+ OPERATING MANUAL

SINCE 1921
windhager
HEAT WITH VISION

FIREWIN

PELLET BOILER

EN

02/2018 092121/06

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1. Important information for system operators

Dear Heating System Owners,

We would like to congratulate you on your new environmentally friendly boiler system. With the purchase of this high-quality product by Windhager, you have selected a system that provides more comfort and optimised fuel consumption while utilising an environmentally friendly means of saving resources. Your boiler was manufactured under strict ISO 9001 certified standards, was subjected to extensive tests and all its components are recyclable.

On the following pages we have provided specific information and important tips regarding system operation, unit functions and cleaning. Please pay close attention to these instructions. Familiarity with the material in this document will allow you to enjoy long-term operation of the unit. We wish you all the best with your Windhager boiler!

1.1 General information

1.1.1 Manufacturer's obligations

Our products are manufactured in accordance with the essential requirements of the various applicable guidelines. They therefore carry the CE-label and are supplied with all the required documentation.

Technical details subject to change.

We as the manufacturer cannot be held liable in the following cases:

- Incorrect use of the unit
- Failure to perform proper maintenance
- Incorrect installation of the unit

1.1.2 Installer's obligations

The installer is the person responsible for installing the unit. The installer must comply with the following instructions:

- Read and follow all instructions supplied with the unit.
- Carry out installation in accordance with the applicable standards and specifications.
- Explain to the operator how the system works.
- Make the operator aware of his obligation to inspect and maintain the unit.
- Hand over all operating instructions to the operator.

1.1.3 Operator's obligations

To ensure that the unit gives optimum service, the operator must follow these instructions:

- Read and follow the instructions in the operating manual.
- Installation and commissioning must be performed by appropriately qualified technicians.
- Make sure the installer explains how the system works.
- Perform all the necessary checks and maintenance.
- Keep the manuals in good condition and store them near the unit.

This unit is not intended for use by persons (including children) who have physical or mental disabilities or sensory impairment or who have no experience or knowledge of the correct use of the unit, unless supervised or trained by a person responsible for their safety. Children should be supervised to ensure they do not play with the unit.

1.2 Safety precautions

The boiler and related accessories are state of the art and meet all applicable safety regulations and operate using 230 V AC electrical current. Improper installation or repair can pose the danger of life-threatening electrical shock. Installation may be performed only by appropriately qualified technicians.

Caution symbols

Please take careful note of the following symbols in this Operating Manual.

Attention!

Ignoring the warnings identified can lead to **personal injury**.

Information!

Ignoring the warnings identified can lead to **malfunction of, or damage to the boiler or heating system**.

Note!

The blocks of text highlighted provide **information and tips** for operation.

1.3 Sources of danger

1.3.1 Fire protection

The entire system must comply with technical fire protection requirements in accordance with the applicable regulations, standards and guidelines.

All flammable materials in the close vicinity of the pellet central heating boiler for living areas must be protected against the effects of heat, in particular in the area of the front window.

Attention!

Do not drape clothing or other items over the FireWIN for drying them.

Do not touch the front window – danger of burns.

1.3.2 Power failure (or if the blower is not running)

Attention!

Do not open the combustion chamber door, there is an increased risk of deflagration when opening the combustion chamber door. A self-test is performed following a power failure during combustion and then operation is continued automatically.

1.3.3 Burner pot

Attention!

Never fill the burner pot with pellets by hand. Excessive combustion material in the burner pot means that the pellets will not be ignited optimally. Too much low temperature carburisation gas will be generated and this can lead to deflagration.

1.3.4 Entering the pellet storage room, storage container

All energy sources are subject to safety regulations which must be observed when working with fuels, heating systems and storage rooms. This also applies to the storage of pellets.

After the storage room is filled, odourless carbon monoxide (CO) may be produced and there may be insufficient oxygen. For this reason, do not enter the pellet storage room for 6 weeks after it has been filled. Only trained persons may enter the storage room for the purpose of measuring gas levels.

Please also follow the instructions on the sticker:

- No access to unauthorised persons, keep children away from the pellet store!
- Ensure sufficient ventilation before entering. Keep the door open while inside.
- Only enter the storage room under the supervision of a second person standing outside.
- No smoking, flames or other sources of ignition are permitted.
- Risk of injury from moving parts.
- Pellet boilers must be switched off at least 15 minutes before filling.
- Fill in accordance with the instructions of the boiler and pellet suppliers.
- Protect pellets from damp.

If you feel unwell, leave the storage room immediately and seek medical advice.

Attention!

Do not attempt to enter an unaired storage room (particularly buried tanks).

1.4 Fuel

To ensure that your new heating system provides long-term reliable service, the following must be observed:

Quality of pellets must be in accordance with EN ISO 17225-2:

The quality of the pellets is an important factor in achieving optimum operation of the heating system. When buying pellets, make sure that they meet the quality standards of EN ISO 17225-2 (or DINplus). For maximum reliability, source pellets from manufacturers with EN-Plus certification (or DIN-Plus or UZ38), as they are required to perform ongoing internal quality control.
Diameter: 6 mm; Length: 10 – 40 mm; max. 1 % up to 45 mm

Make your pellet supplier aware of these quality requirements before ordering and seek confirmation upon delivery.

Consequences of quality fluctuations:

Pellets are 100% unprocessed wood, so minor fluctuations in fuel quality are normal and reflect the natural origins of the material. These quality fluctuations affect the level of dirt, the ash content and therefore the cleaning intervals.

A reduction in cleaning intervals due to fluctuations in pellet quality cannot be remedied as part of a repair under guarantee!

1.5 Start-up and maintenance

Please permit Windhager Customer Service or have one of our customer service Partners put your new boiler into service. In this way, all functions of the new unit will be thoroughly checked; you will also benefit from the detailed information provided by the system installer. Installation by a qualified technician as well as the maintenance required by the guarantee limitations and undertaken by Windhager Customer Service or a customer service partner will guarantee the optimal use and service life of your boiler system. This is the only way to assure the benefits of this technologically advanced boiler and guarantee safe, environmentally friendly and energy-saving system operation.

The following preconditions must be met before you order the initial start-up:

1.) Boiler installed correctly.
2.) System fully wired up electrically.
3.) System rinsed, filled and vented – heat consumption must be possible.
4.) Boiler connected to domestic water and filled.
5.) Sufficient quantity of fuel available (pellets, split logs, oil or gas).
6.) The customer must be present during start-up.

The initial start-up cannot be carried out if any of these points are neglected. The customer will be charged for any unnecessary costs arising as a result.

Start-up and maintenance by Windhager Customer Service or a customer service partner are part of the guarantee requirements of the enclosed "guarantee limitations".

Note!

During the first few weeks after start-up, condensation can occur in the combustion chamber, ash pan and on the heating surfaces. This has no effect on the function and service life of the boiler.

1.6 Functional test

EN 12828 and ÖNORM B8131 require that the function of the system and related safety equipment be checked and certified yearly by a qualified technician (installer, heating system contractor).

At two-year intervals, the heating water condition must be checked (ÖNORM H 5195-1 Expenditure 2010) by a heating expert (installer) (see FireWIN installation instructions – Heating water); this is to prevent corrosion and sediment accumulation in the heating system and boiler.

In the event of repair work requiring a change of water in the heating system, the heating water is to be checked within 4 to 6 weeks after such work.
Corrosion and sediment resulting from improper heating water are not covered by the guarantee and warranty.

1.7 Filling the pellet store

Attention!

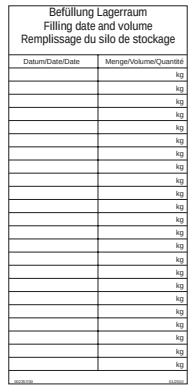
The pellet boiler must be switched off **correctly** at least 15 minutes before the store is filled – Fig. 2. **Press the ON/OFF button. Never switch off using the emergency OFF switch!**

Pressing one of the six buttons firstly switches just the lighting and display on. The boiler is only switched off when the button is pressed for the 2nd time. Wait until burnout mode has finished (not indicated on the display) and open the combustion chamber doors.

During filling, negative pressure is created in the pellet store and this can cause burn-back in the pellet boiler. Therefore, the boiler must be stopped from operating during the filling procedure.

Every storage room fill should be documented by adding the date and volume to the „Storage room fill" sticker – Fig. 3.

Fig. 2 Switching off FireWIN


Befüllung Lagerraum
Filling date and volume
Remplissage du silo de stockage

Datum/Date/Date	Menge/Volume/Quantité
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Fig. 3 „Storage room fill" sticker on the storage room door

1.8 Operating noises

The FireWIN is a modern, fully automated pellet central heating boiler for living areas with a high level of convenience in terms of operation and cleaning. This automation means that operating noises may occur during normal operation.

Normal operating noises are:

Flame noises – Natural flame noise can be heard depending on the size of the flames.

Light scratching and scraping noises – Depending on the level of contamination, cleaning noises may occur during automated cleaning or shake-out. If these become louder over time ➔ Clean the pellet central heating boiler, especially the burner pot.

Trickling of pellets and vacuum cleaner noise – Fully automated pellet supply involves pellets being sucked from the storage room into the reserve supply container. During filling, the suction turbine generates a „vacuum cleaner noise" in the storage room and the feed hose, and the trickling of the pellets can be heard in the reserve supply container.

Clicking noises – The relays switch on or off when the control unit is installed.

Liquid noise, gurgling – This is caused by air in the heating water ➔ Bleed the system.

Air induction noises – Air induction noise occurs at the air supply induction point for combustion (air opening in the device) ➔ For information on routing the induction point through air supply pipes and into an adjacent room or about a form of operation that is independent of the room air, see the FireWIN assembly instructions.

Auger conveyor noise – During operation, the drive motor for the auger conveyor may emit low-level intermittent noises.

Note!

Due to these operating and flame noises, we do not recommend installing the device in bedrooms or quiet rooms – see also the information in the FireWIN „Assembly instructions".

2. Operation

2.1 Functional description, function elements and operating controls

The FireWIN pellet central heating boiler for living areas and the Modular Energy System MES or the REG standard control combine to form a perfect unit. The FireWIN automatically fires when the control system signals a heating requirement. Following „purging" (safety function), ignition starts and the pellet metering auger switches on. The burner pot is automatically filled with pellets. When flame formation has been detected (by the thermocontrol sensor), the boiler enters flame stabilisation mode and then control mode (modulation mode) and keeps to the specified boiler temperature setpoint (between 60 °C and 75 °C). The boiler enters burnout mode if the output drops below the minimum nominal thermal output or no heating requirement is signalled by the control system. The blower continues to run until the burner pot has cooled down. Therefore, do not switch off the electricity supply to the device too soon.

2.1.1 FireWIN Klassik

The reserve supply container is loaded by hand. The heating surfaces are cleaned manually using the cleaning lever. The cleaning residues from the heating surfaces and the combustion residues from the burner pot drop into the ash pan or ash pan space.

1..... Ash pan
2..... Ash door
3..... Filling and evacuation cock
4..... Primary air pin
5..... Pressure gauge
6..... Burner pot
7..... Heat shield
8..... Down chute
9..... Pressure measuring nipple
10..... Combustion chamber door
11..... Lug for hanging in the heat shield
12..... Baffle plate
13..... Thermocontrol sensor
14..... Cladding door
15..... Heating surface cover
16..... Safety valve
17..... InfoWIN^{PLUS} operating unit
18..... Reserve supply container cover
19..... Glass cover
20..... Pellet reserve supply container
21..... 1 MES^{PLUS} module or with 2 or more modules in the wall-mount casing
22..... Boiler temperature safety thermostat B7
23..... Rotary feeder safety thermostat B7a
24..... Auger and motor
25..... Rotary feeder
26..... Rotary feeder cleaning opening
27..... Exhaust pipe
28..... Exhaust pipe cleaning opening
29..... Blower motor
30..... Blower box

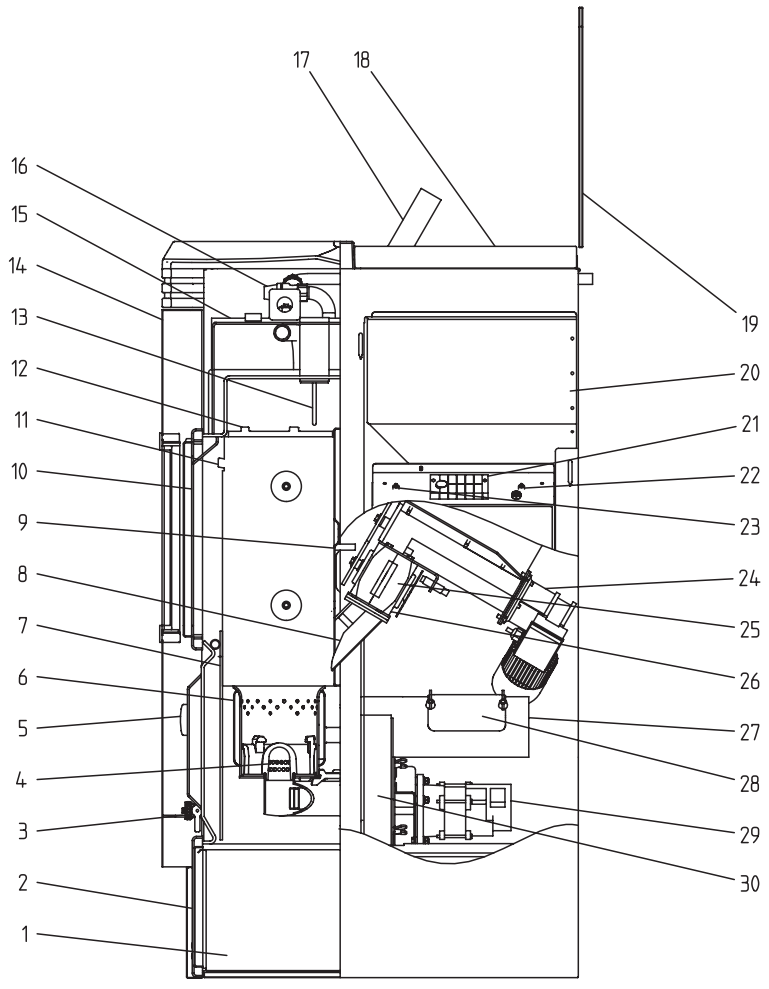


Fig. 4 FireWIN Klassik – view from right

2.1.2 FireWIN Premium

Version as FireWIN Klassik, but in addition with fully automated pellet feed

The pellet feed uses a maintenance-free suction turbine to fill the FireWIN reserve supply container fully automatically with pellets from a pellet storage room or storage container. The pellet feed is switched on by the lower fill level switch (proximity switch) in the reserve supply container or at the end of the enable time or the beginning of the start time, and runs for as long as the reserve supply container is full. Filling is not started if the boiler is in heating operation or the feed has been blocked by the control unit (outside the enable time, e.g. at night). If the boiler is operating when filling is necessary, the boiler switches to burnout mode.

Switching between suction probes 1, 2 and 3 is a fully automatic process. The system changes to the next suction probe after the reserve supply container has been filled a certain number of times. This means the storage room is emptied as evenly as possible.

1.....Ash pan
2.....Ash door
3.....Filling and evacuation cock
4.....Primary air pin
5.....Pressure gauge
6.....Burner pot
7.....Heat shield
8.....Down chute
9.....Pressure measuring nipple
10.....Combustion chamber door
11.....Lug for hanging in the heat shield
12.....Baffle plate
13.....Thermocontrol sensor
14.....Cladding door
15.....Heating surface cover
16.....Safety valve
17.....InfoWIN^{PLUS} operating unit
18.....Reserve supply container cover
19.....Glass cover
20.....Inspection cover
21.....Coarse filter
22.....Pellet reserve supply container
23.....1 MES^{PLUS} module or with 2 or more modules in the wall-mount casing
24.....Boiler temperature safety thermostat B7
25.....Rotary feeder safety thermostat B7a
26.....Auger and motor
27.....Rotary feeder
28.....Rotary feeder cleaning opening
29.....Exhaust pipe
30.....Exhaust pipe cleaning opening
31.....Blower motor
32.....Blower box

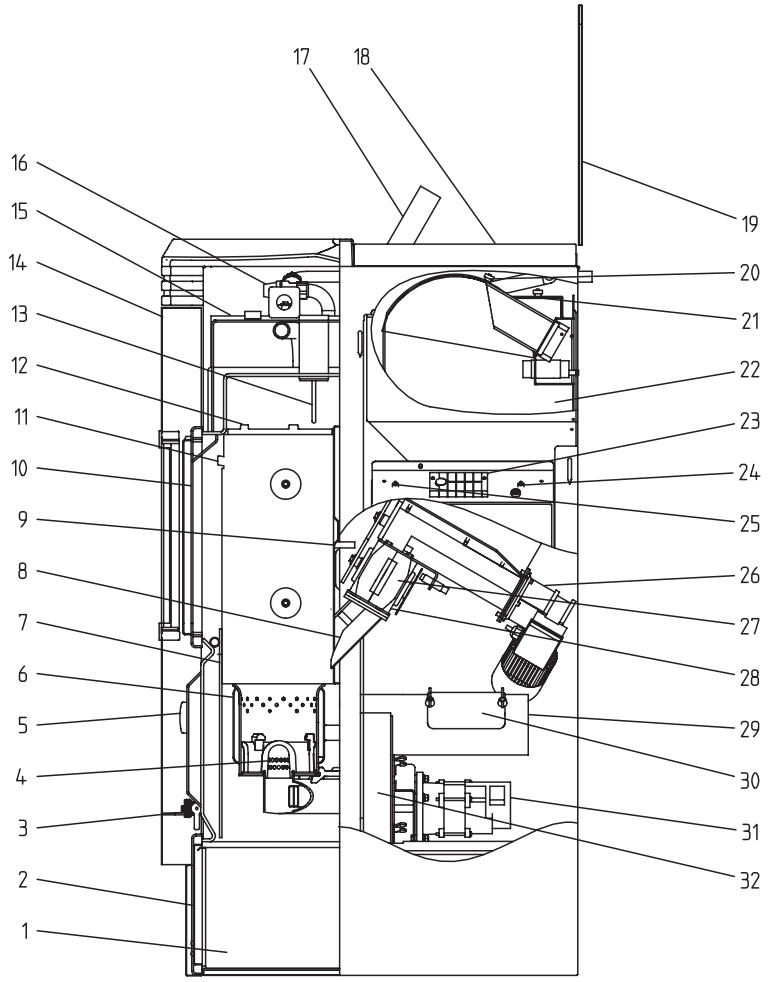


Fig. 5 FireWIN Premium – view from right

2.1.3 FireWIN Exklusiv

Version as FireWIN Premium, but in addition with fully automatic heating surface cleaning and ash compactor

Fully automatic heating surface cleaning:
A motor moves the heating surface cleaning system vertically and the heating surfaces remain clean.

Fully automatic ash compactor:
The fully automatic ash compactor uses a motor and pressure plate to compress the ash in the ash container. This makes the emptying intervals up to 3 times longer.

1.....Ash pan
2.....Ash door
3.....Ash compactor
4.....Filling and evacuation cock
5.....Primary air pin
6.....Pressure gauge
7.....Burner pot
8.....Heat shield
9.....Down chute
10.....Pressure measuring nipple
11.....Combustion chamber door
12.....Lug for hanging in the heat shield
13.....Baffle plate
14.....Thermocontrol sensor
15.....Cladding door
16.....Heating surface cover
17.....Safety valve
18.....InfoWIN^{PLUS} operating unit
19.....Reserve supply container cover
20.....Glass cover
21.....Inspection cover
22.....Coarse filter
23.....Pellet reserve supply container
24.....1 MES^{PLUS} module or with 2 or more modules in the wall-mount casing
25.....Boiler temperature safety thermostat B7
26.....Rotary feeder safety thermostat B7a
27.....Auger and motor
28.....Rotary feeder
29.....Rotary feeder cleaning opening
30.....Exhaust pipe
31.....Exhaust pipe cleaning opening
32.....Blower motor
33.....Blower box
34.....Motor for ash compression

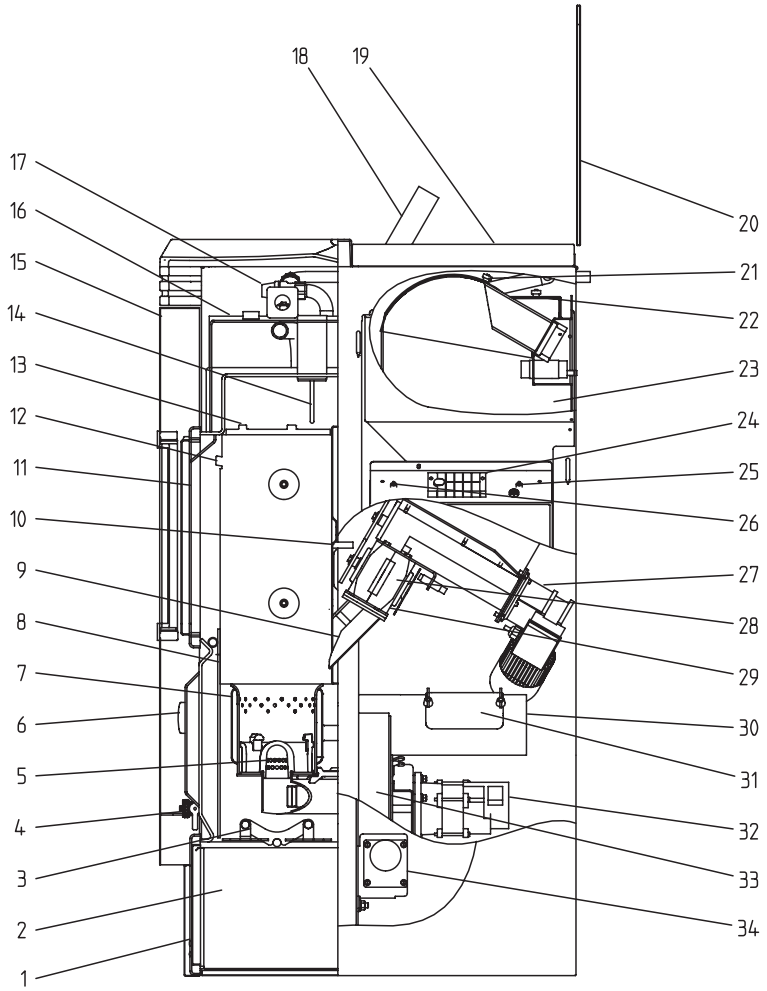


Fig. 6 FireWIN Exklusiv – view from right

2.1.4 Heat shield (accessory FIRE 023)

Heat radiated from the front window can lead to unwanted heating of the room where the unit has been set up when domestic hot water is being heated during the summer. If you do not want the room to be heated, you can significantly reduce the amount of heat radiated using the patented heat shield (accessory Fire 023).

The air-to-water ratio without a heat shield is approx. 15 : 85 % and with a raised heat shield approx. 9 : 91 %.

The heat shield is located in the combustion chamber. This can be pulled up using the supplied Allen key and hooked into the lugs on the sides of the combustion chamber cover plates, Figs. 7, 8.

Fig. 7 Hooking in the Allen key

Fig. 8 Pulling up the heat shield and hooking it into the lugs on the sides

2.2 Check before initial start-up

a) System pressure (heating water pressure):
The system must be filled and vented. With the system cold, pressure should be at least 1.0 bar (maximum 1.8 bar) – Fig. 9 If you have any questions, your installer will gladly answer them.

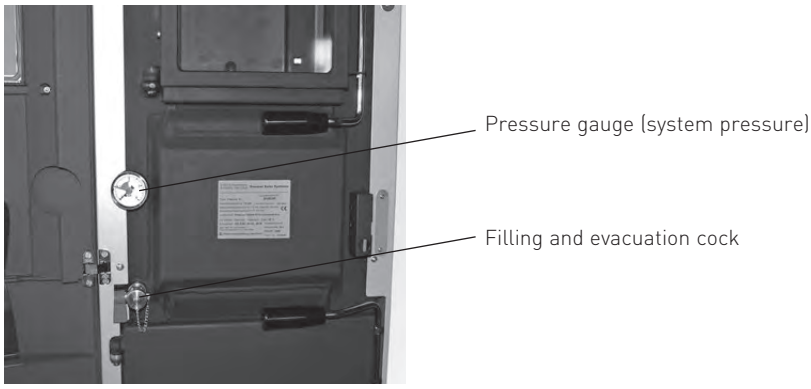


Fig. 9 Filling the system

b) Ventilation:
Please make sure the boiler room is well ventilated. The air supply must be as free of dust as possible.

c) Flue:
Please have the chimney sweep check the flue, and, if necessary, clean it.

2.3 Filling the reserve supply container

2.3.1 FireWIN Klassik – Manual filling

Information!

Do not open the reserve supply container cover unless the glass cover is closed, in order to avoid damaging the glass cover.

When filling, make sure no extraneous materials (e.g. shreds of the pellet bags resulting from cutting open the bags) enter the reserve supply container – they could block the rotary feeder!

Fold open the cover of the reserve supply container (Fig. 10) and fill the reserve supply container up to max. 1 cm below the edge. Close the cover.

Tip!

The reserve supply container should always be completely filled with pellets. This allows the incoming pellets to drop into the container better, reduces the size of the conical part of the pile and means that the container empties better.

Fig. 10 Folding open the cover

2.3.2 FireWIN Premium and Exklusiv – fully automatic filling

The reserve supply container is filled by the fully automatic pellet feed. Windhager Customer Service or the customer service Partner will perform the first fill (start-up), take the boiler and its pellet supply into service and familiarise the customer with the operation and cleaning of the boiler, with reference to the Operating Manual.

2.4 InfoWIN^{PLUS}

The InfoWIN^{PLUS} is a central operating and display unit for boilers and for modules of the MES^{PLUS} system control (see separate instructions).

The InfoWIN^{PLUS} is located at the top under the glass cover. Press the locking button at the front and fold the glass cover open, the InfoWIN^{PLUS} pops up automatically – Figs. 11, 12. It consists of a large full text display, an ON/OFF button with an LED signal lamp indicating Operation (green) or Malfunction (red), a button for manual operation / flue cleaning function as well as four individual menu buttons. The function of each menu button is displayed on the Menu line.

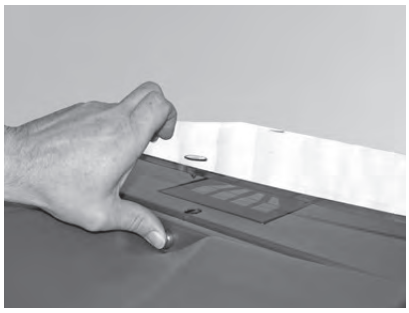


Fig. 11 Press the locking button

Fig. 12 InfoWIN^{PLUS} pops up

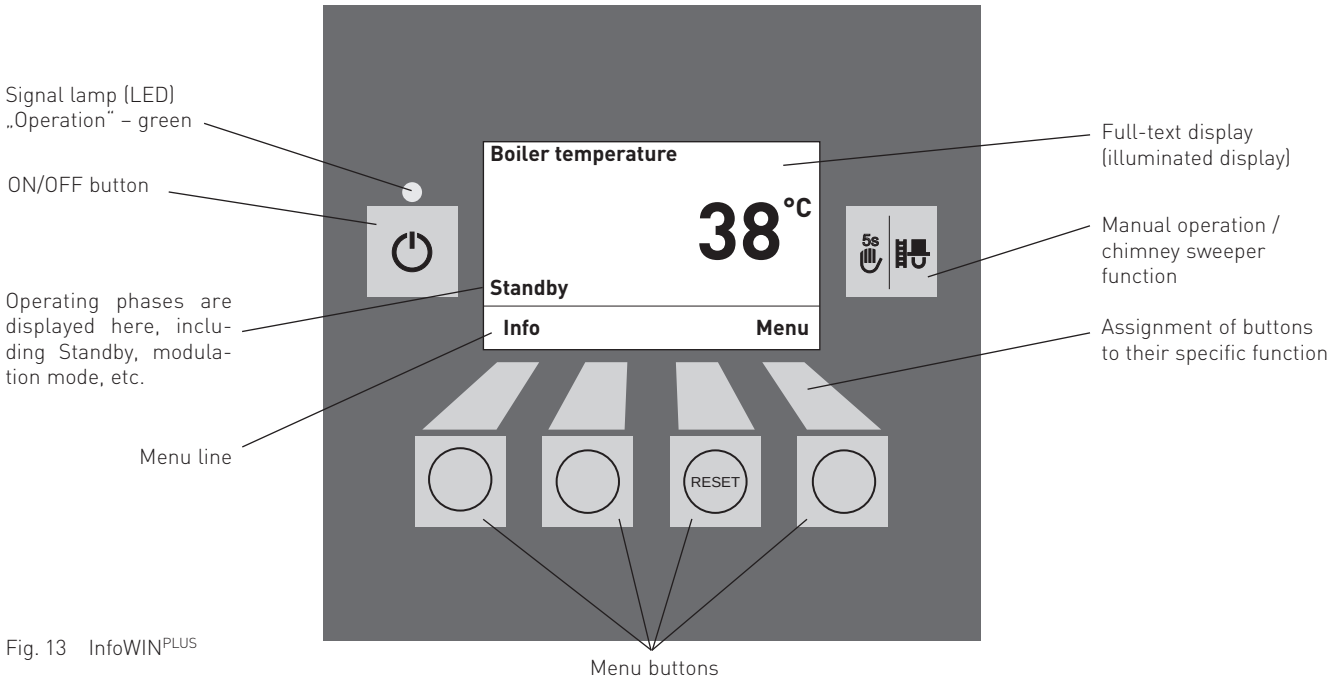


Fig. 13 InfoWIN^{PLUS}

backlit display

Colours of backlit display:

- White: Normal operation
- Pink: Information and fault messages
- Red: Alarm message

During normal operations the backlit display is turned off automatically after 10 minutes if no button is pressed during this period.

Display

If the boiler is in standby mode or has been in solid fuel/buffer mode for longer than one hour, the display is turned off completely and only the green LED is lit. The display is turned on again when a button is pressed or if another operating mode is activated.

The various operating modes are displayed on InfoWIN^{PLUS} together with the corresponding operating phases.

The following **operating modes** exist:
- OFF
- ON (with self-test, lighting ON, lighting OFF)
- Pellet feed
- Solid fuel / buffer mode
- Manual operation
- Chimney sweeper function
- Shut-down procedure

Corresponding **operating phases**:
- Standby, display OFF
- Purging
- Ignition phase
- Flame stabilisation
- Modulation mode
- Burnout
- Burner OFF
- Switch off heat generator

2.5 Operating modes

2.5.1 OFF mode

The boiler is switched off when in OFF mode. The display and all buttons, with the exception of the **ON/OFF** button, do not function. The LED on the InfoWIN^{PLUS} is not illuminated – Fig. 14.

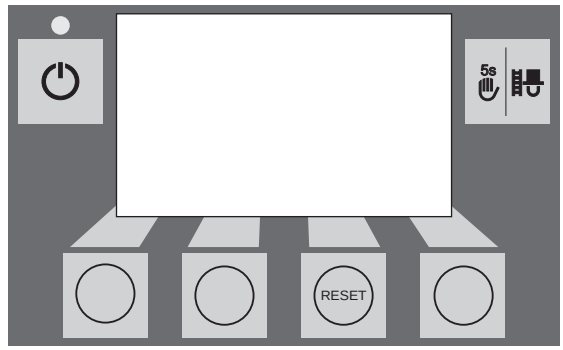


Fig. 14 OFF mode

2.5.2 ON mode, lighting ON, self-test, lighting OFF

Press the **ON/OFF** button, lighting and display are switched on and the self-test starts automatically – Fig. 15.

Self-test:

Sensors, switches and motors are checked during the self-test.

After a successful self-test, the display shows an operating phase and the boiler water temperature (standard display). The LED signal lamp lights green and the desired functions can be selected using the buttons – Fig. 16.

If the self-test was unsuccessful, an information message (e.g. information, fault, alarm) is displayed (see section 4).

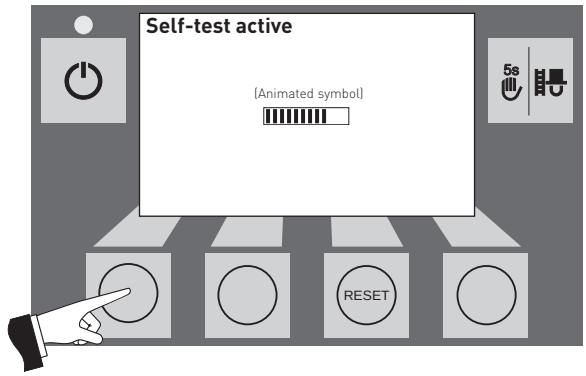


Fig. 15 Self-test

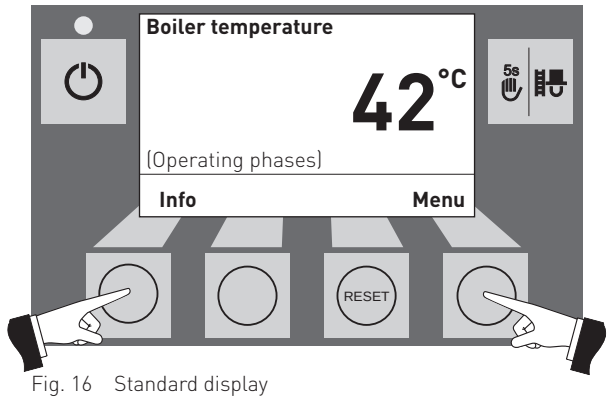


Fig. 16 Standard display

Lighting ON/OFF

The display lighting switches off automatically after 10 min. (Fig. 17). Pressing one of the six buttons switches the lighting on again for 10 min.

InfoWIN^{PLUS} identifies and stores the various operating modes and states. Once the system is switched on, other operating modes may also be displayed instead of the standard display, such as manual operation or solid fuel/buffer mode; malfunctions are also displayed. These operating modes and states are described later in these instructions.

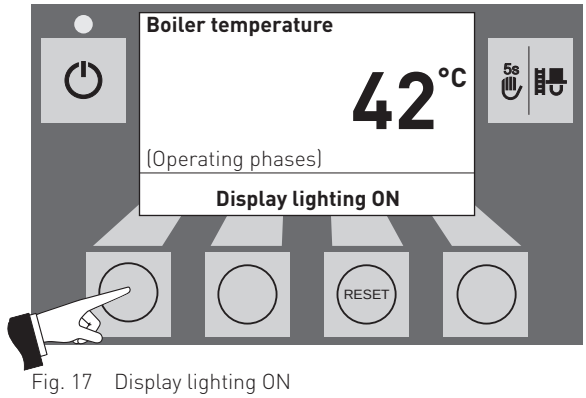


Fig. 17 Display lighting ON

2.5.3 Pellet feed

Pellet feed – burnout

Pellet feed from the storage room into the reserve supply container has been requested. Combustion is stopped.
Pellet transport into the burner pot is stopped, the Induced draught fan continues to run until all the remaining pellets have been burned and the burner pot has cooled down – Fig. 18.

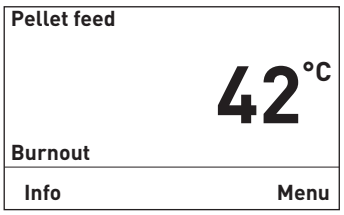


Fig. 18

Pellet feed in operation

The pellet feed is in operation. Pellets are supplied from the storage room into the reserve supply container. The burner is locked – Fig. 19.

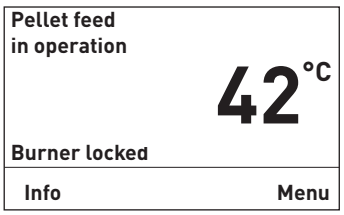


Fig. 19

2.5.4 Solid fuel/buffer mode

If the FireWIN pellet central heating boiler for living areas is combined with a solid fuel boiler or an buffer tank, the WVF+ or B-PLM+ automatically switches over between pellet and solid fuel/buffer mode.

Combustion of the FireWIN is stopped when the WVF+ or B-PLM+ module sends the request to switch over to solid fuel/buffer mode – Fig. 20.

Following this, the system switches over to solid fuel/buffer mode and the FireWIN burner is locked – Fig. 21

If the pellet central heating boiler for living areas is switched off using the ON/OFF button on the InfoWIN^{PLUS}, an automatic switchover to solid fuel/buffer mode is performed in conjunction with a WVF+ module. Once the InfoWIN^{PLUS} unit is switched on, the pellet central heating boiler may be locked for a maximum of 15 minutes due to the switch-over delay. This is displayed by InfoWIN^{PLUS} – Fig. 21.

After an hour in solid fuel/buffer mode, the display is shut down fully, only the green LED is lit up. The display is switched back on by pressing a button or when there is a heating requirement.

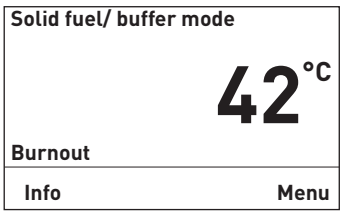


Fig. 20

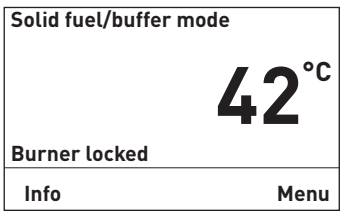


Fig. 21

2.5.5 Manual operation

Note!

Manual operation cannot be started in "solid fuel/buffer mode". Manual operation must not be started if an installed solid fuel boiler is operating (heated up). Manual operation may be started if there is no solid fuel boiler installed or if this is not operating but only the accumulator tank is active. In this case, first set the operating mode switch on the WVF+ to relay test 2 or on the B-PLM+ to relay test 1 (see WVF+ or B-PLM+ operating manual).

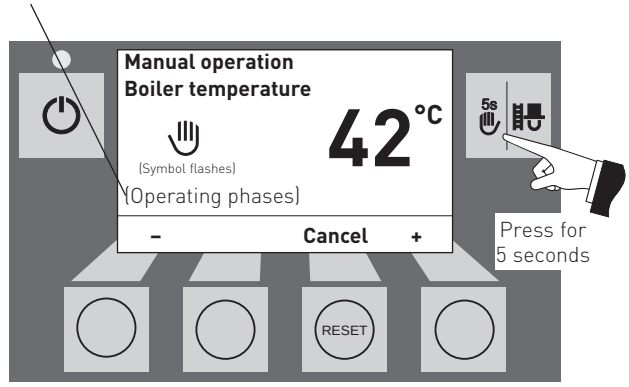


Fig. 22

Pressing one of the six buttons switches the lighting and display on. Manual operation starts if the **Manual operation / chimney sweeper function** button is pressed for more than five seconds – Fig. 22. This sets the boiler temperature to the setpoint fixed for manual operation (standard value 60 °C). The current automatic setting is not affected by this. The lighting is switched off after the lighting timer has counted down (10 min.); the function or display remains unchanged.

Pressing the Cancel button terminates the function – Fig. 23. The boiler returns to automatic operation.

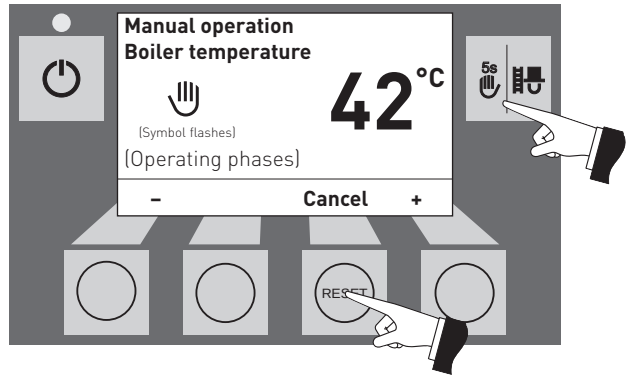


Fig. 23

Setpoint adjustment for manual operation

By pressing the **+** or **–** button the display switches to the setpoint adjustment mode – Fig. 24. Using the **+** or **–** button can change the setpoint in 1 K steps. The temperature set in this mode is not permanently saved. The original set temperature is used once manual operation ends.

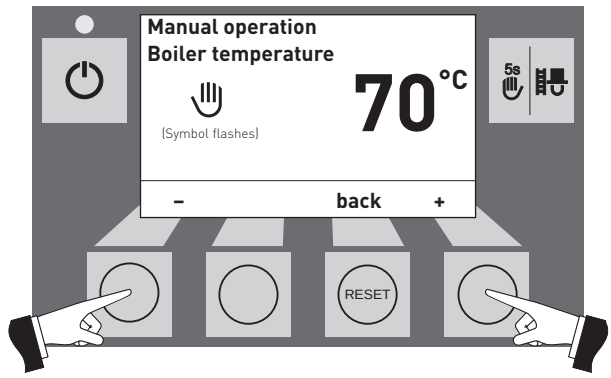


Fig. 24

After pushing the **back** button (Fig. 25) or after waiting 45 seconds, the screen returns to its previous display.

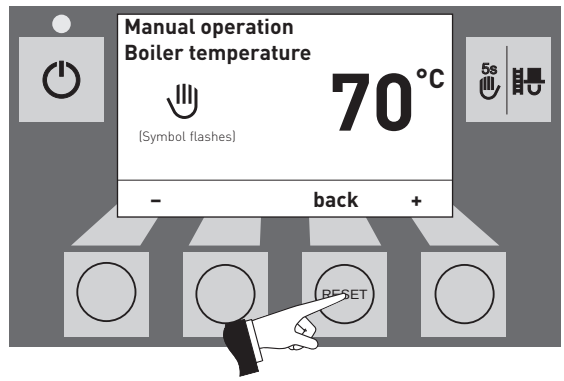


Fig. 25

2.5.6 Chimney sweeper function

This function aids the performance of legally-required emissions testing.

Note!

The chimney sweeper function cannot be started in "solid fuel/buffer mode". The chimney sweeper function must not be started if an installed solid fuel boiler is operating (heated up). The chimney sweeper function may be started if there is no solid fuel boiler installed or if this is not operating but only the accumulator tank is active. In this case, first set the operating mode switch on the WVF+ to relay test 2 or on the B-PLM+ to relay test 1 (see WVF+ or B-PLM+ operating manual).

A short press of the **Manual operation / chimney sweeper function** button switches on the lighting and display. Pressing the button again starts the chimney sweeper function – Fig. 26. The boiler temperature is set to approx. 60 °C for 45 min.

Pressing the corresponding menu button enables the boiler to be operated with 30 % or 100 % output – Fig. 27. The lighting is switched off after the lighting timer has counted down (10 min.); the function or display remains unchanged. Only the lighting is switched on when the button is first pressed.

The operating time is reset to 45 min. when the **Manual operation / chimney sweeper function** button is pressed again.

The chimney sweeper function ends

- when the **Cancel** button is pressed – Fig. 28.
- automatically after about 45 minutes.

The various operating phases are displayed here, including Burner in operation, Burner OFF, etc.

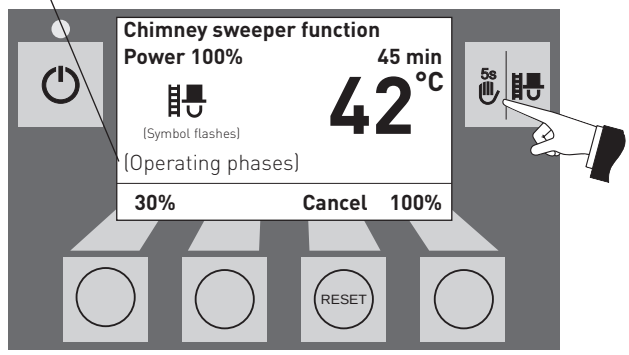


Fig. 26

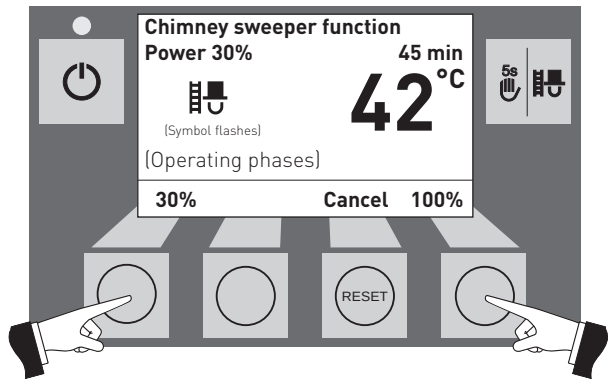


Fig. 27

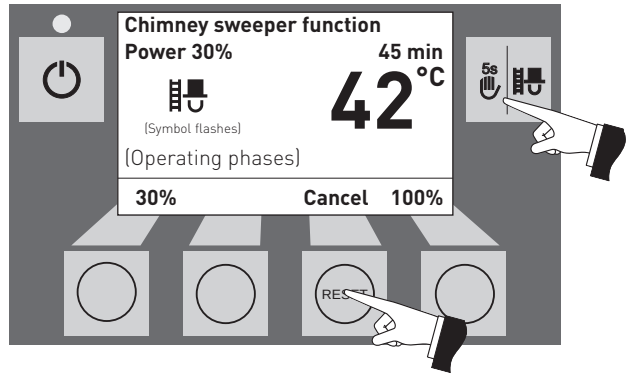


Fig. 28

2.5.7 Shut-down procedure

The boiler is switched off – Fig 29.

The green LED flashes

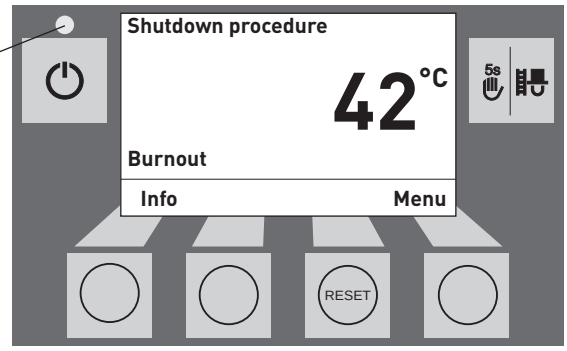


Fig. 29

2.6 Operating phases

2.6.1 Standby

During this operating phase, the controls do not transmit requests for heat. The burner is switched off and the boiler temperature setpoint is 0 °C.

After an hour in standby mode, the display is shut down fully, only the green LED is lit up. The display is switched back on by pressing a button or when there is a heating requirement.

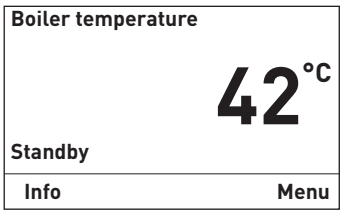


Fig. 30

2.6.2 Purging

The Induced draught fan runs, the combustion chamber of the boiler is flushed through with fresh air. This phase can last several minutes before the burner fires.

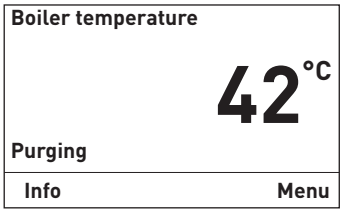


Fig. 31

2.6.3 Ignition phase

The Induced draught fan runs, pellets are transported into the burner pot and are ignited. When flame formation is detected, the system switches over to flame stabilisation.

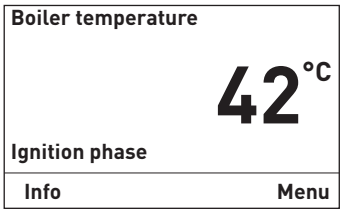


Fig. 32

2.6.4 Flame stabilisation

Following the ignition procedure, even combustion is established and then the system switches over to modulation mode.

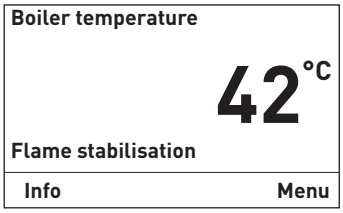


Fig. 33

2.6.5 Modulation mode

The burner is in modulation mode. The output is infinitely varied between 30 % and 100 %.
Note: In modulation mode, the flame may briefly not be visible after automatic removal of ash from the burner.

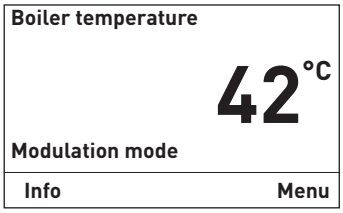


Fig. 34

2.6.6 Burnout

Combustion is stopped. Pellet transport into the burner pot is stopped, the Induced draught fan continues to run until all the remaining pellets have been burned and the burner pot has cooled down.

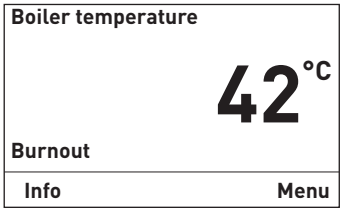


Fig. 35

2.6.7 Burner OFF

There is a heating requirement from the control system, but the boiler temperature (actual value) is higher than the boiler temperature setpoint. This means combustion is stopped and the burner is switched off.

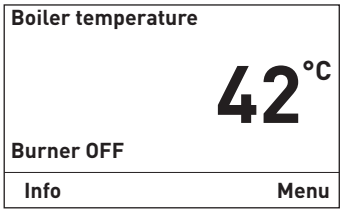


Fig. 36

2.7 Information text

Pressing the **Info** button or **going to the Information level menu** calls up the most important boiler information – Fig. 37.

The **arrow** buttons select and display sub-menus – Fig. 38. Pressing the **back** button (Fig. 39) or waiting 10 minutes returns to the standard display.

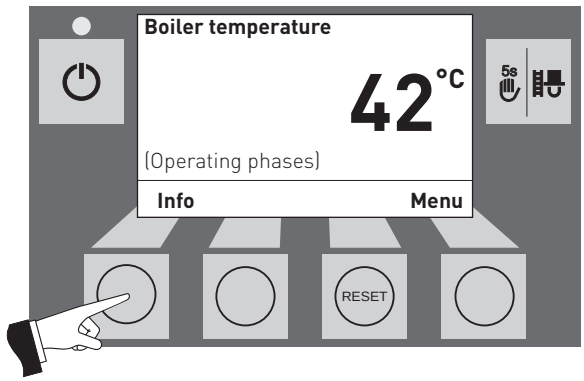


Fig. 37

The following **information texts** exist:

- Next boiler cleaning in about [h]
- Operating hours [h]
- Total pellet consumption [t]
- Flue gas temperature [°C]
- Boiler temperature setpoint [°C]
- Current boiler output [%]
- Display module software version
- Firing automate software version
- Boiler model

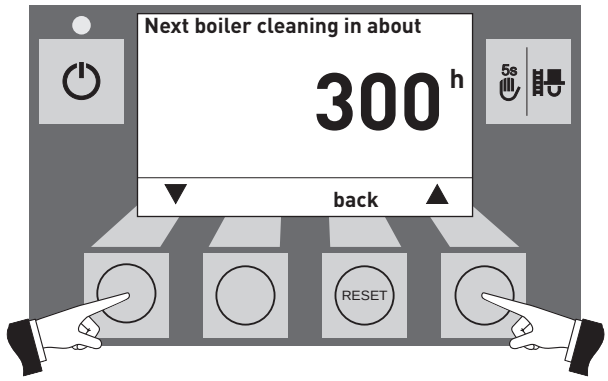


Fig. 38

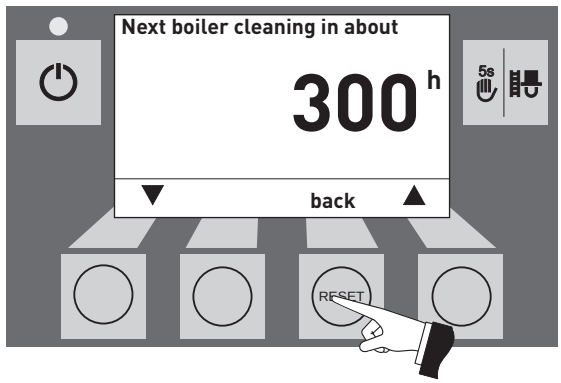


Fig. 39

2.7.1 Next boiler cleaning

Display of the operating time in hours remaining until the next boiler cleaning.

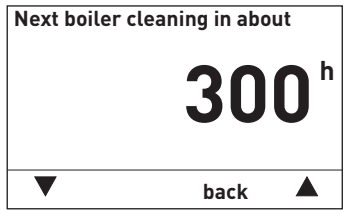


Fig. 40

Note!

The operating time remaining until the next boiler cleaning depends on the operating method and is constantly recalculated. Therefore, there may be deviations from the normal operating hours.

2.7.2 Operating hours

The total number of burner operating hours is displayed.

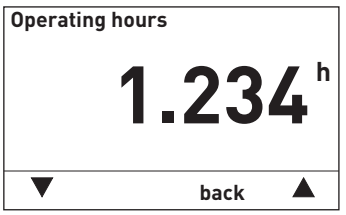


Fig. 45

2.7.3 Pellet consumption total

The total amount of pellets consumed is displayed in tonnes.

Note!

The "Pellet consumption total" is a calculated value and can differ from the actual value by ±15 %.

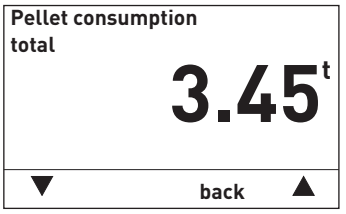


Fig. 41

2.7.4 Flue gas temperature

This function displays the current flue gas temperature.

Information!

The flue gas temperature is measured directly on the flue outlet. It may therefore deviate from a standard measurement.

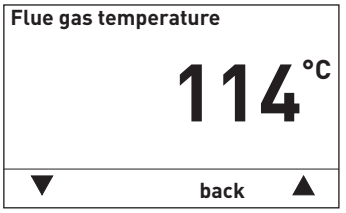


Fig. 42

2.7.5 Boiler temperature setpoint

The display indicates the boiler temperature setpoint as calculated by the control system. This setpoint is used to control the burner.

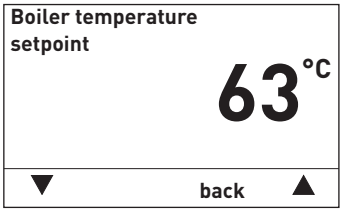


Fig. 43

2.7.6 Current boiler output

The current boiler output is displayed in %. The boiler output (modulation mode) can be set from 30 % to 100 %.

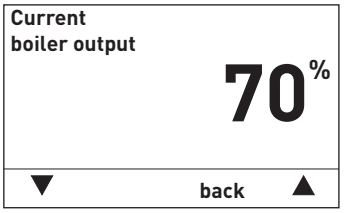


Fig. 44

2.7.7 Display module software version

The current software version of the display module (InfoWIN^{PLUS}) is displayed.

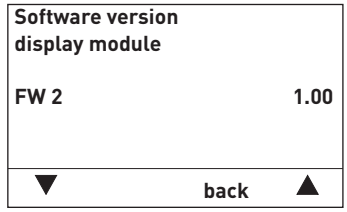


Fig. 47

2.7.8 Firing automate software version

The current software version of the firing automate (main PCB) is displayed.

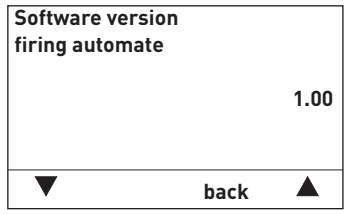


Fig. 46

2.7.9 Boiler model

The boiler model of the FireWIN is displayed

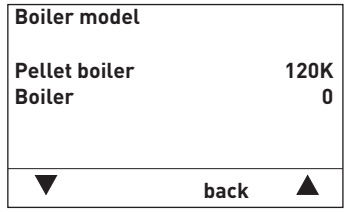


Fig. 48

2.8 Menu guide

Pressing the **Menu** button changes the menu display to the Operator level, Service level, Information level or MES Module1 – Fig. 49.

Use the **arrow** buttons to select the Operator level, Service level or Information level (Fig. 50) and confirm with the **choose** button – Fig. 51.

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 52) or after a delay of 10 minutes.

Information!

Only trained service personnel may perform system modifications on the Service level.

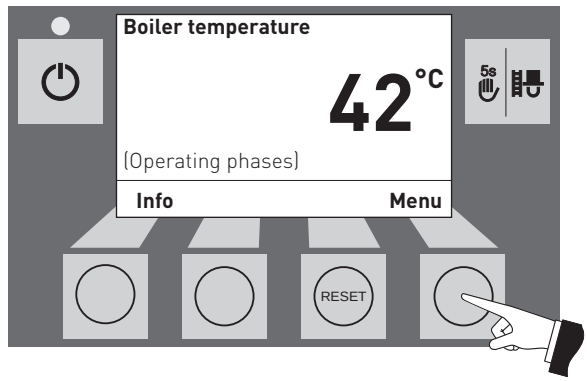


Fig. 49

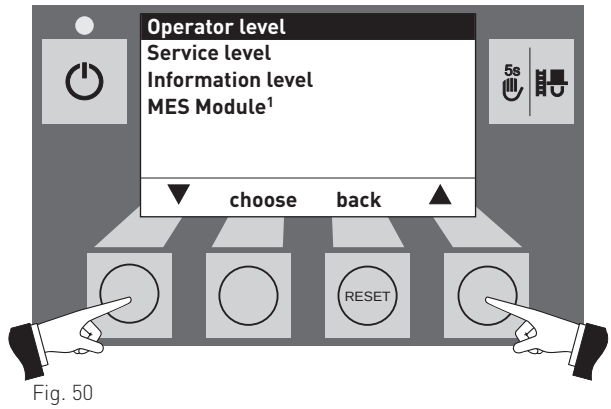


Fig. 50

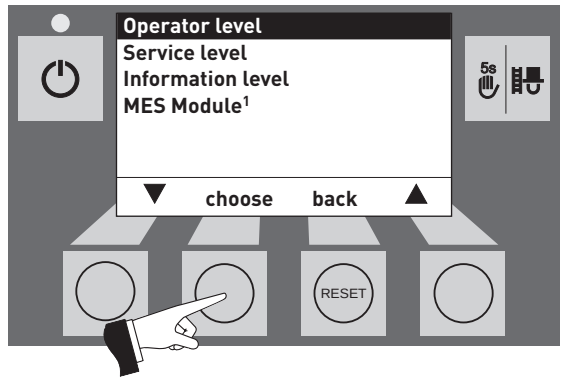


Fig. 51

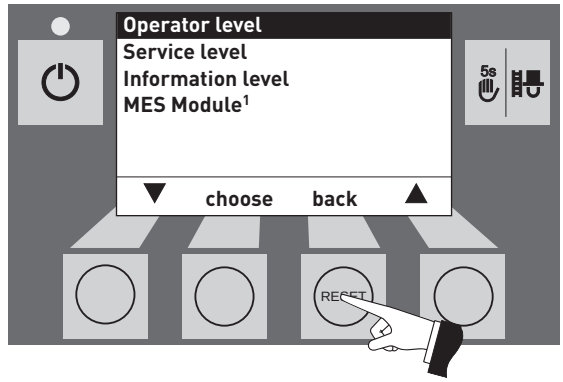
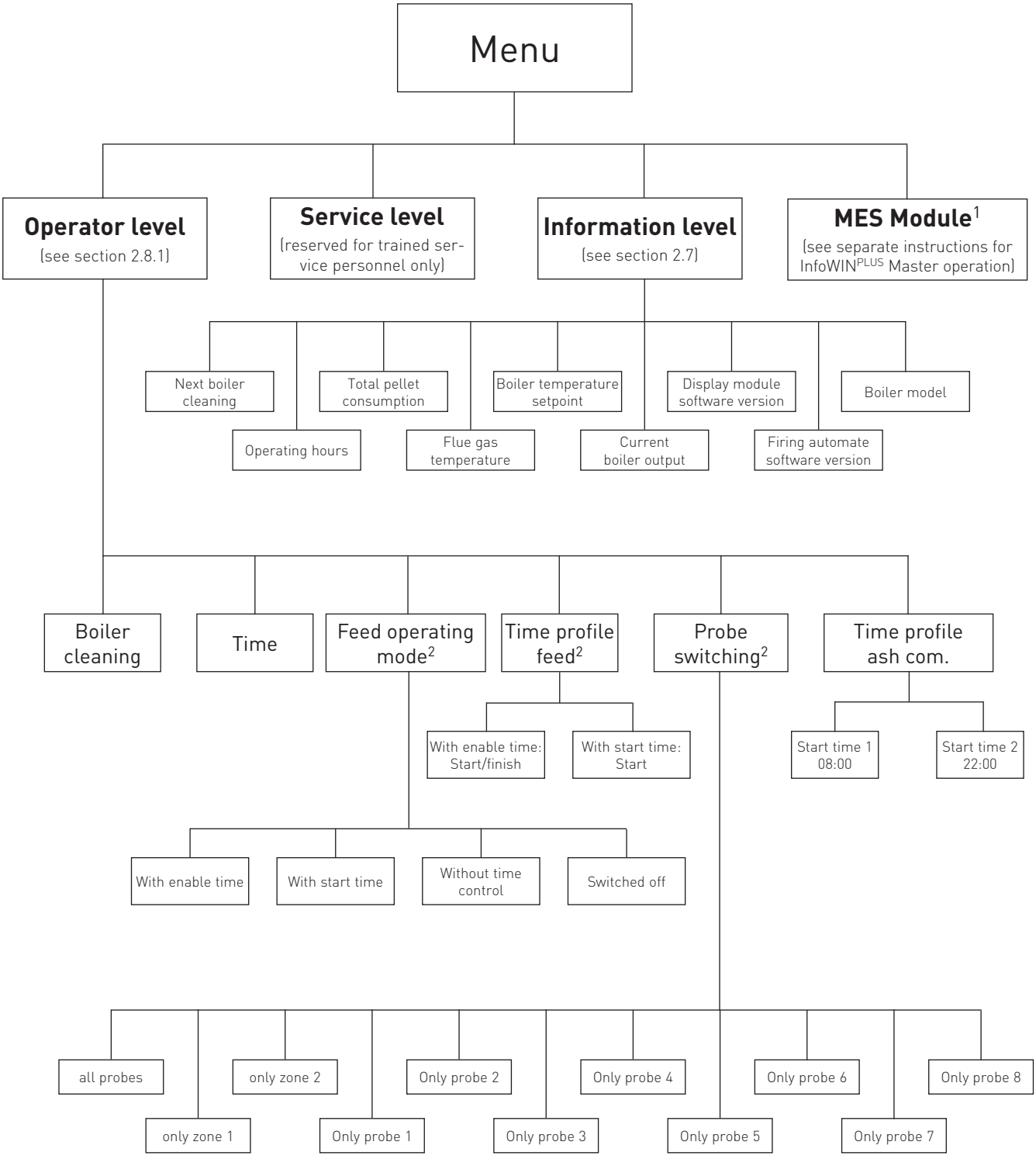


Fig. 52

[1] only displayed when an MES[PLUS] control is present and this has been adjusted by a trained service technician in the basic settings.

Menu structure:



[1] only displayed when an MES[PLUS] control is present and this has been adjusted by a trained service technician in the basic settings.
[2] only displayed with a FireWIN with pneumatic feed (suction system) when the unit has been adjusted by a trained service technician in the service level.

2.8.1 Operator level

Pressing the **Menu** button shows the „Operator level“, „Service level“, „Information level“ and „MES Module[1]“ in the display – Fig. 53.

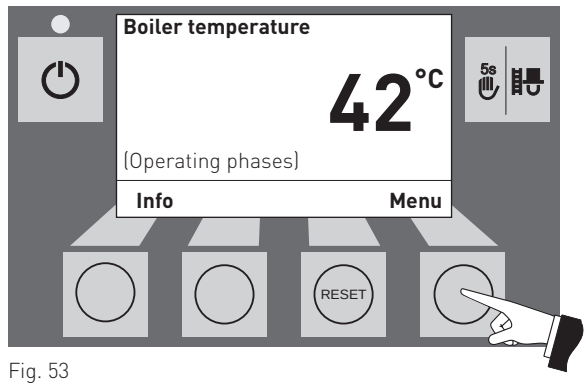


Fig. 53

Use the arrow buttons to select „Operator level“ and confirm with the choose button – Fig. 54.

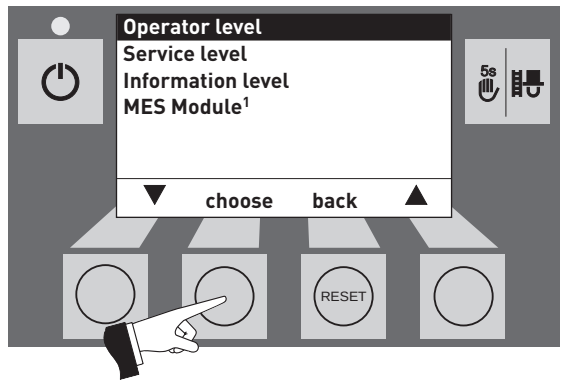


Fig. 54

On the operator level, use the arrow buttons to select the required sub-menu (Fig. 55) and confirm with the choose button.

Adjusting the:
Boiler cleaning: 2.8.1.1
Time: see section 2.8.1.2.
Feed operating mode: see section 2.8.1.3.
Time profile feed: see section 2.8.1.4.
Probe switching: see section 2.8.1.5.
Time profile ash compression: see section 2.8.1.6

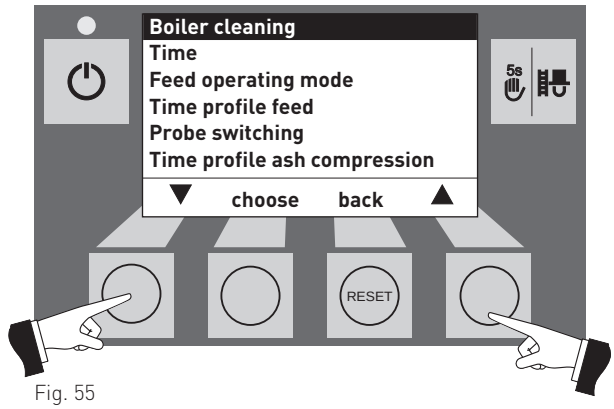


Fig. 55

Note!

The menu items „Feed operating mode“, „Time profile feed“ and „Probe switching “ are only shown if a feed or probe switching function is provided and activated in the service level.

The menu item or sub-menu item is exited by pressing the back button (Fig. 56) or after a delay of 10 minutes.

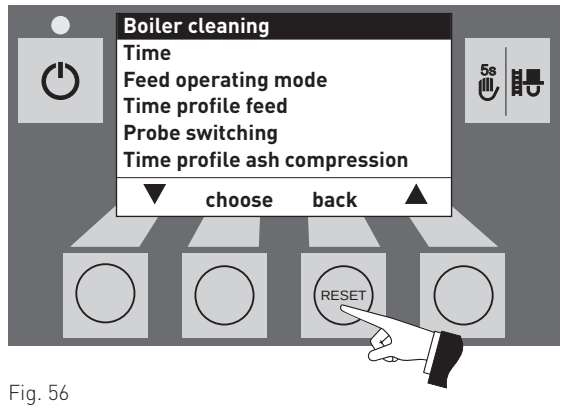


Fig. 56

[1] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

2.8.1.1 Boiler cleaning – Resetting the cleaning request

After boiler cleaning has been performed (section 3), boiler cleaning must be confirmed so that the operating time until the next boiler cleaning is restarted.

Information!

Without cleaning boiler cleaning must **not** be reset.

Pressing one of the six buttons switches the lighting and display on – Fig. 57.

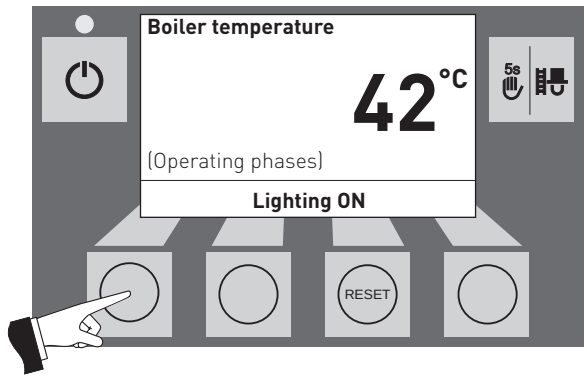


Fig. 57

Press the **Menu** button – Fig. 58.

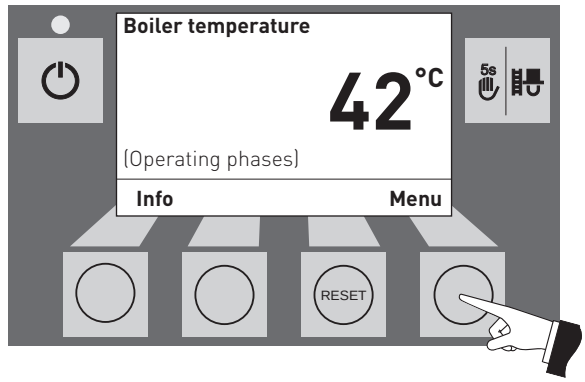


Fig. 58

Confirm the selected menu item "Operator level" by pressing the **choose** button – Fig. 59.

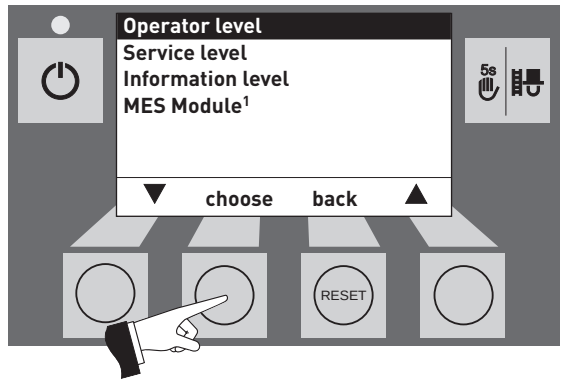


Fig. 59

The **arrow** buttons select the "Boiler cleaning" sub-menu – Fig. 60.

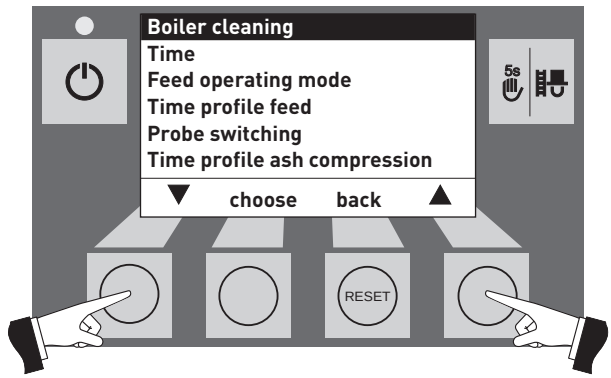


Fig. 60

[1] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected "Boiler cleaning" sub-menu by pressing the **choose** button – Fig. 61.

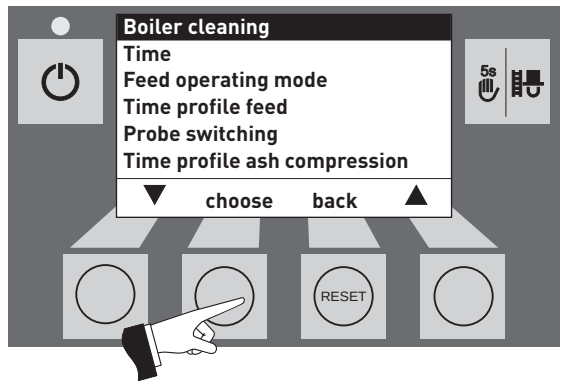


Fig. 61

Pressing the **Yes** button resets the boiler cleaning – Fig. 62. The display shows "Parameter is saved" for a few seconds (Fig. 63) and then changes back to the previous level – Fig. 64.

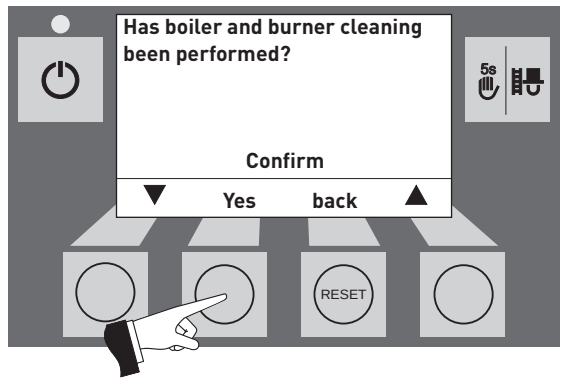


Fig. 62

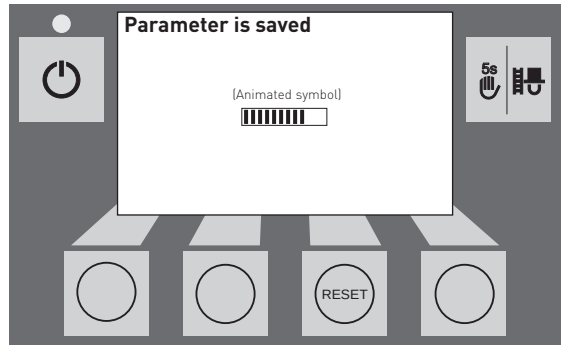


Fig. 63

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 64) or after a delay of 10 minutes.

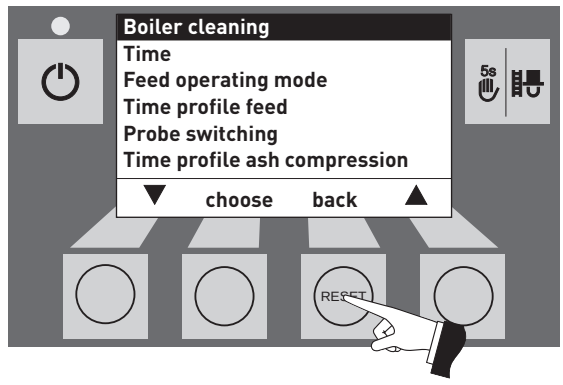


Fig. 64

2.8.1.2 Setting the time

This time is used for the time control of the pellet feed and for automatic heating surface cleaning.

If the FireWIN is operated with an MES^{PLUS} control, the time is automatically adopted from the module and the time set here is overwritten.

If the FireWIN is operated with REG standard control, the time must be set here too.

Pressing one of the six buttons switches the lighting and display on – Fig. 65.

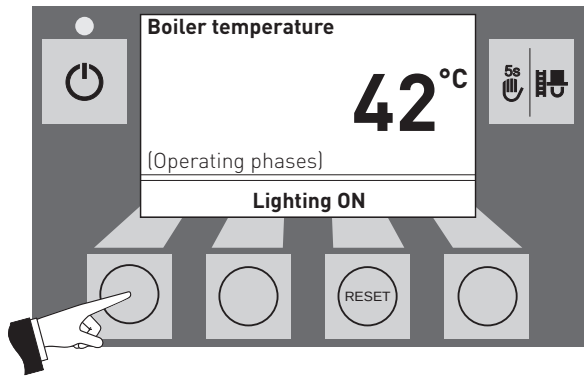


Fig. 65

Press the **Menu** button – Fig. 66.

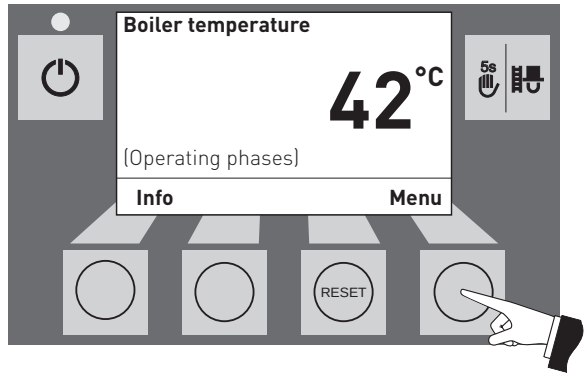


Fig. 66

Confirm the selected menu item "Operator level" by pressing the **choose** button – Fig. 67.

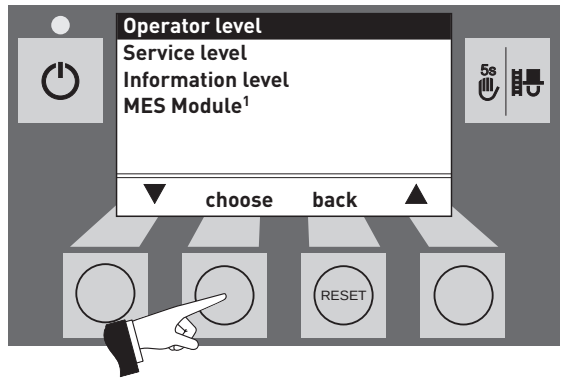


Fig. 67

Use the **arrow** buttons to select the „Time" sub-menu item – Fig. 68.

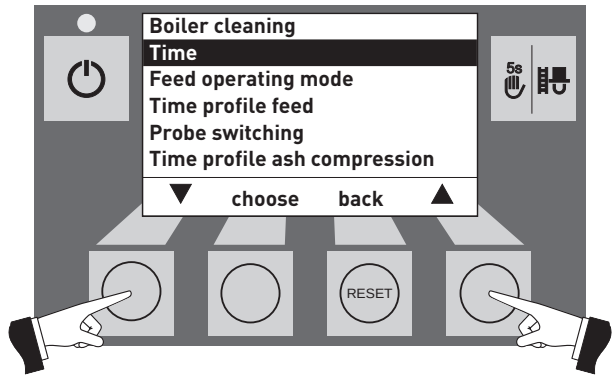


Fig. 68

[1] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected "Time" sub-menu by pressing the **choose** button – Fig. 69.

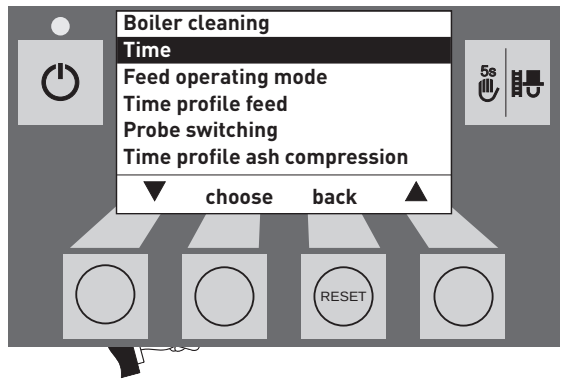


Fig. 69

Use the **+** or **–** button to set the required time – Fig. 70.

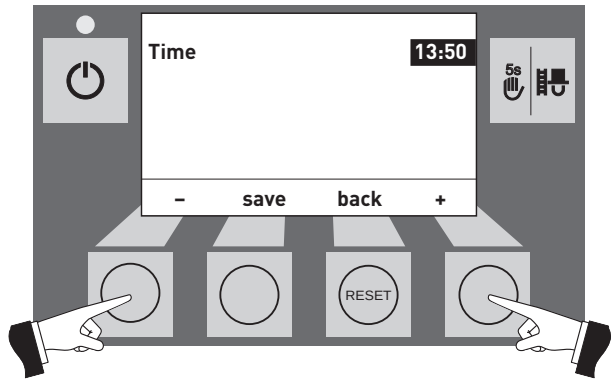


Fig. 70

Confirm the changed time by pressing the **save** button – Fig. 71.

The display shows "Parameter is saved" for a few seconds (Fig. 72) and then changes back to the previous level – Fig. 73.

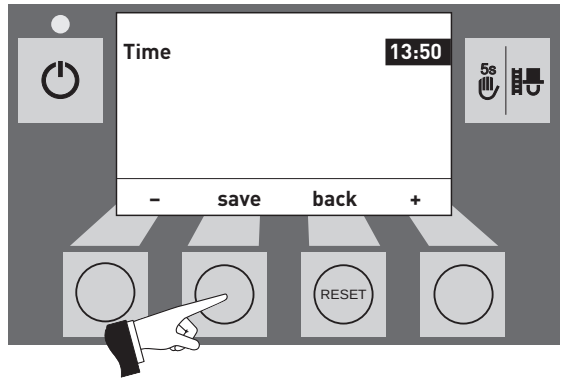


Fig. 71

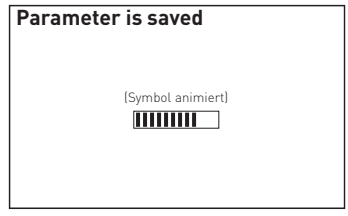


Fig. 72

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 73) or after a delay of 10 minutes.

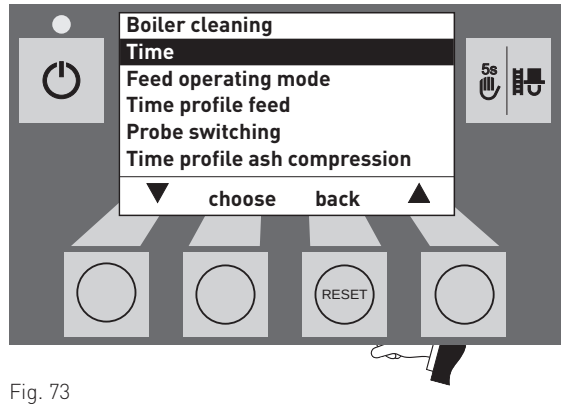


Fig. 73

2.8.1.3 Setting the feed operating mode[1]

This menu item sets:

- whether the feed is switched off, or
- whether the feed should fill the pellet boiler with or without time control.

Pressing one of the six buttons switches the lighting and display on – Fig. 74.

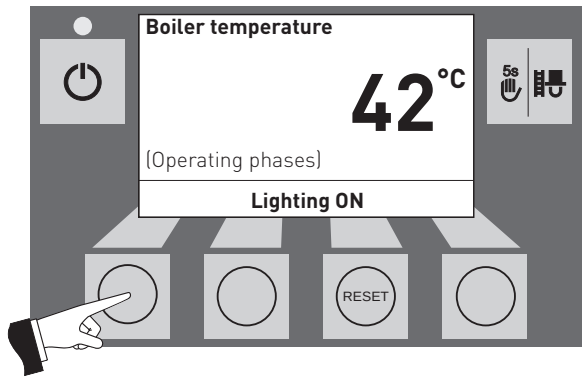


Fig. 74

Press the **Menu** button – Fig. 75.

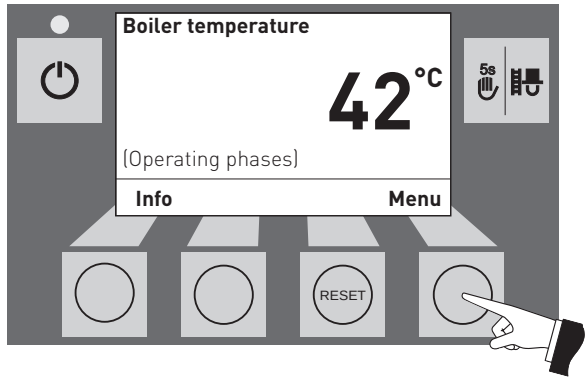


Fig. 75

Confirm the selected menu item "Operator level" by pressing the **choose** button – Fig. 76.

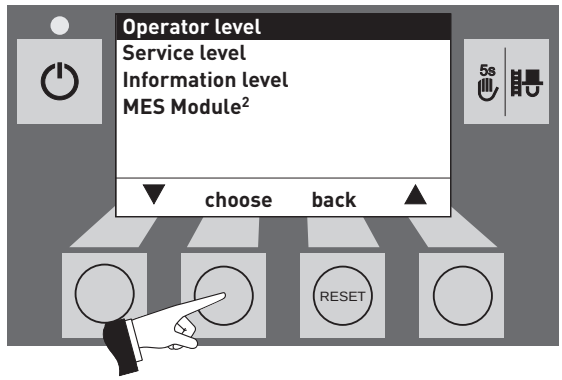


Fig. 76

The **arrow** buttons select the "Feed operating mode" submenu – Fig. 77.

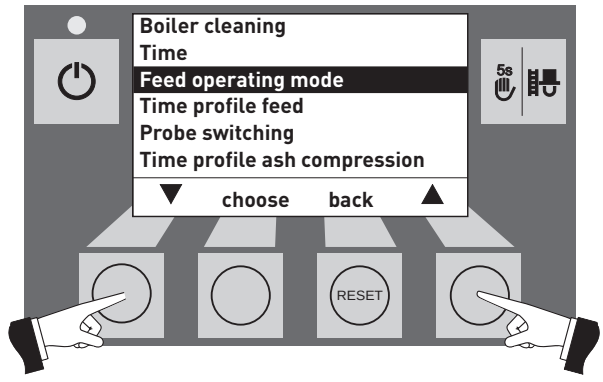


Fig. 77

[1] only displayed if a feed system is present and if this has been adjusted by a trained service technician in the service level.
[2] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected sub-menu "Feed operating mode" by pressing the **choose** button – Fig. 78.

The **factory setting** for „Feed operating mode" is **„switched off".**

Without time control: Select this if the feed noise (suction turbine) is not audible or intrusive in the living area. This mode guarantees the fewest possible feeds because the reserve supply container is always „run to empty".

Functional description: The pellet feed is automatically switched on if required at any time.

With start time: Select this if you want the feed to start at the same time every day.

Functional description: The reserve supply container is filled every day if required at the set time (see page 35). Interim fills are also performed if the filling amount is not sufficient for 24 hours.

With enable time: Select this if the feed noise (suction turbine) is audible or intrusive in the living area.

Functional description: The pellet feed is enabled during a time period that can be set (see page 33) and is automatically started at this time if required. The reserve supply container is fully refilled at the end of the enable time, if required.

Tip!

A complete fill sucks in about 25 kg of pellets. Even if more pellets are required during the blocked time, there is no automatic fill and the FireWIN switches off (fault message 381). Therefore, do not select a lock-out time that is too long.

Burning duration with 25 kg pellets	
FireWIN	**Burning duration at nominal output**
FW 090	approx. 12,5 Std.
FW 120	approx. 10 Std.

Note!

It is only ever possible to select one menu item at a time. The „Time profile feed" corresponding to this selected menu item can then be set in section 2.8.1.4.

Use the **arrow** buttons to select the required sub-menu item – Fig. 79.

The changed „Feed operating mode" is saved by pressing the **save** button – Fig. 80. The display shows „Parameter is saved" for a few seconds (Fig. 81) and then changes back to the previous level – Fig. 82.

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 82) or after a delay of 10 minutes.

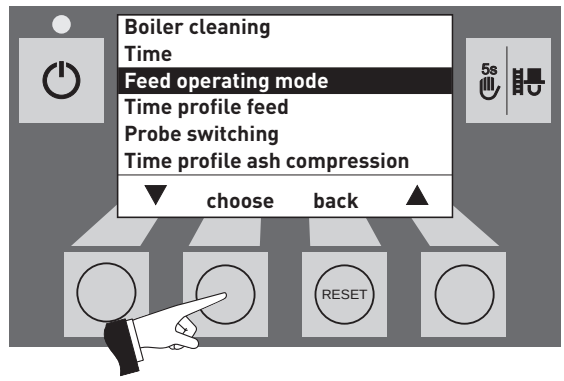


Fig. 78

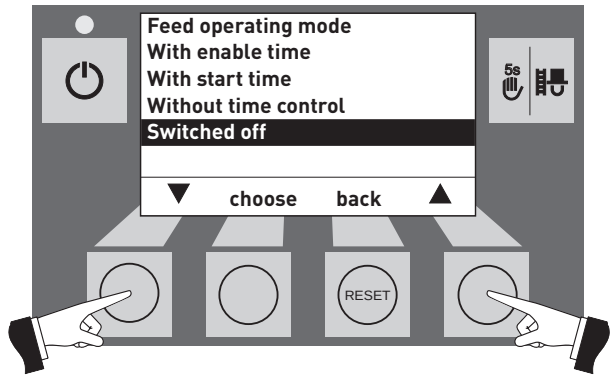


Fig. 79

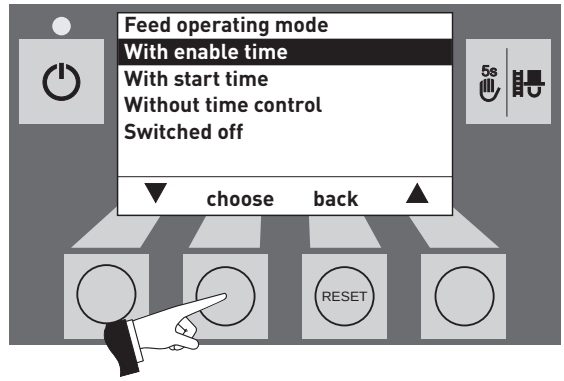


Fig. 80

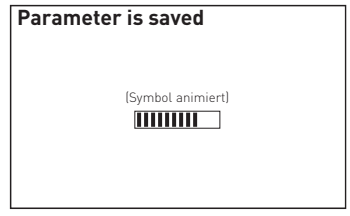


Fig. 81

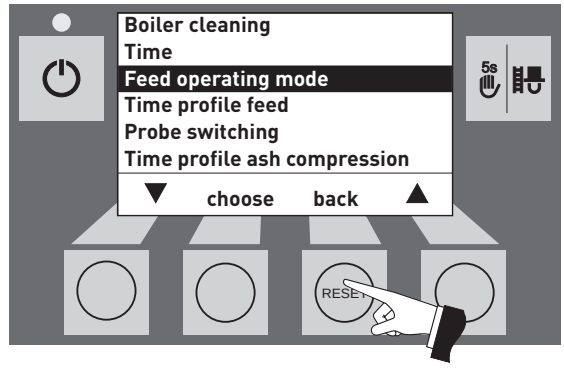


Fig. 82

2.8.1.4 Setting the time profile feed[1]

The "Time profile feed" menu item displays the corresponding setting option depending on the setting in the "Feed operating mode" menu item (see section 2.8.1.4).

Setting: "With enable time" see page 33
Setting: "With start time" see page 35
Setting: "Without time control" or "switched off" see page 35

Pressing one of the six buttons switches the lighting and display on – Fig. 83.

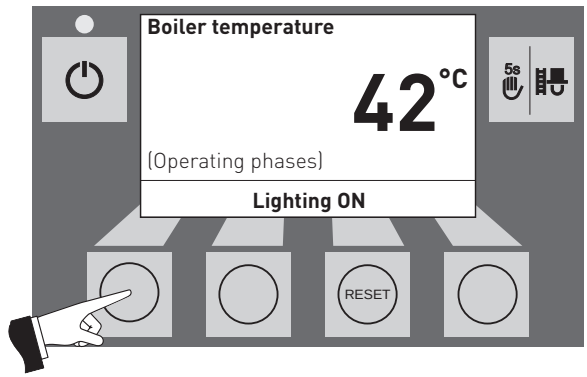


Fig. 83

Press the **Menu** button – Fig. 84.

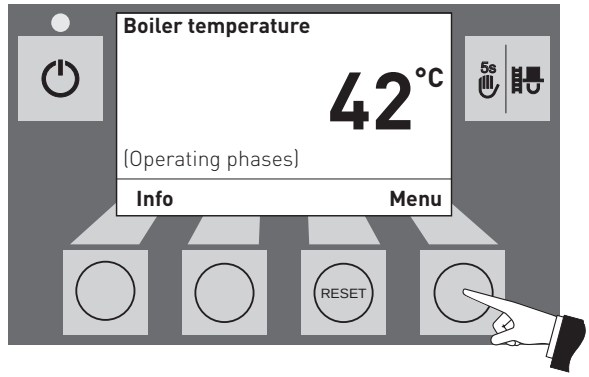


Fig. 84

Confirm the selected menu item "Operator level" by pressing the **choose** button – Fig. 85.

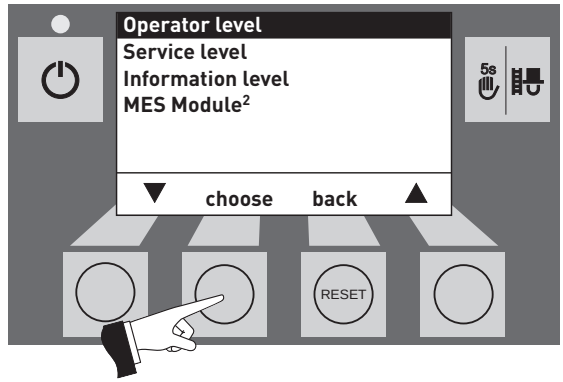


Fig. 85

The **arrow** buttons select the "Time profile feed" sub-menu – Fig. 86.

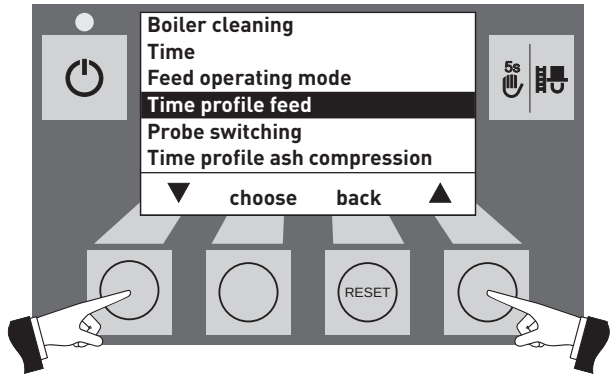


Fig. 86

[1] only displayed if a feed system is present and if this has been adjusted by a trained service technician in the service level.
[2] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected sub-menu "Time profile feed" by pressing the **choose** button – Fig. 87.

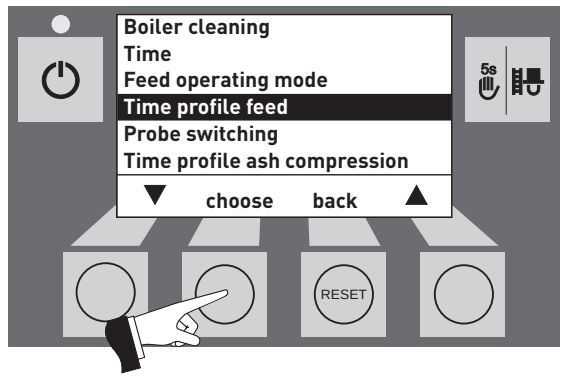


Fig. 90

"with enable time"

The start and end of the enable time can be set here in the "Time profile feed" menu item if the "with enable time" setting is active in the "Feed operating mode" menu item (see section 2.8.1.3).

Factory setting „Feed with enable time":

Start	07:00
End	22:00

The **arrow** buttons select the "Start" or "End" times to be changed – Fig. 88.

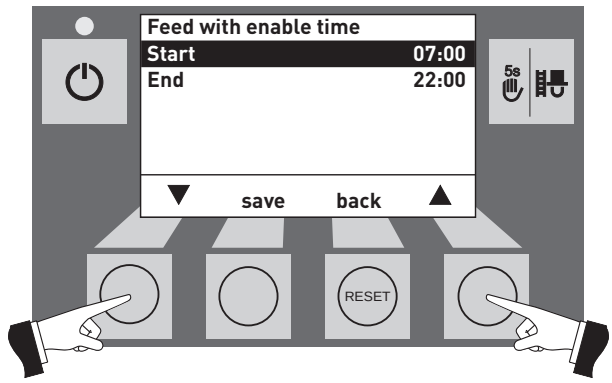


Fig. 87

Confirm the selected time by pressing the **choose** button – Fig. 89.

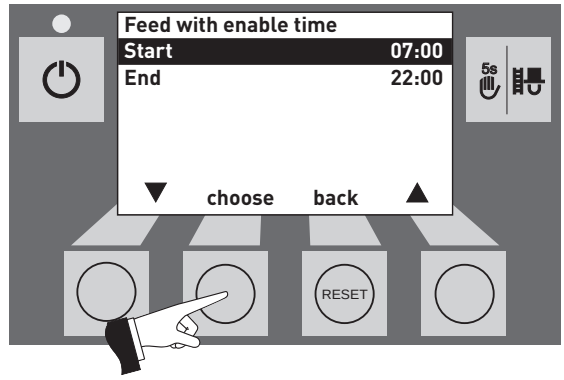


Fig. 88

Pressing the **+** or **–** buttons changes the time in 1 min steps – Fig. 90.

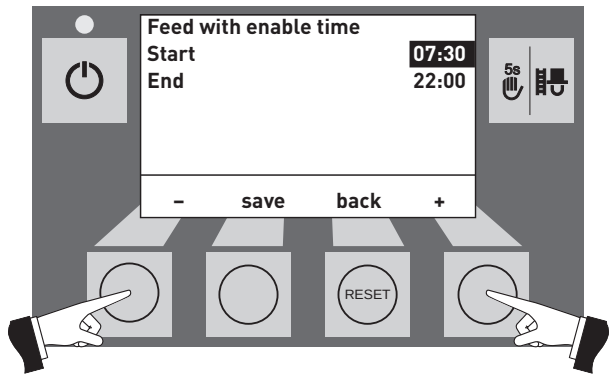


Fig. 89

Pressing the **save** button saves the changed time – Fig. 91.

The display shows "Parameter is saved" for a few seconds (Fig. 92) and then changes back to the previous level – Fig. 93.

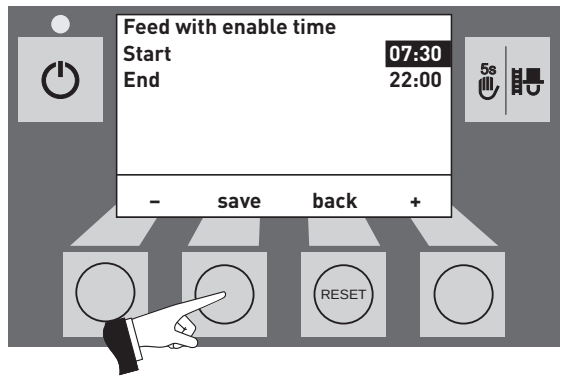


Fig. 91

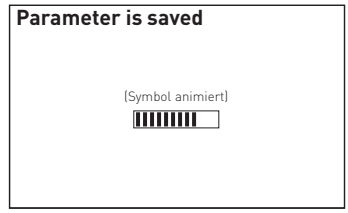


Fig. 92

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 93) or after a delay of 10 minutes.

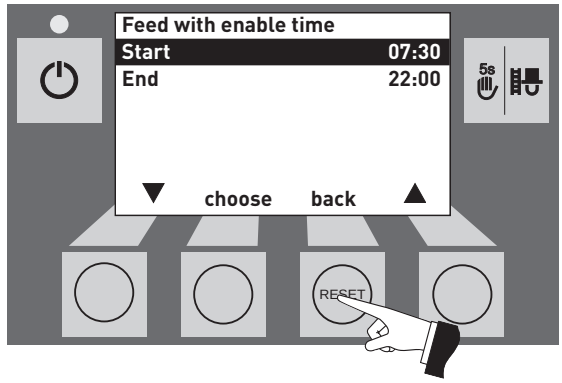


Fig. 93

“with start time”

A time can be set here in the “Time profile feed” menu item for filling the reserve supply container if the “with start time” setting is active in the “Feed operating mode” menu item (see section 2.8.1.3). The reserve supply container is filled every day at the set time. Interim fills are also performed if the filling amount is not sufficient for 24 hours.

Factory setting “Feed start time”: Start 20:00

Pressing the **+** or **–** buttons changes the time in 1 min steps – Fig. 94.

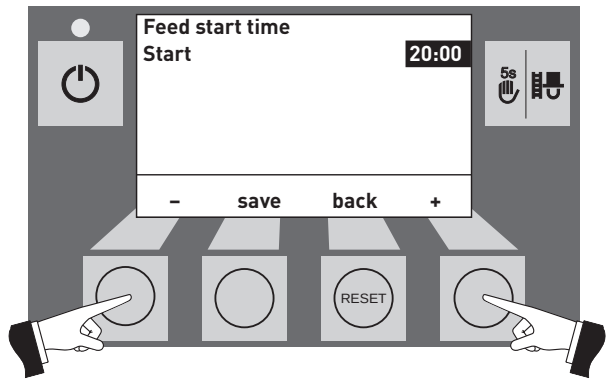


Fig. 94

Pressing the **save** button saves the changed time – Fig. 95. The display shows “Parameter is saved” for a few seconds (Fig. 96) and then changes back to the previous level – Fig. 97.

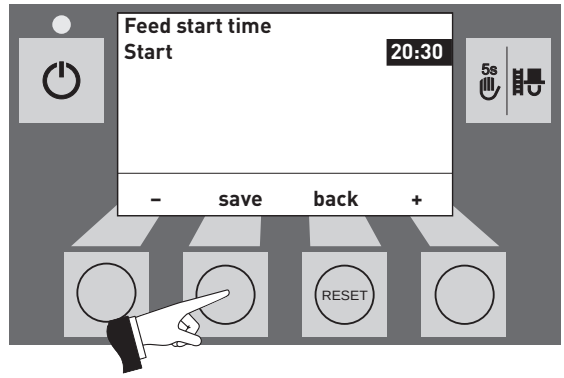


Fig. 95

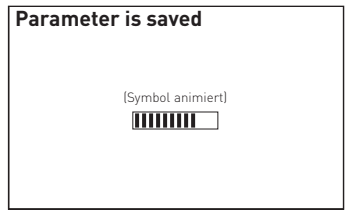


Fig. 96

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 97) or after a delay of 10 minutes.

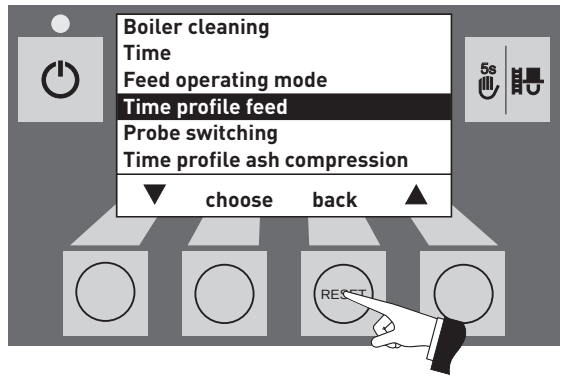


Fig. 97

“without time control” or “switched off”

No setting is possible here in the “Time profile feed” menu item if the “without time control” or “switched off” setting is active in the “Feed operating mode” menu item (see section 2.8.1.3) – Fig. 98.

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 98) or after a delay of 10 minutes.

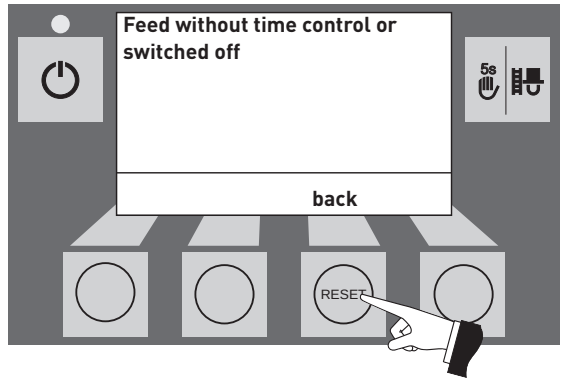


Fig. 98

2.8.1.5 Setting probe switching[1]

It is possible to set here which probe(s) (zones) are used for sucking pellets from the pellet storage room. The setting options depend on the setting in the service levels in the „Type of pellet feed system“ menu item.

Information!

Changes on the service level may be performed only by trained service personnel (directions for setting, see the FireWIN installation instructions).

Setting in the service levels in the „Type of pellet feed system“ menu item.	Setting options for probe switching	Description
No feed	–	–
Suction turbine with 2 probes	all probes only probe 1 only probe 2	Removal from both probes, automated switching Removal from probe 1 only, no switching Removal from probe 2 only, no switching
Suction turbine with 3 probes	all probes only probe 1 only probe 2 only probe 3	Removal from all 3 probes, automated switching Removal from probe 1 only, no switching Removal from probe 2 only, no switching Removal from probe 3 only, no switching
Suction turbine with 4 probes	all probes only zone 1 only zone 2 only probe 1 only probe 2 only probe 3 only probe 4	Removal from zone 1 and zone 2, automated switching Removal from probe 1 and probe 2, automated switching Removal from probe 3 and probe 4, automated switching Removal from probe 1 only, no switching Removal from probe 2 only, no switching Removal from probe 3 only, no switching Removal from probe 4 only, no switching
Suction turbine with 6 probes	all probes only zone 1 only zone 2 only probe 1 only probe 2 only probe 3 only probe 4 only probe 5 only probe 6	Removal from zone 1 and zone 2, automated switching Removal from probe 1 to probe 3, automated switching Removal from probe 4 to probe 6, automated switching Removal from probe 1 only, no switching Removal from probe 2 only, no switching Removal from probe 3 only, no switching Removal from probe 4 only, no switching Removal from probe 5 only, no switching Removal from probe 6 only, no switching
Suction turbine with 8 probes	all probes only zone 1 only zone 2 only probe 1 only probe 2 only probe 3 only probe 4 only probe 5 only probe 6 only probe 7 only probe 8	Removal from zone 1 and zone 2, automated switching Removal from probe 1 to probe 4, automated switching Removal from probe 5 to probe 8, automated switching Removal from probe 1 only, no switching Removal from probe 2 only, no switching Removal from probe 3 only, no switching Removal from probe 4 only, no switching Removal from probe 5 only, no switching Removal from probe 6 only, no switching Removal from probe 7 only, no switching Removal from probe 8 only, no switching
Suction turbine with mixer	–	–

[1] Only displayed if a feed system is present and if this has been adjusted by a trained service technician in the service level.

Pressing one of the six buttons switches the lighting and display on – Fig. 99.

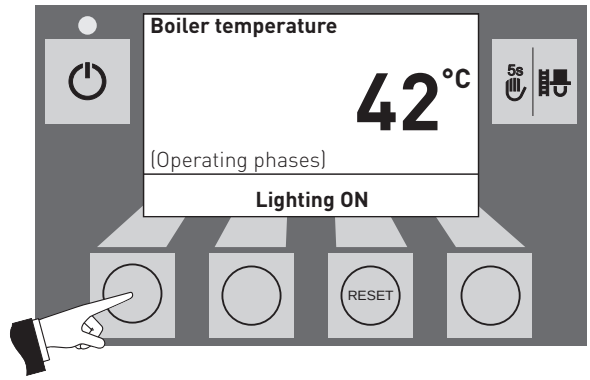


Fig. 99

Press the **Menu** button – Fig. 100.

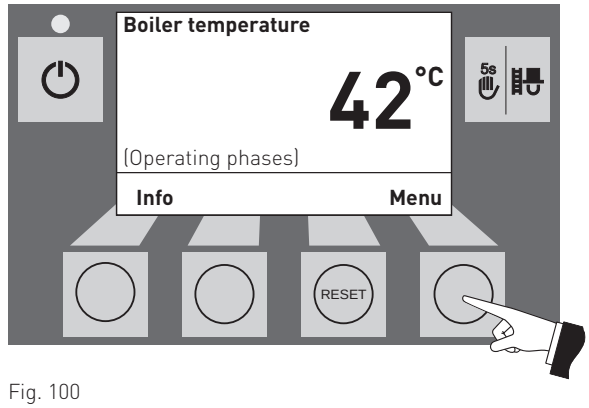


Fig. 100

Confirm the selected menu item "Operator level" by pressing the **choose** button – Fig. 101.

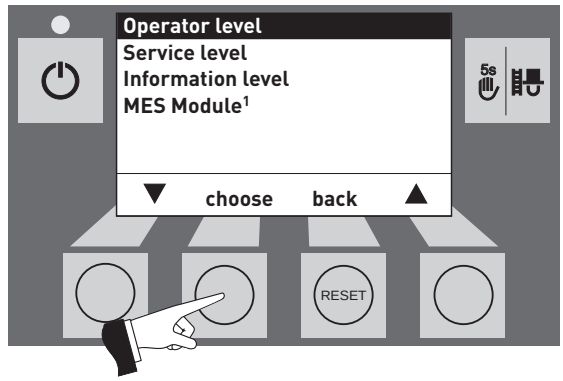


Fig. 101

The **arrow** buttons select the "probe switching" sub-menu – Fig. 102.

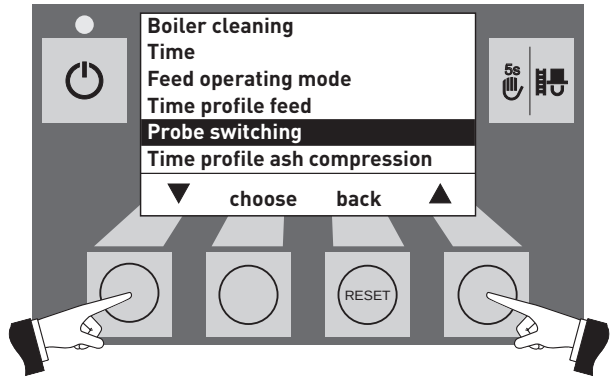


Fig. 102

[1] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected "probe switching" sub-menu by pressing the **choose** button – Fig. 103.

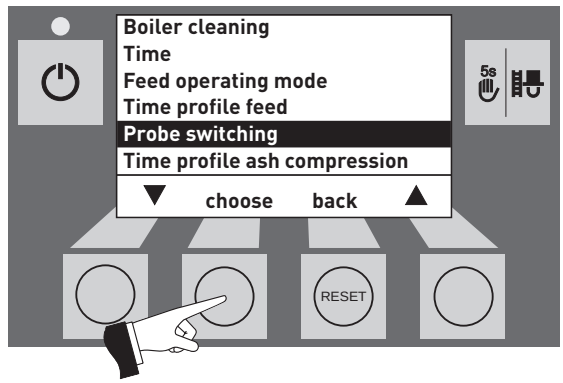


Fig. 103

The **arrow** buttons select the probe switching (for options, see table on page 36) – Fig. 104.

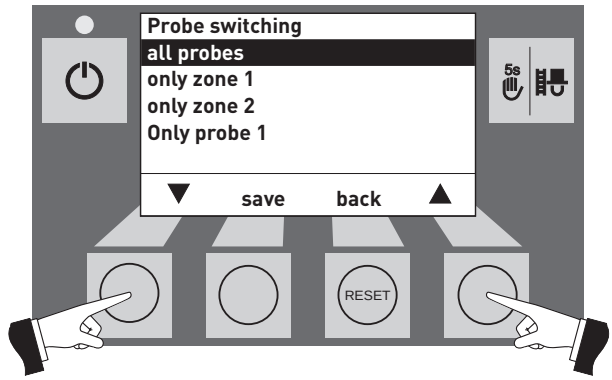


Fig. 104

Pressing the **save** button saves the changed probe switching – Fig. 105.

The display shows "Parameter is saved" for a few seconds (Fig. 106) and then changes back to the previous level – Fig. 107.

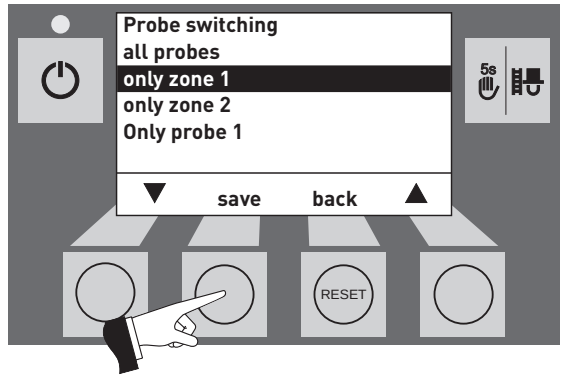


Fig. 105

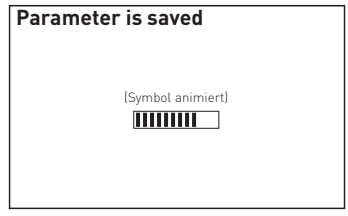


Fig. 106

The menu item or sub-menu item is exited by pressing the back button (Fig. 107) or after a delay of 10 minutes.

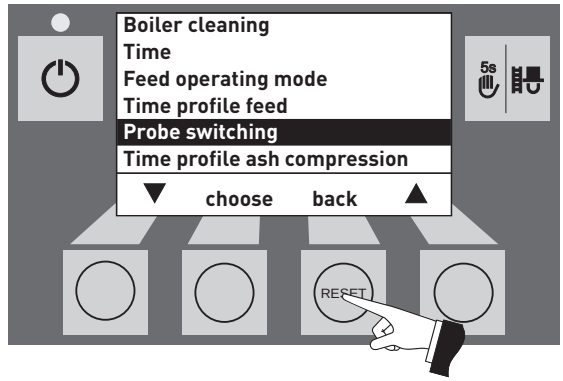


Fig. 107

2.8.1.6 Time profile ash compression

The ash in the ash pan is only compressed at the 2 set start times and when approx. 15 kg of fuel has been consumed. The start times can be set in steps of 15 minutes (start time 1 and start time 2).

Factory setting: Start time 1: 08:00
Start time 2: 22:00

Pressing one of the six buttons switches the lighting and display on – Fig. 108.

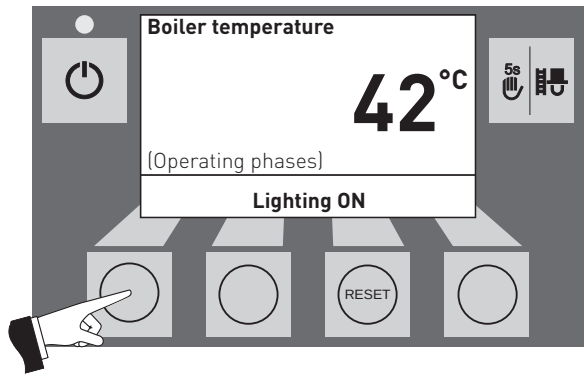


Fig. 108

Press the **Menu** button – Fig. 109.

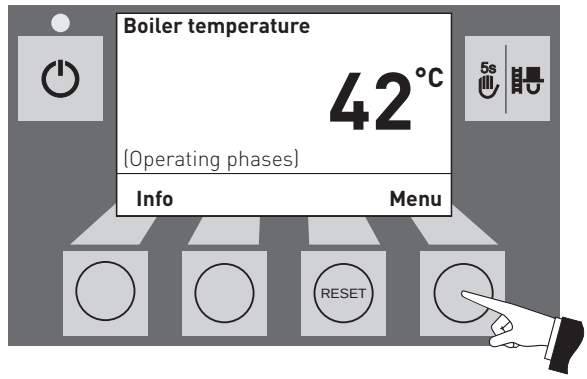


Fig. 109

Confirm the selected menu item „Operator level“ by pressing the **choose** button – Fig. 110.

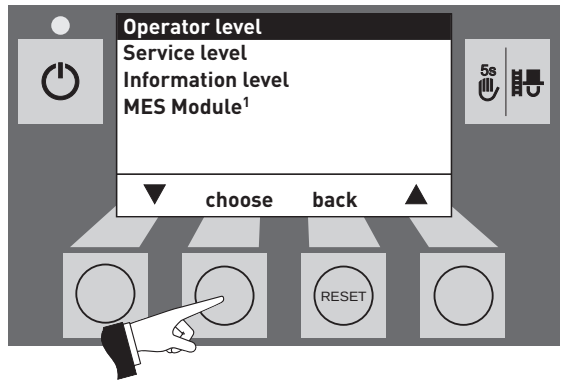


Fig. 110

Use the **arrow** buttons to select the sub-menu item „Time profile ash compression“ markieren – Fig. 111.

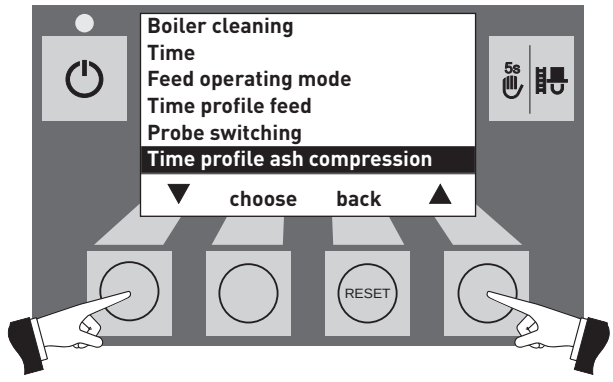


Fig. 111

[1] only displayed when an MES[PLUS] control is present and this has been adjusted by a trained service technician in the basic settings.

Confirm the selected sub-menu item „Time profile ash compression“ by pressing the **choose** button – Fig. 112.

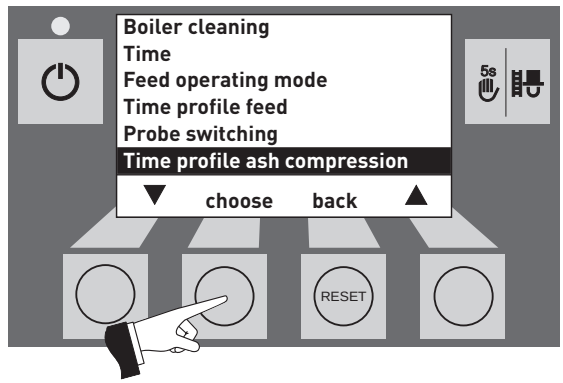


Fig. 112

Use the **arrow** buttons to select the start time you want to change, 1 or 2 – Fig. 113.

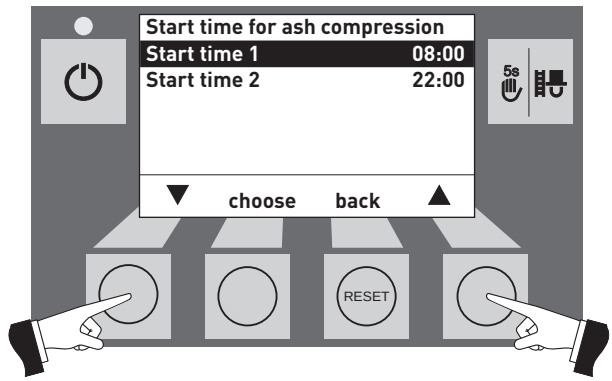


Fig. 113

Confirm the selected start time by pressing the **choose** button – Fig. 114.

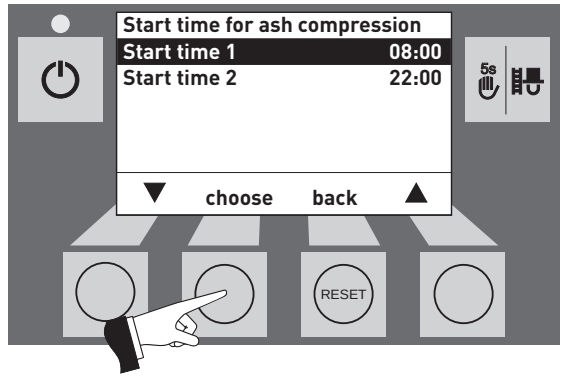


Fig. 114

Pressing the **+** or **–** button changes the time in 15 min. steps – Fig. 115.

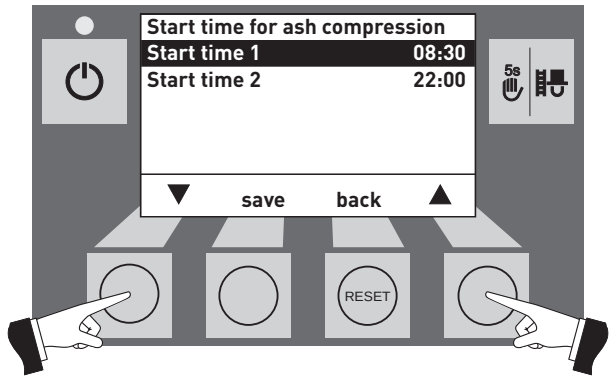


Fig. 115

save the changed time by pressing the **save** button – Fig. 116. The display shows „Parameter is saved“ for a few seconds (Fig. 117) and then changes back to the previous level. – Fig. 118.

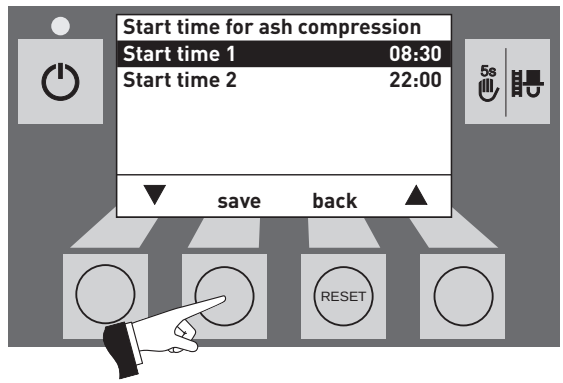


Fig. 116

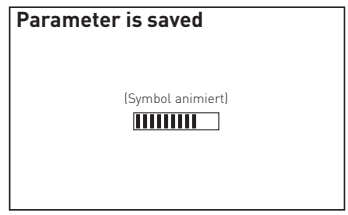


Fig. 117

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 118) or after a delay of 10 minutes.

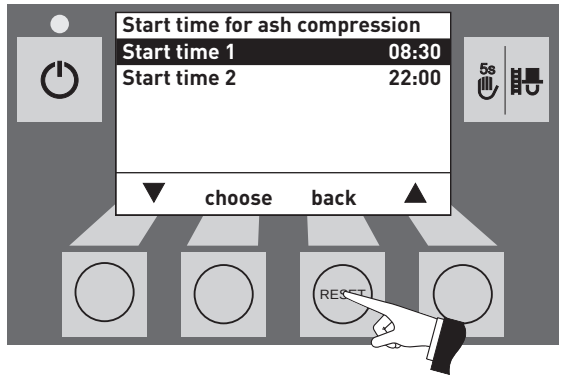


Fig. 118

2.8.2 Service level

System parameters, start-up and the actuator test can be displayed, performed and/or modified in the service level.

Information!

Changes on the Service level may be performed only by trained service personnel (directions for setting, see the FireWIN Installation instructions)

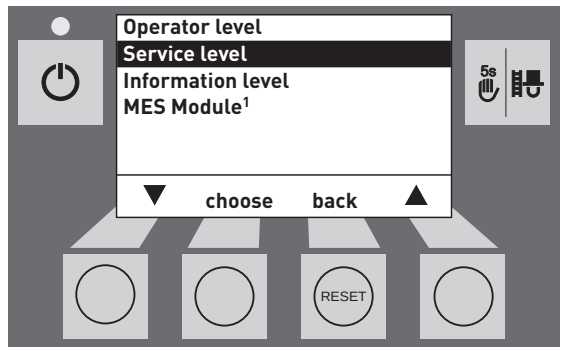


Fig. 119

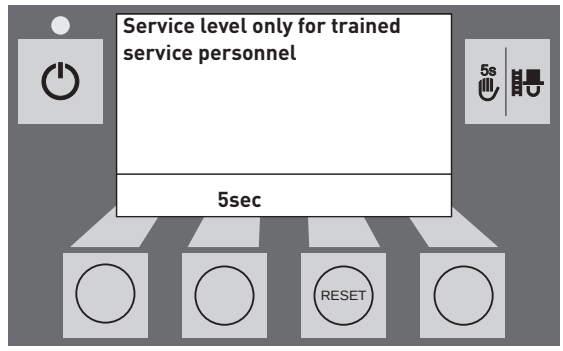


Fig. 120

The menu item or sub-menu item is exited by pressing the **back** button (Fig. 121) or after a delay of 10 minutes.

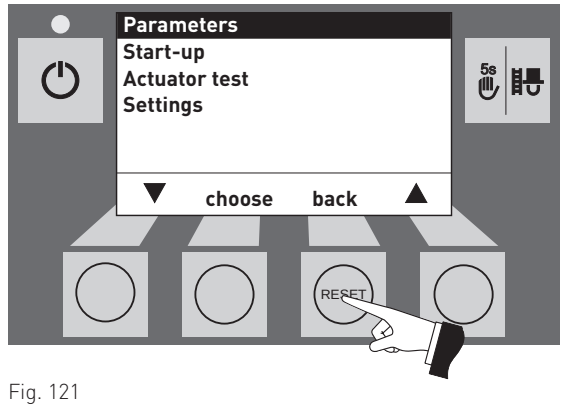


Fig. 121

[1] only displayed when an MES^{PLUS} control is present and this has been adjusted by a trained service technician in the basic settings.

2.9 Heating system operation

2.9.1 FireWIN with MES^{PLUS} system control

Switching on – automatic operation:

1. Press the ON/OFF button ⏻ on the InfoWIN^{PLUS} panel, the lighting and display are switched on, the signal lamp lights green and a self-test is performed (see also section 2.5.2). After a successful self-test and if a setpoint is transferred by the system control, the FireWIN automatically starts operation.
2. Set the operating mode switch(es) on the MES^{PLUS} control module(s) to "Automatic operation" 🕒. The system operation (setting temperatures and operating times) is performed using the user module (installed in the living area) – for more details, please refer to the instructions.

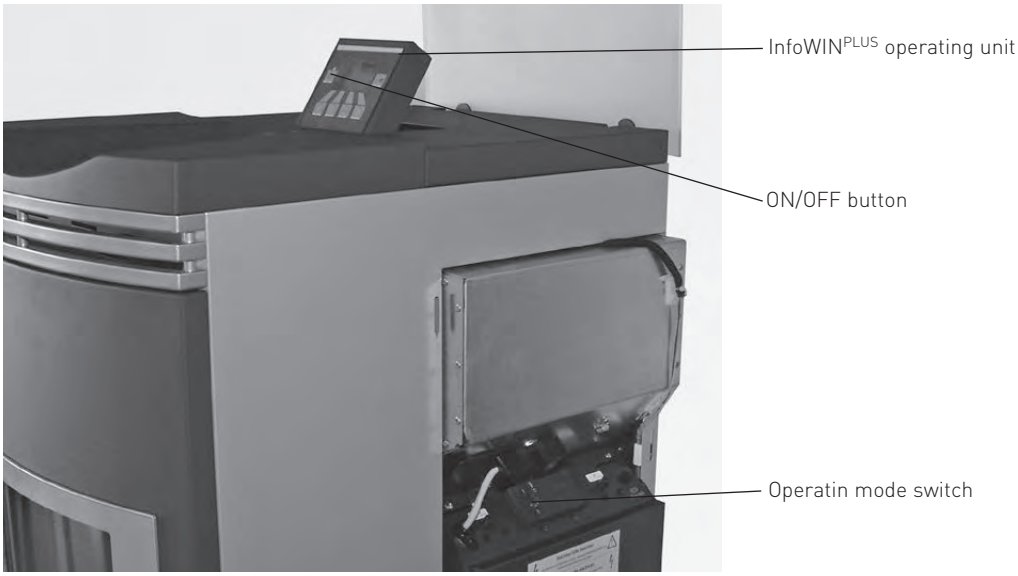


Fig. 122 FireWIN with MES^{PLUS} system control

Information!

For operation of the MES^{PLUS} and related user modules, please see their respective Operating instructions.

Switching off:

1. Set the operating mode to "Standby" ⏻ using the user module (installed in the living area).
2. If the boiler has been out of service for an extended period during the summer months, press the ON/OFF button 🕒 on the InfoWIN^{PLUS} unit – Fig. 122.

Attention!

The anti-freeze function is not active when the boiler is shut off.

Chimney sweeper function:

This is operated using the InfoWIN^{PLUS} unit – see section 2.5.6.

Emergency operation:

In the event the system control fails, selecting the "Manual operation" mode using the MES control module ✋ and InfoWIN^{PLUS} unit 5s ✋ | 🧹 (see section 2.5.5) will activate emergency operation to maintain heat and hot water.

2.9.2 FireWIN with REG standard control

Switching on – automatic operation:

1. Press the ON/OFF button ⏻ on the InfoWIN^{PLUS} panel, the lighting and display are switched on, the signal lamp lights green and a self-test is performed (see also section 2.5.2). After a successful self-test and if a setpoint is transferred by the system control, the FireWIN automatically starts operation.
2. Set both manual switches to the "Automatic" position.
3. Set the operating mode switch on the REG standard control unit RAM 786/RAM 850 to "Automatic operation" - please refer to the separate Operating instructions. The REG standard control unit RAM 786/RAM 850 (installed in the living area) is used to operate the system (set the desired temperature and operating times).

   The time must also be set on the InfoWIN^{PLUS} (see section 2.8.1.2). This time is used for the time control of the pellet feed and for automatic heating surface cleaning.

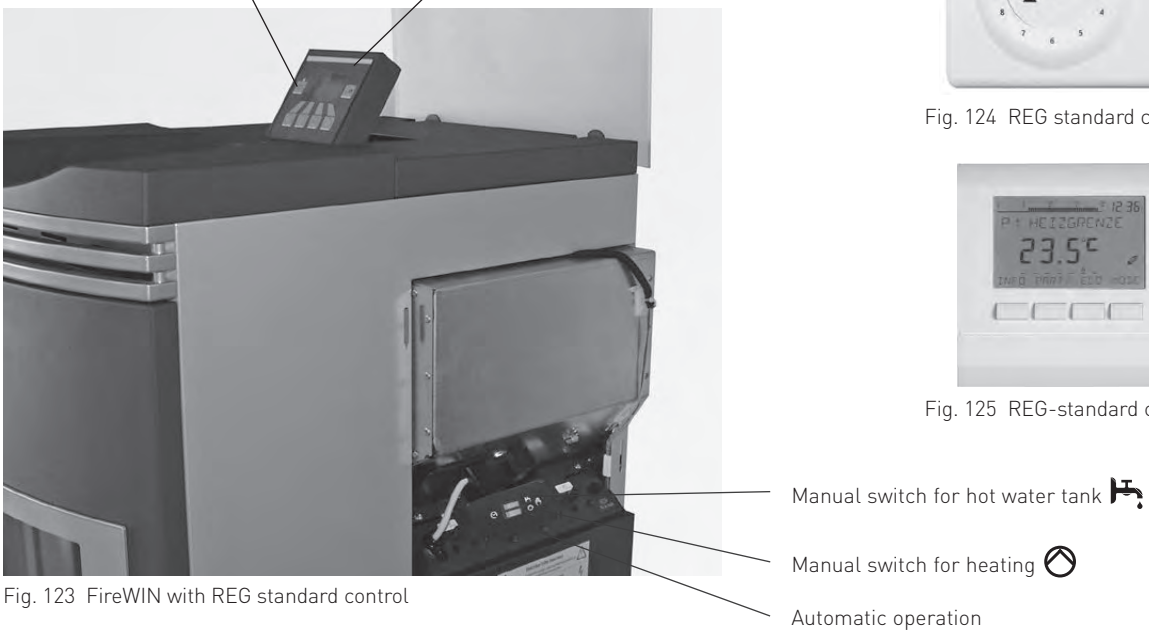


Fig. 123 FireWIN with REG standard control

Fig. 124 REG standard control RAM 786

Fig. 125 REG-standard control RAM 850

Switching off:

1. Set "Standby" operating mode on the REG standard control unit (installed in the living area) – please refer to the separate Operating instructions.
2. If the boiler has been out of service for an extended period during the summer months, press the ON/OFF button ⏻ on the InfoWIN^{PLUS} unit – Fig. 123.

Attention!

The anti-freeze function is not active when the boiler is shut off.

Chimney sweeper function:

This is operated using the InfoWIN^{PLUS} unit – see section 2.5.6.

Emergency operation:

If the system control fails, setting the two manual switches and on the boiler control panel and using the button on the InfoWIN^{PLUS} unit (see section 2.5.5) will activate emergency operation to maintain heat and hot water.

How to switch to emergency (manual) operation

Heating emergency operation:

1. There must be power to the boiler. The unit is switched on (otherwise, press the ON/OFF button on the InfoWIN^{PLUS} unit).
2. Select "Manual operation" on the InfoWIN^{PLUS} unit – see section 2.5.5.
3. Set the manual switch to the "Heating manual operation" position.
4. Also set the motorised mixing valve to manual operation and select the desired flow temperature. The boiler temperature will be maintained at the selected temperature (60 to 75 °C). **Exercise caution if you have underfloor heating.**

Emergency operation of boiler reservoir with feed pump:

1. There must be power to the boiler. The unit is switched on (otherwise, press the ON/OFF button on the InfoWIN^{PLUS} unit).
2. Select "Manual operation" on the InfoWIN^{PLUS} unit – see section 2.5.5.
3. Set the manual switch to the "Hot water tank manual operation" position.
4. Once the desired hot water temperature has been reached, set the manual switch to the "Hot water tank automatic operation" position.

Emergency operation of boiler reservoir with charging valve:

1. There must be power to the boiler. The unit is switched on (otherwise, press the ON/OFF button on the InfoWIN^{PLUS} unit).
2. Select "Manual operation" on the InfoWIN^{PLUS} unit – see section 2.5.5.
3. Set both manual switches and to the "Manual operation" position.

3. Care, cleaning and maintenance

3.1 Overview of intervals between cleaning (maintenance)

The FireWIN is equipped with a cleaning and ash removal interval display. The "Clean boiler and burner" cleaning request is displayed on the InfoWIN^{PLUS} and must be reset after cleaning/ash removal has finished – see section 2.8.1.1.

A clean boiler saves fuel and protects the environment. Therefore always clean your boiler as required when the cleaning and ash removal request is displayed.

The cleaning and ash removal intervals may be reduced or extended depending on the pellets used (e.g. ash proportion), the power consumed by the heating system (frequently switching on and off) and the boiler size of the FireWIN (9 and 12 kW).

Annual maintenance is required in addition to cleaning. This is performed by Windhager Customer Service or the customer service Partners and is a prerequisite of the guarantee limitations.

Care, cleaning and ash removal intervals	FireWIN Klassik	FireWIN Premium	FireWIN Exklusiv
Depending on pellet consumption approx. every 37 kg	Add pellets to reserve supply container	-	-
Depending on pellet consumption approx. every 400 kg	Operate the heating surface cleaning lever Frequent use of the lever increases efficiency (see section 3.4) Empty the ash pan (see section 3.5)	Operate the heating surface cleaning lever Frequent use of the lever increases efficiency (see section 3.4) Empty the ash pan (see section 3.5)	-
Display "Clean boiler and burner. Confirm cleaning." IN 590 or "Emergency operation! Clean boiler and burner. Confirm cleaning." FE 390	Operate the heating surface cleaning lever Frequent use of the lever increases efficiency (see section 3.4) Empty the ash pan (see section 3.5) Clean combustion chamber and burner pot Note: The burner only needs cleaning after every 3–4 cleaning requests. (see section 3.6) Confirm boiler and burner cleaning (see section 2.8.1.1)	Operate the heating surface cleaning lever Frequent use of the lever increases efficiency (see section 3.4) Empty the ash pan (see section 3.5) Clean combustion chamber and burner pot Note: The burner only needs cleaning after every 3–4 cleaning requests. (see section 3.6) Confirm boiler and burner cleaning (see section 2.8.1.1) Check reserve supply container FireWIN, if necessary remove dust	Empty the ash pan (see section 3.5) Clean combustion chamber and burner pot Note: The burner only needs cleaning after every 3–4 cleaning requests. (see section 3.6) Confirm boiler and burner cleaning (see section 2.8.1.1) Check reserve supply container FireWIN, if necessary remove dust

Care, cleaning and ash removal intervals	FireWIN Klassik	FireWIN Premium	FireWIN Exklusiv
At least once per heating season	Clean top heating surfaces and linkage (see section 3.8) Clean blower wheel and blower box (see section 3.9) Clean exhaust pipe to flue (see section 3.9) Remove dust from reserve supply container and clean filter (see section 3.7)	Clean top heating surfaces and linkage (see section 3.8) Clean blower wheel and blower box (see section 3.9) Clean exhaust pipe to flue (see section 3.9) Remove dust from reserve supply container and clean filter (see section 3.7) Check the storage container, if necessary remove dust (see section 3.10)	Clean top heating surfaces and linkage (see section 3.8) Clean blower wheel and blower box (see section 3.9) Clean exhaust pipe to flue (see section 3.9) Remove dust from reserve supply container and clean filter (see section 3.7) Check the storage container, if necessary remove dust (see section 3.10)

3.2 Cleaning and operating implements

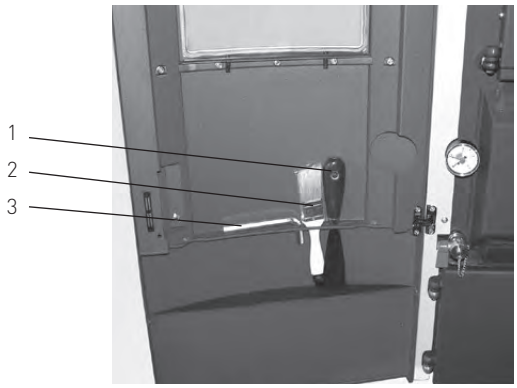


Fig. 126 Cleaning and operating implements in the cladding door

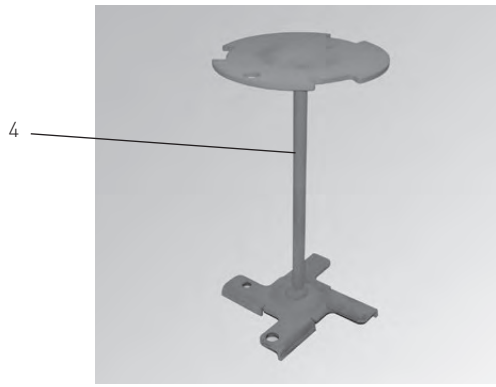


Fig. 127 Cleaning tool or removal device for cone

1.....Spatula
2.....Cleaning brush
3.....Allen key for cleaning heating surfaces
4.....Cleaning tool or removal device for cone

3.3 Care of the front window, cladding and keyboard foil

The front window is equipped with a special back ventilation. This ensures that the window remains clean for a relatively long time. Nevertheless, light deposits formed by ash constituents will form on the inside of the glass window (inside window). This causes the viewing window to be obscured. This obscuring has **no effect whatsoever on the quality of combustion**. The coating can be removed with the door open using **water and a cleaning cloth when the glass is cold**. If the glass window is very dirty, moisten the cleaning cloth and dip it in the ash first, then clean.

Tip!

Position newspaper or the like to protect the floor against fly ash before opening the combustion chamber door.

Also clean the cladding and the keyboard foil with a moist cloth as needed. In the event of heavy soiling, use soapy water or diluted suds (do not use strong cleaners or sharp cleaning instruments).

3.4 Heating surfaces

FireWIN Klassik and Premium

Optimum efficiency is achieved when the heating surfaces are cleaned as often as possible using the cleaning lever. However, the cleaning lever should be connected on the right side and moved backwards and forwards several time at the latest before the ash pan is removed or the ash removed from the heating surfaces – Fig. 128.

Fig. 128 Connect the lever and operate it

FireWIN Exklusiv

The heating surfaces are cleaned fully automatically after the set start times (see section 2.8.1.6) and when approx. 15 kg of fuel has been consumed ➔ on average 1x a day

3.5 Ash pan, ash on heating surface

Attention!

Always switch the boiler off first with the ON/OFF button (Fig. 129) and wait until burnout mode has finished. Do not open the combustion chamber and ash door during operation.

Risk of fire if ash hasn't cooled! Store ash in lockable and non-combustible container on non-combustible base for at least 48 hours.

Note!

The ash may be loaded with heavy metals. Heavy metals may affect soil fertility. Ash is not therefore suitable as a fertiliser and should be disposed of with residual waste.

– Open the cladding door and ash door, empty the ash pan under the combustion chamber and the ash pan for the heating surfaces (accessory) or remove the ash from the duct – Fig. 130.

Tip!

Position newspaper or the like to protect the floor against fly ash before opening the combustion chamber door.

Fig. 129 Switching off FireWIN

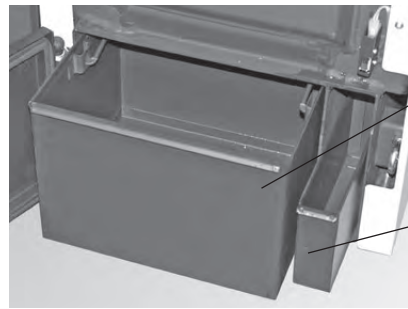


Fig. 130 Empty the ash pan(s) or remove the ash from the heating surface duct

Assembly:

– Push in the ash pans, close the doors.
– Switch the FireWIN back on with the ON/OFF button.

3.6 Combustion chamber

The FireWIN is equipped with a cleaning interval display. The cleaning request for the combustion chamber and burner pot is displayed and must be reset after cleaning is finished – see section 2.8.1.1. „Boiler cleaning – Resetting the cleaning request".

Attention!

Do not open the combustion chamber door during operation. Always switch the boiler off first with the ON/OFF button and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

3.6.1 Baffle plate, thermocontrol sensor, down chute

– Switch off the FireWIN with the ON/OFF button on the InfoWIN^{PLUS} (Fig. 131) and wait until the display has gone out.
– Open the combustion chamber door, lift the baffle plate at the right and guide it out at an angle, sloping down to the left – Fig. 132, Removing the baffle plate and fly ash.
– If necessary, remove fly ash from the thermocontrol sensor with a cleaning brush. The thermocontrol sensor is located at the top left of the combustion chamber behind the baffle plate – Fig. 133.
– Cleaning the down chute – Fig. 133.

Fig. 131 Switching off FireWIN

Fig. 132 Removing and cleaning the baffle plate

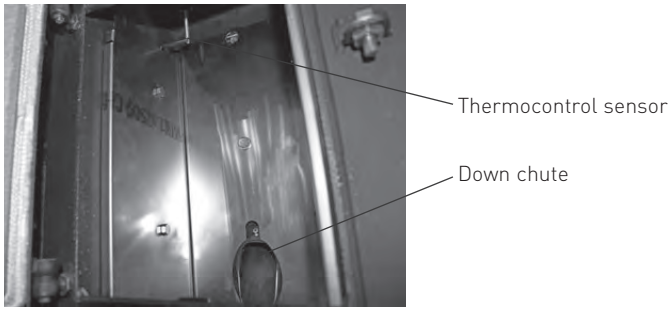


Fig. 133 Cleaning the thermocontrol sensor (with cleaning brush) and down chute

Assembly:

By working through these steps in reverse order.

3.6.2 Burner pot

Attention!

Do not open the combustion chamber door during operation. Always switch the boiler off first with the ON/OFF button and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

Attention!

Before cleaning with a vacuum cleaner, check that there are no longer any embers in the combustion residue!

Clean the burner pot once the secondary air holes or the holes in the primary air pin are partly blocked or the unit prompts you to clean the burner pot with a fault message.

- Lift out the cone (3) using the cleaning tool (1) – Fig. 134.
- Use the spatula to scrape off the deposits from all sides of the cone (3), but particularly on the underside.
- Vacuum out the burner pot, remove the primary air pin (4) and carefully clean the holes with a small screwdriver or drill bit if necessary (holes must be clear).
- Lift out and remove the grate plate (5) from below through the base of the burner pot. Scrape off ash residues from the grate plate (5) and from the hole in the middle using the spatula to clean it.

Tip!

Use water to soften hard residues, or soak the grate plate in water before scraping it clean.

- Scrape combustion residue off the burner pot base by turning the cleaning tool (1) – Fig. 134. The pipe for the primary air pin serves as a guide for the cleaning tool – see detail Fig. 136. Use the spatula to scrape the edges of the burner pot base clean. All secondary air holes (6) must be clear – clean them with a small screwdriver or drill bit if necessary.
- Remove combustion residue from the burner pot with a vacuum cleaner. Vacuum the ash out of the primary air tube (in the middle of the burner pot).

Assembly:

- Insert the grate plate (5), making sure the projection/opening of the grate plate (5) projects through the driver of the driving rod and rests fully on the bottom grate plate – Fig. 135.

Information!

Before inserting the primary air pin (4), once again vacuum out the primary air tube in the middle of the burner pot. Make sure there is no debris in the tube (to avoid damage to the ignition element!).

- Insert the primary air pin (4) (groove must engage with anti-twist device).
- Place the cone (3) into the burner pot using the cleaning tool (1). The guide groove (2) of the cone must engage in the lock (7) – Fig. 134.

Note!

After cleaning, the cleaning request for the combustion chamber and burner pot is reset on the InfoWIN^{PLUS} – see Section 2.8.1.1.

3. Care, cleaning and maintenance

FireWIN 90/120

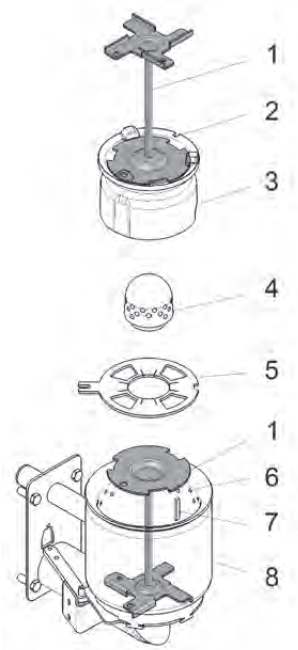


Fig. 134

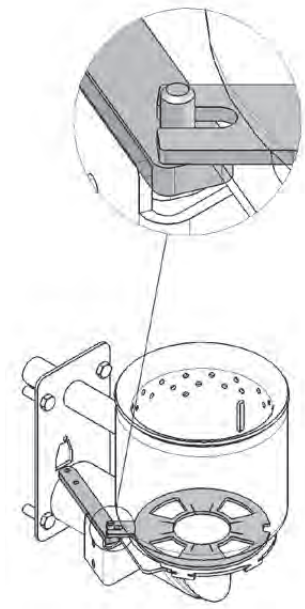


Fig. 135

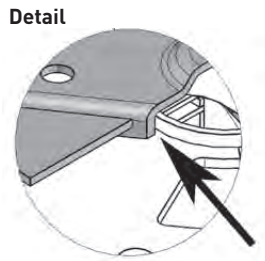


Fig. 136

1.....Cleaning tool or removal device for cone
2.....Guide groove for locking the cone in the burner pot
3.....Cone
4.....Primary air pin
5.....Grate plate
6.....Secondary air holes
7.....Lock for cone
8.....Burner pot

3.7 FireWIN reserve supply container

It is necessary to clean the reserve supply container if too much dust has collected on the sides or at the opening above the auger, or there are foreign bodies in the reserve supply container. In order to be able to check this, there must not be any pellets in the reserve supply container. Therefore, allow the pellets in the reserve supply container to be consumed or, in the case of FireWIN with automated feed, switch off the feed on the day before (see section 2.8.1.3 Setting the feed operating mode).

Cleaning:

FireWIN without fully automated pellet feed:

- Switch off the FireWIN with the ON/OFF button on the InfoWIN^{PLUS} (Fig. 137) and wait until the display has gone out.
- **Close the glass cover – danger of damage** – Fold open the cover of the reserve supply container (Fig. 138) and vacuum out the pellets, dust or foreign bodies through the mesh using a vacuum cleaner.

Fig. 137 Switching off FireWIN


Fig. 138 Folding open the cover

FireWIN with fully automated pellet feed:

- Switch off the FireWIN with the ON/OFF button on the InfoWIN^{PLUS} (Fig. 139) and wait until the display has gone out.
- Remove the cover at the front – Fig. 140.

Fig. 139 Switching off FireWIN

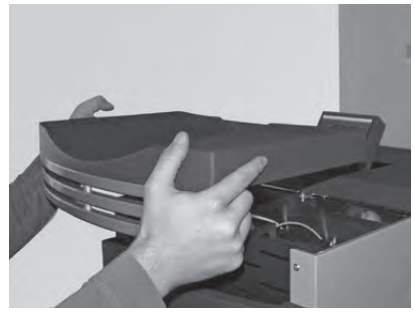


Fig. 140 Folding open the cover

- Remove the screw on the front of the reserve supply container cover (Fig. 141), close the glass cover – danger of damage – and open the reserve supply container cover – Fig. 142.


Fig. 141 Removing the screw


Fig. 142 Folding open the cover

– Remove both knurled screws (Fig. 143) and fold open the inspection cover.
– Remove dust (bridge formation) from the container and from both Fill level switch (proximity switch) using a vacuum cleaner – Fig. 144.
– Close the inspection cover again and screw it on with knurled screws.

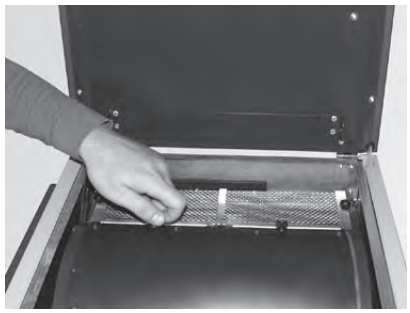


Fig. 143 Removing the knurled screws

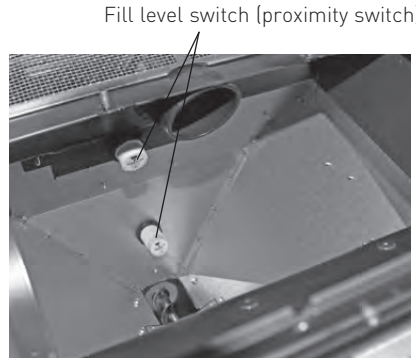


Fig. 144 Folding open the inspection cover, removing dust

– Remove both knurled screws at the back from the coarse filter (Fig. 145) and remove the coarse filter (Fig. 146).
– Remove pellets and dust using a vacuum cleaner.
– Put the coarse filter back on and screw it on with knurled screws.

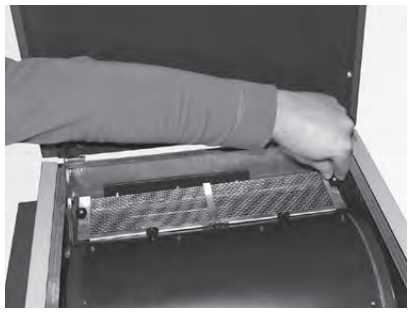


Fig. 145 Removing the knurled screws

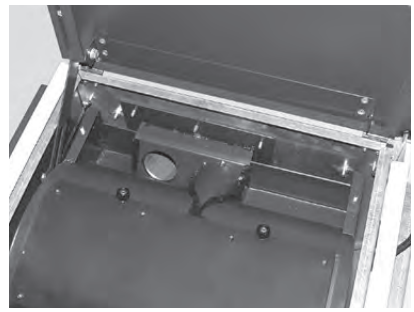


Fig. 146 Removing the coarse filter, removing pellets and dust

Assembly:

By working through these steps in reverse order.

3.8 Top heating surfaces and linkage

These parts are automatically checked and cleaned as part of the annual maintenance by Windhager Customer Service or the customer service Partner.

Attention!

Always switch the boiler off first with the ON/OFF button and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

– Switch off the FireWIN with the ON/OFF button on the InfoWIN^{PLUS} (Fig. 147) and wait until the display has gone out.
– Remove the front cover – Fig. 148.

Fig. 147 Switching off FireWIN

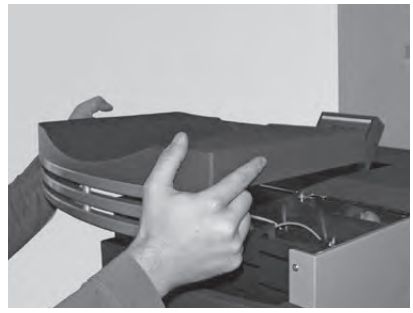


Fig. 148 Removing the front cover

– Unscrew two wing nuts from the heating surface cover and remove the complete cover – Fig. 149.
– Remove the jet protection plate (tip: vacuum out fly ash first using a vacuum cleaner) – Fig. 150.


Fig. 149 Removing the wing nuts and cover

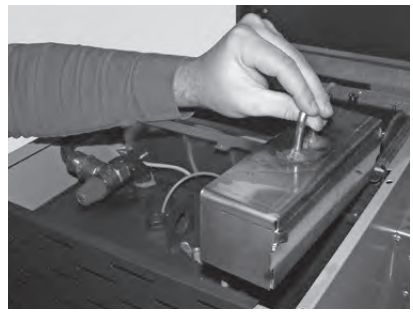


Fig. 150 Removing the jet protection plate

– Vacuum down the top heating surfaces and linkage or clean with a cleaning brush – Fig. 151.
– Only with FireWIN Klassik and Premium: Push on the cleaning lever of the heating surfaces at the right side and move it forwards and backwards several times – Fig. 152.

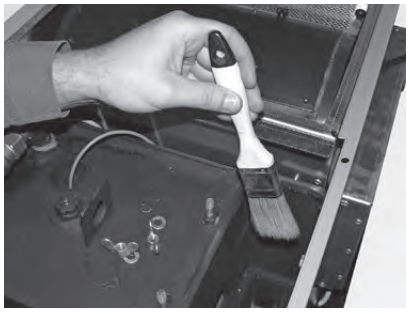


Fig. 151 Cleaning top heating surfaces and linkage


Fig. 152 Connecting the lever and operating it several times

– Empty the ash pan for the heating surfaces (accessory) or remove the ash from the duct – Fig. 153.

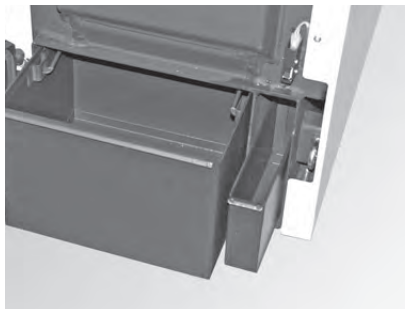


Fig. 153 Removing the ash pan(s) or removing the ash

3.9 Pressure measuring nipple, rotary feeder, blower wheel, blower box and exhaust pipe

These parts are automatically checked and cleaned as part of the annual maintenance by Windhager Customer Service or the customer service Partner.

Attention!

Always switch the boiler off first with the ON/OFF button and wait until burnout mode has finished. It is essential to let the boiler cool down before cleaning.

- Switch off the FireWIN with the ON/OFF button on the InfoWIN^{PLUS} (Fig. 154) and wait until the display has gone out.
- Unhook the right side panel cladding and disconnect the mains power plug over the control panel – Fig. 155.
- Remove the screw under the mains power plug on the control panel (Fig. 155) and swivel open the control panel.

Fig. 154 Switching off FireWIN

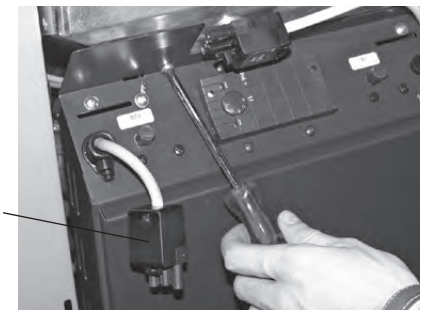


Fig. 155 Removing the power plug and screw

3.9.1 Pressure measuring nipple for combustion chamber pressure switch

The pressure measuring nipple must always be free from fly ash so that the combustion chamber pressure can be monitored.

- Pull the pressure hose off the pressure measuring nipple (Fig. 156) and clean the induction opening in the pressure measuring nipple, e.g. using a small screwdriver, drill bit or the like – Fig. 157.
- Push the pressure hose back onto the measuring nipple.

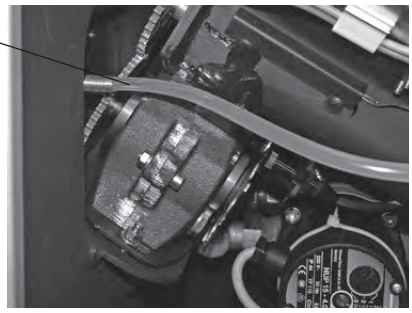


Fig. 156 Pulling off the pressure hose

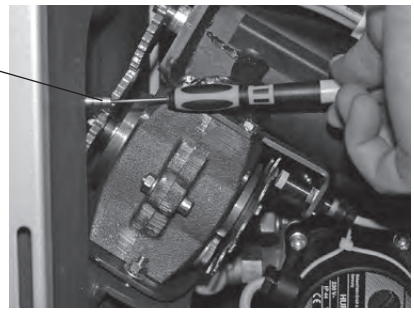


Fig. 157 Cleaning the induction opening with a small screwdriver or the like

3.9.2 Rotary feeder

– Unscrew the screw plug (WAF 22) from the rotary feeder (Fig. 158) and vacuum pellet dust out of the rotary feeder using a vacuum cleaner.
– Screw the screw plug back in.

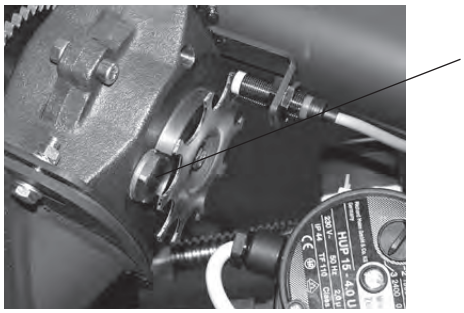


Fig. 158 Removing dust from the rotary feeder

3.9.3 Blower wheel, blower box and exhaust pipe to flue

– Unscrew two wing nuts from the exhaust pipe and remove the cleaning cover (Fig. 159). Clean fly ash out of the exhaust pipe with a vacuum cleaner. Close the cleaning cover again.
– Disconnect the blower plug – Fig. 160.

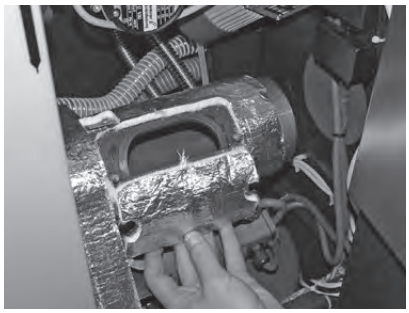


Fig. 159 Removing the wing nuts and cleaning opening – cleaning the exhaust pipe

Fig. 160 Disconnecting the blower plug

– Unscrew two wing nuts from the blower box and remove the complete blower unit – Fig. 161.
– Clean the blower wheel using a spatula and brush – Fig. 162.
– Inside of blower box: Clean fly ash with a vacuum cleaner.

Fig. 161 Removing wing nuts, removing the blower unit

Fig. 162 Cleaning the blower wheel

Assembly:

– Guide the blower unit in at the back using the stay bolts and attach at the front with two wing nuts.
– Reconnect the blower plug.
– Close the control panel, connect the securing mechanism and mains power plug at the top using a screw and hook in the side panel.

3.10 Pellet storage room or storage container
(FireWIN Premium and Exklusiv)

Attention!

Please also note the hazard information in section 1.3.4 Entering the pellet storage room, storage container.

Information!

When entering the pellet storage room or storage container do not stand on the pellets around the suction probe.

Before filling the pellet storage room or storage container, check the following:

- whether the storage room is free of foreign bodies.
- whether a lot of dust has settled on the floor over time.

  Please note: A layer of dust on top of the pellets is normal because dust present migrates to the surface when the pellets gush out during removal.
- whether pellets have swelled up against the wall if the storage room is not fully dry.

Tip

Pellet dust is totally organic and can therefore be disposed of as organic waste.

Leading pellet suppliers recommend fully emptying the storage room every 2–3 years. You can deactivate automatic changeover between the three suction probes using the InfoWIN^{PLUS} (see section 2.8.1.3). This allows you to fully empty the storage room for one probe (i.e. 1/3 of the storage room). You can then continue heating with the other two suction probes. If you perform this task every year with a different want, you will “replace” your entire supply of pellets every 3 years.

4. Troubleshooting

The FireWIN pellet boiler is self-monitoring during operation. All deviations from normal operation are displayed on the InfoWIN^{PLUS} by information, fault or alarm messages. If one of these messages appears, the LED lights up red, an information, fault or alarm symbol flashes, an information code is displayed along with a brief description in full text – Fig. 163.

Pressing the **Info** button (Fig. 163) displays the related information text (Fig. 164). To exit the information text menu, press the **back** button (Fig. 164) or wait 10 minutes and the information, fault or alarm message is displayed again – Fig. 163.

With almost all messages, it is necessary to press the **Reset** button after rectifying the cause of the information, fault or alarm message. In these cases, "Reset" is displayed in the menu line – Fig. 163.

If "Reset" is not displayed in the menu line, the boiler starts operating again automatically after the cause of the information, fault or alarm message has been rectified.

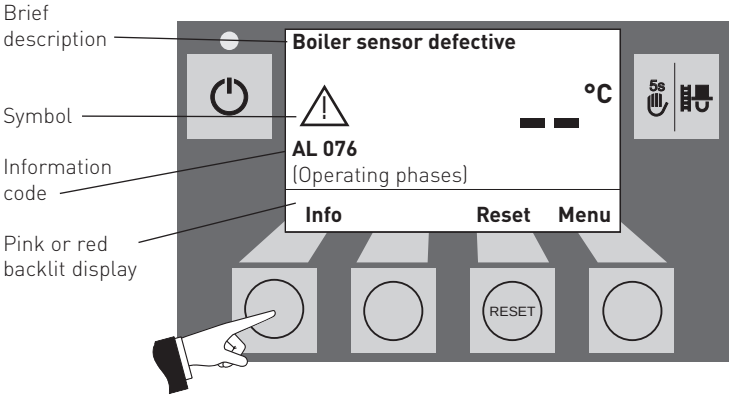


Fig. 163

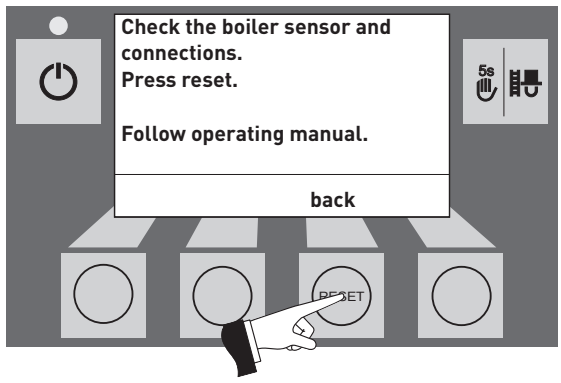


Fig. 164

If you wish to call Windhager Customer Service or your customer service Partner due to a malfunction, please first make a note of the following data from the rating plate:

- Model
- Factory number
- Year of manufacture
- Fault or alarm message

The rating plate is located behind the cladding door between the combustion chamber door and the ash door – Fig. 165.

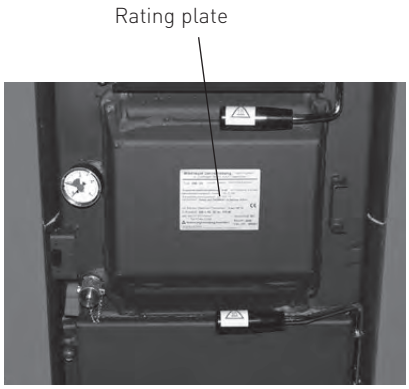


Fig. 165 Rating plate

4.1 No display on InfoWIN^{PLUS}

Code	Display on InfoWIN^{PLUS}	Cause/remedy
–	**No display, LED not lit up** Boiler is off, cannot be switched on with the ON/OFF button.	a) No electricity, check the cable to the device and the building fuse. b) No electricity, device fuse blown – check and replace if necessary – see Fig. 167. c) InfoWIN^{PLUS} plug loose or poorly connected or not connected together during installation – check and connect together firmly if necessary, plug is located at top behind cover – see assembly instructions; Installing the cladding. d) Inform Windhager Customer Service or a heating technician.

4.2 IN- messages

Code	Display on InfoWIN^{PLUS}	Cause/remedy
IN 438	**One zone in storage room is empty** Check pellet supply in storage room. Press reset.	A zone in the storage room is empty, automatic switchover to another zone. Information message can be acknowledged by selecting „only zone 1“ or „only zone 2“ in „Probe switching“ (see section 2.8.1.5).
IN 581	**Re-fill pellets** Integral fuel hopper is almost empty. Re-fill pellets.	Boiler continues to heat until the remaining fuel quantity has been consumed. a) FireWIN Klassik (without feed): Fill fuel into the fuel container (see section 2.3). b) FireWIN Premium/Exklusiv (with feed): Feed is switched off in „feed operating mode“ (see section 2.8.1.3). In „Feed operating mode“ menu item, set to „with enable time“, „with start time“ or „without time control“.
IN 582	**Integral fuel hopper empty** Integral fuel hopper empty. Top up pellets. Burner is locked.	The reserve supply container is empty. a) FireWIN Klassik (without feed): Fill fuel into the fuel container (see section 2.3). b) FireWIN Premium/Exklusiv (with feed): Feed is switched off in „feed operating mode“ (see section 2.8.1.3). In „Feed operating mode“ menu item, set to „with enable time“, „with start time“ or „without time control“.
IN 590	**Clean boiler and burner. Confirm cleaning** Remove ash, clean boiler and burner, confirm cleaning.	Note indicating that the pellet boiler must be cleaned in the next 50 operating hours or both ash pans must be emptied (Fig. 166) (see sections 3.4 to 3.6). Following cleaning, cleaning must be confirmed on the InfoWIN^{PLUS} operator level (see section 2.8.1.1).
IN 595	**Door open** Burner locked. Do not open door unless burner is switched off.	Cladding door is open, burner locked. a) Close the cladding door. b) Door switch on cladding door does not switch correctly, adjust – see assembly instructions.

4.3 FE- messages

Code	Display on InfoWIN^{PLUS}	Cause/remedy
FE 206	**Monitoring of auger conveyor def.** Press reset.	The boiler is in operation. Press the Reset button. If the fault reoccurs after a reset, inform Windhager Customer Service or a heating technician.
FE 238	**Feed is not sucking any pellets** Check pellet supply in storage room and feed hose. Press reset.	No pellet feed is possible. The boiler does not operate. a) No pellets at the suction probe – Set "probe switching" to "automated"or select another probe (see section 2.8.1.5). Press the Reset button b) Feed hose blocked at the cyclone intake or entry to the changeover unit – clear it. Press the Reset button. c) Inform Windhager Customer Service or a heating technician. **Emergency operation:** Switch off the feed unit (see section 2.8.1.3). Fill the reserve supply container with pellets by hand, boiler is allowed to continue operating without feed.
FE 239	**Probe switching defective** Check the changeover unit. Press reset.	No pellet feed is possible. The boiler does not operate. Press the Reset button. If the fault reoccurs after a reset, inform Windhager Customer Service or a heating technician. **Emergency operation:** Switch off the feed unit (see section 2.8.1.3). Fill the reserve supply container with pellets by hand, boiler is allowed to continue operating without feed.
FE 356	**Combustion chamber pressure not stable** Press Reset.	The boiler is in operation. a) Heating surface cover leaking, check whether this is firmly closed (see section 3.8), press the Reset button. b) Combustion chamber and ash door are leaking – check the seal, replace the seal if necessary, press the reset button. c) Pressure measuring nipple of combustion chamber pressure switch is blocked – clear it (see section 3.10.1), press the reset button. d) Intake air line or induction opening at rear is blocked – clear it and press the reset button. e) Exhaust pipe or flue is blocked, clear it and press the reset button. f) Combustion chamber pressure switch is defective, inform Windhager Customer Service or a heating technician.
FE 381	**Integral fuel hopper empty** Time programme blocking feed. Change enable time in menu/operator level.	Enable time for the feed has been set too short, which means the pellets in the integral fuel hopper are used up and the feed is blocked. Extend the enable time for the feed in the "Feed operating mode" menu item (see section 2.8.1.4) or operate "with start time" or "without time control".
FE 382	**Fill level switch in reserve supply container defective** Check the switch in the reserve supply container. Press Reset.	The boiler does not operate. a) Fill level switch (proximity switch) dirty, remove the dust (see section 3.7), press the Reset button. b) Fill level switch (proximity switch) in the reserve supply container defective – inform Windhager Customer Service or a heating technician. **Emergency operation:** Switch off the feed unit (see section 2.8.1.3). Fill the reserve supply container with pellets by hand, boiler is allowed to continue operating without feed.
FE 390	**Emergency operation! Clean boiler and burner. Confirm cleaning** Remove ash, clean boiler and burner, confirm cleaning.	The boiler is in cyclic operation, i.e. has idle times. a) Boiler and burner must be cleaned or the both ash pans (see Fig. 164) emptied (see sections 3.3 – 3.6). Once cleaning is complete, press the Reset button on the InfoWIN^{PLUS} and confirm cleaning on the operator level (see section 2.8.1.1). b) Motor or limit switch of ash compactor defective, inform Windhager Customer Service or a heating technician.

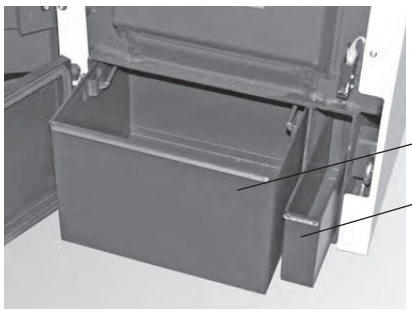


Fig. 166 Removing the ash pan(s) or removing the ash

4.4 AL – messages

Code	Display on InfoWIN^{PLUS}	Cause/remedy
AL 005	**Ash removal / Grate shaking defective** Ash removal / Grate shaking defective or stikking. Clean burner pot. Press reset.	Ash removal motor no longer moves or no longer reaches the end position, boiler switches to burnout mode. a) Burner contamination; close combustion chamber doors, press reset button; once the alarm message is rectified, clean the burner pot as described in section 3.6. If the alarm message remains active, clean the burner pot as described in section 3.6. Note: Grate plate at top can only be raised and removed when closed. If the grate plate is not fully closed, vacuum it out. Close combustion chamber door, press reset button, if the alarm message remains in place, repeat the process or inform Windhager Customer Service or a heating technician. b) Grate plate not inserted correctly or check correct installation position (see section 3.6.). c) Motor for ash removal defective, inform Windhager Customer Service or a heating technician. d) Limit switch defective, inform Windhager Customer Service or a heating technician.
AL 006	**Auger conveyor motor defective** Auger conveyor motor defective. Press Reset.	Boiler enters burnout mode, vacuum fan is stopped immediately. a) Auger conveyor or rotary feeder jammed due to a foreign body, clean the reserve supply container, opening above auger conveyor or rotary feeder (see section 3.7) and remove the foreign body. Press the Reset button. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again, press the Reset button. b) Control thermostat defective, inform Windhager Customer Service or a heating technician. c) Press the Reset button. If the malfunction recurs immediately after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician. d) Renew the auger conveyor motor, inform Windhager Customer Service or a heating technician.
AL 016	**Vacuum fan defective** Clean blower wheel and blower box. Press Reset.	The actual speed is different from the nominal speed. The boiler switches to burnout mode. a) The blower wheel and blower box are dirty; clean them (see section 3.9). Press the Reset button. If the malfunction recurs immediately after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician. b) Renew the vacuum fan motor, inform Windhager Customer Service or a heating technician.
AL 062	**Air intake flap defective** Air intake flap defective or not opening. Check flap. Press reset.	External air intake flap (optional) does not open. a) Check the air intake flap, press the Reset button. b) Inform Windhager Customer Service or a heating technician.
AL 071	**Safety/emergency switch open** Check switch position of safety / emergency switches.	Boiler enters burnout mode, however the blower does not run. Switch on emergency heating/OFF switch.

Code	Display on InfoWIN^{PLUS}	Cause/remedy
AL 076	**Boiler sensor defective** Check the boiler sensor and connections. Press reset.	The boiler switches to burnout mode. a) Press the Reset button. If the malfunction recurs immediately after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician. b) Renew the boiler sensor, inform Windhager Customer Service or a heating technician.
AL 078	**Thermocontrol sensor defective** Check the thermocontrol sensor and connections. Press reset.	The boiler switches to burnout mode a) Thermocontrol sensor is too cold < 0 °C. Sensor warm up. b) Press the Reset button. If the malfunction recurs immediately after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician. c) Renew the thermocontrol sensor, inform Windhager Customer Service or a heating technician.
AL 128	**No flame formation in control mode** Clean boiler and burner. Press reset.	The flame goes out in modulation mode. The boiler switches to burnout mode. a) Clean boiler and burner or empty both ash pans (Fig. 166) (see sections 3.3 to 3.6). Once cleaning is complete, press the Reset button on the InfoWIN^{PLUS} and confirm cleaning on the operator level (see section 2.8.1.1). Check the exhaust pipe to the flue and clean it if necessary (see sections 3.9). Press the Reset button. b) Burner component (e.g. grate disc) not inserted correctly after cleaning – check installation position (see section 3.6). c) An excessive amount of dust in the pellets is emptying the auger. (However, in the intervening period, pellet feed may have been started) ➔ Empty the reserve supply container completely (see section 3.7) and remove the dust. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again. Acknowledge with the Reset button. d) Auger conveyor or rotary feeder jammed due to a foreign body. Clean the reserve supply container, opening above auger conveyor or rotary feeder (see section 3.7) and remove the foreign body. Press the Reset button. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again, press the Reset button. e) Inform Windhager Customer Service or a heating technician.
AL 133	**Safety temperature shut-down** Check the system and filling pressure. Press release button B7 on control panel.	Boiler temperature is above 100 °C, boiler enters burnout mode, Induced draught fan is switched off immediately. a) Check the water level or pressure in the heating system – re-fill, bleed the air. b) Air in the heating system – bleed air. c) The heat pump or boiler feed pump is sticking or is defective – start pump manually or have it repaired. Once the boiler water temperature falls below 90 °C, remove the cover, press the Release button of the safety thermostat B7 firmly – Fig. 167. If the malfunction occurs after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician.

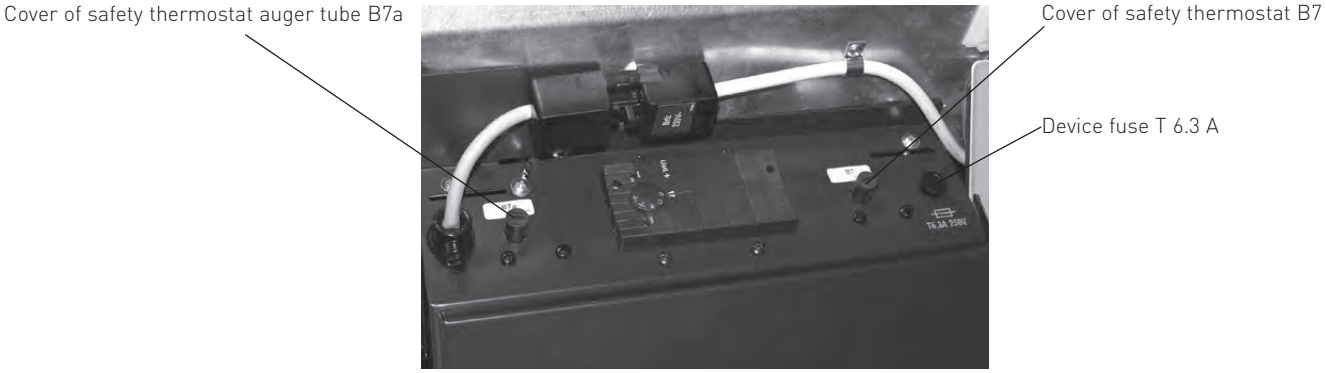


Fig. 167 FireWIN control panel, rear right side panel removed

4. Troubleshooting

Code	Display on InfoWIN^{PLUS}	Cause/remedy
AL 135	**Excess temperature in the auger tube**	Boiler enters burnout mode and transports pellets into combustion chamber. a) Check the burner, remove all pellets from the burner pot. b) Remove the cover from the safety thermostat auger tube **B7a**, press the Release button firmly (see Fig. 167). If the ignition does not function first time (AL 171), press the Reset button (pellets in the auger conveyor will have been damaged due to the higher temperature).
AL 156	**No neggativ pressure in combustion chamber or sensor defective.** Press Reset.	The boiler switches to burnout mode. a) Heating surface cover leaking, check whether this is firmly closed (see section 3.8), press the Reset button. b) Combustion chamber and ash door are leaking – check the seal, replace the seal if necessary, press the reset button. c) Pressure measuring nipple of combustion chamber pressure switch is blocked – clear it (see section 3.9.1), press the reset button. d) Intake air line or induction opening at rear is blocked – clear it and press the reset button. e) Exhaust pipe or flue is blocked, clear it and press the reset button. f) Combustion chamber pressure switch is defective, inform Windhager Customer Service or a heating technician.
AL 171	**Maximum heating time exceeded** Clean burner pot. Press reset.	No flame formation when heating up. Heating-up procedure is cancelled. a) FireWIN Klassik without feed: The reserve supply container is empty. Fill fuel into the fuel container (see section 2.3). Press the Reset button until the boiler starts operating again. The alarm message AL 171 may light up again on up to 2 occasions, press the Reset button. b) Clean the burner pot (see section 3.6), empty the ash pan or ash container (see section 3.5). Confirm cleaning (see section 2.8.1.1). Press the Reset button. c) An excessive amount of dust in the pellets is emptying the auger. (However, in the intervening period, pellet feed may have been started) ➔ Empty the reserve supply container completely (see section 3.11) and remove the dust. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again. Acknowledge with the Reset button. d) Auger conveyor or rotary feeder jammed due to a foreign body. Clean the reserve supply container, opening above auger conveyor or rotary feeder (see section 3.9) and remove the foreign body. Press the Reset button. The alarm message AL 171 may light on up to 2 occasions until the boiler starts operating again, press the Reset button. e) FireWIN Premium/Exklusiv with feed: Pellets stuck in the hose before the entry to the reserve supply container – move the hoses at the connection pieces, press the Reset button. f) Ignition defective, inform Windhager Customer Service or a heating technician.
AL 187	**No communication with firing automate** Check linkage of firing automate and connections. Press reset.	The boiler switches to burnout mode. a) Check the connection cable or InfoWIN^{PLUS} plug connection to the firing automate, inform Windhager Customer Service or a heating technician. b) Connect the firing automate, inform Windhager Customer Service or a heating technician.
AL 188	**Internal error occurred** **ErrorCode 188 xxx** **Current TableID 4 xxx**	Internal communication error. The boiler switches to burnout mode. A reset is performed automatically after 1 minute if this error occurs. If the malfunction occurs after a short period, or recurs at regular intervals, contact Windhager Customer Service or your heating technician.

5. EG-Declaration of conformity

for the FireWIN pellet boiler series
(Machinery Directive 2006/42/EC, Appendix II A)

Issued by: WINDHAGER ZENTRALHEIZUNG Technik GmbH
Anton-Windhager-Straße 20
A-5201 Seekirchen

Name and address of the person authorised to compile the technical documentation:

Ing. Martin Klinger
Anton-Windhager-Straße 20
A-5201 Seekirchen

Subject of the declaration: Pellet boiler series FireWIN

The units conform to the relevant requirements of the Machinery Directive (2006/42/EC) and the construction products directive (89/106/EEC) and the EMC Directive (2014/30/EU).

In addition, we declare that we have applied the following technical standards:

EN 14785:	2006-09	EN 60335-1:	2005-07
EN 61000-6-2:	2005	EN 61000-6-3:	2007

Seekirchen, 1/2/2018

WINDHAGER ZENTRALHEIZUNG Technik GmbH

Christoph Sandner, Executive Board

WARRANTY CONDITIONS

The warranty conditions require that the boiler and related accessories be properly installed and started up by Windhager Customer Service or the customer service partner; otherwise the manufacturer's warranty will not be honoured.
Malfunctions resulting from improper operation or adjustment as well as use of poor-quality fuel types or fuel types that are not recommended are not covered by the warranty. Further, the warranty shall be void if equipment other than that provided by Windhager is installed. The special warranty conditions for your system are available in the "Warranty conditions" sheet supplied with your boiler.

Start-up and regular servicing following the terms of the "Warranty conditions" will assure safe, environmentally friendly and economical operation of your system. We recommend that you obtain a maintenance agreement.

AUSTRIA
Windhager Zentralheizung GmbH
Anton-Windhager-Strasse 20
A-5201 Seekirchen near Salzburg
T +43 6212 2341 0
F +43 6212 4228
info@at.windhager.com

Windhager Zentralheizung GmbH
Carlbergergasse 39
A-1230 Vienna

GERMANY
Windhager Zentralheizung GmbH
Daimlerstraße 9
D-86368 Gersthofen
T +49 821 21860-0
F +49 821 21860-290
info@de.windhager.com

Windhager Zentralheizung GmbH
Gewerbepark 18
D-49143 Bissendorf

SWITZERLAND
Windhager Zentralheizung Schweiz AG
Industriestrasse 13
CH-6203 Sempach-Station near Lucerne
T +41 4146 9469 0
F +41 4146 9469 9
info@ch.windhager.com

Windhager Zentralheizung Schweiz AG
Rue des Champs Lovats 23
CH-1400 Yverdon-les-Bains

Windhager Zentralheizung Schweiz AG
Dorfplatz 2
CH-3114 Wichtrach

ITALY
Windhager Italy S.R.L.
Via Vital 98c
I-31015 Conegliano (TV)
T +39 0438 1799080
info@windhageritaly.it

GREAT BRITAIN
Windhager UK Ltd
Tormarton Road
Marshfield
South Gloucestershire, SN14 8SR
T +44 1225 8922 11
info@windhager.co.uk

windhager.com

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