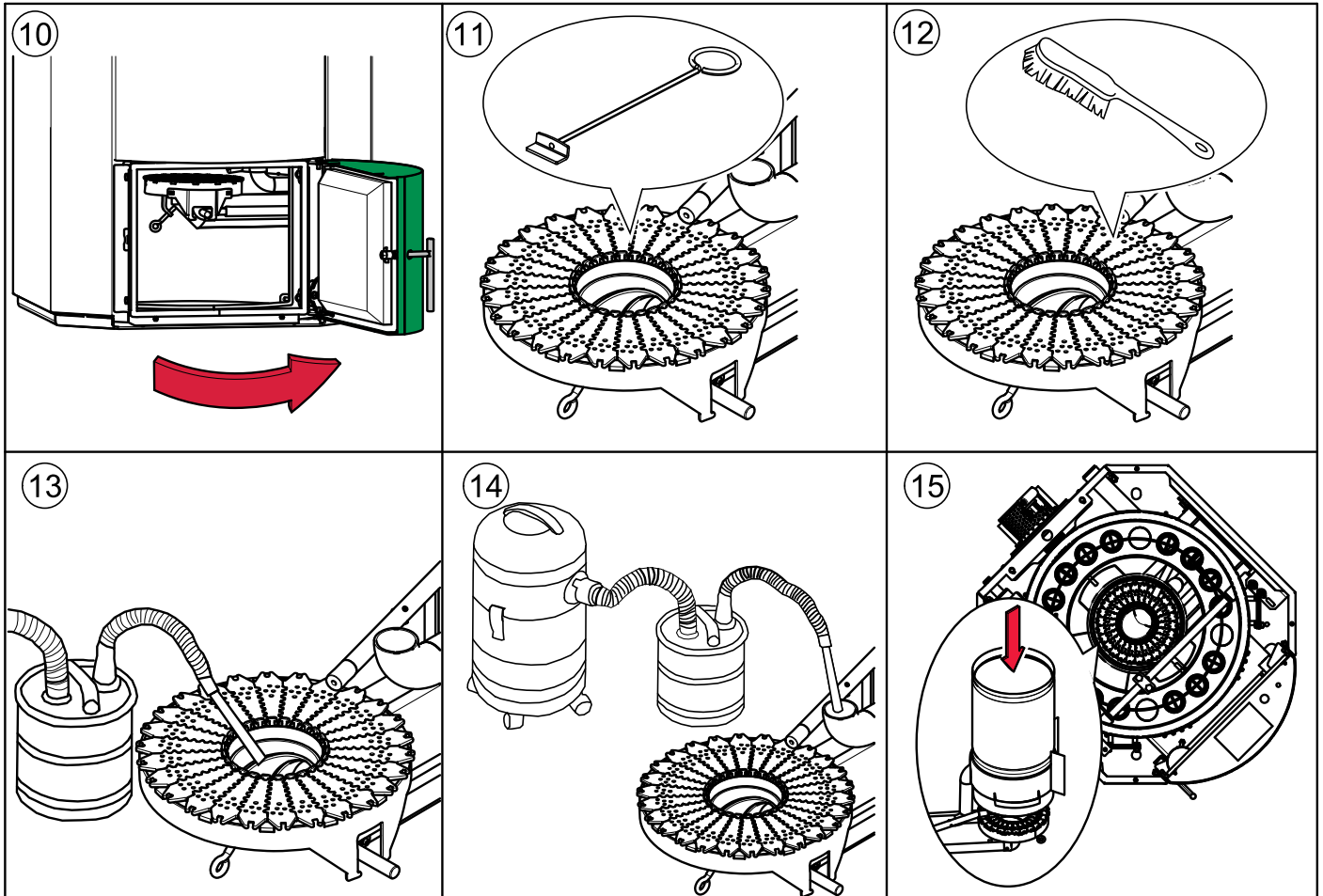
c



NOTICE

Reduction in boiler performance and damage to pellet boiler due to blockages in the air inlet

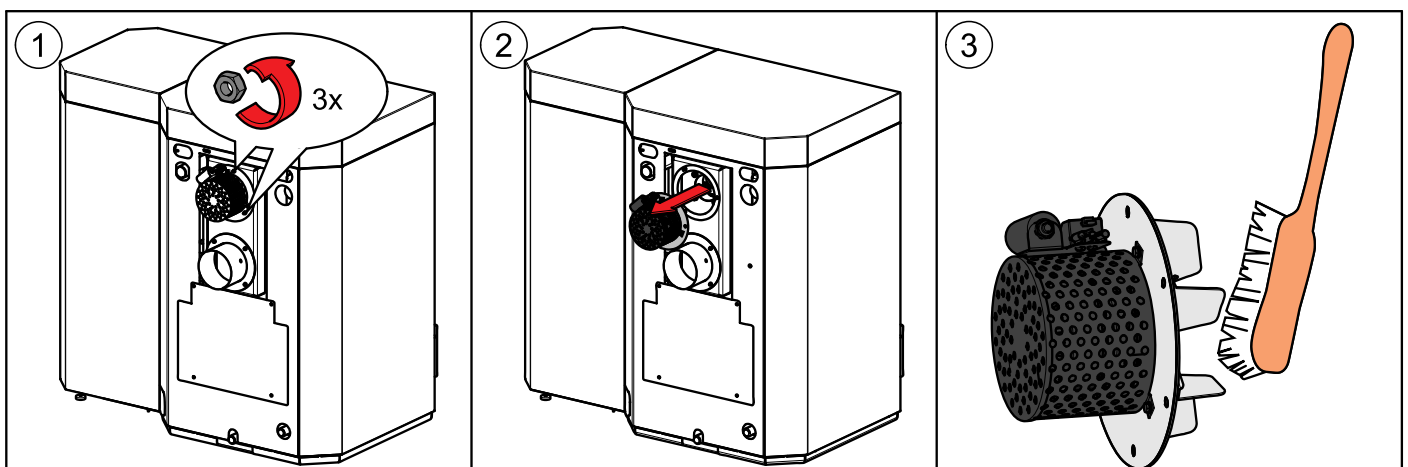
Clean the air intakes, the burner plate and the flame tube.



Note

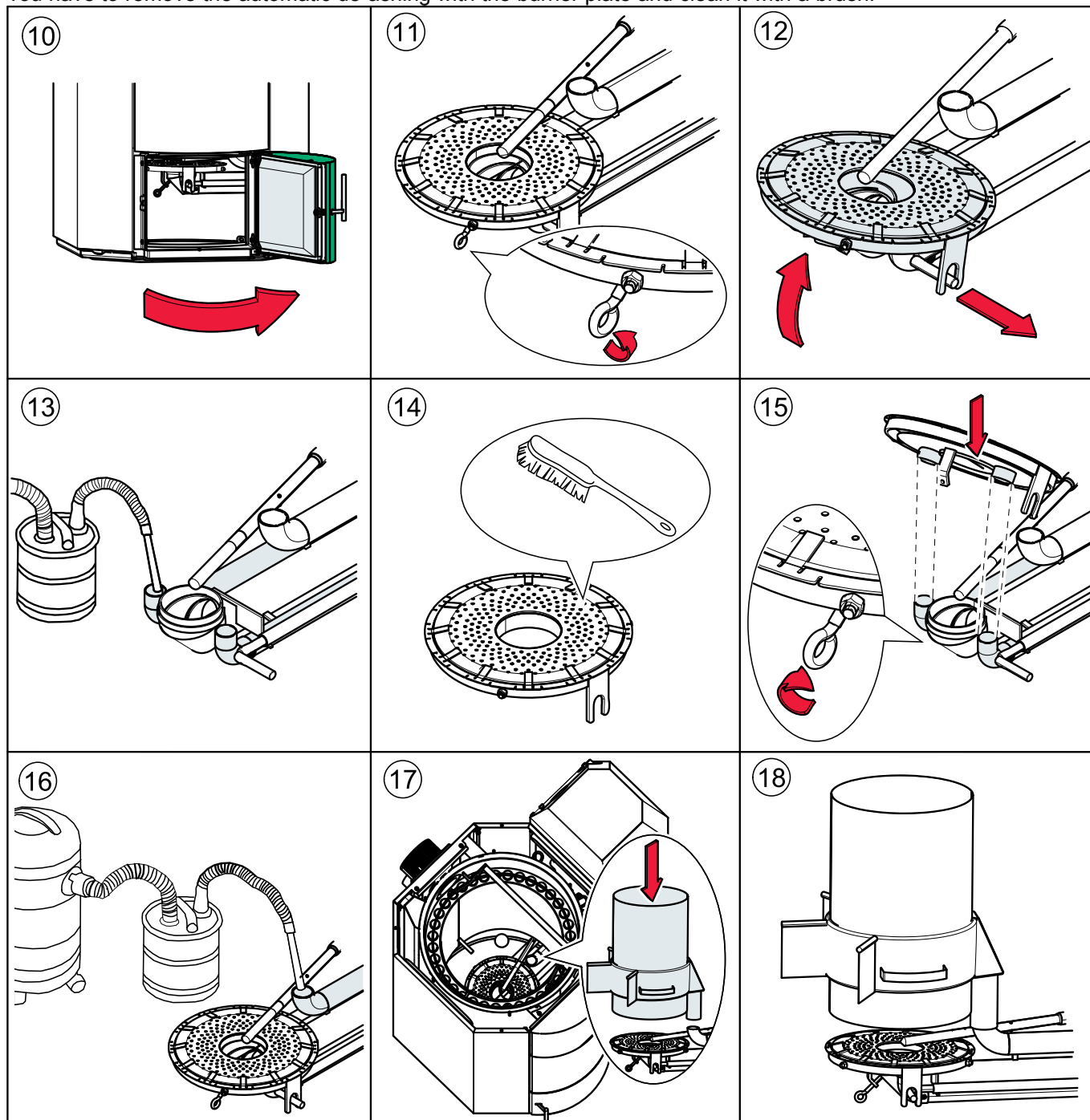
The individual parts of the multi segmented brazier may not be in raised position!

Cleaning the Induced draft blower:



9.3 Automatic de-ashing for PE(S) 12–32 (optional) and for PES 36–56 standard

You have to remove the automatic de-ashing with the burner plate and clean it with a brush.



9.4 Maintenance intervals

We recommend taking out a maintenance contract with your service technician.

9.5 Repairs



Only authorised specialists may carry out repair work on this system. Use original spare parts only. Not using original spare parts will cause the warranty to become void.

9.6 Checking the boiler room and storage room

Checking the pellet heating system regularly prevents malfunctions and unexpected failure of the heating system.

Boiler room

Make sure that no flammable materials are stored in the boiler room.

Make sure that no washing is hanging in the boiler room.

Check the display on the control panel for malfunction messages.

Check the flue gas tube and chimney. Clean it regularly.

Storage room



DANGER

Risk of suffocation

Ventilate the pellet storage room sufficiently before entering.

Switch off the heating system before entering.

Check the level of pellets in the textile tank and order more pellets in good time.

10 Malfunctions

This section describes malfunctions, alarm texts and status texts displayed at the pellet boiler

NOTICE

Risk of damage to property

Only authorised specialists may rectify malfunctions.

Differentiation is as follows:

1. Malfunctions without alarm text displayed
2. Malfunctions with alarm text displayed
3. Status text displayed

Note

A detailed description of alarm texts is provided in the instruction manual for electricians and installers

1. Malfunctions without alarm text displayed

No text is shown on the display

Cause:	Power supply has been interrupted due to general power failure
	Malfunction protection switch (FI) or line protection switch tripped
	Main switch or Emergency Stop switch switched off
How to rectify the fault:	Switch on malfunction protection switch or line protection switch
	Switch on main switch or Emergency Stop switch

The boiler starts up automatically once the power supply has been restored.

Note

Call an authorised service technician if none of the causes described above apply

2. Malfunctions with alarm text displayed

If a malfunction occurs at the heating system it switches off automatically and the relevant alarm text is shown on the display. A detailed description of alarm texts is provided in the pellet boiler installation manual.

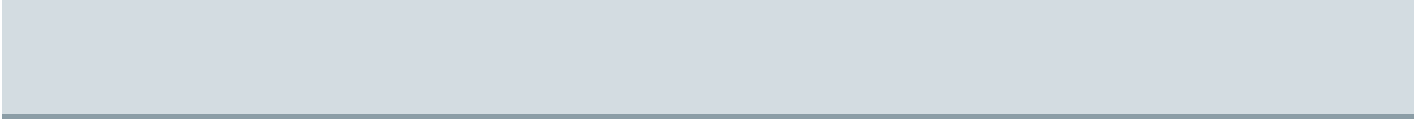
Call an authorised service technician to rectify the malfunction.

3. Status text displayed

- a. The display indicates: **"Ash!!!"** (only on pellet boilers with an external ash box)
The ash box is full. If you do not empty the ash box, the system will still complete 3 de-ashing sequences. After that the heating system switches off.
The display then shows the alarm text: **"Ash box full"**. Empty the ash box. After you have emptied the ash box, the alarm text is reset automatically and the pellet boiler starts up automatically.
- b. The display indicates: **"Battery"**
The battery output is low. The battery must be changed during the next service. Only service technicians may change the battery.

Note

The battery output power has no influence on the function of the boiler controller.



Manufacturer:

MAINE ENERGY SYSTEMS LLC

8 Airport Road – P.O. Box 547 Bethel
Maine 04217

e-mail: info@maineenergysystems.com

web: www.maineenergysystems.com

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Subject to modifications