Please read carefully prior
to installing and servicing.

SAVE THESE INSTRUCTIONS

Operating Manual

Pellet heating with auger delivery or vacuum suction system for the end-user

AutoPellet®
PE(S)(K)(B) 10 — 56

FA_V2.03

AutoPellet TOUCH

USA

Title:	Operating Manual AutoPellet® PE(S)(K)(B) 10 — 56
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1 Dear Customer

Maine Energy Systems specializes in wood pellet heating, our company enjoys an exclusive license from ÖkoFEN to manufacture AutoPellet boilers here in the USA. We represent expertise, innovation and quality. We are delighted that 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 completely 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.
- Installation and first start up must be carried out by an installer certified by Maine Energy Systems.
- 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.

Tested & Listed By O-T L Portland Oregon USA
C US
OMNI-Test Laboratories, Inc.
Report No. 0444PB004S

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.

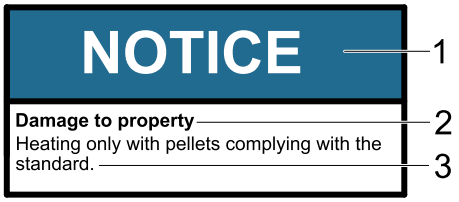
The boiler fulfils the requirements of UL 2523-2013 and CSA B366.1–2011.

3 Types of safety warning sign

The warning signs use the following symbols and texts.

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 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, fuel storage ventilation fans 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
Only an authorised installer may connect the pellet boiler to the power supply.
Always disconnect / de-energize the power supply before working 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 gas connector or flue gas pipe.
Do not reach into the ash chamber.
Use gloves to empty ash box if boiler not equipped with automatic ash compression
Do not clean the boiler until it has been allowed to cool down.

CAUTION

HOT SURFACES
Keep children away.
Do not touch during operation.
Do not operate if maximum draft as listed on boiler nameplate is exceeded.
Doing so can allow non-controlled combustion.

CAUTION

Risk of cut injuries due to sharp edges.
Use gloves for performing all work on the boiler.

NOTICE

Damage to property
The pellet boiler is suitable only for pellets which comply with PFI premium or EnPlus -A1 pellets specifications.
The use of any other fuel voids your warranty and can cause damage to the pellet boiler and chimney.

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.

WARNING

All cover plates, enclosures, and guards must be maintained in place at all times, except during maintenance and servicing.

4.3 What to do in an emergency

DANGER

Risk to life
Never get yourself into danger; give your own safety the utmost priority.

What to do in the event of a fire

- Switch off the heating system.
- Call your local fire department and or 911.
- Use approved fire extinguishers (fire protection class ABC).

What to do if you smell smoke

- Switch off the heating system.
- Close the doors leading to living areas.
- Ventilate the central heating room.

5 Prerequisites for installing a pellet boiler

You must fulfill 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.

Flue gas system	EN 13384–1	Legislation in your country must be observed.
Building and fire prevention regulations		Legislation in your country must be observed.
Type of installation	FC 42x	Fireplace with a flue gas fan for connection to an air exhaust system. The combustion air line from air shaft and the connecting piece to the chimney are part of the fireplace.
	FC 52x	Fireplace with a flue gas for connection to a chimney. The combustion air line from outside and the connecting piece to the chimney are part of the fireplace.
Sound insulation	DIN 4109	Please note the building-unique demands on sound insulation.

5.2 Boiler room

The pellet boiler is installed in the boiler room.

1. **Safety instructions for the boiler room**

DANGER

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.

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.

   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. In any case, properly sized room ventilation is still required to allow your barometric draft controller to function properly.

   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 of 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 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 rennovated 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 or 6/150	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	-0.04 / -0.02		

Chimney size	**Min. Height**
6in x 6in	17ft
7in x 7in	16ft
8in x 8in	16ft
6in round	19ft
7in round	17ft

NOTICE

Person(s) operating a hydronic heater is/are responsible for operation in a manner that does not create a public or private nuisance condition. The manufacturer's distance and stack height recommendations and the requirements in any applicable laws or other requirements may not always be adequate to prevent nuisance conditions due to terrain or other factors.

Recommended and UL-103HT approved chimney materials are:

a. Selkirk sure temp

b. Supervent (JSC)

c. Security chimneys (secure temp ASHT)

Use flue gas pipe from chimney to boiler as required by your local code.

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 approximately the same for all Autopellet boilers covered in this manual.

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 installers 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 –0.4 “WC. 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 all the way to the boiler flue pipe connection. The maximum flow rate that can be drawn through the chimney limits the maximum performance of the chimney connection. The boiler performance must be reduced if the chimney does not possess the necessary cross-section. This may only be performend by authorised personnel.

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.
Boilers 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. Solid fuel burning appliances need to be cleaned frequently because soot, creosote, and ash may accumulate. The hotter the fire, the less creosote is deposited. Cleaning intervals can vary in warm periods due to this and become more frequent.

DANGER

Risk of chimney fire
Creosote-formation and need for removal:Low flue gas temperature can cause creosote. Creosote can condense in a relatively cool chimney. As a result, creosote residue accumulates on the flue lining. If ignited, this creosote will create an extremely 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 hydronic 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 230°F then the heating system switches off.

Low water cut off

The hydronic system must be equipped with a low water cut off. If the water level falls below a certain level, the low water cut off switches off the heating system.

NOTICE

Initial start-up
The initial start-up of each pellet boiler must be performed by an authorized installer.

5.5 Installation with an existing boiler

Autopellet boilers are not to be connected to a chimney flue serving another appliance. However, when all State and local codes allow for the sharing of chimney flues, the Autopellet boilers and another appliance burning pellets or a different fuel can be operated simultaneously while connected to a single existing chimney or flue gas system providing the following conditions are met:

- All state and local codes permit the specific installation
- All appliances are installed in accordance with the manufacturer's installation specifications or if lacking manufacturers specifications, the appliance in question is installed in a manner commonly recognized as safe and correct for the application and circumstances
- The chimney or flue gas system must be able to handle the combustion products of either appliance and both appliances when operated simultaneously

NOTICE

Avoid clearance issues that can make servicing difficult:
Be sure to follow suggested clearances when installing the Autopellet boiler with an existing boiler to be sure that service and cleaning can be performed adequately.

CAUTION

Avoid code violations:
When connecting to or with an existing boiler, contact the authority having jurisdiction to be sure the type of installation planned is allowed.
Document the type of boiler that the Autopellet is connected to or with.
Pellet boiler: Make and Model number:_____
Existing boiler: Make and Model number:
_____

DANGER

Possible escape of flue gas:
Do not connect this unit to a chimney flue serving another appliance unless multiple appliances into a single flue is authorized by all authorities having jurisdiction.

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. The manufacture of wood pellets is regulated by European standard EN 14961-2.

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.

WARNING

Never use pellets that contain treated wood, co-lored paper products, cardboard,solvents, plastic, trash or garbage

Never burn trash, plastics, gasoline, solvents, naphtha, household garbage, material treated with petroleum products such as particleboard, railroad ties and pres-sure treated wood, leaves, paper products, cardboard.

6.2 Storing the pellets

1. Pellets are to be stored in a place where they are kept dry all year.
2. Install a back-ventilated partition to prevent pellets from contacting damp walls, or use a fabric tank.
3. Refer to our planning hints for pellet storage rooms and warning signs.
4. Legislation in your country must be observed regarding building specifications for storage rooms.
5. ÖkoFEN also offers FleXILO fabric tanks for storing pellets.

6.3 Measures for the ventilation of storage rooms

To avoid any kind of danger through possible degassing of the pellets, make sure you obey the following guidelines:

- The storage room has to be insulated towards the living area.
- The storage room has to be ventilated into open area.

For further information please consult your expert adviser.

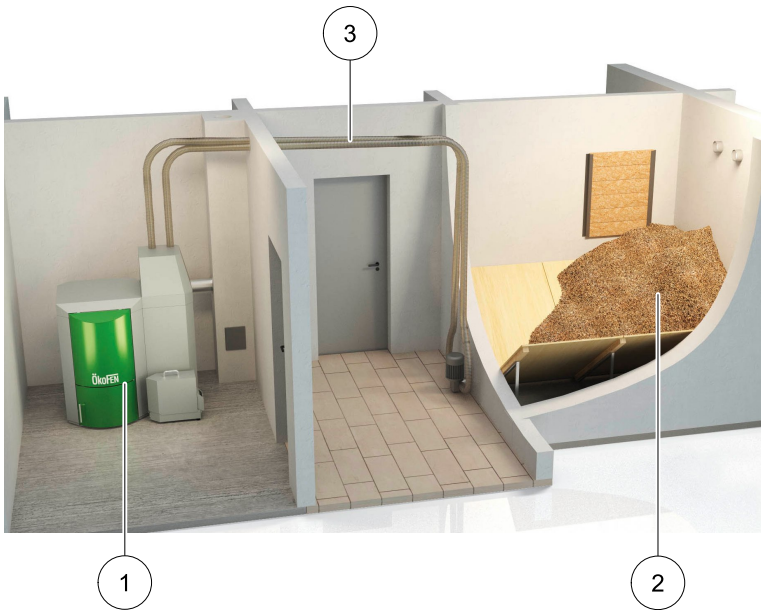
7 Product description

The description of the product is intended to provide an overview of the components that make up an ÖkoFEN pellet heating system, the parts of the pellet boiler and advice on where you can find more information.
The ÖkoFEN concept features different sizes of design and type for each component. These are compatible and designed to match.

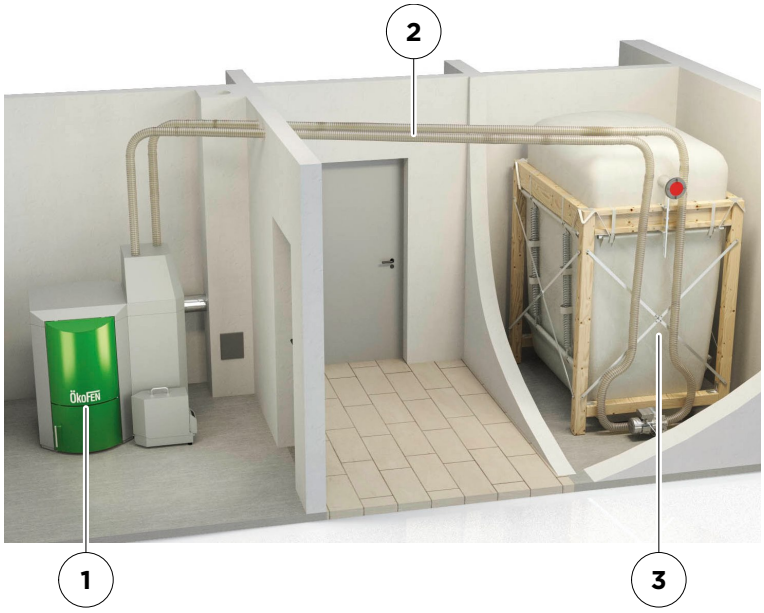
The ÖkoFEN pellet heating system consists of 3 components

1	Pellematic pellet boiler
2	Conveyor system
3	Storage system – storage room or fabric tank

Pellet boiler with storage room



Pellet boiler with fabric tank



7.1 The pellet boiler

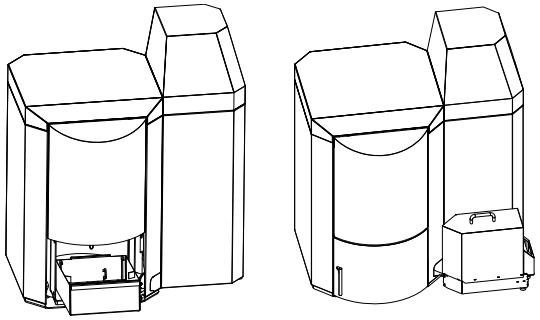
The pellet boiler is equipped with an automatic cleaning system, an ash box with ash compression system and an integrated return water temperature control. The installed programmable logic controller system enables fully automatic operation and highest efficiency. We offer an optional automatic de-ashing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

Pellematic types and power ratings

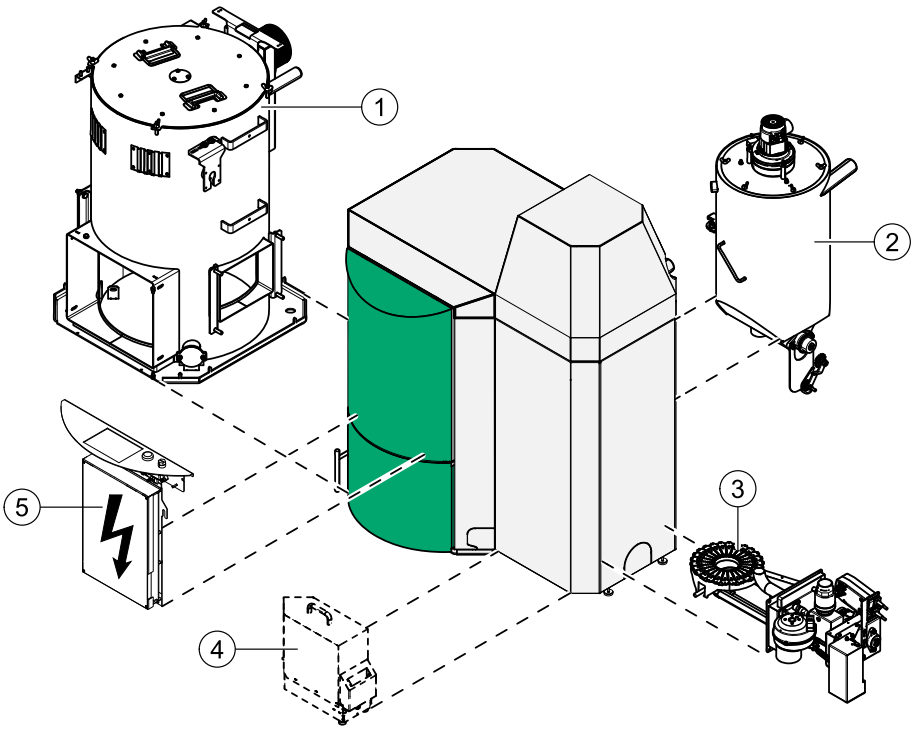
We offer the Pellet boiler with the following power ratings:
Suction-feed systems: 41,000; 51,000; 68,300; 85,300; 109,500; 123,000; 164,000 and 191,000 BTU/hr

All sizes / outputs of the Autopellet boiler are available with external automatic ash compression system.

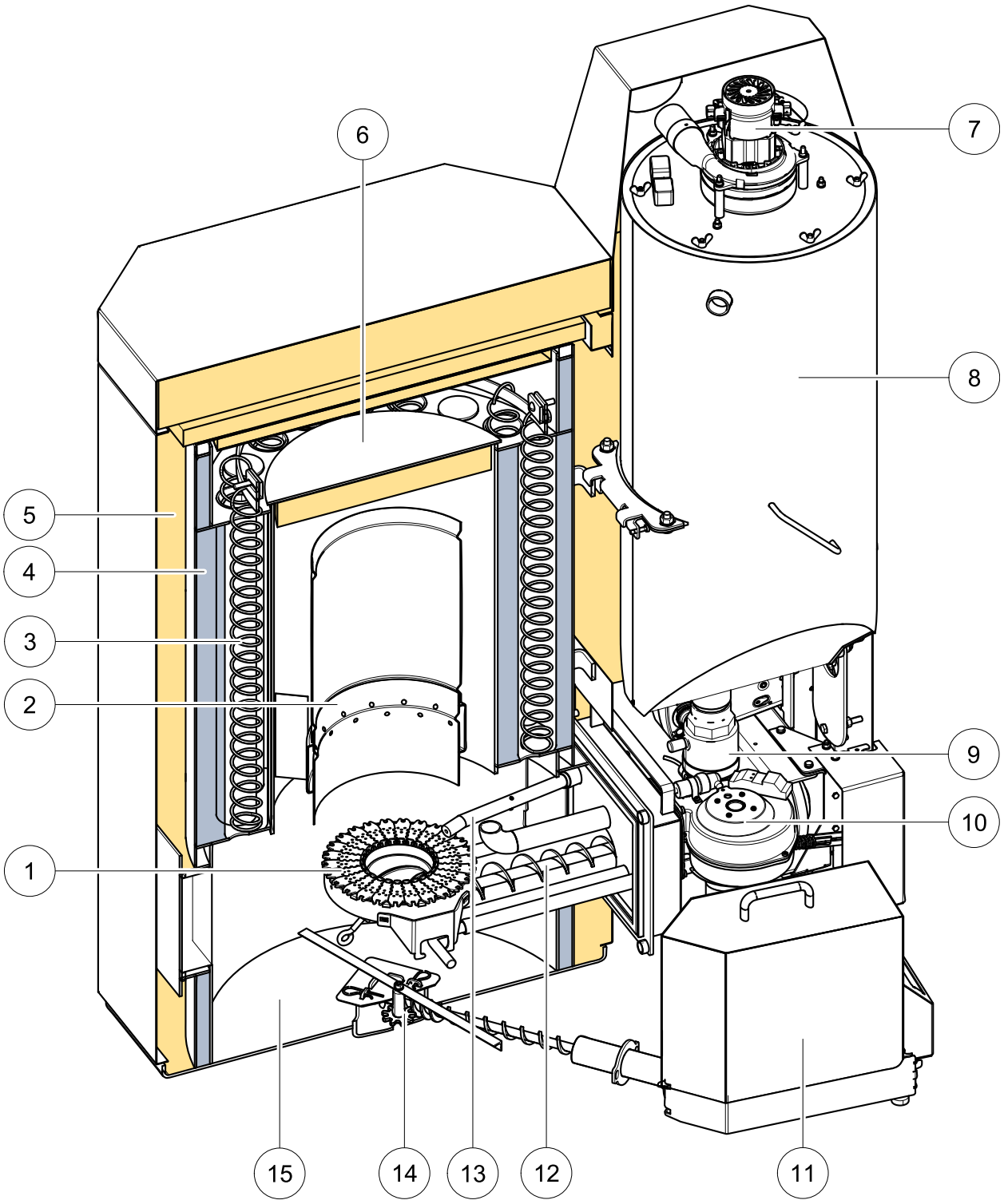
Note:
Refer to the data plate for the power rating of your Pellematic. The data plate is located on the rear side of the Pellematic. Here you will find the type designation, manufacturer's serial number and year of build.



Key components of the Pellematic



1	Boiler (heat exchanger)
2	Vac Hopper / Day tank
3	Burner
4	External automatic ash compression system
5	Boiler controller



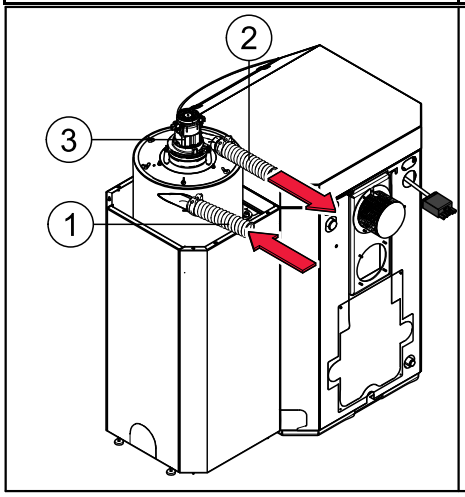
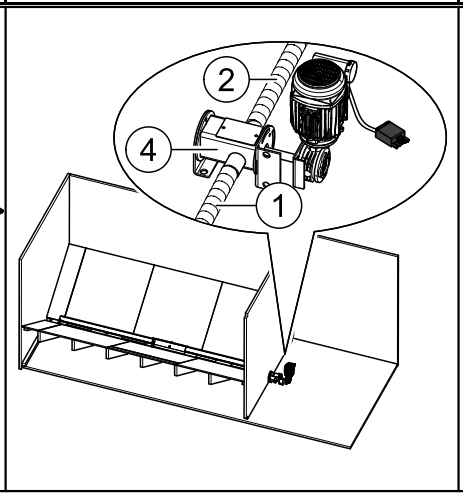
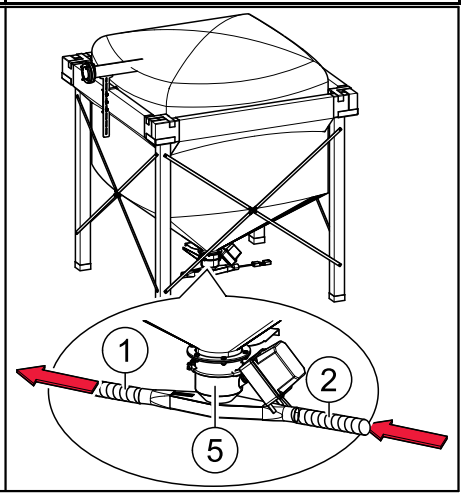
1	Burner plate	9	Fire protection – ball valve
2	Flame tube	10	Burner fan
3	Heat exchanger	11	External ash box
4	Boiler water	12	Burner auger
5	Boiler insulation	13	Electronic ignition
6	Combustion chamber cover	14	De-ashing system
7	Suction turbine	15	Ash chamber / Fire chamber
8	Vac hopper / Day tank		

7.2 Pellet suction system

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

Key components of pellet suction system

1	Pellet line	Line from the storage room auger or fabric tank to the hopper.
2	Air line	Line from the suction fan to the storage room auger or fabric tank.
3	Suction fan	Located above the hopper behind the Pellet boiler burner housing.
4	T-piece	Located at front end of the storage room auger, outside the storage room.
5	Suction flap	Located underneath the fabric tank.

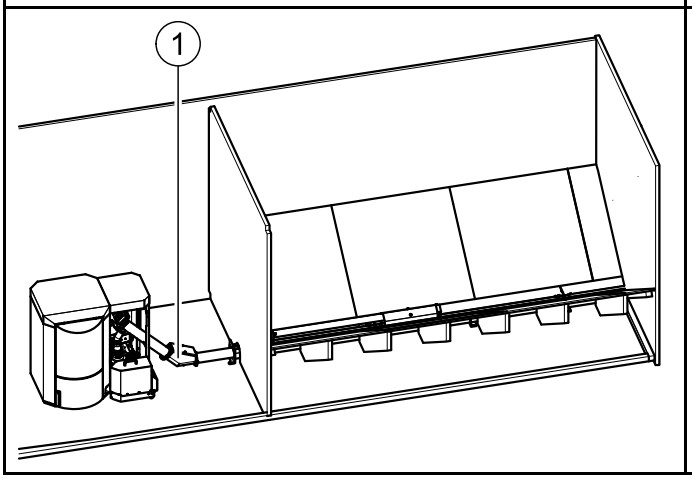
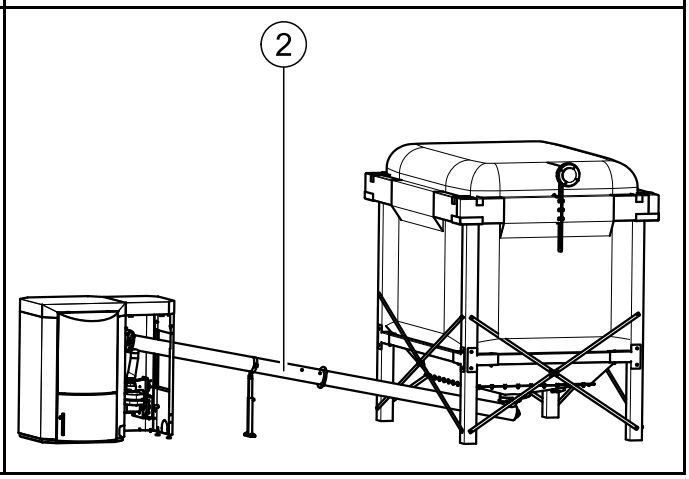
Pellet boiler	Version A pellet storage room	Version B fabric tank
		

7.3 Auger delivery system

The auger system consists of: Delivery system motor, dropshaft, up leading auger with joint or extraction auger with extraction unit. The delivery system motor powers the auger system and transports pellets from the tank room or textile tank to the burner plate.

Key components of the auger system

1	Up leading auger	Delivery auger with motor unit and joint (Connection of delivery auger and pellet boiler)
2	Extraction auger	Delivery auger with auger, emergency gate, supporting leg and handcuffs; (Connection of textile tank and pellet boiler)

Var. A Pellet storage room	Var. B Textile tank
	

7.4 Storage systems

There are two methods for storing pellets: in a storage room with an auger feed system (version A) or in a FleXILO fabric tank (version B). FleXILO fabric tanks can be located inside the central heating room, storage room or protected from wet and sun outside.

NOTICE

Damage to property and loss of warranty
The combination of an ÖkoFEN pellet boiler with a storage and conveyor system from another manufacturer is not permissible.

7.4.1 Pellet storage room

The auger extraction system is part of the ÖkoFEN pellet heating system. The sloping base is to be provided by the customer. Information and important notes on setting up storage rooms can be found in the ÖkoFEN planning documents and on www.oekofen.com. Information on installing the auger extraction system is included in the auger system installation manual. Refer to the instructions on how to make a sloping base.

7.4.2 Flexilo fabric tank

The whole fabric tank system is included in the scope of supply. ÖkoFEN offers various sizes and types. The fabric tank supplied may vary from the example shown above.

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

8 Operating the Pellematic

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 do 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.

DANGER

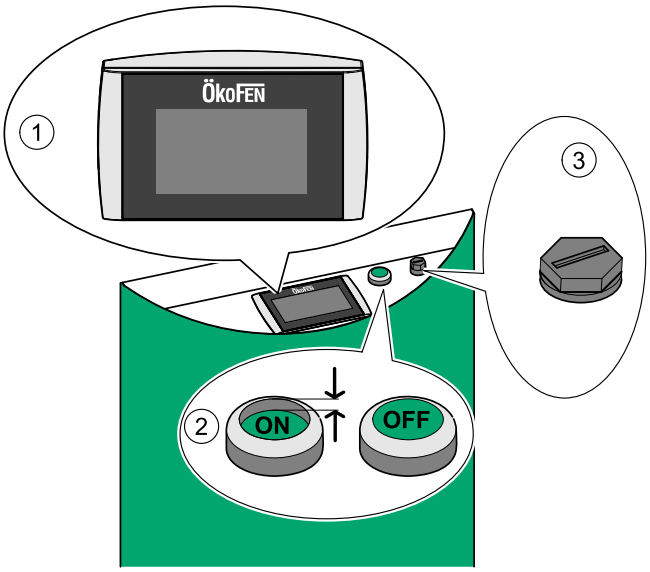
Fire risk
Keep the ash removal door closed while the boiler is in operation.

NOTICE

Standby mode boiler controller
Don´t set the main switch of the boiler controller outside of the heating period to Off, because no buffer battery is used.

8.2 Description of the control panel

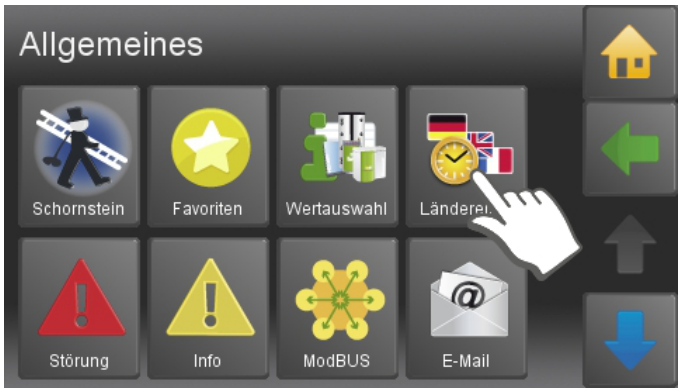
The control panel is located underneath the flap above the door of the boiler.



1	User control unit	Operates the boiler controller and the heating controller.
2	Main switch	Switches off the heating system (both poles) 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.

8.3 Setting language, date and time at Pelletronic Touch

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

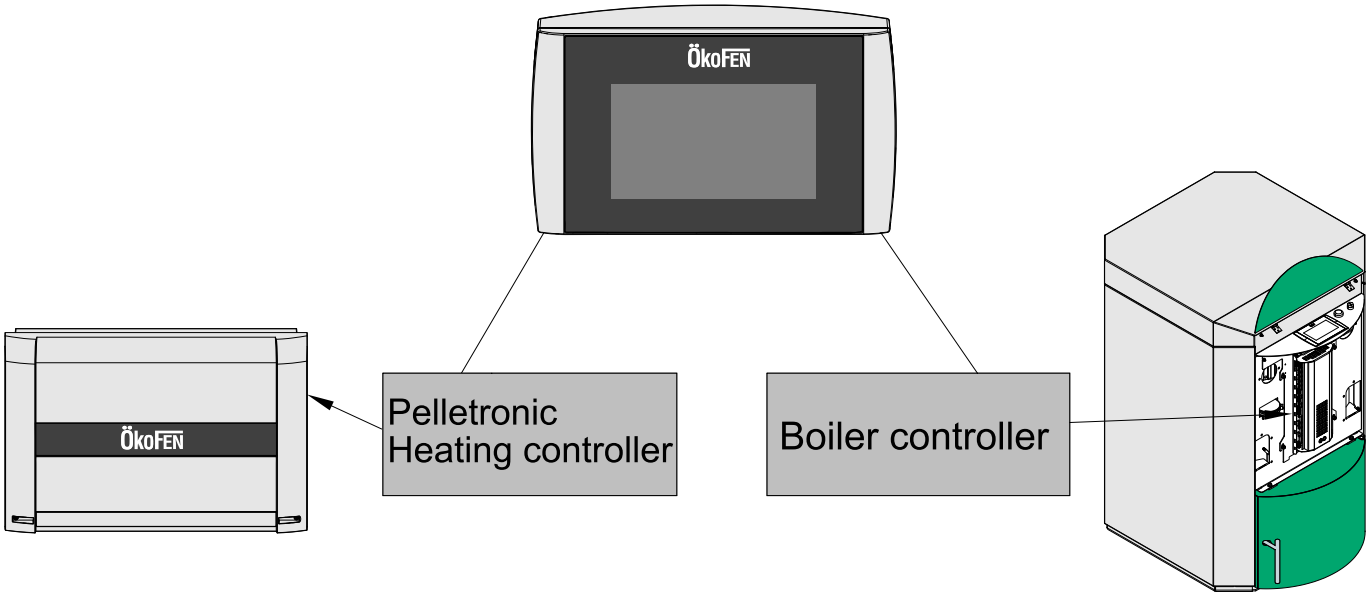


Setting the date

Setting the time

9 Pelletronic heating controller and operating device with touch screen.

The heating controller regulates the heating system, the operating modes, heating circuits, domestic hot water, accumulator, existing boiler and the solar thermal system. All inputs and outputs are connected with the heating controller. Visualization and operation of the heating controller is done with the operating device with touch screen. It displays all menu options and measuring values of the heating controller. All specific settings of the heating system are done with the Touch operating device.

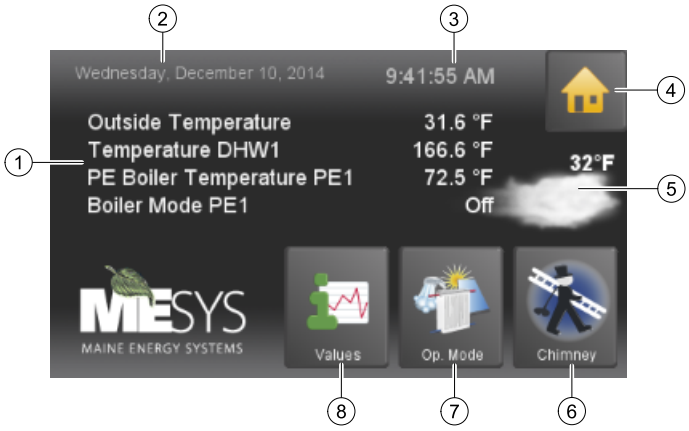


9.1 Operating Device with Touch screen

The Touch operating device is mounted on the control board of Pellematic. The 4.7" color display is surrounded by a foil design with logo. With finger pressure you make settings on the Touch operating device.

9.2 Opening window

The touch panel is dark during in standby mode. As soon as you touch the surface of the touch, light turns on and displays the opening window.



1 Measuring values (adjustable)

2 Date

3 Hour

4 The icon house takes to the main menu

5 Weather

Note:
If there is a malfunction, the corresponding fault message is displayed at this point instead of the weather icon

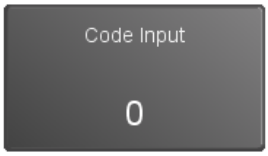
6 Favorite 1 (adjustable)

7 Favorite 2 (adjustable)

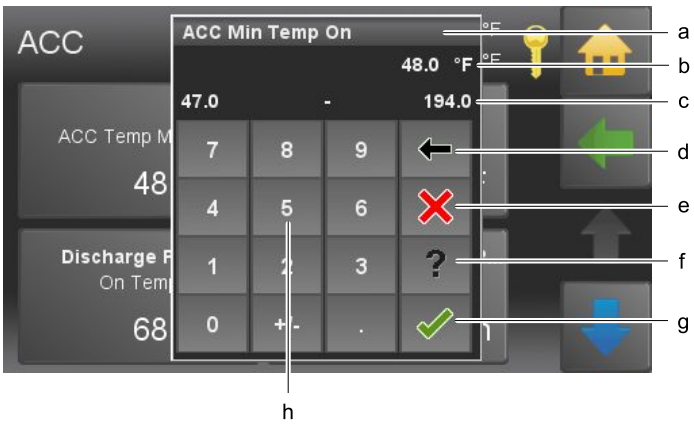
8 Favorite 3 (adjustable)

9.3 User controls and their function

1. **Navigation-icons**

Icon-view	
	If you touch an icon, the icon turns green. The green shows that you are currently on this icon. You get to the enabled menu item .
	The yellow house enters you directly to the main menu.
	The horizontal arrow leads you one step back.
	With the blue down arrow you get to additional lines of information on this item. (Down - scroll down).
	With the blue up arrow you get to additional lines of information on this item. (Top of page - scroll up)
	You get to the respective menu item.
	You get to the settings of the parameter. You come either to a numeric keypad, a time / date block or the text selection.

2. **Numeric keyboard**



a. Name of parameter

b. Value of parameter with unit

c. Min/max value – Values outside this range are not accepted.

d. Delete input of numbers – per contact you delete one place.

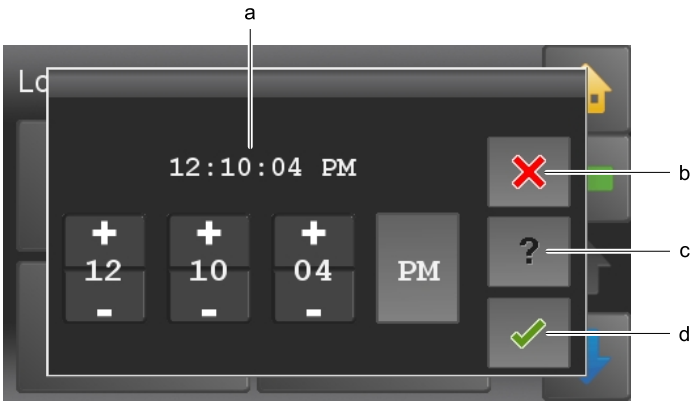
e. Cancel – You return to the menu item. Input of a new value was not accepted. The original value is.

f. Help function – inactive

g. Confirm

h. Numeric keyboard – used to enter values within the min - max range.

3. **Time and date block**



a. Adjustable time or date

b. Cancel

c. Help function – inactive

d. Confirm

With the Plus Minus block you change numbers.

4. **Text selection**

a. Name of parameter

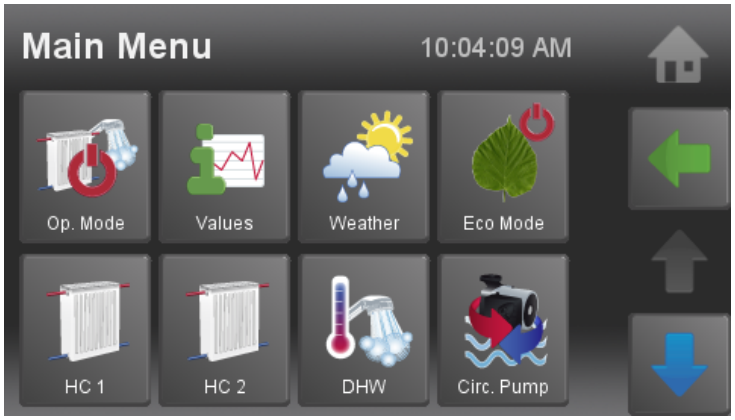
b. Status texts
The number of status texts depends of the parameter.

Choose a status text. The setup menu closes automatically and the chosen status text is displayed in the menu.

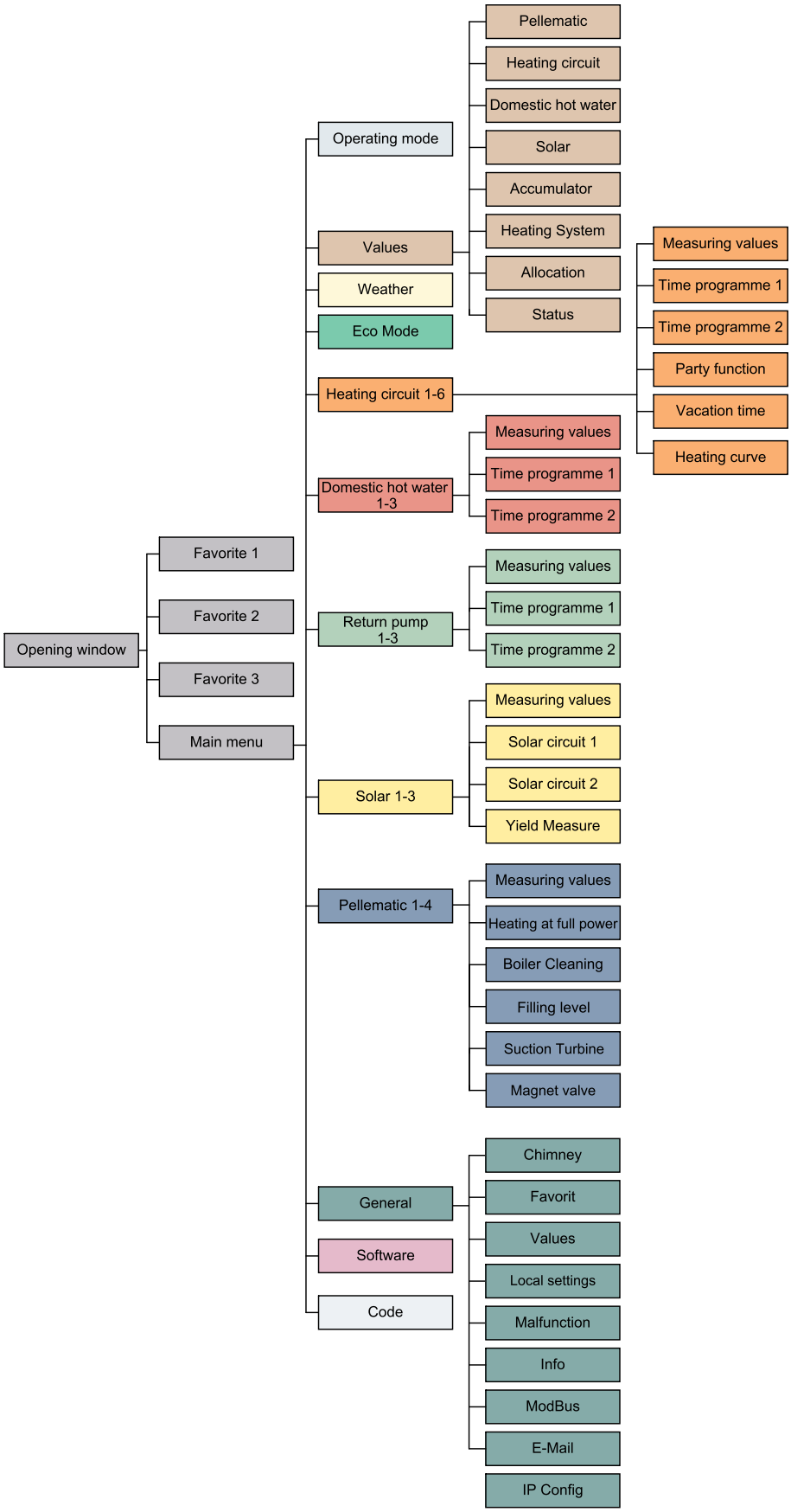
Note:
Although a scroll down menu is open, the navigation icons, menu items and parameters behind are active and by touching them it takes you directly there .

9.4 Main Menu

In the Main menu you see all submenus. By finger pressure on an icon you reach the respective submenu.



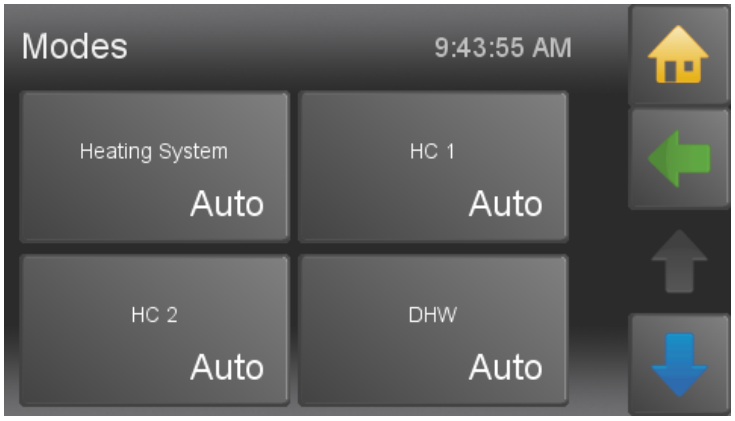
Menu navigation of Pelletronic Touch



10 Mode

In the menu item Mode you can see the mode of your heating system and the mode of the heating circuits, domestic hot water and solar.

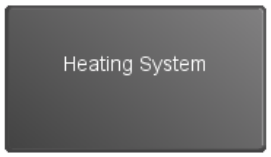
The menu item **Mode** is in the Main menu.



Overview of the operating modes

- Heating Plant
- Heating system 1-6 .
- Domestic hot water 1-3
- Solar 1–3

Choose the operating modes and make settings.



Off The adjusted operating mode of the heating circuits and DHW is inactive.
The frost protection function is active.

Auto The adjusted operating mode of the heating circuits and DHW is active.
The frost protection function is active.

DHW The adjusted operating mode of the DHW is active.
The adjusted operating mode of the heating circuits is active.
The frost protection function is active.

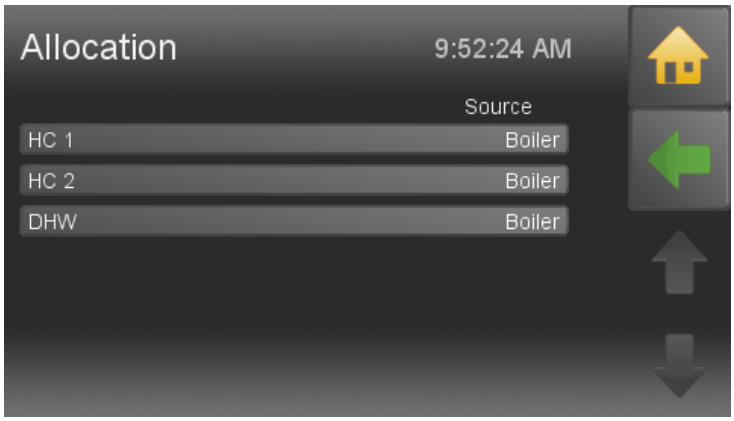
The operating mode heating circuits, domestic hot water and solar are described in the respective chapters.

11 Measuring Values

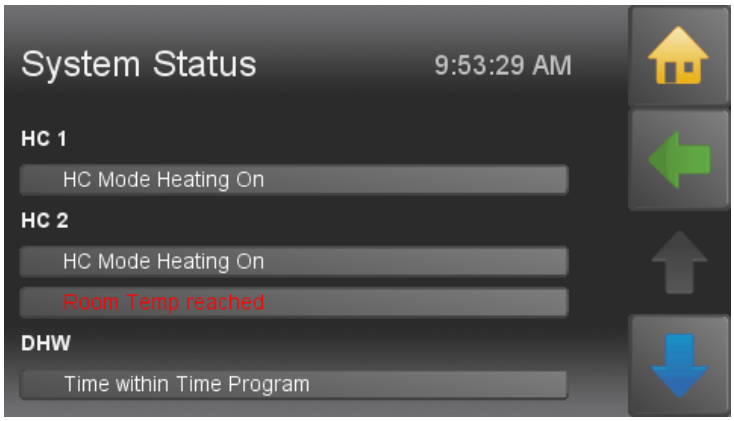
In the menu item of Measuring Values you see all actual and set values of your heating system.

The menu item **Measuring Values** is in the Main menu.

- Pellematic
- Heating circuit
- Domestic hot water
- Solar
- Accumulator
- Return pump
- Heating Plant

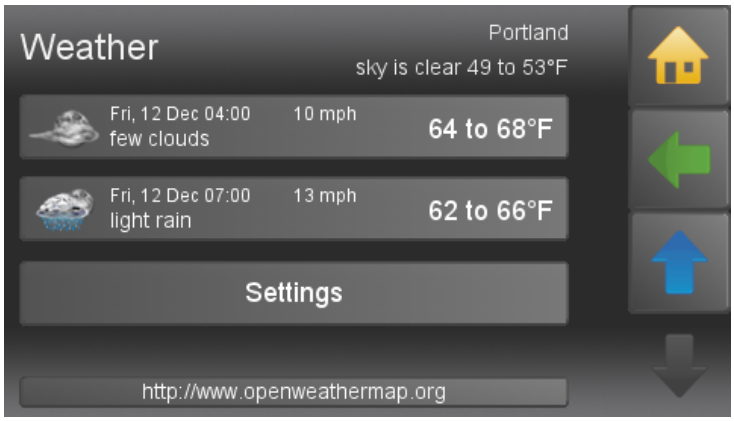


In the menu item **Allocation** you see which heating circuits are allocated to the boiler or to the accumulatores.



In the menu item **Status** you always have an overview about the whole heating system.

12 Weather



Choose **Settings** ( ), to enter your location.

Enter location and country. If the specified location is not found, enter a larger, nearby place.

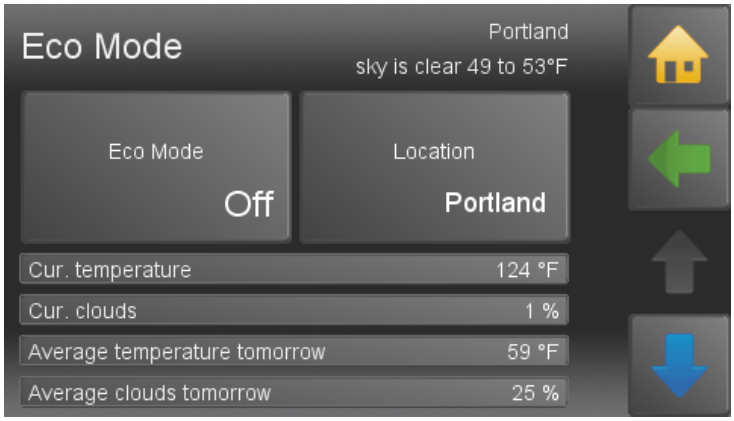
Search with the following details:

- Postal code, location, country
- Postal code, country
- Location, country

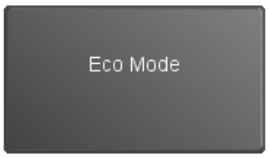
Afterwoods, weather data for the next 3 days are downloaded. An icon for the current weather is displayed on the opening window.

Note:
This feature requires an internet connection.

13 Eco Mode



With the Eco Mode, the influence of weather forecasts can be defined.

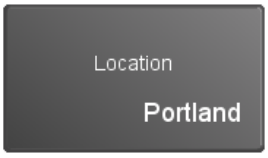


Off: Eco mode inactive.

Comfort: Set temperature minus 0.9 °F

Minimum: Set temperature minus 1.8 °F

Ecologically: Set temperature minus 2.7 °F



Enter location and country. If the specified location is not found, enter a larger, nearby place.
Search with the following details:

- Postal code, location, country
- Postal code, country
- Location, country

Afterwoods, weather data for the next 3 days are downloaded. An icon for the current weather is displayed on the opening window.

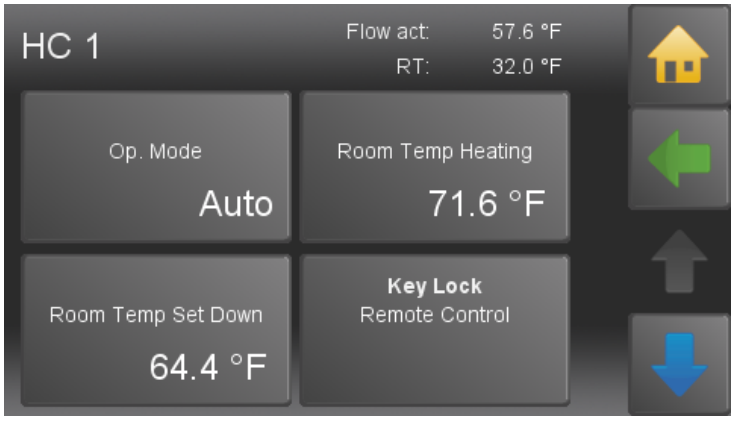
Note:
This feature requires an internet connection.

Cur. temperature	Current temperature according to forecast.
Cur. clouds	Current clouds in % according to forecast.
Average temperature today / tomorrow	Calculated temperature for the forecast period
Average clouds today / tomorrow	Calculated clouds for the forecast period
Sunrise / sunset	Time at sunrise or sunset
Starttime/ Endtime	In this time frame, the Eco Mode affects the heating settings.
Last update	Time of last update of the forecast.

14 Heating Circuit

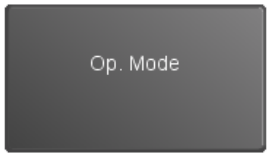
Heating Circuit encloses all for heating relevant parameters and settings. It can occur up to 6 menu items **Heating Circuit.**

Heating Circuit is in the Main menu



Heating circuits settings has following menu items:

- Mode
- Room Temp Heating
- Room Temp Set back
- Time Allocation
- Values
- Time 1
- Time 2
- Party
- Vacation
- Heatingcurve



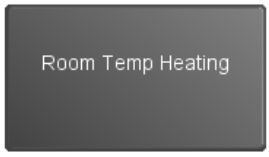
Off Only the frost protection function is active.

Auto The boiler starts in the heating times according to the Set room temperature.

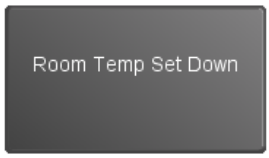
Heating The boiler heats constantly according to the Set room temperature.

Set back The boiler heats constantly according to the Set back room temperature.

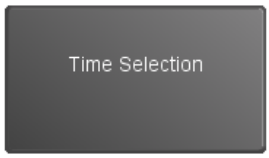
The operating mode of the heating circuits can only be changed if the plant operating mode is set to AUTO.
The adjusted heating limits and maximum flow temperatures are used in all operating modes.



Choose your room temperature (Temperature within the heating times).



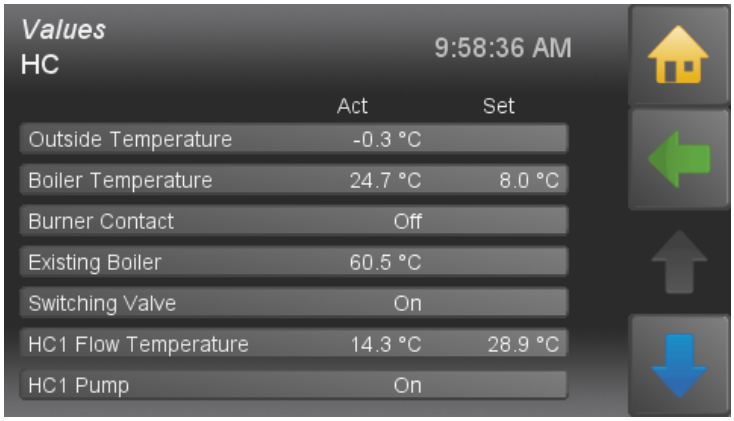
Choose Room Temp Set back (= Minimum temperature beyond the heating times).



Activate **Time 1** (= Time programme 1) and **Time 2**.

14.1 Measuring values Heating circuit

Measuring values HC is in the Main menu.



You see all to the Heating circuit corresponding measuring values:

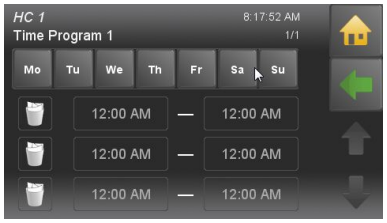
- Actual value
- Set value
- Inputs (sensores)
- Outputs (pumps, mixer and motors)

Outside Temperature	actual Outside Temperature
Boiler Temp	actual Boiler Temperature
Existing Boiler	actual Temperature of available boilers
ACC1 TPO	actual temperature AC upper sensor
ACC1 TPM	actual temperature AC middle sensor
ACC1 Pump	actual performance of Accumulator pump
Booster	Status (Booster On/Off)
Flow Temp	display of the flow temperature
Room Temp	display of the room temperature
Pump	Status (Pump On/Off)
Mixer	Status (Mixer On/Off)

14.2 Time programme Heating circuit

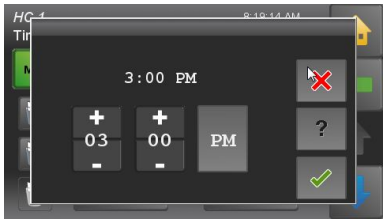
In the heating circuit time programme you fix the heating times.

Time 1 (=Time programme 1) and **Time 2** are in the menu Heating circuit.

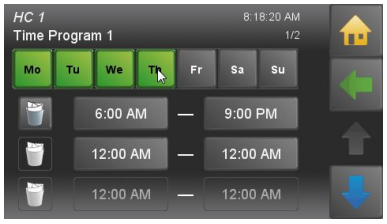


1
Select Time programme 1

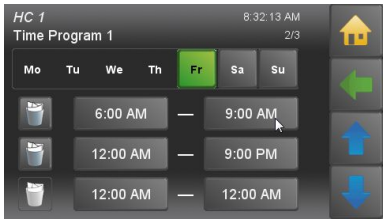
2
Select the heating days.
The activated days are deposited in green.



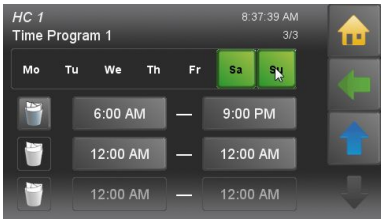
3
Enter the heating times for these heating days (Mo-Th).



4
The heating times for Mo-Th are assigned. With you assign to days heating times further.



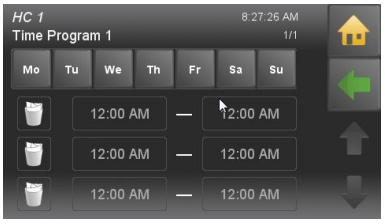
5
Friday was activated. Heating times were assigned.



6
Mo-Fr were assigned heating times
With you get to the remaining days Sa-Su.

7
Sa-Su were assigned to heating times.

8
With and you switch between the heating blocks. You can deactivate heating days in the heating block and activate in another.



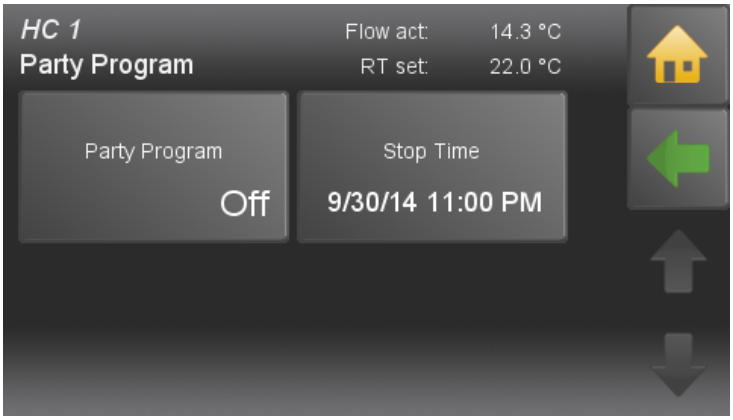
9
With you set all the heating times in the line and below to 0.

10
Go back with . Choose Time 2. For every heating circuit there are 2 time programmes. You can programm 2 time programmes. In the menu item **Time Allocation** you can activate time 1 or time 2.

14.3 Party

The party function extends the heating time once, without changing the heating times.

Party is in the Main menu.

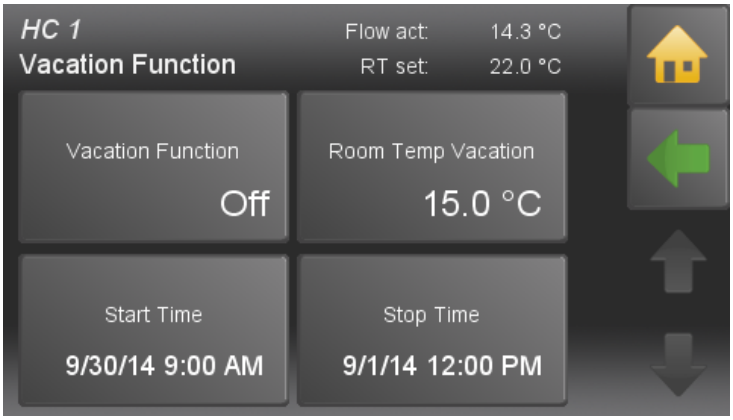


The party function is basically inactive. Enter the time until the room temperature heating should be heated. Activate the Party function.
The heating time is extended up to the indicated time. Then the party function deactivates itself automatically.

14.4 Vacation

The holiday programme cancels the heating times and heats for the entered period on the set temperature level.

Vacation is in the Main menu.



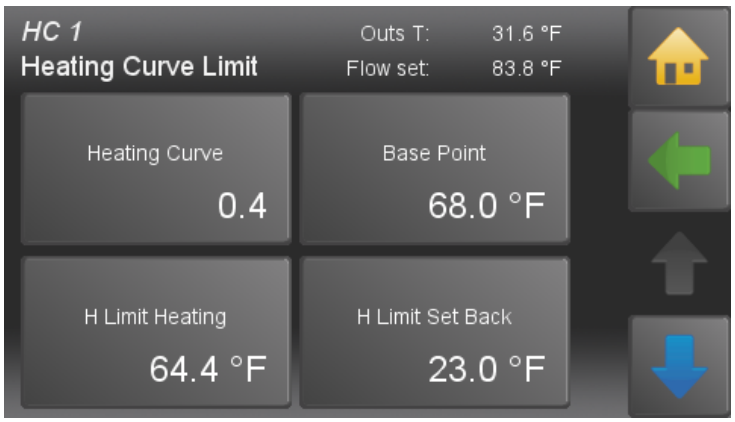
Enter the room temperature on which in your absence the building should be heated. Enter the departure (start time) and return (finish date) and activate the vacation programme.

Note:
To return in an already tempered building, you must enter the day before the return as the finish date.

14.5 Heating curve and Heating limits

By starting up the first time, the authorised technical adviser adjusts the heating curve, the base point and the heating limits on the building situation and the hydraulics. If the Set room temperature is not reached or exceeded, adjust the heat curve with the flow temperatures according to outside temperatures.

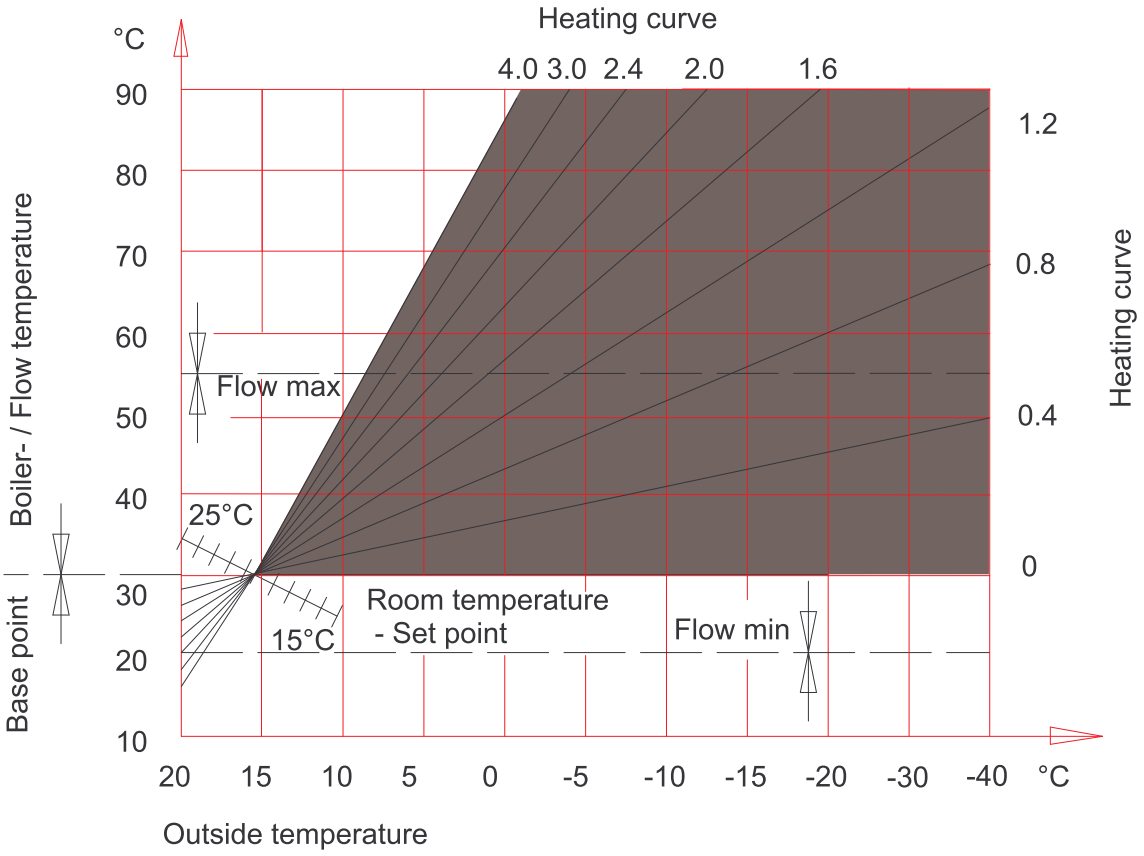
Heating curve is in the menu **Heating circuit**.



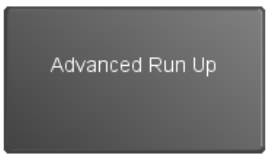
Heating curve 0.0 – 4,0
The heating curve describes the combination between outdoor temperature and the associated flow temperature for a heating circuit.
Base point adjustable from 68 - 113°F
With the change the of base point, you provide a parallel shift of the heating curve.
H limit heating
If the average outside temperature is higher than the set temperature, the heating circuit switches off in the heating mode.
H limit set temperature
If the average outside temperature is higher than the set temperature, the heating circuit switches off in the Set back mode.

Adjustment of heating curve and the base point to the building

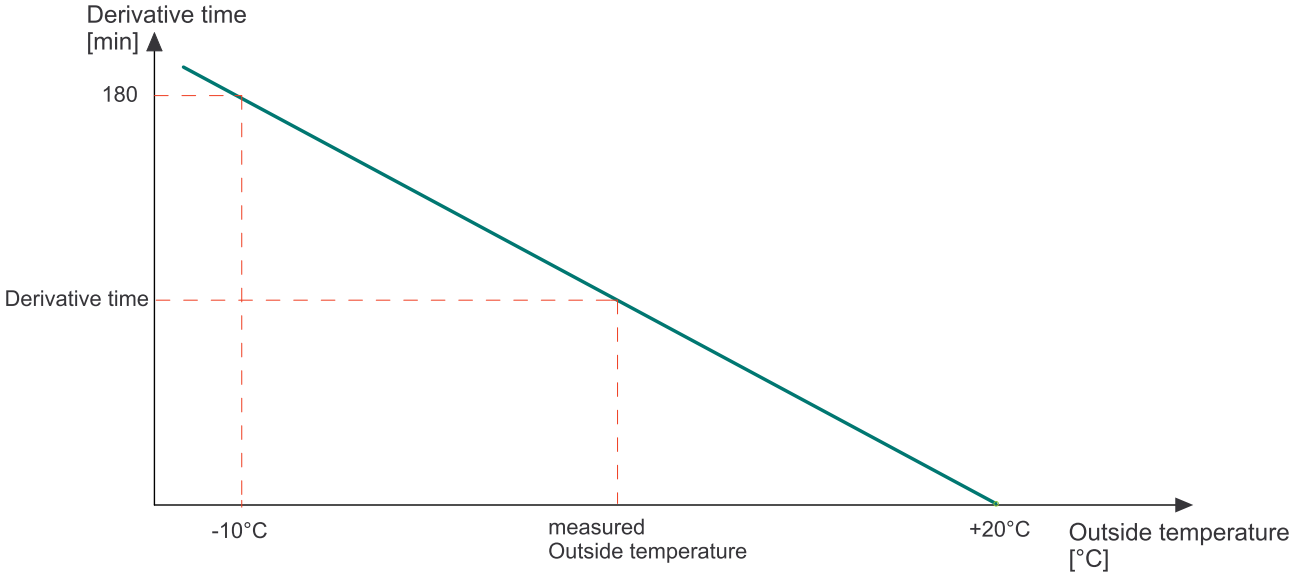
Because of the building´s thermal inertia, it is recommended to perform no more than one adjustment step per day.



Daytime outside temp	Room temperature	
	too warm	too cold
+5 to +15°C	Decrease heating curving value by 0,2	Increase heating curving value by 0.2
	Decrease base point value by 5°	Increase base point value by 5°
-20 to +5°C	Decrease heating curve value by 0.2	Increase heating curve value by 0.2



The advanced run up indicates how long the system has to heat before the start of the heating time, to reach the adjusted **roomtemp heating**.



Room thermostat influence
If the measured room temperature deviates from the set room temperature, the heating controller corrects the flow temperature with the Room thermostat influence.
The Room thermostat influence indicates how much the flow temperature is raised or lowered so that the Set room temperature is reached.

Example:

Room temperature desired value = 20°C

Room temperature actual value = 18°C

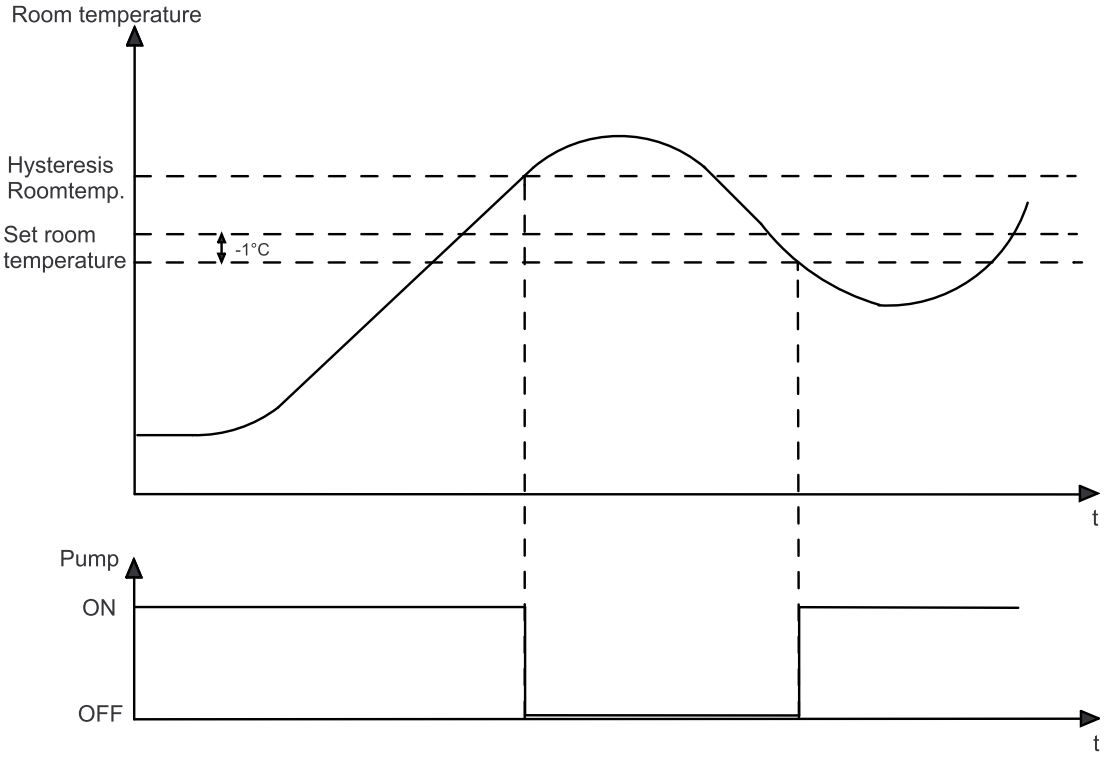
} Temperature difference 2°C

Room sensor influence = 3

Room sensor influence	*	Temperature difference	=	Advanced run up rise/reduction
3	*	2	=	6°C

Room temperature hysteresis

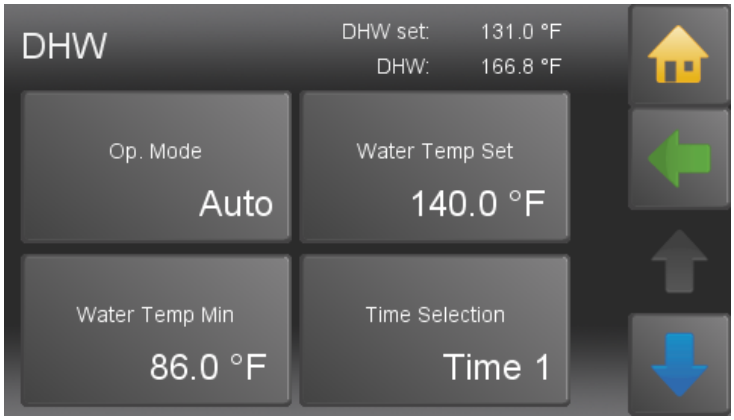
The Room temperature hysteresis prevents the cycling (On Off On Off...) of the heating circuit pump: If the Set room temperature + room temperature hysteresis is reached, the associated pump stops. If the Set room temperature is – 1°C, the pump switches on again.



15 Domestic hot water

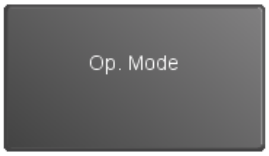
The menu Item **Domestic hot water** contains up to 3 submenu items.
Domestic hot water includes all, for the preperation of hat water, relevant parameters and settings.

Domestic hot water is in the main menu.



DHW settings has following menu items:

- Mode
- DHW Boost
- Water Temp Set
- Water Temp Min
- Time programme
- Values
- Time 1
- Time 2

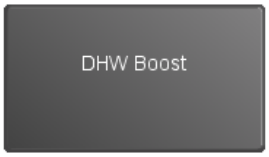


OFF Set water temperature is reduced to 46 °F for frost protection.

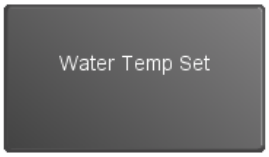
Auto The installation heats the water within the time programme to the **desired hot water temperature**. Outside the time programme the installation heats to **Watertemp min**

On The system heats up the domestic hot water continuously on the Water temp set.

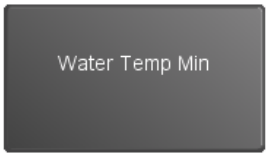
You can change the mode domestic hot water only when the **Operation mode** is on **AUTO**.



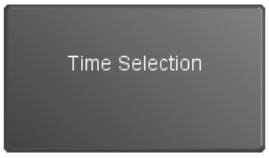
Heats the hot water once on the Water temp set.



Set the water temperature.



Set the minimum water temperature. The water temperature never falls below this value, unless the domestic hot water mode is on **OFF**.



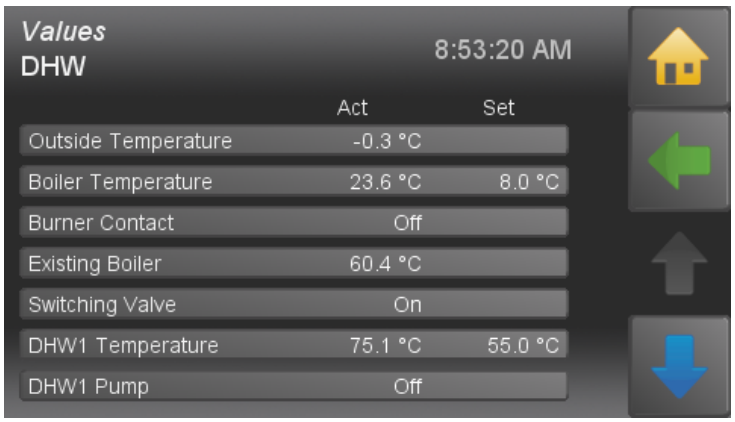
Activate **Time 1** (= Time programme 1) and **Time 2.**

You are able to see a list of all measuring values that are involved in the menu domestic hot water.

In the DHW time programme you set the times of the hot-water processing. The DHW time programme works the same way like the heating circuit time programme. See chapter14.2 Time programme Heating circuit, page 38

15.1 Measuring values Domestic hot water

Measuring values DHW is in the Main menu.



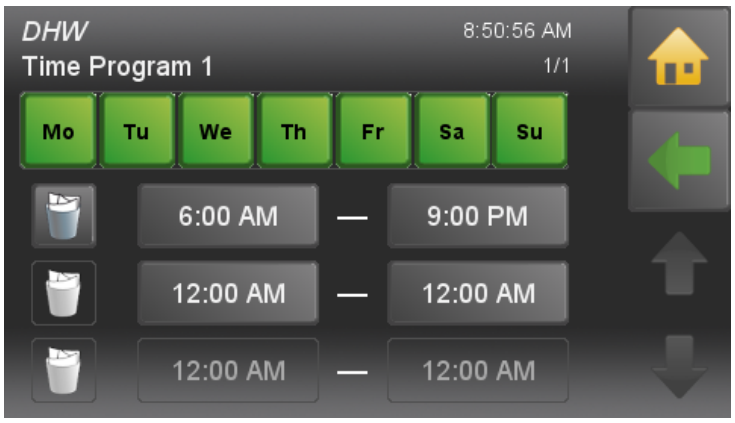
You see all the Heating circuit corresponding measuring values:

- Actual value
- Set value
- Inputs (sensores)
- Outputs (pumps, mixer and motors)

15.2 Time programme DHW

In the DHW time programme you set the times for the hot-water processing.

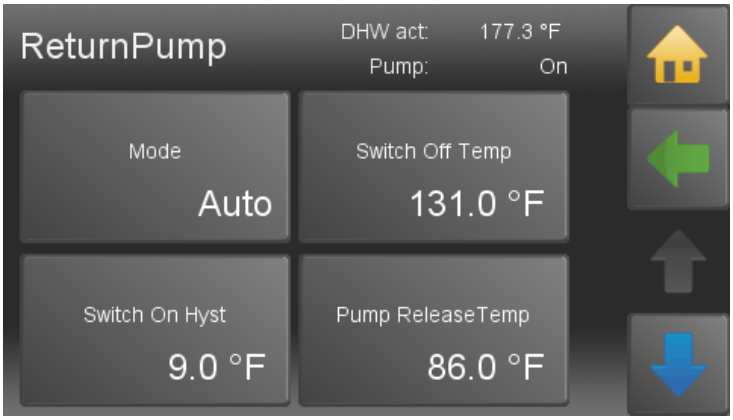
Time 1 (=Time programme 1) and **Time 2** are in the menu **Domestic hot water**.



The domestic hot water time programme works the same way like the heating circuit time programme.
See chapter 14.2 Time programme Heating circuit, page 38

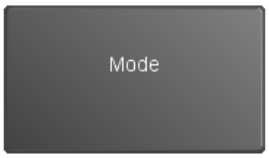
16 DHW Return pump

DHW Return pump is in the Main Menu.



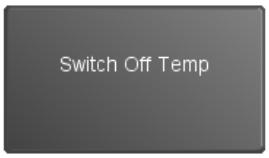
The Return pump enables the immediate DHW tap of the water taps. DHW Return pump has following menu items:

- Mode
- Switch off temperature
- Switch on hysteresis
- Time allocation
- Values
- Time 1
- Time 2

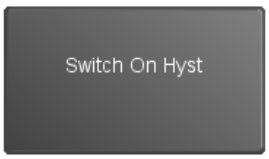


Off DHW Return pump inactive

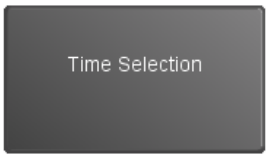
Auto Temperature regulation within the time programme



If the return temperature sensor of the DHW Return pump reaches the **Switch off temperature**, the pump switches off.



If the return temperature falls below the switch off temperature – the DHW Return pump switches on again!



Choose the time programme 1 or 2.

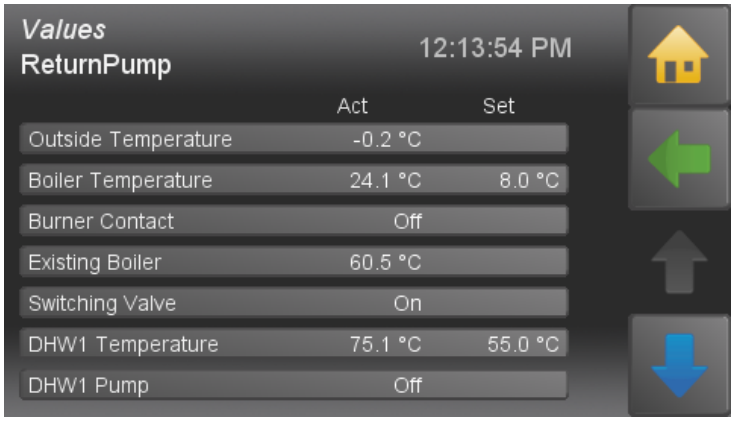
You see all the DHW pump corresponding measuring values.

Set the run times of the Return pump. The return pump – time programme works the same way like the heating circuit time programme.
See chapter 14.2 Time programme Heating circuit, page 38

Note:
A **Return Pump** and a **booster** rule out each other.

16.1 Measuring values DHW Return pump

Measuring values DHW Return pump is in menu DHW Return pump.



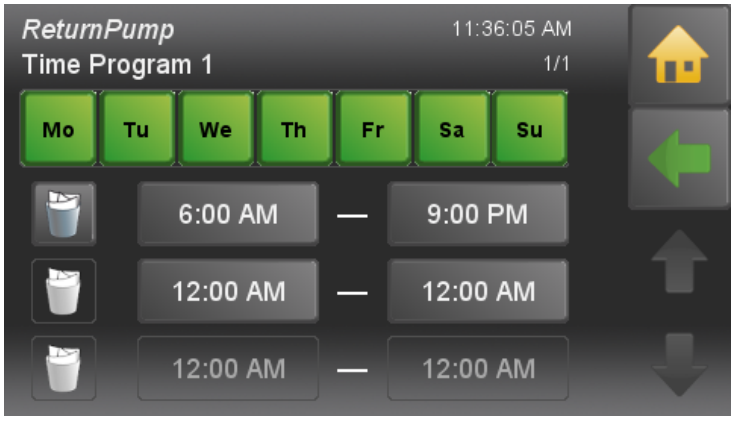
You see all the Heating circuit corresponding measuring values:

- Actual value
- Set value
- Inputs (sensores)
- Outputs (pumps, mixer und motors)

16.2 Time programme DHW return pump

In the Time Programme DHW Return Pump you set the times for the hot water in the water purchasers.

Time 1 (=Time programme 1) and **Time 2** are in the menu **DHW return pump.**

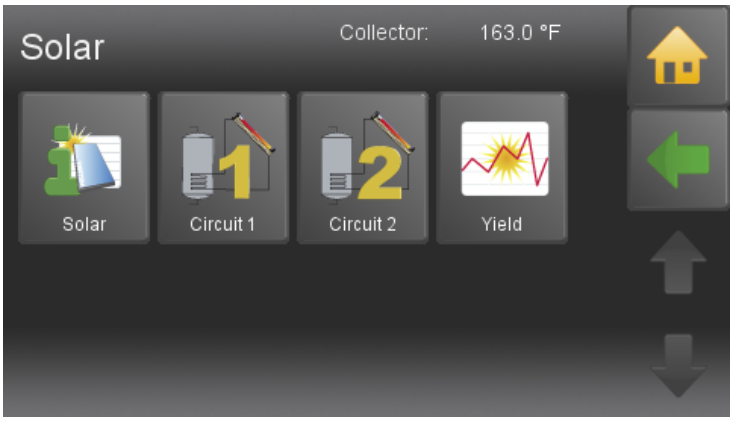


The DHW return pump time programme works the same way like the heating circuit time programme.
See chapter 14.2 Time programme Heating circuit, page 38

17 Solar

Solar includes all relevant parameters and settings for the solar thermal system. You can control up to 6 solar circuits.

Solar is in the Main menu.

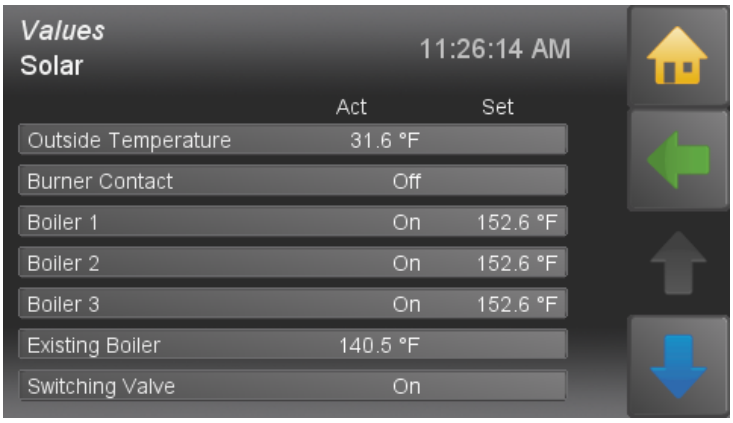


Solar has following menu items:

- Measuring values Solar
- Solar circuit 1–2
- Solar energy- yield

17.1 Measuring values Solar

Measuring values Solar is in the menu Solar.

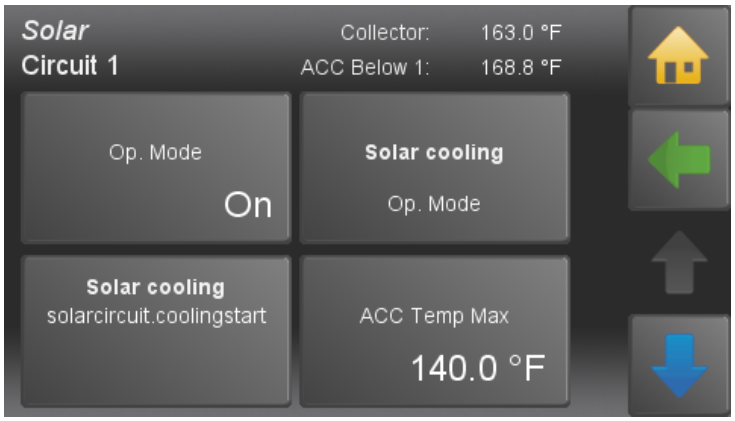


It displays all measuring values of Solar:

- Actual values
- Set values
- Inputs (sensors)
- Outputs (pumps, mixer and motors)

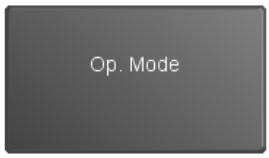
17.2 Solar circuit

Solar circuit 1 and 2 are in menu Solar.

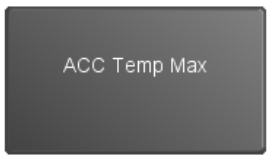


Solar circuit has following menu items:

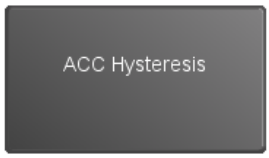
- Operation Mode
- ACC Temp Max
- ACC Hysteresis
- Collector Hyst On
- Collector Hyst Off



Off: No charge
On: Charge as long as **Collector temperature + hysteresis** is lower than the temperature of the **Adj ACC sensor below** or the **ACC temp max**



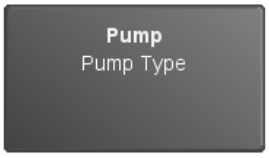
If the temperature in the ACC is higher than the ACC temp Max, the solar pump switches off. The limit sensor measures the temperature in the ACC.



The solar circuit pump is switched off due to the ACC temp Max is reached. The temperature must fall under ACC temp Max minus hysteresis, then the solar circuit pump switches on again. The hysteresis prevents a solar pump cycling (On Off On Off).

If the temperature differnce between the collector sensor and TPU, ACC lower sensor is higher than the Coll Hyst A, the solar pump switches On.

If the temperature differnce between the collector sensor and TPU, ACC lower sensor is lower than the Coll Hyst A, the solar pump switches Off.



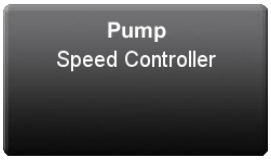
The menu **Pumptype** contains the following modes:

Asynchronus: Asynchronus pump – direct output 230VAC on/off
Async.Regulated: Asynchronus pump – pulsed output 230VAC
Heating Efficient: PWM1 - PWM signal inverted
Solar Efficient: PWM2 - PWM direct signal

Note:
When using a A-class pump as **Accumulator pump** the pump cannot be regulated from Solar circuit 2.

NOTICE

Material damage by false selection of pump!



Off: Speed controller Off
On: Speed controller On

NOTICE

Material damage by false configuration of pump type and speed controller!

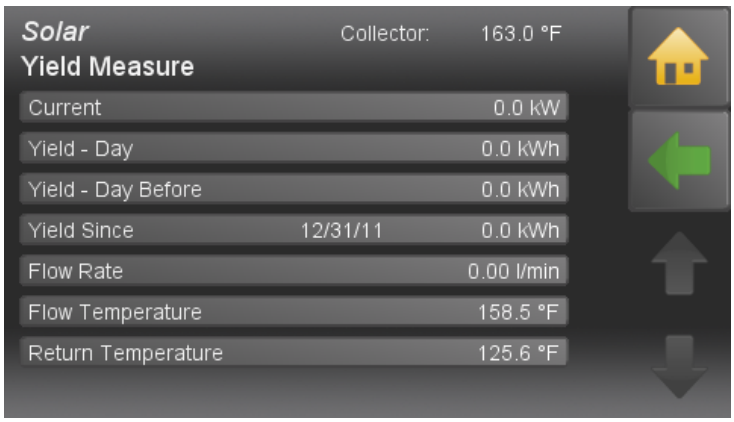
17.3 Yield - Solar Energy

This function measures the yield of the solar thermal system and displays current energy and logs previous days.

For the function solar energy it is necessary to install:

- Pulse volume meter (must be connected to **24 VOLT** and **Z_IN**)
- Flow temperature sensor
- Return temperature sensor

Yield - Solar Energy is in the menu Solar.



Yield measuring of solar energy has following menu items:

- Actual
  Display of the current solar energy, refreshes every 60 sec.
- Yield - Day
  Display of todays solar energy since 00:00.
- Yield - Day before
  Display of yesterdays solar energy.
- Yield since
  Display of the solar energy since the last set date.
- Flow rate
  Display of the current flow rate, refreshes every 60 sec.
- Flow temperature
  Display of the current flow temperature
- Return temperature
  Display of the current return temperature

18 Pellematic

Pellematic includes all the relevant parameters and settings for the control of the pellet boiler.
There are up to 4 Pellematic boilers possible.

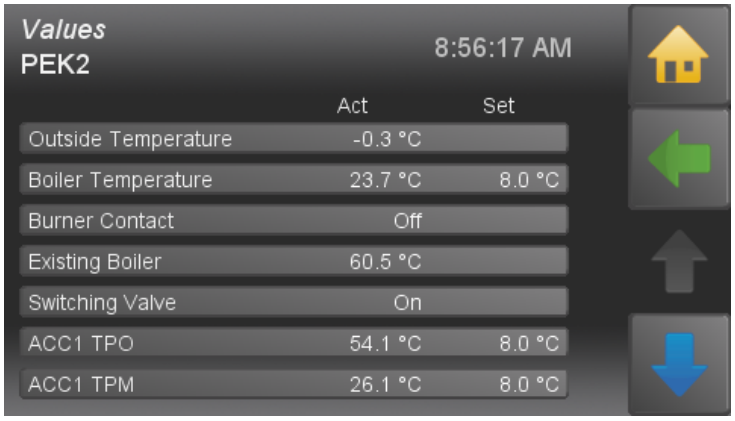
Pellematic is in the Main menu.

Pellematic has following items:

- Measuring values Pellematic
- Permanent operation
- Full power
- Burner plate cleaning
- Boiler cleaning
- Pellet level
- Suction turbine

18.1 Measuring values

Measuring values is in the menu Pellematic.



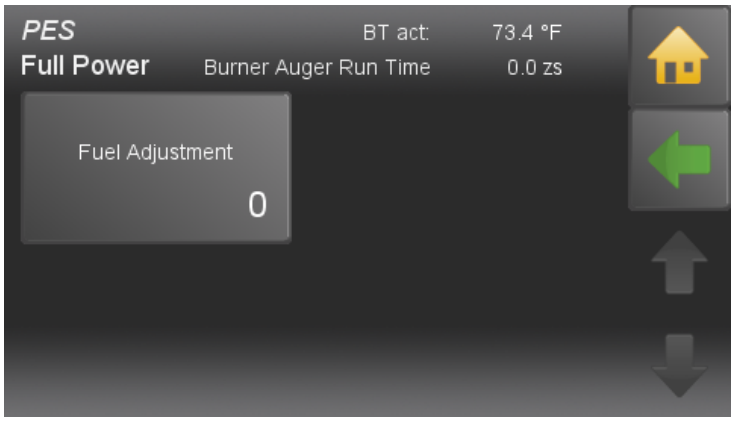
It displays all measuring values of Pellematic:

- Actual values
- Set values
- Inputs (sensors)
- Outputs (pumps, mixer and motors)

See chapter 14.1 Measuring values Heating circuit, page 37

18.2 Full Power

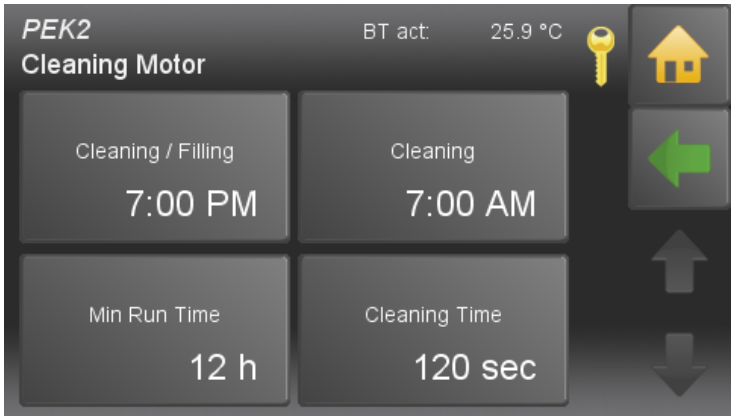
Full Power is in the menu Pellematic

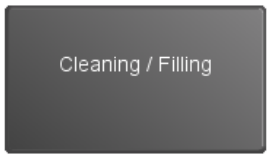


In the menu item Full Power can you adjust the fuel feed.

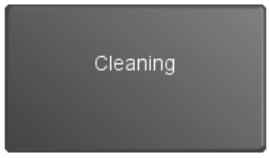
Fuel Adjustment:
The burner auger run time is calculated automatically by the PLC depending on the rated power and the boiler setpoint temperature. The burner motor is controlled accordingly. You can reduce or increase the value calculated by the PLC 10 steps up or down.

18.3 Boiler cleaning

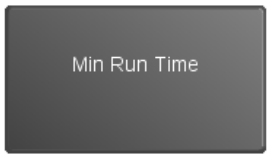




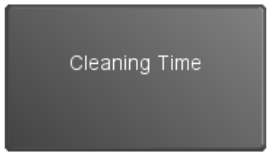
The value to be set is the time (full hour) at which the boiler cleaning sequence is performed. On vacuum systems the hopper is also filled at the same time, regardless of whether it is empty or not.



You can set in **Cleaning/Filling** a second cleaning sequence. The value to be set is the time (full hour) at which the additonal boiler cleaning sequence is performed. Example: 20h = additional boiler cleaning sequence performed at 20:00. On vacuum systems the hopper is also filled at the same time, regardless of whether it is empty or not.
Default value -1h: It is not performed a second cleaning sequence.

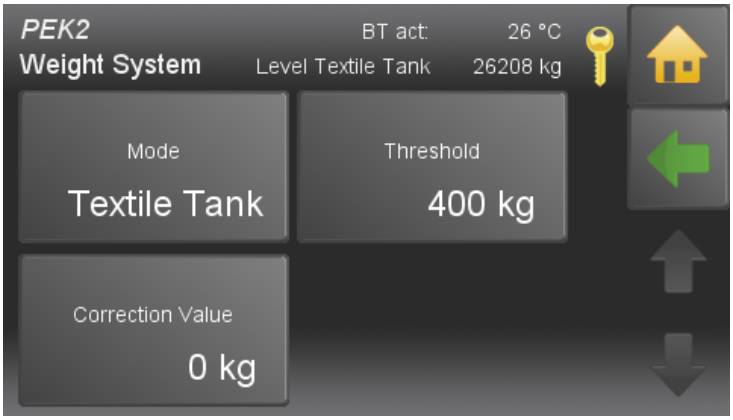


Min Run Time of the boiler until next cleaning sequence. Value adjustable.



Duration of the boiler cleaning sequence in seconds. Value adjustable.

18.4 Level detection system



Mode

Selection options:

Off	Function level detection system inactive.
Textile tank	Level detection system of textile tank by weighting cells.
Storage room	Put in the filling quantity after a pellet delivery. Level detecion by weighting system of hopper. Only possible with Pelletboilers of the type PES 36-56.
Cap sensor	Filling level detection in textile tank or storage room by capaciti-ve sensor.

Refill Capacity

Insert filling amount after filling the storage room.

Note:
Displayed only if mode is set on **Storage room**.

Threshold

The threshold value, **Minimum weight** for a warning message, is adjustable.
The warning message appears on the operating device and will be terminated when filling level rerises above the adjusted Minimum weight.

Note:
Only displaed if mode is set on **Storage room** or **Textile tank**

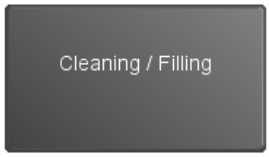
Correction Value

Set the display of the current weight to 0 by putting in the negative of the cur-rent weight shown.

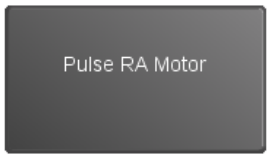
Note:
Displayed only if mode is set on **Storage room** or **Textile tank**.

18.5 Suction turbine

Note:
The menu item **Suction turbine** is only visible in suction systems.



Set a Time (full hours), at which the hopper gets refilled, regardless how full it is at this time.
At the same time the purification of the boiler will take place.
This adjustment matches Cleaning/Filling.



Frequency for storage room suction systems in pulse mode, only for vacuum systems.

Pause time for storage room extractor motor - suction system in pulse mode. If pause time = 0 then no pulse mode.

Run time of burner auger until next Suction Interval.
The hopper is filled at this time regardless whether it is empty or not.

- 175 min = 12 – 20 kW
- 225 min = 25 – 32 kW
- 90 min = 36 – 56 kW

19 General

General includes the complete heating control related settings and individual operating options for the customer.

General is in the Main menu.

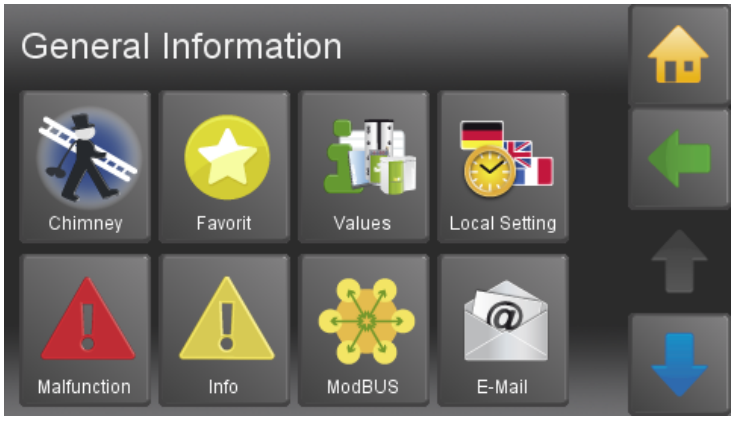
The menu **General** includes::

- Chimney
- Favorit
- Local setting
- Malfunction
- Info

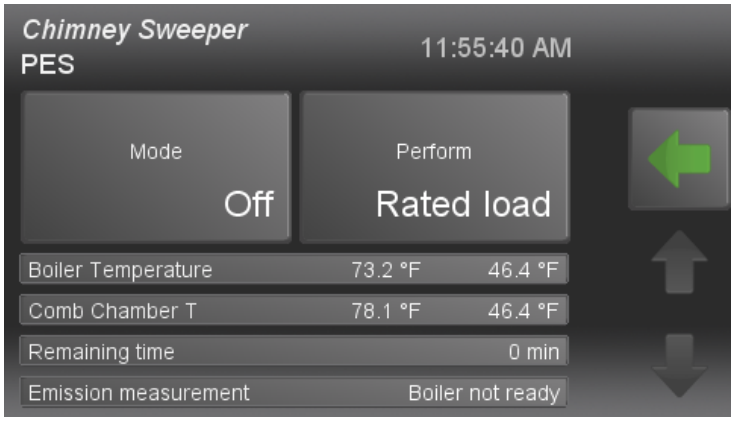
19.1 Chimney

The function chimney is only for chimney droughts and authorized service technicians. It is used for the measurement of exhaust gas.

The menu item **Chimney** is situated in the menu General.



Please choose the function **Chimney**.



- The boiler temperature is set to 140 °F for a total runtime of 30 minutes.
- You also can see actual boiler temperature and the rest of the time limit.
- After the expiry of the time limit the function chimney ends.time of expiry the operation Chimney sweeper ends.
- The button Cancel ends the function Chimney.

19.2 Favorite

Favorite is in the menu General.

With this function you can display most commonly used menus in the start menu. This enables you a direct access.
Select the menu item that should be displayed as a favorite 1 in the Start menu.

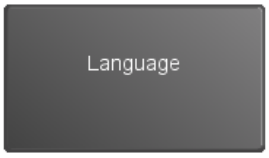
The selected item is green and the icon is displayed in the Start menu and is active.

19.3 Local Settings

Local Settings is in the menu General.

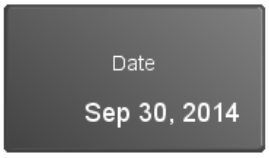
Local Settings has following menu items:

- Language
- Unit
- Date
- Time

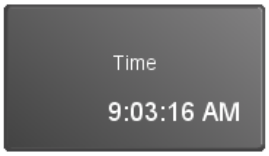


Choose between the languages German, English UK, English U.S. French, Spanish, Italian, Dutch, Danish and Russian.

You can choose between isometric and imperialist number system.



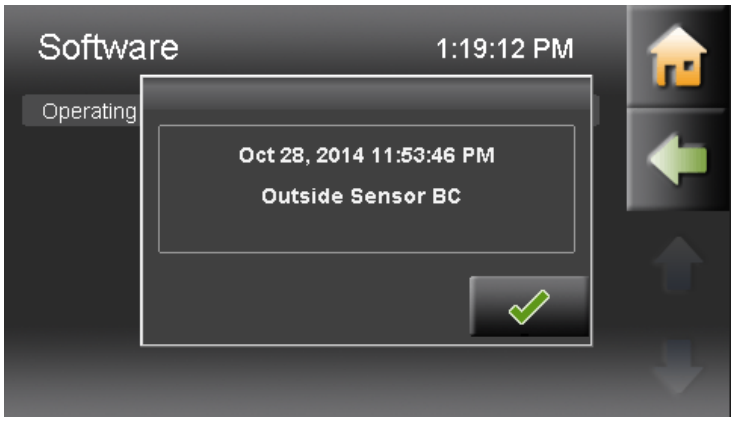
Set the current date.



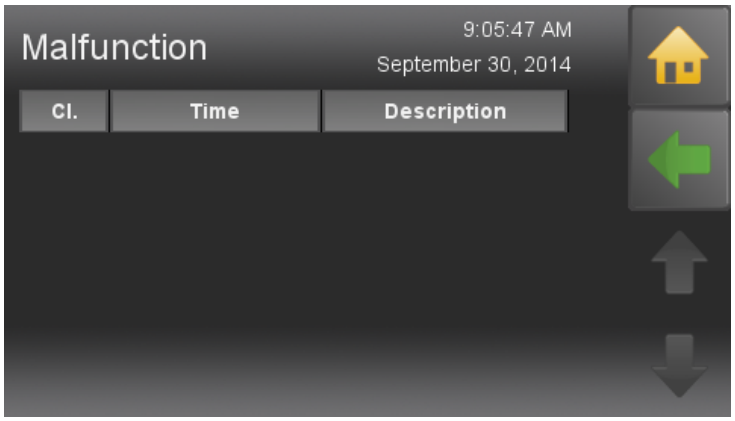
Set the current time.

19.4 Malfunction

Malfunction is in the menu General.



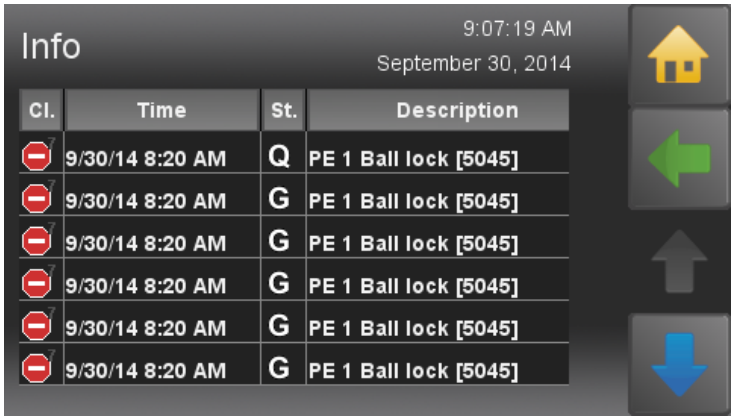
Fault messages can overlayed on all menu items and appear immediately if a fault occurs. Every fault message appears with the date, time and name on the display. It remains until it is acknowledged.



The menu remains the fault incident reports, as long as they are corrected up.

19.5 Information

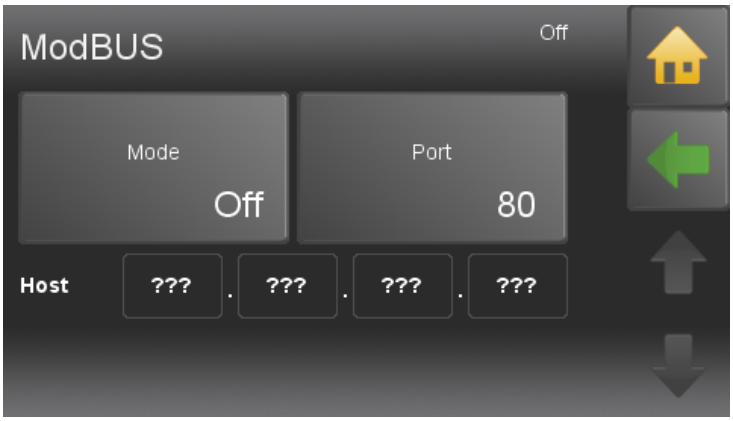
Information is in the menu General.

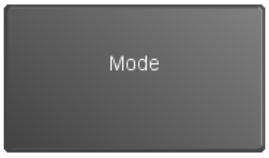


In the menu item information are all faults listed chronologically.
The fault texts have 3 status

- C.....COME — when the fault occurs
- Q.....QUIT — when the fault has been rectified
- G.....GONE — when the fault has been reset by pressing ENTER

19.6 ModBUS



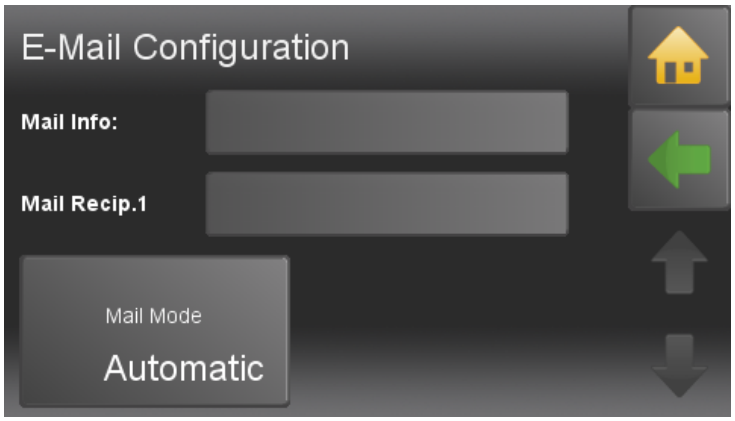


Off

TCP Server

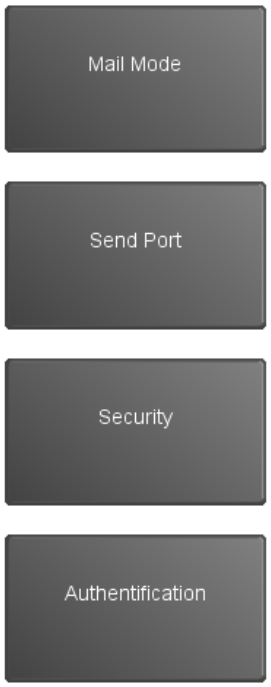
Defaultport for ModBUS is 502.

19.7 E-Mail



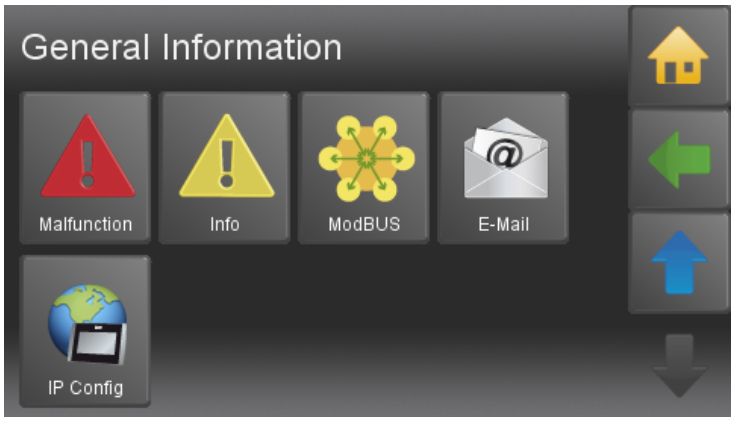
Delivery of disturbance-emails is done through an Maine Energy Systems server.

Only the recipient address needs to be configured.

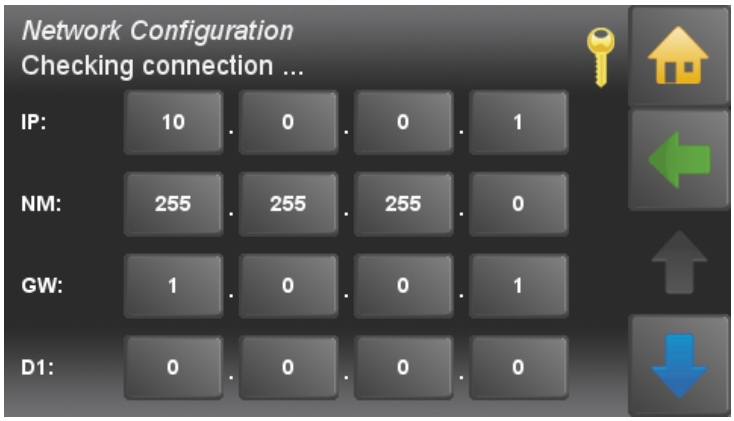


To ensure maximal flexibility, E-mail settings can set individually.

19.8 IP Config



Please choose the submenu item **IP Config** in the menu General.



Insert the **IP (Adress)**, **NM (Netmask)** and **GW (Gateway)** , D1 (in most cases similar to GW) and **D2 (optional)**.

IP: IP address in the local network

NM: Networkmask is required in the local network.

GW: The gateway enables the touch operating device the access to the internet.

D1, D2: Server, which provide routing information

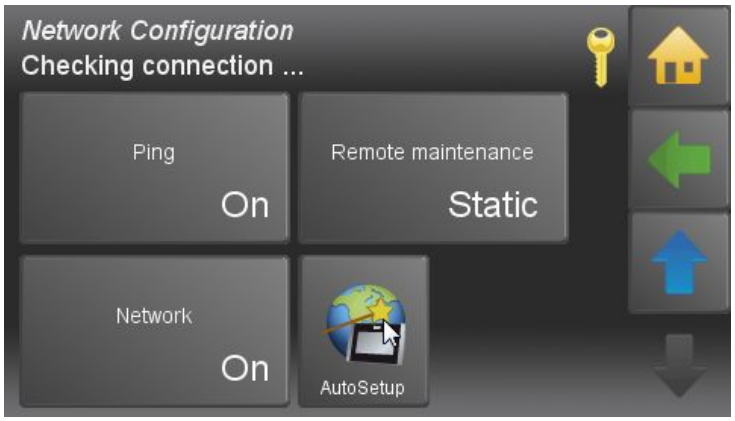
Set **DHCP On** or **Off** depending on your network.

Enter the **Port** (Default **80**).

Web: IP address in local network

Web User: Networkmask is required in local network

Web Password: The gateway enables the touch operating device the access to the internet.

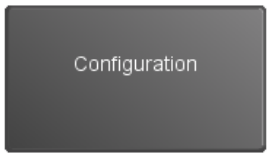


Activate optionally the **Ping** function.

NOTICE

To prevent the modem from switching into standby mode, a ping command is executed every 10 minutes.

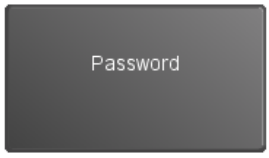
You get the data from your network technician.



This menu item is only active when a compatible USB wireless adapter is connected. (not every wireless stick works with the Touch operating device)
By default, this item is hidden and located in LAN mode.
If the wireless mode is enabled, a password box appears.

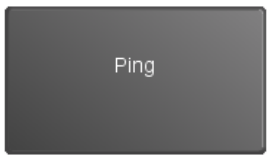
Dynamic address assignment on the local network (should be disabled if possible).

If a WLAN stick is recognized and supported, an Additional LAN & WLAN button appears.

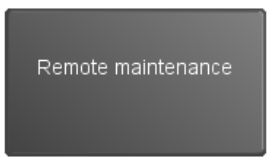


Password of router.

Address extension with which the touch remote control is accessible.
In principle, you can make your own choice, certain ports are associated with special services, e.g. 25 Mail, 80 Web and so on.



The ping prevents the internet connection from beeing closed by the router.
Therefore a query to the Maine Energy Systems server is started at certain time intervals.
So the router detects that the connection is still active.



Automatic: This will attempt to automatically set up the router using the UPNP protocol port forwarding.
If this service is disabled on the router or doesn't work properly, it is canceled accompanied by an appropriate error message.
As this function is time-consuming (may take a few minutes), it is running in the background. Whatever the UPNP
If available, the Touch operating device registers on the Maine Energy Systems remote control server with it's current external IP Address.
In case of change of address by the external provider, this is detected and sent to the server Maine Energy Systems.

Manual: In this mode, the port forwarding must be set manually. (for lack of UPNP)

The port of the touch panel must correspond to the external shared port.
The touch then registers with the external IP address and port on ÖkoFEN remote maintenance server.
In case of change of address by the external provider, this is detected and sent to the Maine Energy Systems server.

Static: In this mode, no connection data is transferred to the Maine Energy Systems server and the online service of Maine Energy Systems can not be used.
But the remote controll of the Touch operating device remains active and can be uses as before via port forwarding, DynDns, fixed external IP, LAN and so on.

Back to the menu **General**.

Remote maintenance access

This function determines the network settings automatically.
For this the DHCP mode is activated and the required settings are set automatically.
Afterwards DHCP is deactivated.
Because of this, the IP address of the contol unit can change.

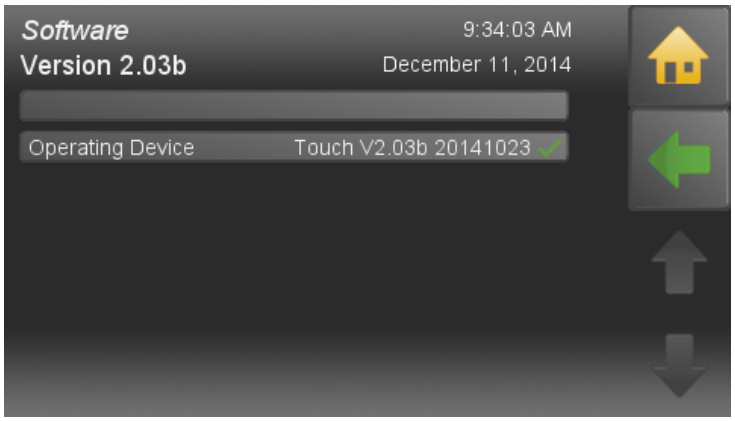
The settings are set as follows:

- DHCP Off
- Ping On
- Port 8080
- Remote maintenance: Automatic

All functions for the network/internet can be disabled here.

20 Software

Software is in the Main menu.



Software shows you the name of the current software.

21 Emptying the ash pan

CAUTION

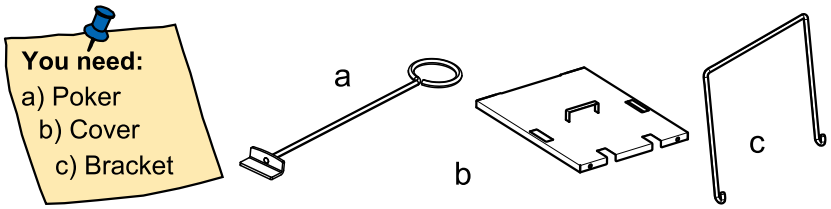
Risk of burns
Do not touch the boiler vessel. Use gloves.

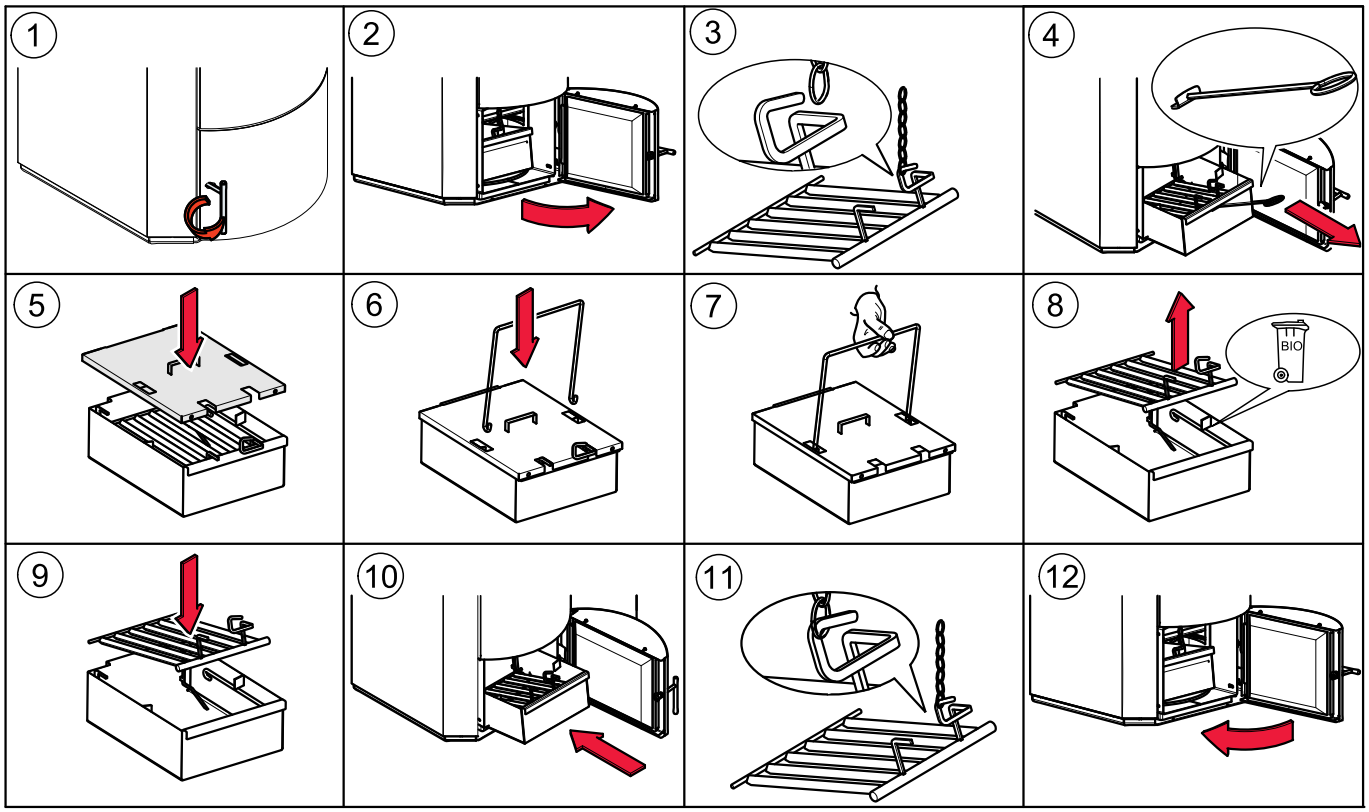
DANGER

Risk of fire
Bring out the ash pan immediatly.
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)





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

22 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.

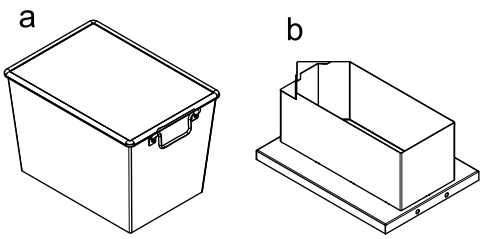
DANGER

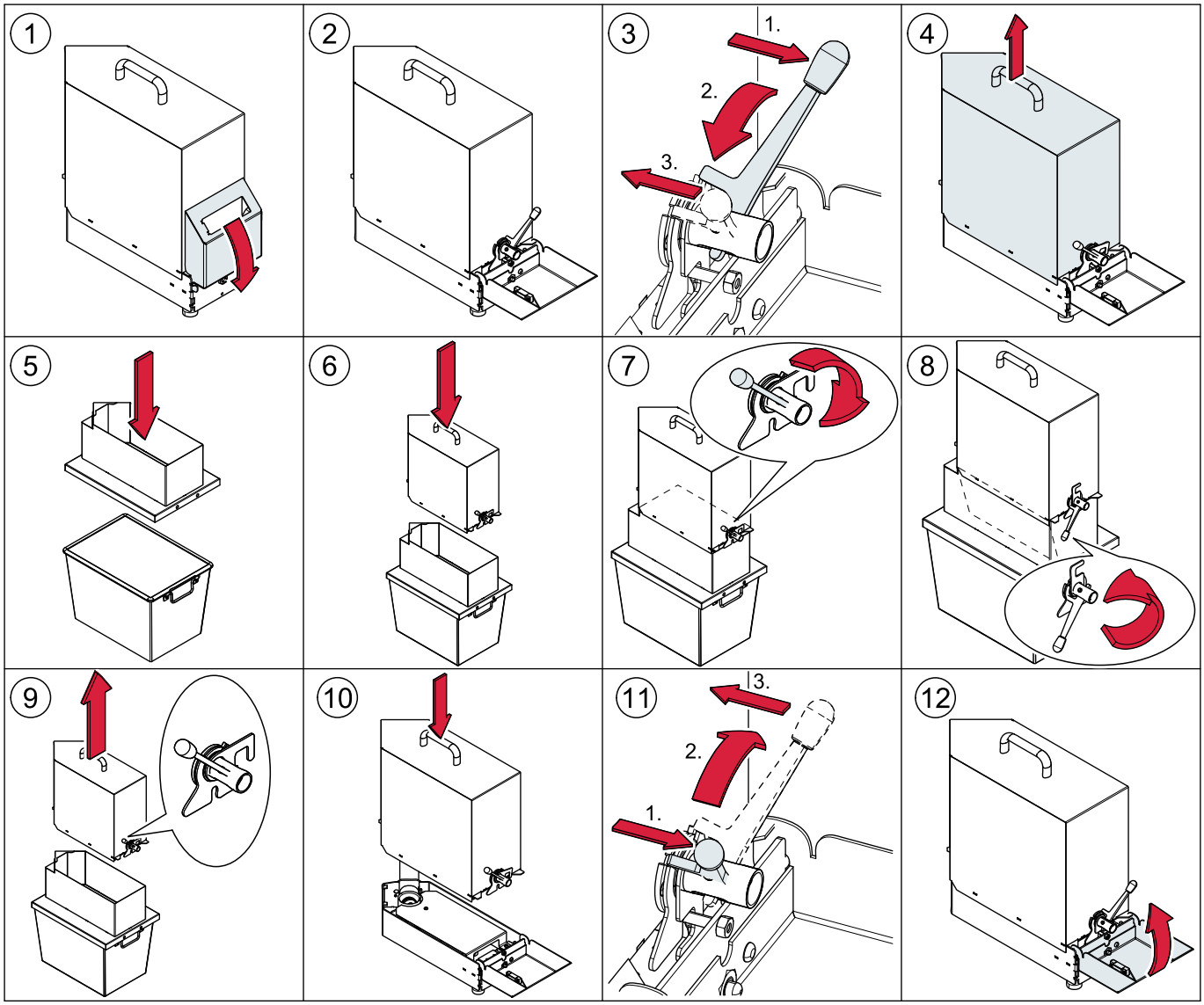
Risk of fire
Bring out the ash box immediatly.
Do not dispose ash until it has completely cooled down.
Empty ash only into a not flammable steel container.
Do not use the ash container to store waste or other material.
Do not empty ash onto flammable floors or materials.

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





23 Maintenance and servicing

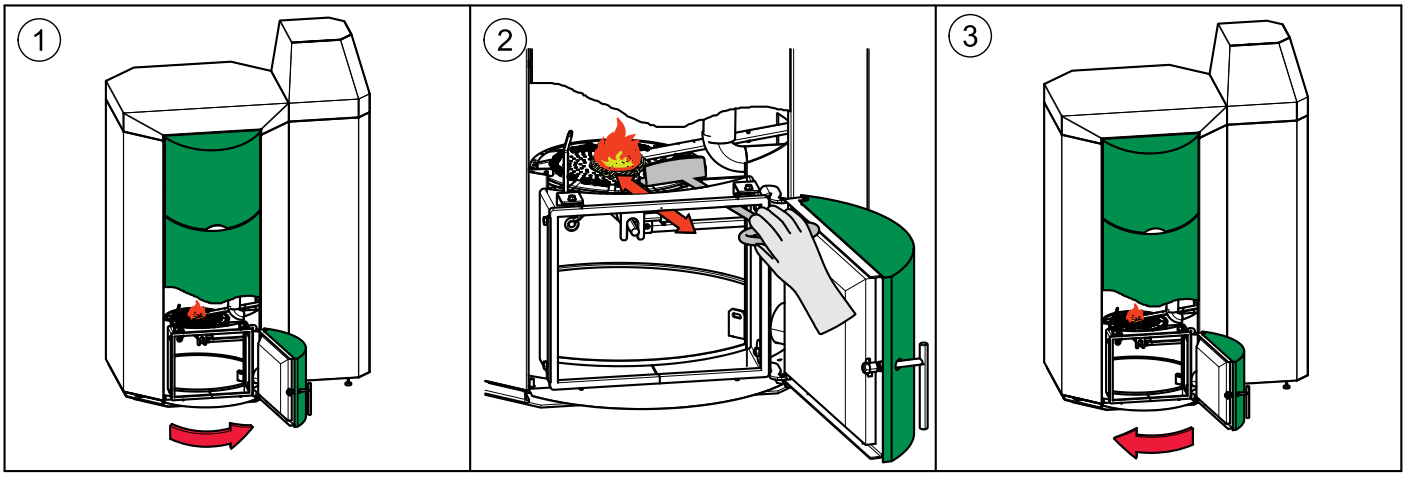
Regular checks of the pellet heating system are a prerequisite for reliable, efficient and environment-friendly operation.

NOTICE

This wood heating appliance needs periodic inspection and repair for proper operation. It is against federal law to operate this wood heating appliance in a manner inconsistent with operating instructions in the manual.

23.1 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 <2372 °F) and pellets with higher bulk density (> 650kg) leads to additional cleaning of the burner plate at regular intervals.



23.2 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.

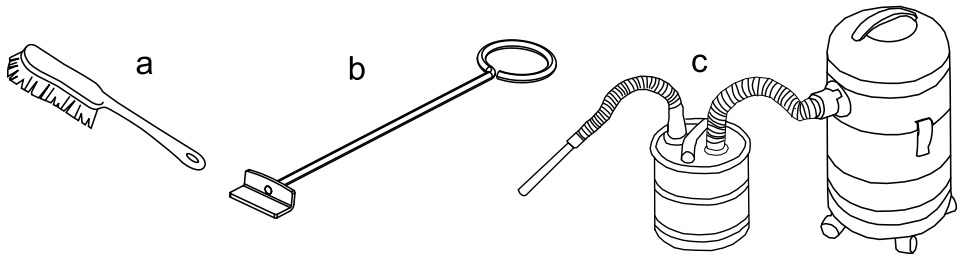
CAUTION

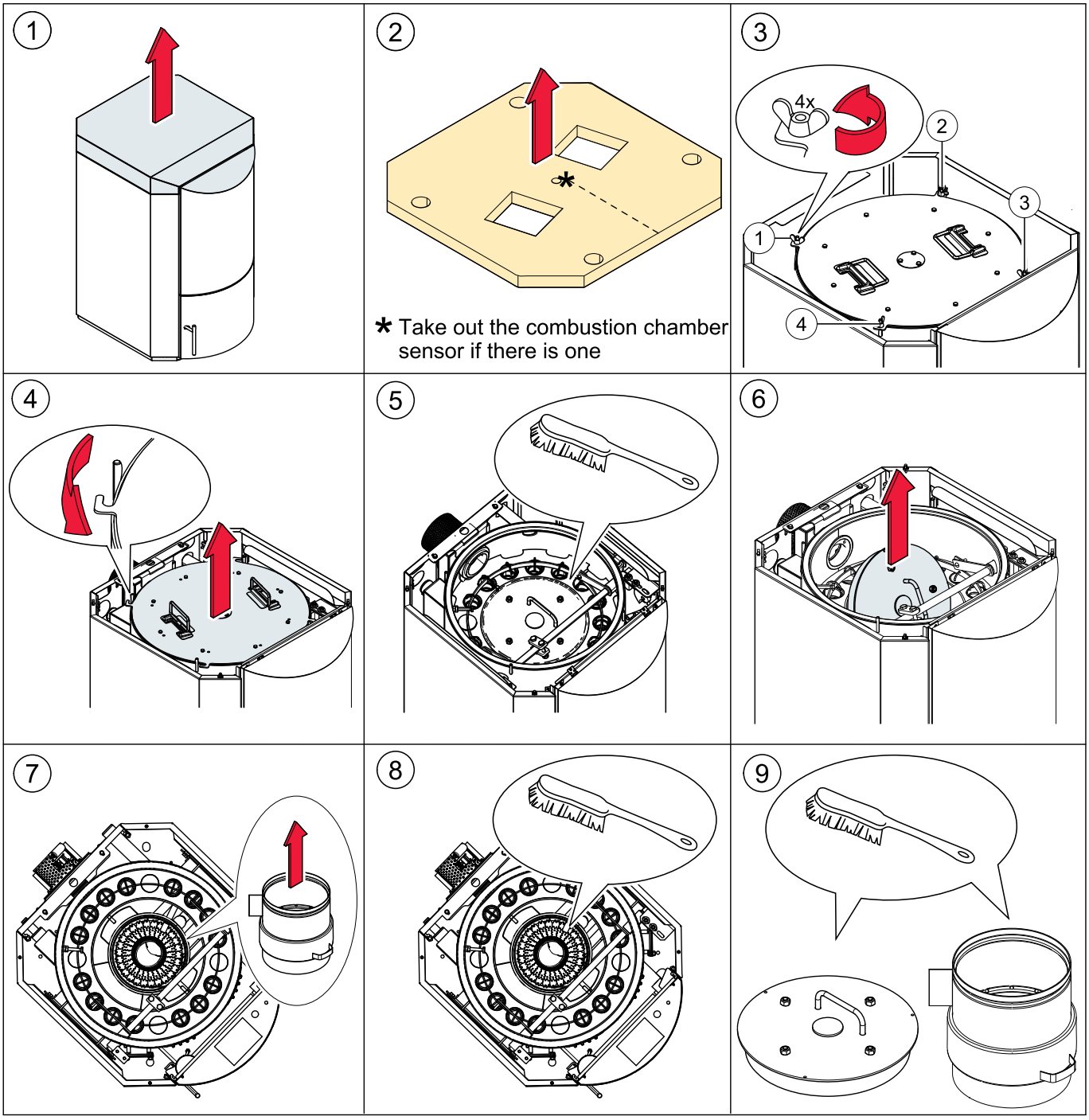
Risk of cut injuries due to sharp edges
Use gloves.

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

Procedure for cleaning the boiler

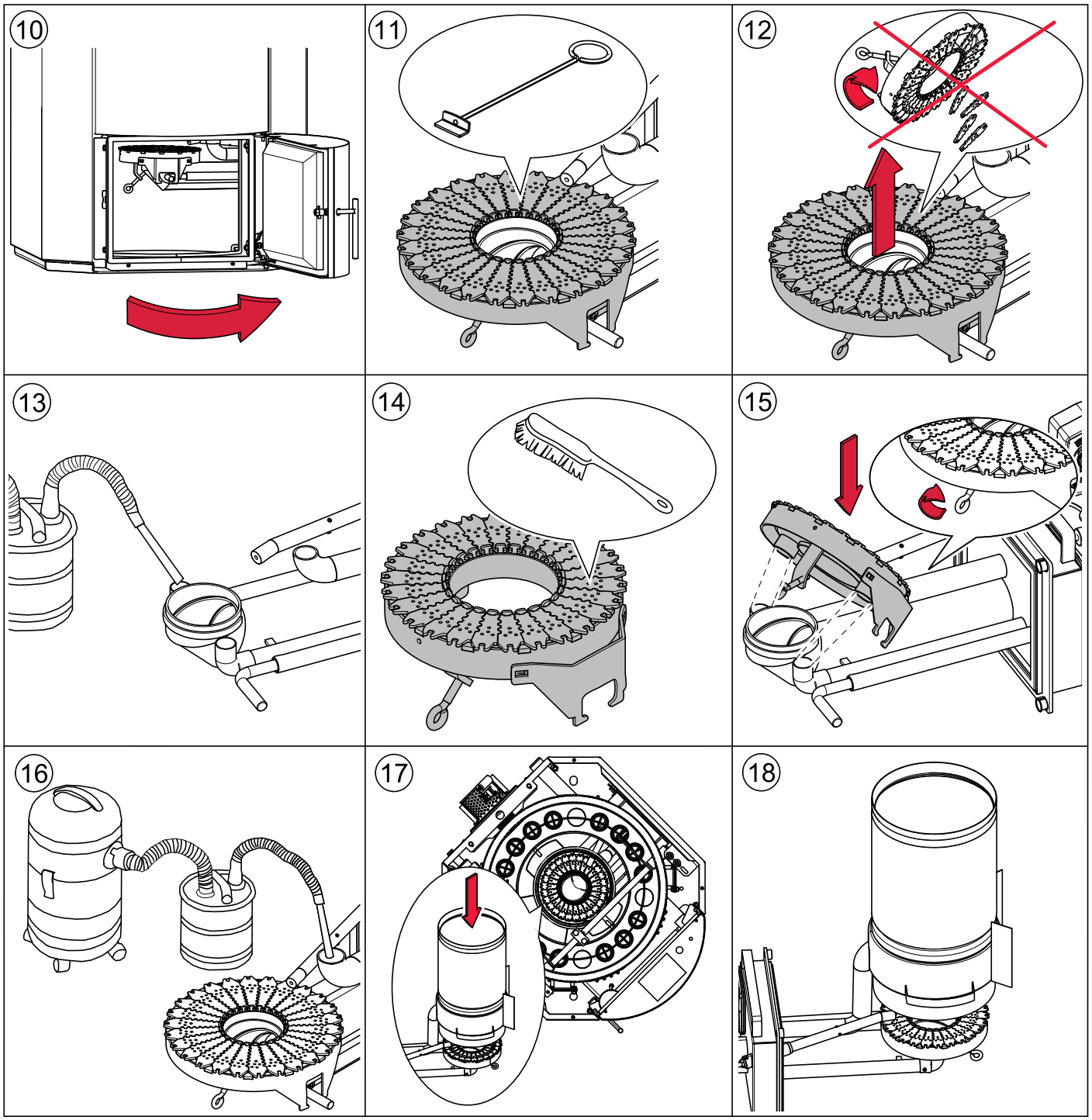
You need:
a) Brush
b) Poker
c) Vacuum cleaner with ash filter





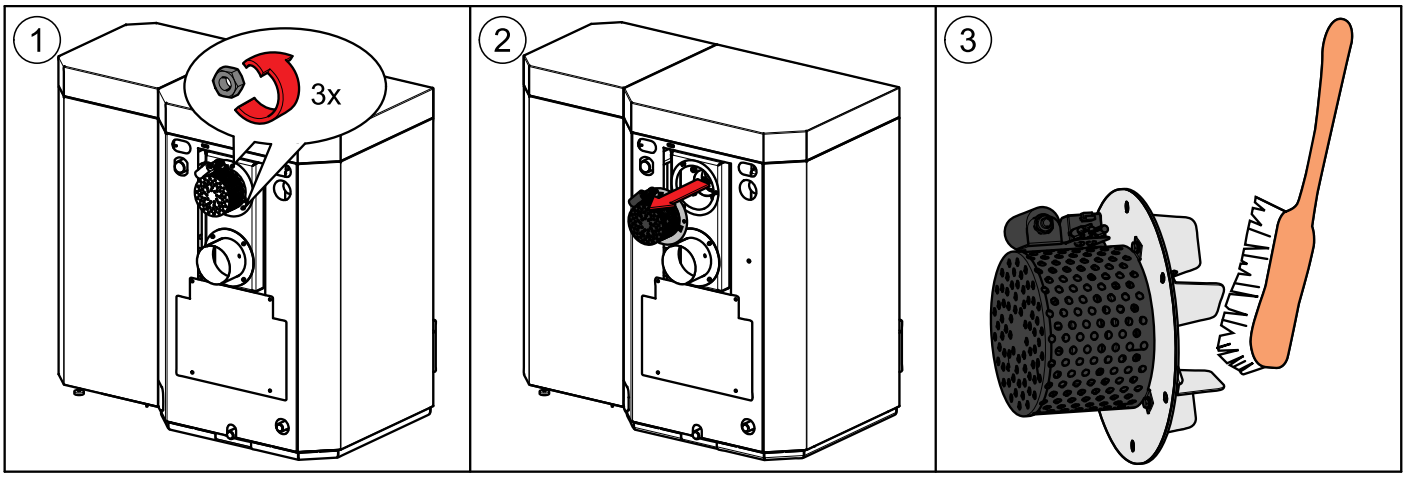
NOTICE

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:



23.3 Maintenance intervals

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

23.4 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.

23.5 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.

Maintenance clearances as given in Installation Manual must be observed at all times.

Do not store fuel or any other materials within these clearances.

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.

Author & Manufacturer

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